ISSN 1303-0485 • **eISSN** 2148-7561
DOI 10.12738/estp.2015.4.2619

Educational Sciences: Theory & Practice • 2015 August • 15(4) • 891-909

Received | July 19, 2014
Accepted | May 18, 2015
OnlineFirst | August 7, 2015

Mobility-Related Teacher Turnover and the Unequal Distribution of Experienced Teachers in Turkey*

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Abstract
This study investigates the issue of mobility-related teacher turnover in Turkey through both quantitative and qualitative methods. The quantitative findings derived from descriptive and correlational analyses of countrywide teacher-assignment and transfer data indicate that a high rate of mobility-related turnover is observed in the less-developed, eastern provinces of Turkey. The qualitative findings derived from semi-structured, in-depth interviews with school principals suggest that the factors contributing to the issue of mobility-related teacher turnover experienced in eastern Turkey are largely related to the socio-economic and geographic conditions of the region. The qualitative findings further suggest that this turnover issue may have far-reaching negative consequences across school-wide performances and processes. Participants consistently reported that the issue of teacher turnover had negative impacts on student performance, teacher motivation and commitment, instructional planning, administrative processes, and school climate. The study concludes by exploring possible policy implications for alleviating the issue of mobility-related teacher turnover as experienced in the less-developed, eastern regions of Turkey.

Keywords: Teacher turnover • Teacher mobility • Teacher distribution • Teacher quality • Turkey

* An earlier version of this article was presented at the annual meeting of the American Educational Research Association in 2015 in Chicago, IL.

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The unequal distribution of high-quality teachers across schools, districts and regions has been an overriding concern in national education policies all over the world. Despite various policy interventions, a fair distribution of high-quality, experienced teachers has not been fully realized in most countries. This disparity in teacher distribution has been primarily explained as an issue of teacher turnover. Studies investigating teacher turnover consistently report that low-income, low-achievement, minority, and rural students are subjected to higher teacher-turnover rates and therefore more likely to be exposed to inexperienced, less-qualified, and/or out-of-field teachers (Barbieri, Rossetti, & Sestito, 2011; Clotfelter, Ladd, & Vigdor, 2005; Lankford, Loeb, & Wyckoff, 2002; Luschei & Carnoy, 2010; Sass, Hannaway, Xu, Figlio, & Feng, 2012; Scafidi, Sjoquist, & Stinebrickner, 2007).

Teacher turnover refers to the mobility of teachers across schools, here referred to as mobility-related turnover, or the attrition of teachers from the teaching profession altogether, here referred to as attrition-related turnover (Ingersoll, 2001; Ingersoll & Merrill, 2012). Mobility-related teacher turnover that leads to an unequal distribution of experienced teachers across regions has been a longstanding policy issue in Turkey, pervading policy agendas for decades (Özoğlu, 2010). This issue has recently been addressed in the 9th Development Plan of Turkey that covers 2007 through 2013. This plan calls for a more equitable distribution of teachers across regions and settlements (Devlet Planlama Teşkilatı, 2006). Despite such policy-level awareness, there has been no scientific research that the author is aware of which investigates the issue of turnover and its consequences, particularly the regional imbalances of experienced teachers in Turkey. The current study attempts to fill this gap by exploring the issue of mobility-related teacher turnover experienced in less-developed regions of Turkey through both quantitative and qualitative inquiries.

Unlike many other studies conducted in decentralized systems to analyze teacher mobility across schools within a district or across districts within the same region, both qualitative and quantitative analyses in this study focus on countrywide teacher mobility across provinces and regions. Given that there is no research on the issue of mobility-related teacher turnover in Turkey, first provincial-level descriptive analyses were performed using countrywide assignment and transfer data of teachers to reveal the extent of the problem of mobility-related turnover in Turkey. As part of the quantitative analysis, provincial level correlational analyses were also employed to investigate the relationship between socioeconomic development levels and mobility-related turnover rates, as well as the relationship between the rate of mobility-related turnover and student performance on centralized tests. Moreover, in order to make sense of the results of the descriptive analyses and also to explore the reasons and negative consequences of mobility-related teacher turnover experienced in less-developed eastern regions of the country, an exploratory qualitative inquiry was conducted through semi-structured, in-depth interviews with school principals from these regions.

This paper starts with an overview of the existing literature on the causes and effects of teacher turnover. It later provides a brief description of the teacher employment system in Turkey to facilitate a better understanding of the context of the study. The two subsequent sections present the methods and findings of the quantitative and qualitative inquiries. The paper concludes with exploring possible policy implications for alleviating the issue of chronic teacher turnover experienced in the less-developed regions of Turkey.

Causes and Effects of Teacher Turnover

Research on teacher turnover usually focuses on teachers who stay in the profession but move to different schools, and/or on teachers who leave the profession altogether (Ingersoll & May, 2012). The existing research investigating reasons for mobility-related turnover conclude that teachers move from one school, district, or region to another based on their preferences about salary, class size, workload, student characteristics, facilities, and socioeconomic context of the school (Boyd, Lankford, Loeb, & Wyckoff, 2005a; Clotfelter, Glennie, Ladd, & Vigdor, 2008; Hancock & Scherff, 2010; Hanushek, Kain, & Rivkin, 2004; Loeb, Darling-Hammond, & Luczak, 2005; Swars, Meyers, Mays, & Lack, 2009).

Salary differences, particularly compensation and bonuses, play an import role in teachers' decisions to move or stay (Clotfelter et al., 2008; Feng, 2009). Nonetheless, a growing body of research from different contexts suggests that teachers' decisions to move are much more strongly affected by student characteristics, particularly race and achievement, than by salary (Hanushek et al., 2004). Studies investigating the interaction between student characteristics and teacher mobility conclude that teachers, particularly those with higher

qualifications, that serve in schools with a higher percentage of low-achievement, minority students tend to move to higher-achievement schools (Boyd et al., 2005a; Goldhaber, Gross, & Player, 2011; Lankford et al., 2002), and less-able students are subjected to higher teacher-turnover rates as a result (Hanushek et al., 2004).

For instance, Scafidi et al. (2007) revealed that teachers in the state of Georgia, USA who begin their teaching careers in schools with lower student test scores or schools with higher proportions of minority and low-income students are more likely to change schools. Similarly, investigating the mobility patterns of Italian teachers, Barbieri et al. (2011) found that teachers systematically try to transfer out of schools where teaching is likely to be more difficult due to the socio-economic context and student mix of the school. Moreover, based on a survey of 316 London primary schools, Dolton and Newson (2003) found an association between teacher turnover and student progress: the slower the progress of students the higher the rate of turnover. In addition to school and student characteristics, Boyd, Lankford, Loeb, and Wyckoff (2005b) found that teachers in the state of New York, USA prefer schools geographically close or similar to those that they grew up in, and they suggest that the geographical location of a school plays a strong role in teachers' decisions to move.

The existing research on attrition-related teacher turnover suggests that teachers' preferences associated with teacher mobility are similarly associated with teacher attrition (Ingersoll & May, 2012; Kukla-Acevedo, 2009). For instance, Boyd, Grossman, Lankford, Loeb, and Wyckoff (2008) found that teacher attrition in the state of New York, USA is especially high in schools with large numbers of low-performance students. Similarly, Kukla-Acevedo (2009) found that novice teachers' decisions to leave the profession or move to another school were affected by the behavioral climate of school, which was measured by the perceived level of challenging student behaviors exhibited at the school.

