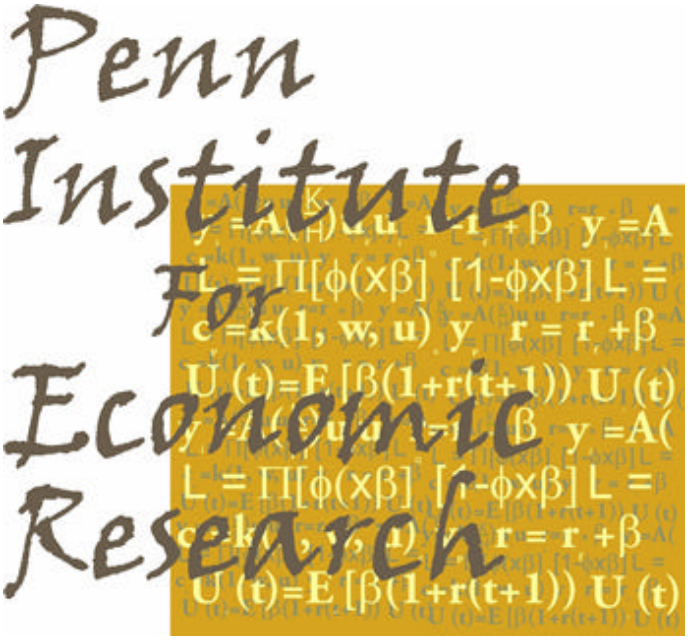

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"Money, Political Ambition, and the Career Decisions of Politicians"

by

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Money, Political Ambition, and the Career Decisions of Politicians*

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Abstract

In this paper we assess the impact of a variety of policies that may influence the career decisions of members of the U.S. Congress, using the empirical framework of Diermeier, Keane and Merlo (2005). These policies alter incentives to run for re-election, run for higher office or leave Congress, by altering wages, non-pecuniary rewards and career prospects (both in and out of Congress). We find that reducing the relative wage of politicians would substantially reduce the duration of congressional careers. Notably, however, the effect varies considerably across different types of politicians. A reduction in the congressional wage would disproportionately induce exit from Congress by "skilled" politicians, Democrats, politicians who were relatively young when first elected, and those without pre-congressional political experience. Interestingly, however, it would not cause the type of politicians who most value legislative accomplishments ("achievers") to disproportionately exit Congress. Thus, wage reductions would not reduce the "quality" composition of Congress in this sense. Term limits also have similar effects on achievers and non-achievers. However, we find that term limits would disproportionately induce members of the majority party to exit Congress. This has the interesting implication that term limits make it more difficult to sustain substantial congressional majorities over time. We do find three types of policies that disproportionately induce non-achievers to leave Congress: (i) elimination of seniority as a determinant of key committee assignments, (ii) restricting private sector employment after leaving Congress, and (iii) reducing the seniority advantage in elections. (*JEL* D72, J44, J45)

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1. Introduction

Understanding the motivations of politicians, particularly the extent to which their career decisions are influenced by monetary incentives vs. political ambition – where the latter may take the form of lust for political power and/or the perks and prestige of office, or the more positive form of the desire for public service and/or legislative achievement – has long being of great interest to social scientists. In his famous 1918 lecture *Politics as a Vocation*, Max Weber writes:

> "Politics, just as economic pursuits, may be a man's avocation or his vocation. [...] There are two ways of making politics one's vocation: Either one lives 'for' politics or one lives 'off' politics. [...] He who lives 'for' politics makes politics his life, in an internal sense. Either he enjoys the naked possession of the power he exerts, or he nourishes his inner balance and self-feeling by the consciousness that his life has meaning in the service of a 'cause.' [...] He who strives to make politics a permanent source of income lives 'off' politics as a vocation." [from Gerth and Mills (1946; pp. 83-84)]

Recently, political economists have begun to investigate the relation between relative salaries in the political and private sectors and the behavior of politicians. For example, Besley (2004), Caselli and Morelli (2004) and Messner and Polborn (2004) model the relationship between relative wages of elected officials and their average ability, in environments where ability is uni-dimensional (i.e., common to the political and private spheres). Individuals decide whether to run for office based on their ability. In Caselli and Morelli (2004), individuals with relatively low ability have a lower opportunity cost of running, as they face worse opportunities in the private sector. This constrains the options available to voters, and may generate equilibria where only low-ability politicians are elected.[1] In their framework, increasing the relative wage of elected officials increases the average ability of politicians.[2] Similarly, in the model of Messner and Polborn (2004), lower ability individuals are more likely to run for office in equilibrium. The equilibrium mechanism is different, however. It relies on the fact that if salaries of elected officials are relatively low, high-ability individuals may free-ride by not running and letting low-ability types run instead. This implies a U-shaped relation between the salary of elected officials and their average ability.[3]

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[1] In their model, the prestige from holding office depends on the quality of the political class. If incompetent individuals are elected, politics becomes a low-status occupation, which further deters high-ability individuals from entering.

[2] Besley (2004) obtains a similar result in the context of a political agency model with moral hazard and adverse selection, and also provides some empirical evidence.

[3] While the probability that low-ability individuals run for office increases monotonically with the salary, for high-ability individuals it may decrease at relatively low levels of salary before it increases.

