Explaining the Oil Advantage: Effects of Natural Resource Wealth on Incumbent Reelection in Iran

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By PAASHA MAHDAVI*

God willing, the outcome of the elections will be what the people want.
*—Akbar Hāshemi-Rafsanjāni, president of Iran 1989–1997***

IN Iranian parliamentary elections since 1980, the first year of legislative elections in the nascent Islamic Republic, less than 30 percent of all incumbents running for office have retained their seats. Yet incumbent members of parliament (MPs) running in districts rich in oil and other natural resources have had better results, averaging a 40 percent reelection rate.[1] What explains this divergence in electoral fortunes? Why do incumbent Iranian MPs from resource-rich[2] districts have an electoral advantage at the polls?

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** Quoted by BBC News. At http://www.bbc.co.uk/news/world-middle-east-17229164, accessed April 11, 2012.

[1] These low incumbency retention rates follow the pattern of what has been termed "incumbency disadvantage" by the literature on subnational politics in the developing world. See Aidt, Golden, and Tiwari 2011; Klasnja 2013; Myerson 2006; Svolik 2012.

[2] Throughout this article, I use the terms "oil," "minerals," and "resources" interchangeably. While Iranian provinces produce minerals such as iron ore, copper, and marble, oil accounts for roughly 90 percent of all resource-related revenue. I consider a district to be resource rich if the province containing the district accounts for at least 1 percent of national resource gross domestic product (GDP), a variable that I discuss in more detail in this article. Note that the 1 percent cut-off for denoting a province as resource rich is for illustrative purposes only, as the analysis employs a continuous resources variable. Choosing a lower cut-off point, such as 0.5 percent, adds one province (Hormozgān), while choosing a higher cut-off point, such as 10 percent, removes three provinces (Fars, Ilām, and Kerman) and leaves only districts in Bushehr, Khuzestān, and Kohgiluyeh and Boyer-Ahmad considered as resource rich.

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In this article, I argue that deputies in oil-rich districts are more likely to get reelected because oil revenue—distributed by the central government using a derivation formula based in part on provincial oil production levels but allocated at the discretion of the MP—is used to provide public or private goods to their constituents, incentivizing voters to reelect incumbents over challengers. In other words, an incumbent spends oil money on voters in order to boost the chances of staying in office. Results from statistical analysis of five legislative elections indicate that a 1 percentage point increase in subnational resource wealth (a measure that I discuss in more detail below) improves an incumbent's likelihood of reelection by 3.7 percentage points in single-member districts. Though this is an "oil effect" in the context of Iran, in general, an incumbent should benefit from any source of exogenous, discretionary revenue that can be distributed to his or her district.

I test my argument in the period of five parliamentary elections in Iran, from 1992 to 2008, with elections held every four years. In addition, despite the nondemocratic characteristics of Iranian politics, I show that parliamentary elections in Iran are meaningful and semi-competitive and are the primary means for citizens to evaluate and reward (or punish) politicians for policy at the local and provincial levels.[3]

This article makes three contributions to the literature. First, it offers a systematic empirical analysis of legislative elections in Iran. Though excellent case studies of Iranian legislative politics that present careful descriptions of the electoral process in Iran exist, no work to date has analyzed electoral patterns or the behavior of political actors before and during elections.[4] By investigating the channels of incumbent accountability, I offer a deeper look into how incumbent MPs are able to increase their chances of reelection.

Second, while the oil-incumbency link has been analyzed by previous research on democratic systems,[5] my work explores the micromechanisms driving this relationship in a developing and nondemocratic context, thereby contributing to the growing literature on electoral authoritarianism that includes countries such as Egypt, Jordan, Lebanon, Mexico, and the postcommunist states of Eastern Europe.[6] While existing research provides subnational evidence in favor of a relationship between resources and incumbency retention in democracies, I exam-

[3] Note that the nature of local politics in Iran is changing. The first mayoral and city council elections were held in 1999 and 2003, respectively, and the first nationwide local elections were held in 2005.

[4] Baktiari 1996; Moslem 2002; Namazi 2000; Sanandaji 2009; Parsons 2010.

[5] Goldberg, Wibbels, and Mvukiyehe 2008; Monteiro and Ferraz 2010; Ross 2012.

[6] Blaydes 2011; Corstange 2012; Lust-Okar 2006; Magaloni 2006; Pop-Eleches 2010; Tucker 2002.

ine why this pattern exists in the context of legislative elections in a nondemocratic setting. Importantly, I highlight the role of electoral institutions by providing evidence that the oil-incumbency relationship is stronger in single-member districts than in multimember districts, consistent with theories of increased visibility and incumbent accountability when voters in a given district are represented by a single deputy in the same legislative body (district magnitude equal to 1).[7]

Third, the results presented here corroborate what Michael Ross calls "the spending effect" of the resource curse, whereby incumbent leaders use resource revenues to buy popular acquiescence in exchange for the loss of property rights and democratic freedoms.[8] In line with the work of early *rentier*-state theorists, resource-rich rulers are expected to distribute broad benefits to their subjects in order to buy support.[9] I show that this is the case for Iranian deputies; controlling for initial levels of provisions, MPs provide more public goods and patronage in resource-rich districts than their counterparts in resource-poor districts. Interestingly, scholars have recently raised doubts about the idea of a political resource curse, suggesting that reverse causality may account for the observed correlations because political actors can influence production levels in order to benefit from resource wealth.[10] The innovation that this article provides is a rudimentary solution to this concern. As I elaborate below, incumbent deputies have no discretion over production levels or how much resource revenue can be allocated to their districts; they can only influence how the money is spent within their districts. In this way, the resource revenue an incumbent MP is allocated is discretionary and, more importantly, exogenous.

One consideration worth noting is that data on Iranian elections are exceptionally scarce, which places sharp limits on what can be inferred—a problem that is characteristic of research in authoritarian states, especially at the local level. There are no individual-level data for candidates; information only exists for candidates who have won a given election and there are no data on challengers. Further, data only exist for the net reelection rate as opposed to the gross reelection rate that accounts for incumbents not choosing to run again for reelection.[11] In this light, I leverage the scarce data that are available on Iran

[7] Powell 2000; Moser and Scheiner 2012.
[8] Ross 2001; Ross 2009; Ross 2012.
[9] Mahdavy 1970; Beblawi and Luciani 1987.
[10] See Haber and Menaldo 2011 and Menaldo 2013.
[11] Gross reelection rates take into account incumbents who choose not to run again and do not count these as cases where the incumbent lost; net reelection rates do not account for incumbents who do not run again.

by combining information on incumbent-level biographies; district-level electoral institutions; and province-level resource wealth, economic indicators, and public goods distribution. While an examination of Iranian politics lacks the statistical rigor and level of detail found in studies of other political systems, it nevertheless provides insight into a case relatively unstudied by scholars of electoral politics and the political economy of discretionary resources.

I begin by briefly describing the Iranian political system and the rules of subnational revenue allocation. I next review in a comparative context the literatures on the resource curse, electoral authoritarianism, and incumbency effects, and derive testable hypotheses for the case of Iranian legislative elections. I then describe the data and methods employed and show statistical evidence for the resource-incumbency relationship along with tests of the mechanisms underlying this correlation. Before concluding, I consider alternative explanations that are not readily statistically testable because of data availability issues. Finally, I close with a discussion of the implications of my results and potential avenues for future research.

Parliament in Iranian Politics

Since the Islamic Revolution of 1979, Iran has been a highly factionalized, theocratic republic with multiple levels of decision-making authority.[12] At the top is the unelected supreme leader, whom the popularly elected Assembly of Experts appoints and monitors. Currently represented by Ayatollah Ali Khāmenei, the supreme leader has constitutional authority over all levels of government as well as the military and media. Below the supreme leader lie the judicial, executive, and legislative branches, of which the latter two are popularly elected. The unelected Guardian Council, appointed by the supreme leader and the Assembly of Experts, monitors legislation and, more importantly, vets candidates for the presidency and parliament.

While there is some debate as to whether the legislative branch is weaker than the executive branch, it is endowed with broad prerogatives: MPs ratify international treaties and foreign loans, draft legislation, approve state-of-emergency declarations and cabinet ministers, draft and approve annual budgets, and perhaps most controversially, have the power to remove the president "on the basis of political incompetence."[13] Because of their control over the annual budget, MPs

[12] Keshavarzian 2005.
[13] Wright 2010.

determine how money is spent in their districts, which are nested in provinces. Iran is a centralized state—very little autonomy is given to political actors at the local and provincial levels. Though provincial governors exist, historically they are not elected and wield very little power over spending decisions; similarly, mayors and village leaders have had little control over their districts' finances, though this trend is changing as local politicians are now popularly elected (prior to 2005 they were appointed).[14] For these reasons, I focus only on politics at the parliamentary level, where MPs have authority over how money is spent despite having no authority over how much revenue is received by their districts. While I discuss the subnational revenue allocation mechanism in more detail in the section on data and methods, in brief, a small portion of resource revenues is reallocated to resource-producing provinces through annual budgets, written and approved by the MPs themselves and passed by parliament. These deputies are thus an appropriate unit of analysis given Iran's political structure and parliament's power over the purse.

In terms of electoral rules, legislative elections in Iran are held every four years and follow a plurality two-round runoff system. In recent elections, the majority of candidates won their seats in the first round of elections; more specifically, 75 percent of those who won office in 2008 were elected in the first round. In terms of districts, the country is divided into multimember and single-member constituencies; most provinces have more than one district, with an average of seven districts per province.[15] The province of Esfahān, for example, contains fifteen districts and has a total of nineteen seats in parliament, while the province of Kohgiluyeh and Boyer-Ahmad only has three districts and a total of three seats (each district is single-member). In multimember districts, the voting rules are similar to that of a bloc vote; voters can vote for as many candidates as there are seats.[16] My findings are

[14] Baktiari 1996; Wright 2010.

[15] The Electoral District Law of 1985 (amended in 1987) builds off of article 64 of the constitution to describe which districts are single-member and which are multimember. Districts are divided so that there is one representative per 150,000 voters. For administrative counties with more than 150,000 voters, districts are not divided into single-member districts but rather kept intact as one multimember district. This implies that most urban areas are multimember, although cities within multiple counties, such as Bushehr, Ilām, Semnān, and Yazd, are designated as separate single-member districts. Most rural districts are single-member, with notable exceptions in Arak, Boroujerd, Sanandāj, and Zābol counties, which each have two representatives per district. For more on the rules governing district allocations, see Alem 2011. For a full listing in Persian of the number of seats per district see *Jadval-e Hozehā-ye Entekhābi dar Entekhābāt-e Nohomin Doreh-ye Majles-e Shorā-ye Eslami* [Table of Electoral Districts for the Ninth Parliamentary Elections], at http://www.rcirib.ir/entekhabat/danestani/hozehaye_entekhabi.pdf, accessed June 24, 2014.

[16] Alem 2011.

expectedly stronger in single-member districts than in multimember districts, for reasons I explain below.

