This is the accepted manuscript (AM) version of an article published in *Regional Studies*. The final published version is available at https://doi.org/10.1080/00343404.2026.2659800.

The citation for the final published version is as follows:
Pizzi, Elise, Alex Bezahler, and Haofeng Ma. 2026. "The Language Policies of Ethnic Autonomous Regions." *Regional Studies* 60(1): 2659800.

The Language Policies of Ethnic Autonomous Regions

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Abstract:

Official language recognition and language of education are often contentious in plural societies. Ethnic regional autonomy (ERA) enables local language policies. We examine official language status, language of instruction, and compulsory language learning in 135 ERAs in 31 countries. We find titular ethnic languages are more likely to have official status in regions with larger titular ethnic populations. Titular ethnic languages are more likely to be used for instruction in democracies; regional institutions do not influence language policy. Results highlight the importance of local demographics and country institutional context and have implications for language practices and preservation in plural societies.

Keywords:

Ethnic politics, regional autonomy, democracy, language politics, education

1. Introduction

States make inherently political decisions about the language of administration, education, public discourse, and governance (Brubaker 2013). Language can be an important part of identity, and language policies can thus be among the most salient issues for plural societies. One approach to quelling tensions over identity differences has been to devolve policy-making powers along territorial and identity lines. Ethnic territorial autonomies give national ethnic minorities policy control over a region, typically where they make up the majority or plurality (Borisova and Sulimov 2018). While language policy adoption has the potential to represent and reinforce identity differences, language policies in autonomous regions vary widely. Specifically, regions vary in their decision to recognize the language of titular minority groups as official, to require teaching the titular language, and to use the titular ethnic language for instruction. This article explains the factors associated with language policies across regions, expanding what we know about regional linguistic policymaking in ethnic autonomous territories.

How can we explain the differences in language policies of ethnic autonomous regions, both within and across countries? Through formal recognition and educational provisions, minority languages can be preserved and promoted for minority populations, fostering the inclusion of speakers of the titular minority language and further influencing the political economic development of countries and regions. To deepen our understanding of the patterns of language policies and the functions of autonomous regions, we compare language policies and analyze the roles of national democratic institutions, regional self-governing institutions, and regional demographic factors in shaping policy across 135 ethnic autonomous units in 31 countries. Using panel data (2001-2015) from the Ethnic Regional Autonomies Database (ERAD), we focus on regions where specific ethnic groups that speak a distinct language have self-governing powers.

Our results indicate that in regions where the titular ethnic group makes up a larger share of the population, the titular language is more likely to be officially recognized by the region. Additionally, regions in democratic countries are significantly more likely to adopt policies promoting educational instruction in the titular minority language. However, the degree of self-governance by the regional autonomy is found to be unrelated to policies related to the use of titular languages for official purposes or in educational settings. Thus, a country's institutions and regional demographics best explain patterns of language policy in autonomous regions.

This paper builds on existing research related to language politics and regional governance in plural societies by shifting the attention to autonomous regions, where national minority groups have more influence over the government and are more able to make decisions directly related to salient policies. There is wide variation in ethnic autonomous policies related to language, and our research offers insights into the factors that lead ethnic autonomous regions to adopt particular policies related to language promotion and preservation. Finally, this paper contributes to the literature on autonomous regions by exploring one of the most politically salient markers of ethnic difference and an important potential consequence of self-rule: language politics. For those interested in the preservation of language and the integration of linguistic minorities into wider polities through education policies, the variation we observe in policy adoption provides lessons about the opportunities for language training as well as the limits of autonomy.

2. Language and Policy in Plural Societies

Language is both a means of communication and an identity marker (Laitin 1977; Marschak 1965). As an identity marker, language ability serves as a critical marker of who is (and is not) a group member and is a key component of many definitions of ethnicity (Fishman 1989; Chandra 2006; Horowitz 1985). Indeed, a shared language unites "imagined communities" and is a building block of nationalism and national identity (Anderson 1987; Gellner 1983).

Research on ethnic identity often relies on linguistic repertoires to identify and measure differences between ethnic groups. Older but well-used datasets of ethnicity often relied on linguistic differences to distinguish ethnic groups (e.g., Ethnolinguistic Fractionalization Index). The coding of languages and the measurement of language heterogeneity are rife with problems (Laitin 2000). Languages are nuanced and evolving, word choice and pronunciation vary by region, and language practice evolves over time. To add to such complexities, people have multiple identities and can speak (and learn) multiple languages. Thus, the boundaries between language practices and identity groups are not always congruent (Laitin 1988; May 2003).

Language practice and policies can be highly political. Linguistic differences are more likely to spark within-state conflict than religious ones, as language differences are a salient cleavage for grievances because linguistic differences are pervasive in everyday life, politics, and in relation to authority (Bormann et al. 2017). Even where language policies do not cause conflict, different language groups may consider themselves part of different polities. Ukraine has been used as an example to illustrate the politics of language tensions: before the current war, regions speaking Ukrainian and Russian consistently voted for different political parties, while the parliament pushed for sole Ukrainian language recognition; Russia used the language minority population in Eastern Ukraine to encourage secession and ultimately the invasion of Ukraine (Smirnova and Iliev 2017).

In other cases, language policies have become the basis for independence movements in regions such as Basque Country and Quebec, advancing devolved powers for both. Basque Country presents an example of an identity motivated by language; Euskera language is unrelated to Spanish and is the basis for continued demands for autonomy (and even full independence at times) (Garaizar and Urresti 2020). In India, a major part of ethnically defined autonomy involves a tension between state and regional control over linguistic policy (Lacina 2020). While previous literature addresses specific cases of autonomy such as Catalonia (e.g., Woolard and Gahng 1990) or Quebec (e.g., Bourhis and Sioufi 2017), we aim to understand broader trends that explain language policies in ethnic autonomous regions.

2.1 Language Policy

Language policy can take the form of official state recognition or simply the promotion and prioritization of one language or set of languages over others. States can recognize a lingua franca or the language of one or more ethnic groups (dominant or minority) as the official language of the state (Laitin 2000). In some ways, identifying a common or standard language for use in education and administration is a form of rationalization by the bureaucratic state, something akin to the imposition of a common legal system or currency, as advocated by Max Weber (Laitin 2000). Some countries adopt an official language and promote its use, standardization, and official form (Stemper and King 2017). Other countries with no official

language have a *de facto* language of the government, without explicitly stating the language's status. Shared language – even as a second language learned through schools – can shape political support for the government, social trust, and economic development (Liu 2015; Liu and Pizzi 2018).

Language recognition by the state can shape a sense of inclusion or exclusion. Those who do not speak the language of the state can feel like second-class citizens (Gellner 1983). Access to state services and social mobility are also higher for those who speak the language of the central government (Laitin and Ramachandran 2016; Marquardt 2018). Furthermore, those who are fluent in the language of the central government are less likely to support separatism (Marquardt 2022). Language identity is often tied to political views, policy preferences, and political activity (Kulyk 2011). Where language is a part of identity, policies to protect and promote the use and practice of language are critically important for minority identity preservation. For countries promoting a shared national identity, shared language can be a critical building block. Yet, attempts to homogenize language use through policies that promote a unified language to build nationalism and unify the state can be akin to homogenizing identities (Cole and Harguindéguy 2014).

State language policies are shaped by the historical context in which they operate, leading to linguistic path dependencies that can help explain why language policies change or remain the same over time. The concept of a language regime "refers to language practices as well as conceptions of language and language use as projected through state policies and as acted upon by language users" (Cardinal and Sonntag 2015, 6). Essentially, state traditions guide language policies, and users act in response. The simplest example is a one-language regime, where a single language forms the basis of all language policies, determining the national language and language of education. In a multi-language regime, language recognition includes multiple languages and is thus more inclusive, but there are also transaction costs due to translation requirements (Liu 2015). Historic events help explain why a language regime emerges and why linguistic minority groups might challenge it. For example, in Peru indigenous language rights emerged in response to decentralization in the 2000s, which allowed for the emergence of language-based indigenous movements (Rousseau and Dargent 2019).

State policies that are more linguistically inclusive or accepting of multilingualism tend to reduce the likelihood of conflict over language policy (Brown 2003). For example, Taiwan's shift from promoting Mandarin as the language of use to a tolerant multilingual policy in the 1980s greatly reduced ethnolinguistic divisions and tension (Dupré 2014). Still, multilingualism does not reduce the political weight of language differences or language policies. In Belgium, language and identity have given rise to internal distinctions between Dutch speakers and French speakers, encouraging monolingualism in Dutch-majority Flanders and French-majority Walloon (Blommaert 2011). Linguistic identity divisions have also become intertwined with demographic and economic debates, making language a particularly salient aspect of identity divisions.

Official language choice can also be used to build support for governing parties and coalitions. Liu (2015) focuses on two dimensions to explain language policies: (1) indigeneity-lingua franca and (2) multilingualism-monolingualism. When a dominant linguistic group needs to build a political coalition, it may seek the support of another linguistic group in parliament, either by recognizing multiple languages in the case of Indigenous-multilingualism (resulting in power-sharing, i.e. Malaysia after 1971) or a lingua franca-multilingualism (power-neutralizing, i.e. Malaysia 1957-1971 or Indonesia in the monolingual case). Where a coalition is not needed,

the group in power controls the language regime, resulting in power concentration (i.e. in Thailand, standard Thai is indigenous and monolingualism is present).

