Do Politicians Profit from Real Estate?*

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Abstract

Using a newly constructed dataset of US politicians' real estate transactions, we show that between 1994 and 2017, politicians in office outperformed average homeowners and election runners-up by over 3 percentage points—a stark contrast to their performance in equity markets. This advantage, which disappears after leaving office, suggests that political tenure—not superior skill—drives their outperformance. Our findings illustrate how, even in systems with strong electoral accountability, politicians may exploit less transparent markets through strategic timing, location choices, and federal resource allocations. These results underscore the need for greater transparency to safeguard public trust in democratic institutions.

JEL Classification Codes: E43; G21; J11.
Keywords: Real estate, housing returns, US Congress, politicians

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1 Introduction

Public trust in government institutions rests on the belief that elected officials serve the public interest rather than their own financial gain. In recent years, lawmakers have introduced significant measures to prevent politicians from profiting through transactions in public equity markets.[1] At the same time, high-profile investigations have uncovered troubling instances of public officials engaging in financial transactions that coincide suspiciously with policy decisions.[2] Yet, despite widespread anecdotal evidence and public skepticism, academic research on US politicians' financial behavior has primarily found limited evidence of systematic outperformance in equity trading. This lack of conclusive findings has reinforced a narrative that strict electoral accountability in the US curbs financial misconduct by politicians.

In this paper we challenge this narrative by shifting attention from public equity markets to real estate—a less transparent asset class that provides greater potential for exploitation. Despite its importance in wealth accumulation, real estate has remained largely overlooked as a channel through which politicians can profit from public office. To examine this issue, we construct a novel dataset of real estate transactions involving US politicians, meticulously compiled from a diverse range of publicly available records. This dataset enables a comprehensive investigation of whether politicians achieve abnormal returns in real estate during their time in office.

Our main finding is striking: between 1994 and 2017, US politicians in office earned an annual return of 7.3 percent in real estate, significantly outperforming the average homeowner (4.2 percent) or election runners-up (4.3 percent)—a notable contrast to their modest performance in public equity markets. This result holds true even in close elections. Importantly, this excess return vanishes after leaving office, underscoring the critical role of political tenure rather than superior investment skill.

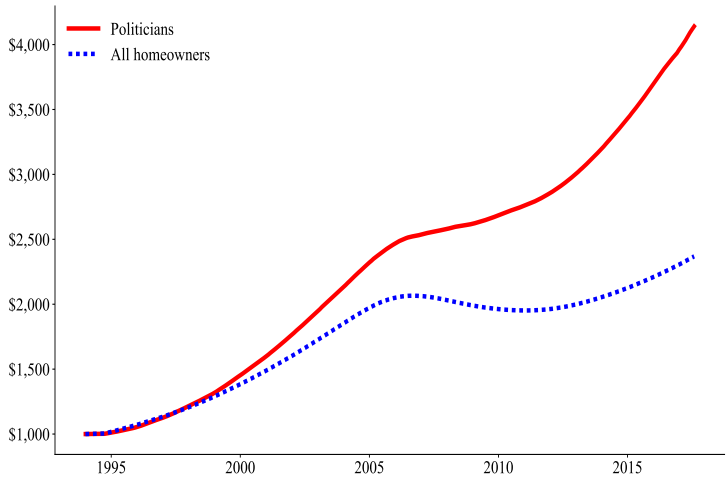
Figure 1 compares the cumulative performance of a portfolio that mimics politicians' real estate returns to that of the US real estate market. As the figure shows, an investment of

[1] See, e.g., the 2012 Stop Trading on Congressional Knowledge (STOCK) Act, which establishes strict disclosure requirements for Congress members (https://www.congress.gov/bill/112th-congress/senate-bill/2038), and the proposed Ending Trading and Holdings In Congressional Stocks (ETHICS) Act, which prohibits members of Congress from trading in individual stocks (https://www.congress.gov/bill/118th-congress/senate-bill/1171).

[2] A 2023 *Wall Street Journal* investigation found that "[t]housands of officials across the government's executive branch reported owning or trading stocks that stood to rise or fall with decisions their agencies made" (https://www.wsj.com/articles/government-officials-invest-in-companies-their-agencies-oversee-11665489653).

Figure 1: Real estate performance of politicians vs. all homeowners

The first portfolio (red solid line) tracks the performance of real estate holdings of all politicians in office. The second portfolio (blue dashed line) tracks the performance of real estate holdings of all homeowners. Portfolios are rebalanced monthly and returns are equal-weighted.



$1,000 in the politicians' mimicking portfolio in January 1994 would have accrued to $4,140 at the end of 2017, compared to $2,369 for an equivalent investment in the aggregate US real estate market. Our analysis shows that this outperformance is driven by market timing, strategic property location choices, and political influence over resource allocation. These results reveal how even in systems with strong electoral accountability, politicians may exploit less transparent markets, emphasizing the need for reforms that extend financial disclosures and oversight to real estate transactions.

We provide several pieces of evidence suggesting that the politicians' excess return is due to their time in office, as opposed to unobserved skills or resources. First, election winners during their time in office earn a statistically significant return that is 3.0 percentage points higher than that of runners-up after losing an election, even in close elections. Second, high returns last only while politicians are in office. After leaving office, politicians' returns are statistically identical to those of average homeowners. Third, politicians outperform other potentially skilled investors, such as financial advisors and medical doctors. These findings align with those of Fisman, Schulz, and Vig (2014), who examine Indian state politicians and report that the annual asset growth of election winners exceeds that of runners-up by 3 to 5 percentage points. This parallel is particularly striking given that the US is typically

regarded as significantly less corrupt.[3]

To understand the sources of this superior performance of politicians, we compare the excess returns of various groups of politicians relative to the average homeowners. We find that candidates for office, regardless of whether they eventually win or lose elections, have significantly higher returns before elections: election runners-up and winners have excess returns of 4.2 and 3.9 percentage points, respectively. Because we are conditioning on participating in an election *ex-post*, this result indicates that successful real estate investment may affect the choice to run for office in the first place. The aforementioned difference in post-election returns whereby winners outperform runners-up by 3.0 percentage points on average also holds for subsamples of local politicians and Congress members; and returns on residential and investment properties. These results suggest that politicians do benefit from their real estate transactions while they are in office.

We consider four possible channels that could explain the observed outperformance of politicians while in office: (i) *investor sophistication*: politicians may be more savvy real estate investors, or real estate developers; (ii) *superior information*: politicians may be privy to better information about future house prices or location quality, where the information is related to being in office, as opposed to general sophistication; (iii) *political influence*: politicians may divert government resources to increase the value of areas where they own real estate; (iv) *side-payments or celebrity*: politicians may receive transfers under the guise of higher capital appreciation, either in return for favors, or simply because some people overpay for a home that previously belonged to a famous politician.

We can reject that investor sophistication is the driver of excess performance based on three tests. First, election winners outperform runners-up—even in close elections—despite similar performance pre-election. This result is well identified due to the randomness of close election outcomes. Second, the outperformance vanishes once politicians leave office. Third, the returns of politicians in office are significantly higher than those of other sophisticated investors, such as investment advisors, medical doctors, and judges. Based on these findings, we conclude that it is the nature of their political office, rather than investor sophistication, that drives the excess return.

To examine the presence of a possible superior information channel, we investigate the location-picking and market-timing abilities of politicians. For this purpose, we condition our analysis on property locations and transaction timing. Focusing on politicians who are

[3]For example, in the 2023 Transparency International Corruption Index (https://www.transparency.org/en/cpi/2023), the US ranks 24th while India 93rd.

in office, we find that the combination of market timing and location-picking at the ZIP code level, explains 77% of the outperformance, leaving just 23% attributable to hyper-local factors, e.g., the choice of a Census tract or an individual house. This implies that side-payments are unlikely to be the main driving force. On the other hand, these results are consistent with both politicians receiving superior information about good times and good locations to buy or politicians using their influence to affect home values in a location and time period.

To further explore the superior information channel we construct a Buy-Minus-Sell index of politicians' transactions each quarter and examine whether the index has predictive power for real estate returns. We find that the index based on transactions made while politicians are in office positively and significantly predicts local housing returns. In contrast, the index based on transactions after politicians leave office does not. We conclude that either the time in office provides useful information about expected returns in real estate markets for politicians or that time in office allows politicians to influence house prices in location where they own real estate. These predictability results are similar for both local and national politicians, ruling out the possibility that only those serving in Washington, D.C., have access to special information. The predictive power of the index of transactions while in office is in stark contrast to Cheng, Raina, and Xiong (2014), who build a similar index for financial professionals and find no return predictability.

To explore the possible existence of a political influence channel we investigate whether government resources are more likely to be directed to locations where politicians own real estate. We consider two examples of government resource allocation: intergovernmental transfers and designation of Opportunity Zones. The growth of intergovernmental transfers from the federal government is significantly higher in counties where Congress members own properties. In contrast, we find no relationship between local politicians' properties and Federal transfers. Although the dollar amounts are relatively small, this result suggests that politicians in our sample either direct government funds to places where they own properties or make use of superior knowledge about such transfers. We also find marginally significant evidence that census tracts with more politician-owned properties are more likely to be selected as Opportunity Zones.

Finally, we explore the possibility that capital appreciation could be artificially inflated either through explicit side-payments, or through the overpayment for a politician's property due to their celebrity status. We do so by testing whether the counterparties of politicians earn systematically lower returns. We do not find this to be the case for transactions oc-

curring before elections or while politicians are in office, but we do find that counterparties who transact with former politicians underperform by 2.4 percentage points per year. Our analysis does not allow us to separate explicit side-payments from the celebrity channel.

In summary, our findings reveal that US politicians achieve significant excess returns in the opaque real estate market while in office. This contrasts with prior studies showing little to no advantage for politicians in more transparent markets, like equities. Our results underscore the unique opportunities that less transparent asset classes, such as real estate, offer to politicians with access to privileged information. An implication of our findings is that enhancing transparency in these asset classes is crucial not only for promoting the well-functioning of markets but also for safeguarding public trust in elected officials and, ultimately, the proper functioning of democracy.

Related Literature. Our paper contributes to the literature on the trading behavior and wealth of politicians. Within the US, this research has primarily focused on equity trading by members of Congress, leading to regulatory reforms. While several studies have found little evidence of outperformance in Congress members' equity portfolios, these studies focus on a transparent asset class: public equities.[4] In contrast, our paper is the first to examine a more opaque asset class: real estate. Unlike much of the prior work, we find significant outperformance.

Outside of the recent US experience, there is more prevalent evidence of abnormal wealth accumulation by politicians. Comparing politicians who narrowly won to those who narrowly lost in UK general elections between 1950 and 1970, Eggers and Hainmueller (2011) show that becoming a Conservative (but not Labor) Member of Parliament leads to a near doubling of wealth through one's lifetime. Querubin and Snyder (2013a) show that narrowly winning a US Congressional seat in 1860–1870 increased one's wealth by 40% compared to losing, however there was no difference between winners and losers in the subsequent 20-year period. Bhavnani (2012) and Fisman, Schulz, and Vig (2014) perform a similar exercise in India and show that winning an election is associated with an annualized election-related wealth growth premium between 4–6 and 3–5 percentage points, respectively. Finally, Berg (2020) examines the growth in disposable income of politicians who narrowly won a ballot in Sweden

[4]See, for example, Lenz and Lim (2009), Eggers and Hainmueller (2013, 2014), Cherry, Heitz, and Jens (2018), Huang and Xuan (2018), Karadas (2018), and Belmont, Sacerdote, and Van Hoek (2020). Earlier work by Ziobrowski, Cheng, Boyd, and Ziobrowski (2004, 2011) found abnormal profits among Congress members, but Eggers and Hainmueller (2013, 2014) argue this is limited to a short time series and a small number of Senators.

and finds little evidence that these politicians outperform in both the short and long run. These papers, including our own, are part of a growing literature on forensic finance (see Griffin and Kruger, 2024, for an overview of this literature). A key contribution of our paper is to show that one source of abnormally fast wealth accumulation for US politicians is real estate investments. A second contribution of our study is the construction of a unique dataset, which enables us to rigorously analyze these real estate transactions and uncover insights not previously explored in the literature.

Our paper is also related to the large literature that studies the returns of individual real estate investors.[5] Cheng, Raina, and Xiong (2014) study the real estate investments of financial industry professionals around the time of the US financial crisis. They use a "Buy-Minus-Sell" index to document a generally mediocre performance of financial professionals. Using a similar methodology applied to politicians' real estate transactions we find instead that, unlike financial industry professionals, the politicians' index significantly predicts future housing returns. The limitation of using a "Buy-Minus-Sell" index is that it only allows us to detect politicians' market timing ability, but not other sources of excess returns, such as side-payments or location picking. To explore these potential sources of outperformance, in our analysis we mainly focus on returns computed from repeated sales. We compute repeated sales returns from transaction data following the methodology of Goldsmith-Pinkham and Shue (2020). They show that men earn an annual return 1.5 percentage points higher than women, and attribute nearly half of the return differential to gender differences in location and timing. Using a similar methodology, O'Connor, Norwood, Kim, and Shen (2018) find that female homebuyers pay an average 2 percentage point premium relative to males. We find larger effects: politicians earn an unconditional excess return of 3.1 percentage points per year relative to the average homeowner. An interesting difference between our findings and those in Goldsmith-Pinkham and Shue (2020) is that while the outperformance by men seems to be concentrated at the property level, most of the politicians' outperformance comes from market timing at the Metropolitan Statistical Area (MSA)-level. One drawback of both the index and the repeated sales methodologies is that returns are limited to price appreciation or capital gains.