It should be noted that in the context of electoral institutions, Iran falls in between the two extremes that exist in the Middle Eastern states with parliamentary elections. Whereas post-1997 Algeria, pre-1990 Egypt, Jordan, and post-1994 Tunisia have high district magnitudes (above 3), pre-1997 Algeria, Morocco, and pre-1994 Tunisia have district magnitudes of 1. Iran's average district magnitude is 1.5, putting it closer to systems with middling district magnitudes such as Kuwait and post-1990 Egypt, where the average district magnitude is 2.[17]

In 2008, the most recent parliamentary election considered in this study, there were 285 seats in parliament, with five additional seats reserved for candidates from Zoroastrian, Jewish, Assyrian, Chaldean, and Armenian religious minorities. Speakers are elected for one-year terms and all deputies serve four-year terms with no term limits. Table 1 shows the distribution of seats per province for select years and the number of districts per province in 2008.

The issue of candidate vetting is the biggest challenge to democratic elections in Iran. Many registered candidates, numbering at times in the thousands, are disqualified from running in parliamentary elections on the basis that they might be a threat to the stability of the republic.[18] Vetting of candidates has increased dramatically since the first elections in 1980, as shown in Figure 1. Initially, Ayatollah Ruhollāh Khomeini and the Islamic Republican Party used vetting as a means of eliminating candidates who did not support Khomeini's vision of the rule of the jurisprudent (*velāyat-e faqih*). This allowed Khomeini, in the early years of the Islamic Republic, to restrict access to the political sphere—specifically targeting liberals and communists—though on the whole, most candidates were allowed to run for office.

After Khomeini's death in 1989, newly appointed Supreme Leader Ayatollah Ali Khāmenei sharply expanded the use of vetting and targeted specific factions—particularly the radical left—that formed in lieu of strong political parties. In the 1996 legislative elections, the

[17] The district magnitude of an electoral system is calculated as the average number of representatives in a given district elected to the same legislative body or chamber. As Lust-Okar and Jamal 2002 point out, however, with majoritarian rules intended to favor the division of political power in monarchies (as in Kuwait) and more proportional rules intended to promote single-party parliamentary monopolies (as in Algeria), these institutional decisions are not exogenous.

[18] It is worth noting that the Guardian Council vets candidates on ideological grounds. Though the exact data is not released, there is good reason to believe that disqualifications are distributed evenly across regions, with the exception of Tehrān, the center of government, where candidates are disqualified at much higher rates. See Moslem 2002.

TABLE 1
SEAT DISTRIBUTION IN THE IRANIAN PARLIAMENT BY PROVINCE, SELECT YEARS, AND DISTRICTS PER PROVINCE, 2008[a]

	Seats			*Districts*
	1988	*1996*	*2008*	*2008*
Ardebil		7	7	5
East Azarbaijān	24	17	19	13
West Azarbaijān	11	11	12	9
Bushehr[b]	3	3	4	4
Chahārmahāl and Bakhtiāri[b]	2	3	4	4
Esfāhān	19	19	19	15
Fārs	16	17	18	15
Gilān	13	13	13	11
Golestān			7	6
Hamedān	9	9	9	7
Hormozgān	4	4	5	3
Ilām	2	2	3	2
Kermān	10	10	10	9
Kermānshāh	8	8	8	6
Khorasan	24	24		
North Khorāsān			4	3
Khorāsān-e Rezavi			18	12
South Khorāsān[b]			4	4
Khuzestān	17	17	18	14
Kohgiluyeh and Boyer-Ahmad[b]	2	2	3	3
Kordestān	6	6	6	5
Lorestān	7	7	9	7
Markazi	7	7	7	6
Māzandarān	17	18	12	9
Qazvin			4	3
Qom		2	3	1
Semnān[b]	4	4	4	4
Sistān and Baluchestān	7	7	8	6
Tehrān	41	38	38	8
Yazd[b]	3	3	4	4
Zanjān	9	7	5	4
Total number of seats	265	265	285	202

Source: Iran Ministry of Interior

[a]Ardebil split from West Azarbaijan in 1994, Qazvin split from Tehran in 1993 (with seats first being added in the 2000 election), and Golestan split from Mazandaran in 1997. Khorasan was split into three provinces in 2004. The list does not include at-large seats constitutionally allocated to religious minorities. The increasing seat numbers reflect growing population trends by province. Bold type denotes a resource-rich province (>1 percent share of national GDP generated by resources).

[b]Denotes a province with only single-member districts as of 2008.

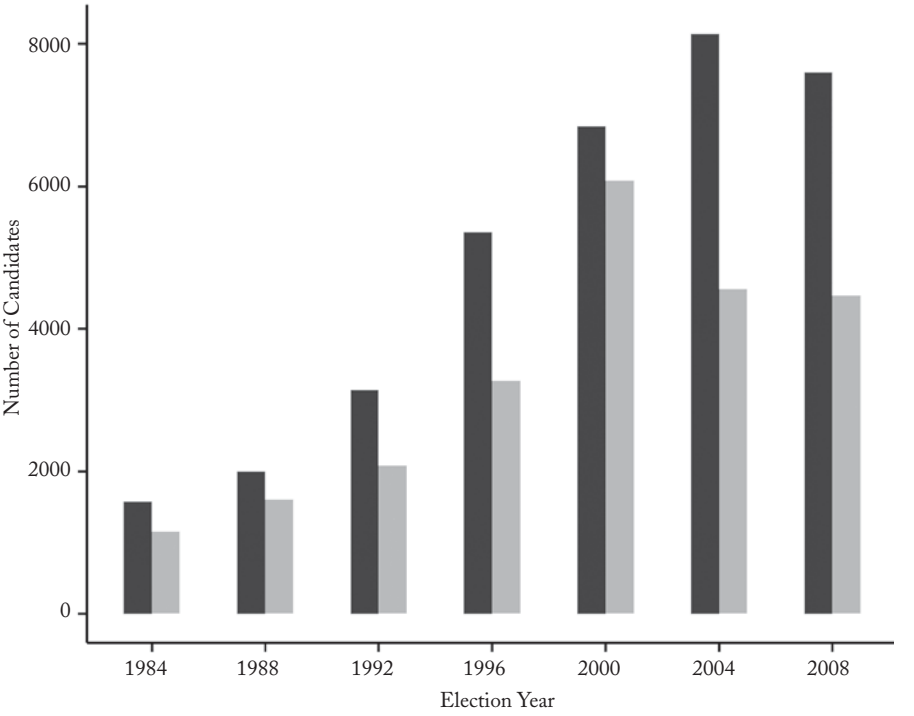


FIGURE 1
CANDIDATE ENTRY AND VETTING[a]

SOURCE: Parsons 2010

[a]Black bars indicate the total number of candidates nominated; gray bars indicate the number of candidates approved for election. The number of seats up for election ranged from 270 in 1980 to 290 in 2008, including five permanent seats for ethnic minorities.

second elections after Khomeini's death, vetting reached new heights; of 5,359 registered candidates, 2,131 were disqualified. Iran scholar Mehdi Moslem posited that this was the Guardian Council's response to the left's success in forming a broad coalition. After the left-wing Crusaders of the Islamic Revolution and Association of Combatant Clergy groups joined under the banner of former president Rafsanjāni's Executives of Construction Party, the right-wing Society for Combatant Clerics lobbied the Guardian Council to disqualify many liberals for their antiregime beliefs. As one prominent member of the conservative press, Morteza Navabi, put it, "The Guardian Council should not allow those who under the pretext of democracy strive to degenerate the revolution and Islam." These calls were heeded by the council

and the end result was a dramatic and highly controversial victory for the right-wing factions.[19]

The practice of vetting was eased in the 2000 elections and most candidates who were nominated were allowed to run. But in 2004 and again in 2008, vetting increased to its highest levels in the history of the republic. Of the 8,145 candidates registered in the 2004 elections, only 4,561 were approved to run. This "controversial interference," as noted historian and political scientist Ali Gheissari argues, "helped to reinstate a conservative parliamentary majority that had been missing since the 2000 elections."[20] In the supplementary material to this article, I address the issue of candidate vetting—specifically the effects of vetting on incumbents running in resource-rich districts—in more detail.[21]

Explaining the Oil Advantage

My work navigates across three different but inherently connected literatures on the resource curse, electoral authoritarianism, and incumbency advantage. In this section, I discuss each branch separately but draw collective hypotheses from all three literatures.

Oil, Incumbency, and the Resource Curse

Scholars of the so-called political resource curse find that at the national level resource wealth promotes authoritarian governance in part because incumbents are advantaged through how these discretionary rents are allocated.[22] The mechanism is derived from the classical rentier state theory first propagated by Hussein Mahdavy and refined by Hazem Beblawi and Giacomo Luciani.[23] Where other governments must tax their citizens to support the state's role as public goods provider, a rentier state—that is, a state that generates income by collecting an external rent, whether foreign aid or revenue generated by natural resource sales—has no need to tax its citizens. This type of state plays the role of *l'état providence*: political leaders buy support with these rents by spending them on public goods and patronage and can buy off more people with larger packages of money than their nonrentier state

[19] Moslem 2002, 227–40. The quotation from Morteza Navabi is cited on page 238.
[20] Gheissari and Sanandaji 2009, 275.
[21] Mahdavi 2015.
[22] Jensen and Wantchekon 2004; Ulfelder 2007; Ross 2012.
[23] Mahdavy 1970; Beblawi and Luciani 1987.

counterparts. As Mahdavy elaborates, "The oil industry's major contribution is that it enables the governments of the oil producing countries to embark on large public expenditure programmes without resorting to taxation."[24]

Scholars such as Ross and Benjamin Smith adapt this theory to explain the relationship between oil wealth and regime stability among autocracies, crediting rentierism as a potential causal mechanism driving the pattern.[25] The seeming exogeneity of oil rents lends credibility to the resource curse as a causal argument that, indeed, natural resource wealth (or any nontax revenue source[26]) increases regime durability and, in authoritarian states, prevents democratization.

In contrast, Stephen Haber and Victor Menaldo argue that leaders have authority over the creation of these rents via decisions regarding exploration and production contracts.[27] As such, though resource rents can be discretionary, they are not exogenous, which is potentially problematic if strong rulers (and more durable states) are more likely than weak rulers to engage in successful contracts that lead to mass production of oil and other minerals.

To advance the debate, scholars turned to subnational analysis to capture more refined causal pathways between oil and political stability. Two analyses of oil's pernicious effects on local politicians, one on the United States by Ellis Goldberg and colleagues and the other on Brazil by Juan Monteiro and Claudio Ferraz, show relationships between oil wealth and local corruption.[28] Building on work by Francesco Caselli and Guy Michaels, Monteiro and Ferraz look at the effects of oil windfalls on local politicians and find that windfalls tend to make mayors more corrupt and also more likely to stay in office.[29]

Ideally, scholars would also be able to analyze the oil-incumbency relationship at the subnational level in nondemocracies because resource wealth may have differing effects conditional on regime type.[30] Yet analyzing the effect of oil and minerals on local politicians in full autocracies such as Saudi Arabia or Zimbabwe may be fruitless because there is little variation in electoral turnover and, in some cases, even

[24] Mahdavy 1970, 432.
[25] Ross 2001; Smith 2004.
[26] Morrison 2009.
[27] Haber and Menaldo 2011; Menaldo 2013.
[28] Goldberg, Wibbels, and Mvukiyehe 2008; Monteiro and Ferraz 2010. Additionally, work by Cruz and Schneider 2012 on the Philippines examines the connection between incumbency advantage and foreign aid, which is similar to natural resource wealth in its volatility and nontax revenue characteristics.
[29] Caselli and Michaels 2009.
[30] Dunning 2008.

a lack of outright elections. Hence the in-between case of Iran—a hybrid authoritarian regime—is used to analyze the relationship between resource wealth, incumbency, political accountability, and turnover. While the analysis presented here does not resolve the resource curse debate, it contributes to the discussion. Since Iranian MPs have authority over spending resource wealth but no authority over producing or generating resource rents, the connection between resource wealth and incumbency can be analyzed without concerns of reverse causality.

