

Educating the Opposition: Elite Universities in Authoritarian Russia

Polina Protozanova David Szakonyi
George Washington University* George Washington University[†]

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Abstract

Does higher education undermine authoritarian stability? While classic theory posits that education fosters democratization, recent scholarship suggests autocrats can co-opt the educational system to achieve ideological control. We reconcile these perspectives by theorizing how elite universities are uniquely able to cultivate critical thinking and downstream economic autonomy, both of which loosen the regime's hold over the most capable graduates. To test this, we exploit Russia's prestigious Olimpiada competition, which grants winners across 24 subjects automatic admission into the domestic university of their choice. Using a novel dataset of over 20,000 participants combined with a new behavioral measure of support for Alexey Navalny's Anti-Corruption Foundation, we show that Olimpiada winners are significantly more likely to back the political opposition. These top performers were able to attend elite universities, which incubated political dissent not only through exposure to foreign faculty and ideas, but also through the stronger labor market position their graduates command.

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*PhD Student, Department of Political Science, George Washington University, Monroe 416, 2115 G St. NW, Suite 450, Washington, DC 20052. Email: polina.protozanova@gwu.edu.

[†]Associate Professor, Department of Political Science, George Washington University, Monroe 416, 2115 G St. NW, Suite 440, Washington, DC 20052. ORCID: 0000-0002-3796-0297, Email: dszakonyi@gwu.edu. URL: <http://www.davidszakonyi.com/>

Does higher education lead to greater demands for democratization? Twentieth century modernization theorists argued that an educated middle class would inevitably grow disenchanted with the autocrat and demand democratization (Lipset, 1959; Almond and Verba, 1963). Education can encourage civic engagement, critical thinking, and political awareness, leading people to expect more from their governments and better hold them accountable. Additionally, education can promote economic development, greater income equality and a more politically active middle class, all of which have been associated with democratization (Hanushek and Woessmann, 2010; Ansell and Samuels, 2014).

Yet a new wave of scholarship has pushed back against this monotonic relationship. Despite investing heavily into education, many of the world's largest autocracies have remained politically stable. An alternative perspective thus posits that autocrats may be able to strategically extend education to the masses as a tool for indoctrination. By enrolling citizens in public schools en masse, the state can instill "correct" political ideologies from an early age (Paglayan, 2022). The same may be true for higher education. As of late, many dictatorships have invested heavily in developing their own elite institutions close to home, where students can be monitored.¹ Just as mass schooling helped promote long-term stability in nondemocratic regimes, investing in higher education may promote patriotic values and effectively transmit ideological content to older students (Cantoni et al., 2017; Kao, 2021; Neundorff et al., 2023).

In this paper, we develop a theory and collect new data to reconcile these two opposing perspectives. We conceptualize the effect of education on autocratic stability as conditional upon institutional quality. Authoritarian states often invest heavily in a small number of high quality universities in order to produce top specialists and contribute to economic development. At the same time, these elite universities offer both a distinct educational environment and superior post-graduation employment outcomes. To do so,

¹Prominent examples include the Double First Class in China that promotes Peking and Tsinghua Universities, and Saudi Arabia's development of its own flagship institution, the King Abdullah University of Science and Technology (KAUST) (Peters and Besley, 2019; Al-Shobakky, 2018).

these institutions recruit foreign faculty, bringing broader perspectives into the classroom. The better labor market outcomes that graduates then enjoy provide the economic autonomy needed to criticize the regime (McMann, 2006). Lower ranked universities do not cultivate such an environment and often funnel their graduates into the public sector or less lucrative careers, both of which undermine graduates' ability to express dissent. In other words, we argue students who attend elite universities in an authoritarian regime will be more likely to oppose it.

Testing the effect of higher education quickly runs into two empirical challenges. University admissions are neither randomized nor are individual-level data on student academic paths made public. Our research design helps address these issues by examining the Olimpiada, the most prestigious academic contest in Russia where millions of high-school students compete across 24 different disciplines. Placing high at the national Olimpiada grants students automatic university admission to their choice of Russian university. Our data cover 20,755 of these final round contestants competing from 2012 to 2018. Studying the Olimpiada competition allows us to control for academic ability and to compare downstream political outcomes between those who were automatically able to attend the best universities in Russia with those who had to apply through normal channels that offered a lower probability of admission.

Our results indicate that students who win the Olimpiada - and are granted preferential admission to the university of their choice - are significantly more likely to later support Alexey Navalny's Anti-Corruption Foundation (FBK), the main opposition movement in Russia at the time. Our indicators of opposition support draw on novel data gleaned from a series of high-profile leaks from inside the FBK beginning in 2020. We then adopt a variety of methodological approaches, including a regression discontinuity design that compares close winners and losers, to show that the awarding of college admission, and not intellectual aptitude, is driving the increase in support for the FBK.

We then show that university quality largely accounts for the difference between Olimpiada

winners and losers. Those that won the competition are much more likely to attend elite universities, whether measured by an ordinal ranking by one of Russia's leading rating agencies or by standardized admission exams. Students winning preferential admission to these elite universities are much more likely to support Alexey Navalny and his opposition group.

Finally, we test for two different mechanisms that may explain why elite universities produce more opposition-minded graduates: university experience and post-graduation career paths. Using both cross-sectional and instrumental variable approaches, we first find strong evidence that the percentage of foreign faculty working at top universities predicts the likelihood of opposition among graduates. The level of political activism at these universities, as proxied by new data from Russia's leading independent student magazine DOXA, is far less predictive of opposition activity. Moreover, the longer graduates of elite universities have spent in the workforce, the more supportive they are of the opposition. In line with this, graduates that earn more in the labor market are also more likely to back the FBK. Taken together, these results indicate that elite universities produce more opposition-minded students both because of the unique educational environment they offer and the post-graduation economic outcomes their graduates command.

Although numerous scholars of democracy and voter behavior have shown a correlation between college education and certain political attitudes, we know comparatively little about the same link within autocracies ([Surridge, 2016](#); [Apfeld et al., 2023](#); [Fryer, 2023](#)). To the best of our knowledge, we are the first to empirically demonstrate the effects of authoritarian higher education on individual-level political behavior. Further, unlike extant literature on liberalism within universities in democratic countries, we study the broader consequences for autocratic regime stability, including the sources of opposition support.

Our findings expose a clear trade-off that autocrats face with regard to higher education. On one hand, states rely on top college graduates to drive economic growth. Ex-

panding access to higher education fosters a skilled workforce, driving innovation, technological advancement, and productivity gains essential for long-term economic development ([Andersson, Quigley, and Wilhelmsson, 2009](#); [Burgess, 2016](#)). However, investing in the type of cutting-edge academic programs necessary to achieve these outcomes carries with it a risk of exposing students to more liberal ideas and leading them to question the merits of authoritarian rule. Whereas [Croke et al. \(2016\)](#) find that educated citizens under electoral authoritarianism deliberately disengage to avoid the risks of dissent, we argue this calculus reverses for graduates of elite universities, who have more economic autonomy to challenge the state.

We also contribute to the understudied subject of meritocratic selection under authoritarian rule. Though sparse, extant literature finds a co-opting effect of meritocracy on political attitudes, whether it be through perceptions of social mobility ([Liu, 2023](#)) or actual redistribution ([Leventoglu, 2005](#)). Our findings challenge this conclusion. Paradoxically, the biggest beneficiaries of meritocracy are much more likely to dissent against the autocrat than their counterparts. While autocrats may use selective educational opportunities to train the next generation, this very strategy risks backfiring by potentially producing an intellectual elite that is more inclined toward dissent.

Finally, we use new individual-level data to assess the effect of educational attainment, a notoriously endogenous independent variable, while also moving beyond cross-national analysis. Our empirical approach highlights the many applications for using publicly leaked data to better understand politics in authoritarian states. By enriching individual-level leaks about opposition activity with a mass of other consumer and administrative data, we are able to develop new behavioral measures of opposition support that avoid the types of social desirability biases that undermine self-reported survey responses about dissent under autocracy ([Truex and Tavana, 2019](#); [Frye et al., 2017](#); [Rosenfeld, 2023](#)).

1 Universities and Authoritarian Rule

Modern authoritarian regimes increasingly rely on performance legitimacy to justify their rule, emphasizing economic stability and public service delivery (Cassani, 2017). Achieving these objectives often requires developing a skilled workforce, and therefore investing heavily in higher education. Training students to compete in an increasingly knowledge-based economy requires skills like critical thinking and exposure to qualified instructors.

Autocrats continue to invest significant resources into higher education. Saudi Arabia launched KAUST with a 20 billion USD endowment, attracting international researchers and funding cutting-edge research. Both Russia and Kazakhstan have offered financial incentives and encouraged collaboration with leading foreign institutions. All of these endeavors have contributed to the states' R&D capacity, while in some cases sparking the growth of new domestic tech sectors (Breznitz and Murphree, 2011).

What effect do these investments in higher education have on demands for democracy? There are two opposing views in the literature. On one hand, scholars like John Dewey and Seymour Martin Lipset argued that education promotes a "culture of democracy" (Lipset, 1959; Dewey, 1916). More recent work has updated these arguments, showing how the democratizing effects of education depend on who receives education and at what level (Darden and Grzymala-Busse, 2006; Glaeser, Ponzetto, and Shleifer, 2007). But the key mechanism remains: education can play an important role in fostering democratic values and teaching broader segments of the population the skills needed for political participation.

But education also can serve as a channel for indoctrination and/or disengagement. Autocrats can use school curricula to shape ideological views and promote "correct" political opinions from an early age (Paglayan, 2021; Kao, 2021; Neundorff et al., 2023; Cantoni et al., 2017), while education can also decrease political participation, making students withdraw from politics once made aware of the democratic facade (Croke et al., 2016). Similarly, studies have found that the "authoritarian university" can both indoctri-

nate and co-opt students through patriotic education ([Hanson and Sokhey, 2021](#); [Tokbolat, 2023](#)).

In this paper, we argue that the effect of higher education on the political attitudes of attending students depends on the quality of educational institution, which can vary widely within authoritarian regimes. First, elite universities maintain stronger ties with the rest of the world, often attracting top foreign faculty as well as local faculty trained abroad. These personnel bring a wider range of perspectives into the classroom, as well as more rigorous academic standards than are often found in closed regimes. Despite their interest in ideological conformity, autocracies have a vested interest in promoting certain universities, as higher rankings translate into prestige and soft power on the global stage as well as innovation at home. Russia's 5-100 higher education initiative, for instance, explicitly aimed to propel five of the country's top universities into the world's top 100 ([Kotchegura, De Martino, and Farazmand, 2022](#)). To climb the ladder, universities had to increase both the quality and quantity of research output, facilitate international collaboration (especially by attracting foreign faculty), and improve instructional methods ([Huang, 2012](#)). In other words, graduates of elite universities might be more opposition-minded than their counterparts because their educational environment exposes them to new ideas and methods that cause conflicts with regime-preferred narratives.

Students' experience at universities stretches beyond academics. Interactions with peers can play an important role in shaping political identities. Surrounded by a culture of activism among their classmates, even students with no prior interest in politics may form new preferences and become more politically engaged ([Ricart-Huguet and Paluck, 2023](#)). History provides numerous examples of college students spearheading protest movements and demanding democratization ([Dahlum and Wig, 2021](#)). In authoritarian South Korea, protests against the regime started at Seoul National and Yonsei University decades before spreading to lower-ranked schools ([Cho, 2024](#)). Similarly, the Tiananmen Square protests began at Peking University before expanding into a nationwide move-

ment. Opposition groups often target elite universities as sites for mobilizing against the regime.

Second, we argue that graduates of elite universities likely have an easier path to lucrative careers within the private sector. High labor mobility reduces graduates' dependence on the state, freeing them to express political discontent (Rosenfeld, 2021; McMann, 2006). On the other hand, those working for the state or state-owned enterprises face pressure to align their political activity with the regime's preferences (Frye, Reuter, and Szakonyi, 2025). After Russia's full scale invasion of Ukraine in 2022, for instance, one of the largest contingents of emigrants were IT specialists, who had both the income and the mobile skills to express their discontent through exit.² In contrast, non-elite university graduates enjoy worse labor market prospects, earn less in their positions, and are more likely to work for the state (Behar and Mok, 2015). We then expect graduates of universities that feed into better-paid private sector careers to be the most critical of authoritarian regimes.

In sum, we claim that elite universities produce more opposition-minded students than their non-elite counterparts. But university attendance is a bundled treatment. Students are exposed to myriad new experiences, concepts, and professional opportunities down the road depending on where they matriculated. Our empirical approach tests not only whether attending a top institution matters for downstream outcomes, but also these two distinct pathways through which university education shapes political activism.

2 Data and Empirical Strategy

An ideal test for this hypothesis would involve both complete data on students' academic background as well as a rule or program that randomly admitted students to certain universities. But few if any governments share data on standardized test scores, and, perhaps more importantly, students still have a choice over if and where they would like to attend

²Faiola, Anthony. "Mass flight of tech workers turns Russian IT into another casualty of war." Washington Post, May 1, 2022.

university. We overcome both challenges by leveraging Russia’s premier academic competition for secondary-school students, the Olimpiada.

2.1 Contest Rules

A legacy of the Soviet Union, the Olimpiada competition was created in 1965 to identify, nurture, and reward talented students. Currently administered by the federal government, the Olimpiada is a key tool for combating “brain drain” by encouraging students to pursue higher education in Russia (Gulov, 2023). Many prominent figures in Russian academia and technology first distinguished themselves in the Olimpiada, including mathematician Grigory Perelman, who later solved the century-old Poincaré conjecture, and Stanislav Smirnov, winner of the prestigious Fields Medal. Yandex co-founder Ilya Segalovich and Telegram creator Pavel Durov both competed in programming and mathematics. Globally, similar contests such as the International Science Olympiads have been shown to be effective tools for discovering STEM talent, with winners accounting for disproportionate numbers of major science prize winners later in their careers (Agarwal, Gaule, and Jiang, 2024).

In Russia, approximately six million students each year take part in Olimpiada competitions on 24 different subjects. To reward merit, nearly every student takes the initial exams at school with the top performers moving onto the municipal and then the regional levels. Finally, a federal committee sets a minimal score threshold for the winners of regional contests to compete in the national (final) round, which we examine in this paper.³ The final round produces three outcomes based on a ranking of participants’ scores: pobediteli (the highest category), prizeri (the middle category), and participants (the lowest category). A separate committee for each subject determines the qualifying threshold for each outcome only after all exams have been graded.

³Although Moscow and St. Petersburg have the most participants, per-capita participation is highest in regions such as Nenetskiy Okrug and Udmurtia, indicating broader national representation.

The main draw for competing in the Olimpiada are the significant prizes for the top two outcomes (pobediteli and prizeri), whom we collectively refer to as “winners”. Pobediteli and prizeri receive near automatic, preferential admission into the domestic university of their choice. Both pobediteli and prizeri receive monetary prizes, with larger awards for the former.⁴

We use this awarding of preferential admission as our main predictor. Just as in other countries, top Russian universities are exceedingly hard to gain admission to. High school students sit for a nationwide standardized test each year (the Unified State Exam, or EGE), with each university setting its own cutoff above which students must score to gain admission. By winning the Olimpiada, participants are able to bypass this ordeal and attend universities that they otherwise might not have qualified for based on their EGE results. We are thus able to analyze long-term outcomes among the best students in Russia, comparing those who were able to select their top choice with those that barely missed out on this admission edge and had to apply using conventional channels.

2.2 Contestant Data

We first collected data on all participants of any Olimpiada competition from 2012 to 2018.⁵ We locate the final round Olimpiada scores and rankings from three sources: the competition website, Olimpiada.ru, and VKontakte. Appendix Section 7.1 describes the data coverage and processing.

Overall, we collected 33,709 unique contest entries across the 24 subjects, broken out into pobediteli (7% of all contestants), prizeri (32%), and participants (61%). Figure 1 plots the distribution of the winners (pobediteli and prizeri) across the 24 subjects each

⁴In Table 3, we show our results are not driven by those contestants (pobediteli) who won a cash prize in addition to guaranteed admission. The prize was 60,000 rubles for pobediteli (\$2,000) and 30,000 rubles for prizeri (\$1,000).