Finally, our paper is broadly related to the large literature that studies the connections between politicians and firms. The large political economy literature that explores the mechanisms underlying corruption and crony capitalism shows that both politicians and firms

[5]See, e.g., Flavin and Yamashita (2002); Chinco and Mayer (2015); Giacoletti and Westrupp (2017); Wong, Deng, and Chau (2018); D'Lima and Schultz (2020); Bayer, Geissler, Mangum, and Roberts (2020); Cvijanović and Spaenjers (2020); Bracke (2021).

benefit financially from exchange relationships. On the one hand, firms might benefit from political connections through higher stock market valuations, earnings, bailouts, or better access to procurement contracts.[6] On the other hand, politicians might benefit financially from ties to firms through bribes, political donations, increased hiring or lending in election years, or after-office rewards such as directorships on corporate boards.[7] Our study of US politicians' real estate returns complements this broader literature by highlighting that the financial advantages politicians gain from their office are not limited to corporate ties but also extend to opaque asset classes like real estate, where political influence and privileged information can yield substantial personal wealth.

The rest of the paper proceeds as follows. Section 2 describes the data. Section 3 describes the empirical methodology and presents our main results. Section 4 discusses the potential channels underlying politicians' outperformance. Section 5 concludes. A Supplemental Appendix describes the construction of the database of politicians' real estate transactions and additional results that are referenced in the main text.

2 Data

We construct a novel dataset of real estate transactions involving US politicians by combining several freely available data sources. Our primary source is Zillow's transaction data, which provides a comprehensive record of real estate transactions dating back to the 1990s. A key challenge of our dataset construction is the identification of real estate transactions that involve politicians. The following subsections describe the construction of our dataset.

[6] See, e.g., Roberts (1990); Fisman (2001); Ansolabehere, Snyder, and Ueda (2004); Khwaja and Mian (2005a); Faccio (2006); Jayachandran (2006); Goldman, Rocholl, and So (2008); Ferguson and Voth (2008); Benmelech and Moskowitz (2010); Bertrand, Kramarz, Schoar, and Thesmar (2018); Claessens, Feijen, and Laeven (2008); Cohen, Coval, and Malloy (2011); Cohen, Diether, and Malloy (2013); Cole (2009); Cooper, Gulen, and Ovtchinnikov (2010); Correia (2014); Desai and Olofsgard (2011); Dinc (2005); Duchin and Sosyura (2012); Faccio, Masulis, and McConnell (2006); Faccio and Parsley (2009); Goldman, Rocholl, and So (2013); Johnson and Mitton (2003); Khwaja and Mian (2005b); Leuz and Oberholzer-Gee (2006); Sapienza (2004); Stratmann (1995); Tahoun (2014); Tahoun and van Lent (2018); Bertrand, Bombardini, Fisman, Trebbi, and Yegen (2024).

[7] See, e.g., Shleifer and Vishny (1993), Haber (2002), Kang (2002), Diermeier, Keane, and Merlo (2005); Dal Bó, Dal Bó, and Di Tella (2006); Eggers and Hainmueller (2009); Lenz and Lim (2009); Querubin and Snyder (2013b), Thiessen and Schweizer (2011). In a recent study, Chen and Kung (2019) provide evidence that Chinese firms connected to members of the Politburo ("princeling firms") obtain price discounts on land purchases ranging from 55% to 60% and, in return, provincial officials who provide such discounts are 22% more likely to be promoted to position of national leadership.

2.1 Real estate transaction data

The Zillow Transaction and Assessment Dataset ("ZTRAX") contains a history of property transactions, as well as detailed home characteristics from more than 400 million public records across over 2,750 counties.[8] Zillow gathers this information from publicly available sources such as deed transfers, mortgages, foreclosures, auctions, and property delinquencies. This dataset contains information about properties (e.g., location, size, etc.) and transactions (e.g., date, names of buyer and seller, etc.). ZTRAX has been used and described in prior literature (e.g., Baldauf, Garlappi, and Yannelis, 2020).

We use these "one-way" transactions from the ZTRAX dataset to construct "two-way" transactions, that is, round-trip transactions consisting of a purchase and a sale of the same property. Appendix A.2.1 describes the details of the construction of the ZTRAX two-way transaction dataset.

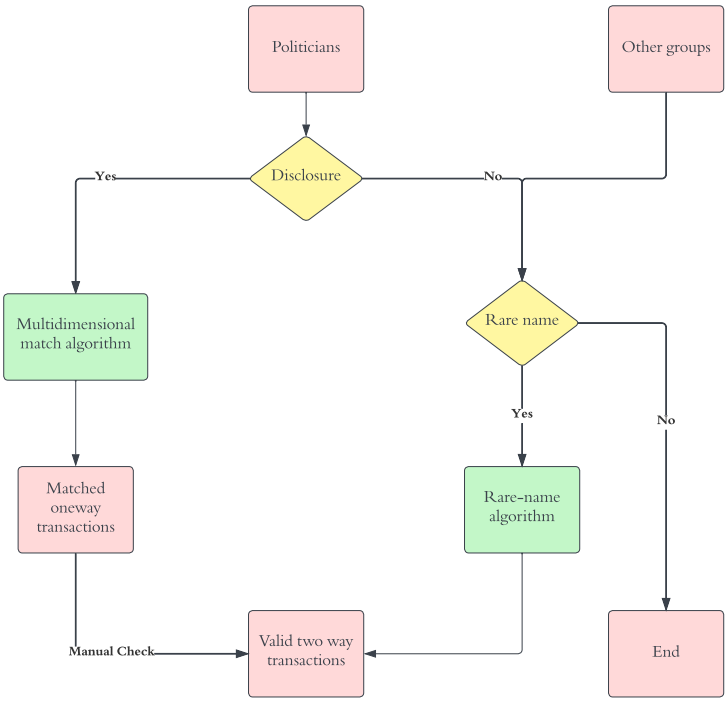
2.2 Real estate transactions of politicians

We define as politicians all individuals who ran for US public office, either at the Congressional or local level. We obtain candidate names from a number of sources. Specifically, we obtain data on Congressional elections from the MIT Election Data Science Lab; data on county legislative elections and fiscal policy in medium and large counties from de Benedictis-Kessner and Warshaw (2020); and data on mayoral elections from de de Benedictis-Kessner (2018). This gives us a total of 22,435 politicians: 5,838 at the national level (1,497 winners and 4,341 runners-up) and 16,597 at the local level (8,449 winners and 7,148 runners-up).

For each politician, we then identify real estate transactions. First, we obtain all available financial disclosures of a politician which contain, among other assets, also real estate holdings. If financial disclosures are unavailable, we use information such as the politician's name to match transactions. In the next two subsections we describe the procedure we use to identify real estate transactions of politicians. Figure 2 shows the structure of our search algorithm.

[8] At the time of our analysis, ZTRAX was made available free of charge to academics. Since then, that program has been terminated.

Figure 2: Search algorithm for politicians' real estate transactions



2.2.1 Transactions based on financial disclosure reports

Certain politicians such as Congress members are required to file Financial Disclosure Reports by the Ethics in Government Act of 1978. The reports are filed each year, and contain a summary of all of the Congress members' assets as well as financial transactions. Declared transactions also contain those in the name of shell companies a politician may have used. We obtain these reports from the Center of Responsible Politics (*OpenSecrets*), a nonpartisan and independent research group with the mission of "tracking money in US politics and its effect on elections and public policy."[9] Figure 3 illustrates an excerpt from the 2018 personal finance declaration of California's Congress Member Nancy Pelosi.

We collect 15,185 reports for 1,251 Congress members who served in the 105th–116th Congresses. We read through 12,225 documents (including amendments), for 1,016 Congress members from 36 states and the District of Columbia, and identify up to 4,931 unique real estate assets out of which 2,242 properties have full address information.[10] Section A.1 of

[9] https://www.opensecrets.org/about/

[10] Some states do not require transaction prices to be publicly disclosed and, as a result, the vast majority

Figure 3: Excerpt of politicians' personal financial disclosure

This figure shows an excerpt of Schedule A from the 2018 personal finance declaration of Congress member Nancy Pelosi (California). Source: OpenSecrets.org

Filing ID #10026982

FINANCIAL DISCLOSURE REPORT

Clerk of the House of Representatives • Legislative Resource Center • 135 Cannon Building • Washington, DC 20515

FILER INFORMATION

Name: Hon. Nancy Pelosi
Status: Member
State/District: CA12

FILING INFORMATION

Filing Type: Annual Report
Filing Year: 2018
Filing Date: 05/15/2019

SCHEDULE A: ASSETS AND "UNEARNED" INCOME

Asset	Owner	Value of Asset	Income Type(s)	Income	Tx. > $1,000?
11 Zinfandel Lane - Home & Vineyard [RP]	JT	$5,000,001 - $25,000,000	Grape Sales	$100,001 - $1,000,000	☐
LOCATION: St. Helena/Napa, CA, US					
25 Point Lobos - Commercial Property [RP]	SP	$5,000,001 - $25,000,000	Rent	$100,001 - $1,000,000	☐
LOCATION: San Francisco/San Francisco, CA, US					
45 Belden Place - Four Story Commercial Building [RP]	SP	$5,000,001 - $25,000,000	Rent	$100,001 - $1,000,000	☐
LOCATION: San Francisco/San Francisco, CA, US					
Amazon.com, Inc. (AMZN) [OP]	SP	$500,001 - $1,000,000	None		☑
DESCRIPTION: 20 call options with a strike price of $1700 with an expiration date of 1/17/20 and 30 call options with a strike price of $1600 with an expiration date of 1/17/20.					

the Supplemental Appendix provides further details of the procedure we follow to identify US Congress members' real estate assets from their financial disclosure reports.

To obtain real estate transactions, we proceed in three steps. First, we search ZTRAX for transactions reported by Congress members in their financial disclosures. Second, we build an algorithm to search ZTRAX for any potential transactions made by the Congress member (not just declared transactions), using the declared transactions to better target our search. Third, we manually check those transactions found by the algorithm and keep only

of transaction prices in these states are missing in the dataset and we cannot compute returns for these transactions. Specifically, we exclude the following states from data collection: Alaska, Idaho, Indiana, Kansas, Mississippi, Missouri, Montana, New Mexico, North Dakota, Texas, Utah, Wyoming, Maine, and South Dakota. We also exclude Maine and South Dakota because, even though they are states with mandatory disclosure, only 1.7% and 33.5% of their transactions have valid prices ($\geq$\$10,000) in the ZTRAX database. In contrast, we do not exclude Louisiana, even though it is not a state with mandatory disclosure, because 71.2% of transactions in Louisiana have valid prices recorded in the ZTRAX database.

those that we can confidently attribute to a Congress member.[11]

Using this algorithm, we first cast a wide net and attribute to Congress members 1,122,294 potential *one-way transactions*, i.e., transactions that possibly list a Congress member as either the buyer or seller. Then, following the steps described in Section A.1.2 of the Supplemental Appendix, we manually check these transactions to construct valid one-way transactions, i.e., transactions that we are confident belong to a Congress member. Finally, we construct *two-way transactions*, i.e., two consecutive valid one-way transactions that each involve the same Congress member. This procedure leaves us with 640 two-way and 6,734 one-way Congress member transactions.

2.2.2 Transactions based on direct search

When financial disclosures are not available for a politicians—typically in the case of election runners-up, or politicians at the municipal or local levels—we search for their real estate transactions directly in ZTRAX. To improve the quality of the name search we restrict this process to politicians with rare names.[12] We define a rare name as one that meets two conditions: (i) the last name frequency is less than 5 out of 100,000; and (ii) the national expected occurrence of the first-last name pair is less than 10.[13] This leaves us with 1,451 politicians who lost Congressional elections, 4,681 participants in county elections (2,266 winners and 2,415 runners-up), and 1,563 participants in mayoral elections (788 winners and 775 runners-up). To further improve the match quality, we limit the search to the election location. If the election location, either county or city, is available, we require the matched property to be within 100 kilometers of the centroid of that location.[14] Section A.2.2 of the

[11] Our team, along with multiple research assistants, meticulously reviewed the reports for each Congress member. We ensured accuracy by thoroughly crosschecking our data against any publicly available sources, including Wikipedia, obituaries, newspapers, etc. This allowed us, for example, to associate spouses and other family members to a politician's record.

[12] A similar methodology is used, for example, by Griffin, Kruger, and Mahajan (2024). While it may seem counterintuitive, rare names are actually quite frequent as a fraction of the population. This is because in the US, in total, there are many more people with rare names like Baldauf, Favilukis, or Garlappi, than there are people with a common name like Zheng. In ZTRAX, 23.28% of all transactions are made by people with rare names.

[13] The national expected occurrence of the first-last name pair is computed as $\omega_i^{\text{First}} \times \omega_j^{\text{Last}} \times N_{2010}$, where $\omega_i^{\text{First}} := \sum_{t=1940}^{1990} C_{i,t}^{\text{First}} / \left(\sum_i \sum_{t=1940}^{1990} C_{i,t}^{\text{First}} \right)$ is the frequency of the first name i over the 1940–1990 period, computed using the count $C_{i,t}^{\text{First}}$ of first name i in year t from the distribution of baby names compiled by the Social Security Administration; $\omega_j^{\text{Last}} := C_j^{Last} / \sum_j C_j^{Last}$ is the frequency of the last name j computed using the count C_j^{Last} from the 2010 Census; and N_{2010} the total US population in 2010.

[14] For Congressional elections and judges, a granular location measure is not available. Therefore, in those cases, we limit the transaction search to their respective states.

Supplemental Appendix contains further details of the rare-name algorithm.

In sum, we find 1,573 two-way transactions for politicians without disclosure reports. Of these, 589 belong to election winners (455 county and 134 city winners), and 984 belong to runners-up (329 Congress, 489 county, and 166 city runners-up). Including the 640 Congress members winners identified in Section 2.2.1, our final dataset of politicians' transactions consists of 1,229 (= 589+640) two-way transactions by election winners and 984 transactions by runners-up.

2.3 Real estate transactions of non-politicians

In addition to all households, another control group of non-politicians consists of investment advisors, medical doctors, and judges. To construct the real estate returns of transactions by members of this group, we use the same rare-name algorithm described in Section 2.2.2. We collect the names of investment advisers from Investment Adviser Information Reports, the names of doctors from the state medical boards,[15] and the names of judges from CourtListener, a non-profit free legal search engine. We find 365,367, 180,500 and 11,342 unique names for investment advisors, medical doctors, and judges, respectively. Following the rare-name algorithm described in Section 2.2.2, we identify 125,086 investment advisors, 81,164 doctors, and 3,384 judges with rare names. To reduce the computation burden, we randomly select 25,000 unique names for investment advisors and medical doctors while we retain all names for judges.