Electoral Authoritarianism

Some studies of elections in authoritarian states ponder the overlapping puzzles of why citizens bother to vote and why candidates run for office in a context where, given the strong powers held by unelected branches of government, elected office is typically meaningless and irrelevant to policy outcomes.

Harold Crouch's classic study on Indonesia was one of the first to consider the mechanisms of patronage in the context of subnational authoritarian elections.[31] Elected office was effectively handed out by the military regime to coopt nonmilitary elites, and the value of holding office was the ability to deliver spoils to one's in-group. In more recent work, Ellen Lust-Okar addresses the puzzle of why candidates run for office in Jordan, where elected officials are by and large superseded on political decisions by the unelected monarchy. The answer, according to Lust-Okar, is driven by the same logic that motivates citizens to vote in autocracies; elected positions in Jordan are valued for their access to benefits and entrepreneurial networks.[32] While they have little effect on domestic and foreign policy, MPs have the power to deliver pork and patronage to their constituents. Not unlike elections in developing democracies, votes are used in exchange for goods and services from the state, and local clout can be derived from being in a position of discretionary power.

The extent to which incumbents can retain an advantage in this context thus depends on the depth of their pockets. With resources at their disposal, incumbents can satisfy voters' desires for targeted spending and win reelection. Conversely, voters will be dissatisfied with incumbents who are unable to deliver pork and will instead elect challengers. Indeed, this is precisely what occurred in the mid-1990s in

[31] Crouch 1979.
[32] Lust-Okar 2006, 459.

Eastern Europe and Russia, where poor economic conditions broke down the patronage networks of old regime parties and, in turn, voters ousted incumbents in favor of candidates from less mainstream parties.[33]

Using survey evidence, Daniel Corstange shows that elections in Lebanon are not conduits for accountability on policy or government effectiveness, but rather are "a 'season for money' in which ballots go to the highest bidder."[34] Similarly, in Mexico under the Institutional Revolutionary Party (PRI) and Egypt under Hosni Mubarak, incumbent legislators distributed targeted benefits to their constituents to buy votes—so much so that in Egypt targeted spending increased national inflation prior to elections.[35] Alternatively, in Vietnam and China clientelism takes the form of legislators representing class interests where votes can be bought by making promises to grant special economic privileges to certain groups.[36]

A corollary to this work is the perception in developing democracies such as India and Benin that incumbents are more likely to be reelected in "backward" districts where voters care more about patronage and vote-selling and are less able to monitor other aspects of candidate performance.[37] These voters are impressionable and reward incumbents who in turn have rewarded voters with private benefits and vote-buying.[38] Patronage should be higher in backward districts because, again, voters care more about patronage in these districts than they care about anything else.

In these cases legislators do not have substantial policy influence and opposition members cannot typically run for office, but incumbents have access to state resources that can be funneled to select groups or constituents. The Iranian parliament is no different. As with patronage-based electoral authoritarianism, we expect that incumbents with access to greater resources will perform better at the polls. With more money to spend on buying votes, it is no surprise that incumbents running in oil-rich districts are more likely to stay in office than incumbents with emptier coffers. In this respect, legislative elections in Iran should differ little from elections in other nondemocratic contexts in the Middle East, such as in Lebanon, Jordan, and Egypt, and even beyond the region as illustrated by the literature on China, Indonesia, Mexico, Vietnam, and the post-Soviet states.

[33] Pop-Eleches 2010; Tucker 2002.
[34] Corstange 2012, 483.
[35] Magaloni 2006; Blaydes 2011.
[36] Malesky, Abrami, and Zheng 2011.
[37] Aidt, Golden, and Tiwari 2011; Wantchekon 2003.
[38] Grossman and Helpman 2001.

The Incumbency Advantage

While the study of what drives incumbency reelection in the developing world is in its infancy, there is consensus on the existence of an incumbency advantage in developed democracies. American and comparative political studies emphasize that seniority matters; politicians higher up in a party or with more experience are more likely to win so that electoral competitiveness depends on candidate experience.[39] Beyond seniority, there is the intuitive relationship between economics and incumbency, captured by the retrospective and pocketbook voting models popular in studies of advanced democracies, most notably, the US.[40] When national economic conditions are good, incumbents win. A corollary to this hypothesis is that based on the performance of the local economy, the same is true for local elections. An alternative is that ethnically diverse districts are more likely to be competitive than homogeneous districts.[41] Research on new democracies, however, shows more stable voting patterns where ethnic parties are allowed. If this finding is correct, then elections in districts with ethnic parties would be less competitive than ethnically homogeneous districts since ethnic identity would serve as an information cue for political choices.[42]

Electoral institutions play an important role in current research on Iran, given its mixed-member electoral system. Roughly 60 percent of districts are single-member and 40 percent are multimember that range from two seats in Qazvin, to three in Ahvaz, and six in Tabriz (with thirty seats, the Tehrān district is an outlier). Scholars of legislative institutions have shown that credit claiming is easier and politicians are more accountable in single-member district systems.[43] If the rentier theory on state spending for constituent support is correct, then at the subnational level this relationship should be strongest where targeted spending is most visible to voters. Though this linkage has yet to be shown empirically in the context of resource-rich countries, theoretically it should be true in single-member districts where incumbents can clearly claim credit for the provision of benefits, and conversely, it should not necessarily be the case that spending is targeted in multimember districts. In Iran, accountability and visibility are somewhat muddled by the strong fiscal centralization of the state

[39] See Cain, Ferejohn, and Fiorina 1987; Austen-Smith and Banks 1988.
[40] See Fiorina 1978; Kinder and Kiewiet 1979.
[41] Fenno 1978.
[42] Birnir 2007.
[43] Powell 2000; Moser and Scheiner 2012.

and the existence of quasi-state organizations (*bonyād*) that provide public and private goods.[44] Still, all else equal, incumbents with access to resource revenues should fare better in single-member districts than in multimember ones, which suggests that there is a mediating effect of electoral institutions on oil's incumbency-increasing effects.

The studies considered so far all point to the potential for incumbency advantage in developing and hybrid democracies. Yet, empirically such an advantage has not been shown to be the case. Incumbent legislators and mayors in Egypt, India, Jordan, the Philippines, and the postcommunist states are faced with low incumbency retention rates.[45] The same is true in Iran where, as noted in the introduction, less than 30 percent of incumbent MPs win reelection on average. While this empirical pattern has been described in several developing contexts, there is an ongoing debate in the current literature as to why an incumbency disadvantage is observed.[46]

I do not address this phenomenon directly in this article, though it is worth noting that despite an advantage over non-oil-rich incumbents, more than half of all oil-rich deputies in Iran are not reelected. It is likely that the problems incumbents face in Iran are no different from those faced by incumbents in other authoritarian and developing contexts. Like their counterparts in Egypt, Jordan, and Lebanon, Iranian MPs operate in a weak party system where voting is essentially based on individual candidate attributes and confusing factional ties.[47] Further, while the influx of money to provinces and districts from oil and minerals is significant, the amount retained by the central government is substantially higher. Less is spent on a percentage basis on local infrastructure and development such as schools and hospitals in provincial Iran than in advanced and developing democracies such as the US and Brazil, where incumbents maintain a sizable advantage over challengers. Though state expenditures in Iran are still higher than in resource-poor authoritarian countries, as rentier theorists would expect,

[44] See Karshenas and Malik 2011.

[45] Uppal 2009; Lust-Okar 2006; Bernhard and Karakoc 2011; Cruz and Schneider 2012. See Table B.19 in the supplementary material for incumbency turnover rates in selected countries; Mahdavi 2015.

[46] Uppal 2009 argues that incumbents in India are disadvantaged due to a lack of public goods provision and a general lack of economic development in most legislative districts. As such, voters are routinely dissatisfied with incumbent politicians who fail to improve economic circumstances, only to elect new incumbents who seem to fall into the same trap. (On this point, see also Svolik 2012.) Work by Titiunik and Klasnja 2009 stresses that incumbents in developing contexts are disadvantaged due to the weakness of political parties where elections become solely based on individual candidate attributes.

[47] Baktiari 1996; Moslem 2002.

public development spending is not enough to deter an overall decline in the quality of health and education infrastructure.[48] MPs could be taking the fall for these failures electorally, as provincial and district spending is attributed to the legislature, though this point remains open for future research on incumbency disadvantage within electoral authoritarianism.

Derived Hypotheses

Building on the work referred to above on the resource curse, electoral authoritarianism, and incumbency advantage, I develop three testable implications in the context of Iranian legislative elections.

First, if larger amounts of discretionary revenue increase incumbency retention, we should expect to observe higher reelection rates for Iranian MPs from oil-rich districts than for MPs from oil-poor districts. Importantly, the oil-incumbency relationship should be higher in single-member districts as opposed to multimember districts.

> —H1. Incumbents running in resource-rich districts are more likely to win reelection than incumbents running in resource-poor districts. This effect should be more pronounced in single-member districts than in multimember districts.

Second, more public goods should be provided in oil-rich districts, controlling for other factors. This follows from the argument that given higher levels of discretionary spending, incumbents will need to provide benefits to be reelected if constituents vote retrospectively. On this point there is evidence from case studies on Iranian elections to suggest that voters do indeed reward politicians for past behavior.[49] Furthermore, the amount of targeted spending by incumbent deputies in Iran's parliament is high. This was particularly problematic in the early 1990s when such spending increased during a time of postwar economic recession. In his inaugural address to the incoming Fourth Majlis (1992–96), then-President Rafsanjāni implored deputies to reduce pork-barrel spending, "The esteemed deputies should consider their actions when the government has no budget for a project because they themselves have not approved a budget for it. They should not question it 10, 15, 20 times every morning, saying do this for that road, do that for this mine."[50] A testable hypothesis summarizing this logic is as follows:

[48] Karshenas and Malik 2011.
[49] Baktiari 1996; Chehabi 1990.
[50] Quoted in Baktiari 1996, 221.

—H2. Levels of public goods provision—specifically school and hospital provisions—will be higher in resource-rich districts than in resource-poor districts.