In addition to teacher mobility and attrition, teacher assignment policies might also contribute to the issue of teacher turnover. Imazeki and Goe (2009) suggest that teacher turnover can be further intensified by the extent to which district or government level transfer policies make it easier for teachers to act on the above mentioned preferences and move across schools. For instance, particularly in centralized systems such as Turkey where schools and districts have no control on the hiring process, it is somehow a common policy that vacancies in schools are first filled by transferring teachers then the remaining positions along with positions vacated by transferring teachers are filled by new (novice) teachers. After taking into account the above-mentioned teachers' preferences, it is not hard to predict that experienced teachers seek transfers from less-desired, low-achieving schools to desired, high-achieving ones, and new or less-experienced teachers are often assigned to disadvantaged, low-achieving, hard-to-staff schools that have been vacated by experienced teachers (Barbieri et al., 2011; Luschei & Carnoy, 2010).

The impacts of teacher turnover on school-wide processes and performances are as equally important as the reasons for turnover. Turnover is not always detrimental and sometimes modest rates of turnover might serve as a tool to weed out ineffective or uncooperative teachers from schools (Guin, 2004; Simon & Johnson, 2015). Moreover, it might also prevent teacher stagnation and introduce dynamism as well as innovation into school-wide processes (Plecki, Elfers, Loeb, Zahir, & Knapp, 2005). However, when teacher turnover becomes a chronic issue with higher rates, it has the potential to adversely affect the organization of the school and its student performance. First of all, as also mentioned above, students in hard-to-staff, low-achieving schools often face inexperienced teachers due to chronic turnover. This presents a serious disadvantage to students in these schools because research on teacher-effectiveness concludes that teachers generally need to gain 5 years of experience to become fully effective at improving student performance and inexperienced teachers are typically less effective than teachers with more than three to five years of experience (Darling-Hammond, 2000; Rivkin, Hanushek, & Kain, 2005).

In fact, studies have already shown that chronic teacher turnover can have detrimental effects on student progress and achievement (Barbieri, Rossetti, & Sestito, 2013). For instance, Ronfeldt, Loeb, and Wyckoff (2013) investigated the causal effect of teacher turnover on student achievement using New York City elementary school data, and concluded that teacher turnover has a significantly negative impact on student achievement in both math and English language acquisition, particularly in schools with higher rates of low-performance and African-American students. Similarly, Guin (2004) examined the relationship between school-level turnover and the proportion of students who met the standards of state-wide assessments in reading and math, and

revealed a significantly negative correlation between the two in an urban school district of the US. Accordingly, schools with higher teacher-turnover rates had fewer students who met the reading and math standards of state-wide assessments.

Existing research also suggests that chronic teacher turnover creates instability in the teacher workforce, and therefore has negative consequences for school organization. For instance, in a US-based study examining the impacts of teacher turnover on individual elementary-school climate and organizational effectiveness, Guin (2004) found that "schools with high rates of teacher turnover are less likely to have high levels of trust and collaboration among teachers" and that "high turnover requires a school to restart their instructional focus each year, resulting in a less comprehensive and unified instructional program" (p. 19). Similarly, Useem, Christman, Gold, and Simon (1997) revealed that implementation of a school program is often frustrated by frequent teacher turnover.

Teacher Employment Policies in Turkey

Teacher employment policies in Turkey are different from most developed countries, particularly in regards to the supply and demand equilibrium of teachers. First, unlike many developed countries such as the US, teacher attrition is not a significant problem in Turkey. According to attrition data received from the Ministry of National Education (MONE) by the author, the number of teachers who left the teaching profession between 2000 and 2012 is just less than 1500, which constitutes only 0.2 percent of the entire teacher workforce.[1] Majority of new vacancies in Turkey arise either following the retirement of senior teachers or due to changes in school structure (such as an increase in student population or establishment of new schools). Moreover, mainly due to budgetary constraints, there are more than 50,000 teaching positions staffed with low-pay substitute teachers[2] and the government creates many new vacancies to replace these substitute teachers each year.

Another important difference is on the supply side. Unlike many developed countries where teacher shortage is a major concern, Turkey does not have any problem in regards to teacher supply. Based on a conservative estimate, there are more than 200,000 certified teacher candidates waiting for assignment. In fact, this over supply of teachers creates a lot of pressure on the government. This is largely because there are many positions filled by low-pay substitute teachers and teacher candidates have very limited private-sector alternatives. Salary structure is another important difference. The Turkish government employs a uniform salary schedule, meaning that all teachers in public schools with the same level of experience get approximately the same amount of base salary no matter where they teach.

Unlike decentralized education systems, teachers in Turkey are assigned to schools centrally by the MONE. Schools have no control over how and which teachers are assigned to them. The selection and initial assignment of teachers is made on the basis of a set of centrally administered multiple-choice tests (KPSS). All teacher candidates need to take the KPSS, which is valid for two years, in order to be assigned as a teacher in public schools. Over the course of the last decade, the government has assigned an average of about 40,000 new teachers annually. New teachers are assigned once or twice a year, usually before the beginning of the school year and again at the beginning of the second semester. Candidates are assigned to schools based on their test scores and school preferences. Teacher candidates with higher test scores have a higher chance of being assigned to their first school of preference. Voluntary and excuse transfers are also performed centrally on the basis of teacher seniority and school preference. Teachers with a higher seniority score have a higher chance of being transferred to their first school of choice. The seniority score incorporates both the number of years teaching and the working conditions of the schools taught in. Accordingly, working in hard-to-staff schools in rural or less-developed parts of Turkey contribute more to their seniority score.

In order to reduce teacher turnover, the government has been implementing several retention policies. These policies adopted the "deficit approach" to attract and retain teachers in hard-to-staff schools and locations. This approach assumes that teachers are reluctant to teach in some difficult locations, and this issue can be overcome through compulsory service and/or the provision of incentives (Ankrah-Dove, 1982; Watson, Hatton, Squires, & Soliman, 1991). Accordingly, there are two policy measures to force and encourage teachers to teach in

1 There are two possible explanations of this situation. First, the personnel regime in Turkey makes it almost impossible for the government officials to fire teachers unless they engage in shameful activities such as child abuse. Second, in Turkey the job market alternatives for teachers are very limited.

2 Low-pay substitute teachers are often hired locally among either certified teachers or uncertified university graduates to fill the vacancies that cannot be filled through regular teacher assignments either due to budgetary concerns or due to untimely leaves. According to 2012 teacher data there were about 70,000 substitute teachers in the system. Since there is no current data available, an estimated number is given.

hard-to-staff schools: compulsory service and a differentiated service scoring system for seniority. Schools in Turkey are divided into several categories in terms of the difficulties associated with their work conditions, mostly related to the living conditions in their location. This categorization is used to determine both the duration of compulsory service and the service score for each school. Schools within the category of most difficult are usually located in the less-developed, eastern regions and require fewer years of compulsory service. Moreover, teachers working in these schools get maximum service scores towards seniority as an incentive. Schools within the category of least difficult are usually located in the most developed urban regions and have no compulsory postings or service score assigned. Moreover, in order to reduce turnover rates, the Ministry follows a three-year service rule: teachers assigned to any province have to complete three years of service there before they can request voluntary transfers to other provinces. Nevertheless, teachers have legal rights to get a waiver from both the compulsory service requirement and three-year rule due to their spouse or a health related reason at the end of their first year of service.

While this centralized teacher employment system together with the retention policies in effect seem to produce a fair allocation process, they appear to be ineffective in reducing teacher turnover and in preventing inequalities in the distribution of experienced teachers. This is largely due to the "vacancy-chain mechanism" (term borrowed from Barbieri et al., 2011; p. 1432) which works as follows. Initial assignments of new teachers are usually performed after voluntary or excused transfers. Given that teachers who seek voluntary transfers usually choose to move to desirable schools at the bottom of the difficulty category, most new teachers are assigned to hard-to-staff schools either in less-developed provinces or rural parts of the country. After a minimum of three years of compulsory service, a great majority of these teachers also seek voluntary transfers to schools located in developed parts of the country. In fact, many teachers do not wait until the end of compulsory service and seek an excuse transfer after one year. This vacancy chain mechanism leads to a high and constant turnover of teachers, particularly in schools located in the less-developed, eastern parts of the country. Students in these locations are already facing a greater degree of social and economic disadvantages, and the high rate of teacher turnover further exacerbates the inequalities as they constantly face new or less-experienced teachers.