⁵This time period is determined by data availability and ethics. Our measures of opposition activity are from 2020 and 2021. Per our IRB approval, all analysis should be conducted on adults 18 years or older. We restrict our analysis to no later than the 2018 competition. Some students were still in college, which we explore in Section 5.2.

year. Pobediteli counts cluster tightly around 21 per subject-year, while prizeri counts are more bimodal because some early contests pooled grades before adopting grade-specific rankings. Nonetheless, their clustering suggests that award committees target specific numbers of winners.

Unfortunately, the Olimpiada data does not contain information on birthdates, which is needed to uniquely identify individuals and match to measures of political activity. To address this missingness, we exploit leaked datasets from major Russian corporations and government agencies over the past ten years.⁶ These databases are either freely available on public forums or Telegram channels for download.⁷ With approval from our IRB, we gathered 39 different datasets covering a total of over 1 billion rows, which we refer collectively as the “leak archive.” Even Russian state-owned media such as Izvestiya readily admit that “the contact details of almost every Russian are in the public domain”.⁸

We first impute an approximate birth year based on the class they reported in each contest year and match each contestant by full name to all their entries in the leak archive. We excluded all matches where the full birthdate was more than one year before or after that imputed birth year.⁹ In the end, we are able to assign birthdates to 13,705 of all 20,765 contestants with names in our dataset, or 66%. We focus our empirical strategy on this analysis sample. Table A2 provides summary statistics across the full and analysis samples for the covariates we have; the distributions are nearly identical.¹⁰ Appendix Table A4 catalogs all of the data sources used in the paper, as well as describes the IRB approval process for analyzing them.

⁶These leaks include many high profile databases used by investigative journalists, including Yandex.Eda and Alfa Bank. See Toler, Aric. “Food Delivery Leak Unmasks Russian Security Agents” *Bellingcat*, April 1, 2022. “Hackers publish personal data of 20 million Alfa Bank customers” *Novaya Gazeta*, January 8, 2024.

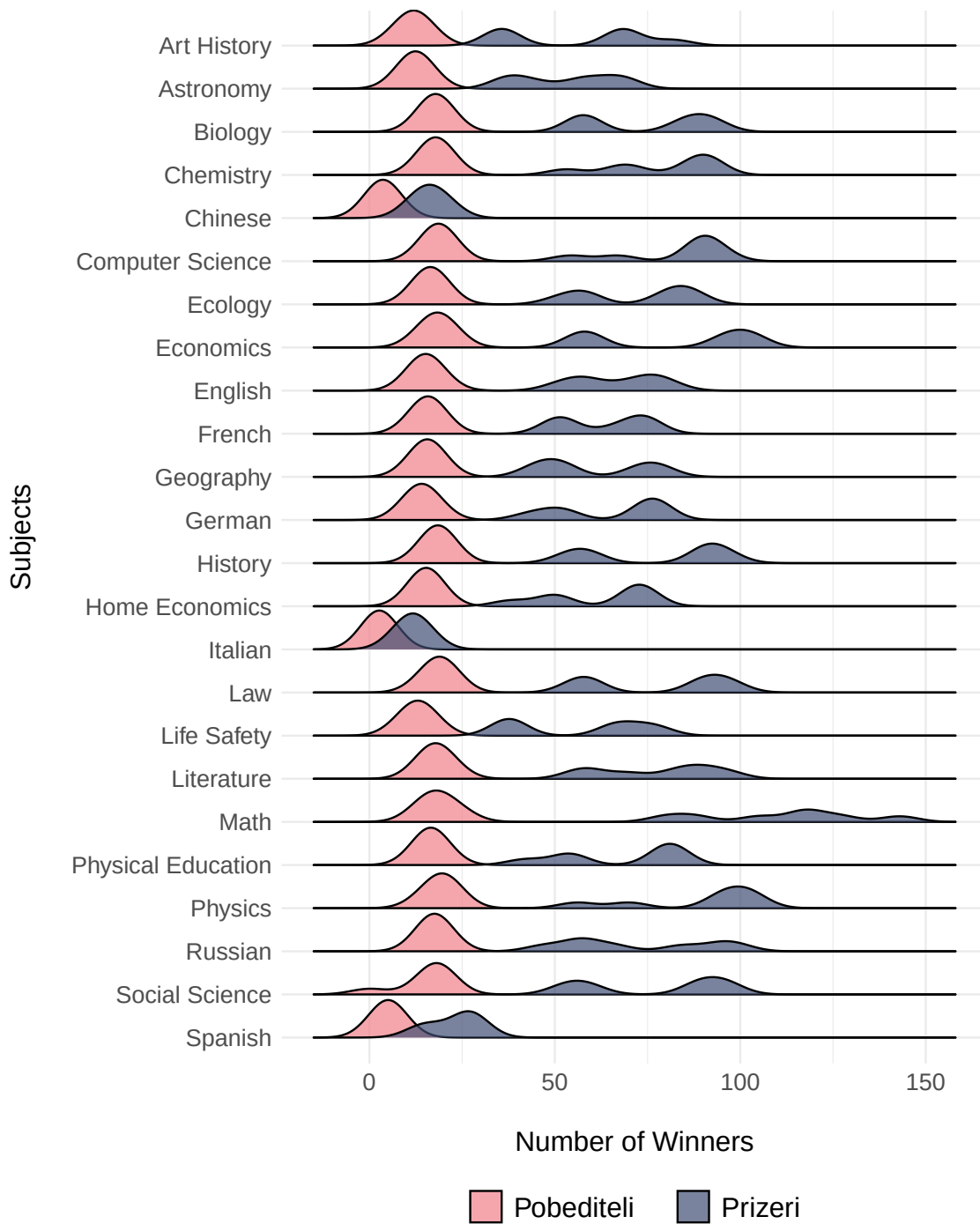
⁷See SaveRuData (<https://saverudata.net/>), xss.is (<https://xss.is/>), and Telegram channels TheDataLeak and MIXXX.

⁸Natalya Ilyina and Evgeniya Pertseva. “Slyshu prozvon: za polgoda v Set’ uteklo 140 mln nomerov rossiyan”, *Izvestiya*, July 29, 2024.

⁹In Appendix Section 7.2, we validate this approach using a unique instance where the correct birth dates were accidentally revealed. Our matching algorithm is able to correctly assign 96% of birth dates.

¹⁰We also show in Appendix Table A3 that the only significant predictor is age, suggesting that the “leak” archive has better coverage for contestants in the earlier years of our Olimpiada sample.

FIGURE 1: NUMBER OF WINNERS PER SUBJECT OVER TIME



Note: This figure plots the number of contestants that either became pobediteli or prizeri (i.e. won preferential college admission) across all subjects and years. For each subject, we show a density curve with the unit of analysis being an annual competition held from 2012 to 2018.

2.3 Opposition Activity

Our primary outcome of interest relates to whether young people oppose the Putin regime. To quantify opposition, we rely on new measures of opposition support drawing on open source but never before collected data from the period 2020 to 2021. During the 2010s, Alexey Navalny emerged as the most prominent opposition politician in Russia, evolving from an anti-corruption crusader into a politician contesting elections (Dollbaum, Lallouet, and Noble, 2021). He built his following through the work of his Anti-Corruption Foundation (FBK), which led investigations into the corruption of Russian elites and mobilized activists across the country. This made FBK a main target for Putin's regime, as evidenced by the severe repression (and ultimately murder) of Navalny and persecution of his compatriots. It also resulted in several successful hacking exploits of FBK's internal resources which were later leaked onto the internet. To our knowledge, there have been no fewer than four distinct leaks of FBK data.

We use these leaks to identify individuals who lent support of different kinds to Navalny and the opposition to Putin. Though sensitive, these databases have been out in the open for years, discussed extensively by media outlets and on social media. In addition, police from eleven different regions visited more than 1,400 people who appeared in the leaks and demanded explanations for their connections to Navalny.¹¹ The BBC reported that these visits were made specifically at the request of the Putin administration.¹² There is little doubt that the regime has all of the leaks in their possession. The FBK leaks cover four substantively important types of support. First, an April 2021 leak exposed over half a million email addresses of people who had registered to protest Navalny's imprisonment. Ivan Zhdanov, director of Navalny's Anti-Corruption Foundation, confirmed the leak had occurred and apologized.¹³ Then in August 2021, data

¹¹"Moscow Police Use Leaked Personal Data To Investigate Navalny Supporters." Radio Free Europe/Radio Liberty, August 17, 2021.

¹²"Russian BBC: Putin's administration is behind police visits to Navalny supporters identified in data leaks." Meduza, September 1, 2021.

¹³"V Otkrytyy Dostup Popali Elektronnye Adresa Storonnikov Naval'nogo, Soglasivshikhsya Vyyti Na

on over 70,000 individual donations made to the FBK was leaked.¹⁴ The BBC confirmed the authenticity of the database by speaking to 16 individuals who appeared.¹⁵ Before the September 2021 elections, another leak exposed 2.1 million email addresses registered with Navalny’s Smart Voting platform. Finally, a number of leaks related to sign-ups to FBK’s mobile applications appeared in late 2020. None of the four leaks - donations, protests, Smart Voting, or mobile apps - completely overlap with one another, indicating that they capture different types of affiliations.¹⁶

Our final dataset contains 1.7 million individuals with full names and complete birthdates across the four FBK databases, from which we construct two measures of opposition activity. The first is a binary indicator for the 13% of contestants who appear in at least one FBK leak. Next, we create a count of how many of the four different types of affiliations each had. This is our preferred measure of opposition activity since it acknowledges that some individuals may sign up out of curiosity, and thus weights those that appear more often as more committed supporters of FBK. As a robustness check, we are also able to match a small number of contestants to their profiles on Russia’s largest social media network, VKontakte, and track whether they joined groups affiliated with the opposition.

2.4 University Data

Finally, the Olimpiada’s most valuable prize is preferential admission to any Russian university. We argue that attending a higher-quality university increases opposition support through several mechanisms. Because Russia lacks comprehensive public data on university attendance, we combine two sources that provide only partial coverage. First, we are

Miting V Ego Podderzhku. FBK Izvinilsya.” Meduza, April 16, 2021.

¹⁴The database included their names, birthdates, and contact information, but not the size or date of their contribution.

¹⁵Zakharov, Andrey, Anastasiya Stogney, Yelizaveta Foht, and Maria Kiseleva. “Vse moi dannye nashli”: kak mogla poyavit’sya baza “donatorov FBK.” BBC News Russian Service, September 16, 2021.

¹⁶We used the leak archive to enrich the FBK databases with full names and birthdates. Results using only donations, which were accompanied by names and birthdates, are similar, reducing concerns that the broader findings reflect greater online activity among those in the leak archive.

identify profiles on VKontakte, Russia’s largest social media network. for roughly 3,000 of Olimpiada.¹⁷

Next, we scrape Russia’s largest online marketplace for connecting users with professionals offering various services - Profi.¹⁸ Talented students often try to earn additional income by offering tutoring online or in-person, and acquire clients by advertising through Profi. Their participation in a national-level Olimpiada contest is often a main selling point, as are the universities they have or are attending. We merge profiles based on their full name and remove any matches to multiple profiles.

Together these two sources provide university information for 1,453 contestants, or 11% of the total number with birthdates. Appendix Table A2 shows summary statistics for this “university sample”. There are a slightly larger number of winners (pobediteli and prizeri) in the university sample, but otherwise the competition statistics align quite closely. In Appendix Table A7, we show that our main results are also robust to just using this University sample.

We then collect a variety of indicators and rankings on Russian universities. First, we merge in official government data from the Russian Ministry of Education which includes information on the average admission exam (EGE) score, the number of foreign faculty, the total number of faculty, and other attributes (Guba and Kuchakov, 2025).¹⁹ Next, we create an average ranking based on data from RAEX rating agency’s annual numerical ranking of the top 100 universities from 2012 to 2019.²⁰ RAEX focuses its evaluation on three main pillars of quality: student education, scientific research, and the university’s societal impact. For an alternate assessment, we also code each university’s position

¹⁷VKontakte’s API allows for searches based on the full name, even where different from their public username. We then narrow down these matches using membership in an Olimpiada “group”, academic interests, hometowns, schools, and predicted birth year. We validate by manually checking a random sample of 100 profiles, finding that the parameters accurately match a contestant to a VK page 90% of the time.

¹⁸See <https://www.profi.ru>.

¹⁹We create time-invariant measures for each indicator by averaging from 2015 to 2019, the window when students in our sample would have attended.

²⁰See <https://RAEX-rr.com/>

among Forbes’ 2019 ranking of the top 100 universities (which evaluates employer and international reputation, academic environment, and students’ earnings potential). We also combine the two by coding an indicator for whether a university was ever ranked among the top 5 on either list; this allows us to include the small number of universities that appear in neither.²¹ Finally, we code the region where each university is located and collect data on the number of people living in the university’s city.

3 Empirical Results

To test whether Olimpiada winners express more support for the Russian opposition, we start with cross-sectional analysis. Participants can qualify for national-level contests for any number of subjects each year from 9th to 11th class. Given the competition, it is quite a feat to make it to the national level multiple times. In our data, the average student participates in 1.61 individual Olimpiada (i.e. individual subject-years). Because so many students have more than one opportunity to win college admission, we first collapse the data down to the individual student level, using only data for students with complete birthdates.

Table 1 shows models examining the main outcome variables, a binary indicator of support for FBK (Columns 1-3) and the preferred count measure of support (Columns 4-6). For each outcome variable, we estimate a reduced form model, then add demographics (age and gender), year and region controls (based on where they attended high school), and indicators for all subjects in which participants competed.²²

We see clear evidence across every specification that winning the Olimpiada and receiving preferential college admission is strongly associated with later support for opposi-

²¹We exclude all students who attended foreign universities, or roughly 5% of the sample, because of their presumed relocation from Russia and its domestic politics.

²²These approximate fixed effects, except that an individual student may have qualified for both math and art history in years 2012 and 2013. Subject and year controls are not mutually exclusive, but capture the contests students participated in and when.

tion activity. The point estimates are large and statistically significant, and come through controlling for the range of demographic and academic attributes. Winning the contest produces a roughly 18% increase in the baseline binary support for FBK, and a 27% increase in the count of supportive affiliations. Indeed older and male students are more opposition-oriented; below we investigate further differences in subjects competed in. As a robustness check, Appendix Table A5 restricts the sample to only students who participated in a single subject (math, economics, etc.) over all their years participating in the Olimpiada. Doing this converts the subject controls into proper subject fixed effects. We see again that winning preferential college admission strongly predicts opposition support.

As an additional robustness check, we examine another indicator of opposition support measured separately from the FBK leaks. Using the 21% of the sample with VKontakte profiles, we code whether they were a member of any of nine opposition “groups” on VKontakte as of June 2024.²³ Appendix Table A6 shows that even using this smaller subpopulation of contestants, we see that contestants who won preferential admission to universities through the competition later publicly joined opposition-minded groups on VKontakte.

3.1 Accounting for Merit

Olimpiada winners earn preferences during college admission because they score better on competition tests. It is then possible that their opposition views are the result of aptitude rather than the college admission awarded through the contest. This section brings together several different types of evidence to demonstrate that intellect and/or test-taking skill are not driving the results. Instead, Olimpiada winners become more

²³Like Facebook, VK allows users to join interest-based groups whose membership is public, even when posts are private. These data have been used in prior research on Russian politics (Greene and Robertson, 2019, 2020). Our sample covers public groups affiliated with FBK, other opposition organizations, independent media, and figures designated as “foreign agents.”