Third, deputies in resource-rich districts should provide more patronage and private benefits than deputies in resource-poor districts. Such transactions may be accomplished both on and off the books. Deputies can extend state jobs to supporters and appoint allies to prestigious government positions both locally and nationally and they can offer illicit transfers in exchange for votes. A study of one district in East Azarbaijān exposed numerous examples of client-patron behavior by one MP in his effort to secure votes for successful reelection in 2008. Among them was the sale of monopoly rights to purchase low-cost rice from the Ministry of Commerce in exchange for campaign financing and the provision of employment opportunities (using the MP's power in Tehrān) in exchange for votes.[51] In resource-rich Khuzestān province, alleged clientelism helped secure reelection in 2000 for two-term incumbent MP Seyyed Jāsem Sā'edi in the city of Shūsh and violence erupted after the election with protesters accusing Sā'edi of "vote-buying and bribery."[52] In terms of an observable implication based on this patronage-resource conjecture, a testable hypothesis can be stated as follows:

—H3. Controlling for initial values, patronage through public employment will be higher in resource-rich districts than in resource-poor districts.

Though not mutually exclusive of these three hypotheses, it should also be true that voters reward deputies who have provided public and/or private goods to their districts. This step is an intuitive implication —if MPs get no political benefit from providing goods, then we should not expect incumbents to provide goods in the first place.[53]

Data and Methods

To test the hypotheses, I compiled cross-sectional time-series data on legislative elections in Iran. Since the first parliamentary election in 1980 (in which there were no incumbents), there have been seven elections: 1984, 1988, 1992, 1996, 2000, 2004, and 2008. Given the data

[51] Qasemi 2011.

[52] *Reuters*. 2000. "Election Violence Kills Eight in Iran." February 20. At http://d-n-i.abdolian.com/news/dnd/2000/02/00-02-20sp.htm, accessed December 13, 2014.

[53] Cole, Healy, and Werker 2012.

constraints of the first three elections, the statistical analysis conducted for this study includes deputy-level and provincial-level variables for the last five elections. For the first set of models the unit of analysis is deputy-years, and for all other models the unit of analysis is province-years. The evidence is drawn from three sources:[54] parliamentary biographies since 1980 are used for information on deputies' names, prior terms served, winning vote shares, and electoral district and province;[55] data from the Iranian Ministry of Petroleum and Ministry of Interior are used to calculate share of national gross domestic product (GDP) produced at the province level from mining and natural resources since 1992; and data from the Ministry of the Interior, published annually, are used for province-level control variables.[56] All covariates are lagged by one year prior to a given election.[57]

Regarding the first hypothesis, the outcome of interest is the probability that an incumbent is reelected, along with his or her winning vote share. The predictor of interest is discretionary revenue allocated to each district from the sale of natural resources. This predictor is captured by the variable *oil and minerals value added to GDP* or simply *resources*. It is a measure of total revenue produced at the provincial level from the sale of oil, gas, and other minerals, divided by the amount of resource revenue produced nationally.[58] The denominator in this ratio is essentially the national resource GDP of Iran in a given year, that is, the total amount of revenue produced from the sale of all hydrocarbons and minerals across the country. Figure 2 shows the geographic distribution of resource wealth by province in 2008.

This measure is quite close to how much revenue a province is allocated by the central government, an amount that depends on the province's level of resource wealth. Iran's provincial revenue distribution is constitutionally mandated, as article 48 requires "just distribution of

[54] Summary statistics for all variables discussed are presented in the supplementary material; Mahdavi 2015.

[55] Islamic Consultative Assembly of Iran 2008. Biographies for members from the 2008 and 2012 elections (with full election results) are available in Persian on the Parliament's Web site at http://rc.majlis.ir/fa/parliament_member. Biographies of members from prior elections, also in Persian, are available at Princeton University's Iran Data Portal, http://www.princeton.edu/irandataportal/elections/.

[56] Iran Ministry of Interior 1995–2008.

[57] Note that one-year lags refer to the Iranian calendar year prior to an election. For example, covariates for the election on March 14, 2008 (24 Esfand 1386), are measured for the full year of 1386 (March 2007–February 2008).

[58] As a robustness check for the first set of models, I include two alternative measures of provincial resource wealth. The first is "oil income per capita" in ten thousands of Iranian rials (IR) (10,000 rials is equivalent to roughly $1). The second is "oil share of province-level GDP," which captures resource reliance at the province level. Results from regressions using these measures are presented in Tables B.4 and B.5 in the supplementary material; Mahdavi 2015.

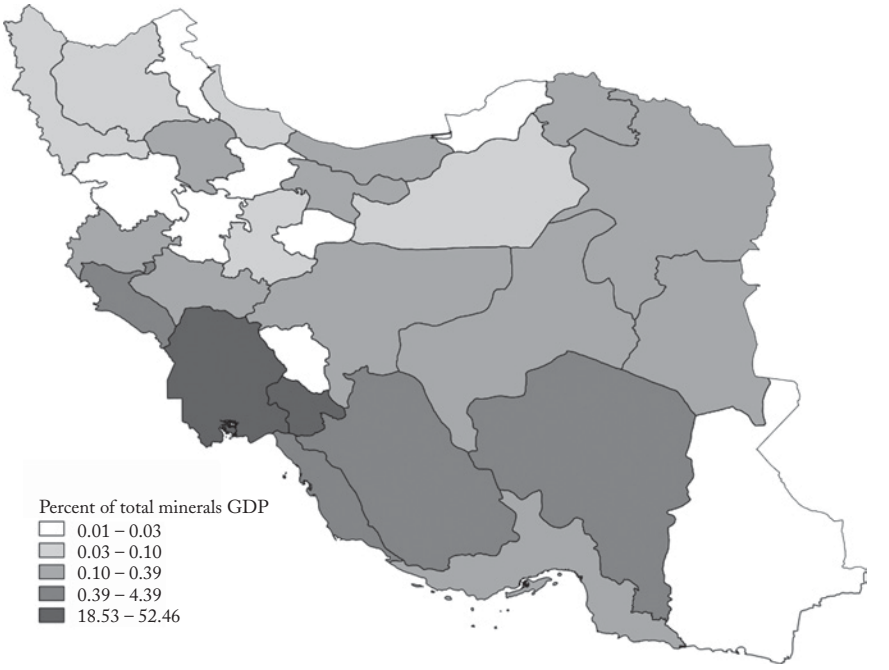


FIGURE 2
GEOGRAPHIC DISTRIBUTION OF NATURAL RESOURCE WEALTH BY PROVINCE, 2008[a]

SOURCE: Iran Ministry of Interior

[a]As a percentage of national natural resource GDP, ranging from 0.01 percent to a maximum of 52.46 percent. The maximum value across all years is 65.28 percent, occurring in Khuzestan province in 1995.

national incomes among provinces and distribution of economic projects on the basis of needs and potentials of each area."[59] The revenue is allocated to each province in accordance with the national budget (in the form of development plans), which the parliament passes every five years but revises annually. As mentioned above, MPs are the primary authors of budget bills and only rarely do other branches of government override the budgetary allocations made to provinces.[60] In addition to the mostly population-based redistribution formula, each province is allocated 2 percent of the GDP that it generates for the country. Formally this is calculated as 2 percent of the value-added GDP produced by a

[59] An English translation and analysis of the constitution can be found in Ramezani 1980.

[60] In contrast, allocations for defense and other national-level expenditures are closely monitored by the executive branch and the unelected tiers of government.

given province, as measured by the Statistical Center of Iran (*Markaz-e Āmār*).[61] For example, in 2006 the oil-rich province of Khuzestān contributed 370 trillion rials (US $40 billion) to the 2.3 quadrillion rial ($251 billion) total national income from natural resources (resource GDP), so that in addition to the revenue distribution it received based on its population, the provincial government was allocated 7.4 trillion rials ($782 million; 2 percent of the value it added to resource GDP). In this sense, oil revenue that the province receives is exogenous since individual legislators cannot change the formula (that is, they cannot change it without supermajority parliamentary approval), but they do have discretion over how this money is spent within their districts.

There are two caveats to this measure. The first is that the 2 percent rule is not necessarily followed in practice over time. For example, during the Mahmūd Ahmadinejād administration (2005–13), the president and cabinet effectively cut the discretionary spending powers of MPs so that the distribution of public and private goods was determined more by the executive and the bonyād organizations than by parliament. This has continued under President Hassan Rouhāni, elected in 2013, to the point that all eighteen MPs from Khuzestān resigned in protest against budget cuts to their province.[62] Prior to 2005, beginning in 1988–89 with Rafsanjāni's creation of five-year plans, MPs were able to direct government revenues to their district.[63] The period of MPs' strongest power over the purse (1988–2005) coincides with most of the data in this article as I analyze incumbency patterns across the five elections from 1992 to 2008—effectively covering MP behavior from 1988 to 2008. Expectedly, the results from models that only use data from the 2008 election show a positive but not significant effect of oil on incumbency, reflective of the diminished discretionary powers of MPs since Ahmadinejād took office in 2005.[64]

The second caveat is that resource wealth is measured at the province level while incumbent reelection is at the district level. Yet it is precisely because resource revenues are distributed to provinces and not directly to districts that provincial resource revenues are used in the empirical analysis. Voters reward MPs in their specific districts for revenues that are distributed to the entire province. Aside from the allocation of funds that are made on the basis of population and need

[61] Iran Department of Budget and Planning 2007.

[62] Ehsan Keivani, "Southeastern Province MPs Expect Bigger Budget for New Year," Press TV, Tehrān. December 11, 2013. At http://www.presstv.ir/detail/339465.html, accessed January 19, 2014.

[63] Moslem 2002.

[64] See Table B.12 in the supplementary material; Mahdavi 2015.

(for example, in Khuzestān province, Ābādān receives more money than Rāmhormoz because it is larger and requires more public services), there is no bargaining between MPs in the same province.[65] At the district level, MPs are the only politicians who can reasonably claim credit for what each district ends up receiving since decisions on the economic planning and distribution of government expenditures are ultimately made by parliament, and not by provincial governors (*ostāndārs*) or council members at the city and village levels. In the results section, I offer a vignette on how this is done in the Shādegān district of Khuzestān province.

To support the second hypothesis, that is, to show that resource-rich areas have more public goods than resource-poor areas, I use provincial-level evidence across both kinds of areas. Specifically, I use proxy measures of education and health spending—levels of and four-year changes in student-teacher ratios and in the number of hospital beds per 100,000 persons—at the provincial level to show that resource-rich areas have higher levels of provision of these public goods than resource-poor areas. It is important to show that the public goods provided are not just those that are needed by the oil and mineral industries. For this reason, I avoid measures such as percentage of paved roads or electricity usage per capita, given that the oil and mineral industries are energy intensive and require functional transportation infrastructure.[66] While the indicators selected are somewhat crude measures of parliament-approved education and health spending—more detailed measures are not publicly available at the district level in Iran across multiple years—both represent factors on which MPs have an influence through approval and amendments of annual budgets.

The third hypothesis—that patronage levels are higher in oil-rich provinces—is tested at the provincial level as well. Because details on patronage distribution through illicit transfers are especially difficult to quantify, I focus on how parliamentarians distribute targeted benefits through the provision of government and public sector employment. This is measured at the provincial level as the total number of workers employed in the non-oil public sector divided by total employed persons. I also use a measure of public sector employment per capita

[65] For more on how revenue is distributed to each district within a given province, see Iran Department of Budget and Planning 2007 and Heidarpour 2008.