Method

The current study was carried out using both quantitative and qualitative approaches. Quantitative approaches include both descriptive and correlational analyses utilizing quantitative data from various sources. The provincial-level statistical analyses employed to make provincial comparisons and their data sources are as follows:

i) Teacher-turnover rates (calculated by dividing the number of teachers transferred out of one province by the total number of teachers in that province; 2011 transfer-out data was used)

ii) Percentage of newly assigned teachers (calculated by dividing the number of newly assigned teachers that one province received by the total number of newly assigned teachers; 2013 teacher assignment data was used)

iii) Percentage of teachers transferring in (calculated by dividing the number of transferring teachers one province received by the total number of transferring teachers; 2013 transfer-in data was used)

iv) Average teacher experience in years (calculated by adding together the service years spent teaching- by all teachers in one province and then dividing this by the total number of teachers in that province; 2012 teacher experience data was used)

v) Correlations between socio-economic development level and teacher-turnover rate; between teacher-turnover rate and average high school entrance exam score; and between teacher-turnover rate and average university entrance exam score (Pearson product-moment correlation coefficients were calculated; socioeconomic development index (SEDI)[3] scores of provinces, average 2012 high school entrance exam scores, and average 2012 university entrance exam (Stage 1) scores were used)

In the qualitative approach, semi-structured, in-depth interviews were used to elicit data from school principals. For the rest of this section, participants, data collection, analysis methods, and internal validity of the qualitative inquiry are discussed in detail.

Participants

Participants in the qualitative inquiry were school principals from six different eastern provinces.

3 SEDI was developed by the Ministry of Development to measure the development level of provinces with the help of socio-cultural and economic variables.

There were two presumptive reasons for choosing school principals as the data source. Primarily, it was assumed that a school principal can best observe the impact of teacher turnover on student outcomes and school processes. Second, it was assumed that school principals who experience high teacher turnover in their schools might have an accumulated knowledge about why teachers want to leave their schools or regions.

The participating school principals were selected using purposeful and sequential (adaptive) sampling methods together. Initially, three provinces were selected from the east based firstly on their average teacher experience, and secondly on their geographic locations[4]. After the selection of provinces, one school from each school level (primary, elementary and high school) was determined in each province using school contact information available from the Ministry of Education website. Principals in these schools were called to take part in phone interviews. If necessary, new schools with the same school level were selected to compensate for failures resulting from unwilling principals. After nine principals in these schools were interviewed, the same procedures were followed to determine another nine school principals. Once the second cycle of interviews was complete, the author was convinced that a saturation point had been reached and stopped conducting new interviews. A total of 18 school principals in six different provinces were interviewed. School principals both from urban and rural schools were included in the study in order to enrich the data. Table 1 provides detailed information about the participants. All participants were male and therefore gender is not included in the table. The reason for this is that there are few if any female principals in the region.

Data Collection

Data was collected using semi-structured interviews. Interview questions were prepared and shared with three experts, two from educational sciences and one from research methodology, to get their feedback. Questions were refined based on their recommendations and a pilot interview was conducted to ensure the questions were easily understood as well as to assess the pace necessary to complete the interview. After the pilot interview, some questions were revised for better wording and the interview protocol was finalized. The final semi-structured interview protocol consists of the following major questions: To what extent does your school experience teacher turnover? What are the factors that affect teachers' decisions to leave your province/region? What are the characteristics of teachers who stay relatively longer than others? What are the likely effects of excessive teacher turnover as evidenced in school processes and student outcomes? What can be done to decrease teacher turnover in schools in your province and region?

The interviews were conducted over the phone in May, 2014. All interviews were digitally recorded with the permission of the participants. Each interview was transcribed within three days of completion. This practice helped the researcher get familiar with the data early in the data collection process and decide about the data saturation point used for sampling. To increase the likelihood of full and comprehensive responses, the participating principals were assured that their responses would be treated as confidential and no identifying information would be included in the final report.

Data Coding and Analysis

The constant comparative method of data analysis as suggested by Strauss (1987) was used to analyze the qualitative data obtained from the principal interviews. Firstly, an open coding process was performed to segment the data and identify initial themes. Key interview questions served as the initial organizing framework for the open coding. Once initial themes emerged from the data, an axial coding process followed to investigate the relationship between the identified themes. During this process, core themes were constructed by rearranging the initial themes according to commonalities among them. Finally, a selective coding process was utilized to identify cases that illustrated themes and to draw conclusions based on this identification.

Internal Validity

The internal validity of this study was ascertained through member checking and external auditor strategies as suggested by Creswell (2003). Member checking was employed once the core categories were determined. Two participants were asked to review and comment on the findings presented to them in a brief report written in Turkish based on the identified categories. Both endorsed the accuracy of the categories but requested minor revisions. Moreover, once a draft paper was

4 Nomenclature of Territorial Units for Statistics (NUTS), a hierarchical system for dividing up the economic territory of Turkey, is used to select one province from each of the TRA, TRB and TRC categories.

Table 1
Information about the Interview Participants

Code	Province	School Type	School Location	Administrative Experience in Years (Current School/Total)	School Population (Teacher/Student)
A1	Ağrı	Primary	Rural	5/9	24/624
A2	Ağrı	Elementary	City Center	4/6	25/746
A3	Ağrı	High	City Center	5/8	20/374
H1	Hakkari	Primary + Elementary	City Center	5/20	56/1200
H2	Hakkari	Primary + Elementary	Rural	4/20	24/511
H3	Hakkari	High	City Center	2/5	65/1340
K1	Kars	Primary	Rural	4/6	15/350
K2	Kars	Elementary	City Center	2/5	26/578
K3	Kars	High	City Center	3/9	15/214
M1	Mardin	Primary	Rural	7/9	18/210
M2	Mardin	Elementary	City Center	4/9	24/500
M3	Mardin	High	City Center	2/9	34/520
S1	Şırnak	Primary	City Center	6/11	30/677
S2	Şırnak	Elementary	City Center	2/2	25/600
S3	Şırnak	High	Rural	3/3	13/200
V1	Van	Primary	City Center	4/15	34/920
V2	Van	Primary + Elementary	Rural	6/6	14/280
V3	Van	High	City Center	2/8	52/1050

compiled, the researcher asked the research methodology expert who reviewed the interview questions to evaluate the draft paper, particularly the research processes and findings. His feedback as an external auditor was taken into consideration for compiling the final draft.

Findings

The findings of the current qualitative study are organized into five parts. The first part presents the findings from quantitative analyses, whereas the subsequent parts present the findings of qualitative analyses. Accordingly, the second part covers findings on the factors that influence teachers' decisions to move out of less-developed eastern provinces. The third part encompasses findings about the characteristics of teachers who stay relatively longer in less-developed eastern provinces. The fourth part presents the findings about the impacts of excessive teacher turnover on both student outcome and school process. The last part includes the policy measures suggested by the participants for overcoming excessive teacher turnover. Excerpts from the interview data are included to provide a detailed, accurate illustration of emergent themes.

Teacher Turnover in Turkey: The Findings from Descriptive Analyses

Descriptive analysis of teachers' average experience revealed huge discrepancies in the distribution of teacher experience across provinces in Turkey. As demonstrated in Figure 1, teachers' average years of experience varies enormously across 81 provinces. Most provinces in the eastern regions have the least experienced teachers. In fact, less than three years is the average experience of teachers in five eastern provinces [Hakkari (1.3), Şırnak (1.5), Muş (2.3), Ağrı (2.4) and Bitlis (2.8)], despite the fact that there is a three-year service rule for newly assigned teachers and the compulsory service requirements of schools in these provinces vary from three to five years. This finding suggests that teachers use every single excuse-related transfer option to move out of these provinces. As the analysis moves west, the average experience of a teacher increases drastically. Provinces with the most experienced teachers are usually located in the desired coastal regions of western and southwestern Turkey.

