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Pious people, patronage jobs, and the labor market: Turkey under Erdoğan's AKP

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Abstract
In fragmented societies, electoral competition often entails using public office to advance group interests. Using individual-level polling data from 2012 to 2018, we analyze whether age cohorts entering the labor market before and after the religiously conservative Justice and Development Party (AKP) assumed power in Turkey experienced different public employment outcomes based on their religion and religiosity. Our analysis reveals that under the AKP rule, pious Sunnis (who constitute a large part of the society) significantly increased their presence in public sector employment (notably among women) and in high-status private jobs (notably among men). Furthermore, the subset of highly religious Sunnis (only 9.3% of the population) improved their likelihood of being employed in the public sector compared to other pious Sunnis and everyone else. Our findings are likely to be driven by the lifting of the headscarf ban in public employment and AKP's strategic use of public employment and resources to reward like-minded groups in both the public and private spheres.

Keywords Turkey · Public sector employment · Patronage · Political Islam · Event-study design · Clientelism

JEL Classification D73 · J45 · J71 · D72 · Z13

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1 Introduction

In societies that are horizontally fragmented by identity-based social groups, electoral competition induces elected officials to use their office to advance group interests (Alesina et al., 1999; i Miquel, 2007; Osei-Tutu & Weill, 2024). Turkey, divided between religiously conservative and secularly oriented groups, exemplifies this dynamic. Historically, secularists have been considered to have the upper hand in education, employment, and economic status. However, since Tayyip Erdoğan's religiously conservative Justice and Development Party (Adalet ve Kalkınma Partisi, hereafter AKP) assumed power in 2002, the relationship between social group, state power, and economic outcomes has shifted (Buğra & Savaşkan, 2014). We empirically analyze whether AKP's tenure in office has been associated with a relative improvement in employment for pious Sunnis, particularly in the public sector.

The question is theoretically interesting because the ability and willingness of officeholders to direct state resources to the favored group cannot be taken for granted. Politicians are not incentivized to allocate resources to their core group if the political return is greater elsewhere because group members' tastes align with their own. (Casas, 2020; Kasara, 2007). For example, religiously conservative citizens of Turkey who derive satisfaction from the conversion of Hagia Sophia into a mosque might not require further material resources to support the incumbents. As Stokes et al. (2013) note, "Most positive theories... predict that *swing* or indifferent voters will be the chief targets of distributive largess" (p. 24). They argue that inefficient resource targeting often results when local distributive brokers have interests (consolidating their local power networks) that do not overlap with those of the top party leadership (also see Kemahlıoğlu & Bayer, 2021). The literature provides evidence of both core- and swing-district targeting of state resources, especially in spending programs (see Leigh, 2008; Lattmann, 2024 for reviews).

Distribution of patronage jobs is one way to direct resources to the in-group. The canonical Becker model of taste-based discrimination suggests that competitive forces in the marketplace will counteract preferential treatment of in-group workers (Becker, 1971). Nondiscriminating firms will outcompete discriminating firms because their labor costs are lower. However, in public sector employment, such competitive market forces will neither eliminate nor severely limit clientelist hiring preferences (Lang & Spitzer, 2020). As a result, officeholders may disproportionately give public jobs to in-group members or promote them more readily (Mocetti & Orlando, 2019). As Brierley et al. (2023) note, "From federal civil servants in Germany (Bach & Veit, 2018) to municipal employees in Brazil (Colonnelli et al., 2020)... jobs seem to be subject to politically motivated selection, designed mostly to benefit the ruling party" (p. 276). Nonetheless, civil service reforms, competitive exam systems, and career progression based on years of service may limit political selection.

Additionally, the public choice literature shows that public sector jobs tend to pay more, have fewer working hours, and offer better job security (Gregory & Borland, 1999). Consequently, public jobs are typically highly coveted, subject to extremely low turnover, and at times subject to familial nepotism, as public servants use their positions and networks to place their family members in public sector jobs (Scoppa, 2009). These dynamics complicate the politically targeted reshuffling of public service cadres by governments. Brierley (2021) finds that patronage considerations influence appointments to entry-level, but not high-level, positions in local bureaucracies in Ghana. Pierskalla and Sacks (2020) find that elections lead to increases in hiring contract teachers in Indonesia but not permanent civil service teachers.

With these considerations in mind, Turkey presents an ambiguous case. Its social cleavages between ethnolinguistic and religious communities do not clearly align with racial divides. It has a diversified, non-resource-based economy and competitive exams for most public sector recruitment. However, the polarizing AKP government's longtime grip on power has provided opportunities for job cronyism and group control of state offices.

To date, no rigorous individual-level empirical study of this question has been performed. Official household income surveys in Turkey do not include questions about ethnicity or religiosity, and other surveys do not cover both pre- and post-AKP periods. A cross-sectional study would be marred by issues of endogeneity because of differences in identity between those employed and not employed in the public sector.

We address these issues by pursuing an identification strategy that exploits differences between birth cohorts and relevant rules for public sector recruitment. Recruitment rules for most public sector jobs limit most first-time recruitment to people in their early twenties. We examine whether the election of AKP increased public employment of religious individuals, relative to secular citizens, in age cohorts that joined the labor market after AKP came to power in 2002. We use pooled cross-sectional individual-level data from the Konda survey from 2012 to 2018—that is, during AKP's term in office. Our identification strategy is similar to Franck and Rainer's (2012) approach. Our results are consistent using both difference-in-differences (DiD) and quasi-event-study approaches.

We find that for older cohorts, pious Sunni (PS) identity is associated with lower education and public employment levels compared to secular people. For younger cohorts, which likely entered the labor market under the AKP, being a pious Sunni is associated with a higher probability of public sector employment, especially for those born after 1980 and those whose labor market entry coincides with AKP's later terms in office. These cohort differences persist even when controlling for education. This *AKP effect* is much more substantial for women, for whom group membership comes with more visible identity markers like a headscarf, than men. However, it is not limited to them. In high-status *private* sector jobs, in which a formal headscarf ban never existed, being a pious Sunni became advantageous, but only for men.

Whether the increase in pious Sunni public sector employment resulted from favoritism in recruitment, an increase in pious Sunnis' willingness to apply for public sector jobs, or both cannot be determined using our data. However, our results highlight the important role of religious identity in public employment. Previous studies have investigated whether there is an Islamist advantage in the Middle East, in which conservative Muslim parties provide services to win hearts and minds. Yet empirical work on the effects of these policies on specific identity groups remains scant (see Cammett & Luong, 2014; Meyersson, 2014). We show that public employment grew faster for religious Turkish citizens, which may explain the enduring popularity of Erdoğan and his party among pious Sunni constituencies. While theories of clientelism generate mixed predictions about how the distribution of government resources can be politically targeted, our results support the core-rewarding hypothesis, emphasizing the stability of a support coalition (Cox & McCubbins, 1986; see also Stokes et al., 2013).

2 Group competition and public policy in Turkey

2.1 Relevant groups

Two politically salient social cleavages dominate contemporary Turkey: one between secularism and Sunni Muslim piety; the other between the ethnic Turkish majority and

the Kurdish minority (Çarkoğlu & Hinich, 2006; Mardin, 1973). The AKP came to power in 2002 as a party associated with the Sunni Muslim conservatism of the country's interior. The allegedly lower status of this group under Turkey's previously secular establishment generated grievances framed in the party discourse in almost-ethnic terms. Party leader Tayyip Erdoğan has repeatedly referred to his people as "Turkey's blacks," implying they are victims of discrimination.[1] As Demiralp (2012: 511) comments, these grievances come with a baggage of associated characteristics and identity markers: "The 'white–black' dichotomy or the Islamism–secularism conflict in Turkey was not merely a clash over religious outlook. Erdoğan was 'black' not just because he was a practising Muslim, but also because he was from provincial Anatolia, namely *taşra*, the 'inlands.' His Muslimhood was rather a clue, just like his Anatolian accent, body language, expressions, outfits and even physical features, giving away his 'rural,' 'common' and therefore 'inferior' status."