We search for two-way transactions of members of these three groups within the ZTRAX two-way transaction dataset. Overall, we find 6,685 transactions of investment advisors, 5,663 transactions of medical doctors, and 999 transactions of judges.

2.4 Summary statistics

Table C.1 in the Supplemental Appendix presents summary statistics of our sample of real estate transactions, including the location distribution of our sample properties. For all two-way transactions in our data ("Other homeowners" panel) the median buy price is $170,500 and the median sell price is $210,000. Congress members buy significantly more expensive properties, with a median buy price around $227,500. Local politicians buy less expensive houses, with a median buy price of $155,000. Properties bought by Congress members also

[15]The data comes from the medical boards of Florida and Ohio.

tend to be larger. Congress members and local politicians tend to hold on to their properties for almost one year longer, 6.41 and 6.85 respectively, compared to 5.69 years for other homeowners.

Congress members and local politicians tend to buy locally: 33.6% of Congress members' properties are in their Congressional district; 67.7% of local politicians' properties are in their election counties/cities; 10.0% of Congress members' properties are located in D.C., compared to only 0.19% for all other homeowners. Politicians also tend to buy in urban areas: 85.9% of Congress members' properties and 85.4% of local politicians' properties are located in urban areas, as designated by the year-2000 Census. The corresponding fraction is 81.8% for all other homeowners.

Compared to all other homeowners, Congress members are far more likely to use a holding company to buy property: 30% of Congress members' transactions involve a holding company compared to just 5.6% of other homeowners' transactions. Because we have access to financial disclosures only for Congress members, we cannot infer the use of holding companies by local politicians.

3 Results

In this section, we present our empirical methodology and main results. Section 3.1 details our estimation approach, while Section 3.2 reports the excess returns from real estate transactions of US politicians.

3.1 Estimation

We first categorize transactions into two groups: those associated with election winners and those associated with runners-up. We define winners as people who have won at least one election at the Congressional, municipal, or county level. We define runners-up as people who participated in at least one such election, but never won. When there are more than two candidates, we only consider the top runner-up. We then divide the political careers of winners into three periods: *pre*, *in*, and *out*. The label *pre* refers to transactions where the sale occurs before the election; the label *in* refers to transactions where the purchase occurs after the election and the sale occurs before the end of the term; the label *out* refers to transactions where the purchase occurs after the end of the term. For runners-up the post-election period consists of the set union, $in \cup out$. Figure 4 illustrates our transaction

classification method.

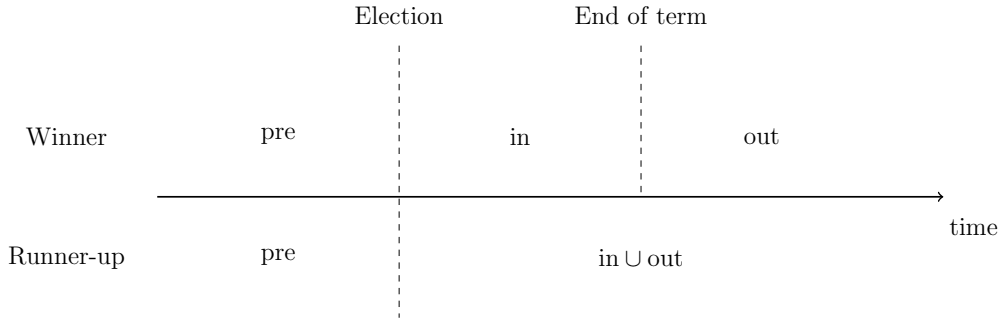
Our main econometric specification consists of regressing the real estate returns from all the two-way transactions in our sample on group dummies. Specifically, we estimate the model

$$r_i = \beta_0 + \beta_1 \cdot D^{\mathrm{W}}_{\mathrm{pre},i} + \beta_2 \cdot D^{\mathrm{W}}_{\mathrm{in},i} + \beta_3 \cdot D^{\mathrm{W}}_{\mathrm{out},i} + \beta_4 \cdot D^{\mathrm{R}}_{\mathrm{pre},i} + \beta_5 \cdot D^{\mathrm{R}}_{\mathrm{in}\cup\mathrm{out},i} + \epsilon_i, \tag{1}$$

where r_i is the annual log return on transaction i obtained by annualizing the holding period return and $\{D^p_{t,i}\}$ is a set of dummy variables that indicate if transaction i belongs to an election winner or runner-up, i.e., $p \in \{\mathrm{W}, \mathrm{R}\}$, and when the transaction occurred, i.e., $t \in \{pre, in, out, in \cup out\}$. Depending on the specifications, we also include a set of fixed effects. The coefficients on these dummy variables allow us to compare the average performance of politicians to that of all other homeowners. Since we do not have data on rents, maintenance, or improvements, we define the return as the price appreciation or capital gain, as in, e.g., Cheng, Raina, and Xiong (2014) and Goldsmith-Pinkham and Shue (2020). Section B.1 of the Supplemental Appendix contains additional details on the construction of real estate returns.

Figure 4: Classification of politicians' transactions

This figure shows the classification of politicians' real estate transactions. The label *pre* refers to transactions where the sale occurs before the election; the label *in* refers to transactions where the purchase occurs after the election and the sale occurs before the end of the term; the label *out* refers to transactions where the purchase occurs after the end of the term. For runners-up the post-election period consists of the set union, $in \cup out$.



3.2 Returns from individual real estate transactions

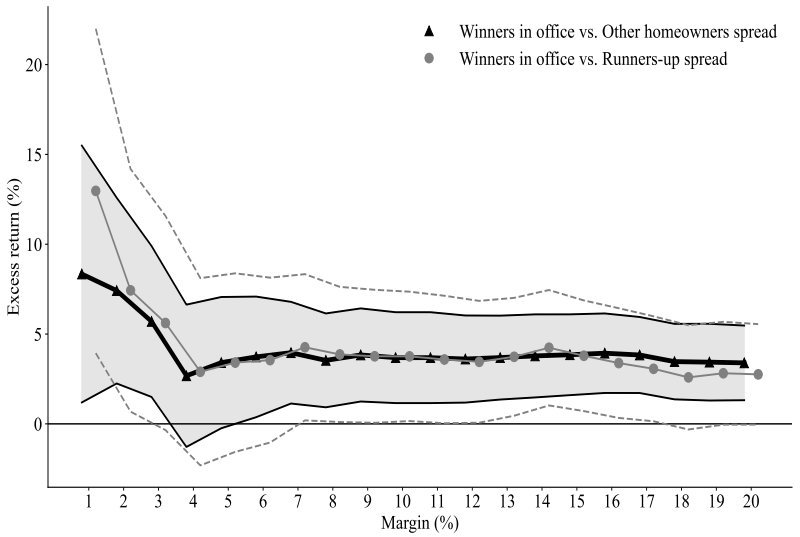
Table 1 contains our main results. This table presents estimates of politicians' excess returns from real estate transactions. The table shows results across all elections and for close elections. In column (1) we report the coefficients for all elections. Two coefficients are of particular interest. First, election winners outperform all other homeowners by 3.1 percentage points while in office. Second, election winners in office outperform runners-up by 3.0 percentage points, i.e., $3.07 - 0.04$. Furthermore, both findings are economically and statistically significant. Both findings hold true when we condition on close elections. In columns (2)–(6) we report results for different margins, i.e., vote share gaps between winner and runner-up, for up to 20%, 10%, 5%, 3%, and 1% respectively. Figure 5 shows these two gaps for additional margins. This analysis reveals a discontinuity from winning elections, and a statistically and economically significant premium associated with it. For robustness, we also report the estimation based only on the transactions pertaining to politicians in Table C.3 of the Supplemental Appendix. The differences between winners and runners-up point estimates are identical to the ones in Table 1 across all specifications.

Two additional findings in Table 1 are worth noting. Each can be interpreted as a separate difference-in-differences and suggests that the outperformance is not due to skill. First, unlike winners' outperformance after elections, winners and runners-up perform similarly before elections, earning 3.86 and 4.19 percentage points per year, respectively. The likely reason for the positive performance of both is a selection effect. We are conditioning on participation in an election, and politicians' real investment outcomes influence their decisions to run for office. For example, someone who has, through luck, experienced large capital gains on a real estate investment may decide to use the gains to finance their political campaign. After elections, only winners continue to outperform.

Second, unlike winners' outperformance after the election, winners perform similarly to runners-up and to other homeowners after their term ends. One concern about this second finding is that it is possible that winning politicians do have skill in the real estate market, but choose to focus on other priorities after leaving office, resulting in low excess returns. To address this concern, we split post-office transactions into those occurring before and after age 54, the median age of leaving office. We find that older retired politicians actually outperform younger retired politicians by 0.52 percentage points per year, although this is not statistically significant. Therefore, it is unlikely that the unremarkable performance after leaving office is simply due to retirees enjoying the quiet life and choosing not to leverage

Figure 5: Real estate returns of election winners by vote share margin

This figure plots two measures of the premium of election winners for different election margins, i.e., the maximum vote share gap between the winner and the runner-up: (i) The return of election winners compared to that of other homeowners, i.e., the estimate of β_2 in model (1) is plotted in black with triangle markers. (ii) The return of election winners compared to that of runners-up, i.e., the estimate of $\beta_2 - \beta_5$ in model (1) is plotted in grey with circle markers. We plot 95% confidence intervals based on clustered standard errors at the ZIP code level.



their skill.

Table C.4 of the Supplemental Appendix investigates heterogeneity among politicians' transactions. For reference, in column (1) we repeat the main result from Table 1. In columns (2)–(7) we report results for local politicians (Local); Congress members (National); investment properties (Invest.); and non investment properties (Non Invest.) of Congress members. The table shows that the results remain consistent across all subsamples, with slightly stronger effects for investment properties. Specifically, we find a statistically significant difference between the excess return of winners in-office (3.85 percentage points, significant at the 1% level) and the after office return. Because there is no financial disclosure for runners-up, we cannot compare their returns on investment and non-investment properties.

We also investigate whether characteristics of politicians—e.g., party affiliation, education, wealth, service in a powerful committee during office, age—or of their properties—e.g., age, size, number of rooms—can explain the cross-sectional variation in returns. Section C.1 of the Supplemental Appendix contains a detailed description of our analysis. In sum, we

do not find that any of these characteristics explain excess returns. The only statistically significant characteristic is holding period: shorter holding periods are associated with larger annualized returns.

4 Economic channels

In this section, we explore several potential channels that could explain the outperformance of politicians in the housing market. We explicitly consider four possible channels: (i) *investor sophistication*; (ii) *superior information*; (iii) *political influence*; and, (iv) *side-payments or celebrity*. The investor sophistication channel suggests that outperformance may result from politicians being more skilled as investors, real estate developers, or negotiators. According to the superior information channel, politicians may achieve higher returns if their trades are more likely based on information about future house prices or location quality compared to others. The political influence channel implies that politicians might leverage their influence by directing government or special interest resources to enhance the value of areas where they own property. Finally, according to the side-payments or celebrity channel, outperformance could arise from systematic misconduct, such as receiving side-payments for political favors, or from buyers who prefer purchasing a home previously owned by a famous politician.

4.1 Financial sophistication

A plausible explanation for politicians' high returns could be that they have a greater degree of sophistication as investors, compared to the average homeowner. For example, they may possess a superior ability to analyze markets more effectively, forecast trends, and identify undervalued properties. In this section we discuss three tests showing that financial sophistication is unlikely to explain politicians' outperformance in real estate.

First, we compare the performance of election winners to that of runners-up. As we discussed in the previous section and showed in Table 1, both see similar real estate returns prior to election. However, election winners outperform losers by 3.0 percentage points during their time in office. The identification of this result is sharpened by considering close elections. Because winners and runners-up are unlikely to differ sufficiently in sophistication ex-ante, it is likely that the time in office of winners is responsible for their outperformance.

Second we compare the performance of election winners to their own performance after they leave office. As we discussed in the previous section and showed in Table 1, after

leaving office, former politicians do not outperform. Because the degree of sophistication of a politician is unlikely to vary substantially over time, the outperformance of winners is likely driven by their time in office.

Third, we compare politicians' returns to those of other investors who may be financially sophisticated. For this analysis, we take our main control group to be the set of all two-way transactions of all homeowners. As alternative control groups, we obtain the two-way transactions of investment advisers, medical doctors, and judges using the rare-name algorithm described in Section 2.2.2. To ensure that the results are not influenced by the rarity of a name, we consider all two-way transactions by homeowners with rare names in ZTRAX as an additional control. Transactions involving rare names account for 5,699,240 out of a total of 24,366,555 transactions.

Panel B of Table 2 reports the results. When examining all rare-name investors, we find that, while they achieve statistically higher returns than other investors, the economic impact is minimal—just 0.10 percentage points per year. This advantage further diminishes to -0.17 percentage points per year when we account for time and location fixed effects. We conclude that the real estate returns of rare-name investors are indeed representative. Therefore, focusing on rare names does not introduce a significant bias into our analysis.

Judges' excess returns are 1.64 percentage points per year, significantly higher than all investors, but only about half that of politicians while in office. Similarly, investment advisors significantly outperform all investors, with excess returns of 0.93 percentage points per year. However, this return represents just one third of the return of politicians while in office. Finally, medical doctors earn a small negative excess return (-0.26 percentage points).

We further examine whether the excess return of in-office politicians differs statistically from that of judges, investment advisors, medical doctors, and rare-name investors. To do this, we estimate the coefficients of group dummies for each one of these groups of investors using the regression model specified in equation (1). We then test for equality of the coefficient of in-office politicians against those of investment advisors, medical doctors, judges, and rare-name investors by including the corresponding dummy variable in a single regression. The F-statistics indicate significance at the 1%, 1%, 10%, and 1% levels, respectively. As a result, we reject the null hypothesis that the excess returns of in-office politicians are comparable to those of the other groups. This suggests that if politicians' high excess returns are driven by sophistication or skill, this is a specialized skill distinct from that of other educated and successful individuals.