[66] It is also useful to note that the oil industry is not labor intensive, implying that ceteris peribus oil areas should not have more well-paid employment or higher employment levels on average. In fact, according to the Iran Ministry of Labor, in 2008 the nation's oil areas tended to have higher than average levels of unemployment. This is consistent with findings in the resource curse literature: economically, oil regions tend to have lower average wages, increased unemployment, and increased inflation.

to account for the possibility that public employment levels are correlated with total employment levels, that is, provinces with low absolute employment levels may be targeted for more public sector jobs by the central government.[67] It is important to note that using public employment as a proxy for patronage is to a certain extent problematic. There are several other factors driving the level of public employment—for example, the economic ideology or sectoral labor makeup of a given province—so that it may not measure only how deputies distribute patronage. However, given data constraints at the Iranian provincial level, the measure is the closest proxy to patronage that is currently available.

In order to prove the validity of my argument, I control for the following factors: (1) a dummy variable for incumbent MPs who are clerics, which serves as a proxy for elite status and closeness to the regime; (2) number of terms served prior to election, which measures seniority[68] and experience; (3) provincial economic indicators, measured by unemployment levels; (4) provincial development levels, captured by gross provincial product per capita excluding natural resource production; and (5) ethnic voting, captured using a dummy for whether ethnic non-Persians collectively make up more than 50 percent of a province's population.[69] In all models I also include a time trend to capture changes in the political and economic environment—such as the reconstruction of the country after the end of the Iraq war in 1988; changes in oil revenues from 1992–2008; and general ideological trends reflected in successive presidencies, moving from economic liberalism (Rafsanjāni) to pragmatic reform (Mohammad Khātami) to conservatism (Ahmadinejād)—not reflected in the control variables. These factors may or may not affect incumbency or public goods provisions, but are nonetheless included in a simple time trend.[70] My aim is to

[67] Both measures control for those employed in the national oil industry, since oil areas irrespective of backwardness will appear to have higher percentages of state employment due to the simple fact that the oil sector is run by the state. One could argue that employment in the National Iranian Oil Company may be considered patronage in and of itself, as is the case for Petroleos Mexicanos in Mexico. However, these employment decisions are not made by deputies but rather by the president through the minister of petroleum. See Mahdavi 2012.

[68] One could also roughly translate seniority to being a member of the clergy, since clerics have several institutional advantages in Iranian elections: they are rarely vetted, have access to voters through social networks such as mosques and routine Friday prayers, and are generally the only political actors who can serve at high levels of government.

[69] Turnout is not included as a control, but it is important to note that there is no correlation between turnout and resources or incumbency at the province level. See Table B.18 in the supplementary material; Mahdavi 2015.

[70] Models are also tested using time fixed effects and time random effects instead of a trend variable, with similar results. See Tables B.6, B.7, and B.8 in the supplementary material; Mahdavi 2015. As a reference, changes in government revenues from oil (in year 2000 trillion rials) reported by the Central Bank of Iran are as follows: 1980, IR 41.0; 1988, IR 9.1; 1992, IR 30.0; 2000, IR 59.4; and 2008, IR 55.9.

show that even after controlling for these factors, the relationship between resource wealth and incumbency reelection rates holds.

The statistical method I employ is the restricted maximum likelihood (REML) random intercept covariance model with district and province random effects for binary longitudinal (panel) data. Because longitudinal data in general have nonzero correlations across observations of the same subject over time, the correlations must be included when modeling the data. A deputy's reelection chances in one year are likely to be highly correlated with his or her reelection chances in past and future elections. This is also the case in the analysis of mechanisms at the provincial level. Provincial health or education spending in one year is expected to be correlated with spending in prior and future years. I use the random intercept covariance model to account for temporal correlation within subjects.[71] I use district and province random effects because incumbents within the same province have correlated reelection rates and incumbents running in multimember districts have correlated reelection rates with others in the same district.

The convention in the study of longitudinal analysis in the social sciences is to include time and/or spatial (for example, region, country, province, and municipality) fixed effects in the regression model. I use covariance modeling and spatial random effects instead for two reasons. First, using time and/or spatial fixed effects can overfit the regression model. Adding up to 186 (thirty-one provinces, six time periods) different fixed effects in one model can be quite tenuous if we want to properly allow for correlation across time, across space, and within spatial units over time. Further, the very richness of longitudinal data would be forfeited because the ability to measure how specific units change over time is lost.[72] Second, standard errors can be biased. The problem in this case is that standard errors for the province fixed effects are potentially biased by the temporal correlation among observations within a province over time.[73]

These concerns notwithstanding, to ensure that the empirical results are not dependent on model specifications, in the supplementary

[71] For the analysis presented below, I assume equicovariance and fixed slopes given the difficulty in employing nonconstant variance covariance models for discrete longitudinal outcomes. For the models with continuous dependent variables, I fit a variety of different covariance models but profile plots of outcome over time and within-subject residuals; correlation matrices, likelihood ratio tests, and Akaike information criterion/Bayesian information criterion (AIC/BIC) indicate that the random intercept covariance model is the best fit.

[72] In these cases, we are simply comparing all province- or country-year units to each other as if each is an individual unit. By estimating the residual covariance structure, we again avoid the use of year and province/district dummies in the model. By using spatial random effects (modeling varying intercepts), we take advantage of partial pooling. See Bafumi and Gelman 2006, 4.

[73] On this point, see Weiss 2005.

material I present results from fixed-effects models using ordinary least squares with clustered standard errors, logistic regression, and REML with province fixed effects and time random effects.[74]

Results

The statistical results, presented in Table 2, support the relationship between resource revenues and incumbency advantage in single-member districts across the four parliamentary elections for which there are resource revenue data (1996, 2000, 2004, and 2008). Controlling for the factors identified above, the effect of resources on the likelihood of reelection is substantively quite significant. In single-member districts, a 1 percentage point increase in resource value added increases the chances of reelection by 3.7 percentage points.[75] Consider a deputy running in a province whose minerals contribute 0.1 percent to national resource GDP. If the province discovers a new oil field that accounts for 5 percent of national resource GDP, the deputy's chances of being elected would increase by 15 percentage points. In a context where incumbents are only reelected 30 percent of the time, such an increase in reelection probability is considerably valuable, though still modest when compared to developed democracies.

As the mechanisms discussed above suggest, deputies should be using resource revenues to buy support and gain an advantage over their rivals. This behavior should only be the case in contexts where deputies can take credit for the provision of benefits, thus, the resource-incumbency relationship should be strongest in single-member districts. There are 167 such districts in thirty different provinces for a total of 627 seat-elections across four consecutive elections (some districts were not established until the second and third series of these elections). In comparison, there are thirty-three multimember districts in twenty-five provinces (averaging 3.4 seats per district), for a total of 448 seat-elections across the same four elections.

The first five models include interactions between resource revenues and a single-member district dummy, while the last two models split

[74] See Tables B.6, B.7, and B.8 in the supplementary materials; for public goods regressions see Tables B.13, B.14, and B.15; Mahdavi 2015. Further, a Hausman test comparing the fixed-effects model to the random-effects model gives a chi-squared value of 2.7708 with six degrees of freedom for a p-value of 0.837. Thus, we cannot reject the null hypothesis that the random effects assumptions hold. This test was run in R 3.0 using the PHTEST command from the PLM package. I thank two anonymous reviewers for suggesting this comparison and these robustness checks.

[75] This estimate is calculated by adding the coefficient for resources in model 6 (–0.004) to the coefficient for the interaction term (0.041). Note that this is at the mean value of logged oil and minerals value added.

TABLE 2
REML RANDOM INTERCEPT MODEL OF INCUMBENT REELECTION CHANCES, 1996–2008[a]

	1	*2*	*3*	*4*	*5*	*6*	*SMD*	*MMD*
Intercept	0.226**	0.209*	0.207*	0.032	0.520*	0.511*	0.636	0.790*
	(0.114)	(0.111)	(0.111)	(0.238)	(0.283)	(0.304)	(0.391)	(0.447)
Resources	−0.009	−0.011	−0.011	−0.013	−0.004	−0.004	0.035***	0.000
(log)	(0.013)	(0.012)	(0.012)	(0.012)	(0.013)	(0.013)	(0.010)	(0.014)
SMD dummy	0.276***	0.278***	0.272***	0.279***	0.278***	0.278***		
	(0.100)	(0.097)	(0.098)	(0.098)	(0.098)	(0.098)		
Resources (log)	0.040***	0.041***	0.040***	0.041***	0.041***	0.041***		
× SMD	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)		
Session (time)	−0.001	−0.005	−0.005	−0.027	−0.014	−0.015	−0.067	0.067
	(0.013)	(0.012)	(0.012)	(0.029)	(0.029)	(0.032)	(0.045)	(0.048)
Prior terms		0.095***	0.093***	0.093***	0.092***	0.092***	0.081***	0.109***
		(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.023)	(0.027)
Cleric dummy			0.025	0.023	0.019	0.019	0.033	0.003
			(0.039)	(0.039)	(0.039)	(0.039)	(0.050)	(0.061)
GDP per capita				0.033	−0.005	−0.004	0.048	−0.087
(log)				(0.039)	(0.041)	(0.046)	(0.064)	(0.067)
Unemployment					−0.013	−0.013	−0.014	−0.011
rate					(0.004)***	(0.004)***	(0.005)***	(0.007)*
Ethnic minority						0.002	0.045	−0.078
dummy						(0.031)	(0.039)	(0.052)
N Observations	1,075	1,075	1,075	1,075	1,075	1,075	627	448
Groups (districts)	200	200	200	200	200	200	167	33
Groups (provinces)	31	31	31	31	31	31	30	25
AIC[b]	1,405	1,383	1,389	1,395	1,396	1,404	841	600
BIC	1,445	1,428	1,439	1,449	1,446	1,468	890	645
−2log*L*	−695	−682	−685	−686	−686	−689	−410	−289

Standard errors in parentheses; $^{***}p<0.01$, $^{**}p<0.05$, $^{*}p<0.1$

[a]The dependent variable is binary whether incumbent is reelected or not. SMD and MMD models refer to model 6 rerun for single-member districts and for multimember districts, respectively. Session is a time covariate numerical value of a given parliamentary session. Resources (log) is the share of national GDP generated by minerals and petroleum production for each province, logged. Prior terms is the number of parliamentary sessions held by a given deputy, not including the term held prior to a given election. Cleric dummy is a binary variable for whether the deputy is a cleric or not. GDP per capita is the provincial GDP per capita in 10 million nominal rials, not including GDP generated from the production of minerals and petroleum. Unemployment rate is for population aged 10 and over at the provincial level. Ethnic minority dummy is a binary indicator of whether a province is composed of more than 50 percent ethnic non-Persians. All covariates are lagged one year. See text for data sources.