During the twentieth century, Turkey's state-led secularization project was most successful in the richer western coastal provinces with closer commercial ties to Europe. However, in some rural parts of the country, this project found willing partners in Alevis. A once-persecuted community with a heterodox interpretation of Islam, Alevis found opportunities for economic mobility with Turkey's industrialization, partly because of their enthusiastic participation in secular education. In our sample, self-identified Alevis have significantly higher household income compared to the Sunni majority[2]—likely a recent reversal of a centuries-long pattern. However, as Buğra and Savaşkan (2014) note, with growing AKP power, "the rise of religious conservatism generated feelings of exclusion and marginalization among certain segments of the population" (p. 61). Indeed, studies on the Alevi population during AKP's term find widespread experience of discrimination (Erdemir et al., 2010a), including in job interviews and the workplace (Erdemir et al., 2010b).

We analyze whether AKP's term in office has indeed improved the economic status of pious Sunnis compared to the out-group. We define the out-group based on religiosity and religious sect as self-reported in a survey. For want of a better term, we call this out-group *seculars,* and include anybody who does not identify as a Sunni Muslim (hence all self-reported Alevis) and those professing low or no religiosity. The in-group consists of pious Sunnis.

While AKP's identification with Sunni piety has been widely recognized, its position on the Turkish-Kurdish cleavage has varied over time (Arat & Pamuk, 2019). Therefore, AKP's impact on the economic status of Kurdish individuals is unclear. We control for Kurdish ethnic identity in our estimations. However, we do not discuss the changing economic status of Kurds, as this lies beyond the scope of this paper.[3] Our focus is on the pious-secular divide.

2.2 Public policy and behavior in the labor market

The pious-secular divide is evident in employment patterns. In our data set, spanning cohorts born between 1963 and 1995 (that is, pre-and post-AKP labor market entry),

[1] 'Türkiye'nin Zencileri,' *Tempo*, 23 March 2006, https://www.internethaber.com/cumhurbaskani-erdogan-o-zenciler-biziz-video-galerisi-1880050.htm

[2] According to our calculations (using Konda Barometer data), average equivalized household incomes for Alevis were 12.8% higher in 2018 and 7.0% higher in 2013 compared to Sunnis.

[3] In Supplementary Materials Section F, we also estimate Kurdish individuals' changing probability of being employed in the public sector.

the average employment-to-population ratio for pious Sunni women is 18.2%, compared to 38.1% for other women, a difference of 19.8 percentage points. However, a similar gap does not exist between pious Sunni men (86.8%) and secular men (83.4%). The pattern for women may reflect both differential willingness to seek gainful employment and public policies that discriminate between groups.

Several studies suggest that religiosity and associated patriarchal norms reduce women's labor force participation. Using indices of religious practices, Dildar (2015) and Atasoy (2016) provide empirical estimates indicating that both religiosity and patriarchy significantly reduce women's likelihood of participating in the labor force in urban areas. Güner and Uysal (2014) find that female migrants from provinces with a higher share of the Islamist vote in 1973 were less likely to participate in the labor market in 2008. Uğur (2017) finds that wearing a headscarf, considered a signal of a pious lifestyle, is negatively associated with women's employment odds in both the public and private sectors in the 2000s, even when controlling for education and religious practice. However, this may reflect both headscarved women's lower willingness to seek work and employers' discrimination.

Second, public policies have actively shaped the labor market in this regard. According to Carvalho (2013), prohibiting veiling creates a barrier to the integration of religious women, who will not be able to use veils to preserve their reputation within their community while working outside their community. Until the reforms implemented in the 2000s by the AKP government, female university students and public servants were prohibited from wearing headscarves. A report by AK-DER (cited in Cindoğlu, 2011) states that between 1998 and 2002, 5000 headscarved women were expelled and 10,000 were forced to resign from public institutions for not adhering to the dress code. The AKP government lifted the headscarf ban for university students in 2008–10, for civil servants in 2013, for police officers in 2017, and finally for military officers in 2019 (Çörekçioğlu, 2021). Çörekçioğlu (2021) empirically estimates that following the elimination of the headscarf ban, female employment significantly improved in municipalities with AKP mayors.[4]

In addition to the lifting of the headscarf ban, changes in the composition of available public sector jobs under the AKP governments have likely attracted more pious Sunni job seekers to the public sector. This includes the significant increase in positions such as imams and religious-education teachers, altering the public sector landscape to favor pious Sunni preferences (see Supplementary Materials Section D).

Last, discretionary hiring favoring the AKP supporters could shift the composition of public employment toward pious Sunnis. Although most civil servants in Turkey are recruited through the centrally administered Public Servant Selection Exam (KPSS), certain mechanisms enable favoritism. First, specific public sector jobs, including positions in the Ministry of the Treasury, the Ministry of Foreign Affairs, academia, the military, police departments, and temporary teaching roles, require oral interviews. These interviews can sort applicants based on their answers to politically sensitive questions (Yılmaz & Çakıcı, 2021). Second, KPSS and other standardized tests might not be entirely fair. Ongoing criminal investigations focus on exams conducted by the official Measuring, Selection and Placement Center (ÖSYM) between 2010 and 2014, including KPSS. The former head of the ÖSYM and several ÖSYM personnel are accused of leaking exam questions

[4] An analysis using headscarf as an identity maker can be done only for women. Many female civil servants began wearing headscarves only after it was legally permitted. Therefore, headscarf wearing is partly endogenous to occupational status—more so than religious identities reported in our survey data—and for these reasons, it is not our primary identifier. Nevertheless, in Fig. 2, in the bottom panel, we show that replacing the headscarf variable for pious Sunni variable yields a similar result for women.

and answers to the religious Gülen cult, which had strong ties with the AKP government and exerted significant influence on the government bureaucracy until at least 2013 (Tahincioğlu, 2021). Despite a purge of suspected Gülenists from the bureaucracy following the July 2016 pro-Gülen coup attempt, those who had switched their allegiance from the cult to the party earlier likely retained their jobs. Third, mayors have significant control over the recruitment of municipal employees (Çörekçioğlu, 2021). Indeed, Meşe (2011) reports that municipalities have been instrumental in creating employment opportunities for potential voters, especially during pre-election periods.

The AKP government also implemented various policies that supported the growth of enterprises owned by pious Sunnis or located in areas with larger proportions of the pious Sunni population. These policies presumably also created private sector job opportunities for the in-group through network effects. The key policy tools used by the AKP government to create and sustain a loyal business clientele are (i) public procurement contracts (Ceviker Gurakar, 2016), (ii) politically motivated lending by public banks (Bircan & Saka, 2021), and (iii) fixed capital investments (Luca & Rodriguez, 2015; Marschall et al., 2016).[5]

In summary, the AKP government may have influenced the occupational and income status of pious Sunnis through both public sector employment and private sector policies. By relying on data on comprehensive employment outcomes, we examine to what extent this occurred.

3 Data and econometric framework

3.1 Data source

We use the monthly Barometer survey by Konda, an ongoing survey program with a track record.[6] The survey includes questions on occupation, income, ethnicity, and religiosity, which are not covered in official statistics. Konda follows a stratified sampling method with neighborhoods and villages as the ultimate sampling units, surveying one adult from each household and employing age quotas. Konda does not report a nonresponse rate; thus, we could not correct for this. However, respondents to surveys generally answer all the questions. We lose very few (roughly 3,000 out of 113,000) because of item nonresponse.

The Barometer data sets do not include a weighting variable. Therefore, we construct poststratification weights by creating 84 subgroups for each year (7 regions × 2 gender × 3 age × 2 education groups) using the population figures from TurkStat's Address-Based Population Registration System.[7]We calculate population weights by dividing the

[5] We review these and other related studies in Supplementary Materials Section C in detail.

[6] Barometer surveys were used by Altındağ and Kaushal (2021), Yagci and Oyvat (2020), Yörük (2012), and Tezcür and Gurses (2017), among others. The survey is conducted 11 months a year, skipping either July, August, or September, except in 2015, when two general elections resulted in significantly more observations than in other years.

[7] TurkStat data come from https://biruni.tuik.gov.tr/medas/?kn=95&locale=tr. The regions refer to the seven geographical regions of Turkey. We differentiate between respondents with less than a high school education and high school graduates. We define age groups as 18–29, 30–44, and 45 + . We aim to create cells with at least 30 observations. In the end, the number of observations in cells ranged between 22 and 1,080, with only one cell falling below 30 observations. The median cell has 327 observations. The smallest cell comprises eastern women aged 45 + with high school or more education in 2012.

official population for each subgroup by the corresponding number of survey observations (see Supplementary Materials Section A for details).