Mattozzi and Merlo (2007), on the other hand, propose a dynamic equilibrium model of the careers of politicians. In their model there are two dimensions of ability, political skills and market ability. Individual endowments of each type of skill, which are private information, are positively correlated. In equilibrium, there are both career politicians (who work in the political sector until retirement) and individuals with political careers (who leave politics before retirement and work in the private sector). Career politicians enter the political sector because of the non-pecuniary rewards from being in office, which include both ego rents and potential benefits from influencing policy. Individuals with political careers, on the other hand, enter the political sector in order to increase their market wages.[4] In equilibrium, individuals with political careers (i.e., those who eventually plan to voluntarily leave politics to reap rewards in the private sector) have relatively better political skills than career politicians, although career politicians are still better than average.

Mattozzi and Merlo find that an increase in the salary a politician receives while in office decreases the average quality of individuals who become politicians, decreases turnover in office (as the proportion of career politicians goes up), and has an ambiguous effect on the average quality of career politicians. These results derive from the fact that a higher salary in the political sector makes politics a relatively more attractive option for all levels of political skills, thus lowering the quality of the marginal politician. At the same time, however, relatively better incumbent politicians are willing to remain in politics, since the salary in politics is now better relative to the market wages.

In this paper, we analyze empirically how career decisions of politicians respond to a variety of monetary and non-pecuniary incentives. The obvious starting point for analyzing incentives faced by politicians is to quantify the relative costs and benefits of a career in politics. The benefits of public office include both instantaneous payoffs (realized upon electoral success), as well as future payoffs (the chance to run for higher office, enhanced post-politics employment prospects, etc). Also, these payoffs have a monetary component (the salary while in office or enhanced future wages in other occupations), and a non-pecuniary component (perks of office as well as benefits from participating in the policy-making process). Individuals may differ with respect to their assessment of the relative importance of these two components. At the same time, political careers entail (personal and monetary) costs associated with running for public office, as well as opportunity costs associated with possibly foregoing or postponing more lucrative activities in the private sector.

[4] Since political skills are positively correlated with market ability, and politics is a showcase (i.e., individuals who serve in office display their political skills), incumbent politicians may leave the political sector and work in the market sector at a higher wage than they would have anticipated receiving had they not become politicians.

In a recent paper, Diermeier, Keane and Merlo (2005) – henceforth, DKM – propose a general framework for the empirical analysis of the costs and benefits of a career in the U.S. Congress.[5] They specify a dynamic model of the career decisions of a member of Congress, and estimate the model using a newly collected data set that contains detailed information on all members of Congress in the post-war period. A novel feature of the data is that it incorporates information about post-congressional employment and salaries when members exit Congress, which allows estimation of the private returns to congressional experience in post-congressional employment. They find that congressional experience significantly increases post-congressional wages in the private sector.[6] DKM's framework also allows estimation of the relative importance of the benefits politicians derive from being in office and the monetary returns to a career in Congress. They find that the non-pecuniary rewards from serving in Congress are substantial (especially in the Senate). Also, using data on important legislative achievements by members of Congress compiled by Mayhew (2000), they relate part of these non-pecuniary rewards to the desire for policy accomplishments or political ambition, which they estimate to be rather large.[7]

An important aspect of the framework in DKM is that it takes into account that the decision of a member of Congress to seek reelection depends not only on current payoffs, which depend, in turn, on the probability of winning in the current election, but also on the option value of holding the seat. This option value may depend, among other things, on the probability of being named to a committee, or winning a bid for higher office in the future (e.g., a member of the House may run for a seat in the Senate), as well as future career opportunities outside of Congress.

The DKM framework also distinguishes among "types" of politicians, who differ both in their tastes over different aspects of the rewards from office and in their skills. Politicians differ both according to observed characteristics (e.g., age, educational background, family background,

[5] The study of congressional careers has a long tradition in American politics (see, e.g., Schlesinger (1966) and Hibbing (1991)). Recently, several authors have studied the determinants of representatives' choices among three basic career options: (i) run for reelection; (ii) run for higher office, and (iii) retire (see, e.g., Groseclose and Krehbiel (1994), Groseclose and Milyo (1999), Hall and van Houweling (1995), and Kiewiet and Zeng (1993)). These studies estimate static choice models that ignore the dynamic aspects of politicians' career choices, such as their career prospects after leaving Congress, and do not consider hetereogeneity in politicians' tastes/skills. DKM incorporate all these factors.

[6] Winning re-election in the House (Senate) for the first time increases post-congressional wages in the private sector by 4.4% (16.7%). However, the marginal effect of congressional experience on post-congressional wages diminishes quite rapidly with additional experience: averaging over members' actual experience levels, the marginal effect on post-congressional wages of an additional term in the House (Senate) is equal to 2.4% (5.2%).

[7] General non-pecuniary rewards amount to over $200,000 per year for a senator and about $30,000 per year for a representative (in 1995 dollars). For comparison, the average annual salary of a member of Congress over the sample period 1947-1994 was $120,378 (in 1995 dollars). In addition, the non-pecuniary rewards from important legislative accomplishments are about $350,000 and $400,000 for representatives and senators, respectively.

party affiliation, and prior political experience) and unobserved or "latent" characteristics. The two latent characteristics are: (i) political skill (i.e., politicians are either "skilled" or "unskilled") which refers to the ability to win elections, and (ii) the politician's political ambition or desire for legislative accomplishment. Specifically, DKM use Mayhew (2000)'s compilation of legislative accomplishments to categorize politicians as "achiever" and "non-achiever" types – i.e., those who value and are effective at realizing important legislative accomplishments vs. those who are not.