2.2 Language in Education

The language of education is particularly important for governments to advance language planning goals and to institutionalize official language policy (Albaugh 2014; Fishman 1991). This also makes education one of the most contentious arenas for language policy (Liu 2015). A single standardized language can promote mutual communication among individuals from different language and dialect groups. Additionally, a shared language allows inter-group communication and streamlines access to government services. Still, according to a frequently cited United Nations Educational, Scientific and Cultural Organization (UNESCO) issue statement, among linguistic minority populations, "the best medium for teaching a child is his mother tongue" because of the benefits of language acquisition (cited in Sultana and Fang 2024). There are political and logistical issues related to the language of education. Instruction in minority languages – or multiple language options – requires more of a commitment in the form of teacher training and textbooks than instruction of a single national language (Liu 2017). For logistical and political reasons, linguistic and cultural minority populations are consistently underserved in their educational needs, making language education a salient issue (May 2013). In addition, instruction in a minority language means giving up instruction in the language of the state, which can be costly in terms of resources, integration, and other opportunities.

Several examples illustrate the implications of the choice of language for education for inclusivity and minority language access. In the case of Singapore, most of the population speaks English as either a mother tongue or as a second language thanks to the rigorous and widespread use of English in education (Dixon 2005). Through its Constitution, Singapore's language policy includes four official languages (English, Chinese, Malay, and Tamil) with bilingual education required in English along with a mandatory second language, the Mother Tongue Language, which is generally Chinese, Malay, or Tamil (Lee 2022). English language education was required to harmonize the diverse linguistic population while allowing ethnic groups to continue to promote their identified language (Lim et al. 2021).

State language policies related to education can also exacerbate subnational identity tensions. In 2020 some parents in China's autonomous region of Inner Mongolia protested the replacement of Mongolian language with Mandarin as the medium of instruction because they feared their children would lose their ability to speak their mother tongue (Wu 2020). In Myanmar, modest reforms from the state in the 2010s appeared to allow autonomous regions to have more choice in ethnic minority language education but gains were overshadowed by the continued "Burmanization of ethnic minorities" in practice, since control over education decisions remained centralized, limiting local input and leading to minority dissatisfaction with minority language preservation (Bertrand 2022, 26). While the teaching of ethnic minority languages became increasingly allowed throughout the 2010s, it has mostly been relegated to after-school hours and hindered by a lack of textbooks, teachers, and basic infrastructure, leaving Burmese (the official language) the dominant language in the education setting (Bertrand 2022). Singapore, China, and Myanmar show how contentious language education policymaking can be, especially for ethnic minority groups. These examples portray the range of policy options available in language education: in Singapore, the language policy allows for a secondary

language to appease minority groups; in China, language policy changes in favor of the state language led to increased tensions; in Myanmar, minor policy devolution was seen by linguistic minority groups as inadequate, encouraging continued demands.

Policies related to the language of education and instruction are contentious because they are so important for unity, integration, economic advancement, and identity. Mass education is a crucial part of national awareness and homogeneous identity construction (Smith 1989; Anderson 1987). Similarly, education in and of minority languages provides a powerful means of maintaining and transmitting language use across generations and thus continuing the practice of a key attribute of ethnic identity (Tollefson and Tsui 2018; Fishman and Fishman 2000). Language policies, especially those related to education, have a strong impact on the survival of indigenous languages, in particular (Hornberger 1998). Language policies include linguistic recognition through institutional documents like a country's constitution, as in the case of Brazil's 1988 Constitution, which recognizes indigenous languages and the right for those communities to teach such languages. Language preservation can also occur through legislation, as in the preservation of Native American language rights, which are found in the 1990/1992 Native American Languages Act. Nunavut is another example of preservation, motivated by the Nunavut indigenous population, who pushed for the Official Languages Act of 2008 to preserve Inuit through official language recognition alongside the settler languages of English and French (Timpson 2009).

Language policy thus complicates state and minority interests in areas including identity preservation and promotion, economic and social mobility, nationalism and unity. Here, we are interested in the language policies where identity claims and self-rule are already complicated by competing and overlapping interests among the state and minority groups: ethnic autonomous regions.

3. Institutions of Ethnic Regional Autonomy

3.1 Governance

Governance in plural societies is the focus of perpetual deliberation and debate. Institutional solutions in the form of ethnic autonomous regions are one way to address the challenges of governance in plural societies. Autonomy in its most simple form is defined as self-rule (Loughlin 2000). This simple definition belies the complexity of shared governance. Globally, autonomies vary in terms of the degree of control that local governments have and the areas of competency that they have responsibility over (Lapidoth 1997; Máiz and William 2014; Weller and Wolff 2005). The term autonomy in the academic literature predominantly includes self-rule, shared rule, or both. Self-rule involves a subnational government with legal authority over its own territory, although the region is nested within the state sovereignty (Hooghe et al. 2016). Shared-rule indicates that legal authority is shared between the subnational government and the central government. Autonomous regions can exist in states that are decentralized generally, but autonomy is more than decentralization. Autonomy is based on self-rule more than shared rule and the regional rule of autonomy is typically distinct in form and content from other regional units (Hooghe et al. 2016). Autonomous regions can exist in both federal systems (e.g., Ethiopia) and unitary systems (e.g., China) (McGarry 2007). The rise in autonomous regions somewhat coincided with, and has now eclipsed, the third wave of democracy. The largest

increase in autonomous regions are within Russia, Ethiopia, and Nigeria in the 1990s; these three countries account for the creation of 49 ethnic regional autonomies (Panov and Semenov 2018).

Ethnic territorial autonomy provides "special self-government for a territorially concentrated ethnic minority" (Barter 2018, 2). However, the proportion of ethnic minority population in the country and the region varies widely. The "titular" group refers to the group that serves as the ethnic basis for regional authority formation and may have special status in the region or be part of the official attributes of the region (Panov and Semenov 2018). Demands for autonomy can be made by ethnic minorities, indigenous populations, or other groups seeking to acquire more control over political decision-making and often arise following increases in ethnic consciousness (Lapidoth 1997). Autonomy allows ethnic communities the right to govern themselves to protect and promote their distinctive identity (Loughlin 2000). Ethnic autonomous regions such as Scotland, Catalonia, and Flanders vary widely in terms of policy decisions and territorial management, depending on ideology and relations with the central state (Colomb and Tomaney 2021). An increase in autonomy throughout the world over the last 50 years has spurred deeper interest among academics as researchers attempt to investigate which institutional factors matter for autonomous demands (e.g., Niessen 2022), what the tradeoffs of autonomy are for ethnic and indigenous communities (e.g., Carter 2022), and the extent to which the process of gaining autonomous status shapes outcomes (e.g., Barter and Wangge 2022).

For territorially concentrated ethnic minority groups, autonomy has some clear benefits. Local control through autonomous regions can allow for a more efficient dispersal of public goods, strengthen the ties between government and the local population, and enhance local influence over policy outcomes (Hechter 2000; Brancati 2006). Local governments have access to better information about the needs of the local population, which can better help develop public goods that reflect the interests of the population (del Granado et al. 2018). Still, effective autonomous governance requires local state capacity, which is not always available and thus may limit the appeal of autonomy (Carter 2022).

Territorial autonomy also can decrease the potential for conflict between groups. If there is no previous history of conflict, granting autonomy can be highly effective at reducing the likelihood of conflict onset (Cederman et al. 2015). However, if there has been a history of violence, autonomous status is not enough to prevent more. It is also possible that autonomy may simply reinforce divisions (Chapman and Roeder 2007) and even encourage secessionist claims (Cornell 2002). The success of territorial autonomy as a tension-easing strategy is highly influenced by the historic process that leads a culturally defined community to make autonomy demands (Henders 1997).

When we speak about the population in ethnic autonomous regions, it is important to acknowledge the diversity of ethnic groups, languages, and political preferences. Even among a titular ethnic group that is identified by linguistic distinctiveness, not everyone is likely to speak the titular language with fluency or at all (see Laitin 2000). Additionally, territorial autonomy is complicated by second-order minorities, which are minorities that exist within ethnic autonomies (Barter 2018). In some cases, these individuals are part of the dominant or majority group in the country, but in other cases, they are other country-level minorities. The devolution of territorial autonomy can create new minority issues within an autonomous region, complicating governance and shifting the locus of ethnic politics to the regional level.

Finally, autonomy can act as what Barter (2018, 3) calls "an ethical good, protecting minority cultures and affirming ethnic distinctiveness." Autonomy as an ethical good allows for the preservation of ethnic identity, which can include various group features, including language, as well as institutional control over education. Autonomy, motivated by self-determination, has a basis in international law, where minority rights and indigenous rights are upheld alongside the right to self-determination (albeit sometimes controversially) (Ghai 2000). States struggle to balance the principle of self-determination and the need to protect minority rights with national unity (Hannum 1993). For some minority groups, autonomy is viewed as essential for survival within the broader polity. Still, autonomy is not an end in and of itself so much as a tool to allow ethnic groups to protect their culture and identity. Cultural matters such as education and the arts are more likely than economic issues to be the focus of the division of power (and tension) between the autonomous region and the state (Ghai 2000). Education is often seen as a crucial part of autonomy alongside cultural protections and economic decision-making (Barter 2018).