3.1.1 Dependent variables

Our primary dependent variable is employment in the public sector. We categorize respondents listed as "public servant, supervisor, manager"[8] as public sector employees. The estimated number of respondents in this category closely matches official civil servant figures. It is substantially below the total public sector employment figure, which includes temporary personnel and public sector blue-collar workers (see Table A2 in Supplementary Materials). The average income reported by this group is substantially above the sample mean. Our public sector employment measure corresponds to civil servants with full rights, including good pensions and highly secure employment. In Turkey, public sector wages are typically higher than private sector wages. Bakis and Polat (2023) report that the median public sector wage in 2002 was triple that in the private sector. Although this difference decreased by 2019, the median public sector wage remained twice that in the private sector.

We also explore placement in alternative employment categories. We combine "manager and clerk in the private sector," "merchant, industrialist, businessman," and "self-employed professional (doctors, architects, lawyers, etc.)" into a category we call private high-status jobs. This allows us to examine whether pious Sunnis have made significant progress in the private sector.

3.1.2 Explanatory variables

Public sector recruitment in Turkey is highly structured. In the 2000s, most recruits were university graduates who had to take a standardized test, KPSS, as part of the recruitment process. KPSS tends to preclude the first-time recruitment of older people since fresh university graduates perform better at this competitive exam. As a result, most people end up as public employees joining the recruitment pool in their early twenties. For this reason, we use the respondent's birth year for our identification strategy. We analyze prime working-age adults aged 23 to 49 to (i) create a roughly equal number of years around 1980, corresponding to the first eligible job market entry under the AKP for university graduates, (ii) exclude undergraduate students, and (iii) minimize the effect of the early-retirement scheme active from 1992 to 1999, which allowed some women and men to retire at 38 and 44, respectively.[9] The 23–49 age range dictates the span of our birth cohorts from 1963 (the oldest cohort in the 2012 survey) to 1995 (the youngest cohort in the 2018 survey). See Figure A1 (in Supplementary Materials) for birth-year distribution. We split the sample into two: those born during 1963–80 and those born during 1981–95. The idea is that survey participants born in 1981 or later likely entered the labor market for public sector jobs during AKP's term (November 2002 to present), and those born in 1980 or earlier entered the labor market before AKP's term. This distinction informs our DiD analysis, although we also use a quasi-event-study approach, which relaxes the temporal-discontinuity assumption, as explained below.

[8] "Devlet memuru, şef, müdür vb" in Turkish.

[9] Asik (2024) shows that 2012 labor force participation for men and women above age 50 was lower than in the 1990s. Labor force participation of women aged 40–49 declined between 1995 and 2004 but was higher in 2012 than in the 1990s.

Our main explanatory variable is a dummy variable indicating whether the respondent belongs to the pious Sunni social group. We construct membership in this group by selecting those who (i) answer "Sunni Muslim" to a survey question about religious affiliation (92% of respondents aged 23–49) and (ii) select the top two of five levels in a question about religiosity. These criteria generate membership in the hypothesized public policy in-group, which we call pious Sunnis. The secular out-group comprises the rest of the respondents. Across our survey years (2012–18), the share of pious Sunnis in the sample ranges from 65 to 70% (see Table B1 for further details on ethnicity and religiosity).

3.1.3 Control variables

We control for survey regions (12 NUTS1 regions) and the interaction of survey year and geographical region[10] to account for the differential regional trends in public sector employment. These controls address varying economic growth and public sector employment trends. Additionally, we limit the sample to 23- to 49-year-olds and control for birth year. We control for education (less than middle school, middle school, high school, and tertiary graduates) in every specification since passing a competitive centrally administered KPSS exam is a prerequisite for civil service employment, and most civil service positions require a tertiary degree (two or four years).[11]

3.2 Descriptive statistics

Table 1 presents descriptive statistics. For the overall population, from the older to the younger cohort the share of those with tertiary degrees increased from 12.6 to 24.6% while public sector employment decreased by 0.4 percentage points (from 7.1 to 6.7%). For those born after 1980, competition is fiercer for public sector jobs, and these jobs now effectively require a tertiary degree. The proportion of those with tertiary degrees increased faster for women than for men, both in absolute and relative terms (see Supplementary Materials B for trends in education by gender and religiosity). The rapid increase in the share of Kurds between the 1963–80 and 1981–95 cohorts is expected, considering the substantially higher fertility rate among Kurdish speakers (Koc et al., 2008).

Next, we compare the change in employment for subcategories. This comparison provides a rough DiD estimate in descriptive statistics. The pious Sunni group experienced *relative* employment gains in the public sector. For pious Sunnis, public sector employment share declined slightly from 5.9% among those born before 1981 to 5.7% among those born from 1981 onward. For seculars, the corresponding figures are 9.7% and 8.2%. Hence, the public sector employment share of pious Sunnis declined less—by 1.3 percentage points—compared to the secular group.

Employment trends vary sharply by gender. Across cohorts, public sector employment share has increased from 2.6 to 4.0% for pious Sunni women and from 8.1 to 9.9% for secular women (Table 1). Moreover, Fig. 1 Panel A shows that the share of public sector employment sharply decreased in the youngest secular women cohorts in our sample,

[10] NUTS stands for Nomenclature of Territorial Units for Statistics and was created in 2002 in an agreement between Eurostat and Turkish authorities for statistical purposes. NUTS1 aggregates 81 administrative provinces of Turkey into 12 regions. We group NUTS1 regions into five broad regions: West (TR1–TR4), South (TR6), Central (TR5 and TR7), North (TR8 and TR9), and East (TR10–TR12), following the Turkish Demographic and Health Survey.

[11] See Figure B1 for the share of tertiary graduates by birth year.

a pattern not observed for pious Sunni women. For pious Sunni men, the public sector employment share declined from 9.9 to 7.8%, whereas the decline was larger for secular men (11.1 to 7.7%).

Overall, the descriptive statistics suggest that any impact of the AKP government on public sector employment was most likely due to changing public sector employment prospects of pious Sunni women. In private high-status employment, younger women, whether pious Sunni or not, experienced significant employment gains. For men, the share of private high-status employment declined in the youngest cohorts, but the decline was less sharp for pious Sunni men.

3.3 Econometric framework

We present two econometric approaches that complement each other. Both approaches distinguish between the older cohorts that entered the labor market before the AKP came to power and younger cohorts that did so with the AKP in power to study the employment opportunities of pious Sunnis versus secular others. First, a DiD approach allows us to estimate the overall impact of being a pious Sunni, using a specified cutoff year for the expected AKP effect. Second, we use a quasi-event-study approach, which offers more flexibility in functional form and periodization, meaning a cutoff year is not predetermined by the researcher. The event-study plot also allows us to visually verify the parallel trend assumption for the earlier period. In both approaches, we estimate all regressions separately for men and women because of significant differences in labor force participation and employment rate.

3.3.1 Estimation issues

There are two potential confounding issues with our identification strategy. First, our data—from the 2012–18 period—fall entirely within the AKP period, so we lack observations from the pre-AKP period to observe past distributions of public sector jobs. We classify observations as pre-treatment or treatment by birth year. In the DiD approach, we classify observations of people born between 1963 and 1980 as pre-treatment and those born between 1981 and 1995 as treatment. The problem is that we observe the religious identity at the time of the survey but do not know how the respondents self-identified when they began employment. People working in the public sector might start reporting being pious Sunnis after they get a job, leading to a potential endogeneity issue. The second estimation problem is that we lack information on when people started the job they reported for the survey. Table 2 lists the most likely combinations for these issues and the potential direction of biases (overestimating or underestimating the AKP effect).

Our data set does not include an instrumental variable that satisfies the exclusion criterion and allows us to address the identification problems. Instead, we create a new variable: the share of pious Sunnis in the birth province of a person (average of all survey years).[12] This variable informs us about the relationship between the prevailing religious identity

[12] The share of pious Sunnis in a province does not directly affect the probability of public sector employment. However, it influences the probability of attending university, which in turn affects the likelihood of public sector employment. Therefore, it cannot satisfy the exclusion criterion. Results are available upon request.

of a person's birthplace and the probability of public sector employment during the AKP period. Individuals born in a province with a high share of pious Sunnis could *signal* that an individual is also likely to be a pious Sunni. However, this variable might also capture provincial network effects, which are distinct from religious identity.[13]

We use the province-level hometown-pious-Sunni-share variable in a similar DiD format. We use reduced-form estimates, as in Eq. 2 below, similar to Bleakley (2007) and Green and Loualiche (2021). Interaction terms of province-level hometown-pious-Sunni-share and birth cohorts inform us whether people born in a province with a high share of pious Sunnis are more likely to be employed in the public sector during the AKP reign. Reverse causality is not a concern because people cannot choose where they are born. Furthermore, the hometown-pious-Sunni-share variable is unlikely to be affected by civil servants' becoming pious Sunnis once in office because the overall share of public sector employees in the whole sample is less than 7% (Table 1), while the share of pious Sunnis is roughly 67% (Table B1).