In this paper, we use DKM's framework to quantify the potential effects of a wide range of hypothetical policies on the career decisions of members of Congress. Of central importance is the question of whether particular policies would impact the composition of Congress by differentially affecting incentives of different types of politicians. For instance, a policy that disproportionately induced achievers to leave Congress may be viewed as undesirable, *ceteris paribus*.

The policies we consider affect the incentives of members of Congress in different ways. They can be broadly classified into four groups depending on whether they affect politicians': (i) career prospects within Congress; (ii) employment opportunities outside Congress; (iii) wages or other monetary and non-monetary rewards from serving in Congress or in alternative occupations; or (iv) chances of re-election to Congress. For example, the first group of policies includes abolishing congressional committees and not allowing members of the House to run for the Senate. The second group includes forbidding politicians from working in the private sector after exiting Congress. The third group includes reductions in congressional wages or pensions, and increases in wages outside Congress. The fourth group includes term limits.[8]

The policies we consider can also be distinguished by whether they are feasible policies that might conceivably be implemented in some form, or whether they are purely hypothetical policy experiments, conducted solely to help understand the nature of politicians' career incentives. For example, eliminating congressional committees is not a proposal that would ever be seriously considered. But, as key committee membership does generate payoffs through various channels (e.g., enhancing re-election prospects), the experiment of eliminating committees sheds light on the role of such factors in career decisions. On the other hand, term limits, changes in congressional salaries, restrictions on activities that politicians may engage in after leaving office (i.e., lobbying activities), and policies to reduced seniority advantages in being named to key committees or in

[8] DKM consider effects of term limits as well. However, they look only at effects on the probability of running for re-election or for higher office, differentiated by the politician's age and skill level. We look at effects on additional decisions, and differentiate behavior along many more dimensions, such as political party and political experience.

running for re-election, are all policies that have been seriously considered. Thus, there is an actual policy interest in understanding how such policies would affect decisions of members of Congress.

Our main findings can be summarized as follows. First, the effect of reducing the relative wage of members of Congress is fairly sizeable. For example, a 20% reduction in the congressional wage leads to a 14% decrease in the average duration of congressional careers. Notably, however, the effect is not uniform across politicians of different types. A reduction in the congressional wage would disproportionately induce skilled politicians to exit Congress. The effect is also relatively large for Democrats, politicians who were relatively young when first elected to Congress, and those with no prior political experience (generally in local office) before entering Congress.

However, we find that a salary reduction does not cause the achiever type to disproportionately exit Congress. We would argue that whether a politician is the "achiever" type is perhaps a better measure of his/her "quality" than whether he/she is the "skilled" type (which refers to a politician's ability to win elections, or electability). Thus, referring to the theoretical papers on the impact of salary noted above, our conclusion is that salary does not differentially impact the career decisions of high vs. low quality members of Congress, although it does affect skilled politicians relatively more.

Interestingly, we do find three types of policies that disproportionately induce non-achievers to leave (or achievers to stay) in the Congress. These are policies that: (i) eliminate seniority as a determinant of key committee assignments; (ii) restrict private sector employment after leaving Congress; or (iii) reduce the seniority advantage in elections. An example of (ii) would be restricting former members of Congress from working as lobbyists, while examples of (iii) would be various types of campaign finance reform that reduce fundraising advantages of incumbents.

Two other results are worth commenting on. First, we find that term limits would have similar effects on achievers and non-achievers. Thus, they would not help to improve the quality composition of Congress in this sense. Second, we find that term limits would disproportionately induce members of the majority party (Democrats during our sample period) to exit Congress. This has the interesting implication (to our knowledge not previously noted) that term limits would make it more difficult to sustain substantial congressional majorities over time.

The rest of the paper is organized as follows. In Section 2, we provide a brief summary of the DKM model and the data used to estimate it. Section 3 presents the results of our policy experiments. Section 4 summarizes our results and concludes.

2. The Model

2.1. Overview

We model the career decisions of a member of Congress as the solution to a stochastic dynamic optimization problem with a finite horizon. Let $t = 1,\ldots,T$ denote a generic decision period, where the length of a period is two years – the length of a House term – and T is the terminal decision period after which an individual must exit Congress.[9]

To illustrate the basic features of the model, consider a sitting member of the U.S. House. At the end of the two-year House term, he/she must decide whether to run for reelection, run for a seat in the Senate (if available), retire from professional life, or leave Congress to pursue an alternative career. In order to solve this decision problem, the representative compares the expected present value of current and future payoffs associated with the different alternatives, being fully aware of the fact that current decisions will affect the distribution of future payoffs.

For example, if a politician decides to exit Congress and pursue an alternative career, he/she faces a distribution of potential post-congressional wages determined, in part, by his/her current stock of congressional experience. On the other hand, if the politician decides to run for reelection, and is succesful, then he/she remains in the House for two more years, collects the congressional wage along with any non-pecuniary payoffs from office, and faces a similar decision problem at the end of the next House term. The politician recognizes that this additional term in Congress may improve post-congressional employment prospects, and may enhance the probability of winning a future bid for higher office. At the same time, he/she also recognizes that running for election entails the possibility of losing, which may also affect future prospects outside Congress. The politician takes all these considerations into account when making the current decision.