4.2 Superior information

To evaluate whether superior information contributes to politicians' outperformance in real estate transactions, we conduct two distinct tests. First, we examine whether politicians demonstrate superior market timing and location picking abilities (Section 4.2.1). Second, we investigate whether politicians' real estate trading activities have predictive power for aggregate real estate returns (Section 4.2.2).

4.2.1 Market timing and location picking

In Panel A of Table 2 we investigate whether the outperformance of politicians in office is due to them picking better locations (columns 2–4), better timing (column 5), or both (columns 6–8).

The estimate of the constant in column (1) indicates that the national average return on real estate transactions in our sample is 4.24%. The remaining entries in column (1) correspond to the estimates reported in the sub-group 'All' in Table 1. Pre-election returns of both winners and runners-up remain significant after including fixed effects to control for location and timing. This would be consistent with luck and selection being responsible for high pre-election returns.

Focusing on politicians who are in office, i.e., transactions for which $D^{\mathrm{w}}_{\mathrm{in},i} = 1$, we infer that out of the 3.1 percentage points outperformance reported in column (1) about a quarter—i.e., $(3.07 - 2.27)/3.07$, based on column (4)—can be attributed to the ability to pick better location and about a third—i.e., $(3.07 - 1.95)/3.07$, based on column (5)—can be explained by the ability to time the market. The coefficients in columns (6)–(8) show that in office politicians outperform transactions in similar locations and with similar holding periods by 70–95 basis points, though these point estimates are not statistically significant.

Column (8) shows that the combination of market timing and location-picking at the ZIP code level, explains 77% of the outperformance—i.e., $(3.07 - 0.70)/3.07$—leaving just 23% attributable to hyper-local factors, e.g., the choice of a Census tract or an individual house. If side-payments were responsible for returns, we would expect to see significant excess returns at the level of an individual house. Therefore, side-payments are unlikely to be the main driving force of the outperformance. Instead, these results suggest that politicians either trade on superior information about timing and location or use their influence to impact home values.

The "Winner After Office" (out) row of the table shows that unlike politicians who are

in office, the real estate returns of politicians after office are much lower and statistically insignificant (0.93 percentage points in column (1)). Interestingly, their return becomes significant after controlling for timing and location (2.21 percentage points in column (8)), that is, they outperform properties sold in very similar locations and with very similar buy and sell dates.[16] In Section 4.4, we show that this outperformance could be attributed to either side-payments—where buyers overpay to gain politician favor—or celebrity—where buyers pay a premium because the property once belonged to a well-known politician.

4.2.2 Return predictability

An alternative way to assess the superior information channel is to test whether real estate transactions of politicians in aggregate are consistent with informed trading. To that end, we construct a Buy-Minus-Sell (BMS) index from buy and sell transactions of politicians and test whether it predicts housing returns at the national, state, and county levels. This analysis is similar to Cheng, Raina, and Xiong (2014), who build a similar index for financial professionals.

For each quarter t and geographical area g, we define the variable $BMS^g_{t,k} = \frac{B^g_{t,k} - S^g_{t,k}}{B^g_{t,k} + S^g_{t,k}}$, where $B^g_{t,k}$ and $S^g_{t,k}$ denote, respectively, the number of buy and sell transactions by election winners.[17] The three geographical areas g we consider are national, state, and county. The three career stages k we consider are before their election win (pre), during their time in office (in) and thereafter (out). We then regress the housing price index return HPI^g_{t+q} at various forecast horizons q on the $BMS^g_{t,k}$ index.[18] We estimate the following regression model:

$$HPI^g_{t+q} = \beta_0 + \beta_1 \cdot BMS^g_{t,\text{pre}} + \beta_2 \cdot BMS^g_{t,\text{in}} + \beta_3 \cdot BMS^g_{t,\text{out}} + \varepsilon^g_{t+q}. \tag{2}$$

Table 3 reports the results from our estimation. The three panels refer to the results pertaining to predictions of national-, state-, and county-level house price growth, respectively. Columns (1)–(3) show predictability regression for 4, 8, and 12 quarters using transactions of members of Congress, and columns (4)–(6) show predictability using transactions of local

[16] The combination of these two numbers suggests that politicians' location picking and market timing abilities contribute -1.28 percentage points to their overall return (i.e., $-1.28 + 2.21 = 0.93$), although this difference is not statistically significant at the 5% level based on a block bootstrap.

[17] Results are similar if we define $BMS^g_{t,k}$ as the difference of buy and sell transactions, that is, $BMS^g_{t,k} = B^g_{t,k} - S^g_{t,k}$.

[18] We obtain the housing price index HPI^g_t from the Federal Reserve Economic Data Series USSTHPI, https://fred.stlouisfed.org/series/USSTHPI.

politicians.

The coefficient estimates in Table 3 show that the indices of winners while in office forecast state (Panel B) and county-level (Panel C) housing returns, but fail to predict the national housing price index (Panel A). This suggests that politicians might be able to time the market at the local level. Consistent with the results in Table 1, transactions that happen before elections and during office positively and significantly forecast housing returns, while transactions that happen after office show the opposite pattern. Comparing coefficients across columns, we find that the predictability strengthens with horizon, especially at the county level. Note that the true predictability horizon may extend beyond what these regressions suggest, as our Buy-Minus-Sell indexes are based on completed transaction dates, and a significant lag often exists between the decision to buy and the transaction's completion.

In summary, the evidence in this section is consistent with the superior information channel, as it shows that politicians outperform in real estate transactions through strategic market timing and location picking while in office. This suggests that their access to privileged information allows them to buy and sell when market conditions are favorable, maximizing returns in ways that the average homeowner cannot achieve.

4.3 Political influence

Political influence is another plausible channel through which politicians may generate personal gains in real estate transactions. One way this channel may operate is through lawmakers' access to privileged information about future federal or state resource allocations and their influence over distribution. The two tests in Section 4.2 are consistent with both superior information and political influence.

To further investigate the political influence channel, we examine the relationship between politicians' housing location choices and (i) intergovernmental transfers from the federal government (Section 4.3.1) and (ii) the establishment of Opportunity Zones (Section 4.3.2). Our findings indicate that counties with a higher concentration of politician-owned properties experience higher future growth rates in federal transfers. However, we observe only marginally significant evidence that an increased concentration of politician-owned properties raises the likelihood of a census tract receiving Opportunity Zone designation.

4.3.1 Inter governmental revenues and expenses

In this section, we investigate whether counties in which politicians own more real estate are more likely to experience higher growth of transfers from the Federal government. For this purpose, we construct a dataset of politicians' property holdings that includes the number of properties held by active politicians in each county over our sample period. We focus our analysis on one-way transactions. We classify a property as belonging to a politician in county c at time t if: (i) a politician purchased the property in county c before time t, with no subsequent sale or with a sale occurring after t; or (ii) a politician sold the property in county c after time t, with no prior recorded purchase or with a purchase occurring before time t. We conduct this analysis separately for members of Congress and local politicians.

Following Adelino, Cunha, and Ferreira (2017), we obtain local government spending data from the US Census Bureau's Annual Survey of State and Local Government Finances. The data include revenues and expenditures of individual local government units within each county in the US. We focus on the intergovernmental revenues and expenses (IGR) from/to the Federal government. Specifically, we estimate the following estimate the following regression

$$\Delta IGR_{t+k} \;=\; \beta \cdot \text{NumProp}_{c,t} + \gamma \cdot X_{c,t} + FE + \epsilon_{i,t} \tag{3}$$

where ΔIGR_{t+k} denotes the per capita growth rate of net intergovernmental transfers from the Federal government over the next $k = 1, 3$ and 5 years; $\text{NumProp}_{c,t}$ is the number of Congress members or local politicians' properties in county c and year t; $X_{c,t}$ denotes time-varying county characteristics, such as the fraction of people over 65, unemployment rate, per capita income, population, and industry structure; and FE denotes a set of fixed effects. We include county and year fixed effects to account for unobservable time-invariant county characteristics and general time trends that may affect gross growth rates of intergovernmental transfers. To alleviate the bias caused by outliers in intergovernmental transfer data, we winsorize the data at the 5% and 95% levels.[19]

[19] As stated in the Public Use Files Disclaimer of the Annual Survey of State and Local Government Finances, *"Because the Census Bureau has not reviewed the individual unit data as separate time series, caution must be exercised in their use and interpretation"*. There are large outliers in the 1-, 3-, and 5-year growth rates of intergovernmental transfer from the Federal government. An example of such outliers is the intergovernmental revenue of Pulaski County, Arkansas. Pulaski is the most populous county in Arkansas. Its intergovernmental revenue from the Federal government in 2001, 2002 and 2003 are \$4,324,000, \$0 and \$3,524,000 in the Individual Unit File. However, the audited financial statements of Pulaski County show that the intergovernmental revenue from the Federal government in 2001, 2002 and 2003 are \$4,399,000, \$4,575,000, \$3,524,000 respectively. We think the IGR federal value in 2002 is a data error in the US Census Bureau's survey data, which caused the gross growth rate in 2002 to be 0.

Panel A of Table 4 presents the results from estimating regression (3) across all counties. The estimate of the coefficient β implies that increasing the number of Congress members' properties in a county-year by one unit is associated with a 0.071 percentage points rise in the growth rates of federal net per-capita IGR in the following year, a 0.417 percentage points rise in the next 3 years, and a 0.539 percentage points rise in the next 5 years. All estimates are statistically significant at the 5% level.

Panel B of Table 4 repeats the results for investment and non-investment properties of Congress members. The analysis reveals that the predictability of Congress members' activity arises from their investment properties rather than their non-investment properties. Increasing the number of investment properties held by Congress members in a county-year by one unit is associated with a 0.071 percentage points rise in the growth rates of federal net per-capita IGR in the following year, a 0.391 percentage points rise in the next 3 years, and a 0.501 percentage points rise in the next 5 years. All estimates are statistically significant at the 5% level. In contrast, performing the same analysis for local politicians—who likely have minimal influence over federal transfers—reveals no significant effects.

The estimates from Panel A suggest that each additional politician-owned property in an average county correlates with an increase of $3,166 in net federal transfers per year, $17,438 over three years, and $22,344 over five years.[20] Although these figures may seem modest, if only one out of n Congress members is both willing and able to influence federal fund allocation, then the effect, when conditioned on a Congress member's action, would be n times larger.

In summary, these results suggest that the real estate portfolio of Congress members in aggregate correlates with government transfers at the county level. The analysis does not speak to whether Congress members steer funds after having purchased a property or whether they purchase in anticipation of higher future transfers.

4.3.2 Opportunity Zones

The Tax Cuts and Jobs Act of 2017 enabled the creation of Opportunity Zones (OZs), offering substantial tax benefits for investing within these zones. Certain census tracts were designated as eligible to become an OZ based on low income and high poverty rate. Among

[20] An average county has $4,459,971 in net intergovernmental transfers from the federal government in a year. The median net growth rate is 0. Therefore, one additional Congress member property increases the net growth rate from 0 to 0.071% in a year for a median county (Table 4), implying an increase in net Federal government dollar transfer of $0.071\% \times \$4,459,971 = \$3,166$.

eligible tracts, state governors had significant discretion in choosing which tracts would be designated as an OZ. If politicians are able to influence governors' decisions, the presence of politicians' properties in a census tract may predict the designation of an area as an OZ.

In Table C.5 of the Supplemental Appendix, we present estimates from a linear probability model predicting the likelihood of an eligible census tract being designated as an OZ. The predictors include income and poverty measures, along with the number of properties owned by politicians within the tract. We find marginally significant evidence that politicians' property holdings are influencing the governor's designation decisions. Tracts where politicians owned properties were 3.2 percentage points more likely to be selected, though this result is only significant at the 10% level, with limited explanatory power.

4.4 Side-payments or celebrity

Finally, we consider the side-payments or celebrity channel as a potential explanation for politicians' outperformance. This channel suggests that outperformance may result from systematic misconduct, like receiving side-payments for political favors, or from buyers' preference for purchasing a property owned by a well-known politician.

Although we cannot measure side-payments or a politician's celebrity status directly, we can observe whether real estate transactions involving politicians systematically transfer excess amounts from one party to another. For example, a seller wishing to make a side-payment to the buyer would sell at a price below the prevailing market price. Conversely, a buyer wishing to make a side-payment to a seller would buy at a price above the prevailing market price. This type of behavior has been documented anecdotally.[21] A similar pattern could arise if buyers prefer living in a house formerly owned by a politician, even without any intention of transferring wealth to them. If high returns for properties involving politicians are due to side-payments or celebrity, we would expect to see significantly negative returns for counterparties, even after controlling for time and location fixed effects. This is because the underpayment when a politician buys and the overpayment when a politician sells would

[21] For example, in November 2003, Representative Randy "Duke" Cunningham, a San Diego Congressman and member of the defense appropriations subcommittee, sold his house for $1,675,000. The buyer, 1523 New Hampshire Avenue LLC, sold it for $975,000 eight months later, during which time the San Diego housing price index increased by 22.5%, implying an excess annual return of -67%. The owner of 1523 New Hampshire Avenue LLC was Mitchell Wade, who also owned the defense contracting firm MZM Inc. Over the same year, MZM Inc. received $41 million in defense contracts, after receiving near zero in previous years. The incident was uncovered by the San Diego Union Tribune (Stern, 2005) and, eventually, Cunningham was sentenced to over eight years in prison.

occur at the level of individual properties, independent of price trends in surrounding properties. To formally test whether these implicit side-payments occur systematically, we analyze the returns of politicians' counterparties.