Regarding the second estimation issue, scenario 5 (Table 2) depicts a situation in which we inadvertently misclassify a respondent as pre-treatment because of their birth year when, in reality, they start working in the public sector in the treatment period. This misclassification would create a fictitious decline in the treatment group's public sector employment, leading to an *underestimation* of the AKP effect. Conversely, in scenario 6 we would observe a fictitious decline in the pre-treatment group's public sector employment that leads to an *overestimation* of the AKP effect. Either scenario is possible. Since the religiously conservative AKP government is not expected to favor secular people in public sector job recruitment disproportionately, scenario 5 is the more likely. Hence, an underestimation of AKP's effect on pious Sunnis' probability of being employed in the public sector is more likely. To address the second estimation issue, we also estimate each birth cohort's probability of working in the public sector by using a quasi-event-study approach, in which we relax the strict periodization imposed in the DiD framework (see Sect. 3.3.3) and run microsimulations.[14]

Our reduced-form estimates and microsimulations might not completely eliminate all cases of reverse causality and measurement constraints. However, our findings document how self-reported religiosity and employment have changed for different cohorts. At the very least, our OLS estimates can be interpreted as correlations between self-reported religious identity and public employment, conditional on control variables.

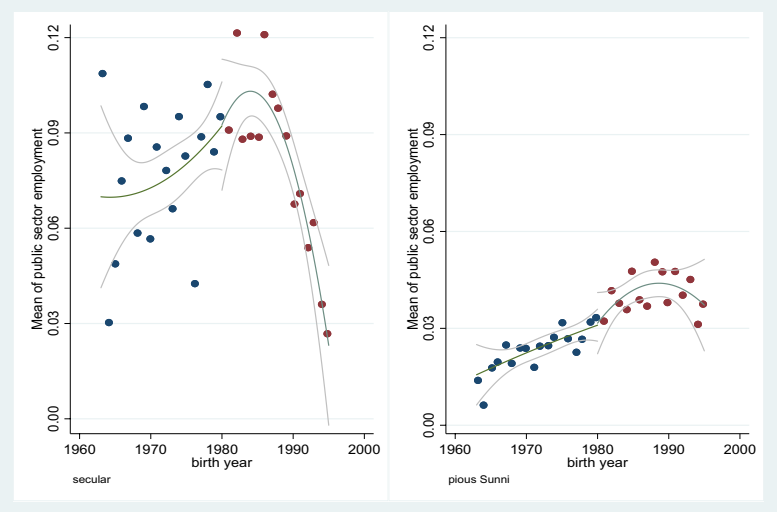
3.3.2 Difference-in-differences approach

Figure 1 shows that public sector employment-to-population ratios do not exhibit a sharp break between those born in the late 1970s and the early 1980s. However, by the 1990s, the employment trajectories in the public sector for secular individuals differ substantially from those of pious Sunnis. To account for this specific trajectory, we estimate the following model:

[13] We thank the reviewers for pointing out this possibility.

[14] We run a microsimulation assuming a randomly selected 10% of the sample born in 1976–80 entered the labor force after 2003; that is, we assume 10% of the 1976–80 cohort began working after age 23–27. Despite this extreme assumption, we find that the interaction terms hardly change. Only the coefficient of those born between 1980 and 1989 approaches zero. Results are available upon request.

Panel A: Public sector, women born between 1963 and 1995 (23-49 years old at the time of survey)



Panel B: Public sector, men born between 1963 and 1995 (23-49 years old at the time of survey)

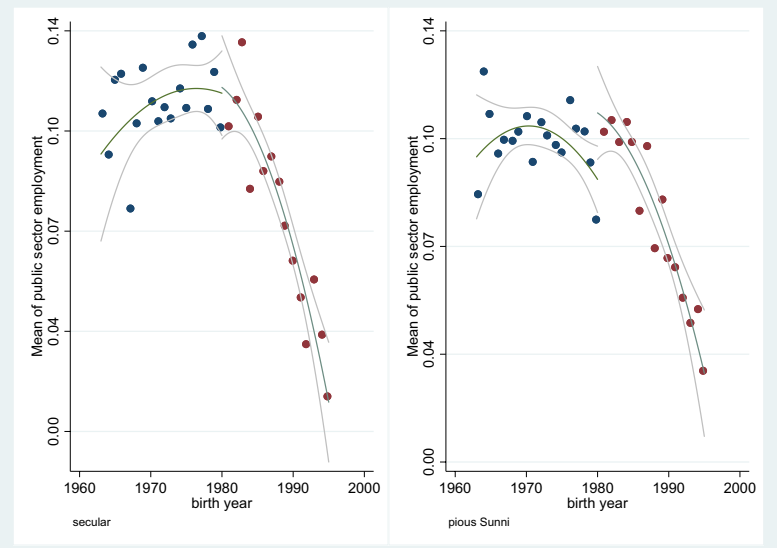
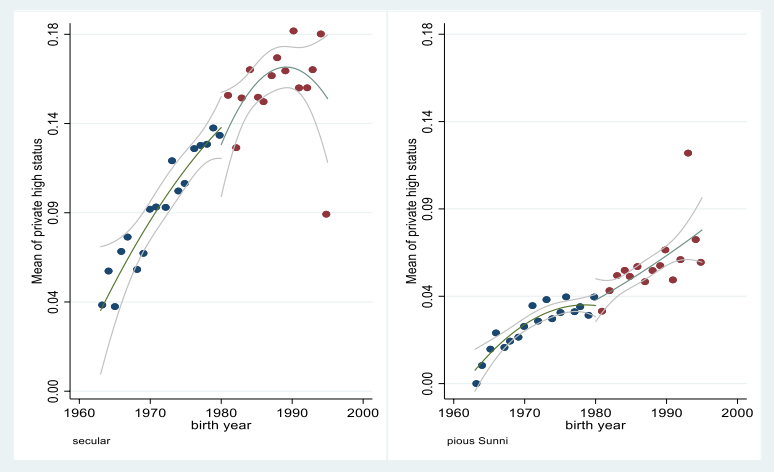


Fig. 1 Ratio of public sector workers by religiosity. Panel **A** Public sector, women born between 1963 and 1995 (23–49 years old at the time of survey). Panel **B** Public sector, men born between 1963 and 1995 (23–49 years old at the time of survey). Panel **C** Private high-status jobs, women born between 1963 and 1995 (23–49 years old at the time of survey). Panel **D** Private high-status jobs, men born between 1963 and 1995 (23–49 years old at the time of survey). *Source* Konda Barometer Surveys, 2012–18. *Notes.* Population weights are not applied, raw data. The sample in Table 1 is used

$$Emp_i = \alpha + \beta_0 PS_i + \beta_1\left(BY_{81-89} \times PS_i\right) + \beta_2\left(BY_{90-95} \times PS_i\right) + \beta_3 BY_{81-89} + \beta_4 BY_{90-95} + \Gamma X_i + e_{(i)} \quad (1)$$

Panel C: Private high-status jobs, women born between 1963 and 1995 (23-49 years old at the time of survey)



Panel D: Private high-status jobs, men born between 1963 and 1995 (23-49 years old at the time of survey)