To simplify the exposition of the model, it is useful to start by listing the state variables that are relevant to the decision problem of a member of Congress. Since in any given period t a politician i can either be in the House, in the Senate, or have exited Congress, as a compact notation we use XH_{it}, XS_{it}, and XP_{it} to denote the set of state variables relevant for the current decisions of representatives, senators, and ex-members of Congress, respectively. In particular, we have:

$$XH_{it} = (BA_i, JD_i, Age_{it}, Party_i, TH_{it}, TS_{it}, COM_{it}, VE_{it}, Skill_i, Achieve_i, SOD_i, SOS_{it}, SOW_t, Scandal_{it}, \mathrm{Re}dist_{it}, ES_{it}, Cycle_{it}, INC_{it}, Cohort_i), \tag{1}$$

[9] Since the maximum duration of a congressional career is 50 years of service (Strom Thurmond served in the Senate for almost 50 years, from 1954 to 2003, when he died in office at the age of 100), we let $T = 25$.

$$XS_{it} = (BA_i, JD_i, Age_{it}, Party_i, TH_{it}, TS_{it}, COM_{it}, VE_{it}, Skill_i, Achieve_i, SOS_{it}, SOW_t, Scandal_{it}, ST_{it}, Cohort_i), \quad (2)$$

$$XP_{it} = (BA_i, JD_i, Age_{it}, TH_{it}, TS_{it}, COM_{it}, VE_{it}, Skill_i). \quad (3)$$

Here, BA_i and JD_i are dummy variables denoting whether politician i has a bachelor's degree and a law degree, respectively. Along with age, Age_{it}, they characterize the politician's general human capital. The variable $Party_i$ indicates whether a politician is a Democrat or a Republican. TH_{it}, TS_{it}, and COM_{it} summarize a politician's congressional experience, where TH_{it} and TS_{it} are the number of prior terms served in the House and Senate, respectively, and COM_{it} is a dummy variable indicating whether, during the prior term in the House, a representative served on a major committee.[10] Moreover, if politician i is no longer in Congress in period t, VE_{it} is an indicator for whether he/she left Congress voluntarily or by losing a reelection bid.

The variables $Skill_i$ and $Achieve_i$ denote a politician's unobserved type. Specifically, $Skill_i$ is a dummy variable equal to 1 if the politician is "skilled" (i.e., he/she possesses characteristics, such as "valence" or "charisma," that increase the probability of winning elections) while $Achieve_i$ indicates the preference-type of a politician; it equals 1 if the politician values personal legislative achievements (i.e., what we call an "achiever"). Crossing $Skill_i$ with $Achieve_i$ gives four possible types of politicians.

We emphasize that we do not observe these types directly. Rather, a politician's likely type is inferred as part of the estimation of the structural model, described in detail in DKM. Loosely speaking, however, a politician is likely to be high skilled if he/she wins a large number of elections, particularly under difficult circumstances (see below), and a politician is likely to be an "achiever" if he/she records a relatively large number of legislative accomplishments.

The variables SOD_i ("state-of-the-district"), SOS_{it} ("state-of-the-State"), and SOW_t ("state-of-the-world"), measure the political climate surrounding elections. They indicate, respectively, whether local district conditions (if the politician is a member of the House), State-wide conditions and National conditions favor election of a Democrat or a Republican or are neutral. The variable $Scandal_{it}$ is an indicator for being involved in a scandal at time t, and, if a politician is a member of the House, $Redist_{it}$ is an indicator for whether his district has been affected by redistricting during the current period. The construction of these variables is described in detail in DKM.

[10] Committee membership is less important in the modern Senate (Sinclair (1989)), and following Deering and Smith (1990) we define the major House committees as Ways and Means, Appropriations, and Rules.

The variables ES_{it}, $Cycle_{it}$, and INC_{it} summarize the status of the two Senate seats in a representative's State. As a Senate term is six years and State senatorial elections are staggered, the variables $Cycle_{it}$ and INC_{it} characterize the current position of a representative's State in its "Senate cycle," and the incumbency status of the two Senate seats, respectively. There are three possible positions in the Senate cycle, depending on whether a seat is currently up for election and the other seat is coming up for election in either one or two periods, or neither seat is currently up for election. There are four possible incumbency configurations depending of the party affiliations of the two sitting senators. The variable ES_{it} ("election status") describes the set of options available to representative i at time t, indicating whether no Senate seat is up for election in the representative's State (in which case his/her only options are to run for reelection or leave Congress), or a Senate seat is up for election and there is either an incumbent Democratic senator running for reelection, a Republican, or the seat is open (i.e., no incumbent is running for reelection).

The variable ST_{it} ("Senate term") characterizes the options available to senator i at time t. It equal 2, 4 or 6. If a senator has served 2 or 4 years of his/her term, the options are to continue to serve or exit Congress. If ST=6 the term is up and the senator must decide whether to run for reelection or exit Congress). Finally, to capture important institutional changes over time, $Cohort_i$ is a variable indicating whether a politician entered Congress in 1947-1965, 1967-1975 or 1977-1993.

