

**Social Equity and Clientele Participation:  
A Cross-National Study of Immigrant Education**

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## **Abstract**

This article investigates how parental participation in schools affects overall student performance and whether socially marginalized students benefit more or less when schools involve greater participation. Using 63 country cross-national educational dataset, this paper shows that parental involvement in school activities is not significantly related to overall student performance, but such efforts reduce the performance gap between immigrant and native-born students. This finding suggests that direct participation can reduce social disparities in program outcomes.

## Introduction

Engaging citizens in policymaking and implementation is one of the key elements of public management and democratic governance (Amirkhanyan and Lambright 2017; Clark 2021; Fung and Wright 2001; Nabatchi 2012; Neshkova and Guo 2018). Public participation involves the direct or indirect involvement of citizens, such as in public hearings, community meetings, and citizen advisory boards beyond simply casting a ballot (Amirkhanyan and Lambright 2017). Advocates of participatory governance consider public participation as a means of enhancing government performance and accountability (Damgaard and Lewis 2014; Fung 2006). A large body of research, however, has also discussed the administrative and perceptual costs of public participation and the potential bias in participation opportunities (Irvin and Stansbury 2004; Moynihan 2003). Despite our growing understanding of the role of public participation, empirical evidence related to its effects on program outcomes is scarce. In particular, its impact on service equity remains largely unknown.

This article examines how public participation affects service effectiveness and equity in the context of education. We investigate how parental participation in schools affects student performance and whether it leads to better outcomes for socially marginalized groups or alternatively increases disparities in outcomes. Based on the literature on the benefits of public participation for public programs (Amirkhanyan et al. 2019; Moynihan 2003; Muhlberger and Weber 2006), we first posit that parental participation will increase the overall performance. Programs that engage service users are more likely to reflect user preferences, address their concerns, and increase the possibility of coproduction among service recipients (Andersen, Nielsen, and Thomsen 2019). These benefits should outweigh the transaction costs of participation and the conflicting demands of different stakeholders.

In terms of how public participation affects equitable distribution of public services, conflicting theoretical perspectives exist. Some scholars recognize that inequity in public participation exists (Clark 2018), and structural barriers and inequity in participation can widen the outcome gap between socially privileged and marginalized groups (Schlozman, Verba, and Brady 2012). In contrast, others argue that greater public participation can provide an institutional venue that could amplify the voices of marginalized groups, leading to more equitable outcomes (Baiocchi 2001; Hong and Cho 2018; Touchton and Wampler 2014). Despite the extensive theoretical debates, few studies have empirically investigated this effect of participation (see Paarlberg and Ghosh Moulick 2017).

In this article presents a cross-national analysis of the education of immigrant children, a relatively vulnerable group that is growing in numbers in many countries. Specifically, this study focuses on two important performance dimensions—effectiveness and equity—and tests (1) whether parent participation promotes overall academic performance and (2) whether parent participation reduces the performance gap between native-born students and immigrant students (those either born in foreign countries or whose parents were foreign-born). The empirical strategy involves cross-national data on 10,824 schools in 63 countries and regression models with clustered standard errors by school and country fixed effects.

This research contributes to the public participation literature within public management by providing systematic evidence on the relationship between one specific type of public participation and service performance (Fung and Wright 2001; Daley 2007; Hong and Cho 2018). No research, to our knowledge, has investigated this relationship using large samples and quantitative analysis in a cross-national context. Our findings provide meaningful implications for the role of the public in an inclusive, participatory system of governance (Andersen et al.

2019; Blijleven and van Hulst. 2021; Jakobsen and Andersen 2013). Furthermore, addressing the concerns surrounding unequal outcomes of public participation, this study examines equity as a dimension of performance and explores whether public participation can lead to a more equitable distribution of public services. Lastly, our study probes the generalizability of public participation theories; empirical findings from 63 countries could provide compelling evidence for the effects of public participation on policy outcomes in one policy area.

### **The Definition, Forms, and Consequences of Public Participation**

Given its significance and wide scope, the role of public participation has been an active and ongoing area of inquiry and debate. Public participation is a broad umbrella term that captures “the activities by which people’s concerns, needs, interests, and values are incorporated into decisions and actions on public matters and issues” (Nabatchi and Leighninger 2015, 14). Public participation could be either indirect or direct. *Indirect participation* is when citizens influence policies via voting or donating money, while *direct participation* is when citizens are personally involved in decision-making or service processes through participation in public meetings or the provision of feedback (Nabatchi and Leighninger 2015; Neshkova and Guo 2018). In this article, we focus on direct forms of participation, defined as “efforts and processes by which community members: (1) receive information related to public policies and programs, (2) share feedback about their needs, opinions or values, and/or (3) are directly involved in the formulation or implementation of these policies and programs” (Amirkhanyan and Lambright 2017, xv). Direct participation enables the public to provide input into the administrative decision-making and implementation processes, thereby connecting the public directly with government agencies, rather than through their political representatives (Mingus and Zhu 2018; Nabatchi and Amsler 2014; Neshkova and Guo 2018).

Not all direct participation activities, however, are alike. Some forms of direct participation allow citizens to take leadership roles in policymaking or program design, whereas other forms of direct engagement involve citizens in policy implementation or the service production process. Many participation activities exist somewhere between these categories, suggesting that participation is not a dichotomous phenomenon. Among various forms of participation, coproduction is worth highlighting. Coproduction refers to “the service delivery process which envisions direct citizen involvement in the design and delivery of city services with professional service agents” (Brudney and England 1983, 59). Coproduction is a crucial form of public participation because it concerns the fundamental aspects of public administration and public service production, and focuses on the direct interaction between service users and providers during the production phase (Brandsen and Honingh 2016).

In addition to forms of participation, the impact of public participation is also likely to vary. Some citizen engagement is purely symbolic whereas other activities make a substantial difference. When participation does matter, the impacts of such participation are not uniform. Some participation activities may bring policy benefits while others may result in unexpected costs and conflicts (Irvin and Stansbury 2004; Nabatchi and Leighninger 2015). A substantial body of research finds that public participation has positive effects on the perceived fairness of the process (Ruder and Woods 2019), political efficacy (Gastil 2000; Nabatchi 2010), public satisfaction (McComas 2003), public competence (Barabas 2004), the acquisition and development of political knowledge (Muhlberger and Weber 2006), and trust in public services (Jo and Nabatchi 2019). Public participation may also bring some normative benefits by helping uphold key administrative values such as equity, democracy, accountability, responsiveness, and

answerability to the public (Heikkila and Isett 2007; Moynihan 2003; Nabatchi 2010; Roberts 2008).