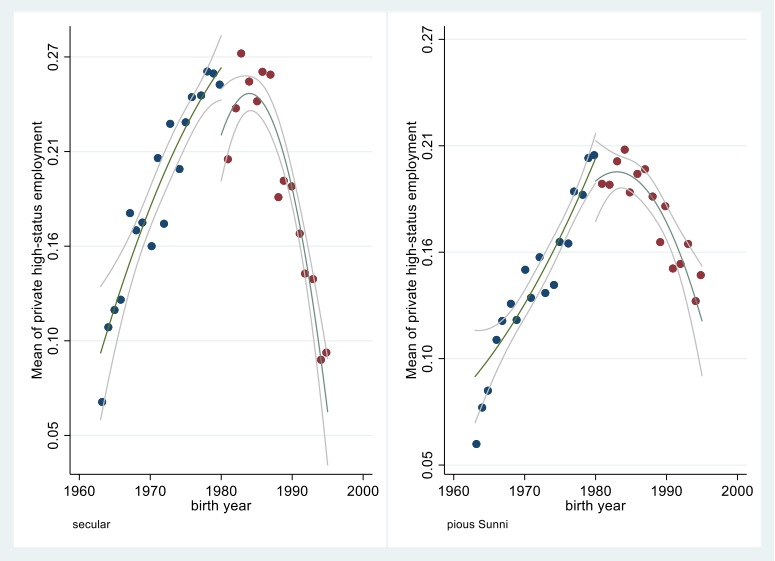


Fig. 1 (continued)

Here, Emp_i indicates whether person i is employed in the public sector or a high-status job in the private sector. $BY_{81–89}$ is an indicator for whether individual i is born between 1981 and 1989, and $BY_{90–95}$ is an indicator for whether individual i is born between 1990 and 1995. PS_i is an indicator for whether person i is a pious Sunni. X_i is a vector of controls: birth year (and squared birth year to test for nonlinearity), education level (less than high school, high school, tertiary), Kurdish ethnicity, NUTS1 survey region, and interaction of five broad regions and survey year.

Table 1 Descriptive statistics of survey respondents aged between 23 and 49

	Whole sample				Men				Women			
	N	Born btw. 1963–80	Born btw. 1981–95	% Change	N	Born btw. 1963–80	Born btw. 1981–95	% Change	N	Born btw. 1963–80	Born btw. 1981–95	% Change
Middle school degree	110,115	0.169	0.193	14%	54,025	0.196	0.213	8%	56,090	0.144	0.174	21%
High school degree	110,115	0.247	0.317	28%	54,025	0.296	0.338	14%	56,090	0.202	0.296	46%
Tertiary degree	110,115	0.126	0.246	95%	54,025	0.158	0.267	69%	56,090	0.096	0.225	136%
Kurd	110,115	0.136	0.195	44%	54,025	0.141	0.202	44%	56,090	0.131	0.189	44%
Public employment	110,115	0.071	0.067	−6%	54,025	0.103	0.077	−25%	56,090	0.040	0.056	39%
High status jobs, private	110,115	0.111	0.138	24%	54,025	0.172	0.186	8%	56,090	0.054	0.090	68%
Pious Sunni												
Middle school degree	73,265	0.176	0.219	24%	33,428	0.211	0.240	14%	39,837	0.148	0.201	36%
High school degree	73,265	0.220	0.294	33%	33,428	0.280	0.321	15%	39,837	0.171	0.270	58%
Tertiary degree	73,265	0.094	0.189	100%	33,428	0.133	0.229	72%	39,837	0.062	0.155	148%
Kurd	73,265	0.148	0.217	46%	33,428	0.153	0.218	42%	39,837	0.144	0.215	50%
Public employment	73,265	0.059	0.057	−3%	33,428	0.099	0.078	−22%	39,837	0.026	0.040	52%
High status jobs, private	73,265	0.089	0.111	25%	33,428	0.154	0.174	13%	39,837	0.035	0.057	61%
Secular												
Middle school degree	36,850	0.153	0.150	−2%	20,597	0.169	0.175	4%	16,253	0.134	0.121	−10%
High school degree	36,850	0.312	0.356	14%	20,597	0.328	0.363	11%	16,253	0.292	0.347	19%
Tertiary degree	36,850	0.201	0.342	71%	20,597	0.209	0.322	54%	16,253	0.191	0.367	92%
Kurd	36,850	0.106	0.159	51%	20,597	0.116	0.179	55%	16,253	0.093	0.135	45%
Public employment	36,850	0.097	0.082	−15%	20,597	0.111	0.077	-30%	16,253	0.081	0.089	10%
High status jobs, private	36,850	0.163	0.183	12%	20,597	0.209	0.203	-3%	16,253	0.107	0.158	47%
Highly pious sunni (subcategory of pious sunni)												
Middle school degree	10,014	0.167	0.245	47%	4,303	0.211	0.285	35%	5,711	0.134	0.212	58%
High school degree	10,014	0.163	0.243	50%	4,303	0.229	0.279	22%	5,711	0.115	0.214	86%
Tertiary degree	10,014	0.068	0.129	90%	4,303	0.113	0.180	59%	5,711	0.035	0.087	149%
Kurd	10,014	0.193	0.252	31%	4,303	0.192	0.242	26%	5,711	0.194	0.260	34%

Table 1 (continued)

	Whole sample				Men				Women			
	N	Born btw. 1963–80	Born btw. 1981–95	% Change	N	Born btw. 1963–80	Born btw. 1981–95	% Change	N	Born btw. 1963–80	Born btw. 1981–95	% Change
Public employment	10,014	0.048	0.045	−7%	4,303	0.095	0.070	−27%	5,711	0.014	0.024	73%
High status jobs, private	10,014	0.068	0.095	40%	4,303	0.136	0.171	26%	5,711	0.018	0.032	76%

hh = household. Population weights are applied. All the reported employment statistics are employment-to-population ratios. Most of the missing data (7097 out of 10,108) are from surveys conducted in August 2016 or March–May 2017, when the question about religion was not asked. We also had to exclude roughly 5500 observations from 2013 because they lacked information on the province of residence. We use the province of residence to cluster standard errors in regression analysis

Table 2 Estimation issues

Possible biases		Direction of bias
Problem: Identity observed at the time of survey is not identity held at the time of job entry		
Relevant groups	1) Secular people born 1981 +, got public job after AKP, reporting pious ex post	(+)
	2) Pious people born 1981 +, got public job after AKP, reporting secular ex post	(−)
	3) Secular people born pre-1981, got public job after AKP, reporting pious ex post	(−)
	4) Pious people born pre-1981, got public job after AKP, reporting secular ex post	(+)
Problem: Job observed at the time of survey is not job held at the time of AKP's coming to power		
Relevant groups	5) Pious people born pre-1981, got public job after AKP	(−)
	6) Secular people born pre-1981, got public job after AKP	(+)

For the second estimation issue, the reverse scenario (younger people classified as being in the treatment period because of their age but actually entering public sector employment in the pre-AKP period) is very rare because of age and institutional constraints (tertiary-degree requirements and KPSS exam) for public sector employment and is not listed here

Next, we estimate the reduced form by replacing the pious Sunni variable with the share of pious Sunnis in the birth province of the individual. This share is estimated from Konda Barometer data using the average for 2012–18. Since individuals cannot choose their birth province, this variable is exogenously determined but likely influences their level of religiosity.

$$Emp_i = \alpha_1 + \beta_{10} PSP_j + \beta_{11}(BY_{81-89} \times PSP_j) + \beta_{12}(BY_{90-95} \times PSP_j) + \beta_3 BY_{81-89} + \beta_4 BY_{90-95} + \Gamma_1 X_i + e_{1i} \quad (2)$$

PSP_j is the proportion of the pious Sunni population in an individual's province of birth, and X_i is the vector for control variables listed in Eq. (1).

3.3.3 Quasi-event-study approach

The DiD framework imposes a strict periodization around a deductively chosen cutoff. As we discuss in Sect. 3.3.1, this clear-cut periodization might not be entirely appropriate for our case. Those born in the late 1970s may also enter the labor force during the AKP rule, although in a smaller ratio. Moreover, in the DiD approach, we impose a functional form. An event-study approach allows us to relax these constraints. Additionally, younger cohorts may change their schooling behavior, such as studying longer to obtain a master's degree, in response to evolving job market conditions. This issue is most salient to cohorts born after 1987 in our data set.[15]

In the event-study approach, treatment- and control-group members of each age are compared separately by year. This allows us to directly observe whether the overall estimates are driven by the youngest cohorts (see Fig. 2). Figure 1 shows that the parallel-trend assumption does not hold in the pre-treatment period in the raw data, highlighting the need for control variables. Figure 2 visually documents that pre-treatment period trends are not significantly different after controlling for confounders.