These discrepancies in the distribution of experienced teachers are largely a result of excessive teacher mobility from eastern provinces, particularly from less-developed ones to western and mid-western provinces. Several types of descriptive mobility data are used to demonstrate this mobility pattern. First, using the 2011 transfer-out data, the teacher-turnover rate arising from voluntary and excuse transfers was calculated at the provincial

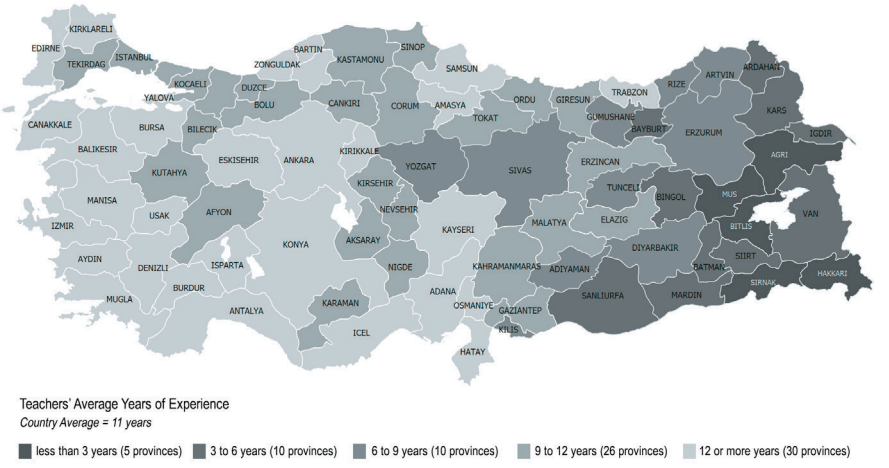

Figure 1: Teachers' average years of experience across provinces (2012 teacher experience data).

level. As illustrated in Figure 2, mobility-related turnover rates in many eastern provinces were much higher than those in most western provinces. While 16 provinces in the eastern (including southeastern and northeastern) part of the country experienced turnover rates of more than 15 percent, a great majority of the western provinces had turnover rates of less than five percent.

In order to examine the relationship between the socioeconomic development index (SEDI) score of provinces and their average teacher-turnover rates, a Pearson product-moment correlation coefficient was computed at the provincial level. As summarized by the scatter plot (figure 3), a strong negative relationship was revealed [Pearson's r (79) = -.73, $p < .001$]. This finding suggests that provinces with lower socioeconomic development levels have higher rates of teacher turnover. To some extent, this finding supports the results of previous studies conducted in developed countries, such as Barbieri et al. (2011), in that teachers are more likely to leave schools with low socioeconomic contexts.

Mobility-related turnover rates presented in figure 2 suggest that a great deal of teachers are moving out of most of the eastern provinces, but the question is to where? To answer this question, the 2013 voluntary transfer-in data is used to calculate the proportion of teachers assigned to each

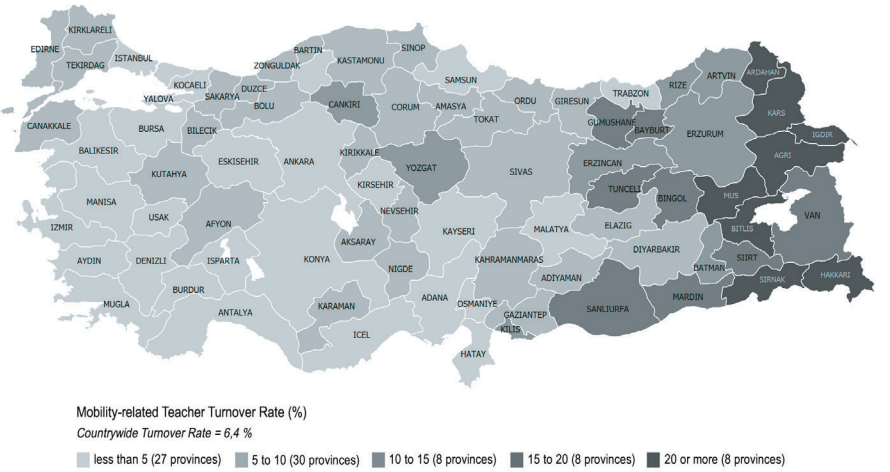

Figure 2: Turnover rate across provinces (2011 transfer-out data).

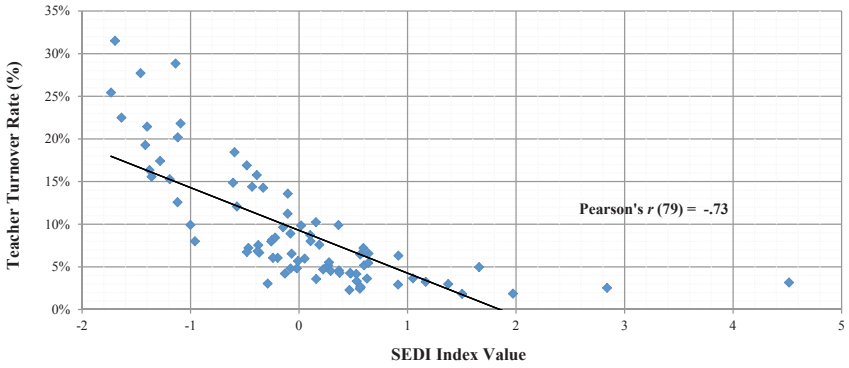

Figure 3: Correlation between SEDI and average turnover rate.

province through voluntary transfers. As predicted, the majority of developed western provinces received a comparatively higher proportion of transferring teachers than the majority of the less-developed eastern provinces (figure 4). It is worth noting that there are also differences within regions. For instance, compared to the majority of other eastern provinces, some provinces in the eastern and southeastern regions such as Şanlıurfa, Diyarbakır, Van, and Erzurum received relatively higher proportions of transferring teachers. One possible explanation for this difference is that these provinces are relatively more developed and therefore might be serving teachers in the surrounding provinces as regional hubs.

Moreover, using 2013's initial assignment data, the proportion of new teachers assigned to each province through initial transfers was calculated. In contrast to voluntary transfers, a great majority of eastern provinces received comparatively higher proportions of newly assigned teachers than most western provinces (figure 5). Given the vacancy chain mechanism described in the previous section, this assignment pattern is not surprising. That is to say, regular vacancies are first filled by transferring senior teachers and the remaining positions together with positions vacated by transferring teachers are filled by newly assigned novice teachers. As a result, novice teachers are often left with vacancy options in schools with less desirable, low socioeconomic status contexts which are largely located in eastern Turkey.

Overall, the pattern of teacher mobility illustrated above through descriptive statistics suggests that there are higher rates of mobility-related teacher turnover

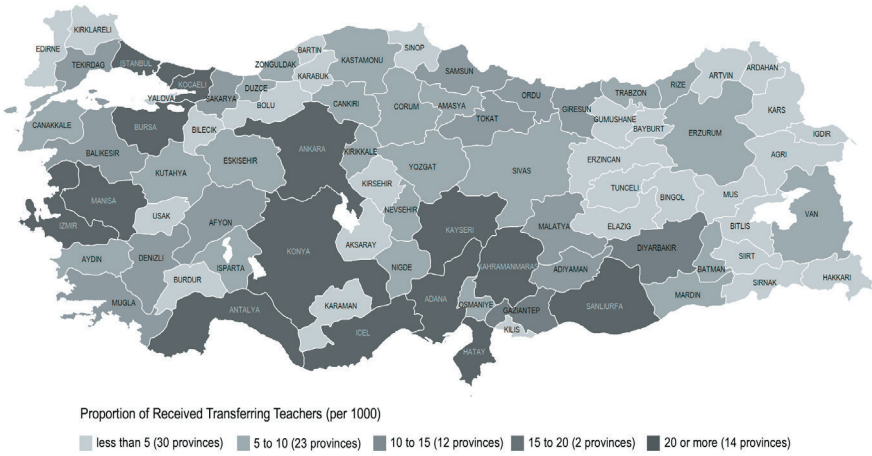

Figure 4: Proportion of transferring teachers that each province received (2013 transfer data).