Public participation, however, does not necessarily result in desirable outcomes. Scholars have acknowledged the costs of public participation, such as inefficiency in decision-making, conflicts among stakeholders, and suboptimal policy decisions (Irvin and Stansbury 2004). Specifically, public participation can be costly and inefficient due to the challenge of reaching agreements among multiple stakeholders with heterogenous preferences (Echeverria 2001; Irvin and Stansbury 2004). Public participation might be marginalized because citizens' feedback lacks authority and expertise, and oftentimes, their wishes are infeasible. Furthermore, participation may also create unrealistic expectations among citizens, leading to hostility towards the government when their feedback is not incorporated (Irvin and Stansbury 2004). Concerns also exist that public participation may lead to incorrect decisions and suboptimal policy outcomes. Public participation may be dominated by individuals with a vested interest in the policy or those who have the resources and power to participate (Irvin and Stansbury 2004). This participation bias can affect policy outcomes, particularly who benefits from programs.

Despite the extensive discussion, empirical evidence on the actual impact of participation on service outcomes is scarce. Although some recent studies empirically investigate the consequences of public participation (for a review, see Nabatchi 2012), there are notable gaps in the literature. First, previous research on participation has mostly focused on the public's perceptions or attitudes, namely whether participation transformed public trust, civic skills, sense of empowerment, or collective coproduction behavior (e.g., Gastil 2000; Jo and Nabatchi 2019; McComas 2003; Wang and Van Wart 2007). Empirical research on service outcomes of public participation is less common (but see Amirkhanyan et al. 2019). Second, scant attention has been

paid to service equity, and we know little about how public participation affects who benefits from programs (but see Hong and Cho 2018). Third, most previous empirical testing has been conducted within a single country context, which may limit the external validity of the findings.

This article addresses the gaps in literature by conducting a cross-national empirical investigation of how parents' participation affects student outcomes in education. We focus on the coproduction aspect of participation (e.g., information sharing and taking part in school activities) rather than policy making. In particular, our study applies to parents' direct engagement in schools and its impact on the relative performance of immigrant students as well as overall student performance.

### **Public Participation and Service Effectiveness: Is Participation Good for Overall Performance?**

Engaging the public in governance can generate various policy benefits including improved service performance (Amirkhanyan et al. 2019). First, public participation allows for the incorporation of public preferences and expectations into decision-making for public services, which can ultimately promote service quality and accountability (Amirkhanyan and Lambright 2017; Heikkila and Isset 2007; Mingus and Zhu 2018). As the primary user of public services, the public's interests, concerns, and preferences are vital for administrative decision-making. With such citizen input, public organizations can deliver services that are more closely aligned with public preferences and improve service quality in a way that better resonates with public needs (Amirkhanyan et al. 2019).

Second, when the public directly engages with service processes, the possibility of the public disliking the final service outputs can be reduced, which in turn improves the effectiveness of public service delivery. Reflecting on public needs at earlier stages of the



process can result in better outcomes by avoiding unanticipated public opposition. Meaningful stakeholder participation can also help to avoid unnecessary gridlock and litigation costs (O’Leary and colleagues 1999; Irvin and Stansbury 2004).

Third, public participation can mitigate the negative effect of uncertainty, thereby contributing to more effective program implementation (Zambrano-Gutiérrez, Rutherford, and Nicholson-Crotty 2017). Environmental turbulence often imposes challenges in maintaining high levels of performance (Meier and O’Toole 2008; O’Toole and Meier 2003a). Obtaining critical information about external environments can contribute to a successful strategy in dealing with uncertainty (Bovaird and Downe 2008; Zambrano-Gutiérrez et al. 2017).

Lastly, public participation allows citizens to better understand of public service processes and improve their trust in government (Jo and Nabatchi 2019). Through direct participation, the public may become aware of the political, financial, and technical challenges of producing quality services and learn more about how public services are provided and consumed (Irvin and Stansbury 2004; Jo and Nabatchi 2019). This process permits citizens to set reasonable expectations, leading to higher satisfaction with outcomes. Furthermore, successful public participation might create good citizens by helping individuals look beyond their private interests and think about their communities (Mill 1958) and by mobilizing them to expect and demand accountability in public programs.

In the context of education, parental participation in schools encompasses a wide variety of processes and activities, including attending board meetings, joining school councils, volunteering for school activities, and responding to inquiries about their child’s performance (Vinopal 2017). Such efforts can positively affect student learning and performance by helping administrators and teachers understand parents’ preferences and concerns regarding their child’s

education, by preventing inefficient or unnecessary educational programs, and by encouraging active coproduction (Nabatchi and Leighninger 2015). The existing literature also shows that parent involvement in education is positively associated with several measures of academic achievement including higher test scores (Hill and Tyson, 2009; Honingh, Bondarouk, and Brandsen 2020; Jeynes 2007). Based on this discussion, we expect that parental participation contributes to overall student performance.

*Hypothesis 1: Parent participation will improve overall student performance.*

### **Public Participation and Service Equity: Who Gets More Benefits?**

#### ***Public participation benefits the privileged***

Despite the numerous normative advantages and instrumental benefits of public participation (Irvin and Stansbury 2004; Moynihan 2003), the potential bias in participation opportunities and outcomes against marginalized individuals has been a concern (Schlozman, Verba, and Brady 2012; Verba, Schlozman, and Brady 1995). E.E. Schattschneider (1960) and others argue that economic inequality generates significant gaps between the participation levels of the wealthy and the poor. This social class bias makes it difficult for the poor to place their concerns on the policy agenda, whereas the wealthy can dominate the process and address their own needs (Lijphart 1996; Schattschneider 1960; Verba 1996).<sup>1</sup> Empirical studies supports this claim, showing that economic inequality widens political disparities (Lancee and Van de Werfhorst 2012; Solt 2010), and unequal participation may explain why marginalized groups' voices are not heard (Mansuri and Rao, 2012; Shah 2007). Unequal participation is also more

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<sup>1</sup> This argument could apply to other social categories including race or ethnicity and level of education. The past literature has suggested that white and highly educated individuals are more likely to participate than racial minorities and less educated people (Barnes and Kaase 1979; Verba et al. 1995).

likely to result in outcomes that are systematically biased to favor more advantaged individuals (Grillos 2017; Lijphart 1996; Verba, Schlozman, and Brady 1995).

Another criticism of public participation is that it is prone to elite capture (Conning and Kevane 2002; Dasgupta and Beard 2007; Paarlberg and Ghosh Moulick 2017) whereby elites siphon off substantial benefits from public resources using their superior social status (Iversen et al. 2006). Because local elites are likely to have more information, resources, influence, and control over agenda-setting processes, they can capture a disproportionate share of public program benefits (Fung and Wright 2003; Grillos 2017). Research shows that elite capture can occur at various stages of the policymaking and implementation process (Sheely 2015), allowing elites to dominate and capture the outcomes of public meetings even without excluding any groups from the process (Grillos 2017; Humphreys, Masters, and Sandbu 2006).