TABLE 1: COLLEGE ADMISSION PREFERENCES AND OPPOSITION ACTIVITY

	FBK support (any)			FBK support (count)		
	(1)	(2)	(3)	(4)	(5)	(6)
Preferential college admission	0.026*** (0.007)	0.020*** (0.007)	0.020*** (0.007)	0.048*** (0.010)	0.040*** (0.010)	0.041*** (0.010)
Number of contests (log)	0.015** (0.008)	0.050** (0.023)	0.040 (0.029)	0.022** (0.011)	0.087** (0.035)	0.063 (0.045)
Age (log)		0.102** (0.044)	0.107** (0.044)		0.114 (0.073)	0.132* (0.070)
Female		-0.046*** (0.005)	-0.047*** (0.005)		-0.072*** (0.007)	-0.073*** (0.008)
Hard sciences		-0.017 (0.018)			-0.039* (0.023)	
Social sciences		-0.046*** (0.017)			-0.084*** (0.022)	
Humanities		-0.059*** (0.015)			-0.095*** (0.021)	
Other subject		-0.104*** (0.015)			-0.162*** (0.021)	
R ²	0.003	0.031	0.034	0.004	0.030	0.034
Observations	13,705	13,705	13,705	13,705	13,705	13,705
Control mean	0.113	0.113	0.113	0.151	0.151	0.151
Subject controls			✓			✓
Year controls		✓	✓		✓	✓
Region fixed effects		✓	✓		✓	✓

Note: *** p<0.01, ** p<0.05, * p<0.1. This table examines support for Alexey Navalny's Anti-Corruption Foundation (FBK) using both a binary indicator and a count variable. All analysis is done at the individual-level. Subject and year controls are a set of indicators for each student denoting the types of Olimpiada participation; they are not mutually exclusive since students can participate in multiple competitions. Region fixed effects indicate the place where students attended high school. All models cluster errors at the region level.

TABLE 2: NUMBER OF PARTICIPANTS AT EACH LEVEL OF COMPETITION

Year	Level of Competition				
	School	Municipal	Regional	National	(%)
2016	15,775,978	2,184,925	120,803	5,000	0.03%
2017	16,579,595	2,205,364	122,404	5,078	0.03%
2018	16,702,390	2,232,506	124,198	5,117	0.03%

Note: This table shows the number of contest entries at each level of the Olimpiada competition for the years 2016-2018. The rightmost column shows the percentage of National qualifiers out of the total pool of students.

opposition-oriented precisely because they matriculate to top schools.

First, all students who qualify to the finals have demonstrated exceptional academic prowess. Table 2 tracks the number of participants at each level of the competition for the final three years of our sample. There are roughly 16 million Olimpiada tests taken each year at the School level, the lowest rung. Of those, roughly 2 million students (13%) qualify for the Municipal competition, and just 122,000 (0.8%) go on to the Regional competition. Only 5,000 participants qualify for the national level. In other words, our dataset includes the top 0.03% of all test entries from students in 9th-11th grade. The models comparing *prizeri* and *pobediteli* to the “losing participants” are therefore comparing the top 0.01% of students to the next 0.02% of students in the country. It is hard to argue that there are massive differences in the baseline aptitude among these exceedingly talented groups of students.

Second, opposition support does not differ between *prizeri* and *pobediteli*, who receive identical admission preferences but slightly different cash awards (roughly \$1,000). *Pobediteli* are the very top scorers with just 7% earning this highest honor compared to 32% earning the *prizeri*. If aptitude is correlated with later opposition support, we should expect to see individuals who score the highest on tests to also be more likely to sign up for FBK initiatives. Table 3 shows this is not the case. We see no difference in opposition

support based on whether a student ever achieved the top rank of pobediteli compared to the prizeri. These results also show clearly that the slight increase in prize money does not explain the uptick in opposition support, as there are no differences between the two winning tiers.

TABLE 3: COMPARING BETWEEN WINNERS: PRIZERI VERSUS POBEDITELI

	FBK support (any)			FBK support (count)		
	(1)	(2)	(3)	(4)	(5)	(6)
Pobeditel (any)	0.004 (0.008)	-0.003 (0.007)	-0.003 (0.008)	0.004 (0.014)	-0.007 (0.013)	-0.006 (0.013)
Number of contests (log)	0.006 (0.009)	0.031 (0.022)	0.019 (0.038)	0.008 (0.015)	0.056 (0.037)	0.025 (0.062)
Age (log)		0.105 (0.100)	0.106 (0.097)		0.138 (0.174)	0.145 (0.165)
Female		-0.054*** (0.008)	-0.059*** (0.009)		-0.086*** (0.012)	-0.094*** (0.014)
Hard sciences		-0.003 (0.020)			-0.014 (0.028)	
Social sciences		-0.036 (0.022)			-0.066** (0.030)	
Humanities		-0.052*** (0.017)			-0.089*** (0.025)	
Other subject		-0.100*** (0.021)			-0.155*** (0.030)	
R ²	0.0001	0.038	0.042	7.91×10^{-5}	0.037	0.043
Observations	5,832	5,832	5,832	5,832	5,832	5,832
Control mean	0.146	0.146	0.146	0.209	0.209	0.209
Subject controls			✓			✓
Year controls		✓	✓		✓	✓
Region fixed effects		✓	✓		✓	✓

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. This table examines support for Alexey Navalny's Anti-Corruption Foundation (FBK) using both a binary indicator and a count variable. All analysis is done at the individual-level. Subject and year controls are a set of indicators for each student denoting the types of Olimpiada participation; they are not mutually exclusive since students can participate in multiple competitions. Region fixed effects indicate the place where students attended high school. The sample is subset to only winners (pobediteli and prizeri), with the coefficient on pobediteli indicating those contestants that scored highest on the final round. All models cluster errors at the region level.

Finally, we exploit the fact that some contestants barely win and some barely lose. This set-up shares some similarities with regression discontinuity (RD) designs but with critical differences that complicate estimation. First, the test scores are not a true running

variable in that there is no fixed rule established before the exams that determines top (pobediteli) versus secondary honors (prizeri). Instead, a committee meets after the competition to determine the threshold after viewing the results. In addition, separate tests are given for each subject and each year, complicating attempts to use a single continuous variable, even with fixed effects, across our 99 subject-year combinations.

Instead, we run a quasi-RD as an additional robustness check rather than a clear-cut causal test. We first subset our analysis sample to the 5,014 students that participated in a single contest (a single subject in a single year), and for whom a raw score was available.²⁴ Next, we create a ranking for each subject-year for all contestants based on their ordered raw score akin to a running variable where 0 is set to be the threshold set by the judges committee. For example, if a contestant's raw score lies exactly at the prizet cutoff, they are coded 0; contestants with the next lowest score (under the threshold) are coded as -1, and so on. We focus on the prizet threshold since we are interested in the effect of preferential admission.

For our sample of one-time contestants, there is clear imbalance between those students ranked just above and below the threshold, suggesting the presence of manipulation and violating a basic assumption of the RDD.²⁵ Appendix Figure A2 shows a density discontinuity plot based on a local-polynomial density estimator developed by Cattaneo, Jansson, and Ma (2024). Next, in Appendix Figure A3, we show standard RD plots for the two covariates we have: age and gender. There is a pattern of older contestants being awarded prizet status, potentially because judges are partial to students competing in their final year of eligibility. The best we can do is to control for these two covariates.

Table 4 shows the results from these quasi-RD specifications. We adopt two different

²⁴We do this because for students that participate in multiple subjects or across multiple years, it is impossible to determine which of their contest scores (rankings) should be used (and therefore where they fall in relation to the winning threshold). In the Appendix Table A9, we show the results from a fuzzy RDD that uses each contestant's first score. The signs are in the expected direction.

²⁵This imbalance may also be driven by the fact that participants winning earlier in school compete in multiple rounds. But we are hesitant to impose different conditions on the sample (such as just selecting a single grade).

approaches for defining close winners and losers of preferential admission. In Columns 1 and 4, we subset the sample to contestants that were within 2 “ranks” of the threshold and estimate a simple local-linear model with bias-correction and robust inference procedure described in [Calonico, Cattaneo, and Titiunik \(2014\)](#) (CCT). This is the smallest window for which we can achieve model convergence, and focuses our analysis directly on people who barely won or lost. In the remaining columns, we estimate the MSE-optimal bandwidths developed in CCT, while also including demographic controls (age and gender), subject and year fixed effects, region fixed effects, and the raw score variable.

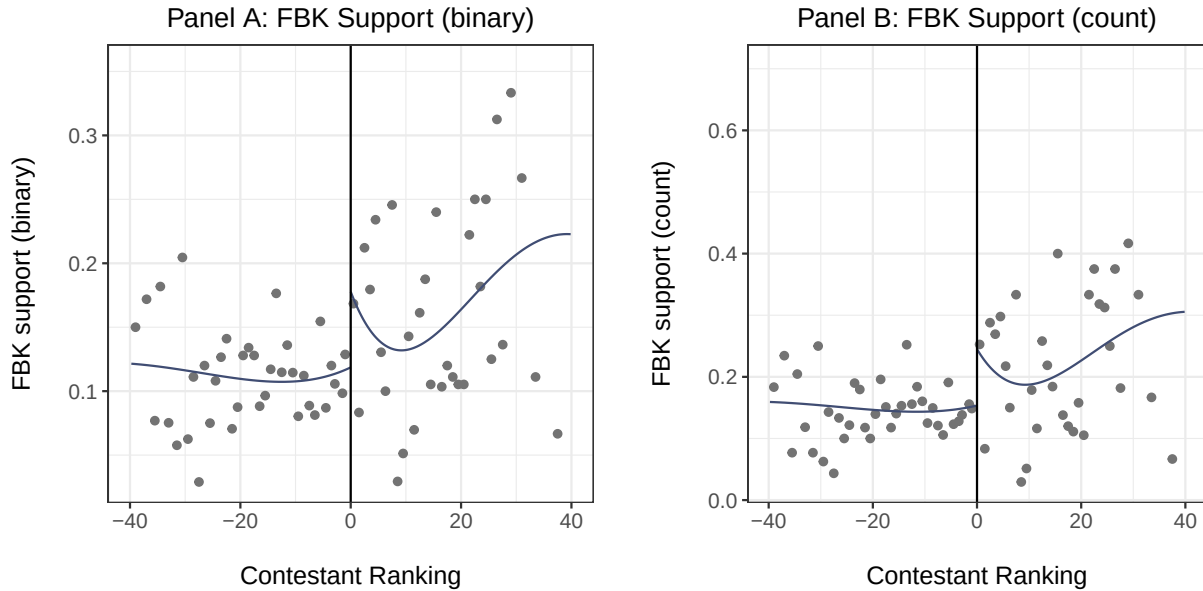
The results indicate a positive and mostly statistically significant effect across all specifications, both using close and optimal bandwidths and adding confounders. We see again that winning preferential college admission leads to more support for the opposition down the line. That same effect is shown in [Figure 2](#) which plots the raw data right around the threshold for the same two outcomes. We see a substantial shift upwards among those that achieved prizier status and preferential admission (i.e. had a rank above zero).

TABLE 4: REGRESSION DISCONTINUITY RESULTS

	FBK support (any)			FBK support (count)		
	(1)	(2)	(3)	(4)	(5)	(6)
Preferential college admission	0.126*** (0.031)	0.063** (0.027)	0.040* (0.023)	0.203*** (0.050)	0.110*** (0.041)	0.076** (0.036)
Number of Observations	268	2834	2117	268	2834	2271
Demographic controls		✓	✓		✓	✓
Subject, class, year fixed effects		✓	✓		✓	✓
Region fixed effects			✓			✓
Score controls			✓			✓
Bandwidth Type	Close	Optimal	Optimal	Close	Optimal	Optimal
Bandwidth	2	17.2	12.9	2	17.3	13.1

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. This table examines support for the Anti-Corruption Foundation (FBK) using a regression discontinuity setup. Columns 1-3 examine the binary indicator of FBK support, while Columns 4-6 use the count of FBK support. The running variable captures the rank of contestants relative to the winning threshold for prizieri. Positive ranks indicate contest winners and negative ranks indicate losers. Demographic controls include age (logged) and gender. The score control is the raw test score for each contestant used to create the running variable (rank). Optimal bandwidths are estimated using the [Calonico, Cattaneo, and Titiunik \(2014\)](#) approach. All models show estimates with bias-correction and robust inference from the *rdrobust* package. Standard errors are clustered on the region level.

FIGURE 2: REGRESSION DISCONTINUITY PLOTS



Note: These regression discontinuity plots show the raw rankings scores using binned sample means and a fourth-order global polynomial. The plots were created using the *rdplot* package described in [Calonico, Cattaneo, and Titiunik \(2015\)](#). Panel A shows the binary indicator for FBK support; Panel B uses the count variable for FBK support. The average bin size for both plots is roughly 1.5 on both sides of the threshold.

We are careful not to place too much weight on these regression discontinuity results

given both the peculiarities around the assignment of winners and the covariate imbalance. In Appendix Table A8, we apply a “donut” approach that excludes observations right at the cutoff that were imbalanced; the results are robust to removing contestants that were up to three spots from the threshold, though the loss of sample results in less precisely estimated coefficients. Altogether, we see a clear pattern that winning the Olimpiada contest leads to more anti-regime support down the line, even controlling for student academic achievement.

4 Elite University Attendance

Our argument posits that education at one of Russia’s elite universities drives this effect of Olimpiada victory on support for the opposition. However, because there is no universal dataset on university attendance, we are only able to empirically test for this channel using data on the 11% of Olimpiada contestants for which we have data. As Appendix Table A7 shows, the effect of winning the Olimpiada on opposition support still holds for this subsample.

We begin by estimating the effect of winning preferential college admission. When given a free choice of where to go to school, we claim that talented high-school students will choose to attend the best universities in the country. To test for this, we use the four different outcomes of university quality: average admission exam scores, two separate continuous rankings by RAEX and Forbes, and a binary indicator for whether the university was ever ranked among the top 5 during this period by either publication.²⁶

The results shown in Table 5 show a robust effect of winning preferential college admission in the Olimpiada on attending higher quality universities. In Columns 1-2, winning students matriculate into universities with average admission exam (EGE) scores roughly three points higher (or 4% higher than the control mean). As the standardized

²⁶The results are robust to using a binary indicator of top 25 or top 50 school.

national admission exam, EGE is a particularly informative measure of university quality in Russia since it gives a comparable measure of selectivity across all institutions.