3.2 Language Policy in Autonomous Regions

Within autonomous regions, language policies can have similar objectives to county-wide policies, but with a different constituency. Most ethnic territorial regions are governed by representatives of one ethnic group (i.e., the titular ethnic group) that is usually a minority within the country but a majority or plurality within the territory. Language is often an important component of autonomy. Building off country-level language regime, a language territorial regime (LTR) is a language regime tied to a specific territory within a given country. An LTR can operate within an autonomous territory that is ethnically defined, incorporating the language policy interests of national ethnolinguistic minority groups who make up the autonomy's titular population (Borisova and Sulimov 2018). The promotion of language policies within an autonomous territory can be pragmatic, reflecting functional usage, or symbolic. "Language as a marker of community integrity and identity has a symbolic status: while the language is still alive, the community does not cease to exist" (Borisova and Sulimov 2018, 362). Borisova and Sulimov (2018) argue that the strength of LTRs can be compared based on (1) the scope of a state's regulation of language policies, and (2) the perception of rights as symbolic versus pragmatic. For example, the South Tyrol LTR in Italy is considered strong, since the use of German is deep and universal, education in the autonomy uses the language, and various authorities use the language. Wales in the U.K. is arguably a weaker LTR since language control is less concentrated and the titular autonomous language (Welsh) is not as often used in daily life (when compared to a region like South Tyrol), according to Borisova and Sulimov (2018), despite language being a core policy focus of the region's self-governance. A strong language territorial regime in an ethnic territorial autonomy promotes and preserves the minority ethnic language but could also isolate ethnolinguistic minority groups within the autonomy from other language groups in the country, resulting in parallel closed linguistic communities (Borisova and Sulimov 2018). The policy freedom of an autonomous region can also impact the ways in which language is thought of and taught in educational contexts. More autonomy among European regions has spurred an increased focus on revitalizing regional and minority language movements (Lewis and McLeod 2021). This research addresses the patterns in autonomous regions language policies, aligning with the rest of the state or highlighting distinctiveness, in official government activities and in education.

4. Expectations

National institutions and regional governments vary among regional autonomies, as do the attributes, practices, and priorities of the ethnic groups that live within them. Every autonomous region has a different social context and a unique ethnolinguistic history. While existing case studies have explained the motivations and process of adoption for language policies in specific regions, it remains unclear whether the same institutional and demographic factors identified in case studies consistently influence language status and education policies across regions. Therefore, our research seeks to identify trends in which factors shape language policies across ethnic autonomous regions, thereby contributing to a deeper understanding of language policy variation and enriching the literature on regional autonomy.

4.1 Institutions: Degree of Self-Rule and Democracy

Each autonomous region has a slightly different institutional arrangement and relationship to the central state. Regions can exercise varying degrees of authority over regional governments (Hooghe et al. 2016). While some regions primarily serve to implement central policies at the local level, others have institutions and governing bodies capable of making independent decisions for the region. In addition, regional control over finances and specific policy areas reflects the degree to which regions have autonomy from the central state. Where regions have more control over policymaking, we expect to see them adopt policies that focus on representing the needs and identities of regional populations. Our first hypothesis, thus, is that powers of ***self-rule*** explain the adoption of language policies that promote and protect the autonomous ethnic group's language.

> **Hypothesis 1**: Where autonomous regions have a greater **degree of self-rule,** the region's titular minority language is more likely to be adopted as an official language of the autonomy a language of education.

In addition, we expect that the institutional design of a country will influence language recognition for titular regional autonomous populations. Democratic countries are more likely to recognize minority languages, although the level of recognition depends on the group size (Liu 2017). We expect that this relationship will translate even more strongly to recognition within autonomous regions, where regional authorities respond only to regional voters. In an ethnic regional autonomy, voters may find that the issue of language policy is politicized and salient and thus vote in support of declared language policies. Regardless of the state language policy, local recognition demonstrates the autonomous region's commitment to identity and preserving titular languages through official recognition. Thus, we expect that the ***level of democracy*** within the country overall increases the voter opportunity to officially recognize a regional ethnic language.

> **Hypothesis 2A**: In countries with higher **levels of democracy,** the autonomous region's titular minority language is more likely to be an official language at the autonomous level.

The effect of democratic institutions on regional language education policies is more complicated. Regulations promoting the titular minority language in schools take multiple forms. We expect that required language learning is less likely while optional language learning is more likely in more democratic countries. In democracies, there may be more opportunities for plurality in the education system. Democratic systems may support plurality in the education

system by providing the opportunity for instruction in multiple languages rather than dictating a single system and language for all. Autonomous regions embedded in democracies can thus allow instruction in titular languages as a means of learning and preserving language and identity. Still, democracy and the protection of freedoms suggest that students may have more choice in language acquisition. We expect democracies to be less likely to tolerate policies that require all students in any region to learn the titular ethnic group's language. We therefore hypothesize that democracy has mixed effects on language in education, increasing the likelihood of instruction opportunities but decreasing the likelihood of compulsory learning.

> **Hypothesis 2B**: Regions in countries with higher **levels of democracy** are more likely to adopt policies to allow instruction in the titular minority language.
>
> **Hypothesis 2C**: Regions in countries with higher **levels of democracy** are less likely to adopt policies to require students to learn the titular minority language.

4.2 Population Size

There are two key reasons why the relative ***size*** of the titular minority population is likely to shape language policy. First, where the population of the autonomy largely speaks the titular minority language, adoption of the language for use in official spheres of government is a practical matter. Official recognition of the titular language allows the regional government to use the language of their population, thus making government bureaucracy easier, more accessible, and more efficient.

Second, where there are large populations or concentrations of one language group, there is a potential for mobilization and demand for higher levels of recognition and promotion of the titular regional autonomy's language. We argue that where the titular population makes up a larger share of an autonomous region, it will increase the likelihood that the language has official recognition and that there will be stronger efforts to promote language in education. Where the titular ethnic population makes up a larger portion of the autonomous region, the titular population would be better connected and more likely to coalesce around similar issues and thus easier to mobilize. Where the titular population shares a language, this mobilization potentially occurs around demands for language recognition and the advancement of specific language policies. Policies meant to represent the titular group will also have a larger constituency. Similarly, where the titular population is linguistically connected, there is a higher potential for demands regarding language instruction and language learning opportunities.

> **Hypothesis 3**: In autonomous regions where a **larger share of the population** comes from the titular ethnic group, the titular minority language is more likely to be adopted as an official language of the autonomy and language of education.

5. Research Design

We test our hypotheses using data on ethnic autonomous regions and the countries they are nested within. We draw on the Ethnic Regional Autonomies Dataset (ERAD) to identify the appropriate regions for analysis and key language variables related to those regions (Panov and Semenov 2018). The dataset includes first-tiered subnational regions that are both (1) autonomous and (2) ethnic in character. The ERAD dataset covers yearly observations between

2001 and 2015 for most regions. Coverage is shorter for some regions due to changes in their autonomous status or independence during this period (e.g., South Sudan). Our sample thus includes 135 ethnic autonomous regions in 31 countries around the world. The number of autonomous regions per country varies from one in 9 countries to 32 in Russia.[1]

The concept of autonomy is difficult to measure, and no two datasets agree on the cases that qualify. ERAD defines an ethnic regional autonomy (ERA) as: "an administrative-territorial unit of the first sub-national level, which is base[d] on an ethnic ground and has a sufficiently high degree of political self-government within the sovereignty of the national state" (Panov and Semenov 2018; ERAD Codebook). To meet this definition, the region must have political autonomy, including a local legislature and jurisdictional powers rather than only administrative autonomy or the delegation of limited powers of execution or administration to the regional level. The regions must also be represented in the national legislature (discounting British Overseas Territories or de-facto states) and must be controlled by and internationally recognized as part of the host state (leaving out regions such as Transnistria in Moldova or South Ossetia in Georgia).

The ethnic character of autonomous regions is also critical because only regions with ethnic character and distinct languages have the potential to adopt the policies of interest. The regions must provide special recognition, status, or privilege for a specific ethnic group or groups or attribute of a group (e.g., language), and the titular group should be identified with a language distinct from the rest of the country or the dominant group in the country. Other commonly used datasets including Territorial Self-Governance Dataset (TERRGO) (Trinn and Schulte 2022) and Regional Authority Index (RAI) (Shair-Rosenfield et al. 2020) include regions that are not associated with ethnic identity or language differences. In ERAD, there must be ethnic origins of a territory, either through self-determination or ethno-federal policymaking by the central government. Identifying the ethnic character involves indicators such as the legal representation of a group, symbolism used to link ethnicity to territory, a special linguistic status, or preferential treatment of an ethnic group for governmental positions (Panov and Semenov 2018). The definition thus includes Corsica but excludes Alsace-Lorraine in France because Alsace-Lorraine was not established specifically with ethnicity in mind, while Corsica was. Ceuta in Spain or Mexico City in Mexico are not included in ERAD (while they are included in TERRGO) because they are not ethnically or linguistically distinct territorial units. Additionally, since the focus is on the first sub-national level, territories within autonomies do not count (such as Val d'Aran, within Catalonia). In Spain, only Catalonia, Galicia, Basque Country, and Navarre are counted as ERAs by ERAD because those are the only autonomous regions in Spain with a special status clearly linked to ethnicity.

There are a few extra considerations and special cases for our sample of ethnic autonomous regions. First, we fully acknowledge that this project is by its nature comparing autonomous regions that vary widely, including in language practice. For example, Northern Ireland is included, despite a small portion of the population speaking the titular ethnic group's (Irish) language, which is also considered Irish. Similarly, some regions have large internal ethno-linguistic diversity, as seen in Papua or Mindanao, while in other regions the titular language and ethnic group are closely aligned (as in Tatarstan). Second, there are a few autonomous regions that elevate the status of multiple ethnic groups. Most regions have a single

[1] See Appendix Table A1 for a full list of autonomous regions and years included.

titular ethnic group and thus a single language eligible for official status and language of education. There are a few cases where there are multiple "titular" groups (e.g., Tiv and Idoma in Benue, Nigeria, or the 40-odd groups that make up the "Southern Peoples" in Ethiopia's Southern Nations, Nationalities, and Peoples Region). A few regions (i.e., the North and South Caribbean Coast Autonomous Regions of Nicaragua) list the titular group as "indigenous peoples," and the population is ethnically and linguistically diverse. Even in these diverse regions and where multiple groups have titular status, i.e., was the "ground of the establishment" for a region, the status of any of the groups' languages are the basis for coding language policy in ERAD, despite internal fragmentation. Given these differences in social structures within regions, we also control for fractionalization in our analyses.