[b]Akaike information criterion; Bayesian information criterion.

the data into single- and multimember districts (SMD and MMD, respectively). In the last two models, the effect of resources on incumbency reelection is positive and statistically significantly different from zero only in single-member districts; there is no effect in multimember districts. Specifically, the results from models 5 and 6 suggest that in multimember districts a 1 percentage point increase in the resources variable corresponds to a 0.4 percentage point decrease in incumbent reelection probability, though the result is not statistically significantly different from zero.[76]

This result is best interpreted visually. Figure 3 presents a predicted probability plot of the likelihood of incumbent reelection based on resource revenues for incumbents in single-member and multimember districts. While there is a null effect of resource revenues on incumbency reelection in MMDs, there is a clear positive statistical relationship between resource wealth and incumbency reelection chances in SMDs. These findings lend support to the theorized mediating effect of electoral institutions on the oil-incumbency relationship; oil wealth does not unconditionally improve reelection chances and these effects are only present when electoral rules help to increase visibility of the incumbent.

When using vote shares as a measure of incumbent retention, the results show a similarly positive and significant effect for natural resource wealth. While data are only available for the 2000, 2004, and 2008 elections, the findings shown in Figure 4 indicate that, controlling for other factors, incumbents from resource-rich provinces win with larger vote shares than those from resource-poor provinces. Note that this result is for incumbents only. The graph shows the effect of resources on vote shares for seats won by incumbents. It does not provide evidence for a broader argument of incumbent vote shares since data on the vote shares of incumbents who lost are not available.

Turning next to the mechanisms of the resource-incumbency relationship, statistical results from regressions based on the observable implications described above are presented in Table 3. These models are run using REML with province fixed effects and time random effects to capture over-time shifts in public goods provisions.[77]

[76] Considering only the correlation between single-member districts and reelection while holding resources and other variables fixed, the results suggest that the probability of incumbent reelection is 27.8 percentage points higher in single-member districts than in multimember districts. In Table B.11 in the supplementary material (Mahdavi 2015), I break down the results into two-, three-, and four-member districts or more in order to show that the null effect in multimember districts is constant across district magnitude.

[77] Alternative model specifications are presented in Tables B.13, B.14, and B.15 in the supplementary material; Mahdavi 2015. In Table B.16, I show the results of the regressions from Table 3 plus a

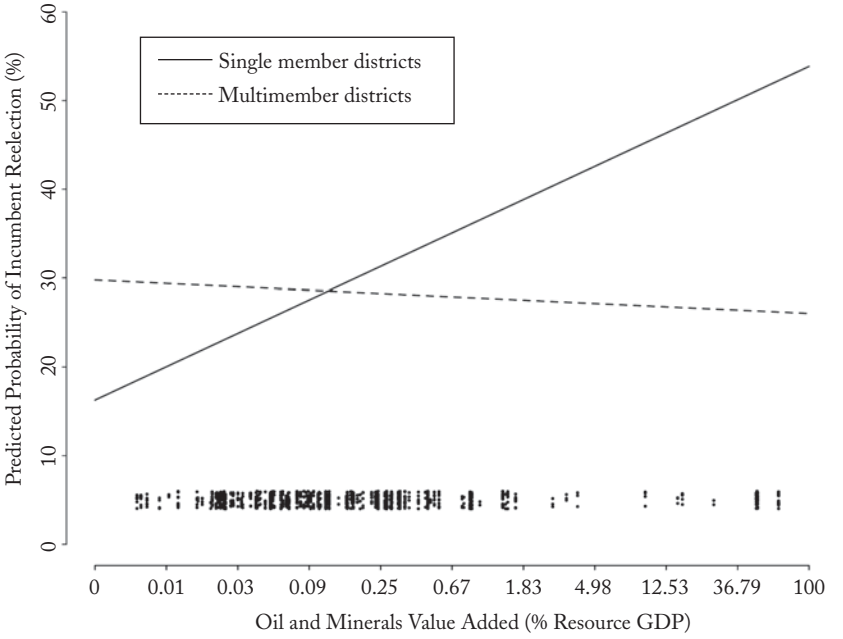


FIGURE 3
PREDICTED PROBABILITY OF LIKELIHOOD OF INCUMBENCY REELECTION FOR IRANIAN MPs[a]

[a]Based on oil and minerals value added (percent resource GDP, maximum value is 65.28 percent) for single-member districts and multimember districts. The distribution of oil and minerals value added is given by the horizontal bar of points at $y = 5$. Note the x-axis is in the logarithmic scale with nominal values printed for ease of interpretation.

The first column shows the results of a regression with public employment as a share of total employment. Provinces with more natural resources tend to have more public employees. The coefficient estimate of 0.29 indicates that a 10 percentage-point change in resources—roughly equivalent to the change in Kohgiluyeh and Boyer-Ahmad province from 1996 to 2000, a 0.5-unit change in logged resources—corresponds to a 14.5 percentage point increase in public employment.

When looking at four-year changes in public employment in column two, we see that resource-rich provinces also show higher changes

control for provinces that contain only single-member districts (see Table 1). Though I do not have data for public goods provision at the district level, these results suggest that there is less public goods provision in provinces with multimember districts, with weaker evidence that this pattern holds for health provisions.

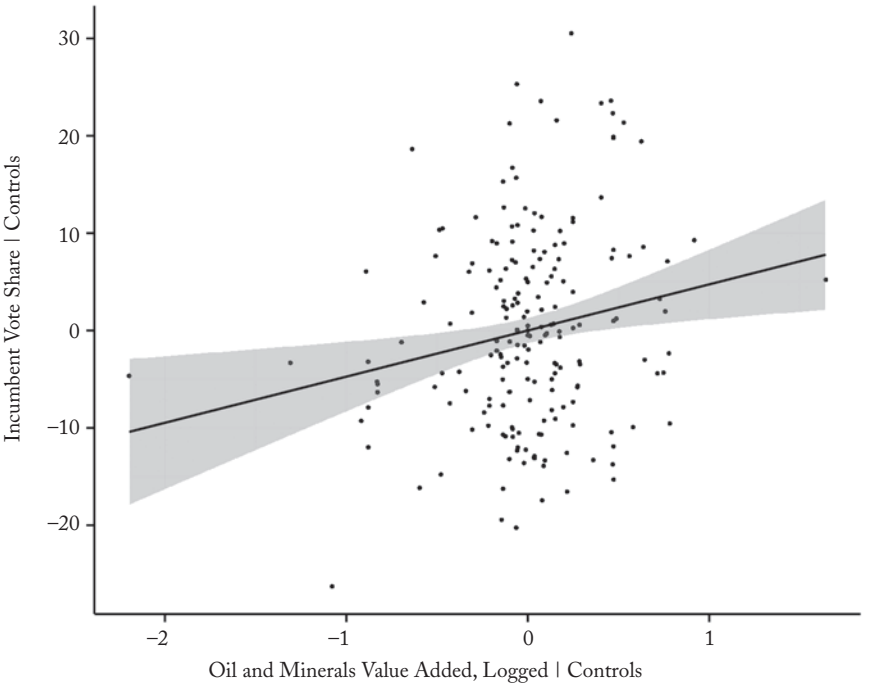


FIGURE 4
EFFECT OF RESOURCES ON INCUMBENT VOTE SHARES: 2000, 2004, AND 2008 PARLIAMENTARY ELECTIONS[a]

[a]Partial effects are shown from ordinary least squares regression, controlling for unemployment levels, GDP per capita, GDP growth, cleric dummy, number of prior terms served, and time. Sample is restricted to incumbents and single-member districts only, so N = 196 instead of 1,096. The effect shown here is for incumbents in single-member districts; the effect of resources on vote shares in multimember districts is not plotted here. See Table 2 notes for variable definitions. Slope for resource variable is 4.74 with standard error 1.88 (p-value: 0.013).

in public employment than resource-poor provinces. It is interesting to note, however, that public employment as a share of total employment is decreasing over time across all provinces, with resource-rich provinces showing a smaller decline than resource-poor provinces.[78]

In models 3 and 4 of Table 3, we see that resource-rich provinces have higher levels of and greater four-year changes in public hospital beds (per 100,000 persons), though the latter finding is not strongly robust to different model specifications.[79] We see the same pattern

[78] This is due to the growing denominator—total employed persons—over time because private-sector jobs increased faster than public sector jobs from 1996 to 2008. See Table B.17 in the supplementary material; Mahdavi 2015.

[79] See specifically Table B.13 in the supplementary material; Mahdavi 2015.

TABLE 3
REML RANDOM INTERCEPT MODELS OF PUBLIC GOOD PROVISION AND PATRONAGE[a]

Covariates[b]	*1*	*2*	*3*	*4*	*5*	*6*	*7*
Resources (log)	0.290**	0.927***	5.139***	0.068***	−0.511***	−0.034***	
	(0.136)	(0.291)	(0.837)	(0.015)	(0.117)	(0.004)	
GDP/cap (log)	−2.839***	−22.789***	56.832***	−0.410***	−3.974***	0.143***	0.033
	(0.132)	(2.036)	(5.882)	(0.100)	(0.454)	(0.027)	(0.058)
Public emp.		−0.027***					0.605**
		(0.004)					(0.267)
Hospital beds				0.000			−0.002*
				(0.000)			(0.001)
S-T ratio						0.039***	−0.012***
						(0.001)	(0.004)
AIC[c]	3,197	4,090	5,935	−910	2,870	−2,644	1,406
BIC	3,360	4,258	6,099	−758	3,034	−2,476	1,461
−2log*L*	−1,563	−2,009	−2,932	491	−1,400	1,358	−692

Standard errors in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$

[a]Models include province fixed effects and time random effects for thirty-one provinces and four time periods. Dependent variables for each model: (1) public employment as a share of total province employment; (2) four-year changes in public employment; (3) hospital beds per 100,000 persons; (4) four-year changes in hospital beds; (5) student-teacher ratio; and (6) four-year changes in student-teacher ratio. The last regression models determinants of incumbency reelection using restricted maximum likelihood (REML) with province random effects (thirty-one provinces, 200 districts, four time periods), controlling for time, logged population, prior terms, and a single-district dummy (coefficients omitted).

[b]Resources value added per province (logged), nonresource GDP per capita (logged), public employment as share of total province employment, hospital beds per 100,000 persons, and student-teacher ratio.

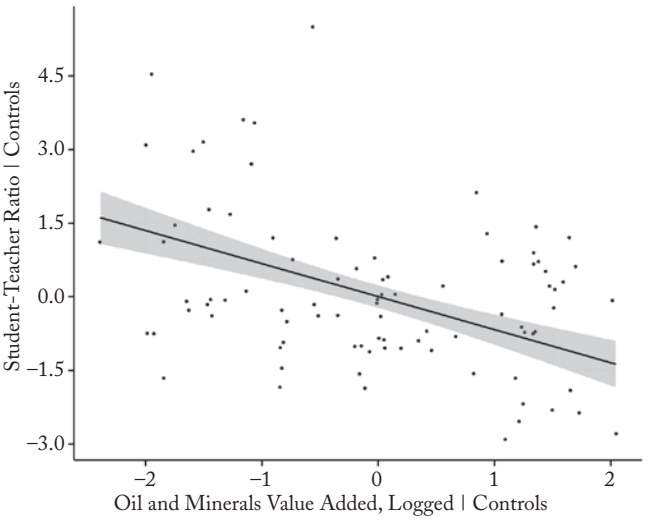
[c]Akaike information criterion; Bayesian information criterion.

for education provision. Using student-teacher ratios and four-year changes in those ratios as measures of education spending, the results in models 5 and 6 show that provinces with more resources also tend to have lower student-teacher ratios (that is, better education provision) and smaller changes in student-teacher ratios. These effects are visualized in Figure 5 using partial regression plots. Not only do resource-rich provinces have higher levels of education provision, but the growth in provision is higher than in resource-poor provinces.