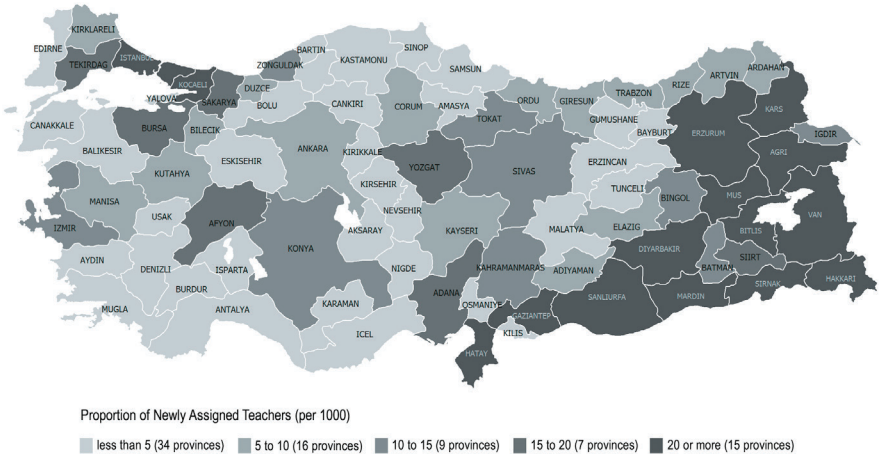

Figure 5: Proportion of newly assigned teachers that each province received (2013 new assignment data).

in most of the eastern provinces; that teachers with less years of experience are transferred through voluntary or excuse transfers to the developed western provinces; and that novice teachers are appointed to the less-developed, disadvantaged eastern provinces to fill the vacancies arising from transfers. One clear negative consequence of this pattern of mobility is that excessive amounts of teacher turnover experienced in eastern provinces leave students in these provinces, particularly in less-developed ones, with inexperienced teachers.

What about the implications of turnover for student achievement? To answer this question, the relationship between teacher turnover and student performance is also investigated. Provincial level correlational analysis revealed a strong negative relation between the average teacher turnover rates and both the average high school entrance exam scores from 2012 [Pearson's r (79) = -.72, $p < .001$] and the average, stage-one university entrance exam scores from 2012 [Pearson's r (79) = -.77, $p < .001$]. While these strong correlations are important to acknowledge, it is worth noting that this doesn't necessarily imply causation since whether this correlation is solely a function of teacher turnover or from other factors contributing to student scores on both tests is not known.

Factors That Influence Teachers' Decisions to Leave Eastern Regions

The participants of the interviews were asked to identify the factors that influenced teachers' decisions to leave provinces in eastern Turkey. Several interrelated factors emerged from their responses to this question. Teachers' desire to work in provinces close to their families or where they grew up was the most dominant factor, overwhelmingly reported by the participants. Almost all of the participants designated this factor as the first and most important cause of teacher turnover in their provinces. As one participant (V2) commented "A great majority of newly appointed teachers are from outside provinces, generally from western provinces. Soon after they are appointed, the majority [of them] seek for ways to transfer to locations near their families."

Another factor reported by most participants as influential on teacher decisions to leave was the lack of community amenities. Participants frequently emphasized that community amenities in their regions were very limited and teachers had limited or no opportunities to engage in spare-time activities or socialize. In addition to a lack of community amenities, a lack of affordable housing and/or poor housing conditions were also consistently reported by participants as an important factor contributing to their decision to leave. Many participants highlighted the difficulty that teachers and other civil servants faced in finding suitable accommodations. High rent costs due to limited housing supply was another related issue reported by several participants. Two participants expressed their frustrations as follow:

> "Rent costs in our city are as high as those in metropolitan provinces. Why then should teachers stay here? There is no salary difference, the living conditions are poor, and they have to pay the same amount of rent compared to metropolitan provinces." (V1)

> "The majority of new teachers, particularly unmarried ones, stay in dorm-style hotels due to limited housing alternatives. There aren't many housing alternatives [here]." (H3)

The housing issue appears to become even more prominent in sparsely populated, rural areas. Participants from rural schools indicated that regardless of availability of teacher housing, most rural teachers, particularly those serving in villages closer to city centers, preferred to live in cities and commute to their schools every day. Commuting costs both in terms of money and time were reported as a major concern for many commuting rural teachers. One rural principal (S3) further commented "..the tribulations of [these] teachers doubled [or] tripled during winter. Poor winter weather conditions severely affect roads, causing transportation issues."

Other difficulties associated with severe weather conditions were also listed as an important factor influencing teachers' decisions to leave. For instance, several participants indicated that winter lasts longer and is colder than most other regions in Turkey, affecting living conditions and causing challenges related to transportation and heating costs. In particular, heating costs were found to be an important issue. Many participants reported that people in their regions paid much more for heating than people in other regions and this placed an extra monetary burden on teachers. In addition to the extra cost associated with rent and heating, participants also argued that due to geographic isolation, the cost of food, wearing apparel, household furnishings, and other necessities of life were much more expensive in their regions than in most western provinces.

Geographic isolation was also cited by some participants as another factor contributing to teachers' decisions. Several participants commented that geographic isolation restricts teachers' ability to reach their families or wider communities and this causes feelings of loneliness in them. Moreover, it was highlighted that most provinces in the region had limited employment opportunities and/or educational offerings, and these limitations affected not only the decisions of teachers from western Turkey but also native teachers, in fact, many local people. One participant from Kars (K1) exemplified:

> "Not only teachers from other provinces but also many local people migrate to developed provinces. Local people want to have more employment opportunities for themselves and their family members. So do teachers. They make long term plans. They care about the future of their own kids. They want to expand educational opportunities for them. They also ask themselves 'What would my kids do here if they cannot become a civil servant like me? There are no employment opportunities in the private sector here.' "

Participants also argued that cultural and language differences play an important role in teachers' decisions to move out. Several of them indicated that most of the newly appointed teachers come from western Turkey and are unfamiliar with eastern culture or the Kurdish language. As a result, they argued that these teachers start cycling back and forth between feelings of denial, disassociation, alienation, and fear. One participant (V3), for instance, pointed out: "Outside school in daily life, people talk to each other in Kurdish. Teachers, unfamiliar with Kurdish, start feeling like a foreigner." Another factor reportedly contributing to high teacher turnover in eastern provinces is security concerns related to long standing terrorism issues in eastern Turkey. A small number of participants indicated that terrorist activities that used to threaten society in their regions had diminished a lot, but due to previous experiences both teachers and their families still had security concerns. One participant (S2) explained:

> "Even though the threat of terrorism has diminished as a result of the settlement process launched by the Turkish government to resolve long-standing terrorism problems, most newly assigned teachers still come here with hesitations and prejudices. Even if they see over time that it's not a big problem, the anxiety from their families continues and this puts a lot of pressure on teachers to transfer elsewhere in the West."