Third, some of our cases are regions in ethnofederal systems, i.e., the overall country structure is designed to allow a relatively high degree of regional authority. Ethnofederalism can be defined to include federal countries where "at least one constituent territorial governance unit is intentionally associated with a specific ethnic category" (Hale 2004, 167–68). Still, ethnic autonomous units can also be found in unitary states, such as in China or the United Kingdom (McGarry 2007). We do control for federalism in our models. Finally, ERAD does include one case of an autonomous region nested within another larger region. The authors of ERAD argue that South Tyrol is included because its autonomous capabilities and administration are akin to a first level sub-national region due to historic relations with Italy. Despite being within another autonomous region, South Tyrol is a unique case because of its relationship with the central government following Italy's annexation after World War 2. Following the war, residents of South Tyrol pushed for autonomous decision-making powers within the Autonomous Province of Bolzano-South Tyrol, which it achieved after years of agitation and lobbying (Larin and Röggla 2019). In other cases, autonomous regions below the first sub-national level are not considered separate cases.

Outcome Variables

We are interested in three outcomes of interest related to official recognition of the language and the language of education. These outcome variables come from ERAD and are unique to this dataset. Our first dependent variable is a binary measure of the *official status* of the language of the titular group in the autonomous region. This variable is coded as (0) if there is no recognition at the autonomous level and (1) if the titular language is one of the official languages of the autonomous region. As of 2015, in total, 74 of 119 ethnic autonomous regions (62%) recognize the language of the titular group as an official language, while the rest do not.

In terms of language in education, we have two binary outcome variables: the *language of instruction* and *compulsory learning* of the titular language. The language of instruction is a binary measure capturing the presence of schools where students can learn in minority languages. As of 2015, around half of the regions in our sample (62) include opportunities for education with the titular or other minority language as the *language of instruction*. The outcome of this type of policy may be different groups within the region learning in different languages; this does not mean that all students are instructed in the titular minority language so much as that there is an option for education in the titular language. *Compulsory learning* includes language learning requirements for either members of the titular ethnic group or residents of the autonomous region. Learning the titular minority language is compulsory in just half of all ethnic

autonomous regions (59 of 119). It is noteworthy that these variables are coded based on legal policies but may not always be fully implemented.

The three outcome variables are not contingent on each other. A titular language may be used as the language of instruction even if it does not have an official language status. Similarly, compulsory learning of a titular language does not necessarily require the titular language to be official or used for instruction. Regional official language status has a correlation of 0.57 and 0.48 with language of instruction and compulsory learning at the autonomous region, respectively, while the correlation between the two education outcomes is 0.61. Therefore, these outcome variables capture considerably different dimensions of language policy and warrant separate analysis.

Explanatory Variables

The independent variables include demographic and institutional factors at both regional and country levels. The first focal independent variable is the degree of self-rule, measured by the *self-rule index* from RAI (Shair-Rosenfield et al. 2020). The index aggregates five dimensions of self-rule: institutional depth, policy scope, fiscal autonomy, borrowing autonomy, and representation. Together, these dimensions address competencies, responsibilities, and processes that allow for different degrees of self-rule in each region. The self-rule index ranges from 0 to 18, with higher values indicating greater autonomy. For robustness, we also use the degree of power-sharing between regional and national parties in a regional government as an alternative measure of the degree to which an ERA is locally governed and include the analyses in Table C1 in Appendix C.

The second focal variable is the level of democracy of the country where an autonomy is nested. We measure the level of democracy using Varieties of Democracy's electoral democracy index (Coppedge et al. 2025), since it aligns with Dahl's well-established definition of democracy (Dahl 1989). Methodologically, this measure synthesizes scores across a list of important institutional arrangements and practices that underpin the healthy functioning of democracy. Our last explanatory variable, share of the titular ethnic group in the region's population, also comes from the ERAD. The summary statistics of the variables are presented in Tables A2 and A3 in Appendix A.

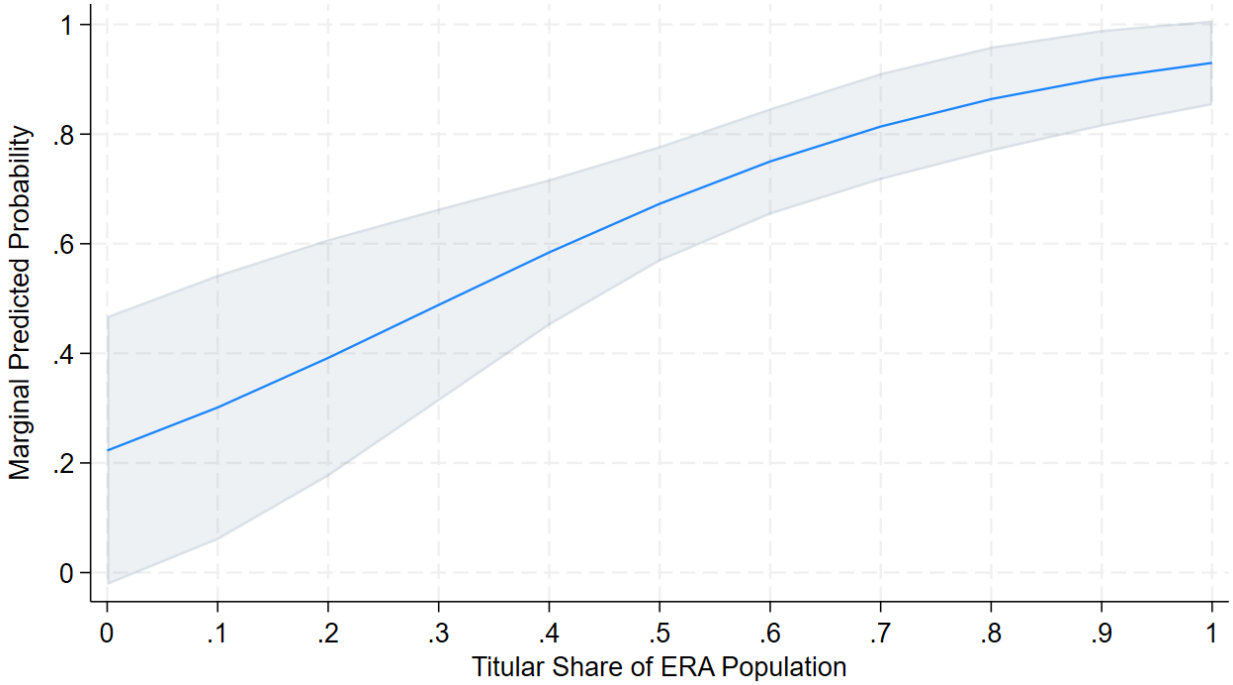
We also include several institutional and demographic factors at both the regional and country levels. At the regional level, we control for the dominant ethnic group's share in the population. At the country level, we control for the disparity in the distribution of political power among social groups, the presence of federalism, degree of linguistic heterogeneity, wealth (logged GDP per capita), and inequality (logged Gini coefficient).

6. Analysis and Results

As our dependent variables are binary, we use logistic regressions to conduct our analysis. Our sample is made up of ethnic autonomous regions nested within countries, and we cluster the standard errors at the country level to account for within-country correlations among the observations. Since each region has repeated observations over years, we also include year fixed effects to control for temporal shocks or trends that may drive the results. Here, we discuss the main results for each analysis and present graphical representations of the key findings. Full

results for the main models are included in Table B1 in Appendix B. It is noteworthy that since we incorporate measures of self-rule from the RAI dataset, which covers fewer countries than the ERAD, the sample size for our hypotheses testing is reduced to 91 ERAs across 20 countries. Nonetheless, in the robustness analyses using alternative measures described later, our results remain consistent even if we use the full ERAD sample.

We begin by presenting the results of analysis related to the trends in titular language is officially status at the autonomous level. We had hypothesized that the degree of self-rule, democracy, and relative population would explain official status. However, we do not find that either institutional factor explains the likelihood of official status. Instead, only the demographic factor of the relative size of the titular population within an autonomous region has a reliable relationship with official language status. Figure 1 shows that the probability of official status for the titular language increases as the share of the titular population rises. These findings support our third hypotheses related to the link between demographics and regional official status, but do not support the hypotheses that regional or country-level institutions are associated with regional official status for titular languages.

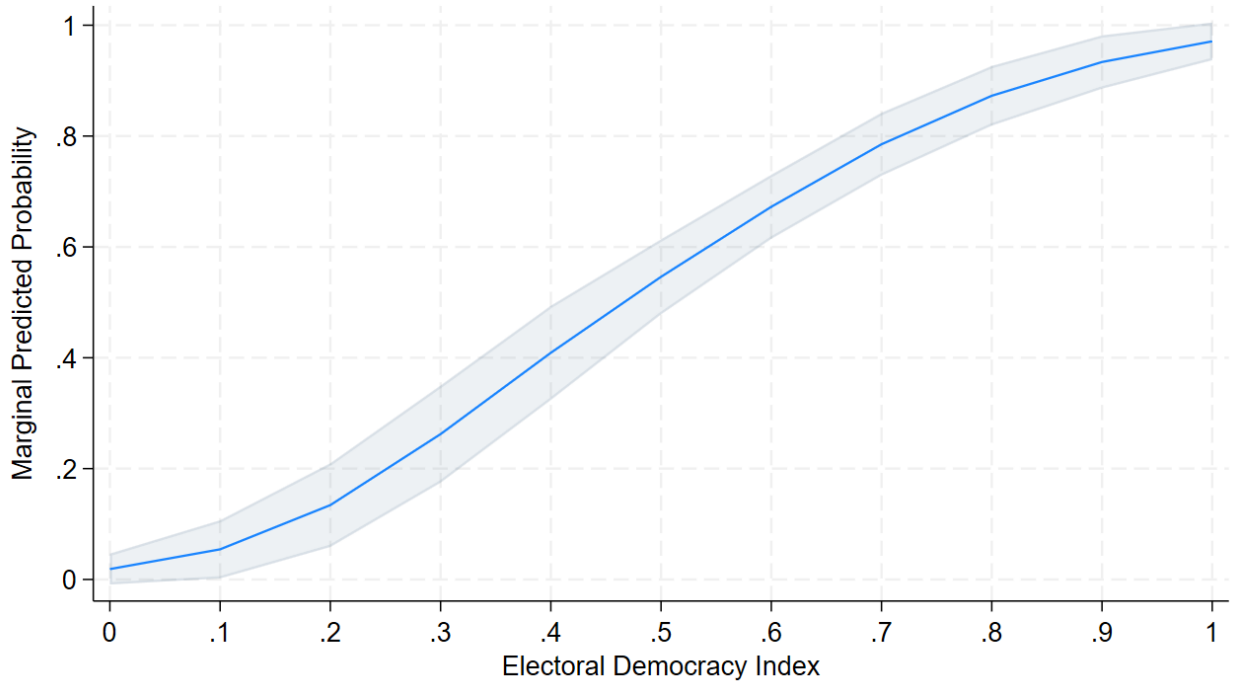


Note: the predicted probabilities are based on the model presented in column (1) of Table B1 in Appendix B, when other covariates are fixed to their means. The solid line represents the predicted probabilities, with the shaded area representing a 95% confidence interval.