TABLE 5: PREFERRED COLLEGE ADMISSION AND UNIVERSITY QUALITY

	Mean EGE score		RAEX Ranking		Forbes Ranking		Top 5 University	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Preferential college admission	3.126*** (0.622)	2.842*** (0.502)	-4.652*** (1.149)	-3.129** (1.406)	-3.512*** (0.935)	-2.755** (1.187)	0.112*** (0.031)	0.086** (0.034)
Number of contests (log)	1.340** (0.598)	2.013 (1.978)	-2.481** (1.052)	-0.645 (4.059)	-1.837** (0.811)	-2.003 (3.102)	0.060** (0.028)	-0.010 (0.086)
Age (log)		-0.356 (4.907)		0.756 (10.955)		-0.644 (9.430)		0.220 (0.235)
Female		-1.224** (0.523)		0.196 (1.271)		-0.252 (1.172)		0.000 (0.027)
R ²	0.044	0.302	0.021	0.241	0.018	0.215	0.025	0.220
Observations	1,406	1,406	1,278	1,278	1,226	1,226	1,452	1,452
Control mean	77.800	77.800	17.484	17.484	14.488	14.488	0.538	0.538
Subject controls		✓		✓		✓		✓
Year controls		✓		✓		✓		✓
Region fixed effects		✓		✓		✓		✓

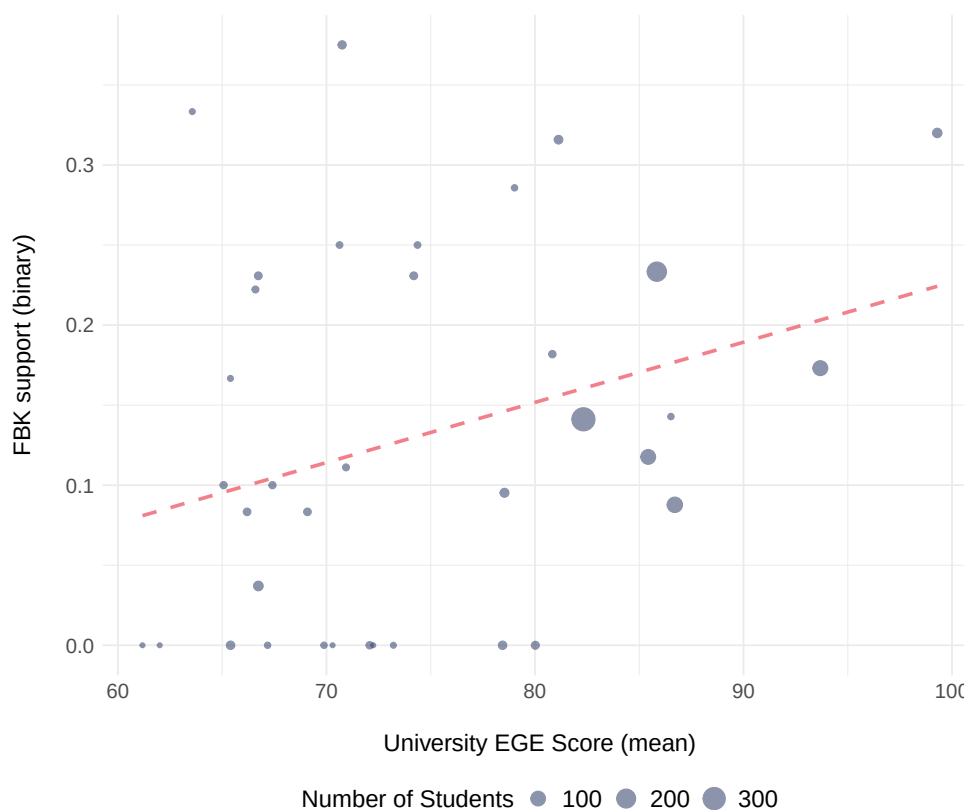
Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. This table estimates whether winning the Olimpiada leads to students attending higher quality universities. Columns 1-2 measure university quality using the average admission test scores (EGE), Columns 3-4 use the average RAEX ranking, Columns 5-6 use the average Forbes ranking, and Columns 7-8 use a binary indicator if a university was ever ranked in the top 5 according to either ranking. Subject and year controls are a set of indicators for each student denoting the types of Olimpiada participation. Region fixed effects indicate the place where students attended high school. All models cluster errors at the region level.

We also see the effect when the more holistic rankings developed by RAEX and Forbes are used. Lower values indicate better schools (a #1 ranked school is evaluated more favorably than a #5 ranked school). Columns 3 and 4 show that winning prizier status or above in the Olimpiada leads to a participant attending a university ranked roughly 3-4 places higher, depending on the specification. We see similar effects when using the continuous Forbes ranking in Columns 5 and 6. Overall, Olimpiada winners are roughly 9-11 percentage points more likely to attend one of Russia's top five universities (Columns 7-8). The results from fully specified Column 8 indicate that that is a roughly 16 percent increase on the baseline attendance rate.

Next, we provide several different types of evidence that attending a better ranked

university leads to greater support for the opposition. In Appendix Table A11, we regress support for the FBK on all four measures of university quality. Across the board, students who attended more selective, higher-ranked universities are significantly more likely to support the opposition later on in life, even controlling for all dimensions of their Olimpiada participation available.

FIGURE 3: UNIVERSITY QUALITY AND OPPOSITION SUPPORT



Note: This plot shows on the y-axis the average level of support for FBK among students attending Russia’s domestic universities. The x-axis shows the average admission exam (EGE) for the university, with higher values indicating better universities. Each point indicates a different university, with the size of plot showing the number of Olimpiada participants attending (see the legend for specific values).

We illustrate this graphically in Figure 3 which plots the average admission exam score on the x-axis and the mean level of support for the opposition (FBK) among attending students on the y-axis. The size of the points indicate the number of Olimpiada students

attending each university. This plot clearly shows that more selective schools see more of their students affiliating with the opposition.

Finally, in Appendix Table A10, we instrument university quality (as measured by the average EGE score) with preferential admission from winning the Olimpiada. The instrumental variable (IV) strategy exploits the same discontinuous variation in Olimpiada outcomes as the RDD. Here the exclusion restrictions holds if winning the Olimpiada only affects support for the FBK by determining the quality of the university that the contestant ultimately attends. Although we showed above that the cash awards may be negligible for explaining opposition support, this restriction would be violated if winning the Olimpiada brought prestige or membership in a network of alumni, which affected political attitudes down the line. We present the IV estimates as a secondary robustness check with these caveats in mind.

We see strong evidence for the first stage as winning the Olimpiada leads to an average increase in the EGE score for attended university by approximately three points, while the Wu-Hausman test rejects exogeneity. In the second stage, greater university quality leads to a statistically significant increase in support for the FBK, a result that holds under the same set of specifications as shown in Table 1. The chance to attend an elite university, as afforded by winning the Olimpiada, leads to greater oppositional activity down the line.²⁷

²⁷The instrumental variable approach returns larger estimates than those from the OLS. We see two potential reasons behind this difference. First, university quality is proxied solely by EGE test scores, and measurement error may attenuate the OLS coefficient toward zero. Second, the local average treatment effect recovered from this approach centers on those students potentially at the margin of admission to higher ranked universities.

5 Why Elite Universities Produce More Opposition-minded Students

The most direct way to investigate why elite universities produce more opposition-minded students would be to ask these students themselves. Classroom environment is notoriously difficult to quantify and because we are interested in personal educational experiences, this information only exists in Olimpiada students' own recollections. To that end, we conducted an original online survey of Olimpiada students by recruiting respondents over email. However, the response rate was too low (63 responses) to conduct empirical analysis (see Appendix Section 7.9). International sanctions imposed after Russia's invasion of Ukraine prevented us from offering respondents monetary incentives, as well as participants' unfamiliarity with the survey firm cold-emailing them, likely contributing to the low response rate. Given this, we draw on other sources of observational data to test for mechanisms.

5.1 University Experience

The first mechanism operates through students' experience at university. Highly selective institutions expose students to both more critically engaged instruction and a different set of social interactions. Faculty at top universities are more likely to have come from or trained abroad and bring a wider range of perspectives into the classroom. And the best universities may serve as incubators for political activism, with knock-on effects on all students studying at the time. To test whether universities with stronger ties to the rest of the world produce more opposition-minded students, we draw on novel data on university performance by the Russian Ministry of Education ([Guba and Kuchakov, 2025](#)). This dataset collects indicators on hundreds of attributes of Russian universities, including the percentage of foreign professors, employees (which includes research staff), and

undergraduate students.²⁸ We average each indicator over 2015-2019 (the earliest year data were available up to the last year Olimpiada participants were at university), while controlling for the total number of academic staff, students, and average admission exam (EGE) score. The measures of foreign professors and employees proxy for the degree to which students were exposed to Western pedagogy and curricula, whereas that of foreign undergraduates focuses on peer interaction.

As an additional measure of socialization, we draw on the reporting of DOXA, an independent online student newspaper in Russia which since 2017 has reported on student political activism. We built a database of roughly 9,190 articles from DOXA's website (doxajournal.ru) and Telegram channel. We then used a large language model (Claude Haiku 4.5) to code up incidents of political activism tied at each university from 2017 to 2020. After deduplicating, we were left with 2,637 unique incidents across 85 different universities, which we sum and transform using $\log+1$; we also create a binary indicator if a university experienced any such activism. We also control for university-city population, as larger, more educated cities may experience greater anti-regime mobilization. (Greene, 2020).

Table 6 tests whether exposure to foreign researchers or, alternately, heightened peer politicization predict support for the opposition. Our specifications examine both FBK-related measures, using all Olimpiada students whose university was observed. We include Olimpiada subject, year, and home region fixed effects, as well as basic demographics.

The results show a strong correlation between the number of foreign personnel and the likelihood of a participant later supporting FBK. The point estimates on both foreign faculty and foreign employees are statistically significant and large in both models, with a one standard deviation increase in foreign faculty leading to a 23% increase over the baseline in support for the opposition (Column 1). These effects largely crowd out the effect of

²⁸In the Appendix, we show results using the number of joint international publications and publications in top journals (e.g. Scopus).

university quality (average exam scores), suggesting that the presence of foreign faculty may be driving the relationship.²⁹ However, the presence of more foreign undergraduate students has little effect on support for the opposition. Instruction appears to matter more than simple contact with foreign peers, though the presence of foreign faculty could also convey a more liberal reputation or governance structure outside the classroom (two indicators much harder to observe).

Appendix Table A13 instruments the percentage of foreign professors with earning preferential admission, providing additional evidence that winning the Olimpiada affects opposition support through this channel. We also see no effect of the other two measures of peer socialization and political environment on later activism. And universities located in larger cities where opposition political parties may have had stronger local networks do not see larger shifts among graduating students.

Students' major may play a role, though as discussed in Section 1, this mechanism may work along multiple dimensions. Academic interests shape not only individuals' political behavior, but also how the state perceives them. Social science and humanities students have been found to be more likely to protest (Weidmann and Rulis, 2025), to engage politically (Mühleck and Hadjar, 2023), to hold liberal attitudes (Chin et al., 2025), and to become more liberal over the course of their university years (Woessner and Kelly-Woessner, 2020).

We find little evidence, though, that elite universities affected opposition support through the content of a students' chosen major. Although we cannot observe each participant's exact course of study, their choice of Olimpiada subject presumably reflected both their interests and talents. It seems reasonable to expect that students who ranked in the top 0.01% of their peers would continue studying the same subjects at the next stage of their education. We group participants into four categories (the hard sciences, social sciences, humanities and other) as shown in Appendix Table A1. Although Appendix

²⁹See Appendix Table A12 for more details. We also find that universities with more joint publications are also more likely to see students become more opposition-minded.

TABLE 6: UNIVERSITY EXPERIENCE AND OPPOSITION SUPPORT

	FBK support (any)				FBK support (count)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Foreign professors (%)	0.016*** (0.005)		0.014** (0.006)		0.031*** (0.008)		0.029*** (0.008)	
Foreign employees (%)		0.011*** (0.003)		0.010*** (0.003)		0.018*** (0.005)		0.016*** (0.005)
Foreign undergraduate students (%)	0.000 (0.005)	0.001 (0.004)	0.001 (0.004)	0.001 (0.004)	-0.003 (0.005)	-0.002 (0.005)	-0.002 (0.005)	-0.002 (0.005)
Student protests (count, log)	-0.003 (0.014)	-0.001 (0.014)			-0.005 (0.019)	-0.001 (0.019)		
Any student protests			-0.044 (0.036)	-0.033 (0.037)			-0.053 (0.049)	-0.039 (0.051)
Mean EGE score	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.001)	0.002 (0.003)	0.002 (0.002)	0.002 (0.002)	0.003 (0.002)
University city population (log)	-0.003 (0.008)	-0.006 (0.007)	-0.002 (0.008)	-0.006 (0.007)	0.003 (0.012)	-0.003 (0.012)	0.003 (0.012)	-0.002 (0.012)
Total academic staff (log)	-0.032* (0.018)	-0.028* (0.016)	-0.037** (0.018)	-0.032* (0.017)	-0.028 (0.028)	-0.028 (0.026)	-0.036 (0.028)	-0.032 (0.027)
Total students (log)	0.045 (0.030)	0.037 (0.028)	0.054** (0.023)	0.045** (0.021)	0.060 (0.047)	0.046 (0.045)	0.069* (0.036)	0.056* (0.033)
Number of contests (log)	0.055 (0.061)	0.055 (0.061)	0.053 (0.061)	0.054 (0.061)	0.072 (0.090)	0.074 (0.091)	0.070 (0.090)	0.072 (0.091)
Age (log)	0.149 (0.118)	0.157 (0.118)	0.145 (0.119)	0.154 (0.119)	0.082 (0.179)	0.092 (0.180)	0.076 (0.180)	0.087 (0.180)
Female	-0.045*** (0.014)	-0.045*** (0.014)	-0.046*** (0.014)	-0.045*** (0.014)	-0.071*** (0.021)	-0.071*** (0.020)	-0.072*** (0.020)	-0.071*** (0.020)
R ²	0.105	0.106	0.105	0.107	0.103	0.104	0.103	0.104
Observations	1,408	1,408	1,408	1,408	1,408	1,408	1,408	1,408
Control mean	0.146	0.146	0.146	0.146	0.198	0.198	0.198	0.198
Subject controls	✓	✓	✓	✓	✓	✓	✓	✓
Year controls	✓	✓	✓	✓	✓	✓	✓	✓
Region fixed effects	✓	✓	✓	✓	✓	✓	✓	✓

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. This table examines whether various university characteristics predict later support for the opposition. Subject controls are indicators for each subject contest that a contestant participated in. Year controls are indicators for each year where a contestant participated in the Olimpiada. Region fixed effects capture where contestants' schools were located. Standard errors are clustered on university.

Table A14 shows that hard sciences students overall were more likely to hold opposition views, that effect is not shaped by whether or not they won the Olimpiada competition and were able to attend a higher quality university. The best explanation for this null effect is that Russian authorities exerted relatively weak influence over university curricula in any subject during the period studied (and especially relative to the post-2022 wartime era).

5.2 Post-Graduation Autonomy

The other main mechanism through which elite universities may produce more opposition-minded students relates to their downstream employment outcomes. Students who feel more secure professionally may be more likely to speak out against the regime. We first test for this effect by comparing students who have been in the workforce longer with those fresh out of school or still studying. This analysis can be conducted on the full universe of Olimpiada contestants since we are not incorporating university-specific indicators.

Table 7 builds on the same specifications as the main models but adds an interaction between winning the Olimpiada (and receiving preferential college admission) with a count variable of the number of years the student has been in the labor force, if at all.³⁰ We show models with and without subject and region controls, but because of collinearity concerns, do not include Olimpiada year fixed effects.

Across all models, the coefficient on the interaction is positive and statistically significant. The more time a winning Olimpiada student has spent in the labor market, the greater the intensity of their political activism on behalf of Russia's opposition. These results come through regardless of the subjects in which students competed, suggesting that individuals who were farther along in their careers felt more emboldened to chal-

³⁰ A little over one-third of the sample was still in college at the time. The results are robust to subsetting only to college graduates.

lenge the regime.

Years since graduation is a complex measure, and there could be concerns that other life changes outside of careers could be explaining why graduates of top universities lean so heavily towards the opposition. To show that the labor market figures heavily, we build off the work of [McMann \(2006\)](#) which shows how individuals working in the private sector enjoy more economic autonomy to voice concerns publicly and push for democracy. Unfortunately, our best empirical strategy for tracking career choices – the survey of participants – did not return sufficient responses to investigate this as a mediator.

Instead, we draw on official data about how much graduates from each major at each Russian university were earning in income. These data come from Russia’s Federal Service for Labour and Employment (Rostrud) and covers graduates of 5,650 higher-education institutions and vocational colleges between 2016 and 2024 ([Rostrud, 2024](#)). Each observation provides an average and median salary calculated by educational institution, level and field of study, and graduation year. We subset the data to only bachelor’s degrees and create a weighted mean for the years 2016-2020 for all fields falling into one of four “meta” categories that correspond to each Olimpiada subject: hard sciences, social sciences, humanities and other. In other words, this mapping assumes that Olimpiada contestants in a subject such as physics pursue university coursework in that or another hard sciences field, while those who competed in economics continue on a social science field.

The first salary measure takes the average salary for all students in that “meta” category, while the second normalizes that average salary based on regional price levels for that university. We then merge this salary data to the individual-level Olimpiada data based on both university and “meta” course of study. [Table 8](#) shows results using both salary measures as predictors, again with the standard slate of subject, year, and region fixed effects. We also include standard university and demographic controls, including the measure of admission scores to capture selectivity.