In Table 5 we repeat the analysis of Table 1, but on politicians' counterparty returns. Specifically, in Table 5 the dependent variable is the return of the *counterparties* who buy from or sell to the politicians, rather than the return of the politicians. In Panel A, we report the estimation results of regression (1), where we use the dummy variable *Counterparty* to indicate whether transaction i belongs to counterparties of politicians. In Panel B, we further split the counterparty transactions into three groups based on transaction time, as outlined in Figure 4. The label *pre* refers to two-way transactions of counterparties who buy from/sell to politicians before the election time. The label *in* refers to two-way transactions of counterparties who buy from/sell to politicians while in office. The label *out* refers to two-way transactions of counterparties who buy from/sell to politicians after the end of their office term. In our analysis, we apply the same exclusion criteria used in Section 3.2. In total, we have 1,718 two-way transactions for counterparties of politicians. Of these, 768 occur before election (pre), 429 occur while in office (in), and 521 occur after office (out).[22]

The results in Panel A of Table 5 suggest some evidence of either side-payments or a "celebrity premium." After controlling for location and time fixed effects, counterparties of politicians underperform by a statistically significant 0.84 percentage points per year. Panel B shows that all of this underperformance is concentrated among counterparties of former politicians who are out-of-office at the time of the transactions, with counterparties of former politicians underperforming by 2.39 percentage points per year. This result may explain our findings in Section 4.2.1, which shows that after-office politicians outperform, especially relative to transactions with the same timing and in the same locations.

5 Conclusion

We present the first comprehensive study of US politicians' real estate transactions using a newly constructed dataset. Between 1994 and 2017, politicians in office earned excess annual returns of 3.1 percentage points compared to average homeowners and 3.0 percentage points

[22]We manually search for two-way counterparty transactions starting from all one-way transactions of properties owned by politicians. Of the total 1,718 two-way transactions for politicians' counterparties we can find 1,229, that is, 72%, in the ZTRAX dataset. Thus the number of observations in the estimation is $24,364,341 + (1,718 - 1,229) = 24,363,852$.

compared to runners-up, even in close elections. Both groups outperform before elections, suggesting real estate wealth may influence their decision to run. However, only winners continue to outperform while in office.

We explore four channels to explain politicians' outperformance: superior information, investor sophistication, political influence, and side-payments or celebrity. Our analysis highlights that superior information gained during their tenure in office is the primary driver, as effective market timing and strategic location choices significantly enhance their returns. This advantage diminishes after leaving office, underscoring the critical role of their tenure. We also find evidence that politicians may use their influence to channel government resources to areas where they own property, such as through increased intergovernmental transfers, and marginally significant evidence of targeting locations likely to receive Opportunity Zone designations. Furthermore, transaction counterparties of politicians, particularly those of former politicians, experience lower returns, suggesting a potential "celebrity effect." Despite these findings, superior information remains the most plausible explanation for the consistent outperformance of active politicians.

Our study shows that politicians achieve significant outperformance in an opaque market like real estate, while in office. This finding contrasts with prior literature, which found little evidence of politicians outperforming in the stock market. This divergence underscores the unique opportunities that less transparent markets may offer to politicians with access to privileged information. Our results suggest that legislative efforts aimed at promoting disclosure of politicians' activity in financial markets may be insufficient. Expanding the reach of these efforts to real estate and other asset classes could enhance financial transparency and public trust in governmental institutions.

Table 1: Politicians' real estate returns by election outcome

This table presents regression estimates of the model in equation (1). Column (1) reports estimates for all elections. Columns (2)–(6) report estimates for close elections, where the margin, i.e., the vote share gap between the winner and the runner-up, was within 20, 10, 5, 3, and 1 percentage points. Section 3.1 defines the variables. Figure 4 classifies politicians' transactions according to their career status. Standard errors clustered at the ZIP code level are reported in parentheses. *,**, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	log (annual two-way return)					
	All	Margin ≤ 20	Margin ≤ 10	Margin ≤ 5	Margin ≤ 3	Margin ≤ 1
	(1)	(2)	(3)	(4)	(5)	(6)
Winner						
Pre Election (pre)	3.86***	2.99***	3.48***	3.65**	4.47***	2.81
	(0.710)	(0.938)	(1.19)	(1.46)	(1.64)	(3.49)
In Office (in)	3.07***	3.39***	3.69***	3.41*	5.70***	8.34**
	(0.688)	(1.06)	(1.29)	(1.86)	(2.14)	(3.65)
After Office (out)	0.929	0.009	-1.29	-1.75	-1.36	-2.13
	(1.01)	(1.28)	(1.49)	(1.98)	(2.64)	(3.77)
Runner-up						
Pre Election (pre)	4.19***	3.98***	3.20***	2.36*	2.46	3.20**
	(0.733)	(0.897)	(1.13)	(1.32)	(1.52)	(1.53)
After Election (in $\cup$ out)	0.040	0.639	-0.071	-0.002	0.086	-4.63
	(0.662)	(0.953)	(1.31)	(1.71)	(2.16)	(2.82)
Constant	4.24***	4.24***	4.24***	4.24***	4.24***	4.24***
	(0.035)	(0.035)	(0.035)	(0.035)	(0.035)	(0.035)
Observations						
Politicians	1,378	680	422	284	205	88
Non Politicians	24,364,341	24,364,341	24,364,341	24,364,341	24,364,341	24,364,341
Total	24,365,719	24,365,021	24,364,763	24,364,625	24,364,546	24,364,429

Table 2: Homeowners' excess annual returns - Market timing and location picking

This table shows the excess returns of homeowners. Panel A shows the excess returns of all politicians, panel B shows the excess returns of other homeowners, including investment advisors, medical doctors, judges and all transactions involving rare names. Column (1) is computed according to the methodology described in Section 3.1. Columns (2)–(4) add State, County, ZIP code fixed effects; column (5) adds Buy-year × Sell-year fixed effects; and columns (6)–(8) add Buy-year × Sell-year × location fixed effects. Columns (2) and (6) report standard errors clustered at the state; columns (3) and (7) report standard errors clustered at the county level; and columns (1), (4) and (8) report standard errors clustered at the ZIP code level. *,**, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	log (annual two-way return)							
	Location F.E.				Timing F.E.	Timing and Location F.E.		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Panel A: All politicians							
Winner								
Pre Election (pre)	3.86***	3.68***	3.63***	3.38***	1.60**	1.48***	1.41**	1.06*
	(0.710)	(0.709)	(0.731)	(0.707)	(0.657)	(0.533)	(0.603)	(0.598)
In Office (in)	3.07***	2.50***	2.44***	2.27***	1.95***	0.957	0.782	0.699
	(0.688)	(0.910)	(0.878)	(0.708)	(0.613)	(0.688)	(0.654)	(0.636)
After Office (out)	0.929	0.865	0.838	0.801	2.73***	1.88**	2.01**	2.21**
	(1.01)	(0.697)	(0.938)	(0.997)	(0.929)	(0.932)	(0.917)	(0.888)
Runner-up								
Pre Election (pre)	4.19***	3.82***	3.73***	3.73***	1.63**	1.33*	1.33**	1.46**
	(0.733)	(0.873)	(0.731)	(0.721)	(0.658)	(0.684)	(0.640)	(0.647)
After Election (in ∪ out)	0.040	-0.241	-0.253	-0.394	0.592	0.416	0.154	-0.224
	(0.662)	(0.688)	(0.611)	(0.660)	(0.577)	(0.478)	(0.513)	(0.485)
Constant	4.24***							
	(0.035)							
Observations	24,365,719	24,365,719	24,365,719	24,365,719	24,365,719	24,365,719	24,365,719	24,365,719
	Panel B: Other homeowners							
Investment Advisor	0.927***	0.638*	0.429***	0.291***	0.794***	0.607***	0.498***	0.380***
	(0.113)	(0.377)	(0.157)	(0.110)	(0.092)	(0.102)	(0.083)	(0.077)
Medical Doctor	-0.262*	-0.672***	-0.756***	-0.820***	-0.344***	-0.226*	-0.251*	-0.431***
	(0.146)	(0.179)	(0.212)	(0.130)	(0.116)	(0.116)	(0.130)	(0.096)
Judge	1.64***	1.58**	1.40***	0.849***	1.47***	0.761**	0.758**	0.520**
	(0.318)	(0.668)	(0.467)	(0.308)	(0.251)	(0.325)	(0.371)	(0.229)
Rare Name	0.102***	-0.205	-0.298***	-0.474***	0.146***	-0.031	-0.096***	-0.165***
	(0.030)	(0.172)	(0.089)	(0.019)	(0.022)	(0.071)	(0.025)	(0.007)
Constant	4.22***							
	(0.038)							
Observations	24,364,341	24,364,341	24,364,341	24,364,341	24,364,341	24,364,341	24,364,341	24,364,341
State FE		Yes						
County FE			Yes					
ZIP code FE				Yes				
Buy-year×Sell-year FE					Yes			
Buy-year×Sell-year×State FE						Yes		
Buy-year×Sell-year×County FE							Yes	
Buy-year×Sell-year×ZIP code FE								Yes

Table 3: House price growth predictability from politicians' real estate transactions

This table presents estimates of the slope coefficient from regressing housing price indices on the politicians' "Buy-Minus-Sell" index $BMS^g_{t,k} = \frac{B^g_{t,k} - S^g_{t,k}}{B^g_{t,k} + S^g_{t,k}}$, defined for each quarter t, geography g, and career stage k, with $B^g_{t,k}$ ($S^g_{t,k}$) the count of buy (sell) transactions by election winners. The three geographic areas g we consider are National (Panel A), State (Panel B), and County (Panel C). The columns represent different horizon, from 4 quarters (4q) to 12 quarters (12q). The standard errors are calculated using Newey and West (1987) with lags corresponding to the forecast horizon.

	Horizon (quarters)					
	4q	8q	12q	4q	8q	12q
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel A: National					
	Congress members			Local politicians		
Constant	3.93***	7.71***	11.6***	3.61***	7.50***	11.6**
	(0.976)	(2.53)	(4.34)	(1.05)	(2.70)	(4.51)
Pre Election (pre)	-0.135	0.129	0.115	0.615	1.44	2.36
	(1.06)	(1.87)	(2.15)	(0.922)	(1.92)	(2.63)
In Office (in)	0.131	0.578	2.03	0.565	1.47	2.38
	(0.970)	(1.69)	(2.71)	(0.931)	(1.78)	(2.42)
After Office (out)	1.07	0.767	0.076	0.354	0.437	-0.035
	(0.783)	(1.36)	(2.13)	(0.830)	(1.80)	(2.71)
Observations	96	96	96	96	96	96
R^2	0.0194	0.00712	0.0122	0.0294	0.0399	0.0424
	Panel B: State					
	Congress members			Local politicians		
Constant	3.51***	7.39***	11.7***	3.53***	7.48***	11.8***
	(0.138)	(0.338)	(0.574)	(0.146)	(0.364)	(0.608)
Pre Election (pre)	1.10***	2.21***	3.15***	0.919***	1.83***	2.72***
	(0.243)	(0.467)	(0.701)	(0.281)	(0.556)	(0.842)
In Office (in)	0.020	0.580	1.91**	0.364	1.06**	2.15***
	(0.261)	(0.497)	(0.747)	(0.270)	(0.513)	(0.733)
After Office (out)	-0.811**	-1.66**	-1.94**	-0.748**	-1.10*	-1.59*
	(0.344)	(0.622)	(0.814)	(0.304)	(0.632)	(0.827)
Observations	4,896	4,896	4,896	4,896	4,896	4,896
R^2	0.00823	0.00938	0.0108	0.00599	0.00616	0.00782
	Panel C: County					
	Congress members			Local politicians		
Constant	2.92***	6.18***	2.13***	2.92***	6.18***	2.14***
	(0.0255)	(0.0630)	(0.256)	(0.026)	(0.063)	(0.256)
Pre Election (pre)	1.60***	3.02***	6.48***	1.21***	2.27***	5.52***
	(0.249)	(0.500)	(0.780)	(0.226)	(0.437)	(0.743)
In Office (in)	0.115	1.04**	8.21***	0.524**	0.768*	3.58***
	(0.244)	(0.471)	(1.02)	(0.231)	(0.428)	(0.856)
After Office (out)	-1.33***	-2.49***	4.07***	-1.04***	-1.72***	5.88***
	(0.296)	(0.527)	(1.51)	(0.225)	(0.408)	(1.24)
Observations	171,492	171,492	171,492	171,492	171,492	171,492
R^2	0.00086	0.00097	0.00106	0.00064	0.00059	0.00062

Table 4: Politicians' property holding and future federal transfers

This table reports the results of regressing future 1-, 3-, and 5-year growth rates of per capita net intergovernmental transfer from the Federal government on the number of Congress members or local politicians' properties in a county (NumProp). Growth rates of per capita net federal intergovernmental transfer are winsorized at the 5% and 95% levels. Panel A reports estimates of the regression model (3) for Congress members, columns (1)–(3), and for local politicians, columns (4)–(6). Panel B estimates of the regression model (3) for Congress members' investment properties, columns (1)–(3) and for Congress members' non-investment properties, columns (4)–(6). County-level controls include per capita income, population, unemployment rate, fraction of whites, fraction of females, fraction of population over 65, fraction of population below 16 and fraction of employment computed at the 4-digit industry classification level, from Quarterly Census of Employment and Wages (QCEW). We include county and year fixed effects and cluster standard errors at the county level. *,**, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

Panel A: Congress members vs. Local politicians						
	Congress members			Local politicians		
	1 Year	3 Year	5 Year	1 Year	3 Year	5 Year
	(1)	(2)	(3)	(4)	(5)	(6)
NumProp	0.071***	0.417***	0.539**	0.030	-0.748	0.532
	(0.022)	(0.151)	(0.241)	(0.530)	(1.77)	(3.20)
County FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	28,041	25,077	22,773	28,041	25,077	22,773
R^2	0.0898	0.168	0.207	0.0898	0.168	0.206
Panel B: Investment vs. Non-investment properties						
	Investment properties			Non Investment properties		
	1 Year	3 Year	5 Year	1 Year	3 Year	5 Year
	(1)	(2)	(3)	(4)	(5)	(6)
NumProp	0.071***	0.391***	0.501**	0.095	2.78	4.04
	(0.022)	(0.144)	(0.229)	(0.549)	(2.02)	(3.88)
County FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	28,041	25,077	22,773	28,041	25,077	22,773
R^2	0.0897	0.168	0.207	0.0898	0.168	0.207