Socially marginalized individuals tend to be less able to bear the costs of participation in the public service delivery process. Direct participation requires time, resources, knowledge, and a sense of self-efficacy; only individuals with strong preferences and resources that outweigh the costs are likely to participate (Hong and Cho 2018). Participation can be particularly costly for the marginalized because they have relatively less time and fewer resources as well as higher opportunity costs for participating (Brady, Verba, and Schlozman 1995).

In education, different levels of parental participation between privileged and marginalized groups could result in widening the student performance gap between the two groups. Low-income parents, for example, have fewer opportunities to participate in school activities due to uncertain work schedules and more limited resources (Christianakis 2011). Most important school meetings are held on weekdays, generating higher opportunity costs for low-income working parents. These participation barriers are especially salient in the specific case of

education and immigrants. Immigrant parents face significant challenges due to language and cultural barriers, which prevent meaningful communication between school administrators and teachers, and parents (Delgado-Gaitan 1990). In addition to the detrimental effects of lower incomes and less discretionary time (Carreón, Drake, and Barton 2005; Turney and Kao 2010), limited access to parent participation can lead to disparities in student performance.

*Hypothesis 2a: Parent participation will have a greater positive impact on privileged student performance than marginalized student performance.*

### ***Public participation benefits the marginalized***

While prior research has largely focused on inequities resulting from public participation (Lowi 1979; Schattschneider 1960; Verba et al. 1995), other studies suggest that public participation could lead to more equitable outcomes (Feld et al. 2010; Hong and Cho 2018). First, even limited participation can better convey marginalized groups' needs in the policy process than an absence of participation. Service decisions from the top-down decision-making processes are largely predicated on majority views and more sensitive to more affluent groups' interests (Hong and Cho 2018; Mueller and Startmann 2003). Public participation is fundamentally different from such bureaucratic decision-making (Neshkova and Guo 2011) and provides administrators with opportunities to learn more about what marginalized groups expect from public services (Irvin and Stansbury 2004).

Second, public participation may also encourage public managers to advocate marginalized groups' interests and potentially improve service equity (e.g., Irvin and Stansbury 2004). The idea of public participation is associated with key democratic values, such as equity, equality, justice, and fairness (Fung 2015; Nabatchi 2010). Administrators working directly with

the public are likely to be aware of the importance of such values. Consequently, public participation mandates could encourage them to advocate for the marginalized groups and press for social equity.

Third, public officials may be more likely to respond to an active citizenry by both reducing inefficiencies (Fung 2003; Fung and Wright 2003) and addressing the needs of the lower social classes to justify their expenditures (Boulding and Wampler 2010). On the one hand, public participation plays an oversight role to ensure that public resources are spent efficiently. Knowing that there are opportunities for citizen participation (e.g., complaint lines, public hearings) creates incentives for administrators to be more efficient and avoid negative feedback by service users. The increased efficiency may generate more benefits to the marginalized because their marginal benefits from extra resources may be greater than those of the well-off. On the other hand, public participation can encourage administrators to allocate resources to distribute public services more equitably and help to justify their budgetary decisions. More efficient and equitable allocation of resources, in turn, can lead to public service outcomes that better align with the interests of the marginalized public (Andrews, Cowell, and Downe 2010; Bryson et al. 2013). Studies of participatory budgeting, for example, show that it can make tangible improvements in the lives of marginalized individuals by increasing spending on social services (Boulding and Wampler 2010; Hong and Cho 2018; Pape and Lerner 2016; Touchton and Wampler 2014).

In the case of education, parental participation can benefit marginalized students in several ways (Vinopal 2017). While attending school meetings or events, racial minority or immigrant parents, for example, have a chance to bring up racial or linguistic barriers that their children face at school. Such efforts may help teachers and school administrators gain a deeper

awareness of the challenges facing students from marginalized backgrounds and encourage changes in school policies and programs.<sup>2</sup> Even if financially stable parents are more likely to participate and do not actively raise concerns related to challenges for the marginalized, their participation can help marginalized students to some extent. Their active participation can encourage administrators to make better use of school resources and improve learning environments, which could benefit all students, not just the wealthy.<sup>3</sup> For example, parents can make suggestions for an effective educational curriculum, healthy lunch options, a safe school environment, and better technology. Given that these programs and environments tend not to be excludable within schools, marginalized students would also benefit from these changes. In fact, the actual benefits of an improved learning environment might be greater for the marginalized than the advantaged because marginalized students have fewer resources in their homes and tend to underperform compared to advantaged students.<sup>4</sup> The existing literature has also suggested that parental involvement can reduce the achievement gap between the two groups (Jeynes 2007).

*Hypothesis 2b: Parent participation will have a greater positive impact on marginalized student performance than privileged student performance.*

Hypotheses 2a and 2b can be tested statistically by interacting the level of parent participation by the status of the student. A negative relationship will be consistent with hypothesis 2a indicating that children from marginalized groups do worse in school performance when there is more

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<sup>2</sup> Examples of such effects may include hiring bilingual teachers and outreach coordinators as well as encouraging racial minority or immigrant students to enroll in more challenging classes or to consider higher education.

<sup>3</sup> Holbein and Hassell (2019) find that white parents are more responsive to overall school performance and care about black students' academic struggles as much as white students' struggles.

<sup>4</sup> If parents make efforts in ensuring better resources and technology for all, for example, by raising funds to get digital books for all students in classes, all students can benefit from this technology. However, the benefits would matter more for low-income students who may not have such technology in their homes, compared to the affluent students who are more likely to enjoy rich learning environments at home.

parent participation. A positive relationship will be consistent with hypothesis 2b that students from marginalized groups will do better in school performance when there is greater parent participation.

### **The Test Case: Immigrant Students and Education**

To disentangle the influence of public participation, program performance, and social equity in a cross-national context requires a public service that is delivered in all countries, that contains comparable performance indicators and participation measures, and that deals with important differences that link to questions of equity. The education of immigrant children provides one promising case to investigate these questions. Immigration is a highly salient issue worldwide, and one important policy concern is the ability of nations to integrate immigrant populations into the existing society, which is termed political incorporation (Wolbrecht and Hero 2005; see also Andrews et al. 2013).