Figure 1: Marginal Effects of Titular Share on Official Status (Hypothesis 3)

Next, we look at two outcomes related to the use of the titular language in education. In these models, we also control for whether the titular language is the official language of the autonomy's region or the country, or both. This control is necessary because, in such cases, the official status may provide a legal mandate requiring some degree of use or learning of the titular

language in schools. As for the results, first, we find support for two of our hypotheses related to language of instruction (2B and 3B). The level of democracy in the country has a positive and significant effect on the adoption of the titular language as the medium of instruction. As shown in Figure 2, when other conditions are the same, schools are very unlikely to use the titular language for instruction in non-democratic countries (electoral democracy index <0.3), but much more likely to do so in democratic countries. However, we find that neither the relative size of the titular population within an autonomous region nor the degree of self-rule shape the language of instruction.



Note: the predicted probabilities are based on the model presented in column (2) of Table B1 in Appendix B, when other covariates are fixed to their means. The solid line represents the predicted probabilities, with the shaded area representing a 95% confidence interval.

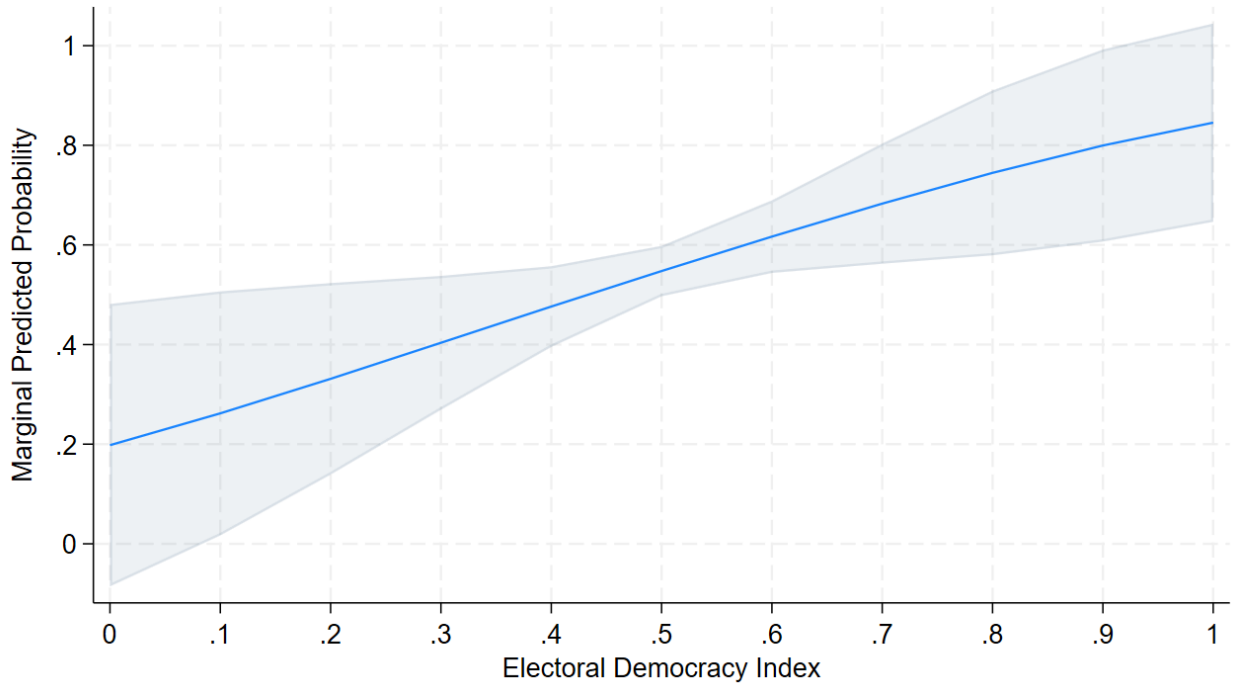
Figure 2: Marginal Effects of Democracy on Language Instruction (Hypothesis 2B)

Second, we turn to compulsory language learning. We find that an ERA's degree of self-rule and the demographic features included in the model have no significant effect on policies mandating compulsory learning of the titular language. Surprisingly, however, democracy exhibits a strong positive influence on such mandates. Ethnic autonomous regions in democratic countries are more likely to require students learn the region's titular language, as shown in Figure 3. It is worth noting that the compulsory learning of the titular language could apply to all students in the region or only to members of the titular ethnic group.

Robustness Checks

To test the robustness of our findings, we rerun our models with alterative measures of the key institutional variables. At the regional level, we alternatively measure regions' degree of self-rule by the level of presence of ethnic or regional parties in the regional government, which is provided by the ERAD. Degree of self-rule in the original models was taken from RAI, which limited the sample size; by using the ERAD measure of self-rule the sample size is restored to all 135 ERAs in 31 countries**.**

Unlike the previously used measure that concerns institutionalization of regional self-rule arrangements, this alternative measure concerns the extent to which the regional government is represented by regional political forces compared to national parties. The variable is coded as 2 if the regional government consists of only the ethnic or regional parties (ERPs) of this autonomy, meaning the ERPs monopolize the regional government; 1 if both the ERPs and national parties exist in the regional government, regardless of whether this is guaranteed by power-sharing arrangements or the situational result after elections; and 0 if the regional government does not include any ethnic or regional parties of the autonomy, which means the ERPs are excluded from the regional government. We also rerun our models with two alternatives to V-Dem's electoral democracy index: V-Dem's liberal democracy index, which gives more emphasis on freedom and political rights guaranteed by the institution than the overall level of democracy. Finally, we run the models both with and without including year fixed effects.



Note: the predicted probabilities are based on the model presented in column (3) of Table B1 in Appendix B, when other covariates are fixed to their means. The solid line represents the predicted probabilities, with the shaded area representing a 95% confidence interval.

Figure 3: Marginal Effects of Democracy on Compulsory Learning of Titular Language (Hypothesis 2C)

The results of the robustness checks are presented in Tables C1 and C2 in Appendix. Overall, the alternative measures do not significantly change our results. The only noticeable difference is that the significance of the effect of democracy on compulsory learning of titular language decreases to a 90% confidence level when democracy is measured alternately by V-Dem's liberal democracy index (as shown in column 3 in Table C2).

Finally, as a considerable proportion of the ERAs in our sample are concentrated in Russia, India, and Nigeria, we conducted additional robustness checks to ensure our results are not driven by the particular political landscapes of these countries. We replicated the main models with including dummy variables for each of these three countries. The results remain consistent and are presented in full in Table C3 in Appendix. Thus, we are confident in the robustness of our results as the findings do not considerably change with alternate specifications in our models and measure of our key variables.

7. Conclusion

Our research seeks to develop a deeper understanding of the role of autonomous governance in ethnolinguistically diverse societies. We combine insights from case studies of ethnic autonomous regions and research on country-level language policies to understand patterns in the adoption of official language recognition and how autonomous regions address language in education. We assess the effect of democracy, demographics, and degree of self-rule on these policy choices on three dependent variables: (1) official language recognition, (2) the language of instruction, (3) and the compulsory learning of the titular language. Our analysis uses panel data with clustered standard errors at the country level to learn about the patterns in language policies adopted by 135 autonomous regions in 31 countries.

In relation to official language status, we find that at the regional level only demographic factors explain patterns across regions. Autonomous regions with a larger share of the titular ethnic group are more likely to adopt the titular minority language as an official language. Contrary to our initial expectation that institutional factors would have a considerable impact on official language recognition, neither the regional nor the country-level institutional features have a statistically significant impact: a greater degree of self-rule does not shape official language adoption, nor does the degree of democracy in the country.

The choice of language policies in education is shaped by aspects of the local and national context. In democratic countries, we find that autonomous regions are more likely to allow schools to use the titular language as the language of instruction. Language in educational settings plays a remarkable, and typically irreplaceable, role in the maintenance and intergenerational transmission of ethnic identity and culture. Thus, the finding that titular languages are more likely to be used for instruction in democracies illustrates the way in which country-level institutions affect the promotion of rights, integration, and sustainability of ethnic practice in autonomous regions.

Contrary to our initial expectations, democracy also has a positive effect on the likelihood of compulsory language learning. One possible explanation lies in the legitimacy advantage provided by democratic institutions, which enables regional governments to implement such policies more justifiably. Additionally, unlike autocracies—which often suppress local identities

perceived as threats—ethnic regional governments in democracies have stronger incentives to implement language policies that promote ethnic identity, thereby bolstering voter satisfaction.