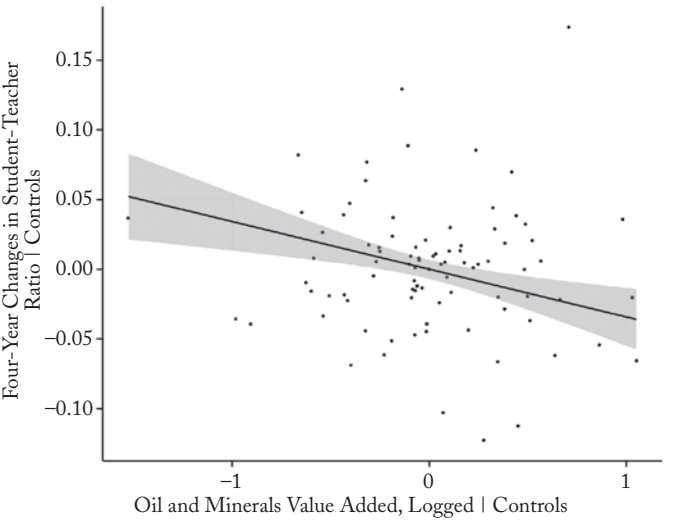
Model 7 tests the implication that when deputies spend more on targeted benefits such as government employment, they are more likely to be reelected. Controlling for other factors, incumbents are more likely to be reelected when they provide more public employment and

more education spending. Substantively, a 10 percentage point increase in public employment corresponds to a 6.1 percent increase in the probability of reelection, while for every one unit improvement (decrease) in the student-teacher ratio, there is a corresponding 1.2 percent improvement in reelection chances. Surprisingly, the coefficient for hospital beds is negative and significant, suggesting a reverse effect—incumbents who provide more hospital beds seem to do worse at the polls—though the effect is rather small in substantive terms. While these findings corroborate existing distributive politics studies that show incumbents who provide more to their districts have higher reelection rates, the data are not refined enough to make strong claims about reelection prospects and public goods provisions. With more detailed measures of goods provisions on public employment, health, and education spending specifically at the district level rather than at the province level, further research could identify the exact links between incumbency and public goods distribution in Iran.

Though not necessarily representative of elections across the board, the electoral outcomes of two specific incumbents seeking reelection can help to explain the mechanisms discussed above at a level more refined than a large-N statistical analysis. Consider the districts of Shādegān, Khuzestān, and Borujen, Chahārmahāl and Bakhtiāri, during the 2008 parliamentary elections. Both SMDs in southwest Iran, they are on opposite sides of the Zāgros Mountains and have populations of approximately 50,000. Both cities are ethnically heterogeneous: Shādegān is composed of Arabs (the majority), Lurs, and Persians, while Borujen is home to Bakhtiāri Lurs (the majority), Qashqā'i, Kurds, and Persians. Shādegān is located just east of the Shādegān oil field, which was discovered in 1989 and produces roughly 47 thousand barrels per day (equivalent to 1.2 percent of Iran's oil production). Borujen, on the other hand, is oil poor with an economy dependent on small industry and agriculture. In Shādegān, local-born Majid Nāserinezhād ran for reelection in 2008 against three other candidates after his first term in office (he won an open seat in the 2004 election). Riding a small wave of economic success with annual growth in his province at 4 percent and youth unemployment cut from 45 to 23 percent (relatively low for Iran), Nāserinezhād ultimately maintained his seat with 43.4 percent of the vote in the first round and no need to compete in a second round run-off. Borujen's incumbent MP Gholamreza Mirzāei was not as fortunate. Mirzāei was also running for reelection after one term in office but lost to Cyrus Barna Baldaji, whose vote share of 32.6 percent in the first round was enough to win the district's only seat.



Resources and Student-Teacher Ratios
(a)



Resources and Four-Year Changes in Student-Teacher Ratios
(b)

FIGURE 5
RESOURCE ALLOCATION AND STUDENT-TEACHER RATIOS: 1996, 2000, 2004, 2008 ELECTIONS[a]

[a]5(a) shows a partial regression plot for resources and student-teacher ratios using estimates from Table 3, model 5. Resources coefficient: −0.511 (0.117). 5(b) shows a partial regression plot for resources and four-year changes in student-teacher ratios using estimates from Table 3, model 6. Resources coefficient: −0.034 (0.004).

Nāserinezhād's success was in part due to his ability to secure and take advantage of the resource revenues allocated to the province by the central government, as illustrated in the following transcript from local Khuzestān Province TV:

> At the session meant to distribute annual finances among provincial cities and executive institutions, Zangeneh who represents Ahvāz [in Parliament], Ābādān representatives Ansāri and Ka'abi and Shādegān's deputy in the chamber Nāserinezhād stressed the need for the government to release both the 2 percent of oil revenues allocated to the province and [the province's] annual finances. . . .
>
> . . .The deputy governor-general and head of the provincial management and planning department of the province [responded] there has been a 39 percent hike in the development finances of the province. He added at today's session 518bn tumans[80] [$520 million] in current finances and 498bn tumans [$500 million] in development finances were distributed among executive institutions and different provincial cities.[81]

Reports from one year later (during the election year) indicated this money had been spent across nine districts, Shādegān among them, on projects related to "pressurized water irrigation, three lines of ready concrete production, a tar production factory, weather forecast stations, 14 educational units, four dairy farms, four [base transceiver station] cell phone centres, drilling three wells, a medical centre in a village, 55 residential units, road construction and five water supply projects."[82]

Meanwhile, MP Mirzāei faced an uphill battle in his district because of an inability to provide funding for his constituents. A report one and a half years prior to the election noted that "15 villages in this area [Borujen and Lordegān] with a population of 8,000 do not have public baths and it would cost only 500 million tumans [$500,000] to solve this problem using the best building materials."[83] The funding

[80] The tuman, a subcurrency in Iran, is equal to 10 rials.

[81] "New Governor-General of Khuzestān Province to be Named Soon—Iranian Official." Vision of the Islamic Republic of Iran Khuzestān Province TV, May 19, 2007. Text recorded by BBC Monitoring/Middle East, May 20, 2007. LexisNexis Academic. At http://www.lexisnexis.com/lnacui2api/api/version1/getDocCui?lni=4NSF-NYN0-TX34-N23N&csi=270944,270077,11059,8411&hl=t&hv=t&hnsd=f&hns=t&hgn=t&oc=00240&perma=true, accessed January 21, 2014.

[82] "Various Projects Exploited in Khuzestān Province." Vision of the Islamic Republic of Iran Khuzestān Province TV, August 26, 2008. Text recorded by BBC Monitoring/Middle East, August 26, 2008. LexisNexis Academic. At http://www.lexisnexis.com/lnacui2api/api/version1/getDocCui?lni=4T9F-02X0-TX34-N07C&csi=270944,270077,11059,8411&hl=t&hv=t&hnsd=f&hns=t&hgn=t&oc=00240&perma=true, accessed February 11, 2014.

[83] "Iran Press: Discretionary Spending of President, Provincial Trips Criticised." BBC Monitoring/Middle East—Political, May 16, 2006. LexisNexis Academic. At http://www.lexisnexis.com/lnacui2api/api/version1/getDocCui?lni=4JYS-FJV0-TX34-N2N4&csi=270944,270077,11059,8411&hl=t&hv=t&hnsd=f&hns=t&hgn=t&oc=00240&perma=true, accessed January 21, 2014.

was never received and Mirzaei could not address the poor water and health standards in his district.

I suggested above that the causal mechanism linking oil wealth and incumbent reelection is that MPs distribute these revenues to their constituents in order to win votes and thereby stay in office. In line with this argument, Nāserinezhād was expected to retain his seat while Mirzāei, running in an oil-poor district, was disadvantaged due to his inability to target spending to his constituency. Incumbent MPs running in resource-rich districts, such as Nāserinezhād in Shādegān, use resource revenues allocated to their districts by the central government (via unelected provincial governors appointed by the Office of the President and approved by the Guardian Council) on local infrastructure projects such as schools, medical centers, and water wells, or more individually targeted goods such as state employment and factory supplies. In contrast, incumbents in resource-poor districts cannot win their constituents' support with public and private goods provisions simply because they do not have the funds to do so.

A more subtle difference emerges when comparing the distribution of targeted spending by incumbents in oil-rich single-member districts to those in oil-rich multimember districts. There is strong evidence based on previous research that representatives from SMDs are more likely to use resources to deliver pork-barrel spending than representatives from at-large districts.[84] In Iran, resource-rich MPs from MMDs do not consider their constituency to extend across the whole district. In a resource-rich district such as Ahvāz, Khuzestān, for example, which has three seats in parliament, incumbents have fared poorly in the last four elections. During the 2000 and 2004 parliamentary elections in particular, not one incumbent running for office was reelected. Part of the difficulty in winning reelection is that from the perspective of an incumbent MP, spending resources across the entire district is wasteful given that he or she only needs to be among the top three vote-getters to remain in office. As Thomas Lancaster notes, "A free-rider problem among representatives theoretically exists in multi-member districts. There are few incentives for the individual representative to obtain projects for his district as the multi-member district's other representatives claim the credit as well."[85] There is still likely to be patronage spending targeted to specific voting blocs within multimember districts such as Ahvāz, but the data suggest that it is not enough to retain of-

[84] Lancaster 1986; Powell 2000; Moser and Scheiner 2012.
[85] Lancaster 1986, 70–71.

fice given that incumbents typically fare worse even in resource-rich multimember districts.

The statistical evidence, along with a brief two-district analysis, support the three hypotheses. Deputies running in resource-rich single-member districts have higher incumbency reelection rates than those running in resource-poor districts or in resource-rich multimember districts, which is consistent with deputies (from either SMDs or MMDs) providing more health and education goods and more patronage jobs in resource-rich provinces than in resource-poor provinces. I also show weaker evidence that deputies in provinces with more public goods and patronage levels have higher incumbent reelection rates.

Discussion

What other factors could be driving the pattern between resources and incumbent reelection? In this section, I discuss a possible alternative explanation based on ethnic politics and postwar reconstruction efforts. In the supplementary material I address two additional alternatives based on candidate vetting and challenger characteristics.

Given that some resource-rich provinces are also ethnically heterogeneous, it could be the case that these provinces have higher incumbent reelection rates for reasons relating to ethnic politics and not because they contain natural resources. For example, Khuzestān is more than 50 percent ethnically Arab, and Ilām is composed of Kurds, Lurs, and Laks. Ethnic minorities in resource-rich regions could be voting along coethnic lines.[86] If this is the case, these districts should be expected to have higher incumbent reelection rates for reasons related to coethnic voting patterns and not to natural resource wealth. Though the regressions above contain a dummy variable for provinces that are more than 50 percent ethnically non-Persian, the crudeness of the measure may not capture the subtleties of the impact of ethnicity on legislative elections or the degree of ethnic heterogeneity.