Studies have demonstrated that public bureaucracies play a major role in this process (Lewis and Ramakrishnan 2007; Marrow 2011). Although most public bureaucracies from the local police to departments of motor vehicles to social service agencies to employment agencies interact with immigrant communities, none is more important than the public education system that prepares immigrant children for participation in the economy and the political system. Marrow's (2011) study of immigrant education shows that public schools function as more than just providing education in this regard; they serve as referral agencies for other public services such as language training, public health services, and childcare contacts among others. Many of these activities are in support of the schools' primary function, educating children; and with few exceptions, immigrant children face significant disadvantages in school related to language,

income, parental education, and educational aspirations (Böhlmark 2008; Cortes 2006; Schleicher 2006).

Schools are also an area of public policy where public participation, particularly parental participation, is both encouraged and perceived to contribute to better student performance (Feuerstein 2000; applied in public administration see Vinopal 2017). The ability of an education system to provide quality education to marginalized populations such as immigrant children, thus, serves as a good test case for assessing the role of public participation on equity in public services. Although public education may differ in key respects compared to other public services, it has frequently been used to test important theories of public administration (Kogan, Lavertu, and Peskowitz 2017; Favero and Meier 2013).

The public participation literature also notes that the potential for participation in education is especially important because “the school system is a large institutional presence in almost every community, and education often attracts more attention, allegiance, and concern than any other public issue” (Nabatchi and Leighninger 2015, 109). Participation in education includes a wide range of activities at the district, school, and classroom levels. At the school district level, common participation forms include receiving public comments during the school board meetings and having advisory committees that include parents and other citizens (Nabatchi and Leighninger 2015). At the school level, participation opportunities include joining the Parent-Teacher Association (PTA) and the school council, participating in school events, attending school meetings, and volunteering for extracurricular activities. Classroom level participation focuses more on parent-teacher interaction, such as parent-teacher conferences or online networks (Nabatchi and Leighninger 2015). These various forms and levels of parent engagement are likely to influence student performance by inquiring about or responding to



inquiries about their child's performance as well as being involved in school meetings and activities (Griffith 1996; Vinopal 2017).

## **Data and Methods**

For empirical examinations of our hypotheses, we use the Programme for International Student Assessment (PISA) surveys in 2015 coordinated by Organization for Economic Cooperation and Development (OECD).<sup>5</sup> Designed to produce comparable data across countries, the purpose of PISA is to evaluate education systems cross-nationally by testing 15 years old students (or ones who are equivalent to nearing the end of their compulsory education) on the subjects of reading, mathematics, and sciences. In addition to the test scores on the three subjects, surveys ask students and school principals to provide information on their background (e.g., socioeconomic status) and the school environment (e.g., education system).

A total of 72 countries participated in PISA 2015. In participating countries, samples were drawn using a two-stage sampling process. In the first stage, a minimum of 150 schools were selected in each country through statistical stratification to ensure adequate representation of target populations in the sample.<sup>6</sup> Within a stratum, schools were randomly selected. In the second stage, students were randomly selected with an equal probability within schools. Not all participating countries opt-in for all survey questions in our models so our final sample includes 63 countries.<sup>7</sup>

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<sup>5</sup> This dataset includes both information on immigrant children and allows us to include more than 60 countries for the analysis. Although the data set is from 2015, it was the most recent PISA data set available at the time of the analysis.

<sup>6</sup> If a participating country had fewer than 150 schools, all schools were selected.

<sup>7</sup> The sixty three entities included in our sample are: Algeria, Argentina, Australia, China, Belgium, Brazil, Bulgaria, Canada, Chile, Taipei, Colombia, Costa Rica Croatia, Czech Republic, Denmark, Dominican Republic, Estonia, North Macedonia, Finland, France, Georgia, Germany, Greece, Hong Kong, Hungary, Iceland, Indonesia, Ireland, Italy, Jordan, South Korea, Kosovo, Latvia, Lebanon, Lithuania, Luxembourg, Macao, Malta, Mexico, Moldova, Montenegro, Netherlands, Peru, Poland, Portugal, Qatar, Romania, Russia, Singapore, Slovakia, Slovenia, Spain, Spain (regions), Switzerland, Thailand, Trinidad and Tobago, Tunisia, Turkey, United Arab Emirates, United

Given that our data includes multilevel structures, employing traditional regression models can bias estimated standard errors downward. Taking this issue into consideration, we employ regression models with robust standard errors clustered by the school. We also add country fixed effects and use grade non-response adjusted school base weights, provided by PISA, to account for any potential unobserved effects in countries and non-response biases in our sample.<sup>8</sup>

## Measures

### *Dependent variable*

The dependent variable in this study is student performance. PISA conducts a series of exams on reading, math, and science in participating countries and provides ten plausible values for each subject.<sup>9</sup> To extract the latent variable that reflects the joint variations in these values, we employ an exploratory factor analysis with the principle factor at the individual student level using all thirty plausible values.<sup>10</sup> The factor analytic results and examination of the scree plot suggest a single factor with an eigenvalue of 25.64 (see Table A2 in Appendix).

### *Independent variables*

*Parental participation.* This study focuses on *client* participation, considered one of the most prevalent forms of public participation (Amirkhanyan and Lambright 2017) because service users have greater motivation to participate than the general public and their active participation

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Kingdom, United States, Uruguay, and Vietnam. For more information on the countries, please visit the OECD website: <https://www.oecd.org/pisa/aboutpisa/pisa-2015-participants.htm>.

<sup>8</sup> Another way of estimating the models is to employ multilevel analyses accounting for the three different levels (student, school, and country). The results from multilevel regression models are consistent with our findings (results available upon requests).

<sup>9</sup> PISA does this to protect the anonymity of the individual students. The high correlations among the estimates mean that our results are not dependent on how we combine these estimates of the performance of the individual students.

<sup>10</sup> We also create factor variables for each subject and run the models separately. Our results remain the same (see Table A1 in Appendix).

makes a difference in performance (Amirkhanyan et al. 2019). The measures focus on *direct* participation rather than indirect participation which should be more closely related to the service processes and outcomes. The participation measure encompasses (a) receiving information, (b) sharing opinions, and (c) being directly involved in the design and implementation of programs. These three activities are consistent with the definition of direct participation by Amirkhanyan and Lambright (2017) and conceptually consistent with *coproduction* given that parents voluntarily engage in the service production process (Brandsen and Honingh 2016; Brudney and England 1983).