In this approach, we estimate the following regression:

$$Emp_i = \alpha + \sum_{\tau=1963}^{1995} \beta^{\tau}(BY_i \times PS_i) + \Gamma X_i + e_{(i)} \quad (3)$$

Here, Emp_i indicates whether person i is employed in the public sector. BY_i is an indicator for the birth year of individual i; PS_i indicates whether a person is a pious Sunni; X_i is a vector of controls (same as above except that birth year is excluded). We plot coefficientsβ^{τ}, normalizing β^{1977} as zero. Our preferred baseline, 1977, is four years earlier than our first treatment year in Eq. (2). Those born in 1977 were 26 years old during the first full year of the AKP government (2003), which is 3 to 5 years older than the theoretical age of undergraduate degree completion.[16] Therefore, in 2003, they had been in the job market for 3–5 years if they had an undergraduate degree and for 1–3 years if they had a master's

[15] Considering that our earliest Konda Barometer data are from 2012, the eldest cohort whose members could be continuing their education with a master's degree is the 1988 cohort.

[16] A proportion of the students studied an additional year for foreign language preparation before starting their middle or high school or undergraduate degrees.

degree without interruption in their studies.[17] We employ population weights described above and cluster standard errors by survey province.

4 Estimation results

4.1 Main findings

Table 3 shows the determinants of public sector employment in Turkey. In our OLS estimates, without yet distinguishing between cohorts, we find that the difference associated with being a pious Sunni is insignificant for the whole sample. It is positive at the 0.05 significance level for men and negative at the 0.01 significance level for women, with a coefficient of − 0.018. This means pious Sunni women are estimated to suffer from about a 1.8 percentage point gap in public sector employment compared to other women on average. The negative sign of *PS* for women could be an outcome of the negative impact of religious conservatism on women's labor force participation (Dildar, 2015). It may also reflect the effect of headscarf bans that persisted in state institutions until 2013.

The interaction terms in Table 3 with cohort variables reflect the changing employment outcomes of *PS* compared to the baseline for those born between 1963 and 1980. Our estimates for women show that the disadvantage associated with being a pious Sunni is mostly reversed for the 1981–89 and 1990–95 cohorts compared to the baseline. The coefficients of *PS*×*B81–89* and *PS*×*B90–95* are 0.013 and 0.054, respectively (both significant at the 5% level), as opposed to the coefficient for *PS*, which is − 0.018. The coefficients for *PS*×*BY81–89* and *PS*×*BY90–95* are likely to reflect the influence of the end of the headscarf ban in public institutions in 2013 and may even mark the beginning of discrimination against secular women in public sector recruitment. For men, the *PS* interaction terms for 1981–89 and 1990–95 are positive, both significant at the 5% level. This indicates that among men who probably entered the job market during the AKP era, pious Sunni men are more likely to be employed in the public sector. Our reduced-form estimates show that the likelihood of being employed in the public sector improved for the younger cohorts. The coefficients for *PS*×*B81–89* are positive and significant at the 5% level for both men and women. The coefficients for *PS*×*B90–95* are also positive for men and women, although only statistically significant (at 5%) for women.[18]

Figure 2 shows estimates of the interaction term between pious Sunni identity (and headscarf for women) and birth year. For estimations of public sector employment, the coefficients for the interaction terms for men are close to zero for the 1970s generation. They become generally positive for the post-1981 cohort, which was the earliest cohort to receive mostly tertiary degrees during the first full year of the AKP government. For public sector employment of women, the *PS*×*Byear* interaction terms are mostly positive for the 1980s. The coefficients become, at the 5% level, significantly larger for the post-1988 generation, probably reflecting the influence of the end of the headscarf ban in the public sector. Additionally, secular women might have been increasingly less preferred in public institutions during the AKP era. Similarly, the interaction terms for *Headscarf*×*Byear* are mainly positive for post-1981 and significantly larger for the post-1988 cohorts.

[17] The coefficients for possible earlier years of baseline (1978–80) are not statistically significant at the 5% level, which we show in Fig. 2 and discuss in the next section.

[18] We also present reduced-form estimates for high-status private sector jobs in Supplementary Materials Section E.

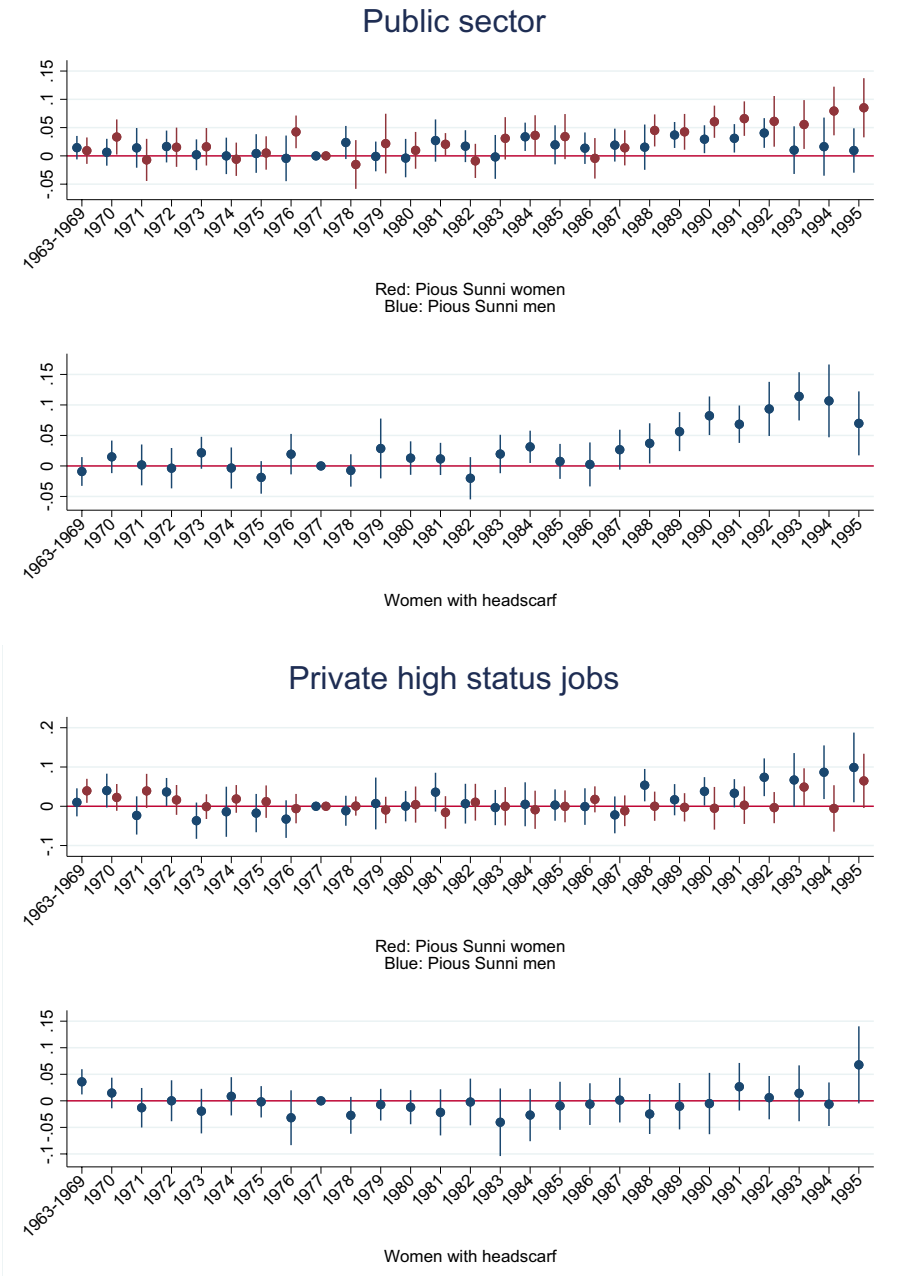


Fig. 2 Quasi-event-study results (OLS) by birth year (public sector employment). *Notes.* The base year is 1977. The vertical axis shows the results of interaction between pious Sunni dummy and birth year for both sexes and headscarf wearing women. We control for education (less than middle school, middle school, high school and university graduates), Kurd dummy, NUTS1 regions and interaction of five broad regions and survey years. Standard errors are clustered at province level. Population weights are applied. The lines show confidence intervals at 5%

Table 3 Determinants of public sector jobs in Turkey (2012–18, age 23–49), OLS regressions (dependent variable: public sector employment)