TABLE 7: TIME IN LABOR MARKET AND OPPOSITION SUPPORT

	FBK support (any)			FBK support (count)		
	(1)	(2)	(3)	(4)	(5)	(6)
Preferential college admission $\times$ Years since graduation	0.008** (0.003)	0.007** (0.003)	0.006* (0.003)	0.015*** (0.005)	0.014*** (0.005)	0.011** (0.005)
Preferential college admission	0.010 (0.008)	0.002 (0.008)	0.005 (0.009)	0.020 (0.013)	0.009 (0.011)	0.016 (0.011)
Years since graduation	0.004** (0.002)	0.006*** (0.002)	0.006*** (0.002)	0.005 (0.003)	0.006** (0.003)	0.007** (0.003)
Number of contests (log)	0.022*** (0.008)	0.016** (0.007)	0.010 (0.009)	0.033*** (0.012)	0.024** (0.010)	0.011 (0.013)
Female		-0.045*** (0.005)	-0.046*** (0.005)		-0.072*** (0.007)	-0.073*** (0.008)
Hard sciences		-0.008 (0.015)			-0.020 (0.020)	
Social sciences		-0.035** (0.015)			-0.063*** (0.019)	
Humanities		-0.048*** (0.012)			-0.074*** (0.018)	
Other subject		-0.094*** (0.013)			-0.143*** (0.020)	
R ²	0.005	0.029	0.032	0.006	0.029	0.033
Observations	13,705	13,705	13,705	13,705	13,705	13,705
Control mean	0.127	0.127	0.127	0.176	0.176	0.176
Subject controls			✓			✓
Region fixed effects		✓	✓		✓	✓

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. This table examines whether support for the opposition is conditional on both Olimpiada success and time since graduation. Subject controls are indicators for each subject contest that a contestant participated in. Region fixed effects capture where contestants' schools were located. Standard errors are clustered on region.

Students who could earn higher salaries (as imputed by their choice of major and university) are more likely to express support for the Russian opposition. Stated differently, the course of study does matter for political outcomes, but mainly through the employment opportunities that students are able to achieve post-graduation. In Appendix Table A15, we also show that students from the hard sciences tend to earn higher salaries than those in other fields. Specific concentrations completed at top universities that lead to more lucrative careers also put graduates in a more independent position to take pro-opposition stances. Of course, we cannot establish that these higher earnings accrue only to private sector workers, as some government agencies may offer competitive salaries. But the wage penalty in Russia's public sector is not only large, but steepest for highly-skilled workers. As of 2015, university-educated private sector workers earned roughly 32% more than their counterparts working for the state (Gimpelson, 2019). Attending an elite university helps unlock real wage gains, which translates into more autonomy for political activism.

6 Conclusion

Autocrats face tough choices when it comes to educating their populations. Rewarding top young performers with admission to top universities can backfire politically down the line. The more students are exposed to foreign pedagogical methods and content, the more critical they may become of the regime. The best universities also provide the quickest ladder into professional careers that offer more economic autonomy to engage in political activism. In the case of Russia, by creating pathways for Russia's best and brightest to study at home, Putin's regime may have also encouraged resistance from within.

We see the findings here as generalizable to the many other settings where regimes are investing in new ways of delivering world-class higher education. Governments in

TABLE 8: LABOR MARKET EARNINGS AND OPPOSITION SUPPORT

	FBK support (any)		FBK support (count)	
	(1)	(2)	(3)	(4)
University-major average salary (log, raw)	0.059 (0.039)		0.128** (0.059)	
University-major average salary (log, normalized)		0.096** (0.048)		0.197** (0.077)
Mean EGE score	0.001 (0.002)	0.001 (0.002)	0.001 (0.003)	0.000 (0.003)
University city population (log)	-0.006 (0.009)	-0.004 (0.009)	-0.004 (0.015)	-0.001 (0.015)
Total students (log)	-0.009 (0.015)	-0.009 (0.014)	-0.010 (0.027)	-0.010 (0.024)
Number of contests (log)	0.050 (0.067)	0.050 (0.067)	0.063 (0.102)	0.064 (0.102)
Age (log)	0.088 (0.139)	0.094 (0.136)	0.001 (0.210)	0.013 (0.206)
Female	-0.049*** (0.016)	-0.047*** (0.016)	-0.072*** (0.024)	-0.068*** (0.023)
R ²	0.099	0.100	0.097	0.098
Observations	1,277	1,277	1,277	1,277
Control mean	0.150	0.150	0.205	0.205
Subject controls	✓	✓	✓	✓
Year controls	✓	✓	✓	✓
Region fixed effects	✓	✓	✓	✓

Note: *** p<0.01, ** p<0.05, * p<0.1. This table examines support for the opposition (both binary and count) based on the average salary a participant might be expected to make, based off of official government surveys. Salaries show the weighted mean for contestants based on the university they attended and the "meta" subject they competed in at the Olimpiada (hard sciences, social sciences, humanities or other). Only contestants for whom university information was available are included. Standard errors are clustered on university.

countries as diverse as Kazakhstan, Singapore, and Vietnam are all attempting to create globally competitive, and highly selective, universities at home (Sabzalieva, 2017; George, Chong, and Ang, 2022). These investments carry significant political risks, though the magnitude likely depends on how both internationally integrated these universities are as well as the extent to which their graduates can find credible work in the private sector. In Singapore, top graduates feed primarily into state corporations and the bureaucracy, whereas countries such as Russia and Vietnam have more robust private sectors that compete for top talent.

Our paper may also help explain the burgeoning crackdown and closing off of top universities in autocracies around the world. The recent emphasis on creating global branch campuses, rather than just simply sending students abroad, reflects authoritarian regimes' preoccupation with retaining control over politically sensitive content and shaping student culture to fit regime objectives. However, where authoritarian regimes can closely monitor university life and constrain the influence of foreign ideas, the opposition-generating effects we document may be substantially attenuated or even reversed. China, for example, represents an important limiting case. Perry (2020) argues that Chinese universities can generate "educated acquiescence" by corralling student and faculty behavior. Yet our results also show that as long as high-quality education generates dividends in the labor market, graduates may gravitate towards more politically independent positions.

References

- Agarwal, Ruchir, Patrick Gaule, and Yuyan Jiang. 2024. "Finding Young Einsteins: Olympiads and STEM Talent Discovery."
- Al-Shobakky, Waleed. 2018. "The University the King Built." *The New Atlantis* (54): 51–65.
- Almond, Gabriel Abraham, and Sidney Verba. 1963. "The civic culture: Political attitudes and democracy in five nations."
- Andersson, Roland, John M Quigley, and Mats Wilhelmsson. 2009. "Urbanization, productivity, and innovation: Evidence from investment in higher education." *Journal of Urban Economics* 66 (1): 2–15.
- Ansell, Ben W., and David J. Samuels. 2014. *Inequality and Democratization: An Elite-Competition Approach*. Cambridge University Press.
- Apfeld, Brendan, Emanuel Coman, John Gerring, and Stephen Jessee. 2023. "Higher education and cultural liberalism: Regression discontinuity evidence from romania." *The Journal of Politics* 85 (1): 34–48.
- Behar, Alberto, and Junghwan Mok. 2015. "Does public employment reduce unemployment?" *Topics in Middle Eastern and North African Economies* 17.
- Breznitz, Dan, and Michael Murphree. 2011. *Run of the red queen: Government, innovation, globalization, and economic growth in China*. Yale University Press.
- Burgess, Simon. 2016. "Human capital and education: The state of the art in the economics of education."
- Calonico, Sebastian, Matias D Cattaneo, and Rocio Titiunik. 2014. "Robust Nonparametric Confidence Intervals for Regression-discontinuity Designs." *Econometrica* 82 (6): 2295–2326.

- Calonico, Sebastian, Matias D Cattaneo, and Rocio Titiunik. 2015. "Optimal data-driven regression discontinuity plots." *Journal of the American Statistical Association* 110 (512): 1753–1769.
- Cantoni, Davide, Yuyu Chen, David Y Yang, Noam Yuchtman, and Y Jane Zhang. 2017. "Curriculum and ideology." *Journal of political economy* 125 (2): 338–392.
- Cassani, Andrea. 2017. "Social services to claim legitimacy: comparing autocracies' performance." *Contemporary Politics* 23 (3): 348–368.
- Cattaneo, Matias D, Michael Jansson, and Xinwei Ma. 2024. "Local regression distribution estimators." *Journal of econometrics* 240 (2): 105074.
- Chin, Mark J, Alberto Ortega, Matthew Patrick Shaw, and Daniel Yoo. 2025. "Politics of the Professoriate: Longitudinal Evidence from a State Public University System's Universe of Faculty. EdWorkingPaper No. 25-1235." *Annenberg Institute for School Reform at Brown University* .
- Cho, Joan E. 2024. *Seeds of Mobilization: The Authoritarian Roots of South Korea's Democracy*. University of Michigan Press.
- Croke, Kevin, Guy Grossman, Horacio A Larreguy, and John Marshall. 2016. "Deliberate disengagement: How education can decrease political participation in electoral authoritarian regimes." *American Political Science Review* 110 (3): 579–600.
- Dahlum, Sirianne, and Tore Wig. 2021. "Chaos on campus: Universities and mass political protest." *Comparative Political Studies* 54 (1): 3–32.
- Darden, Keith, and Anna Grzymala-Busse. 2006. "The great divide: Literacy, nationalism, and the communist collapse." *World Politics* 59 (1): 83–115.
- Dewey, John. 1916. *Democracy and education*. Macmillan Publishing.

- Dollbaum, Jan Matti, Morvan Lallouet, and Ben Noble. 2021. *Navalny: Putin's nemesis, Russia's future?* Oxford University Press.
- Frye, Timothy, Ora John Reuter, and David Szakonyi. 2025. *Workplace Politics: How Politicians and Employers Subvert Elections*. Oxford University Press.
- Frye, Timothy, Scott Gehlbach, Kyle L Marquardt, and Ora John Reuter. 2017. "Is Putin's popularity real?" *Post-soviet affairs* 33 (1): 1–15.
- Fryer, Tom. 2023. "Do the political attitudes of students change during their time in higher education?" *Higher Education* 86 (3): 563–590.
- George, Cherian, JI Chong, and Shannon Ang. 2022. "The state of academic freedom in Singapore's world-beating universities." *New Threats to Academic Freedom in Asia* pp. 69–100.
- Gimpelson, Vladimir. 2019. "The labor market in Russia, 2000-2017." *IZA World of Labor* .
- Glaeser, Edward L, Giacomo AM Ponzetto, and Andrei Shleifer. 2007. "Why does democracy need education?" *Journal of economic growth* 12: 77–99.
- Greene, Samuel A. 2020. *Moscow in movement: power and opposition in Putin's Russia*. Stanford University Press.
- Greene, Samuel A, and Graeme B Robertson. 2019. *Putin v. the People*. Yale University Press.
- Greene, Samuel A, and Graeme B Robertson. 2020. "The Construction of Novorossiia." *Ruling by Other Means: State-Mobilized Movements* p. 193.
- Guba, Katerina S, and Ruslan K Kuchakov. 2025. "Monitoring of Performance of Russian Higher Education Organizations: Panel Data, 2015-2023." *Voprosy obrazovaniya/Educational Studies Moscow* (1).

- Gulov, Artem Petrovich. 2023. "Mezhdunarodnye olimpiady v Rossii i za rubezhom kak ploshchadka akademicheskogo obshcheniya molodezhi." *The Humanities and Education* 1 (53): 33–39.
- Hanson, Margaret, and Sarah Wilson Sokhey. 2021. "Higher education as an authoritarian tool for regime survival: evidence from Kazakhstan and around the world." *Problems of Post-Communism* 68 (3): 231–246.
- Hanushek, Eric A, and Ludger Woessmann. 2010. "Education and economic growth." *Economics of education* 60 (67): 1.
- Huang, Mu-Hsuan. 2012. "Opening the black box of QS World University Rankings." *Research Evaluation* 21 (1): 71–78.
- Kao, Jay C. 2021. "Family matters: education and the (conditional) effect of state indoctrination in China." *Public Opinion Quarterly* 85 (1): 54–78.
- Kotchegura, Alexander, Mario De Martino, and Ali Farazmand. 2022. "Enhancing competitiveness of the Russian higher education: The 5-100 University Excellence Program through the lens of efficiency and performance." *International Journal of Public Administration* 45 (2): 185–197.
- Leventoğlu, Bahar. 2005. "Social mobility and political transitions." *Journal of Theoretical Politics* 17 (4): 465–496.
- Lipset, Seymour Martin. 1959. "Some social requisites of democracy: Economic development and political legitimacy." *American political science review* 53 (1): 69–105.
- Liu, Hanzhang. 2023. "Meritocracy as Authoritarian Co-Optation: Political Selection and Upward Mobility in China." *American Political Science Review* pp. 1–17.
- Lysova, Tatiana. 2025. "Paradoxes of Authoritarian Mundane Surveillance: The Use of

- Yandex. Eda Data Leak to Investigate the Powerful in Russia." *Surveillance & Society* 23 (3): 321–335.
- McMann, Kelly M. 2006. *Economic autonomy and democracy: Hybrid regimes in Russia and Kyrgyzstan*. Cambridge University Press.
- Mühleck, Kai, and Andreas Hadjar. 2023. "Higher education and active citizenship in five European countries: How institutions, fields of study and types of degree shape the political participation of graduates." *Research in Comparative and International Education* 18 (1): 32–54.
- Neundorf, Anja, Eugenia Nazrullaeva, Ksenia Northmore-Ball, Katerina Tertytchnaya, and Wooseok Kim. 2023. "Varieties of Indoctrination (V-Indoc): Introducing a Global Dataset on the Politicization of Education and the Media." *V-Dem Working Paper* 136.
- Paglayan, Agustina S. 2021. "The non-democratic roots of mass education: evidence from 200 years." *American Political Science Review* 115 (1): 179–198.
- Paglayan, Agustina S. 2022. "Education or indoctrination? The violent origins of public school systems in an era of state-building." *American Political Science Review* 116 (4): 1242–1257.
- Perry, Elizabeth J. 2020. "Educated acquiescence: How academia sustains authoritarianism in China." *Theory and Society* 49 (1): 1–22.
- Peters, Michael A, and Tina Besley. 2019. "China's double first-class university strategy." In *The Chinese Dream: Educating the Future*. Routledge pp. 63–69.
- Ricart-Huguet, Joan, and Elizabeth Levy Paluck. 2023. "When the sorting hat sorts randomly: a natural experiment on culture." *Quarterly Journal of Political Science* 18 (1): 39–73.

- Rosenfeld, Bryn. 2021. "State dependency and the limits of middle class support for democracy." *Comparative Political Studies* 54 (3-4): 411–444.
- Rosenfeld, Bryn. 2023. "Survey research in Russia: in the shadow of war." *Post-Soviet Affairs* 39 (1-2): 38–48.
- Rostrud. 2024. "Trudoustroystvo i zarplaty vypusknikov po obrazovatel'nykh organizatsiyam.". Obrabotka: "Esli byt' tochnym".
- Sabzalieva, Emma. 2017. "The policy challenges of creating a world-class university outside the global 'core'." *European Journal of Higher Education* 7 (4): 424–439.
- Surridge, Paula. 2016. "Education and liberalism: pursuing the link." *Oxford Review of Education* 42 (2): 146–164.
- Tokbolat, Seiilkhan. 2023. "Higher education expansion in Kazakhstan and regime stability." *Power and Education* 15 (2): 227–242.
- Truex, Rory, and Daniel L Tavana. 2019. "Implicit attitudes toward an authoritarian regime." *The Journal of Politics* 81 (3): 1014–1027.
- Weidmann, Nils B, and Mina Rulis. 2025. "Activist disciplines: Universities in autocracies and political protest." *Research & Politics* 12 (2): 20531680251335647.
- Woessner, Matthew, and April Kelly-Woessner. 2020. "Why college students drift left: The stability of political identity and relative malleability of issue positions among college students." *PS: Political Science & Politics* 53 (4): 657–664.