Table 5: Returns to counterparties in transactions involving politicians

This table reports the estimated returns of counterparties in politicians' real estate transactions. For each politician's two-way transaction, we identify the most recent previous repeat sale, if the politician bought, or the subsequent repeat sale, if the politician sold. Panel A reports the estimated excess returns of all counterparty transactions. Panel B reports counterparty transactions Pre-election, During office and After office, according to the transaction classification shown in Figure 4. We use the same set of fixed effects and clustering as Table 1. Columns (2)–(4) add State, County, ZIP code fixed effects; column (5) adds Buy-year × Sell-year fixed effects; and columns (6)–(8) add Buy-year × Sell-year × location fixed effects. Columns (2) and (6) report standard errors clustered at the state; columns (3) and (7) report standard errors clustered at the county level; and columns (4) and (8) report standard errors clustered at the ZIP code level. *,**, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	log (annual two-way return)							
		Location F.E.			Timing F.E.	Timing and Location F.E.		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Panel A: All counterparties of politicians							
Counterparty	0.230	-0.187	-0.373	-0.527	-0.263	-0.583	-0.650	-0.835**
	(0.494)	(0.465)	(0.475)	(0.481)	(0.420)	(0.352)	(0.397)	(0.342)
Constant	4.24***							
	(0.035)							
	Panel B: All counterparties of politicians—Decomposed							
Pre Election (pre)	1.23*	1.01	0.894	0.585	-0.177	0.023	0.183	-0.322
	(0.729)	(0.856)	(0.780)	(0.711)	(0.638)	(0.680)	(0.645)	(0.557)
In Office (in)	0.390	-0.141	-0.333	-0.407	0.213	-0.374	-0.756	-0.595
	(0.757)	(0.768)	(0.701)	(0.754)	(0.643)	(0.554)	(0.546)	(0.523)
After Office (out)	-2.20*	-2.78**	-3.09***	-3.09***	-1.49	-2.30**	-2.14**	-2.39***
	(1.20)	(1.15)	(1.13)	(1.15)	(1.03)	(1.03)	(0.872)	(0.917)
Constant	4.24***							
	(0.035)							
State FE		Yes						
County FE			Yes					
ZIP code FE				Yes				
Buy-year×Sell-year FE					Yes			
Buy-year×Sell-year×State FE						Yes		
Buy-year×Sell-year×County FE							Yes	
Buy-year×Sell-year×ZIP code FE								Yes
Observations	24,363,852	24,363,852	24,363,852	24,363,852	24,363,852	24,363,852	24,363,852	24,363,852

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Supplemental Appendix for: "Do Politicians Profit from Real Estate?"

This appendix is organized into three sections. Section A describes the construction of the database of politicians' real estate transactions. Section B explains the methodology for constructing real estate returns and the criteria for excluding return outliers. Section C provides additional results and tables referenced in the main text.

A Database construction

In this section we outline the procedure used to construct the real estate transaction database for US politicians (Section A.1), sophisticated investors (judges, investment advisors, and medical doctors), and general homeowners (Section A.2). We also discuss the classification of Congress members' real estate assets as either investment properties or primary residences (Section A.3).

A.1 Two-way transactions for politicians with financial disclosure reports

Our baseline sample obtained from politicians' financial disclosures consists of 4,931 real estate assets, of which 2,242 have complete address information. In our list of assets we include real estate properties declared. A property is considered to have complete address information if the address includes a street number and name, or an apartment, unit, block, or section number along with the subdivision name.[23] Also, we include any declared company names that might potentially be linked to active real estate ownership. We do not include passive ownership of REITs or small shares of large real estate holding companies.

The actual number of unique assets identified may be less than 4,931 due to the varying quality of financial disclosure declarations. For instance, a property may be reported with a complete address in one year and only the city in another, which could result in it being counted as two distinct properties, despite being the same asset. Additionally, declared companies may either hold listed properties or, in some cases, may not own any real estate.

When available, we collect the reported date when an asset is bought or sold, although we find that this data is often missing or of poor quality. In total, we find 1,654 declared assets that have a disclosed buy date or sell date. To infer the buy and sell year, we also track the first and last year each asset appeared in the declaration.

[23] Sometimes, the Congress member does not declare an address but does declare an apartment number or a unit/block/section number combined with subdivision name. In these cases we can search ZTRAX to find the associated address.

A.1.1 Searching ZTRAX for US Congress members transactions

We now describe our algorithm for identifying Congress members' real estate transactions in the ZTRAX database. We refer to these transactions (either buy or sell) as "one-way" transactions.

Algorithmic search. We begin by casting a very wide net to search for any transaction that may potentially involve Congress members. The search algorithm consists of three main steps:

Step 1. If the Congress member declared an address, we search in the ZTRAX database for all transactions at the address that match either the Congress member's last name, or a spouse's last name, or any holding company that the Congress member has declared.

Step 2. We search the entire ZTRAX database for transactions that exactly match the Congress member's first and last name or holding company name. We consider possible variations in names, e.g., nickname, abbreviation, and maiden name. If a Congress member has a middle name, we exclude the transactions that have middle names not matching the Congress member's middle name. Of these, we keep only those transactions that happen in Washington D.C., in the Congress member's state, or in any other state where the Congress member has declared at least one property.

Step 3. We search the entire ZTRAX database for transactions that match the Congress member's last name or holding company name, and that occur in Washington D.C. or in cities where the Congress member has declared at least one property.[24] Compared to Step 2, this has a looser restriction on matching a name, but a stricter geographic restriction.

The above three steps yield a large number of *potential* transactions, especially for Congress members with common last names. For example, California Congressman Jerry Lewis has 22,492 potential transactions. However, the median Congress member has 81 potential transactions.

Manual search. Starting with potential transactions identified by the algorithmic search, we manually review all the potential transactions to identify those very likely belonging to a Congress member. This step is difficult to automate because addresses or names often have spelling errors or equivalent variations.[25] Additionally, as discussed below, we may need to perform further searches of public information.

A typical manual search begins by searching for any combination of name and ZTRAX address that matches a declared transaction. Such transactions are recorded as belonging

[24]For company names, we require a complete match. For city names, we require the first nine letters to match.

[25]For example, 14th Street West, West 14th Street, W 14th Street, W 14th St, and W. 14th Street may all indicate the same location.

to the Congress member. Similarly, transactions with an address-date combination (within a one-month window) that matches a declared transaction are recorded as belonging to the Congress member. Next, using such found transactions, we search for other transactions with the same spelling used by the Congress member. This is especially useful for Congress members with common last names, as there are many ways to write a first-last name combination, although we observe that Congress members often use consistent first-last name combinations in transactions. Furthermore, Congress members frequently transact with the same co-buyers or co-sellers, such as a spouse or business partner. Thus, identifying one Congress member transaction can help find others.

When uncertain if a transaction belongs to a Congress member, we use publicly available information about the names of the Congress member's spouse, children, parents, or siblings. These additional names serve as confirmation when we suspect that the Congress member is involved in a transaction.[26] We find the spouse's name to be particularly useful. We do not identify a transaction as belonging to a Congress member if, for example, we simply find their child buying a house. Additionally, we use the frequency of last names from the Census Bureau, combined with the frequency of first names from the Social Security Administration, and the population of a particular state, to guide our decision. If the state first-last name expected occurrence is below 0.5, we usually attribute such a transaction to that Congress member (see footnote 13 in the main text for details on the construction of the first-last name expected occurrence). We also use additional public information to refine our search. For example, if we know from public sources that a Congress member grew up in a small town, and there is a transaction matching their first and last name in that town, we attribute this transaction to the Congress member, even for relatively common names. Admittedly, this manual matching step involves some subjectivity and the results of this process may be imperfect. Nevertheless, we are confident that the vast majority of transactions we identify as involving Congress members are properly identified.

In the first step of our database construction, we identify 1,182 out of the 2,242 declared properties with full addresses from Congress members' financial disclosure reports, resulting in a match rate of 52.7%. Using both algorithmic and manual search techniques, we add 5,799 properties that very likely belong to Congress members, but do not appear in declarations.

The discrepancy between the number of declared properties and the number of properties we attribute to Congress members does not necessarily imply that Congress members are not declaring a large fraction of their assets. Several factors may account for this difference. First, Congress members are not required to disclose their primary residences unless these properties generate income.[27] Second, some additional assets may be declared without ac-

[26]For example, California Congress member Brian Bilbray declared 2466 Unicornio St, Carlsbad, CA. While we found transactions at this address, there were no transactions with the name Bilbray. However, there were transactions with the last name Clute, which is Congressman Bilbray's mother's last name. Since this address was declared by Congressman Bilbray, we matched these transactions to him. Had we not discovered that Clute was his mother's last name, we would have left this declared property unmatched.

[27]Prior to the passage of the STOCK Act in 2012, even mortgages on Congress members' principal residences that produced no income were exempt from reporting requirements. Currently, mortgages must be disclosed, though the corresponding property is not.

companying address information. Third, our procedure allows us to find assets that were sold before joining or bought after leaving Congress, which do not appear on any declaration.

Table A.1 shows the number of properties attributed to US Congress members at each stage of the database construction process, classified by state. Figure A.1 shows the number of properties with full addresses in a given year.[28] The number is relatively stable, with two exceptions: first, there are very few properties towards the end of our sample period, 2018, because those declarations have yet to be posted; second, there is a large spike in 1995, when many of the Congress members' declarations first became available. Figure A.2 shows that the match rate by year steadily rises from around 0.3 in 1990 to above 0.7 by 2015. This trend is not surprising since Zillow's coverage and data quality have improved in more recent years. The drop observed in 2017–2018 occurs because there were few Congress member transactions in those years.

A.1.2 Congress members' two-way transactions

To construct Congress members' "two-way" transactions—linking purchases with corresponding sales—we manually verify one-way transactions identified through algorithmic and manual searches.

We begin by searching for buy and sell transactions of Congress members for the same property among one-way transactions, using the *ImportParcelID* as the primary property identifier. If this identifier is missing, we use the physical property address instead. If we find only one Congress member transaction for a given ImportParcelID, we search ZTRAX to find all one-way transactions associated with that ID. This process helps us find additional Congress member one-way transactions that are missed due to missing property addresses or misspellings in buyer or seller names. We then manually construct two-way transactions.

To construct Congress members' two-way transactions, we do not require that the buyer and seller names on two consecutive transactions of a given property match—though most Congress members' two-way transactions satisfy this condition. For some Congress members' transactions, we have declared transaction dates and holding company names which allow us to find more two-way transactions for Congress members. For example, Congress member Darrell Issa declared that he bought 1709 La Costa Meadows Dr, San Marcos on March 29, 2006 and sold it on March 14, 2011. The buyer name in ZTRAX for the transaction on March 29, 2006 is DEI LLC, which is a company declared by him, but the seller name for the transaction on March 14, 2011 is 1709 LA COSTA MEADOWS LP, which does not match with DEI LLC. Even though he did not declare 1709 LA COSTA MEADOWS LP, we still think this is a valid two-way transaction for Congress member Issa. This two-way transaction would be excluded if we apply the algorithm described in Section A.2.1 to Congress member one-way transactions. Around 75% of Congress members' two-way transactions from declarations can be found in the two-way transaction data set we construct from ZTRAX.

[28] To avoid double counting, we retain an observation only when a property first appears in a declaration.

A.2 Two-way transactions for other groups

This section describes the construction of the sample for two-way transactions, including politicians without available financial disclosures and other groups of homeowners. First, we describe how we construct two-way transactions linked to one-way transactions of all homeowners in ZTRAX (Section A.2.1). Next, we describe the rare-name algorithm we use to identify two-way transactions for individuals without financial disclosure reports, including politicians, judges, investment advisors, and medical doctors (Section A.2.2).

A.2.1 Control two-way transactions of all homeowners

To construct two-way transactions from all one-way transactions in ZTRAX, we proceed as follows:

1. First, we exclude non-arm's length housing transactions, which are common in the dataset.[29] This is done by removing transactions that are labelled as "internal" by Zillow or by excluding transactions where the buyer's name closely resembles the seller's name.[30]

2. Second, we eliminate transactions that lack key characteristics, such as transaction date, ImportParcelID, ZIP code, geolocation, or a valid transaction price. We require transaction prices to be above $1,000, as transaction prices lower than $1,000 are often unrealistic and non-arm's length transactions are often recorded with a price of $0.

3. Third, we exclude transactions that complicate return calculations, specifically those involving the purchase or sale of multiple properties in a single transaction or those where a single property is bought or sold in multiple separate transactions. For transactions involving multiple properties, we exclude those associated with more than one ImportParcelID. We cannot determine returns for properties bought in one transaction but sold separately, as the exact purchase price for each property is unknown.[31] We exclude transactions where a single property is split and sold off in pieces. Additionally, we exclude consecutive transactions occurring within 10 days.

4. Finally, we form two-way transactions by pairing every two consecutive one-way transactions sorted by transaction time. We exclude any two-way transactions where the

[29] Non-arm's length or internal transactions include those in which the owner adds their spouse's name to a deed, or transfers (part of) the property to family members, a trust, or business under the owner's control.

[30] We assess the similarity between buyer and seller names using a similarity score and a fuzzy score. The similarity score between two strings A and B is defined as the ratio $\frac{\#(A \cap B)}{\#(A \cup B)} \times 100$, where the numerator is the number of letters of their intersection, and the denominator is the number of letters of their union. The fuzzy score uses fuzzy logic to determine the similarity between two strings. We implement this step through the Python package `fuzzywuzzy`. The buyer and seller names are different if their similarity score is less than 15 or their fuzzy score is less than 60 out of 100.

[31] We also eliminate some valid two-way transactions for which we can compute returns. For example, we exclude cases where two properties are bought and sold together by the same owner, even though we are able to compute returns for these transactions.

buyer's name in the purchase transaction differs from the seller's name in the consecutive sale transaction.

The two-way transaction dataset thus constructed contains the majority of the valid two-way transactions. We can find around 75% of manually matched Congress members' two-way transactions in this dataset.