The uniform salary schedule was found to be another factor predominantly affecting teachers' decisions to move out of eastern provinces. Participants indicated despite the fact that living standards in their regions are quite low that teachers received the same salary. They all complained about the absence of monetary incentives to compensate teachers for disadvantages arising from living in a low socioeconomic status region. One participant (S1) gave a radical explanation: "If a teacher working here receives almost the same salary as those working in provinces with a much higher social-economic status such as Ankara or İzmir, why should they stay here then? If they stay, I would wonder about their mental state."

Participants also had some critical reflections on teacher-transfer policies. Many participants complained that excuse transfers further

complicated the issue of teacher turnover. As one participant (A1) explained "The majority of newly assigned teachers are single and they look for marriage after they start working. They usually get married with a civil servant from western provinces, often from their hometowns. Soon after they get married they use their legal rights and transfer to provinces where their spouses work." Several participants further claimed that some single teachers even seek fake marriages to get the opportunity to transfer to elsewhere in western Turkey. Others also complained about the timing of excuse transfers, which sometimes take place in the middle of the school year, causing teacher shortages.

Interestingly enough, only three participants mentioned school-related factors. These include "poor school infrastructure" (M1), "poor working conditions" (S3), and "limited school resources" (K2). Many, however, reflected that teacher motivation for leaving eastern provinces are not as much related to school or student characteristics as they are to the socioeconomic conditions of the region.

The Characteristics of Retaining Teachers

As well as exploring the factors which might affect teachers' decisions to move, this study also examined the defining characteristics of teachers who stay longer than compulsory service requirements with the aim of exploring possible policy measures to retain teachers in eastern provinces. Participants were asked about the distinctive characteristics of long-term teachers. Four characteristics emerged from the participants' responses. The most prominent characteristic was found to be related to their birth place or where they grew up. Participants reported that the majority of long-term teachers were from the provinces in which their schools were located or from surrounding provinces. Additionally, participants also indicated that teachers who extended their family ties by getting married with someone from an eastern province tended to stay longer. On the other hand, some participants argued that local teachers also sought transfers out of their hometowns, particularly to the surrounding larger provinces with better socioeconomic status such as Van, Diyarbakır and Şanlıurfa. This supports the descriptive findings in that there are regional hubs in eastern Turkey that attract teachers from surrounding provinces.

A second defining characteristic was found to be related to teachers' inability to transfer where they want to. Participants reported that some teachers stayed longer just because they didn't have enough seniority score to transfer to their first choice. In other words, they stay longer to accumulate enough seniority scores to perform a precise transfer. An increased level of adjustment was reported as the third defining characteristic of long-term teachers. Several participants noted that those teachers who adapted well to their particular schools and regions were inclined to stay longer. Idealism and dedication were reported as the fourth distinctive characteristic of long-term teachers. However, participants reported that teachers who fall in the last two categories constituted only a small proportion of the group of long-term teachers.

The Negative Impacts of Teacher Turnover

The participants were asked to describe the likely effects of excessive teacher turnover as evidenced by student outcomes and school processes. Participants highlighted several negative consequences of high teacher turnover and their responses reflected their frustration with this issue. First, participants constantly reported that high teacher turnover was the most important issue that adversely affected student outcomes in their schools and regions. Most of them cited low student performance on both high school and university entrance exams in their provinces and argued that low student performances on these central exams were largely a result of excessive teacher turnover experienced in their schools. Participants also provided specific examples both from their schools and their own kids to illustrate how student performance was affected by high teacher turnover:

> "I have two 4th-grade level classrooms. One of them had been taught by the same teacher since 1st grade and the other has had teachers changed four times. There is an observable difference between the two classrooms in terms of student performance and behavior. Students taught by the same teacher from 1st through 4th grade are much more successful and respectful." (H1)

> "Let me give you an example from my own children. I have two daughters. The older one faced six different teachers [throughout primary school]. On the other hand, the younger one was taught by just one teacher. Right now, the older one faces lots of trouble with her school, whereas the young one is a very successful student. I attribute this difference mostly to the frequent teacher change [experienced by my older daughter]." (M3)

Participants were asked to elaborate on these issues of low student performance and high teacher turnover. They identified several educational processes that are affected by high teacher turnover. For instance, difficulties with building positive student-teacher relationships were found to be an important issue, particularly by primary school principals. Many participants emphasized the crucial role of a positive relationship between a student and teacher in creating safe and engaging classroom environments, motivating students to engage in learning activities, better assessment of student needs, as well as promoting and maintaining positive student behaviors. Yet they consistently reported that due to constant teacher turnover, it was almost impossible for both sides to establish a strong relationship.

Some participants pointed out that even if a positive relationship was established, it was quickly demolished once teachers leave the school. This was found to be more problematic because according to many participants when this process repeats a couple of times, it causes emotional trauma in students and increases their detachment from school. Eloquently capturing a frustration expressed by many, one participant (A1) responded "Even if a weak relationship or none is established, students who are accustomed to one teacher usually end up with another teacher soon. When the idiosyncrasies and teaching styles of the new teacher differ from those of the old one, students easily get lost and frustrated." Another participant (H2) provided a specific example for this issue: "One of our most successful 3rd grade students turned out to be the most problematic student in our school after his teacher requested an excuse transfer and left [the school] last year. He basically could not adapt to his new teacher." One of the primary school principals (M1) brought another insight into this issue: "Due to a lack of parental support and care, students in their region expect and deserve more care from teachers, but high levels of teacher turnover prevent this from happening."

Not only was the student-teacher relationship adversely affected by high teacher turnover, participants also emphasized the difficulties in building effective parent-teacher partnerships when there is constant teacher turnover. Several participants referred to the inherent difficulties associated with family involvement in education in their regions and argued that teacher turnover further exacerbated this issue. As explained by one of the participants (K3) "neither the teacher nor the parent is willing to establish a relationship with each other, both knowing that it will soon come to an end when the teacher leaves."

Another major concern for participants was teacher motivation. Participants frequently emphasized that most teachers begin their transfer planning right after being appointed. As explained by one participant (A2) "Most newly appointed teachers are quite unmotivated and disconnected while waiting for their transfers." According to many, this has serious negative consequences on the teaching and learning process. Yet, others complained more of teacher stagnation. For these participants, despite new teachers seeing themselves as temporary "guest" teachers, they are much more committed, responsive, and harmonious than those teachers who have been serving in their schools for many years.

Despite their complaints about teacher motivation and disassociation, several participants were in agreement that there was no serious problem with the overall quality of teachers assigned to them, particularly in terms of their field knowledge. They recognized that teachers assigned to their schools were usually new graduates and therefore inexperienced in classroom teaching. Yet, they argued that their knowledge was fresh. Rather than an initial quality of new teachers, these participants' concerns focused more on the instability arising from constantly losing a majority of their teachers soon after they gained some experience. One participant (M1) from a primary school exemplified "I would rather prefer an unlicensed teacher to teach in my school if he is not going to abandon my school quickly and is going to teach here for several years. I want teachers to stay at least four years until they graduate their students." Nonetheless, several other participants expressed their frustration of serving as proving grounds for new teachers. They used such ironic expressions for their schools or provinces as "boot camps for new teachers" (H2), "training fields for intern teachers" (V1) and "teacher training centers" (S2).

Participant responses also revealed that high teacher turnover had negative effects on several aspects of the administrative process in their schools. For instance, many participants complained that due to a constantly changing teacher workforce, they often experienced difficulties in establishing and maintaining a positive school climate which they believe is very crucial for effective schooling. Others complained about the workload caused by constant teacher turnover. One participant (A3) summarized the experiences of many others as follows: "Every school year I face many new teachers and due to the induction process and other time spent on bureaucratic processes, I am not able to dedicate enough time for other educational processes."