	(1) Total	(2) Men	(3) Women	(4) Total	(5) Men	(6) Women
PS	−0.003	0.011**	−0.018***			
	(0.003)	(0.005)	(0.005)			
PS × BY1981–89	0.016***	0.013**	0.013**			
	(0.004)	(0.006)	(0.006)			
PS × BY1990–95	0.039***	0.020**	0.054***			
	(0.006)	(0.008)	(0.008)			
PSP				−0.008	0.000	−0.021
				(0.020)	(0.029)	(0.019)
PSP × BY1981–89				0.084***	0.098**	0.065***
				(0.026)	(0.042)	(0.018)
PSP × BY1990–95				0.090*	0.084	0.093**
				(0.045)	(0.063)	(0.039)
BY1981–89	−0.002	0.001	−0.001	−0.048**	−0.056*	−0.036**
	(0.005)	(0.007)	(0.005)	(0.020)	(0.032)	(0.014)
BY1990–95	−0.029***	−0.008	−0.046***	−0.065**	−0.055	−0.071**
	(0.006)	(0.008)	(0.008)	(0.032)	(0.044)	(0.028)
Middle school degree	0.015***	0.021***	0.010***	0.015***	0.020***	0.012***
	(0.001)	(0.003)	(0.001)	(0.002)	(0.003)	(0.002)
High school degree	0.056***	0.073***	0.036***	0.057***	0.073***	0.039***
	(0.005)	(0.008)	(0.004)	(0.005)	(0.008)	(0.004)
Tertiary degree	0.286***	0.302***	0.266***	0.296***	0.311***	0.280***
	(0.030)	(0.033)	(0.026)	(0.030)	(0.032)	(0.027)
Kurd	−0.002	−0.007	0.002	−0.003	−0.008*	0.002
	(0.003)	(0.005)	(0.003)	(0.003)	(0.005)	(0.003)
Women	−0.024***			−0.024***		
	(0.004)			(0.003)		
Adj. R-Square	0.171	0.159	0.184	0.178	0.164	0.193
Sample size	110,115	54,025	56,090	87,451	42,928	44,523
NUTS1 regions fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
5 Regions × survey year effects	Yes	Yes	Yes	Yes	Yes	Yes

PS = Pious Sunnis; PSP = Proportion of the pious Sunni population in an individual's province of birth. Standard errors are clustered at the province level. We also control for the birth year and the square of the birth year. Population weights are applied

***$p<0.01$, **$p<0.05$, *$p<0.10$. In regressions (4)–(6), we lose observations because of missing place-of-birth data and those born outside Turkey

For private high-status jobs, the *PS*×*Byear* interaction terms are significantly larger for men. For women, none of the *PS*×*Byear* interaction terms are significant (at 5%), and most terms, except for *PS*×*1993* and *PS*×*1995*, are close to zero. This suggests younger pious Sunni women's relative chances of being employed in private high-status jobs have not improved as in public sector jobs. The significant improvement in pious Sunni women's

public sector employment might have contributed to this outcome through a substitution effect.

Table 4 displays the predicted probability of public sector employment for the two groups. We use the OLS models to predict the public sector employment of each group by taking the means of all other characteristics of each secular and pious Sunni cohort separately.[19] Thus, Table 4 shows the impact of AKP's preferences on public employment along with the effect of average characteristics (including education) of seculars and pious Sunnis in each group.

Table 4 shows a noticeable improvement in public sector employment for both male and female pious Sunnis. According to our estimations, pious Sunni women born before 1981 are 5.5 percentage points less likely to be employed in public sector jobs than other women. Pious Sunni women born in 1981–89 and 1990–95 are respectively, 6.0 and 2.0 percentage points less likely to be employed than other women born in the same periods. Pious Sunni men born before 1981 are 1.2 percentage points less likely to be employed in public sector jobs than their secular counterparts. However, pious Sunni men's probability of being employed in the public sector exceeds that of secular men in younger cohorts. Pious Sunni men born in 1981–89 are 0.2 percentage points less likely to be employed, whereas pious Sunnis born in the 1990s are 0.3 percentage points more likely to be employed in the public sector. In other words, pious Sunni women have closed the public employment gap with their secular counterparts, while pious Sunni men born in 1990–95 have surpassed their secular counterparts.

Figure 3 displays an estimation of employment-probability differences between individuals belonging to the two groups (pious Sunnis versus seculars), assuming them to have identical values for other variables—education, region, birth year, survey year, and ethnic identity. This estimation relies on overall (secular and pious Sunnis combined) sample averages in each cohort and OLS estimations in Table 3. Accordingly, pious Sunni women born before 1981 are 1.8 percentage points, and pious Sunni women in the 1981–89 cohort 0.5 percentage points, less likely to be employed in the public sector than their secular counterparts with otherwise-identical characteristics. However, pious Sunni women in the 1990–95 cohort are 3.6 percentage points more likely to be employed in the public sector than their secular counterparts. Pious Sunni men born before 1981 were only 1.1 percentage points more likely to be employed in the public sector than their secular counterparts with otherwise-identical characteristics, which increased to 2.4 percentage points in the 1981–89 cohort and 3.1 percentage points in the 1990–95 cohort. These estimates demonstrate that during the AKP government's term in office, pious Sunni people's public employment chances substantially improved compared to secular people with similar education levels. In addition, the education gap between the two identity groups—favoring the seculars—has also become smaller.

4.2 Robustness analysis

In this section, we conduct several robustness analyses. First, we present estimations by classifying those who report the top level of religiosity on the survey's 1–5 ordinal scale, referred to here as highly religious Sunnis, as a separate category from other pious Sunnis.

[19] Following Ziliak and McCloskey (2004), we do not treat the coefficients that are not significant at 10% as zero, and we discuss the economic significance of the non-significant coefficients along with those that are significant at 10%.

Table 4 Predicted probability of public sector employment for pious Sunni and seculars in 1963–1980, 1981–89, and 1990–95 cohorts (OLS estimates based on cohort averages)

Total	OLS		
	Secular	Pious sunni (ps)	PS – secular
1963–80	0.097	0.059	−0.038
1981–89	0.095	0.062	−0.033
1990–95	0.049	0.042	−0.008
Men			
1963–80	0.111	0.099	−0.012
1981–89	0.090	0.088	−0.002
1990–95	0.044	0.047	0.003
Women			
1963–80	0.081	0.026	−0.055
1981–89	0.101	0.041	−0.060
1990–95	0.056	0.036	−0.020

We use the coefficient estimates from Table 3 to compose these estimates. The estimates present predicted public sector employment probabilities of seculars and pious Sunnis at their own means by cohort. The differences in predicted public sector employment probabilities reflect the impact differences in average characteristics of each group (including the level of education) along with the coefficients of *PS*, *PS*×*BY1981–1990* and *PS*×*BY1990–95* from Table 3

Highly religious Sunnis exhibit the most religious tendencies and constitute only 9.3% of our regression sample (see Table B1). Support for the incumbent AKP government is greater among highly religious Sunnis. Between 2012 and 2018, 66.1–79.4% of highly religious Sunnis reported an intention to vote for AKP (with an average of 73.1%), compared to 56.0%–70.3% (with an average of 65.1%) among other pious Sunnis.[20]

Table 5 shows that for public sector employment, the coefficients for the *HRS*×*BY1990–95* interaction term are 1.6 percentage points higher for men and 2.5 percentage points higher for women compared to the coefficients for *OPS*×*BY1990–95*.[21] Additionally, the coefficients for *HRS*×*BY1981–89* are also larger than those for *OPS*×*BY1981–89* for men and women. Hence, during the AKP era, not only did the younger cohorts of pious Sunni individuals, who constitute a large part of the society, gain an advantage over others, but a smaller, highly religious subgroup gained an additional advantage over everyone else, including the rest of the pious Sunnis. The reduced-form estimates also support this outcome, as all *HRS* interaction terms are higher than *OPS* interaction terms except for *OPS*×*BY1981–89* for men.

We also check our findings for robustness by excluding Kurds from the sample and analyzing high-status jobs in the private sector. Findings from these additional analyses are available in Supplementary Materials Section E and qualitatively support our main findings. The improvement in pious Sunnis' status is robust to the exclusion of Kurds and is

[20] We estimate the range for the AKP votes by combining the monthly surveys for each year. The minimum and maximum values are for years when AKP's votes were at their lowest and highest levels, respectively. The denominator for the AKP vote share excludes indecisive voters and those who declared they would not vote.

[21] For public sector employment, the coefficients for the *HRS*×*1990–95* interaction terms are larger than the coefficients for *OPS*×*1990–95* at 1% for women.