A.2.2 Rare-name algorithm to find other groups' two-way transactions

To construct two-way transactions of other groups (local politicians, investment advisors, medical doctors, and judges), we begin by compiling a list of names for each group and identifying the most unique names. We define a name as rare if the last name frequency is fewer than 5 per 100,000 and the national first-last name expected occurrence is lower than 10 (see footnote 13 in the main text for details on the construction of the first-last name expected occurrence).

Next, we search for the first and last names in the all-homeowners dataset constructed in Appendix A.2.1. To cast a wide net, we search only the first five letters of the first and last names. We then apply specific filtering conditions to the identified two-way transactions. To ensure similarity between the searched and matched names, we require that the first five letters of the searched first and last name match those of a buyer or seller name in ZTRAX. We carefully account for instances where a middle name may be combined with the last name, as in the case of "Nancy Patricia Pelosi," which may appear as "Nancy PPelosi." Additionally, we only keep a transaction when the similarity score between the searched name and the matched ZTRAX homeowner name exceeds 12.5 out of 100.

To improve the matching accuracy, we require that suffixes and middle names, if available, match. We consider two middle names a match if they are either identical or if their first initials match when one of the names includes only the middle initial rather than the full middle name. If we have additional information, such as the election location of local politicians, we specify that the identified properties be located within 100 km of the centroid of the election county or city. Finally, if a name is associated with more than 10 transactions, we exclude this name and associated transactions because the name may belong to multiple people.

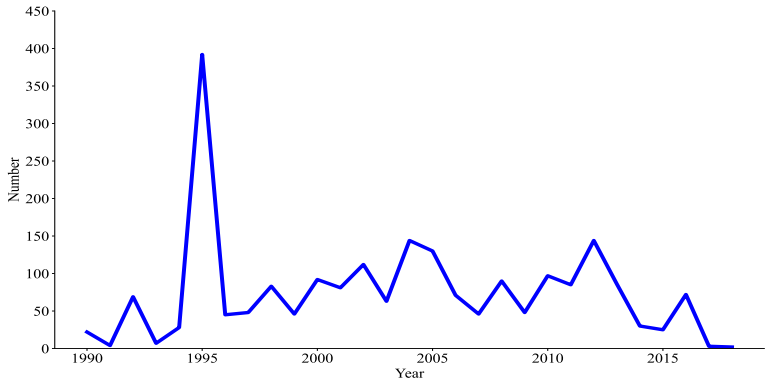
A.3 Investment and non-investment properties of Congress members

To examine whether Congress members' excess returns differ between investment properties and primary residences, we classify their properties using their financial disclosure reports combined with online public information.

We begin by consulting online sources, such as news articles and Wikipedia, to gather exact or approximate locations of Congress members' primary residences, as well as details of their career paths. We then apply the following criteria to identified Congress member

Figure A.1: Number of Congress members' declared properties with full address

This figure shows the number of declared properties with a full address, by year. While a property can be declared multiple times, to avoid double counting we only count a property in the first year it appears in a declaration. These records are collected from Congress members' financial disclosure reports from OpenSecrets.org.



properties: (i) If a property address matches a Congress member's mailing address that is not an office building, we classify the property as a primary residence;[32] (ii) If a property is not a single-family residence or condominium, or is transacted by Congress members' companies, we classify the property as an investment property; (iii) If a property address is not a mailing address but the buy and sell dates are consistent with the Congress member's career path,[33] we classify the property as a primary residence and otherwise as an investment property.

Out of the 640 two-way Congress members' transactions identified in Section 2.2.1, 45.63% are classified as involving primary residences. The median annualized excess return of primary residences is 0.37% and the median annualized excess return of investment properties is 0.84%. Congress members earn higher returns on their investment properties.

[32] Mailing addresses are only available on financial disclosure reports in the early 2000s.

[33] For example, if a Congress member was a lawyer in New York between 2002–2008, and we find a property of the Congress member which was bought in 2002 and sold in 2008, we classify the property as the primary residence of the Congress member in New York.

Figure A.2: Fraction of Congress members' transactions found in the ZTRAX database

This figure shows the annual fraction of assets with a full address declaration that we successfully locate in the ZTRAX database.

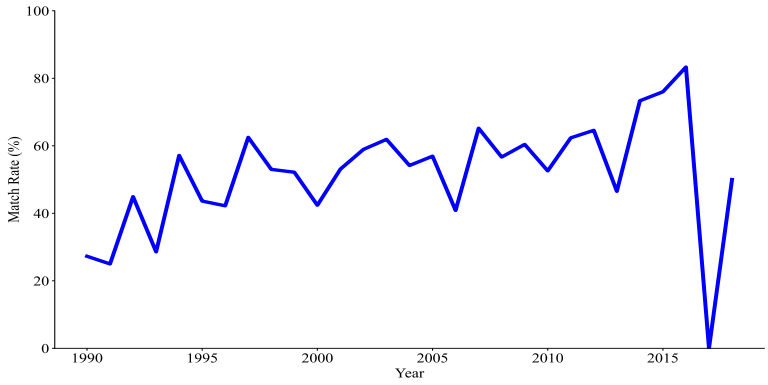


Table A.1: Congress members' declarations and match rate

This table summarizes the steps of our search algorithm. The columns contain the number of: (i) Congress members' declarations; (ii) unique properties declared; (iii) unique properties declared with a full address; (iv) declared full address properties found in ZTRAX; and (v) additional properties found in ZTRAX that we believe belong to the Congress member. Results are broken down by state.

State	# Congress	# Declared	# Declared w/ Address	# Declared w/ Address & found in ZTRAX	# Extra found in ZTRAX
Alabama	20	107	51	26	73
Arizona	25	102	34	20	107
Arkansas	16	50	18	6	40
California	111	743	353	203	493
Colorado	23	213	116	67	873
Connecticut	15	75	30	9	22
Delaware	8	21	11	3	9
D.C.	1	1	0	0	0
Florida	76	344	154	92	617
Georgia	35	192	82	43	126
Hawaii	10	23	13	8	40
Illinois	53	212	126	77	158
Iowa	13	39	9	4	63
Kentucky	18	64	30	16	52
Louisiana	27	100	42	13	43
Maryland	19	99	50	35	47
Massachusetts	21	94	49	19	50
Michigan	40	119	45	26	92
Minnesota	27	53	17	9	64
Nebraska	15	62	11	2	37
Nevada	15	77	45	37	116
New Hampshire	12	71	22	9	57
New Jersey	29	176	63	42	224
New York	75	226	107	64	155
North Carolina	34	273	133	43	466
Ohio	46	174	77	36	823
Oklahoma	18	80	18	10	55
Oregon	12	76	41	17	31
Pennsylvania	57	143	91	57	106
Rhode Island	8	67	31	16	27
South Carolina	18	267	131	62	184
Tennessee	24	137	52	23	177
Vermont	4	15	5	4	9
Virginia	35	209	95	39	97
Washington	23	66	35	24	79
West Virginia	11	48	23	8	26
Wisconsin	22	113	32	13	161
Total	1,016	4,931	92,242	1,182	5,799

B Methodology details

In this section, we provide details on the construction of real estate transaction returns (Section B.1) and discuss the criteria used to exclude return outliers (Section B.2).

B.1 Returns on real estate transactions

The primary performance measure for our analysis is the return on real estate ownership. We refer to a *two-way transaction* as to a buy and subsequent sale of a real estate property. A two-way transaction i is then characterized by a buy time, $t_{i,b}$ and a sell time $t_{i,s}$ of a real estate property. We define the gross annualized return on a two-way transaction i as

$$R_i = \left(\frac{P_{t_{i,s}}}{P_{t_{i,b}}} \right)^{1/\tau_i}, \tag{B.1}$$

where $P_{t_{i,b}}$ and $P_{t_{i,s}}$ denote the buy and sell price in transaction i, and $\tau_i = t_{i,s} - t_{i,b}$ denotes the holding period in years. We denote by r_i the log return of transaction i, i.e., $r_i = \log R_i$. Since we do not have data on rents, maintenance expenses, or improvements, returns in our paper refer to price appreciation or capital gain, as in, e.g., Cheng, Raina, and Xiong (2014) and Goldsmith-Pinkham and Shue (2020).

An alternative way to compute the returns in equation (B.1) would be to also use data from properties with only a single transaction and impute the missing price using a model. For example, this could be achieved by a hedonic pricing model based on the characteristics of a property, such as its neighborhood and other attributes, to predict property valuations. Our preferred approach is to use realized returns. Even though this leads to fewer observations, these are grounded in market transactions and not functions of a valuation model.

A limitation of computing returns from deeds records as described above is the lack of information on rental income and maintenance or construction costs. Therefore, the returns we compute only capture capital gains, which are an incomplete measure of total returns to real estate. All returns in the sample—whether owned by politicians or not—are subject to the same lack of information. Therefore, if dividend yields and maintenance costs follow similar distributions across politicians and the control group of all homeowners, then a comparison of politicians' returns from equation (B.1) to the control group would reflect a difference in total returns.

B.2 Excluded transactions

A well-known problem when working with individual real estate transactions is that, in some cases, returns exhibit extreme values due to data errors in the deed records. For example, the highest annualized return in our data is a (non-politician) property bought for \$1,000 and sold 10 days later for \$2,895,000, implying an annualized return of $1.98 \times 10^{123}\%$. Including such extreme returns would introduce bias in estimating mean returns and thus affect our analysis.

To address this problem, we follow the same eligibility criteria used in the construction of the S&P CoreLogic Case-Shiller Home Price Indices. S&P describes the methodology for the S&P/Case-Shiller Home Price indices as follows:[34] "These sales pairs are further examined to eliminate outliers that might distort the calculations. Outliers include non-arm's length transactions (e.g., property transfers between family members); transactions immediately preceding or subsequent to substantial physical changes to a property; transactions where the property type designation is changed (e.g., properties originally recorded as single-family homes are subsequently recorded as condominiums); and suspected data errors where the order of magnitude in values appears unrealistic." Although the above Case-Shiller document loosely explains which transactions are excluded, unfortunately, it does not provide an exact algorithm. In our decision of which transactions to exclude, we do our best to match the loose explanation in the Case-Shiller document.

In our analysis, we exclude two-way transactions that: (i) we identify as affected by construction;[35] (ii) fall outside of the 1994–2017 period, because prior to 1994, ZTRAX contains relatively few transactions; (iii) have a buy or sell price below $10,000; (iv) have a holding period shorter than 183 days; (v) have a total return above 900% or below −90%; or, (vi) have an annualized return above 50% or below −50%, compared to the median annualized return in the data (4.2%). We experiment with alternative cutoffs and find that for a fairly large range of specifications, our key results are unaffected. Importantly, in our analysis, we apply exactly the same transaction exclusion procedure to the transactions of politicians and all homeowners.

C Additional Results

This section contains additional results and tables referenced in the main text. Specifically, Section C.1 presents characteristics of Congress members, while Section C.2 examines the impact of politicians' real estate ownership on the designation of Opportunity Zones.

C.1 Congress members' characteristics

To understand the variation in politicians' returns, we investigate the connection between real estate returns and politicians' characteristics. We focus on Congress members due to the greater availability of public information compared to local politicians. We collect data on Congress members' gender, education, party, committee, chamber, age and wealth from various data sources. Specifically, we obtain gender, education, party, age, and chamber data from the Biographical Directory of the United States Congress. We source the lists of

[34] https://www.spglobal.com/spdji/en/documents/methodologies/methodology-sp-corelogic-cs-home-price-indices.pdf

[35] We identify transactions as affected by construction if the buyer or seller name is on a list of large construction firms, or contains the words "Constr", "Home", "Develop", or "Build", or the construction date (when available) is during the holding period.

influential committees from Edwards and Stewart III (2006) and Cohen, Coval, and Malloy (2011), and committee membership data from Charles Stewart's Congressional Data Page. Additionally, we collect wealth data from OpenSecrets.org, which estimates Congress members' wealth levels based on the asset and liability ranges reported in their financial disclosure documents.

We regress log Congress member annualized housing returns on Congress member characteristics. Table C.2 shows the results. In column (1) we consider only Congress member characteristics, property locations and holding period controls; in column (2) we add property characteristics; in column (3) we add Congress members' wealth level controls through dummy variables tracking the distribution of the average wealth level. Specifically, Wealth level$_k$ is equal to 1 if the average estimated wealth level of a Congress member is in the k_{th} quartile, $k = 2, 3, 4$. Columns (4) and (5) split the sample into primary residences and investment properties, respectively, as discussed in Appendix A.3.

The results from Table C.2 show that none of the Congress member characteristics is significant in explaining excess returns.[36] For example, Republican Congress members do not earn significantly higher returns than Democrats; having worked as a senator does not help Congress members gain higher returns in the housing market; female Congress members do not earn significantly different returns than male Congress members; holding a graduate degree does not contribute to higher housing returns; Congress members that have served in a powerful committee do not earn significantly higher returns than those who have not. The R^2 of these regressions is fairly small: less than 5% of the variations in Congress member housing returns can be explained by their personal characteristics. Somewhat surprisingly, column (5) shows that Congress members who held a graduate degree seem to have *lower* housing returns in investment properties compared to colleagues without a graduate degree, although the estimate is marginally significant.

Overall, there does not seem to be any systematic connection between Congress member characteristics and real estate returns.

C.2 Opportunity Zones

In this section, we investigate whether a county that has more properties owned by politicians is more likely to be designated as an Opportunity Zone. The creation of Opportunity Zones in December 2017, represents one of the most discussed pieces of federal economic development policy. The law provides substantial tax benefits for investing capital gains in Opportunity Zones and as of April 2020, over 620 Opportunity Zone funds reported

[36]The number of observations in column (1) is 641, instead of 640 as reported in Section 2 of the main text. This discrepancy arises from a unique case: politicians David M. Rivera and Marco A. Rubio co-owned a property in Florida, and both declared it. Since these two politicians have different characteristics, we duplicate the two-way transaction, labelling one entry as belonging to David M. Rivera and the other to Marco A. Rubio. The duplicated transactions do not appear in other tables because the holding period of this property overlaps with their time in office. Therefore, we exclude it under our classification method described in Section 3.1.

raising more than $10 billion from both individual and corporate investors.[37] The process for selecting designated Opportunity Zones was widely criticized because governors had primary authority and significant discretion in choosing their respective states' qualifying zones. Given the tax benefits provided by the policy, housing markets in designated Opportunity Zones may experience a boom in the long run. If governors choose designated Opportunity Zones by taking politicians' property locations into account, then the presence of politicians' properties in eligible census tracts may predict the probability of a census tract becoming a designated census tract.