7 Appendix

7.1 Olimpiada Data Construction

Our main dataset is first built off of raw contestant and score data from the main Olimpiada competition. We first built a list of the 24 different subjects offered in the contest. At the conclusion of the national stage each year, each subject competition’s judges committee published a separate document that listed the name, region, outcome (pobeditel, prizier, or participants) and sometimes the numerical score for all contestants.³¹ Our first challenge was to locate this document for every single subject-year competition on public websites such as Olimpiada.ru, Vserosolimp.ru, as well as thematic Olimpiada groups hosted on Russia’s main social network VKontakte.³²

As Appendix Figure A1 shows, we were successful for all cases from 2012 (when the documents first began being posted online in bulk) to 2018 (the last year we could analyze under our IRB protocol). We also see in this Figure that many documents did not include the raw numerical score, especially in the early years, though we always observe the outcome of the competition. Once these contest lists were assembled, we either digitized scanned PDFs using ABBYY FineReader or performed manual data entry.³³ In addition, 11.8% of the entries only provide the initials for the contestant’s first and middle names (patronymic), in addition to the last name. To fix this, we impute the full names for 2,327 individuals (6% of the total) that participated in contests over multiple years within a subject and listed the same region each time.

Appendix Table A4 details all the sources used in the paper, as well as our IRB approval for analyzing them. Appendix Figure A1 illustrates our final coverage of the Olimpiada contestant data.

³¹A small number of entries (406) did not include first and middle name and are excluded from the analysis.

³²The Wayback Machine proved especially useful in locating earlier documents.

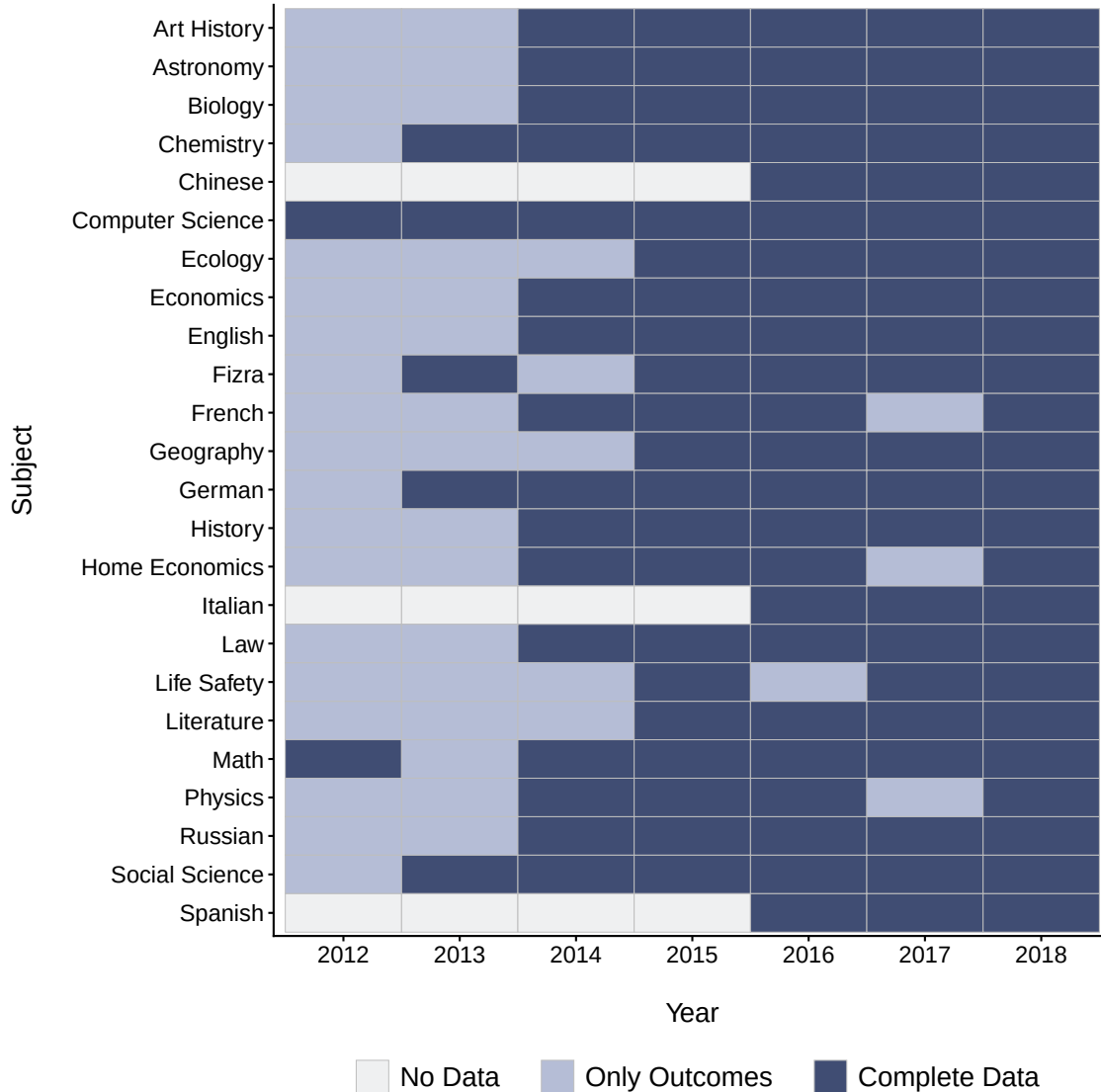
³³Some of the contests lists already came in an Excel format.

TABLE A1: NUMBER OF CONTESTANTS BY SUBJECT

Subject	Contestants	Unique Persons	Winners
Hard Sciences			
Astronomy	1,200	748	459
Biology	1,674	1,108	653
Chemistry	1,623	1,024	675
IT	1,678	1,003	705
Math	2,326	1,421	908
Physics	1,839	973	757
Social Sciences			
Ecology	1,630	1,097	617
Economics	1,643	1,335	699
Geography	1,468	988	531
Law	1,747	1,112	677
Social Science	1,690	1,329	646
Humanities			
Art History	1,196	875	477
Chinese	113	95	60
English	1,587	1,311	574
French	1,289	1,006	552
German	1,431	1,067	550
History	1,742	1,280	670
Italian	96	77	43
Literature	1,730	1,249	669
Russian	1,631	1,166	627
Spanish	189	156	84
Other			
Home Economics	1,402	821	536
Life Safety	1,160	786	489
Physical Education	1,614	1,186	590

This table shows the number of contestant entries, unique person, and winners (prizeri and pobediteli) per subject in the Olimpiada from 2012-2018. Subjects are grouped according to their "meta" category.

FIGURE A1: DATA COVERAGE



Note: This figure charts the subjects and years for which we located contest documents. Complete data indicates that we were able to find the raw exam scores in addition to the outcome data (winners and losers). Only outcomes indicates that raw scores were missing, but there was outcome data for each contestant. No data indicates we could not find any contest document. Chinese, Italian and Spanish were all introduced in 2016.

7.2 Validating Contestant Birthdate Data

The full names observed in the Olimpiada data were not sufficient to merge these records with external data sources, including the measure of opposition support. To do so, we

imputed birth dates using the method described in the main text that exploited the “leak archive”. We received permission from our university’s Institutional Review Board to analyze this set of leaks. All are in the public domain and have been used by scholars and investigative journalists to analyze contemporary social science questions (see [Lysova \(2025\)](#) for an overview).

To verify that this algorithm returned accurate data, we draw on a fortuitous appearance of full birthdates in the contest document for a single subject-year: the national Art History contest of 2019. In that spreadsheet, this information was available for all 177 contestants allowing us to conduct a validation exercise to see how well our enrichment exercise worked.

First, we merged the 177 contestant names with the mass of over 1 billion rows from the leaked datasets described in the main text. We conducted the merge using all three names (last, first, and patronymic), allowing for common spelling variations in patronymics. Of the 177 contestants, we were able to locate leaked records for 164. We then removed all matches where the birthdate from the leaked dataset was more than one year before or after our imputed birth year based on the class indicated in the contest document and the year the contest was held. Next, we counted the number of unique birthdates associated with each full name of the contestant. Of the 164 contestants for which birthdates were identified, 113 (64% of 177) had only one associated with them. We keep only this value, labelling the “enriched birthdate”. Finally, we compared this “enriched birthdate” to the actual birthdate as disclosed in the contest document. This approach returned the correct value in 108 out of the 113 cases, or 96%. In four of the five incorrect cases, either the year, month, or day was off by a single digit, suggesting data entry mistakes in the leaked dataset.

This high accuracy rate gives us confidence that the algorithm we adopted will recover similar results on the full dataset, that is for the roughly two-thirds of full names that are uniquely matched to a single birthdate in the leak archive. Importantly the contestants for

whom we do recover birthdates (our “analysis” sample) are essentially identical to the full sample for which we have data. Table A2 compares means across all of the covariates we have between the two samples. We see that the contestants with birthdates are essentially identical to the full sample.

TABLE A2: SUMMARY STATISTICS

Variable	Sample		
	Full	Analysis	University
Age (mean)	17.4	17.4	17.4
Female (%)	50.6	50.2	55.2
Num. contests (mean)	1.5	1.6	1.8
Subject: Social sciences (%)	27.1	29.3	30.5
Subject: Hard sciences (%)	26.6	27.0	31.3
Subject: Humanities (%)	37.4	36.0	36.3
Prizer (%)	37.0	38.0	45.0
Pobeditel (%)	9.2	9.6	10.7
Preferential college admission (%)	41.7	42.5	49.0
FBK support (binary, %)		12.7	14.6
FBK support (count, mean)		0.2	0.2
University rank (mean)			14.6
Top 5 university (%)			60.9
Moscow-based university (%)			68.6
St. Petersburg university (%)			11.8
Number of observations	20,755	13,705	1,452

Note: This table provides summary statistics for the three samples analyzed in the paper. The full sample includes all contestants for which a full name was available. The analysis sample only includes contestants for whom we were able to recover a birthdate using the “leak archive”. The university sample only includes contestants for whom we were able to recover a birthdate using the “leak archive” and for whom we were able to identify the university they attended.

In Table A3, we go one step further and examine the correlates of birthdate availability using this algorithm. The only significant predictor is age, suggesting that the “leak” archive has better coverage for contestants in the earlier years in our Olimpiada sample. Other than that, there are no other strong correlations observed, and importantly not with our main predictor (winning preferred college admission).

TABLE A3: BIRTHDATE COVERAGE

	Has birth date		
	(1)	(2)	(3)
Preferential college admission	-0.001 (0.011)	0.000 (0.010)	0.000 (0.009)
Number of contests	0.027*** (0.005)	0.000 (0.006)	-0.002 (0.015)
Age (log)		0.427*** (0.072)	0.439*** (0.077)
Female		0.003 (0.006)	0.002 (0.006)
Hard sciences		-0.020* (0.011)	
Social sciences		-0.002 (0.010)	
Humanities		-0.034** (0.014)	
R ²	0.003	0.027	0.031
Observations	20,366	19,930	19,930
Control mean	0.677	0.677	0.677
Subject controls			✓
Year controls		✓	✓
Region fixed effects		✓	✓

Note: *** p<0.01, ** p<0.05, * p<0.1. This table examines whether a birthdate was located for an individual Olimpiada contestant. Only contestants where a full name was given on contest documents (instead of just initials). Subject controls are indicators for each subject contest that a contestant participated in. Year controls are indicators for each year where a contestant participated in the Olimpiada. Region fixed effects capture where contestants' schools were located. Standard errors are clustered on region.

7.3 Data Bibliography

Table [A4](#) describes the various data sources used in the paper. Our use of these leaked data may raise some ethical questions. Our IRB approved the protocol as “exempt” based on the fact that the FBK leaks and the leak archive were both obtained from public sources. We did not solicit, purchase, or share this data. We also could not seek consent from the participants because doing so would have been impossible at scale and would itself have created risk for people still living in Russia; the new information our research creates. No individual is identified in the paper, and all results are reported at the group-level. The replication archive will contain de-identified data with hashed identifiers and no names, birthdates, or contact information.

TABLE A4: DATA BIBLIOGRAPHY

Dataset	Sources
Olimpiada contest results	Olimpiada.ru (and Wayback Machine); Vserosolimp.ru; VKontakte.ru
Leak archive	SaveRuData (https://saverudata.net/), xss.is (https://xss.is/), and Telegram channels TheDataLeak and MIXXX
Support for Navalny's Anti-Corruption Foundation (FBK)	Leaked Navalny protest database (emails); Leaked FBK donation database (names, birth-dates, contact, etc.); Leaked Smart Voting platform sign-ups (emails); Leaked FBK mobile application (names, emails, phone numbers)
Olimpiada participants' university attendance	VKontakte.ru; Profi.ru (online tutoring service)
University characteristics	Russian Ministry of Education (accessed through «To Be Precise», https://tochno.st/datasets/performance)
University rankings	RAEX ; Forbes.ru
University city population	Rosstat
Student activism	DOXA.ru
Post-graduation salary data	Employment and salaries of graduates by educational organizations: «To Be Precise», https://tochno.st/graduates_university

7.4 Robustness Checks: Main Results

TABLE A5: STUDENT-LEVEL RESULTS, SINGLE SUBJECT

	FBK support (any)			FBK support (count)		
	(1)	(2)	(3)	(4)	(5)	(6)
Preferential college admission	0.029*** (0.008)	0.022*** (0.008)	0.023*** (0.008)	0.050*** (0.011)	0.041*** (0.010)	0.043*** (0.011)
Number of contests (log)	0.009 (0.009)	0.061 (0.051)	0.055 (0.049)	0.012 (0.013)	0.013 (0.078)	0.003 (0.075)
Age (log)		0.107** (0.049)	0.115** (0.051)		0.136* (0.073)	0.149** (0.072)
Female		-0.043*** (0.005)	-0.040*** (0.006)		-0.069*** (0.009)	-0.063*** (0.009)
Social sciences		-0.035*** (0.011)			-0.052*** (0.016)	
Humanities		-0.047*** (0.011)			-0.062*** (0.014)	
Other subject		-0.091*** (0.012)			-0.128*** (0.016)	
R ²	0.002	0.032	0.035	0.003	0.030	0.035
Observations	12,125	12,125	12,125	12,125	12,125	12,125
Control mean	0.112	0.112	0.112	0.149	0.149	0.149
Subject controls			✓			✓
Year controls		✓	✓		✓	✓
Region fixed effects		✓	✓		✓	✓

Note: *** p<0.01, ** p<0.05, * p<0.1. This table examines support for Alexey Navalny's Anti-Corruption Foundation (FBK) using both a binary indicator and a count variable. All analysis is done at the individual-level. Subject and year controls are a set of indicators for each student denoting the types of Olimpiada participation. Region fixed effects indicate the place where students attended high school. The sample is subset to only students who participated in Olimpiada competitions in a single subject. All models cluster errors at the region level.

TABLE A6: STUDENT-LEVEL RESULTS: VK OPPOSITION MEASURE

	Opposition Group on VKontakte		
	(1)	(2)	(3)
Preferential college admission	0.041** (0.016)	0.024* (0.013)	0.024* (0.013)
Number of contests (log)	-0.014 (0.013)	-0.012 (0.031)	0.002 (0.043)
Age (log)		-0.043 (0.127)	-0.033 (0.118)
Female		-0.030*** (0.010)	-0.029** (0.011)
Competition: Hard sciences		-0.072*** (0.013)	
Competition: Other		-0.093*** (0.012)	
Competition: Social sciences		-0.013 (0.012)	
R ²	0.004	0.049	0.061
Observations	2,898	2,898	2,898
Control mean	0.073	0.073	0.073
Subject controls			✓
Year controls		✓	✓
Region fixed effects		✓	✓

Note: *** p<0.01, ** p<0.05, * p<0.1. This table examines support for the nonsystemic opposition using a binary indicator for whether a contestant was a member of any of nine groups affiliated with the nonsystemic opposition as of June 2024. Only contestants for which a VKontakte profile was located are included in the analysis. All analysis is done at the individual-level. Subject and year controls are a set of indicators for each student denoting the types of Olimpiada participation. Region fixed effects indicate the place where students attended high school. All models cluster errors at the region level.