It was also revealed that due to constant teacher turnover, participants always experienced uncertainties about their teacher workforce and this caused them a lot of stress. For instance, one participant (M1) expressed his feeling of frustration as follows: "There are always uncertainties. Which teachers are going to leave and when? Will someone be assigned in a timely manner to replace the ones who leave? Will the new teachers be as effective as the old ones? You always ask such questions to yourself." Additionally, some participants reported that they usually experience difficulties in planning schedules because of the uncertainties triggered by constant teacher turnover.

Another related issue reported particularly by participants from middle and high schools was out-of-field teaching. Several of them indicated that some teachers left in the middle of the year or semester, possibly through excuse transfers, and complained about the failure of the centralized teacher assignment system to quickly respond to such vacancies. As one participant (M2) reported "In that situation, I sometimes need to assign any [available] teacher to that class, not [always] for lecturing, [but] just to keep that class silent and disciplined. There are even times when I have to take that responsibility."

Policy Measures Offered by Participants

This qualitative inquiry also explored the participants' view of possible policy measures for retaining teachers in eastern provinces. Participants acknowledged that there is no easy fix for the issue of teacher turnover that they have experienced. Yet they offered several policy measures that they believe could decrease teacher turnover in their schools and regions. For instance, they commented that the current retention policies of compulsory service requirement and the differentiated service scoring system only helps them to keep teachers there unwillingly. They recommended that targeted salary increases based on the specific work conditions of a school would be beneficial for encouraging teachers to remain willingly in schools with a low socioeconomic context. Some of the participants recommended that lump-sum compensation upon completion of a substantial period of service would also have positive effects on teacher retention.

Another policy measure offered by a majority of participants for improving retention rates is to increase housing alternatives to accommodate teachers. As reported before, many participants complained about poor housing conditions and rent costs, arguing that these difficulties seriously influenced teacher decisions for leaving. Many also complained that the government's better housing provision for other occupation groups such as the police or army officials doesn't include teachers. In sum, several of them acknowledged the provision of housing to be a key factor in ensuring teacher retention in their regions and recommended that the government should allocate more funds to construct teacher housing, particularly in the most rural regions.

Decentralization of the teacher assignment system was another policy measure offered by several participants as a means to reduce teacher turnover. Participants were critical about several aspects of the centralized teacher assignment system. For instance, as pointed out earlier, some argued that the centralized system was very slow in responding to vacancies. Others complained that the current centralized assignment system, which assigns teachers to schools based only on their test scores and school choices, was ineffective in terms of matching teachers with schools. They argued that the majority of newly assigned teachers saw provinces in their region as a last resort and would not have chosen to teach there if they had another available option in western Turkey. As one participant (S1) explained "there might be teacher candidates who are not able to get an assignment because of a comparatively lower test score but are much more eager to work here." Several participants acknowledged that local recruitment strategies would be more effective in recruiting these candidates who they also believe would willingly accept a contract with longer and stricter service requirements.

Discussion and Policy Recommendations

This section provides a brief discussion of the findings presented in the previous section and explores possible policy recommendations for reducing teacher turnover. Descriptive analysis in this study demonstrates that there is an extraordinary wave of teacher mobility from east to west in Turkey. Such mobility leads to a constant and rapid teacher turnover in most eastern provinces. With respect to the reasons for high teacher turnover, this study reveals that there are several interrelated factors influencing teachers' decisions to leave eastern provinces in Turkey. The most important factor, which can be classified as the "pull factor," is teachers' desire to work closer to their families. This finding supports the work of Boyd et al. (2005b) conducted in the USA, who showed that teachers have preferences for proximity to their hometown. Teachers' preferences for working close to their families are believed to be influenced by the

strength of family ties. Family ties in Turkey are tight, and as shown by labor market research, people with strong family ties usually want to stay close to their families and therefore tend to have low geographic mobility for employment (Alesina et al., 2010).

The importance of family location with teacher preferences together with the current demography of Turkey presents a daunting challenge for eastern provinces in regards to teacher turnover. Given that the vast majority of the population resides in western provinces and also that a great majority of the teacher training programs operates within the developed western provinces, the pool of potential teacher candidates is dominated by teacher candidates who are from western provinces. Furthermore, given that the educational outcomes of students in eastern provinces are lower than their western counterparts, the contribution of eastern provinces to the pool of potential teacher candidates is expected to be very limited. Altogether, it is almost inevitable for eastern provinces to fill the majority of their vacancies with teachers who are from western provinces.

An important policy implication from these findings is that more individuals from eastern Turkey should be attracted to teacher education programs. Findings about the characteristics of long-term teachers also suggest that this policy measure would be a logical step for increasing retention rates. One strategy to realize this "grow-your-own" type policy measure could be to increase the number and quota of teacher education programs in the universities of eastern Turkey. As indicated above, the majority of teacher training programs are currently located in the western provinces. Given that every province in Turkey has at least one public university, the feasibility of this policy measure is high. If this can be accomplished, it would be effective not only in attracting more individuals from eastern provinces to the teaching profession but also in adjusting all candidates to the living and teaching conditions of eastern Turkey.

The demography of potential teacher candidates along with the excuse transfer policy also appears to further exacerbate the issue of teacher turnover in eastern Turkey. Given that a great majority of the potential teacher candidates are new graduates and single, shortly after they are appointed they are expected to get married. When they marry, usually with a civil servant from western Turkey, they apply excuse transfers to be where their spouses work. This implies that in order to alleviate mobility-related turnover issues experienced in eastern Turkey, policy makers should reconsider excuse-related transfer policies. For instance, specialized civil servants such as judges, army officers, and police officers also have compulsory service requirements, but none of these professions consider marriage as an excuse for transfer when they marry with someone from another profession. A similar compulsory service policy can be followed by teachers as well. But policy makers need to be very careful in following such a rigid requirement. Since teachers not only constitute the largest proportion of civil servants but also occupy the widest geographical distribution, this might therefore cause other unexpected social issues.

Moreover, factors related to the socioeconomic and geographic conditions of eastern provinces were also identified to collectively and strongly affect teachers' decisions to leave. A lack of enough community amenities, poor infrastructure and housing conditions, severe weather conditions in winter, geographic isolation, cultural and language differences, security concerns, and lack of monetary incentives were all found to be context-related push factors, driving teachers out of eastern provinces. These difficulties associated with teaching in the eastern and rural parts of Turkey have been well documented in several other Turkish studies. For instance, studying the real life experiences of rural teachers, Hangül and Varol (2014) found that teachers in rural schools face issues associated with the poor physical conditions of schools and teacher housing, remote geography, harsh climate, limited transportation, social isolation and loneliness, lack of access to more experienced staff and mentors, and multi-age/multi-grade classes. Similarly, in their qualitative study that investigated the experiences of teachers who teach students that have different native languages (namely Kurdish), Ay and Uluçınar (2014) reported teachers' concerns about the difficulty of dealing with students and parents who are from significantly different social, cultural, and linguistic backgrounds.

One policy implication from these findings could be to increase the effectiveness of pre-service teacher training programs in preparing teachers for remote or less-developed eastern regions. Kızılaslan (2012) found that students in teacher training programs are usually under-informed about the realities of teaching in rural Turkey and this calls for more targeted instructional programs to help candidates become sensitized to the issues of less-developed and rural regions. In addition to targeted pre-service programs, well-designed in-service support programs in the form of mentoring and induction could be helpful for novice teachers to better cope with the above-mentioned challenges associated

with teaching in eastern and rural Turkey. Another policy measure, as also suggested by the participants, could be an increased focus on the provisions for teacher housing. Qualitative findings suggest that the negative impact of poor housing on teachers' decisions to stay or leave cannot be underestimated.