2.2. Decisions of Politicians upon Leaving Congress

The politicians in our model must solve a finite-horizon discrete dynamic programming (DP) problem in order to determine their optimal choice in each period. Such problems are generally solved "backwards." Thus, we first describe the choice problem faced by a member of Congress at the end of his/her congressional career – i.e., when he/she exits Congress (either voluntarily or via electoral defeat). At that point, the politician can choose between three options: work in a private sector occupation, work in the public sector (i.e., another political job) or retirement. The wages a politician may obtain in the two occupations are given by: [11]

$$W_{ijt} = W_j\left(XP_{it}\right) + \varepsilon_{ijt}, \tag{4}$$

where j=1,2 denote employment in the private and public sector, respectively, and $W_j(XP_{it})$ is the deterministic part of the wage offered to individual i in occupation j in period t. This depends on XP_{it} the politician's state at the time he/she exits Congress, which, the reader will recall, includes

[11] By other political jobs we are thinking primarily of appointed positions, such as cabinet posts, bureaucratic positions, etc. We abstract from the fact that a politician might have to run or be confirmed for some such positions.

congressional experience, which enhances post-congressional wage offers. It also includes age, education, political skill,[12] and whether he/she left Congress voluntarily or via electoral defeat. The term ε_{ijt} represents the purely stochastic component of the wage offer, which is revealed when the politician exits Congress. Then, the payoffs to an individual in the two working options are:

(5) $PW_{i1t} = W_{i1t} + \alpha_{1C} COM_{it}$, (private sector)

and

(6) $PW_{i2t} = W_{i2t} + \alpha_{2C} COM_{it} + \alpha_{2W}$, (public sector),

where the terms α_{1C} and α_{2C} capture the monetized value of having served on a major House committee (which may generate additional income from speaking engagements, consulting, book contracts, etc., and may differ depending on whether the politician's post-congressional occupation is in the private or public sector), and α_{2W} captures the monetized value of the non-pecuniary rewards from holding a political job.

If, on the other hand, a politician retires after exiting Congress, he/she may, depending on age and length of service, be eligible to receive pension payments according to the congressional pension rule $PE_{it}(Age_{it}, TH_{it}, TS_{it})$. Then, the payoff in the retirement option is:

(7) $PR_{it} = PE_{it}(Age_{it}, TH_{it}, TS_{it}) + \alpha_L + \alpha_{VE} VE_{it}$,

where the term α_L captures the monetized value of leisure. The term VE_{it} is a dummy variable indicating whether a politician left Congress voluntarily (rather than via electoral defeat), and α_{VE} captures an additional value of leisure for such politicians. We include this term because politicians who voluntarily exit are far more likely to completely retire after leaving Congress (rather than taking another job). Thus, we take voluntary exit as an indicator that the politician may be ready for retirement.

Together, equations (5), (6) and (7) give the per-period payoffs for each of the three post-congressional alternatives a politician faces at exit. But, of course, a politician's choice after leaving Congress depends not just on current payoffs but on the expected present value of the whole stream of future payoffs (until the end of life) associated with each option. Let $PV_j(XP_{it}, \varepsilon_{ijt})$ for j=1,2 and $PV_3(XP_{it})$ denote these present values for the private sector, public sector and retirement option,

[12] That is, we allow for the possibility that political skill also enhances productivity in the private sector. However, the estimates of the model imply that the two are not significantly correlated.

respectively.[13] The calculation of these present values depend on death and retirement transition probabilities, as well as congressional pension rules, in a fairly complex way, so we refer the reader to DKM for details.

Throughout the model, we assume there is a mean-zero, idiosyncratic (politician specific) taste shock associated with each possible choice a politician can make in any decision period. Such an assumption is standard in discrete choice modeling, as the existence of such unobservables (i.e., aspects of payoffs to the choice alternatives that the agents observe but we don't) is not only reasonable, but also necessary. Otherwise, we could not explain why otherwise similar looking agents (in terms of the observed state variables) often make different choices. Thus, regarding post-congressional choices, if we let (ξ_{i1t}, ξ_{i2t}, ξ_{i3t}) denote the vector of taste shocks (or unobserved non-pecuniary rewards) for politician i at time t associated with working in the private sector, working in the public sector, or retiring, then the expected value of the decision to exit Congress is given by:

$$(8) \qquad V_E(XP_{it}) = E_\varepsilon E_\xi \max\{PV_1(XP_{it}, \varepsilon_{i1t}) + \xi_{i1t}, PV_2(XP_{it}, \varepsilon_{i2t}) + \xi_{i2t}, PV_3(XP_{it}) + \xi_{i3t}\}.$$

This equation says that the value of exit in state XP_{it} is the maximum of the payoffs from the three options (private job, public job, retire). But, at the time a politician is deciding whether to exit Congress, he/she can only form an expectation of this object; the politician does not yet know what the stochastic part of wage offers $\{\varepsilon_{ijt}\}_{j=1,2}$ or the alternative specific taste shocks (or unobserved non-pecuniary rewards) $\{\xi_{ijt}\}_{j=1,3}$ will be.[14] The notation $E_\varepsilon E_\xi$ denotes the expectation taken over possible values of these draws. Of course, upon exiting Congress the wage and taste shocks are revealed to the politician, who is aware of them at the time he/she chooses a post-congressional occupation or retirement.