The measure is derived from survey questions asking school administrators to rate the level of parent participation. Specifically, school administrators reported the percentage of parents (0 to 100) participating in the following four school-related activities: (1) “discussed their child’s progress with a teacher on their own initiative,” (2) “discussed their child’s progress on the initiative of one of their child’s teachers,” (3) “participated in local school government (e.g., parent council or school management committee),” and (4) “volunteered in physical or extra-curricular activities (e.g., building maintenance, carpentry, gardening or yard work, school play, sports, field trip).” The first two items capture information/opinion sharing, while the third and fourth items capture formulation and implementation of programs, respectively. The four survey items loaded onto a single factor with an eigenvalue of 1.98 and a Cronbach’s alpha of 0.65 via exploratory factor analysis with principal components analysis (see Table A3 in Appendix).<sup>11</sup>

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<sup>11</sup> The modest alpha coefficient suggests that the individual items are somewhat idiosyncratic and that individual parents likely participate only in some of the ways and the pattern differs substantially from parent to parent. Analysis of the individual items indicates that the strongest influence is when parents on their own initiative discuss the child’s progress with a teacher, a clear element of coproduction. Volunteering also has positive associations with performance and participation in school governance does not seem to matter.

*Immigrant status.* The immigrant population has been marginalized in most societies due to its citizenship status and language barriers. This study considers immigrant students as a marginalized group and native-born students as an advantaged group. Our key independent variables include first- and second-generation student status. First-generation immigrant students are foreign-born students whose parents were also not born in the country of assessment; second-generation students are born in the country, but their parents were not. Dummy variables were created for each type of immigrant student. A negative association between immigrant status and student performance indicates a potential performance gap between immigrant and native-born students.

### ***Control variables***

Education literature has provided the education production function in which school resources and constraints play important roles in shaping student performance (Greenwald, Hedges, and Laine 1996; Hanushek 2008). To properly reflect the discussion, we consider control variables that capture educational resources and constraints from both student and school surveys. At the student level, we include the highest education level of the student's parents and whether the student has repeated a grade. Parents' education attainment is a good proxy for the socioeconomic status of students and measured on a seven-point scale from 'no formal education'=0 to 'tertiary education & advanced research programs'=6. Grade repetition is a dummy variable indicating whether or not a student repeated a grade (yes=1; otherwise=0).

At the school level, government funding (%), and school size (the number of students, logged), full-time teachers (%) and class size (student-teacher ratio) are controlled. The higher levels of the first three measures indicate more resources in schools while higher values of the student-teacher ratio represent more constraints. In addition to school resource and constraint

variables, we also control for school ownership (public=1; private=0) since their education system is likely different (Coleman, Kilgore, and Hoffer 1982).

## Findings

Table 2 contains two models. Model 1 serves as the base model, including the key independent variables—first- and second-generation student status and parent participation variables. Model 2 adds an interaction term between student immigrant status and parent participation to the base model to determine if increases in parental participation affect the performance of immigrant students.

[Table 2 about here]

Model 1 suggests a performance gap between immigrant and native-born students. Both first- and second-generation students, in general, perform worse than native-born students by 0.268 ( $p < 0.01$ ) and 0.127 ( $p < 0.01$ ), respectively. The gaps are approximately one-fourth and one-eighth of a standard deviation, respectively. The difference between the coefficients for first-generation and second-generation students is also statistically significant ( $0.268 - 0.127 = 0.141$ ;  $f$ -statistic=9.69). In sum, a considerable performance gap exists between immigrant and native-born students; immigrant students tend to underperform compared to native-born students, especially in the case of first-generation students.

Though the coefficient is positive, the relationship between parent participation and student performance is not statistically significant at traditional significance levels. Yet, it is premature to conclude that parent participation has no effect on student performance. When introducing the interaction term for immigrant students and parent participation in Model 2, the results show that the performance gap between first-generation and native-born students is

positively moderated (that is reduced) as parent participation increases. Holding all other things equal, concerning first-generation student status, when parent participation increases by one standard deviation above the mean value of parent participation, the performance gap between native-born and first-generation students is reduced by 0.081 ( $dy/dx = -0.275 + 0.081 = -0.194$ ). To further examine the relationship, we present marginal and predictive plots below.

[Figure 1 about here]

Figure 1 shows the marginal effects of the first-generation status on student performance as parent participation increases. The marginal effects of first-generation status range from -0.417 to -0.141 as parent participation changes from -1.75 to 1.65 ( $p < 0.05$ ). In other words, the performance gap between first-generation and native-born students becomes narrower when parent participation increases. It is important to note that after a certain point (1.65 in our sample), the marginal effect of immigrant status is no longer statistically significant, which means that public participation may have equalized the negative results of being an immigrant.<sup>12</sup>

[Figure 2 about here]

Figure 2 depicts the predictive marginal effects of the first-generation status on student performance when parent participation changes. The figure also confirms the performance gaps between first-generation and native-born students, between second-generation and native-born students, and between first- and second-generation students. The performance gaps among student groups are the largest when parent participation is low. As parent participation increases,

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<sup>12</sup> Though the interaction term of second-generation status and parent involvement is not statistically significant at the traditional significance levels, we depict the marginal plot in Figure A1 to examine if there exist any statistical associations at any point of parent participation. The marginal effects of second-generation status range from -0.206 to -0.090 as parent participation increases from -1.75 to 0.75 ( $p < 0.05$ ). In other words, some levels of parent participation also have an impact on second-generation student performance.

the achievement gaps, however, become narrower.<sup>13</sup> In short, greater parent participation is associated with a reduction in the education gap between immigrant and native born students.

## **Discussion and Conclusion**

How public participation shapes effective and equitable service outcomes has been extensively discussed but rarely tested in the public administration literature. Public managers frequently seek public participation both because it brings normative benefits and because they perceive that such participation will improve service performance. Using cross-national education data from more than 10,000 schools in 63 countries, this study finds that parental involvement in school activities does not improve overall student performance (hypothesis 1 not supported). Yet, parents' participation does reduce the performance gap between immigrant and native-born students, supporting our theoretical expectations on equity (hypothesis 2b supported). Put differently, the positive relationship between parent participation and immigrant student performance supports the normative advantages of public participation, that is, public participation can contribute to key democratic values including greater social equity (Fung 2015; Nabatchi 2010).

The positive effect of parent participation on reducing the gap between marginalized and privileged students is worth highlighting, given that existing theories offer two contrasting expectations. Our findings suggest that parents' participation in schools may have broad benefits rather than just affecting their own child's performance. Existing studies in individual countries show that parents respond more to the performance of all children than they do to the

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<sup>13</sup> In Figure 1, though the performance gap becomes smaller between second-generation and native-born students, it is also likely that the gap is parallel (or becomes larger) given that the interaction term of the two is not statistically significant. Though the term is not statistically significant, we still believe that drawing the relationship still provides informative insights.

performance of their own child (see Song and Meier 2018), and white parents also care about minority student performance and overall performance as well as white student performance (Holbein and Hassell 2019). Although generalizing beyond these two cases should be done with caution, it is possible that native parents may care about promoting the overall quality of education and cultivating a positive school environment and that these efforts can benefit students from marginalized groups. In this case, even if school governance and parent committees overrepresent native families, greater parent participation could contribute to immigrant student performance.