One surprising finding is the null effect of the degree of regional self-rule on any language policy. We suspect that this underscores the nuances in demand for language policies, suggesting that autonomy grants institutional capacity but does not inherently generate the political will to enact language polices that are potentially contentious. In some cases, country-level governments may adopt plural language policies that allow minorities to use their language in official interactions, and thus, there is no need for additional regional adoption of official languages. This finding also aligns with comparative work on substate nationalism (Keating 2013), which finds that symbolic policies like language recognition often depend on grassroots mobilization rather than top-down institutional design. Still, we do not know the process by which policies are made in any of these regions. The quantitative measures of self-rule are incomplete in their evaluation of how autonomy shapes policies in practice. A limitation of this type of quantitative study is that we cannot assess the history of language policy and recognition within countries or autonomous. As a result, we do not have a clear baseline to compare changes in policies or know whether policies were driven by bottom-up or top-down pressure. Datasets such as RAI, which we use here, emphasize formal powers and institutions but don't address the process of policy making or implementation, the identity or legitimacy of the titular minority leaders, or even the process of gaining and changing autonomous status (Barter and Wangge 2022). These factors are part of the *nature* of autonomy rather than just its degree, and they shape the policy processes and choices (Lecours 2022). Additional studies can help us understand if policy changes were proposed and rejected, at either the central or regional levels, and what relationship those potential changes have on grassroots mobilization and on policy change over time.

Our study has important implications for how language policies are understood in ethnically defined regional autonomies and suggests avenues for future research. First, language policy is complicated by the nesting of regions within countries, and factors at both levels shape policy choices. Our analysis highlights that regional autonomy arrangements interact with country-level institutional to preserve linguistic diversity for minorities. In authoritarian contexts, where language suppression is common, regional autonomy may offer limited protection without broader political liberalization. Conversely, democracies are more likely to permit titular-language instruction and mandate its learning, reflecting both normative commitments to pluralism and electoral incentives for regional governments. This supports arguments that democratic institutions legitimize minority claims (Laitin 1998), enabling language policies that might face repression in autocracies. Even when states grant autonomy, the effect of the central government and broader political environment remain. Democracy shapes education policies, in particular – policies that play a particularly large role preserving cultural and heritage languages. This suggests that autonomous regions in might help overcome any tyranny of the majority as titular minority groups can protect and promote their languages in educational settings.

Second, and relatedly, our research reinforces the point made by Barter (2018) that demographics within autonomous regions still matter. Elevating and empowering one territorially concentrated group does not eliminate the challenges of governing plural societies so much as shift the location and realign the relative powers of different political actors. While autonomous regions can safeguard the titular language through official status and education policies, there is still the possibility of disengagement, disempowerment, or even repression of

other languages spoken by non-titular groups in the region. Third, self-rule, even in regions where the titular minority has a distinct language, does not necessarily lead to a specific set of language policies. We have identified trends across autonomous regions, but every region is slightly different. In part, the exact demographics and institutional powers differ by region. One implication of our findings is that language policy and autonomous governance are complex and deserve more attention. We hope scholars will continue research on these topics and will use mixed methods that reveal trends while also exploring the nuances of specific cases.

The divergent role of democracy in education policies deserves further scrutiny, particularly regarding the balance between minority rights and majority interests. While democratic institutions increase the likelihood of compulsory titular-language learning—potentially strengthening intergenerational transmission and cultural preservation—such policies may also produce unintended consequences. One possibility is that for non-titular residents, mandatory learning could marginalize heritage languages, exacerbate linguistic hierarchies, or fuel perceptions of coercive assimilation. Moreover, in politically sensitive contexts, aggressive language promotion risks being framed as separatism, undermining broader social cohesion. Autonomous regions are by no means homogeneous, and education in the titular minority language and compulsory language learning do not necessarily mean that all students will learn the titular minority language. Instead, it is possible that only the titular minority language will opt for instruction in the titular language while those of other minority groups and the majority may learn in the central state's official language. These patterns of language policy thus have the opportunity to create silos of language speakers rather than a truly multilingual community.

These findings also come with the caveat that we are focused on policy rather than implementation. Instruction in minority languages, may be underfunded or not offered as widely as instruction in the country's official language. The costs and logistics of textbooks and challenge of training teachers in minority languages can be substantial (Liu 2017; May 2013). Of course, these spending changes and their implications for the effects of language policy vary by regional characteristics (Liu et al. 2014). We hope future research will explore the implementation of policies across regions and evaluate their effects on education spending, language proficient, and even the number of students learning in the titular language. Our cross-case study reveals patterns, and our understanding of language policy in autonomous regions will be strengthened if future case studies critically examine the design and implementation of such language mandates, including compensatory provisions (e.g., bilingual education programs, opt-out clauses, or heritage language support for non-titular groups), and assess their long-term effects on minority integration, identity polarization, and regional stability.

Governance in plural societies comes with myriad challenges, not least determining the appropriate language policies and level of self-governance for minority ethnic groups. Autonomous regions within states are one solution, but come with their own political challenges. Autonomous regions are often formed as concessions to minority demands for increased self-governance and policymaking. Such concessions benefit regional autonomous ethnic groups while preserving local culture and identity. Language within such a context is a crucial point of contention since minorities within an autonomous region often wish to preserve and promote the use of languages that may not be shared with the rest of the state. In terms of governance in pluralistic societies, our research indicates that autonomous regions tend to attain official language recognition primarily due to demographic factors. When considering language recognition and education policies, special attention should be given to population

demographics, features of democracy, and how official language recognition impacts linguistic education decisions.

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Appendix A Summary Statistics

Table A1: Countries, Regions, and Years Included

Country	Region	Years
Belgium	Flemish Region	2001-2015
	Walloon Region	2001-2015
Bosnia Herzegovina	Federation of Bosnia and Herzegovina	2001-2015
	Republika Srpska	2001-2015
Canada	Nunavut	2001-2015
	Quebec	2001-2015
China	Guangxi	2001-2015
	Inner Mogolia	2001-2015
	Tibet	2001-2015
	Xinjiang	2001-2015
Denmark	Faroe Islands	2001-2015
	Greenland	2001-2015
Ethiopia*	Afar	2001-2015
	Amhara	2001-2015
	Benishangul-Gumuz	2001-2015
	Gambela	2001-2015
	Harari	2001-2015
	Oromia	2001-2015
	Somali	2001-2015
	Southern Nations, Nationalities, and Peoples' Region	2001-2015
	Tigray	2001-2015
Fiji*	Rotuma	2001-2015
Finland	Åland Islands	2001-2015
France	Corsica	2001-2015
	French Polynesia	2001-2015
	New Caledonia	2001-2015
India	Andhra Pradesh	2001-2015
	Arunachal Pradesh	2001-2015
	Assam	2001-2015
	Goa	2001-2015
	Gujarat	2001-2015
	Jammu and Kashmir	2001-2015
	Karnataka	2001-2015
	Kerala	2001-2015
	Maharashtra	2001-2015
	Manipur	2001-2015
	Meghalaya	2001-2015
	Mizoram	2001-2015
	Nagaland	2001-2015
	Odisha	2001-2015

	Punjab	2001-2015
	Sikkim	2001-2015
	Tamil Nadu	2001-2015
	Tripura	2001-2015
	West Bengal	2001-2015
Indonesia	Aceh	2005-2015
	Papua	2001-2015
Iraq	Kurdistan	2005-2015
Italy	Aosta Valley	2001-2015
	Friuli-Venezia Giulia	2001-2015
	Sardinia	2001-2015
	South Tyrol	2001-2015
Malaysia	Sabah	2001-2015
	Sarawak	2001-2015
Moldova*	Gagauzia	2001-2015
Myanmar*	Chin	2001-2014
	Kachin	2001-2014
	Kayah	2001-2015
	Kayin	2001-2014
	Mon	2001-2014
	Rakhine	2001-2014
	Shan	2001-2015
Netherlands*	Aruba	2001-2015
	Netherlands Antilles	2001-2015
Nicaragua	North Caribbean Coast Autonomous Region	2001-2015
	South Caribbean Coast Autonomous Region	2001-2015
Nigeria*	Adamawa	2001-2015
	Akwa Ibom	2001-2015
	Bayelsa	2001-2015
	Benue	2001-2015
	Borno	2001-2015
	Cross River	2001-2015
	Delta	2001-2015
	Edo	2001-2015
	Kogi	2001-2015
	Nasarawa	2001-2015
	Niger	2001-2015
	Plateau	2001-2015
	Rivers	2001-2015
	Taraba	2001-2015
	Yobe	2001-2015
Pakistan*	Balochistan	2001-2015
	Khyber Pakhtunkhwa	2001-2015
	Punjab	2001-2015
	Sindh	2001-2015
Panama	Embera-Wounaan	2001-2014

	Embera	2015
	Guna Yala	2001-2015
	Ngäbe-Buglé	2001-2015
Papua New Guinea	Bougainville	2005-2015
Philippines	Autonomous Region in Muslim Mindanao	2001-2015
Russia	Adygea	2001-2015
	Agin-Buryat Autonomous Okrug	2001-2007
	Altai	2001-2015
	Bashkortostan	2001-2015
	Buryatia	2001-2015
	Chechnya	2001-2015
	Chukotka	2001-2015
	Chuvashiya	2001-2015
	Dagestan	2001-2015
	Evenkia	2001-2006
	Ingushetiya	2001-2015
	Jewish Autonomous Oblast	2001-2015
	Kabardino-Balkaria	2001-2015
	Kalmykia	2001-2015
	Karachay-Cherkessia	2001-2015
	Karelia	2001-2015
	Khakassia	2001-2015
	Khanty-Mansi	2001-2015
	Komi	2001-2015
	Komi-Permyak Autonomous Okrug	2001-2005
	Koryak Okrug	2001-2007
	Mari El	2001-2015
	Mordovia	2001-2015
	Nenets Autonomous Okrug	2001-2015
	North Ossetia	2001-2015
	Tatarstan	2001-2015
	Taymyr Autonomous Okrug	2001-2006
	Tuva	2001-2015
	Udmurtia	2001-2015
	Ust-Orda Buryat Autonomous Okrug	2001-2007
	Yakutia	2001-2015
	Yamalo-Nenets	2001-2015
Spain	Basque Country	2001-2015
	Catalonia	2001-2015
	Galicia	2001-2015
	Navarre	2001-2015
Sudan*	South Sudan	2005-2010
Switzerland	Jura	2001-2015
Tajikistan*	Gorno-Badakhshan	2001-2015
Ukraine	Crimea	2001-2015
United Kingdom	Northern Ireland	2001-2015

	Scotland	2001-2015
	Wales	2001-2015
Uzbekistan*	Karakalpakstan	2001-2015

Note: Regions within countries marked with an asterisk (*) are used only in robustness checks, not in the main models because they are not included in the RAI data.