We refer the reader to DKM for details of how to numerically calculate the expression in (8). For our purposes, the most crucial point is that it is increasing in congressional experience – including terms in the House and Senate and important committee membership – as such experience bears returns in the post-congressional options (including both the employment option, where it raises wages and non-pecuniary rewards, and the retirement option, where it raises pensions).

[13] Note that the values of the two employment options depend on the wage draws $\{\varepsilon_{ijt}\}_{j=1,2}$ that the politician receives upon leaving Congress.

[14] This assumption can be interpreted as an assumption that firms cannot make job offers to politicians while they are still in Congress.

2.3. Decisions of Sitting Senators

We next turn our attention to the decisions of a sitting senator. Consider first the case where the senator's seat is not up for election, so the choice is simply to stay in office or exit. If the senator decides to stay in office, then he/she receives the per-period payoff from sitting in the Senate, which includes both the wage and non-pecuniary rewards. Denote by $V_S(XS_{it}, s)$ the value of choosing the option of remaining in the Senate given the relevant state variables (XS_{it}, s), where the second element of the state vector indicates that the politician is already a sitting senator. We have:

$$(9) \qquad V_S(XS_{it}, s) = W_S(t) + \alpha_S + Achieve_i\, p_{AS}(XS_{it})\alpha_{AS} + \mu_{1Sit} + \delta(1-\pi_d(Age_{it}))EV(XS_{i,t+1}, s).$$

The first four terms in (9) capture the current payoff from staying in the Senate at time t. $W_S(t)$ is the wage the senator receives, and α_S is the monetized value of the per-period non-pecuniary reward from being in the Senate (e.g., perks and prestige). While all senators receive these rewards, those of the type who value personal legislative achievements (i.e., $Achieve_i = 1$) get an additional payoff contingent on realizing such an accomplishment. We let α_{AS} denote the monetized value of the non-pecuniary benefit the achievement generates, while $p_{AS}(XS_{it})$ denotes the probability of realizing an achievement.[15] This depends on the senator's type and congressional experience. The term μ_{1Sit} is a mean-zero stochastic shock to i's utility from being in the Senate at time t, which may capture random fluctuations in the non-pecuniary rewards over time.

The last term in (9), $EV(XS_{i,t+1}, s)$, is the expected present value of the state the politician arrives at in period t+1 given that he/she chooses to remain in the Senate until that point. This is multiplied by the discount factor δ and the survival probability ($1-\pi_d(Age_{it})$), as the senator cannot receive this future payoff unless he/she survives until the next period. It is perhaps easiest to understand what $EV(XS_{i,t+1}, s)$ is by considering the case where term limits have been imposed, and the senator must leave office at t+1. In that case, $EV(XS_{i,t+1}, s)$ is exactly equal to the expected value of exiting Congress, $V_E(XP_{it})$, given in equation (8).

[15] Following Mayhew (2000), we define important legislative accomplishments to include such things as, e.g., sponsoring a major piece of legislature or casting the decisive vote on an important policy issue. It is important to note that it is only because we have data on achievements by individual members of Congress that we are able to estimate the fraction of members who are "achievers." We can also assign to each member of Congress the ex post probability that he/she is an achiever, based on his/her legislative history. There is some probability a member of Congress is an achiever even if he/she has no achievements, simply because one may strive for but not realize an achievement in any given term. However, a member of Congress who serves several terms with no achievements is very likely not an "achiever."

More generally, the value $EV(XS_{i,t+1}, s)$ depends on whether a senator's seat is up for election in the next period. If not, then $EV(XS_{i,t+1}, s)$ is simply the expected maximum of the value of exit and the value of staying in the Senate in period t+1:

$$(10a) \quad EV(XS_{i,t+1},s) = E\max\{V_S(XS_{i,t+1},s), V_E(XP_{i,t+1})\}.$$

But if a senator's seat is up for election at t+1, then $EV(XS_{i,t+1}, s)$ is equal to the expected maximum of the value of exit and the value of running for re-election – which we denote $V_{RS}(XS_{i,t+1}, s)$ and discuss further below. Specifically, we have:

$$(10b) \quad EV(XS_{i,t+1},s) = E\max\{V_{RS}(XS_{i,t+1},s), V_E(XP_{i,t+1})\},$$

We now turn to the definition of $V_{RS}(XS_{i,t+1}, s)$. Consider a senator whose seat is currently up for election, so the choice is either to run for re-election or leave Congress. If the senator runs, the probability of winning is $p_s(XS_{it})$, which depends on political skill, age, congressional experience, party affiliation, whether he/she is involved in a scandal, and the political climate surrounding the election. As a senator who loses a re-election bid must exit Congress and make a post-congressional career decision, the value of running for reelection to the Senate is given by:

$$(11) \quad V_{RS}(XS_{it},s) = p_S(XS_{it})EV_S(XS_{it},s) + (1 - p_S(XS_{it}))V_E(XP_{it}^*) + \alpha_{RS} + \mu_{RSit}.$$

Here, α_{RS} is the monetized value of the utility a senator gets from running for the Senate net of the cost of running (which may be either positive or negative), and μ_{RSit} is a mean-zero idiosyncratic shock to senator i's utility from running for reelection at time t.[16]

Now, combining the above expressions, we have that a senator whose seat is not up for re-election will choose to stay in the Senate if and only if equation (9) exceeds equation (8) – i.e., if $V_S(XS_{it}, s) > V_E(XP_{it})$ – while a senator whose seat is up for re-election will choose to run if and only if equation (11) exceeds equation (8) – i.e., if $V_{RS}(XS_{it}, s) > V_E(XP_{it})$.