Why, then, does parent participation not lead to better performance in general or native-born student performance? One possible explanation could be the costs of participation. Although public participation has various advantages, it also has disadvantages, including increasing the time to make decisions and potentially making incorrect decisions based on public demands rather than public needs (Irvin and Stansbury 2004). In a school setting, heterogeneous preferences from parents may make it difficult for school administrators to allocate resources effectively and prioritize educational goals. These additional decision-making costs may cancel out the benefits of parent participation. Research on coproduction shows that parent-teacher relationships can be often challenging (Honingh, Bondarouk, and Brandsen 2020). In particular, some teachers perceive parental participation negatively, and this view often hinders meaningful parental involvement (Wood and Oliver 2011) and students' educational development. Additionally, research on the benefits of participation has predominantly been conducted in developed democratic countries and is based on the implicit assumption that participation is universally accepted and desired (e.g., Fung 2015; Roberts 2008). This assumption, however, might not be held in non-democratic countries, and parent participation in this context may not



bring policy benefits. Another possible explanation is that the benefits of parent participation on academic performance may be marginal for native-born students because these students are already relatively advantaged and perform well in schools. Native-born students tend to achieve higher test scores compared to immigrant students (see Table 2), and any extra benefits from parent participation might not matter as much for them.

This article contributes to public administration theory and practice by highlighting the role of public participation in the service delivery process and considering both effectiveness and equity—two important dimensions of public service performance. From a theoretical perspective, our findings highlight the importance of bottom-up control mechanisms in a democracy and their benefits for social equity. Specifically, by showing the significant role of parent participation in reducing the performance gap between native-born and immigrant students, this research advances our understanding of how public participation can promote equitable distribution of public services.

Although public participation may not significantly improve overall performance, it is worth noting that it does not harm the majority group (in our research context, parent participation does not lower native-born student performance). Policy outcomes are often considered as zero-sum involving one group's gain and another's loss. This view suggests the gains of immigrant students might be compensated for with losses from native-born students. In contrast, we find that having participatory governance benefits the minority group and poses no harm to the majority group. In sum, our finding implies that public participation can lead to more equitable outcomes without a potential trade-off between the two groups.

This article also advances the literature by focusing on both cross-national data and how public services are delivered to immigrant communities. Although single country studies have

expanded beyond the western democracies that long dominated the literature, multi-country studies in public administration are rare. This study is among the first, to our knowledge, that examines client participation in a cross-national setting. Immigration and the incorporation of immigrant communities have also become a worldwide problem and pose challenges to public administrators to deliver services to heterogeneous communities (see Andrews et al. 2013). The study provides some indication that public administrators face similar concerns and may have similar solutions in different national contexts.

This research offers practical implications for public management generally. While the benefit of public participation is not new (see Irvin and Stansbury 2004; Moynihan 2003), there has been little evidence on how public participation shapes distributional outcomes. By highlighting the significant role of public participation in reducing outcome disparities, our findings suggest that public managers should involve the public more in the service delivery process to promote social equity for marginalized groups. Managerial efforts can be critical in amplifying the positive effect of public participation since managers' willingness to seek public feedback can give a signal to the public that their opinions would be valued (Amirkhanyan and Lambright 2017; Clark 2018). Such efforts can reduce the costs of participation for individuals and encourage them to participate more actively in the service delivery process.

We acknowledge some potential limitations to this study, and they suggest the direction for future research. First, our measure of public participation is based on school administrators' perceptions of parental involvement in schools. Although this measure has face validity and acceptable levels of content validity, a perceptual measure from an administrative perspective might not fully capture actual parent participation (see Favero et al. 2018). Future research can address this limitation by using multiple sources (e.g., parents' or teachers'

perceptions of parental participation) and/or archival measures of participation (e.g., the number of school meetings parents participate in, the number of parents who have participated). In addition to incorporating multiple sources, future research could also consider the effect of different types of participation.

Second, this study focuses on how overall participation affects distributional outcomes rather than specifying which groups participate. Yet, the question of “who participates” is as important as “who benefits” from participation. Given that the inequality in participatory opportunities is a serious concern as well as inequality in policy outcomes, considering these two elements simultaneously can help us better understand the effect of public participation on program performance. Future research could explore whether inequity in participation exists and how the gap in participation is related to outcome disparities between socially privileged and marginalized groups.

Third, we are assessing the average impact of parent participation on student performance across 63 countries and the result could well vary for individual countries for either institutional reasons or because parent participation in some cases might exclude any benefits for immigrant child. This suggests that exploring the role of institutional contexts is a fruitful avenue for research. Does public participation lead to better service quality in a democratic regime compared to a non-democratic regime? Does it matter more in a decentralized system compared to a centralized system? Does social capital facilitate its positive effect on equitable outcomes? Similarly, in terms of parent values, does this relationship hold in countries with greater hostility to immigrants, in less homogeneous societies, or in countries without opportunities for upward mobility by immigrants. It is worth answering these questions to investigate the role of

institutional and attitudinal contexts in shaping the relationship between public participation and performance.

Finally, generalizability is an essential line of inquiry that future research should address. The empirical analyses of this study focus on secondary education, although our analyses are not motivated by theoretical reasoning that is limited to education. Participation in education is unique in that greater knowledge, and more feasible opportunities encourage parents to engage more in the service production. Thus, it is crucial to test the theoretical arguments in policy areas where there are fewer feasible opportunities available to the public. Healthcare would be a good example. A high level of complexity and significant information asymmetry have obstructed public participation in healthcare, and even active and capable individuals need support to engage in their health care (CAH 2014). Despite these obstacles, there are several forms of participation in healthcare such as patient engagement, the healthy communities' movement, and citizen engagement in health policymaking (Nabatchi and Leighninger 2015); yet we do not know whether these efforts have a positive effect on the quality and equity of care. Participating in land use and development could be another critical area because the form of participating and its impact tends to be at collective (community or neighborhood) levels rather than the individual level. Individual motivations for participation, therefore, might differ from that of education in which engagement is likely to occur at the individual level. These examples suggest the need for additional research that employs various policy arenas. Such efforts will contribute to the literature on both public participation and program outcomes, not only by increasing the generalizability of this study but also by offering more nuanced implications.