We obtain a list of 42,160 qualified census tracts in early 2018 from the US Department of Treasury. Approximately 75% of these eligible tracts were low-income communities (LICs) based on having either (i) a poverty rate above 20% or (ii) a median household income less than 80% of the local median household income. The remaining tracts were eligible because they were contiguous to an LIC tract and had relatively low household income. A total of 8,764 census tracts were selected as designated Opportunity Zones. We exclude census tracts with less than 50 households.

We measure the likelihood that politicians' property ownership influences the selection of Opportunity Zones by estimating the following linear probability model at the census tract level:

$$\begin{aligned}\text{Designated} = \beta_1 \text{Owership} + \beta_2 \text{Poverty Rate} + \beta_3 \text{Median HH Income} + \\ \beta_4 \text{MSAIncome} + \beta_5 \text{StateIncome} + \epsilon. \end{aligned} \tag{C.1}$$

The dependent variable *Designated* is an indicator variable equal to 100 if the census tract was selected as an Opportunity Zone, and 0 if the census tract was qualified but not selected as an Opportunity Zone. *Owership* is a dummy variable which is equal to 1 if there is at least one active politician's property in an eligible census tract. We consider the properties held by active Congress members, local politicians and governors by the end of 2017. We use the tract-level data on all opportunity zones from the Urban Institute.[38] We control for poverty rate (*Porverty Rate*) and median census tract household income (*Median HH Income*) because these reflect the statutory requirements that define eligible census tracts. We also control for MSA-level income (*MSAIncome*) and state-level income (*StateIncome*), which are from the 2011–2015 American Community Survey (ACS) data.

Table C.5 shows the regression results. We find marginally significant, though economically weak evidence that politicians' ownership influences the Opportunity Zone decision.

[37] Capital gains can be invested through intermediaries called Opportunity Funds. The three main benefits are: (i) tax on the initial capital gain is deferred until 2026 or when the asset is sold; (ii) for capital gains invested in an Opportunity Fund for at least five years, the basis on the original investment increases by 10%, and by 15% if held for seven years; (iii) for investments in Opportunity Funds held for at least 10 years, any gains on the investment within the zones are exempt from capital gains tax. Funds can be invested in commercial, residential and industrial real estate; infrastructure, and businesses. For real estate projects to qualify, the investment must result in the property being "substantially improved," see Frank, Hoopes, and Lester (2022).

[38] We thank Alina Arefeva for suggesting we test Opportunity Zones and sharing the data.

Having at least one politician own a property in an eligible tract increases the probability of this tract being designated as an Opportunity Zone by 3.22%, although this is only significant at the 10% level. When broken down into just Congress members, just governors, or just local politicians, the coefficients remain positive, though statistically insignificant.

Table C.1: Summary statistics

This table shows summary statistics of two-way real estate transactions and properties owned by Congress members, local politicians, and the control group of all homeowners.

	Mean	Std	25%	50%	75%	n. Obs.
Congress members						
Return (% p.a.)	5.52	10.20	0.20	4.38	10.60	640
Buy price ($)	497,509	1,738,986	145,000	227,500	439,000	640
Sell price ($)	637,898	2,190,821	185,250	327,000	574,000	640
Holding period (years)	6.41	4.15	3.23	5.50	8.53	640
Building area (sq. ft.)	2,729	6,546	1,080	1,702	2,656	640
Num trax per property	1.63	0.87	1	1	2	640
Properties in DC (%)	10.00	30.02	0	0	100	640
Properties in Congress district (%)	33.59	47.27	0	0	100	640
Properties in Congress state (%)	80.78	39.43	100	100	100	640
Properties in urban area (2000 Census) (%)	85.92	34.81	100	100	100	640
Holding company indicator	0.30					
Local politicians						
Return (% p.a.)	5.63	10.08	0.22	3.95	9.94	589
Buy price ($)	218,567	230,873	95,000	155,000	261,000	589
Sell price ($)	288,722	309,555	125,000	210,000	339,719	589
Holding period (years)	6.85	4.32	3.39	6.16	9.56	589
Building area (sq. ft.)	1,742	1,342	1,011	1,560	2,377	589
Num trax per property	1.60	0.83	1	1	2	589
Properties in election county/city (%)	67.74	46.78	0	0	100	589
Properties in urban area (2000 Census) (%)	85.39	35.34	100	100	100	589
Holding company indicator	n/a					
Other homeowners						
Return (% p.a.)	4.24	11.97	-0.13	3.83	9.73	24,364,341
Buy price ($)	248,474	1,094,092	110,000	170,500	284,000	24,364,341
Sell price ($)	300,644	1,198,886	130,000	210,000	340,000	24,364,341
Holding period (years)	5.69	4.08	2.61	4.63	7.79	24,364,341
Building area (sq. ft.)	2,079	14,604	1,075	1,542	2,237	16,994,091
Num trax per property	1.43	0.73	1	1	2	16,994,091
Properties in DC (%)	0.19	4.34	0	0	0	16,994,091
Properties in urban area (2000 Census) (%)	81.83	38.56	100	100	100	16,994,091
Holding company indicator	0.056					

Table C.2: Congress members' characteristics

This table reports the regression results of log annualized returns of Congress member two-way transactions on Congress member, property and transaction characteristics. Congress member characteristics include Republican, In Powerful Committee, Senator, Graduate Degree, Female, Age and Wealth Level. In Powerful Committee is an indicator for whether a Congress member has ever served in a powerful committee. Wealth Level$_k$ is equal to 1 if the average estimated wealth level of a Congress member is in the k_{th} quartile, $k = 2, 3, 4$. Wealth Level$_1$ is the baseline group. Property characteristics include In District, Building Area (1,000 sqft.), N. of Bedrooms, N. of Bathrooms and Building Age (years). In District is equal to 1 if the property is the Congress member's Congressional district. Column (1) considers Congress members' characteristics, property location and holding period (years) of the property. Column (2) adds property characteristics controls. Column (3) further controls for Congress member wealth level. Columns (4) and (5) split the sample into primary residences and investment properties, respectively. *,**, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	log (annual two-way return)				
	(1)	(2)	(3)	(4)	(5)
Republican	0.005	0.006	0.002	0.004	−0.001
	(0.008)	(0.009)	(0.010)	(0.012)	(0.017)
In powerful committee	0.001	0.006	0.0003	0.016	−0.016
	(0.013)	(0.014)	(0.017)	(0.020)	(0.028)
Senator	−0.010	−0.007	−0.010	−0.003	−0.016
	(0.012)	(0.013)	(0.015)	(0.017)	(0.026)
Graduate degree	−0.012	−0.013	−0.014	−0.0002	−0.029*
	(0.008)	(0.009)	(0.010)	(0.013)	(0.016)
Female	0.004	0.002	0.011	0.015	0.014
	(0.011)	(0.011)	(0.012)	(0.015)	(0.021)
Buyer's age	0.0002	0.0001	−0.0001	−0.0004	0.0004
	(0.0003)	(0.0003)	(0.0004)	(0.001)	(0.001)
In district	−0.008	−0.011	−0.007	−0.013	0.0002
	(0.009)	(0.009)	(0.011)	(0.013)	(0.018)
Holding period (years)	−0.005***	−0.005***	−0.005***	−0.002*	−0.009***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
Building age (years)		0.0001	0.0001	0.0001	0.0001
		(0.0001)	(0.0001)	(0.0002)	(0.0003)
Building area (1,000 sqft.)		−0.002*	−0.002*	0.002	−0.003*
		(0.001)	(0.001)	(0.005)	(0.001)
N. of bedrooms		−0.004	−0.003	−0.003	−0.006
		(0.009)	(0.010)	(0.011)	(0.019)
N. of bathrooms		0.005	0.006	0.009	0.003
		(0.009)	(0.010)	(0.011)	(0.019)
Wealth level$_2$			0.015	0.028*	−0.011
			(0.013)	(0.014)	(0.023)
Wealth level$_3$			0.016	0.003	0.013
			(0.013)	(0.015)	(0.022)
Wealth level$_4$			0.020	0.031	−0.005
			(0.014)	(0.023)	(0.022)
Constant	0.085***	0.087***	0.082***	0.027	0.139***
	(0.022)	(0.025)	(0.031)	(0.039)	(0.052)
Observations	641	505	420	199	221
R^2	0.055	0.067	0.080	0.071	0.153

Table C.3: Politicians' real estate returns by election outcome

This table presents regression estimates of the model in equation (1) for only politician transactions. Runner-up after-election transactions (in ∪ out) belong to the baseline group. Column (1) reports estimates for all elections. Columns (2)–(6) report estimates for close elections, where the margin, i.e., the vote share gap between the winner and the runner-up, was within 20, 10, 5, 3, and 1 percentage points. Section 3.1 defines the variables. Figure 4 classifies politicians' transactions according to their career status. Robust standard errors are reported in parentheses. *,**, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	log (annual two-way return)					
	All	Margin ≤ 20	Margin ≤ 10	Margin ≤ 5	Margin ≤ 3	Margin ≤ 1
	(1)	(2)	(3)	(4)	(5)	(6)
Winner						
Pre Election (pre)	3.82***	2.35*	3.55**	3.65*	4.38*	7.44*
	(0.952)	(1.29)	(1.66)	(2.10)	(2.51)	(4.02)
In Office (in)	3.03***	2.76**	3.76**	3.41	5.61*	13.0***
	(0.916)	(1.39)	(1.78)	(2.47)	(3.01)	(4.36)
After Office (out)	0.889	-0.630	-1.21	-1.75	-1.45	2.50
	(1.19)	(1.55)	(1.91)	(2.53)	(3.28)	(4.47)
Runner-up						
Pre Election (pre)	4.15***	3.34***	3.27**	2.36	2.37	7.83***
	(0.952)	(1.25)	(1.64)	(2.06)	(2.51)	(2.82)
Constant	4.28***	4.88***	4.17***	4.24***	4.33**	-0.389
	(0.652)	(0.901)	(1.20)	(1.55)	(1.96)	(2.19)
Observations						
Politicians	1,378	680	422	284	205	88

Table C.4: Heterogeneity of politicians' real estate returns

This table presents regression estimates of the model in equation (1). Column (1) reports estimates for all elections. Columns (2)–(5) report results for All politicians (All); Local politicians (Local); Congress members (National); Investment properties (Invest.); and Non investment properties (Non Invest.) of Congress members. Section 3.1 defines the variables. Figure 4 classifies politicians' transactions according to their career status. Standard errors clustered at the ZIP code level are reported in parentheses. *,**, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	log (annual two-way return)				
	All	Local	National	Invest.	Non Invest.
	(1)	(2)	(3)	(4)	(5)
Winner					
Pre Election (pre)	3.86***	4.91***	2.95***	3.92**	1.88
	(0.710)	(0.920)	(1.06)	(1.67)	(1.22)
In Office (in)	3.07***	2.75**	3.22***	3.85***	2.05**
	(0.688)	(1.19)	(0.840)	(1.15)	(0.909)
After Office (out)	0.929	1.45	-0.197	-1.63	1.17
	(1.01)	(1.27)	(1.64)	(2.24)	(2.34)
Runner-up					
Pre Election (pre)	4.19***	4.76***	3.25**		
	(0.733)	(0.888)	(1.27)		
After Election (in ∪ out)	0.040	0.082	-0.049		
	(0.662)	(0.828)	(1.08)		
Constant	4.24***	4.24***	4.24***	4.24***	4.24***
	(0.035)	(0.035)	(0.035)	(0.035)	(0.035)
Observations					
Politicians	1,378	758	620	225	163
Non Politicians	24,364,341	24,364,341	24,364,341	24,364,341	24,364,341
Total	24,365,719	24,365,099	24,364,961	24,364,566	24,364,504

Table C.5: Opportunity Zones and politicians' housing ownership

This table reports coefficient estimates from the regression in equation (C.1). The dependent variable (Designated) is an indicator variable equal to 100 if the census tract is selected as an Opportunity Zone, and 0 if the tract is qualified but not selected as an Opportunity Zone. Poverty rate and household income data are from the Urban Institute and MSA- and state-level median income are from the 2011–2015 American Community Survey. Ownership is a dummy variable which is equal to 1 if there is at least one politician/Congress member/governor/local politician property in an eligible census tract in 2017. Ownership in column (1) comes from all politicians, in column (2) comes from Congress members (National), in column (3) comes from governors (State) and in column (4) comes from local politicians (Local). We control for median household income at the census tract, MSA and state level and poverty rate at the census tract level. *,**, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	Designated			
	All	National	State	Local
	(1)	(2)	(3)	(4)
Ownership	3.22*	2.17	3.61	5.94
	(1.94)	(2.37)	(5.55)	(4.17)
Poverty rate	0.451***	0.451***	0.451***	0.451***
	(0.030)	(0.030)	(0.030)	(0.030)
Ln(Tract median income)	-20.6***	-20.5***	-20.5***	-20.5***
	(1.08)	(1.08)	(1.08)	(1.08)
Ln(MSA median income)	11.7***	11.6***	11.6***	11.7***
	(1.56)	(1.56)	(1.56)	(1.56)
Ln(State median income)	15.2***	15.2***	15.2***	15.2***
	(2.00)	(2.00)	(2.00)	(2.00)
Constant	-67.7***	-67.6***	-67.8***	-67.9***
	(18.2)	(18.2)	(18.2)	(18.2)
Observations	29,437	29,437	29,437	29,437
R^2	0.106	0.106	0.106	0.106