2.4. Decisions of Members of the House of Representatives

We next consider the decisions of a sitting member of the House of Representatives. The timing of events in the politician's decision process is as follows. At the end of a two-year term, the representative decides whether to exit, run for reelection, or, if the option is available, run for a seat

[16] In (11), XP_{it}* denotes the XP_{it} sub-vector of XP_{it} with VE_{it} set to 0, since the senator exits via losing rather than voluntarily.

in the Senate. At the time of this decision, the politician knows the political climate for the upcoming elections, as well as whether his/her district was affected by redistricting and if he/she is involved in any scandal. Along with political skills, party affiliation, and congressional experience, all these variables affect the politician's electoral prospects. The representative also knows whether a Senate seat is up for election, whether an incumbent will run for the seat, and, if so, the party of the incumbent, which all affect his/her chances of success in a bid for higher office.[17]

Consider a representative's decision when running for the Senate, running for reelection, or exiting Congress are all available options. The value of running for the Senate is:

$$(12) \qquad V_{RS}(XH_{it}, h) = p_{HS}(XH_{it})EV_S(XS_S, s) + (1 - p_{HS}(XH_{it}))V_E(XP_{it}^*) + \alpha_{HS} + \mu_{HSit},$$

where h indicates that the politician is sitting in the House. Equation (12) resembles (11), the value to a sitting senator of running for Senate, except that the probability of winning, $p_{HS}(XH_{it})$, is of course different, and the net utility or disutility to a representative of running for a Senate seat, α_{HS}, differs from that of a sitting senator, α_{RS}.

On the other hand, the value of running for reelection to the House is:

$$(13) \qquad V_{RH}(XH_{it}, h) = p_H(XH_{it})EV_H(XH_{it}, h) + (1 - p_H(XH_{it}))V_E(XP_{it}^*) + \alpha_{RH} + \mu_{RHit},$$

where $p_H(XH_{it})$ is the probability of winning reelection to the House, α_{RH} is the monetized value of the utility a representative gets from running for the House net of the cost of running (which may be either positive or negative), and μ_{RHit} is a mean-zero idiosyncratic shock to representative i's utility from running for reelection at time t.

The expected value of sitting in the House given reelection at time t is:

$$(14) \qquad \begin{aligned} EV_H(XH_{it}, h) = {} & W_H(t) + \alpha_H + p_C(XH_{it}^*)\alpha_C + Achieve_i p_{AH}(XH_{it})\alpha_{AH} \\ & + \delta(1 - \pi_d(Age_{it}))EV(XH_{i,t+1}, h) \end{aligned}$$

The first four terms in (14) capture the current component of the payoff from sitting in the House at time t. $W_H(t)$ is the wage the representative receives, and α_H is the monetized value of the per-period non-pecuniary reward from being in the House. The term α_C is the monetized value of the non-pecuniary benefit of being named to a major House committee, and $p_C(XH_{it}^*)$ is the probability of

[17] For example, if there is an incumbent senator of the representative's own party running for the seat, there is little chance of success. If the incumbent is from the other party then the chances of winning may be better, but they are still small. If the seat is open, however, the representative's chances of winning may improve substantially.

being named.[18] In addition, a representative of the type that values legislative achievements (i.e., $Achieve_i$ =1) may receive additional utility that is contingent on having an important legislative accomplishment in that period. The probability of a political achievement by a representative is denoted $p_{AH}(XH_{it})$, and α_{AH} is the monetized value of the utility generated by an achievement.

The last term in (14) is the "future component" of the value of staying in the House, which consists of the expected present value of payoffs from t+1 onward, conditional on survival. Depending on whether or not a Senate seat will be up for election in the representative's State in the next period, this expected value is equal to the expected maximum of the values of exit, running for the Senate, and running for reelection in the House in period t+1:

$$(15a) \quad EV(XH_{i,t+1}, h) = E\max\{V_{RS}(XH_{i,t+1}, h), V_{RH}(XH_{i,t+1}, h), V_E(XP_{i,t+1})\},$$

or, if no Senate seat is up for election in the representative's State at t+1, it is simply the expected maximum of the value of exit and the value of running for reelection in period t+1:

$$(15b) \quad EV(XH_{i,t+1}, h) = E\max\{V_{RH}(XH_{i,t+1}, h), V_E(XP_{i,t+1})\},$$

respectively. In each case, the expectation is taken over information that will be revealed between t and t+1 (such as the time t+1 electoral climate, redistricting, scandals, etc.).

The solution of the model generates probability distributions of the career decisions of members of Congress, conditional on their state variables. Using the value functions in (8)–(15), we can also calculate the monetized value of a seat in Congress for each politician i at any time t. This value, which corresponds to the monetary payment (contingent on exit) that would render a member of Congress *ex ante* indifferent between giving up his/her seat prior to the expiration of the current term and continuing his/her congressional career, is equal to the *ex ante* difference between the value function of remaining in Congress and the value function of voluntarily exiting Congress.[19]

2.5. Type Probabilities and Probabilities of Winning Elections and of Committee Assignment

As noted above, our model allows for two dimensions of unobserved heterogeneity among politicians (i.e., whether they are "skilled" and whether they are "achievers"). To help predict the unobservable type of a politician, DKM specify two type-probability functions, π_S and π_A, which

[18] Recall that in (1) we defined XH_{it} as including the House committee status state variable COM_{it}. Hence, we let XH_{it}* denote the vector of state variables XH_{it}, but with COM_{it} replaced by COM_{i1-1}.