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### Tables and Figures

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Student performance	300,548	0	1	-3.97	3.53
Second-generation	300,548	0.05	0.22	0	1
First-generation	300,548	0.05	0.23	0	1
Parent participation	300,548	0	1	-1.75	3.27
Highest parent education	300,548	4.42	1.60	0	6
Grade repetition	300,548	0.14	0.35	0	1
Ownership (public=1)	300,548	0.80	0.40	0	1
Government funding (%)	300,548	81.23	30.44	0	100
Number of students (logged)	300,548	6.52	0.83	0	9.31
Full-time teachers (%)	300,548	89.08	18.82	0	100
Student-teacher ratio	300,548	14.79	7.95	1	100

Table 1. Descriptive statistics

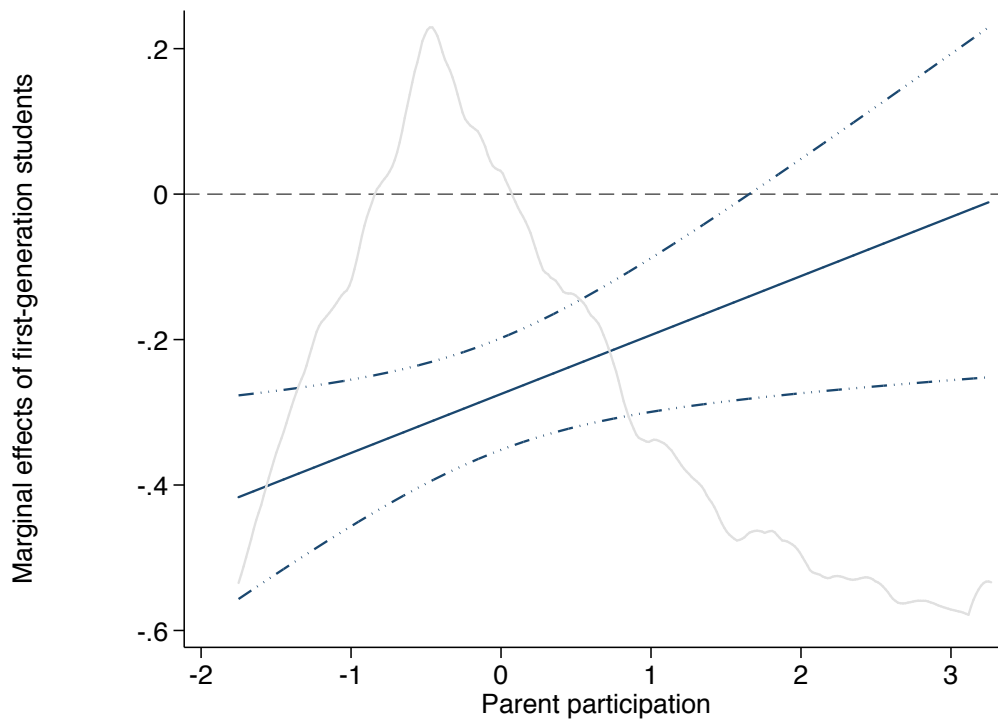
Notes: First-generation student (yes=1; no=0); second-generation student (yes=1; no=0); grade repetition (yes=1; no=0); ownership (public=1; private=0); highest parent education from 0=no formal education to 6= tertiary education & advanced research programs.

Table 2. Effect of parent participation on promoting student performance and reducing the performance gap between immigrant and native-born students

Dependent variable = Student performance		
	Model 1	Model 2
Second-generation (Yes=1)	-0.127** (0.043)	-0.125** (0.042)
First-generation (Yes=1)	-0.268** (0.039)	-0.275** (0.039)
Parent participation	0.008 (0.009)	0.007 (0.009)
Second-generation × Parent participation		0.047 (0.038)
First-generation × Parent participation		0.081* (0.035)
Highest parent education	0.084** (0.004)	0.084** (0.004)
Grade repetition (Yes=1)	-0.598** (0.015)	-0.598** (0.015)
Ownership (Public=1)	-0.024 (0.034)	-0.024 (0.034)
Government funding	-0.003** (0.000)	-0.003** (0.000)
Number of students	0.135** (0.013)	0.135** (0.013)
Full-time teacher	0.000 (0.000)	0.000 (0.000)
Student-teacher ratio	-0.006** (0.001)	-0.006** (0.001)
Constant	-1.481** (0.090)	-1.484** (0.090)
R-Squared overall	0.451	0.451
<i>N</i> (country)	63	63
<i>N</i> (schools)	10,824	10,824
<i>N</i> (students)	300,548	300,548

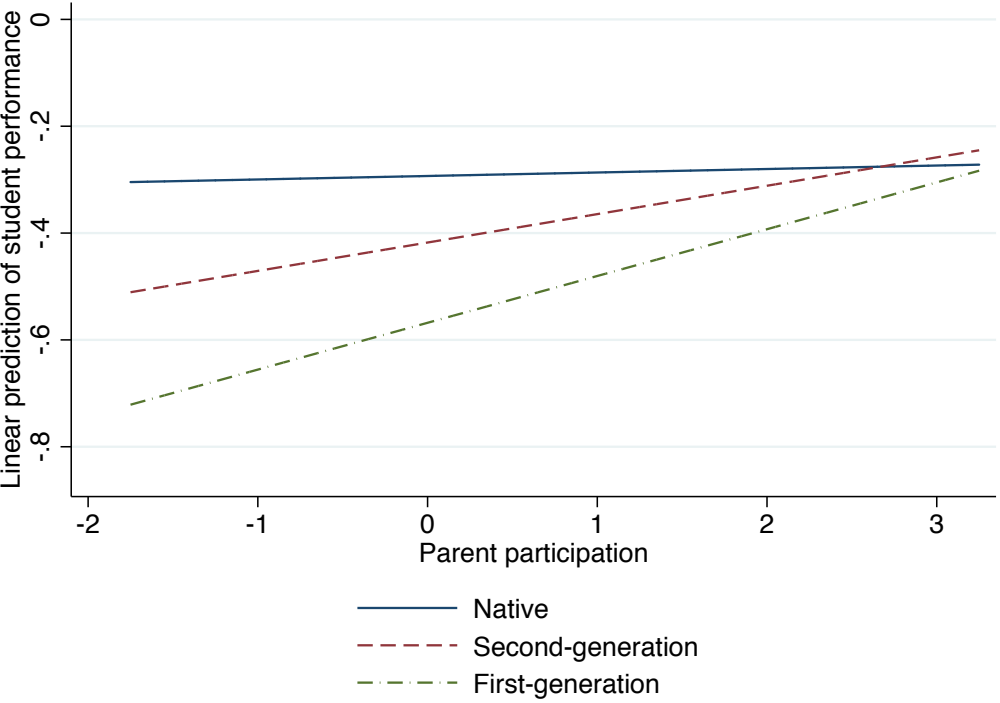
Notes: + p<0.10, \* p<0.05, \*\* p<0.01; country fixed included but not reported; robust standard errors clustered by school.