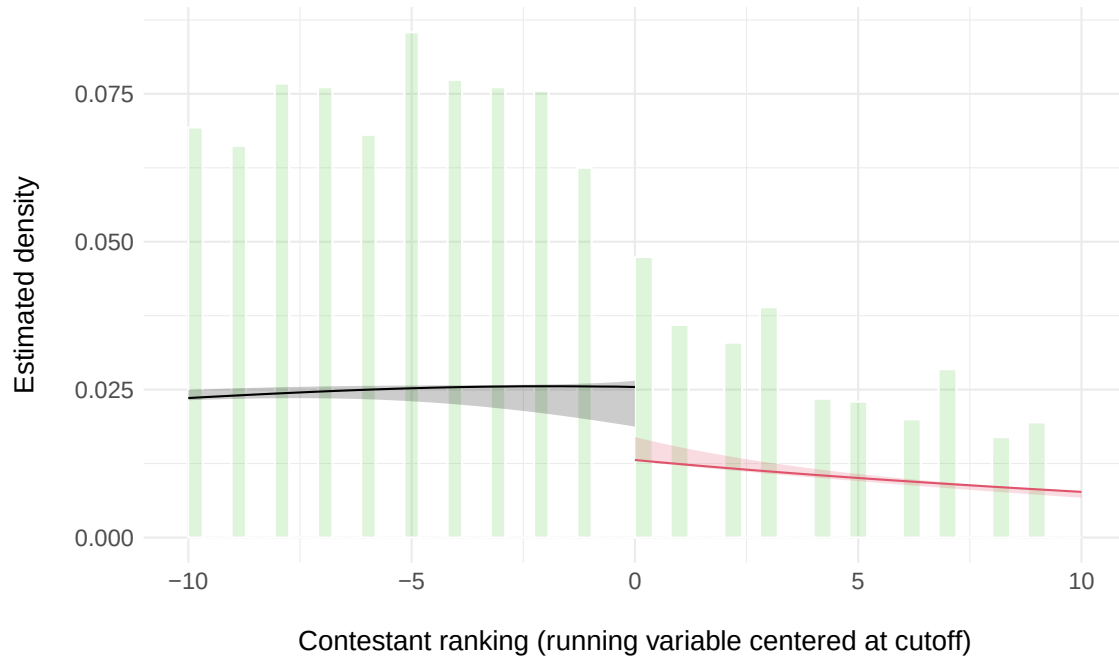
TABLE A7: ADMISSION PREFERENCES AND OPPOSITION ACTIVITY: UNIVERSITY SAMPLE

	FBK support (any)			FBK support (count)		
	(1)	(2)	(3)	(4)	(5)	(6)
Preferential college admission	0.065*** (0.022)	0.067*** (0.021)	0.059*** (0.021)	0.098*** (0.037)	0.105*** (0.034)	0.094*** (0.035)
Number of contests (log)	-0.003 (0.018)	-0.025 (0.057)	0.048 (0.074)	-0.004 (0.025)	-0.029 (0.101)	0.064 (0.124)
Age (log)		0.126 (0.154)	0.092 (0.142)		0.010 (0.224)	0.009 (0.213)
Female		-0.056*** (0.017)	-0.054*** (0.019)		-0.079*** (0.022)	-0.085*** (0.026)
Hard sciences		0.034 (0.048)			0.049 (0.074)	
Social sciences		-0.019 (0.039)			0.000 (0.059)	
Humanities		0.007 (0.042)			0.026 (0.065)	
Other subject		-0.031 (0.042)			-0.035 (0.062)	
R ²	0.008	0.073	0.092	0.008	0.065	0.089
Observations	1,452	1,452	1,452	1,452	1,452	1,452
Control mean	0.115	0.115	0.115	0.151	0.151	0.151
Subject controls			✓			✓
Year controls		✓	✓		✓	✓
Region fixed effects		✓	✓		✓	✓

Note: *** p<0.01, ** p<0.05, * p<0.1. This table examines support for Alexey Navalny's Anti-Corruption Foundation (FBK) using both a binary indicator and a count variable. All analysis is done at the individual-level. We restrict the sample to only those students where university information was available. Subject and year controls are a set of indicators for each student denoting the types of Olimpiada participation. Region fixed effects indicate the place where students attended high school. All models cluster errors at the region level.

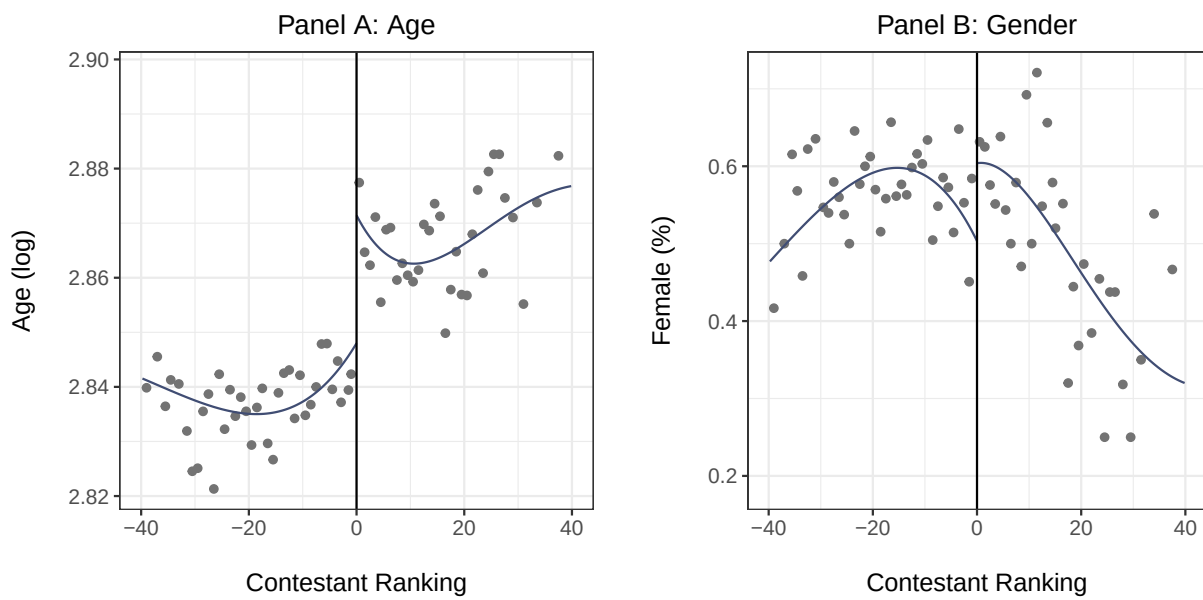
7.5 Robustness Checks: Regression Discontinuity

FIGURE A2: RD DENSITY TEST AT THE CUTOFF



Note: The figure shows the distribution of the running variable around the RD cutoff, normalized to zero. The solid lines report local polynomial density estimates on either side of the cutoff, with shaded confidence intervals. Density estimates are obtained using the procedure of [Cattaneo, Jansson, and Ma \(2024\)](#).

FIGURE A3: REGRESSION DISCONTINUITY RESULTS



Note: These regression discontinuity plots show the raw rankings scores using binned sample means using polynomial regression. The plots were created using the *rdplot* package described in [Calonico, Cattaneo, and Titiunik \(2015\)](#). Panel A shows age; Panel B shows a binary indicator for the contestant being female. The average bin size for both plots is roughly 1.4 on both sides of the threshold.

TABLE A8: REGRESSION DISCONTINUITY RESULTS: DONUT APPROACH

	FBK support (any)			FBK support (count)		
	(1)	(2)	(3)	(4)	(5)	(6)
Preferential college admission	0.150** (0.063)	0.113 (0.080)	0.192 (0.138)	0.216** (0.109)	0.198 (0.138)	0.306* (0.165)
Number of Observations	1379	1191	990	1519	1191	990
Demographic controls	✓	✓	✓	✓	✓	✓
Subject, class, year fixed effects	✓	✓	✓	✓	✓	✓
Score controls	✓	✓	✓	✓	✓	✓
Bandwidth	9.4	9.9	9.6	10.2	9.7	9.1
Donut Range Removal	[-1,1]	[-2,2]	[-3,3]	[-1,1]	[-2,2]	[-3,3]
Bandwidth Type	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. This table examines support for the Anti-Corruption Foundation (FBK) using a regression discontinuity setup, but also applying a "donut" approach that successively removes observations close to the threshold. Columns 1-3 examine the binary indicator of FBK support, while Columns 4-6 use the count of FBK support. The "Donut Range Removal" row indicates the range of observations excluded from the analysis: in the case of [-1,1], this means that any contestants that came within one spot of threshold (above or below) are excluded. [-2,2] indicates that contestants within two spots were excluded. The running variables capture the rank of contestants relative to the winning threshold for prizieri (where preferential college admission was granted). Positive ranks indicate contest winners and negative ranks indicate losers. Demographic controls include age (logged) and gender. Optimal bandwidths are estimated using the [Calonico, Cattaneo, and Titiunik \(2014\)](#) approach. All models show estimates with bias-correction and robust inference from the *rdrobust* package. Standard errors are clustered on the region level.

TABLE A9: FUZZY REGRESSION DISCONTINUITY RESULTS: FIRST CONTEST

	FBK support (any)			FBK support (count)		
	(1)	(2)	(3)	(4)	(5)	(6)
Preferential college admission (fuzzy RD)	-0.020 (0.137)	0.020 (0.029)	0.019 (0.017)	0.043 (0.196)	0.037 (0.044)	0.033 (0.026)
First stage: jump in P(ever won)	0.740 (0.035)	0.729 (0.019)	0.729 (0.013)	0.740 (0.035)	0.729 (0.019)	0.729 (0.014)
Number of Observations	1,890	6,750	5,535	1,890	6,592	5,289
Demographic controls		✓	✓		✓	✓
Subject, class, year fixed effects		✓	✓		✓	✓
Region fixed effects			✓			✓
Score controls			✓			✓
Bandwidth Type	Close	Optimal	Optimal	Close	Optimal	Optimal
Bandwidth	5	23.1	16.5	5	22.8	15.8

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. This table examines support for the Anti-Corruption Foundation (FBK) using a fuzzy regression discontinuity design. Columns 1-3 examine the binary indicator of FBK support, while Columns 4-6 use the count of FBK support. The sample only includes the first contest for each Olimpiada participants, whether they won or lost. Roughly one-fifth of contestants who lose their first contest go on to win in a later year. Therefore, we define treatment as ever winning preferential college admission, and estimate a fuzzy RD for contestants whose admission status was determined at the first-contest threshold. The first-stage row reports the jump in the probability of ever winning at the threshold. Optimal bandwidths are estimated using the [Calonico, Cattaneo, and Titiunik \(2014\)](#) approach; the close-bandwidth columns use a bandwidth of five ranks, the smallest for which the fuzzy bias-corrected estimator is defined. All models show estimates with bias-correction and robust inference from the *rdrobust* package. Standard errors are clustered on the region level.

7.6 Robustness Checks: Elite University Attendance

TABLE A10: UNIVERSITY QUALITY: INSTRUMENTAL VARIABLE

	FBK support (any)			FBK support (count)		
	(1)	(2)	(3)	(4)	(5)	(6)
University quality (Mean EGE Score)	0.019*** (0.007)	0.023** (0.010)	0.019** (0.009)	0.029** (0.011)	0.036** (0.015)	0.030** (0.014)
Number of contests (log)	-0.034 (0.028)	-0.122 (0.073)	0.002 (0.083)	-0.047 (0.040)	-0.186 (0.120)	-0.010 (0.132)
Age (log)		0.065 (0.205)	0.098 (0.177)		-0.092 (0.313)	0.008 (0.271)
Female		-0.013 (0.025)	-0.028 (0.023)		-0.012 (0.036)	-0.045 (0.031)
Hard sciences		-0.027 (0.058)			-0.044 (0.088)	
Social sciences		-0.035 (0.044)			-0.019 (0.067)	
Humanities		0.010 (0.046)			0.038 (0.073)	
Other subject		0.202* (0.103)			0.330** (0.162)	
F-test (1st stage), stat., Mean EGE score	26.9	21.9	24.5	26.9	21.9	24.5
Wu-Hausman, stat.	5.42	5.18	3.84	5.29	5.49	4.10
Observations	1,406	1,406	1,406	1,406	1,406	1,406
Control mean	0.146	0.146	0.146	0.198	0.198	0.198
Subject controls			✓			✓
Year controls		✓	✓		✓	✓
Region fixed effects		✓	✓		✓	✓

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. This table uses an instrumental variable approach to estimate the effect of university quality on support for the FBK. We instrument average university admission exam scores (EGE) with a binary indicator for whether the contestant won preferential college admission through the Olimpiada. The sample only includes contestants where information on university was available. Subject and year controls are a set of indicators for each student denoting the types of Olimpiada participation. Region fixed effects indicate the place where students attended high school. All models cluster errors at the region level.

TABLE A11: UNIVERSITY QUALITY AND OPPOSITION SUPPORT

	FBK support (any)				FBK support (count)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mean EGE score	0.003*** (0.001)				0.005*** (0.001)			
RAEX Ranking		-0.001 (0.000)				-0.001* (0.001)		
Forbes Ranking			-0.002*** (0.001)				-0.003*** (0.001)	
Top 5 University				0.055** (0.022)				0.087*** (0.032)
University city population (log)	-0.003 (0.008)	-0.006 (0.010)	0.000 (0.010)	-0.001 (0.008)	0.001 (0.009)	-0.010 (0.012)	0.006 (0.011)	0.005 (0.009)
Total academic staff (log)	-0.054*** (0.020)	-0.053*** (0.020)	-0.053** (0.020)	-0.057** (0.023)	-0.073** (0.032)	-0.076** (0.032)	-0.076** (0.032)	-0.078** (0.036)
Total students (log)	0.049** (0.021)	0.058** (0.024)	0.025 (0.023)	0.039* (0.021)	0.070** (0.032)	0.102*** (0.035)	0.037 (0.033)	0.055* (0.031)
Number of contests (log)	0.056 (0.070)	0.049 (0.073)	0.037 (0.073)	0.062 (0.071)	0.075 (0.119)	0.066 (0.123)	0.059 (0.126)	0.083 (0.121)
Age (log)	0.143 (0.149)	0.175 (0.127)	0.185 (0.144)	0.133 (0.149)	0.067 (0.224)	0.115 (0.225)	0.137 (0.247)	0.051 (0.222)
Female	-0.048** (0.021)	-0.038* (0.020)	-0.046** (0.020)	-0.051** (0.021)	-0.077*** (0.027)	-0.061** (0.028)	-0.078*** (0.028)	-0.081*** (0.027)
R ²	0.101	0.098	0.107	0.099	0.097	0.097	0.105	0.094
Observations	1,403	1,273	1,224	1,403	1,403	1,273	1,224	1,403
Control mean	0.146	0.146	0.146	0.146	0.198	0.198	0.198	0.198
Subject controls	✓	✓	✓	✓	✓	✓	✓	✓
Year controls	✓	✓	✓	✓	✓	✓	✓	✓
Region fixed effects	✓	✓	✓	✓	✓	✓	✓	✓

Note: *** p<0.01, ** p<0.05, * p<0.1. This table examines support for FBK based on varying measures of university quality. Subject controls are indicators for each subject contest that a contestant participated in. Year controls are indicators for each year where a contestant participated in the Olimpiada. Region fixed effects capture where contestants' schools were located. Standard errors are clustered on region.