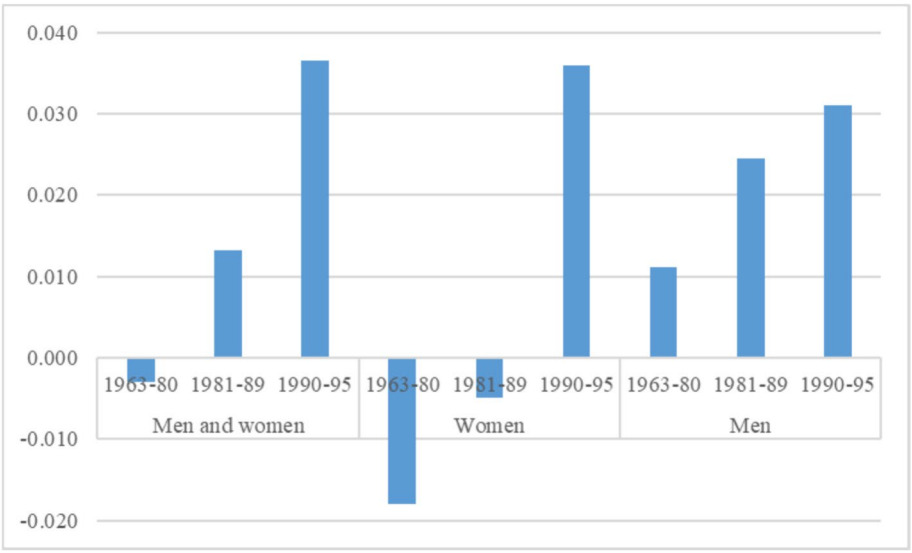


Fig. 3 Pious Sunni cohorts' probability of employment compared to seculars (2012–18, estimates based on overall sample averages for varying cohorts). *Notes.* We use the coefficient estimates from OLS regressions in Table 3 to compose these estimates. The bars represent the difference between the predicted probabilities for public sector employment of pious Sunnis and seculars when they are both held at the overall sample mean for controls, including education. These estimates show the difference between individuals that are identical except for their religiosity and birth cohort

also reflected in a higher share of high-status jobs for men in the private sector. However, in high-status private sector jobs, we do not find a significant improvement in pious Sunni women's employment. Pious Sunni women in all cohorts (pre-1981, 1981–89, 1990–95) were less likely to be employed than their other counterparts.[22]

Last, going beyond the public sector and high-status private sector jobs examined so far, we also take a look at how employment patterns change for all kinds of jobs (Table E.3 in Supplementary Materials). We find significant improvement for pious Sunni men in the 1981–89 and 1990–95 cohorts and pious Sunni women in the 1990–95 cohort for all jobs as well as for nonagricultural jobs. However, we do not find an improvement for pious Sunni women in the 1981–89 cohort. There might be a substitution effect between public sector and high-status private sector jobs for pious Sunni women in the 1981–89 cohort. Better public sector employment opportunities contributed to improvements in overall employment prospects for pious Sunni men in the 1981–89 and 1990–95 cohorts and for pious Sunni women in the 1990–95 cohort.

[22] This is consistent with Cindoğlu's (2011) findings that discrimination against headscarved women also exists in the private sector and even in enterprises owned by pious entrepreneurs.

Table 5 Determinants of public sector employment of highly religious Sunnis and other pious Sunnis (2012–18, age 23–49), OLS regressions (dependent variable: public sector employment)

	(1) Total	(2) Men	(3) Women	(4) Total	(5) Men	(6) Women
OPS	−0.003	0.010**	−0.017***			
	(0.003)	(0.005)	(0.005)			
OPS × BY1981-89	0.015***	0.013**	0.012**			
	(0.004)	(0.006)	(0.006)			
OPS × BY1990-95	0.037***	0.018**	0.051***			
	(0.006)	(0.008)	(0.008)			
HRS	−0.004	0.016**	−0.022***			
	(0.004)	(0.007)	(0.005)			
HRS × BY1981-89	0.021***	0.016*	0.017**			
	(0.006)	(0.009)	(0.006)			
HRS × BY1990-95	0.059***	0.033**	0.076***			
	(0.010)	(0.013)	(0.009)			
Hometown OPS share				−0.046**	−0.036	−0.056***
				(0.020)	(0.036)	(0.018)
Hometown OPS share × BY1981-89				0.069**	0.066	0.069**
				(0.031)	(0.050)	(0.033)
Hometown OPS share × BY1990-95				−0.016	−0.009	−0.013
				(0.074)	(0.099)	(0.072)
Hometown HRS share				0.099	0.105	0.070
				(0.063)	(0.090)	(0.067)
Hometown HRS share × BY1981-89				0.118***	0.177**	0.050
				(0.040)	(0.078)	(0.046)
Hometown HRS share × BY1990-95				0.328***	0.288	0.334***
				(0.106)	(0.181)	(0.111)
Adj. R-Square	0.171	0.159	0.184	0.178	0.164	0.193
Sample Size	110,115	54,025	56,090	87,451	42,928	44,523
NUTS1 regions fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
5 regions × survey year effects	Yes	Yes	Yes	Yes	Yes	Yes

HRS = highly religious Sunnis; OPS = other pious Sunnis. We control for education (less than middle school, middle school, high school, and university graduates), Kurd dummy, gender dummy when applicable, NUTS1 regions, and interaction of five broad regions and survey years. Standard errors are clustered at the province level. Population weights are applied

***$p < 0.01$, **$p < 0.05$, *$p < 0.10$

5 Conclusion

We empirically examined at the individual level whether Turkey's long-standing incumbent party's demographic in-group improved their employment share in the public sector during the AKP era (2002 to present). Quantitative analysis of the relationship between self-reported religious identity and public sector employment is hampered by a lack of adequate data in Turkey. We use an identification strategy that exploits differences between

birth cohorts and relevant rules for public sector recruitment to estimate pre- and post-AKP outcomes.

We first confirmed that secular people have higher ratios of attaining a university degree and employment in the public sector across the entire pooled sample. However, under the AKP rule, pious Sunnis display a significant improvement in public sector employment, whereas seculars see a relative decline, even when controlling for education. This is particularly striking because pious Sunnis have also moved to close the education gap. The most significant changes concern women. Older cohorts of pious Sunni women have a substantially lower likelihood of being employed in the public sector compared to secular women. This disadvantage disappears for younger cohorts and turns into an advantage in the youngest cohorts, who likely entered the job market after 2013, when the government lifted the ban on headscarves (a visible marker of Sunni piety among women) for civil servants. Moreover, during the AKP rule, not only did pious Sunnis, constituting a large share of Turkey's population, improve their likelihood of being employed in public jobs but the smaller group of highly religious Sunnis (only 9.3% of the population) also improved their employment opportunities in the public sector compared to everyone else, including other pious Sunnis. While theoretical predictions vary about how governments distribute resources for political gain (Stokes et al., 2013), our findings provide support for the hypothesis of core rewarding with an eye toward coalition sustenance (Cox & McCubbins, 1986). As the AKP rule solidified, self-identified pious Sunnis became more likely to be employed in the public sector.

The literature on patronage, clientelism, and cronyism "strongly depends on case studies" (Lattmann, 2024: 23). The Turkish case presented in this article is particularly relevant to other Muslim-majority countries with regard to the influence of gender. Public services are generally recognized for providing relatively high-quality jobs for women (Rubery, 2015). This is especially true where women may have to negotiate harder for their autonomy. As Williams et al. (2013) note, Muslim women attempt to balance career goals while maintaining their familial obligations. The public sector facilitates this balancing process by offering shorter working hours and a protective environment, making it particularly attractive to women from religiously conservative families. In this context, the identity of the government party may influence the allocation of jobs not only among social groups based on religiosity but also between males and females. In the Turkish case, we observe a feminization of public service during the religiously conservative AKP's term in office. This has happened via an increase in the share of pious Sunni women employed in public sector jobs at the expense of men and more secular women. While the specific mechanisms leading to this shift remain an avenue for future research, our findings are of interest to scholars of political economy and public policy, especially in the Middle East.

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Declarations

Conflict of interest This manuscript has not been published and is not under consideration for publication elsewhere. The authors did not receive support from any organization for the submitted work. The authors have no competing interests to declare that are relevant to the content of this article.

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