Table A2: Descriptive Statistics for Variables Used in Analyses in the Main Text

Variable	Obs.	Mean	Std. Dev.	Min	Max
Official Status, Regional	1,302	0.7173579	0.4504569	0	1
Allowing Instruction	1,302	0.6436252	0.4791118	0	1
Compulsory Learning	1,302	0.5798771	0.4937681	0	1
Self-rule	1,302	12.3679	2.818188	1	18
Titular Share	1,302	0.5807146	0.2736094	0.0092208	1
Dominant Share	1,302	0.2752793	0.2484888	0	0.9072656
Electoral Democracy	1,302	0.5649424	0.2526235	0.081	0.922
Official Status, National	1,302	0.2534562	0.435157	0	1
Official Status, Either	1,302	0.7403994	0.4385839	0	1
Social Group Power	1,302	1.096599	0.8681775	-1.51	3.316
Federalism	1,302	0.6505376	0.4769834	0	1
Linguistic Fractionalization	1,302	0.3994327	0.2576326	0.0473181	0.8359525
GDP per Capita (Ln)	1,301	8.680831	1.406971	6.133021	11.38512
GINI Index (Ln)	1,302	3.62772	0.1436643	3.200712	4.06096

Table A3: Descriptive Statistics for Variables Used in Robustness Checks in Appendix C

Variable	Obs.	Mean	Std. Dev.	Min	Max
Official Status, Regional	1,893	0.586371	0.492614	0	1
Allowing Instruction	1,893	0.496038	0.500116	0	1
Compulsory Learning	1,893	0.439514	0.496459	0	1
Self-rule	1,302	12.3679	2.818188	1	18
ERPs in Government	1,893	0.611727	0.844588	0	2
Titular Share	1,657	0.605459	0.266491	0.009221	1
Dominant Share	1,657	0.259725	0.256689	0	0.98179
Electoral Democracy	1,893	0.504274	0.249542	0.081	0.922
Liberal Democracy	1,893	0.376347	0.265721	0.017	0.897
Official Status, National	1,893	0.188061	0.390864	0	1
Official Status, Either	1,893	0.602219	0.489569	0	1
Social Group Power	1,893	0.772049	1.153767	-1.883	3.316
Federalism	1,893	0.70206	0.457474	0	1
Linguistic Fractionalization	1,893	0.501984	0.274955	0.047318	0.850346
GDP per Capita (Ln)	1,892	8.095107	1.630745	4.714304	11.38512
GINI Index (Ln)	1,782	3.614462	0.147574	3.200712	4.06096

Appendix B Full Regression Results

Table B1: Logistic Regression Results, with Year Fixed Effects

	(1) Regional Official Status	(2) Allowing Instruction	(3) Compulsory Learning
ERA Level			
Self-rule	0.002	-0.284	-0.145
	(0.161)	(0.157)	(0.089)
Titular Share	5.175**	2.513	-1.484
	(1.921)	(2.146)	(3.452)
Dominant Share	2.658	3.504	-4.565
	(1.612)	(2.929)	(5.195)
Country Level			
Electoral Democracy	-3.042	11.818***	6.129*
	(3.891)	(2.694)	(3.048)
Official Language (National)	1.424		
	(0.920)		
Official Language (Regional or National)		4.105***	2.506*
		(0.803)	(1.016)
Social Group Power	-0.501	-0.081	2.162*
	(1.111)	(0.523)	(0.970)
Federalism	-3.086	-2.810	1.239
	(3.454)	(2.294)	(2.580)
Linguistic Fractionalization	-0.351	-0.644	-0.669
	(0.424)	(0.401)	(0.550)
GDP per Capita (Ln)	-8.749	2.115	2.900
	(5.059)	(2.497)	(3.172)
GINI Index (Ln)	-0.062	2.265*	3.118*
	(1.301)	(1.019)	(1.470)
Intercept	35.102	-10.647	-11.659
	(20.494)	(10.875)	(13.431)
Year FEs	Yes	Yes	Yes
Log Likelihood	-590.819	-462.790	-443.723
AIC	1219.638	963.580	925.446
BIC	1317.884	1061.827	1023.693
N (Observations)	1301	1301	1301

Standard errors are clustered at the country level.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix C Robustness Checks

Table C1: Robustness Check: Measuring Regional Self-governance by the Presence of Ethnic or Regional Parties (ERPs) in the Regional Government, with Year Fixed Effects

	(1) Regional Official Status	(2) Allowing Instruction	(3) Compulsory Learning
ERA Level			
Presence of ERPs	-0.166	-0.925	0.395
	(0.406)	(0.539)	(0.616)
Titular Share	2.292	2.580*	1.921
	(1.495)	(1.218)	(1.454)
Dominant Share	-0.032	2.616	0.212
	(1.091)	(1.774)	(1.835)
Country Level			
Electoral Democracy	-3.991	12.906***	7.520*
	(3.243)	(3.176)	(3.773)
Official Language (National)	2.930***		
	(0.861)		
Official Language (Regional or National)		3.306***	2.267***
		(0.662)	(0.572)
Social Group Power	0.211	-0.894	1.307*
	(0.649)	(0.535)	(0.511)
Federalism	-2.578	-3.576	2.166
	(2.641)	(1.914)	(2.493)
Linguistic Fractionalization	-0.005	-0.458	-0.294
	(0.455)	(0.315)	(0.565)
GDP per Capita (Ln)	-4.326	1.240	4.125*
	(2.713)	(2.768)	(2.054)
GINI Index (Ln)	-0.898	2.358**	3.629*
	(1.014)	(0.789)	(1.797)
Intercept	18.413	-10.653	-24.564*
	(10.105)	(11.935)	(12.036)
Year FEs	Yes	Yes	Yes
Log Likelihood	-778.319	-604.446	-545.155
AIC	1604.638	1256.892	1136.309
BIC	1733.035	1385.289	1259.356
N (Observations)	1556	1556	1556

Standard errors are clustered at the country level.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table C2: Robustness Check: Measuring Democracy by the Liberal Democracy Index, with Year Fixed Effects

	(1) Regional Official Status	(2) Allowing Instruction	(3) Compulsory Learning
ERA Level			
Self-rule	0.010	-0.281	-0.167
	(0.163)	(0.153)	(0.092)
Titular Share	5.185**	2.847	-1.129
	(1.904)	(2.314)	(3.496)
Dominant Share	2.666	3.704	-4.256
	(1.591)	(3.015)	(5.218)
Country Level			
Liberal Democracy	-2.836	10.027***	5.094^{+}
	(3.512)	(2.667)	(3.088)
Official Language (National)	1.418		
	(0.883)		
Official Language (Regional or National)		3.838***	2.425*
		(0.738)	(0.987)
Social Group Power	-0.590	0.512	2.211*
	(0.966)	(0.526)	(0.970)
Federalism	-3.053	-2.279	1.531
	(3.510)	(2.370)	(2.672)
Linguistic Fractionalization	-0.287	-0.885	-0.694
	(0.435)	(0.479)	(0.531)
GDP per Capita (Ln)	-9.230	3.109	2.897
	(5.290)	(2.805)	(3.068)
GINI Index (Ln)	-0.113	2.304*	3.042
	(1.336)	(1.130)	(1.598)
Intercept	35.877	-11.036	-10.172
	(21.275)	(11.631)	(13.351)
Year FEs	Yes	Yes	Yes
Log Likelihood	-591.509	-480.487	-448.919
AIC	1221.019	998.973	935.837
BIC	1319.266	1097.220	1034.084
N (Observations)	1301	1301	1301

Standard errors are clustered at the country level.
$^{+}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table C3: Robustness Check: Controlling the Influences of Countries (Russia, India, and Nigeria) with the Most ERAs

	(1) Regional Official Status	(2) Allowing Instruction	(3) Compulsory Learning
ERA Level			
Self-rule	0.051	-0.327*	-0.106
	(0.133)	(0.153)	(0.094)
Titular Share	5.854**	2.132	-0.267
	(2.039)	(1.844)	(5.217)
Dominant Share	3.298	3.226	-3.609
	(1.797)	(2.699)	(7.104)
Country Level			
Liberal Democracy	-5.349	8.216**	9.106**
	(6.203)	(2.869)	(3.420)
Official Language (National)	1.371		
	(0.858)		
Official Language (Regional or National)		4.101***	2.401**
		(0.733)	(0.873)
Social Group Power	-0.596	0.843	1.554
	(1.584)	(0.819)	(0.974)
Federalism	-1.199	5.280***	1.089
	(1.901)	(1.586)	(1.899)
Linguistic Fractionalization	-2.539	-3.699*	2.910
	(3.366)	(1.887)	(2.587)
GDP per Capita (Ln)	0.237	-0.618	-0.400
	(0.608)	(0.351)	(0.562)
GINI Index (Ln)	-7.439	3.699	1.999
	(4.848)	(2.772)	(3.112)
Intercept	25.950	-14.223	-14.024
	(18.142)	(12.264)	(11.442)
Russia, India, & Nigeria FEs	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes
Log Likelihood	-582.272	-447.118	-424.085
AIC	1202.544	932.236	884.170
BIC	1300.791	1030.483	972.795
N (Observations)	1301	1301	1016

Appendix D Decomposing Components of the Self-rule Variable

D.1 Cross-Tabulations of Components of Self-rule with Official Status

Table D1.1: Cross-Tabulation of Institutional Depth and Official Status

	Official Status		Total
Institutional Depth	0	1	
0	0	0	0
	(0.00)	(0.00)	(0.00)
1	0	4	4
	(0.00)	(0.65)	(0.65)
2	143	246	389
	(23.33)	(40.13)	(63.46)
3	59	161	220
	(9.62)	(26.26)	(35.89)
Total	202	411	613
	(32.95)	(67.05)	(100.00)

Note: Counts are shown in the first row of each cell, with cell percentages reported in parentheses in the next row.