Figure 1. Marginal effects of being a first-generation student on student performance as parent participation increases



Note: 95% confidence interval. The grey line in the background shows the histogram of parent participation.

Figure 2. Predictive marginal effects of immigrant student status on student performance as parent participation increases



## Appendix

Table A1. Effect of parent participation on reducing the performance gap between immigrant and native-born students by subject

	Dependent Variable		
	Reading	Math	Science
Second-generation (Yes=1)	-0.096* (0.048)	-0.102** (0.036)	-0.162** (0.043)
First-generation (Yes=1)	-0.260** (0.043)	-0.236** (0.037)	-0.303** (0.040)
Parent participation	0.010 (0.010)	0.004 (0.009)	0.005 (0.009)
Second-generation × Parent participation	0.020 (0.042)	0.048 (0.035)	0.067+ (0.037)
First-generation × Parent participation	0.077* (0.035)	0.073+ (0.040)	0.085* (0.036)
Highest parent education	0.079** (0.004)	0.087** (0.004)	0.080** (0.004)
Grade repetition	-0.644** (0.017)	-0.553** (0.015)	-0.547** (0.016)
Ownership (Public=1)	-0.063+ (0.037)	0.008 (0.037)	-0.014 (0.031)
Government funding	-0.002** (0.000)	-0.003** (0.000)	-0.002** (0.000)
Number of students	0.153** (0.013)	0.113** (0.013)	0.128** (0.013)
Full-time teacher	-0.000 (0.001)	0.000 (0.001)	0.000 (0.000)
Student-teacher ratio	-0.007** (0.001)	-0.006** (0.001)	-0.006** (0.001)
Constant	-1.534** (0.094)	-1.426** (0.089)	-1.370** (0.093)
R-Squared overall	0.426	0.463	0.409
<i>N</i> (country)	63	63	63
<i>N</i> (schools)	10,824	10,824	10,824
<i>N</i> (students)	300548	300548	300548

Notes: +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ ; country fixed included but not reported; robust standard errors clustered by school.

Table A2. Factor analytic results of plausible values in math, science, and reading.

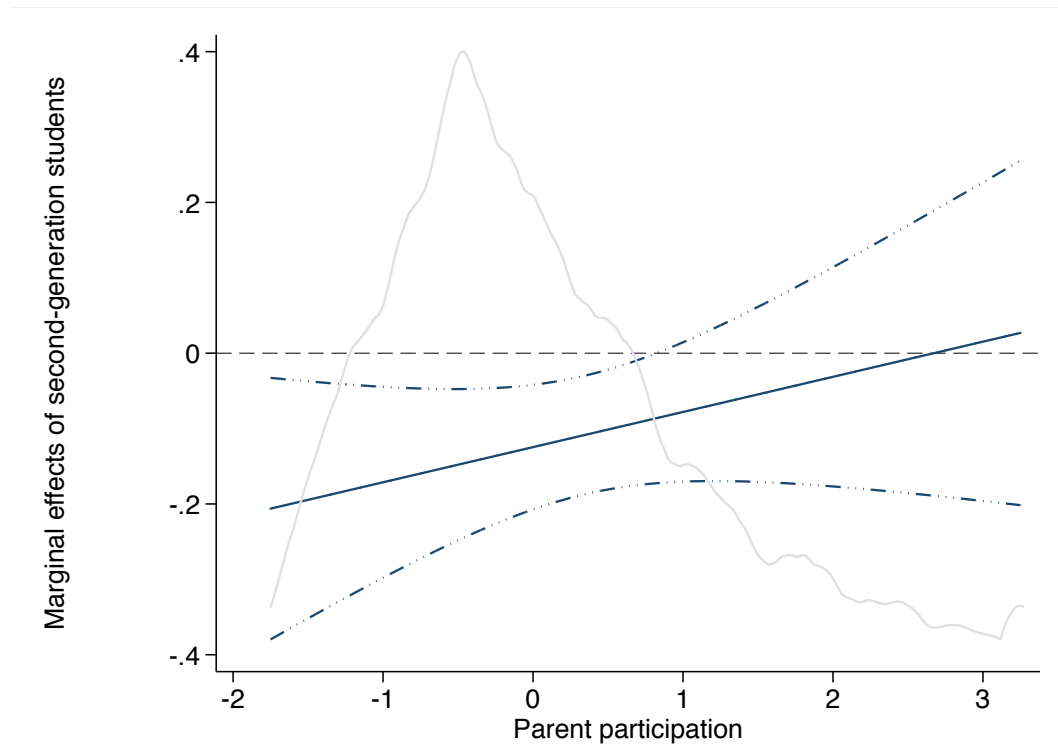
Variable	Factor loading
Plausible values 1 in mathematics	0.91
Plausible values 2 in mathematics	0.91
Plausible values 3 in mathematics	0.91
Plausible values 4 in mathematics	0.91
Plausible values 5 in mathematics	0.91
Plausible values 6 in mathematics	0.91
Plausible values 7 in mathematics	0.91
Plausible values 8 in mathematics	0.91
Plausible values 9 in mathematics	0.91
Plausible values 10 in mathematics	0.91
Plausible values 1 in reading	0.91
Plausible values 2 in reading	0.91
Plausible values 3 in reading	0.91
Plausible values 4 in reading	0.91
Plausible values 5 in reading	0.91
Plausible values 6 in reading	0.91
Plausible values 7 in reading	0.91
Plausible values 8 in reading	0.91
Plausible values 9 in reading	0.91
Plausible values 10 in reading	0.91
Plausible values 1 in science	0.95
Plausible values 2 in science	0.95
Plausible values 3 in science	0.95
Plausible values 4 in science	0.95
Plausible values 5 in science	0.95
Plausible values 6 in science	0.95
Plausible values 7 in science	0.95
Plausible values 8 in science	0.95
Plausible values 9 in science	0.95
Plausible values 10 in science	0.95
Eigenvalues	25.64
<i>N</i>	300,548



Table A3. Factor analytic results of parent participation survey items

Variable	Factor loading
discussed their child's progress with a teacher on their own initiative	0.70
discussed their child's progress on the initiative of one of their child's teachers	0.64
participated in local school government (e.g. parent council or school management committee)	0.73
volunteered in physical or extra-curricular activities (e.g. building maintenance, carpentry, gardening or yard work, school play, sports, field trip)	0.74
Eigenvalues	1.98
Cronbach's alpha	0.65
<i>N</i>	300,548

Figure A1. Marginal effects of second-generation student performance as parent participation increases



Note: 95% confidence interval. The grey line in the background shows the histogram of parent participation.