It is important to note that unlike previous studies that investigated teacher mobility across schools within the same district or across districts within the same region in developed countries, which suggests that teachers' decisions are much more strongly affected by student characteristics and working conditions of a school rather than other factors (Hanushek et al., 2004; Kukla-Acevedo, 2009), the current study reveals that push factors related to socioeconomic and geographical contexts of a school's location are more important than school or student-related factors in teachers' decisions to move across provinces or regions. This is not surprising given that in cross-provincial teacher mobility, teachers' preferences are expected to be more about context-related factors than school-related factors. Another explanation could be related to sample. Given that the qualitative data was derived from school principals, it is expected that participants underemphasized school-related factors.

At the policy level, the uniform salary policy and teacher-transfer policies are found to collectively further exacerbate the issue of teacher turnover in eastern provinces. Firstly, despite there being several context-related push factors in eastern provinces, there is no monetary incentive to keep teachers there. The only incentive is higher service scores towards seniority for those working in schools located in less-developed regions. Given the absence of any criteria other than seniority in regulating the transfer of teachers and also given the absence of any peculiar incentives for teachers to stay in schools with low socioeconomic contexts, teachers in less-developed eastern provinces usually move elsewhere after accumulating enough seniority scores to be able do so. As a result, students in less-developed eastern provinces constantly end up with new and inexperienced teachers who are just waiting, often unwillingly, to accumulate enough seniority scores to move elsewhere. These findings highlight the possible role of salary in retaining teachers in less-developed eastern provinces. As also recommended by many participants, targeted salary improvements or monetary incentives based on the specific working conditions of a school, including the living conditions of their locales, could be an effective strategy for keeping teachers in hard-to-staff regions for longer periods.

With respect to the implications of teacher turnover, this study reveals that a higher degree of teacher turnover may have negative impacts both on student achievement and on various school processes. Initially, echoing the previous findings of Guin (2004), the descriptive analysis in this study revealed a strong negative correlation between teacher turnover and student performance. Provinces with higher turnover also have lower student performance on both high school and university entrance exams. While these correlations do not imply causation, qualitative findings provide strong evidence that there might be a causal link between teacher turnover and student performance. Participants in this qualitative study consistently referred to high teacher turnover as the most important policy issue that severely affects student achievement. Nevertheless, more research with extensive statistical analyses, such as those employed by Ronfeldt et al. (2013), is necessary to provide quantitative evidence for the causal link between the issue of turnover and student performance.

Qualitative findings in this study suggest that turnover may impact student performance in many different ways. Perhaps, the most severe consequence of teacher turnover on student learning is that the centralized assignment system in Turkey fails to quickly respond to turnover-related vacancies, and students who lose their teachers due to turnover are often exposed to out-of-field teachers. Another explanation is related to teacher motivation. Qualitative data suggests that due to the above-mentioned pull/push factors, most teachers appear to begin their transfer planning right after they are appointed, which might negatively affect their dedication and commitment to their jobs. These findings suggest that local recruitment strategies, rather than a centralized employment system, would be an important policy measure, first in recruiting more committed and dedicated teachers, and second in quickly responding to turnover-related vacancies.

Moreover, consistent with the findings of Guin (2004) and Useem et al. (1997), this study has revealed that high teacher turnover has substantial negative impacts on a range of school processes that are closely related to student learning. For instance, frequent teacher turnover creates instability, which impedes the development of trust and sustainable relationships among teachers, students, and families. One clear consequence of instability is the difficulty of building positive student-teacher relationships. Instability arising from turnover transitions also adversely affects the parent-teacher partnerships and parental

involvement. Additionally, turnover transitions have negative consequences for the organization of schools. For instance, qualitative findings suggest that due to frequent changes in the composition of the teacher workforce, establishing and maintaining a positive school culture becomes an almost impossible task. Furthermore, never ending induction and mentoring processes due to recurring waves of new teachers create an extra burden on administrators and keep them from other important administrative tasks. Qualitative data also suggest that uncertainties about the teacher workforce arising from excessive teacher turnover may create stress on administrators and cause difficulties in planning schedules.

The findings of the qualitative inquiry also suggest that the negative impacts of teacher turnover on student learning may be more related to instability or disruptions arising from turnover transitions than the overall quality of leaving or newly appointed teachers. However, this does not mean that turnover-related changes in the composition of teachers are unimportant. As indicated previously, several participants complained about their schools being a proving ground for new teachers. On the whole, this finding supports the results of Ronfeldt et al. (2013) which suggest that turnover-related changes in the distribution of teacher quality account for some of the observed relationships between teacher turnover and student achievement, but there might be a disruptive impact of turnover beyond compositional changes in teacher effectiveness.

Overall, the findings on the implications of turnover indicate that the issue of mobility-related teacher turnover as experienced in eastern Turkey has far-reaching, negative consequences and should not be underestimated by policy makers. Inequalities in education across regions have long been an important policy agenda in Turkey and more recently the government has shown a strong commitment to remedy these inequalities. However, the current remedial policies appear to focus more on infrastructural issues than instructional ones. This study presents strong evidence that the government's commitment to improving the educational equality among different regions should also take into account the issue of teacher turnover as experienced in eastern Turkey.

Conclusion

This study demonstrates that there are huge discrepancies in the distribution of teacher experience across provinces in Turkey. The average teacher experience in most eastern provinces is far less than the country average. These discrepancies are primarily due to an excessive amount of mobility-related teacher turnover as experienced in eastern Turkey. A qualitative inquiry based on in-depth interviews with school principals was employed to explore the reasons for and negative consequences of this mobility-related teacher turnover. The findings of the qualitative inquiry suggest that there are several interrelated factors, the majority of which is related to the socioeconomic and geographic conditions of the region, that contribute to the issue of teacher turnover. In regards to the implications of turnover, the qualitative inquiry revealed that the chronic issue of teacher turnover as experienced in eastern Turkey has sweeping negative consequences across school-wide performances and processes. Turnover adversely affects student performance; teacher motivation and commitment; the relationships among teachers, students and families; instructional planning; administrative processes; and school climate.

This study differs from other turnover research, particularly from those conducted in developed countries, in at least two different ways. First, it investigates the issue of teacher turnover in a centralized teacher employment system. Second, it explores countrywide teacher mobility across provinces, rather than among schools within the same district or across districts within the same region. One of the unique findings of the present work is that teachers' decisions to move across provinces and regions is much more affected by "push" factors related to the socioeconomic context of a school's location than by factors related to a school's or student's characteristics. Also unique is the finding that the centralized teacher employment system contributes strongly to the overall issue of turnover. The centralized system in Turkey seem to function as "fill-and-drain valves", meaning that vacancies in less-developed eastern provinces are often filled by new, inexperienced teachers, but these teachers are drained out of these provinces soon after they gain some experience. One clear, negative consequence of this vacancy chain mechanism that leads to chronic mobility-related teacher turnover is that the majority of schools in less-developed eastern provinces serve as a "gate-to-teaching profession," or as a "boot camp for new teachers."

Finally, this study has a number of limitations that need to be acknowledged. The major limitation regards the sample of the qualitative inquiry. The sample of this study included only

administrators. In order to broaden the scope and external validity, future research certainly should incorporate the views of other stakeholders, such as teachers, students, and parents. Particularly, in order for a better understanding of the individual reasons behind transfers, follow-up surveys and/or interviews with teachers would be a reasonable next-step for future research. Moreover, future research should also investigate the implications of teacher turnover from the viewpoint of teachers, students, and parents. Another limitation is that this study investigated the issue of teacher turnover with a focus on teacher mobility across provinces. Given that there might also be teacher mobility across schools within provinces, particularly from rural schools to urban ones, future research investigating teacher mobility across schools within the same province might bring more insight into the issue of mobility-related turnover. Despite these limitations, the findings of this qualitative study set the stage for the development of an important research agenda on the issue of mobility-related teacher turnover as experienced in Turkey. Moreover, the findings might serve as a useful guide for the formulation and implementation of policies aimed at reducing teacher turnover in eastern parts of the country.

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