7.7 Robustness Checks: University Experience

TABLE A12: OTHER MEASURES OF UNIVERSITY EXPERIENCE AND OPPOSITION SUPPORT

	FBK support (any)				
	(1)	(2)	(3)	(4)	(5)
Foreign professors (%)		0.016*** (0.005)			
Foreign undergraduate students (%)		0.000 (0.004)	0.000 (0.005)	-0.001 (0.004)	-0.002 (0.004)
Foreign graduate students (%)			-0.004 (0.003)		
Joint articles with foreign orgs (log)				0.013 (0.009)	
Scopus publications (log)					0.010 (0.014)
Mean EGE score	0.003** (0.001)	0.001 (0.001)	0.003*** (0.001)	0.003* (0.001)	0.003** (0.001)
Total academic staff (log)	-0.054** (0.022)	-0.033* (0.019)	-0.052** (0.020)	-0.071*** (0.026)	-0.057** (0.022)
Total students (log)	0.047* (0.026)	0.041* (0.022)	0.043* (0.024)	0.046* (0.025)	0.046* (0.025)
Number of contests (log)	0.056 (0.064)	0.054 (0.062)	0.053 (0.062)	0.057 (0.063)	0.058 (0.063)
Age (log)	0.143 (0.118)	0.153 (0.119)	0.142 (0.119)	0.178 (0.117)	0.146 (0.118)
Female	-0.047*** (0.014)	-0.045*** (0.014)	-0.046*** (0.014)	-0.045*** (0.014)	-0.046*** (0.014)
R ²	0.101	0.104	0.103	0.103	0.102
Observations	1,411	1,411	1,411	1,407	1,411
Control mean	0.146	0.146	0.146	0.146	0.146
Subject controls	✓	✓	✓	✓	✓
Year controls	✓	✓	✓	✓	✓
Region fixed effects	✓	✓	✓	✓	✓

Note: *** p<0.01, ** p<0.05, * p<0.1. This table examines whether how various university characteristics predict later support for the opposition. Subject controls are indicators for each subject contest that a contestant participated in. Year controls are indicators for each year where a contestant participated in the Olimpiada. Region fixed effects capture where contestants' schools were located. Standard errors are clustered on university.

TABLE A13: FOREIGN PROFESSORS AND OPPOSITION SUPPORT: INSTRUMENTAL VARIABLE

	FBK support (any)			FBK support (count)		
	(1)	(2)	(3)	(4)	(5)	(6)
Foreign professors (%)	0.127 (0.150)	0.129 (0.140)	0.108 (0.093)	0.189 (0.217)	0.201 (0.212)	0.169 (0.135)
Number of contests (log)	-0.023 (0.037)	-0.123 (0.087)	-0.030 (0.086)	-0.031 (0.051)	-0.187 (0.128)	-0.060 (0.122)
Age (log)		0.063 (0.191)	0.290* (0.173)		-0.096 (0.303)	0.308 (0.302)
Female		0.020 (0.056)	-0.010 (0.030)		0.038 (0.085)	-0.017 (0.040)
Hard sciences		0.057 (0.096)			0.086 (0.143)	
Social sciences		-0.077 (0.048)			-0.083 (0.079)	
Humanities		0.047 (0.059)			0.095 (0.082)	
Other subject		0.102 (0.120)			0.174 (0.171)	
F-test (1st stage), stat., Foreign professors (%)	12.9	11.5	15.5	12.9	11.5	15.5
Wu-Hausman, stat.	5.44	4.80	3.39	5.42	5.25	3.67
Observations	1,406	1,406	1,406	1,406	1,406	1,406
Control mean	0.146	0.146	0.146	0.198	0.198	0.198
Subject controls			✓			✓
Year controls		✓	✓		✓	✓
Region fixed effects		✓	✓		✓	✓

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. This table uses an instrumental variable approach to estimate the effect of having foreign professors on support for the FBK. We instrument the percentage of foreign professors with a binary indicator for whether the contestant won preferential college admission through the Olimpiada. The sample only includes contestants where information on university was available. Subject and year controls are a set of indicators for each student denoting the types of Olimpiada participation. Region fixed effects indicate the place where students attended high school. All models cluster errors at the region level.

TABLE A14: STUDENT-LEVEL RESULTS, BY SUBJECT

	FBK support (any)			FBK support (count)		
	(1)	(2)	(3)	(4)	(5)	(6)
Competition: Hard sciences	0.052*** (0.013)	0.040** (0.015)	0.047*** (0.015)	0.066*** (0.017)	0.043** (0.019)	0.057*** (0.019)
Competition: Other	-0.036*** (0.008)	-0.045*** (0.010)		-0.057*** (0.011)	-0.069*** (0.014)	
Competition: Social sciences	0.011 (0.008)	0.006 (0.009)		0.009 (0.012)	-0.003 (0.013)	
Preferential college admission × Competition: Hard sciences		0.060 (0.036)	0.046 (0.032)		0.120** (0.048)	0.096** (0.045)
Preferential college admission × Competition: Other		0.036* (0.020)			0.049 (0.031)	
Preferential college admission × Competition: Social sciences		0.021 (0.020)			0.044 (0.027)	
Birth year	-0.007* (0.004)	-0.005 (0.004)	-0.006 (0.004)	-0.009 (0.007)	-0.006 (0.007)	-0.006 (0.007)
Female	-0.042*** (0.006)	-0.041*** (0.006)	-0.039*** (0.006)	-0.068*** (0.009)	-0.066*** (0.009)	-0.062*** (0.010)
Preferential college admission		0.005 (0.014)	0.019* (0.010)		0.012 (0.018)	0.035** (0.015)
R ²	0.031	0.033	0.031	0.030	0.033	0.031
Observations	8,483	8,483	8,483	8,483	8,483	8,483
Control mean	0.108	0.108	0.108	0.144	0.144	0.144
Year controls	✓	✓	✓	✓	✓	✓
Region fixed effects	✓	✓	✓	✓	✓	✓

Note: *** p<0.01, ** p<0.05, * p<0.1. This table examines support for Alexey Navalny's Anti-Corruption Foundation (FBK) using both a binary indicator and a count variable. All analysis is done at the individual-level. Subject and year controls are a set of indicators for each student denoting the types of Olimpiada participation. Region fixed effects indicate the place where students attended high school. The columns include students who ever participated in subjects grouped under each category: Hard sciences (biology, chemistry, computer science, physics, astronomy, and math), social sciences (economics, geography, law, social science, and ecology, Humanities (art history, Chinese, English, French, German, history, Italian, literature, Russian, and Spanish), and Other (home economics, physical education, and life safety). All models cluster errors at the region level.

7.8 Robustness Checks: Post-Graduation Independence

TABLE A15: PREDICTING SALARY BY SUBJECT

	University-major average salary			
	Raw, log		Normalized, log	
	(1)	(2)	(3)	(4)
Competition: Hard sciences	0.557*** (0.046)	0.400*** (0.034)	0.530*** (0.038)	0.374*** (0.029)
Competition: Social sciences	0.285*** (0.061)		0.279*** (0.056)	
Competition: Other	0.272*** (0.053)		0.285*** (0.049)	
Mean EGE score	0.027*** (0.003)	0.026*** (0.003)	0.020*** (0.002)	0.020*** (0.002)
University city population (log)	0.052*** (0.017)	0.062*** (0.017)	0.021* (0.012)	0.031** (0.012)
Total students (log)	0.010 (0.035)	-0.020 (0.034)	0.001 (0.040)	-0.029 (0.038)
Number of contests (log)	0.043 (0.030)	-0.038 (0.038)	0.035 (0.022)	-0.045 (0.031)
Age (log)	-0.036 (0.103)	-0.094 (0.096)	-0.025 (0.083)	-0.081 (0.083)
Female	-0.061*** (0.023)	-0.112*** (0.024)	-0.057*** (0.020)	-0.108*** (0.019)
R ²	0.838	0.782	0.846	0.764
Observations	1,277	1,277	1,277	1,277
Control mean	11.991	11.991	11.666	11.666
Year controls	✓	✓	✓	✓
Region fixed effects	✓	✓	✓	✓

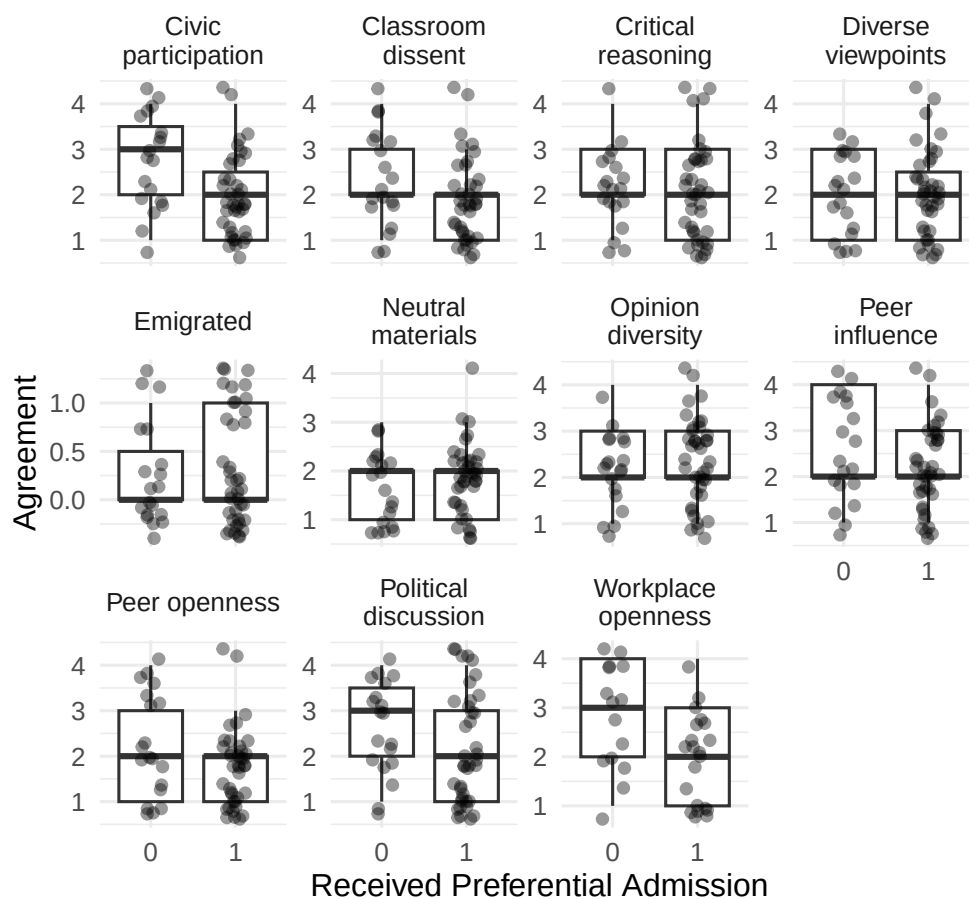
Note: *** p<0.01, ** p<0.05, * p<0.1. This table examines average salary (raw and normalized) at the university-subject level averaged from 2016-2020. The predictors are drawn from the Olimpiada subject for each contestant. Only participants where university information was available were included. Standard errors are clustered on university.

7.9 Survey: Implementation and Results

Using the Olimpiada participant emails in our sample, we fielded an online survey with SYNO International in May 2026. The survey was approved by the IRB (NCR245839). Our approach was quite straightforward: we provided SYNO with a total of 9,079 unique email addresses and a survey consisting of 20 questions, which they then sent out on our behalf. The survey began with a preamble to receive informed consent from respondents. The questions were very typical of public opinion research in Russia, no deception was involved, and did not touch on personally sensitive topics. SYNO International currently fields a weekly panel of Russian respondents with several similar questions (for example, about workforce participation) and regularly works with Western academics fielding original online surveys of Russia. All respondent answers were kept confidential.

Due to global sanctions on Russia's financial system imposed after February 2022 (including the suspension of Visa and Mastercard operations and the removal of major Russian banks from SWIFT) we were unable to monetarily incentivize survey respondents residing in Russia, as no compliant mechanism exists for transferring funds from our US-based research account to Russian financial institutions. We therefore fielded the survey without monetary incentives. Our response rate was quite low with a total of 63 responses from 9,079 initial emails sent.

FIGURE A4: EFFECT OF PREFERENTIAL ADMISSION ON UNIVERSITY EXPERIENCE.



Note: This plot shows on the y-axis the agreement with various statements about students' university, career, and life experiences (4 = Completely Disagree; 3 = Disagree; 2 = Agree; 1 = Completely Agree) and in the case of emigration question 1 signifies yes and 0 signifies no. The x-axis captures whether the respondents received preferential admission (1) or not (0).

7.10 Survey: Questionnaire

Module 1: University Experience

Education Content:

1. Which university did you attend? (open question)
2. What was your major in university? (open question)
3. How many classes in history/social science/economics did you take in university?
 - a. 0
 - b. 1-2
 - c. 3-4
 - d. 5+

Thinking about your university education in general, do you agree with the following statements? (Strongly Agree/ Agree/ Disagree/ Strongly Disagree on a 1-4 scale)

4. The class material presented a neutral perspective, without an obvious bias towards a certain point of view.
5. Readings and materials included competing or contrasting viewpoints.
6. Exams and assignments emphasized critical thinking and logic more than getting the “correct” answer.
7. Students felt comfortable disagreeing with instructors during class.
8. As best you can, can you estimate how many professors you took classes with that were either citizens of a country outside of Russia or had received their education abroad?
 - a. 0
 - b. 1-2
 - c. 3-4

d. 5+

Socialization:

Students often have very different social experiences while at university. Thinking about your overall time at university, do you agree with the following statements? (Strongly Agree/ Agree/ Disagree/ Strongly Disagree)

9. My university friends and I often discussed current political events outside of the classroom.
10. Students at my university were often involved in social or political issues they cared about (e.g. clubs, volunteering, attending events).
11. I was often exposed to opinions that differed from my own through interactions with other students.
12. Students felt comfortable expressing their political opinions to their peers.
13. Conversations with university friends influenced my views more than formal course-work.

Module 2: Career

Next, we'd like to learn a bit about your recent work experience. First, we'd like you to think back to where you were working right before the beginning of the special military operation in February 2022. In other words, we'd like to learn about your career during the fall of 2021.

14. Please look at the list. Read it carefully and tell us which answer best describes your main activity in fall 2021. Please select only one answer.
 - a. Employed
 - b. Student
 - c. Homemaker, caring for other family members, raising children
 - d. Temporarily not working for other reasons and were looking for a job

- e. Other (please specify)
- f. Difficult to answer
- g. Prefer not to answer

15. What type of enterprise or organization was your main place of work?

- a. Federal government-funded organization (including federal government bodies and institutions of education, science, healthcare, etc.)
- b. Regional or local (municipal) government-funded organization (including regional/municipal government bodies and institutions of education, science, healthcare, preschool education, etc.)
- c. Security services / law enforcement / military (police, prosecutor's office, Ministry of Justice services, armed forces, security agencies, border service, drug control service, etc.)
- d. State-owned or municipal enterprise
- e. Enterprise registered as a joint-stock company or limited liability company (e.g., JSC, CJSC, OJSC, LLC, etc.), excluding agricultural and forestry enterprises
- f. Enterprise based on a collective farm, state farm, or forestry enterprise
- g. Public, non-governmental, or non-profit organization (foundation, party, movement, trade union, religious organization, etc.)
- h. Individual / family business (registered as self-employed or sole proprietor)
- i. Providing individual services to private persons/organizations (based on informal agreements)
- j. Other (please specify):
- k. Difficult to answer
- l. Prefer not to answer

16. If you answered #e to the question above, was the company or organization you

worked for primarily...

- a. Russian-owned
- b. Foreign-owned
- c. Unsure

17. In which field/industry were you primarily working in?

- a. Information technology (IT, software, data, telecommunications)
- b. Education (schools, universities, training)
- c. Healthcare / medicine / pharmaceuticals
- d. Science / research
- e. Media / journalism / publishing
- f. Finance / banking / insurance
- g. Law / legal services
- h. Manufacturing / industry
- i. Energy / natural resources
- j. Construction / infrastructure
- k. Transportation / logistics
- l. Trade / retail / hospitality
- m. Agriculture
- n. Arts / culture / entertainment
- o. Social services
- p. Other (please specify)

18. How long did it take you to find work after university?

- a. 0 months (found immediately)
- b. 1-6 months
- c. 1 year +

19. At my current workplace, employees can freely express their political views.

- a. Strongly agree
- b. Agree
- c. Disagree
- d. Strongly disagree

20. Have you emigrated from Russia?

- a. Yes
- b. No