One way to address this issue is with a detailed comparison of incumbent reelection rates within a resource-rich province between districts with high concentrations of ethnic minorities and districts predominantly made up of ethnic Persians. The most resource-rich province in Iran is undoubtedly Khuzestān, which is comprised of ethnic Arabs, Lurs, Persians, and various smaller tribes. If ethnic politics is an explanation for the resource-incumbency relationship, then we expect to see

[86] Birnir 2007, 10.

that within Khuzestān, predominantly Arab districts should have higher incumbent reelection rates than the predominantly Persian districts. Looking at six elections between 1988 and 2008, there is no empirical support for this pattern: on average, Persian districts[87] actually have higher incumbent reelection rates (42.9 percent) than Arab districts[88] (39.7 percent), though this difference is not statistically significant in a simple two-sample *t*-test.[89] A more conservative conclusion is that incumbent reelection rates are the same on average across both groups.[90]

A second issue is the ethnic fragmentation caused by the eight-year war with Iraq and postwar emigration patterns. Regarding Khuzestān specifically, Kaveh Ehsani's work shows that many of the ethnic Persians currently in the province immigrated there after the war, with some allegations that the government sponsored this migration to dilute the predominance of indigenous Arabs.[91] The resulting socioethnic fragmentation can have a complex effect on electoral politics, with specific ethnic groups choosing to reelect their coethnic incumbents in order to prevent outright dominance by any one ethnic faction.[92] Further, the state embarked on a plan to reconstruct war-damaged areas by sending financial resources and building infrastructure to the localities hit hardest by Saddam Hussein's forces.

This alternative hypothesis does not necessarily imply that public goods distribution by MPs, as I argue, is conflated with public goods distributed by the central government for reconstruction. Because resource-rich provinces in Iran are also the same provinces that are ethnically fragmented because of the war, notably Khuzestān and Bushehr, it may be difficult to differentiate between these mechanisms. However, after removing Khuzestān and Bushehr from the statistical analysis, the results still suggest a relationship between resources and incumbency

[87] Persians make up the plurality in these districts: Andikā, Andimashk, Bāgh-e Molk, Behbahān, Dasht-e Āzādegān, Dezful, Haftgol, Hoveyzeh, Ideh, Lāli, Masjed Soleimān, Rāmhormoz, Rāmshir, and Shūsh.

[88] Arabs make up the plurality in the following districts: Ābādān, Ahvāz, Bandar Māhshahr, Gotvand, Hendijān Shūshtar, Khoramshahr, Omidie, Shādegān, and Shūsh Dāniāl.

[89] The national average over this period is 31.8 percent.

[90] A second pattern we expect to see if ethnic Arab politics are driving high incumbent reelection rates is that predominantly Arab districts in resource-poor provinces should have high reelection rates similar to those in resource-rich Khuzestān. In Hormozgān province, Arabs make up the majority in the Bandar Langeh and Hāji Ābād districts. Hormozgān is not resource rich—it does not receive resource revenue allocations for offshore petroleum fields. Though the sample size is quite small, incumbents in resource-poor Arab districts (in Hormozgān, for example) are reelected on average only 29.2 percent of the time, while incumbents in resource-rich Arab districts (such as Khuzestān) are reelected 40.0 percent of the time.

[91] Ehsani 2003; Ehsani 2009.

[92] Tohidi 2009 and Sanasarian 2000 make this case for why incumbent Azeris and Kurds fare better than Persians in the western and northwestern provinces.

reelection, albeit now at the 10 percent level of statistical significance.[93]

Additionally, Hooshang Amirahmadi's economic estimates of the war reconstruction effort suggest that state expenditures for reconstruction (roughly $57 billion or 3.7 trillion rials by 1990) were targeted in proportion with the estimated war damages to specific sectors—55 percent of the war's $310 billion (19.9 trillion rials) in damages related directly to petroleum infrastructure, while only 4 percent of damages related directly to housing, roads, telecommunications, and education combined.[94] This is strategically aligned with state reconstruction plans, which prioritized rebuilding war-damaged oil assets.[95] It implies that while Khuzestān was indeed getting the lion's share of national spending on war reconstruction—given its prominent role in the petroleum industry—state spending on public goods was directed not toward goods that would affect the general voting public but rather toward goods that would benefit the nonlabor-intensive petroleum sector. In other words, it is not clear why voters would reward MPs at the ballot box for centrally planned state expenditures that were largely irrelevant to the average Khuzestāni voter.

As for socioethnic fragmentation due to migration patterns, if this phenomenon were the root cause of incumbent reelection instead of the natural resources argument advanced in this article, we should expect other areas experiencing mass migration as a result of the war to also exhibit higher-than-average incumbent reelection rates. While the war undoubtedly altered the demography of Khuzestān, the same can be said of the city of Mashhad. Whereas Persians migrated to Khuzestān after the war, non-Persians from the front migrated to Mashhad, given that it is the biggest city farthest from the Iraqi border. The outcome for Mashhad was ethnic heterogeneity where there was once homogeneity. Prior to the war, ethnic Persians made up nearly the entire population of the city. Today, it is a mix of Persians, Kurds, Arabs, and Turks. If indeed socioethnic fragmentation caused by postwar migration increased incumbent reelection prospects, we should expect electoral success for incumbent Mashdi MPs. The data show the opposite pattern. Since the 1992 elections, only five incumbents have been reelected out of a possible twenty-five seats (five seats per election over five elections). Three of these incumbents—Efat Shari'ati-

[93] These results are presented in Table B.9 in the supplementary material; Mahdavi 2015. In addition, Table B.10 shows similar results when removing Bushehr and Kohgiluyeh and Boyer-Ahmad, two resource-rich provinces with only single-member districts.

[94] Calculated based on Amirahmadi 1990, 31.

[95] Calculated based on Amirahmadi 1990, 32–34.

Kuh-Banāni, Javād Arin-Manesh, and Mohammad Rezā Fāker—held their seats in the 2008 elections, meaning that of the twenty previous opportunities for incumbents to hold their seats, only two were successful (Seyyed Hāshem Bi-Hāshemi in 1992, and Qodsiye Seyyedi-Alavi in 1996). This is all the more surprising considering the mass influx of state expenditure in the city since 1988, given its stature as the only Iranian city enshrining one of the twelve Shi'a Imams, the spiritual and political successors to the prophet Muhammad. Yet, as in the case of funding for war reconstruction in Khuzestān, little revenue was targeted by the central government for education, health, and housing. The money from the center went instead toward developing the Imām Rezā Shrine and the airport. Viewed in this light, it is no surprise that MPs from Mashhad could not retain office; with more discretionary revenue at their disposal, perhaps their electoral fortunes would have been altered.

Because of the lack of reliable data on socioethnic fragmentation and district-level spending on war reconstruction in Iran, it is difficult to make strong claims to refute rival explanations based on ethnic politics and the eight-year war with Iraq. In particular, restricting an analysis of ethnic politics to one of ethnically Persian versus non-Persian ignores the rich complexity of ethnic heterogeneity. Unfortunately, data are not available on the degree of ethnic heterogeneity within districts or provinces, so a proper analysis of socioethnic politics in the context of incumbent reelection remains to be seen.[96] Further research on ethnic politics in Iranian parliamentary elections is needed before reaching a meaningful conclusion on how ethnicity affects incumbent reelection in resource-rich provinces.

Conclusion

In this article, I show that incumbent parliamentarians in a developing authoritarian regime use oil and mineral wealth to prolong their tenure in office. By testing mechanisms proposed by resource curse scholars within a subnational nondemocratic context, this work provides insights into the study of electoral authoritarianism within a resource-rich setting. Specifically I show that by using discretionary funds in the form of natural resource revenues, Iranian MPs distribute public and

[96] The works of Kaveh Ehsani, Nayereh Tohidi, and Eliz Sanasarian similarly find this issue frustrating within the Iranian context; even specific analyses of Iranian presidential elections, such as the work by Gheissari and Sanandaji, can do no better than dividing districts and provinces into Persian versus non-Persian.

private goods to constituents in order to increase their probability of reelection. The strongest effects of resources on incumbency reelection are observed in single-member districts, with little evidence of a statistical relationship in multimember districts. Thus, one mechanism driving the resource-incumbency relationship is based on electoral institutions that foster personal connections with voters. By spending on patronage appointments and delivering targeted public goods spending to their constituents, incumbent MPs in resource-rich single-member districts perform better at the polls than incumbents in resource-poor or multimember districts.

Methodologically, I analyze the effects of resource wealth on incumbent reelection chances in a way that is not susceptible to claims of reverse causality, as has been the case in much of the resource curse literature that links resource wealth to incumbency durability. Because Iranian deputies have no authority over production decisions or over how much resource revenue their districts will receive, their decisions on how to spend the money to their advantage cannot affect how much revenue they will be allocated from natural resource production in the future.

Studying Iranian politics presents many challenges to making refined inferences. Throughout this article, I highlight several weaknesses, either based on data availability at the microlevel of analysis or on how little we know about the intricacies of the Iranian political system. Important questions remain about how ethnic heterogeneity can affect politics at the local level and how individual voters in Iran perceive the responsibilities of politicians at different levels of government. Further, there are dimensions of the process of mobilizing votes and distributing state revenues that remain to be uncovered by ensuing inquiries. Importantly, the role of labor mobilization in the oil sector and the careful attention paid by the central government to political happenings in oil-rich Khuzestān are discussions that can be fruitfully addressed by future research on the subnational politics of oil in Iran.

That resources are so geographically concentrated in Iran also creates difficulties in inferring the relationship between resources and incumbency. The findings are primarily driven by three resource-rich provinces in the southwest: Bushehr, Khuzestān, and Kohgiluyeh and Boyer-Ahmad. By removing the ninety-five seat elections in these provinces from the 1,075 seat-elections sample, the results no longer show a statistically significant relationship between resource wealth and incumbency advantage. Indeed, these are the top three resource-producing

provinces in the country, accounting for 75.8 percent of Iran's GDP from natural resource production. Replicating this analysis in other countries with more geographical variance in subnational resource wealth will help to strengthen the proposed connections between natural resources, electoral institutions, and incumbency reelection.

Nearly all scholars of the Iranian government stress the parallel nature of politics in the Islamic Republic.[97] On one side there is the known structure of authority based on the hierarchies of the system, from the supreme leader to the Guardian Council and judiciary to MPs and the president and on down to village councilmembers. On the other side there is the unknown, and scholars can only speculate about the power dynamics of groups such as the Revolutionary Guards, paramilitary forces (*basij*), and the all-encompassing bonyād organizations. This article attempts to understand politics within the framework of the known Iranian political system, but its weaknesses derive largely from the inability to refute rival explanations stemming from the unknown, such as the true fiscal power of Parliament when compared to the bonyād system. Future research on Iranian politics will need to better understand the unelected tiers of government in Iran and the many quasi-state organizations that make up the fabric of Iranian political society.

Supplementary Material

Supplementary material for this article can be found at http://dx.doi.org/10.1017/S0043887114000392.

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[97] Baktiari 1996; Moslem 2002; Keshavarzian 2005; Gheissari and Sanandaji 2009.

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