Table D1.2: Cross-Tabulation of Policy Autonomy and Official Status

	Official Status		Total
Policy Autonomy	0	1	
0	0	4	4
	(0.00)	(0.65)	(0.65)
1	50	118	168
	(8.16)	(19.25)	(27.41)
2	84	94	178
	(13.70)	(15.33)	(29.04)
3	32	155	187
	(5.22)	(25.29)	(30.51)
4	36	40	76
	(5.87)	(6.53)	(12.40)
Total	202	411	613
	(32.95)	(67.05)	(100.00)

Note: Counts are shown in the first row of each cell, with cell percentages reported in parentheses in the next row.

Table D1.3: Cross-Tabulation of Fiscal Autonomy and Official Status

	Official Status		Total
Fiscal Autonomy	0	1	
0	30	24	54
	(4.89)	(3.92)	(8.81)
1	26	20	46
	(4.24)	(3.26)	(7.50)
2	0	16	16
	(0.00)	(2.61)	(2.61)
3	136	281	417
	(22.19)	(45.84)	(68.03)
4	10	70	80
	(1.63)	(11.42)	(13.05)
Total	202	411	613
	(32.95)	(67.05)	(100.00)

Note: Counts are shown in the first row of each cell, with cell percentages reported in parentheses in the next row.

Table D1.4: Cross-Tabulation of Borrowing Autonomy and Official Status

Borrowing Autonomy	Official Status		Total
	0	1	
0	33	24	57
	(5.38)	(3.92)	(9.30)
1	37	92	129
	(6.04)	(15.01)	(21.04)
2	122	235	357
	(19.90)	(38.34)	(58.24)
3	10	60	70
	(1.63)	(9.79)	(11.42)
Total	202	411	613
	(32.95)	(67.05)	(100.00)

Note: Counts are shown in the first row of each cell, with cell percentages reported in parentheses in the next row.

Table D1.5: Cross-Tabulation of Representation and Official Status

Representation	Official Status		Total
	0	1	
0	0	4	4
	(0.00)	(0.65)	(0.65)
1	0	0	0
	(0.00)	(0.00)	(0.00)
2	30	0	30
	(4.89)	(0.00)	(4.89)
3	57	148	205
	(9.30)	(24.14)	(33.44)
4	115	259	374
	(18.76)	(42.25)	(61.01)
Total	202	411	613
	(32.95)	(67.05)	(100.00)

Note: Counts are shown in the first row of each cell, with cell percentages reported in parentheses in the next row.

D.2 Cross-Tabulations of Components of Self-rule with Language of Instruction

Table D2.1: Cross-Tabulation of Institutional Depth and Language of Instruction

	Language of Instruction		Total
Institutional Depth	0	1	
0	0	0	0
	(0.00)	(0.00)	(0.00)
1	0	4	4
	(0.00)	(0.65)	(0.65)
2	193	196	389
	(31.48)	(31.97)	(63.46)
3	50	170	220
	(8.16)	(27.73)	(35.89)
Total	243	370	613
	(39.64)	(60.36)	(100.00)

Note: Counts are shown in the first row of each cell, with cell percentages reported in parentheses in the next row.

Table D2.2: Cross-Tabulation of Policy Autonomy and Language of Instruction

	Language of Instruction		Total
Policy Autonomy	0	1	
0	0	4	4
	(0.00)	(0.65)	(0.65)
1	98	70	168
	(15.99)	(11.42)	(27.41)
2	86	92	178
	(14.03)	(15.01)	(29.04)
3	33	154	187
	(5.38)	(25.12)	(30.51)
4	26	50	76
	(4.24)	(8.16)	(12.40)
Total	243	370	613
	(39.64)	(60.36)	(100.00)

Note: Counts are shown in the first row of each cell, with cell percentages reported in parentheses in the next row.

Table D2.3: Cross-Tabulation of Fiscal Autonomy and Language of Instruction

	Language of Instruction		Total
Fiscal Autonomy	0	1	
0	0	54	54
	(0.00)	(8.81)	(8.81)
1	26	20	46
	(4.24)	(3.26)	(7.50)
2	0	16	16
	(0.00)	(2.61)	(2.61)
3	217	200	417
	(35.40)	(32.63)	(68.03)
4	0	80	80
	(0.00)	(13.05)	(13.05)
Total	243	370	613
	(39.64)	(60.36)	(100.00)

Note: Counts are shown in the first row of each cell, with cell percentages reported in parentheses in the next row.

Table D2.4: Cross-Tabulation of Borrowing Autonomy and Language of Instruction

Borrowing Autonomy	Language of Instruction		Total
	0	1	
0	3	54	57
	(0.49)	(8.81)	(9.30)
1	33	96	129
	(5.38)	(15.66)	(21.04)
2	207	150	357
	(33.77)	(24.47)	(58.24)
3	0	70	70
	0.00	11.42	(11.42)
Total	243	370	613
	(39.64)	(60.36)	(100.00)

Note: Counts are shown in the first row of each cell, with cell percentages reported in parentheses in the next row.

Table D2.5: Cross-Tabulation of Representation and Language of Instruction

Representation	Language of Instruction		Total
	0	1	
0	0	4	4
	(0.00)	(0.65)	(0.65)
1	0	0	0
	(0.00)	(0.00)	(0.00)
2	0	30	30
	(0.00)	(4.89)	(4.89)
3	95	110	205
	(15.50)	(17.94)	(33.44)
4	148	226	374
	(24.14)	(36.87)	(61.01)
Total	243	370	613
	(39.64)	(60.36)	(100.00)

Note: Counts are shown in the first row of each cell, with cell percentages reported in parentheses in the next row.

D.3 Cross-Tabulations of Components of Self-rule with Compulsory Learning

Table D3.1: Cross-Tabulation of Institutional Depth and Compulsory Learning

	Compulsory Learning		Total
Institutional Depth	0	1	
0	0	0	0
	(0.00)	(0.00)	(0.00)
1	4	0	4
	(0.65)	(0.00)	(0.65)
2	235	154	389
	(38.34)	(25.12)	(63.46)
3	72	148	220
	(11.75)	(24.14)	(35.89)
Total	311	302	613
	(50.73)	(49.27)	(100.00)

Note: Counts are shown in the first row of each cell, with cell percentages reported in parentheses in the next row.

Table D3.2: Cross-Tabulation of Policy Autonomy and Compulsory Learning

	Compulsory Learning		Total
Policy Autonomy	0	1	
0	4	0	4
	(0.65)	(0.00)	(0.65)
1	107	61	168
	(17.46)	(9.95)	(27.41)
2	105	73	178
	(17.13)	(11.91)	(29.04)
3	69	118	187
	(11.26)	(19.25)	(30.51)
4	26	50	76
	(4.24)	(8.16)	(12.40)
Total	311	302	613
	(50.73)	(49.27)	(100.00)

Note: Counts are shown in the first row of each cell, with cell percentages reported in parentheses in the next row.

Table D3.3: Cross-Tabulation of Fiscal Autonomy and Compulsory Learning

	Compulsory Learning		Total
Fiscal Autonomy	0	1	
0	19	35	54
	(3.10)	(5.71)	(8.81)
1	30	16	46
	(4.89)	(2.61)	7.50
2	16	0	16
	(2.61)	(0.00)	(2.61)
3	236	181	417
	(38.50)	(29.53)	68.03
4	10	70	80
	(1.63)	(11.42)	13.05
Total	311	302	613
	(50.73)	(49.27)	(100.00)

Note: Counts are shown in the first row of each cell, with cell percentages reported in parentheses in the next row.

Table D3.4: Cross-Tabulation of Borrowing Autonomy and Compulsory Learning

Borrowing Autonomy	Compulsory Learning		Total
	0	1	
0	42	15	57
	(6.85)	(2.45)	(9.30)
1	53	76	129
	(8.65)	(12.40)	(21.04)
2	216	141	357
	(35.24)	(23.00)	(58.24)
3	0	70	70
	(0.00)	(11.42)	(11.42)
Total	311	302	613
	(50.73)	(49.27)	(100.00)

Note: Counts are shown in the first row of each cell, with cell percentages reported in parentheses in the next row.

Table D3.5: Cross-Tabulation of Representation and Compulsory Learning

Representation	Compulsory Learning		Total
	0	1	
0	4	0	4
	(0.65)	(0.00)	0.65
1	0	0	0
	(0.00)	(0.00)	(0.00)
2	15	15	30
	(2.45)	(2.45)	(4.89)
3	100	105	205
	(16.31)	(17.13)	(33.44)
4	192	182	374
	(31.32)	(29.69)	(61.01)
Total	311	302	613
	(50.73)	(49.27)	(100.00)

Note: Counts are shown in the first row of each cell, with cell percentages reported in parentheses in the next row.