[19] By *ex ante* we mean before the politician's taste shocks at the time of the decision to run for reelection are realized. If the *ex ante* value functions are equalized, there is a 50/50 chance the politician will choose to exit after the taste shocks are realized.

depend on observable background characteristics of the politician – namely, whether the politician held another elected office prior to entering Congress, and whether he/she comes from a political family,[20] the politician's age when first entering Congress, whether the politician entered Congress as a representative or a senator, whether he/she serves in the same state where he/she was born, and his/her party affiliation.[21]

DKM estimate that age at entry, having prior political experience and coming from a political family are positively correlated with being the skilled type (although the later two associations are weak). Interestingly, DKM estimate that being the achiever type is *negatively* associated with age at entry and prior political experience, but *positively* associated with coming from a political family and entering the Senate directly. DKM also estimate that being an achiever type and being a skilled politician are mildly negatively correlated.[22]

Conditional on being an achiever type, the politician has a probability of actually realizing an important legislative achievement during any given time period. Earlier we denoted these by $p_{AS}(XS_{it})$ and $p_{AH}(XH_{it})$, as they differ between the House and Senate. DKM estimate that the only significant predictors of achievment in the House are seniority and being a member of the majority (Democratic) party, while the only significant predictor of achievment in the Senate is seniority.

The model described by equations (1)–(15) also contains four functions that determine the probabilities of winning elections, $p_S(XS_{it})$, $p_H(XH_{it})$, and $p_{HS}(XH_{it})$, and of being named to a major House committee, $p_C(XH_{it}^*)$. DKM estimate that the significant determinants of the probability of winning re-election to the House, besides of course the political climate and political skill, are seniority, key committee membership and age, which have positive effects, and redistricting and scandal, which of course have negative effects. Conditional on re-election, the probability of being named to a major House committee is significantly positively associated with seniority and age.

The significant determinants of the probability of winning re-election to the Senate, besides of course the political climate and political skill, are only age, which has a positive effect, and scandal, which of course has a negative effect. In addition, if seeking election to the Senate from the House, the probability of success depends positively on seniority in the House.

[20] In particular, a politician comes from a political family if he/she has relatives who had already been elected to Congress. See also Dal Bo, Dal Bo and Snyder (2006).

[21] In all cases, the probability functions described in this section are specified as simple logit functions of the relevant state variables.

[22] The probability of being an achiever conditional on being skilled is 24%, while that conditional on being unskilled is 30%.

2.6. Data and Estimation of the Model

By specifying parametric functional forms for the probabilities and wage functions as well as the distributions of the wage and taste shocks, DKM estimate the model described above by maximum likelihood using a newly collected data set containing detailed information on the careers of all House and Senate members who entered Congress from 1947 (the 80th Congress) to 1993 (the 103rd Congress), and either exited prior to or were still in Congress as of January 1995 (the inauguration of the 104th Congress). The data set provides measures for all the variables in the model. In particular, for each individual in the sample, the data set contains: (a) biographical data (i.e., age, place of birth, educational background, family background, party affiliation, prior political experience) and the record of congressional service; (b) a record of committee membership, possible scandals while serving in Congress and congressional wages; (c) redistricting and congressional opportunities data (i.e., opportunities to run for a Senate seat, seat vacant or incumbent present, party affiliation of the incumbent); (d) a record of important legislative accomplishments (i.e., sponsoring major pieces of legislation, delivering famous speeches, casting decisive votes on important issues); (e) post-congressional data (i.e., type of first job after service, first annual salary, pension benefits). DKM show that the estimated model tracks the observed behavior of politicians throughout their congressional careers remarkably well.[23]

3. Policy Experiments

3.1. Overview

In this section we use the DKM framework to perform a variety of policy experiments aimed at assessing the extent to which the career choices of politicians respond to monetary as well as other kinds of incentives. We consider four sets of policies. The first set limits the career prospects of politicians within Congress. The second set limits their post-congressional employment opportunities. The third set of policies consist of (i) changes in congressional wages, (ii) changes in non-monetary rewards to holding a seat in Congress, or (iii) changes in private sector wages, all of which have the effect of shifting the relative payoffs to careers in or out of Congress. The fourth and final set of policies limits opportunities for re-election.

To conduct our experiments, we simulate, using the estimated model, the career histories of 10,000 politicians with the same distribution of initial conditions (i.e., age, education, family

[23] See Diermeier, Keane and Merlo (2004, 2005) for a more detailed description of the data, the exact parameterization of the model, and details on the solution and estimation of the model.

background, type, party affiliation, prior political experience and whether they enter Congress in the House or the Senate) as in the data. We conduct the simulations both under a "baseline" scenario, which corresponds to the actual environment, as well as under the alternative scenarios defined by each of the counterfactual policy experiments we consider.

The results of the experiments are reported in Tables 1 through 5. Table 1 reports how each policy change affects the average duration of congressional careers. Table 2 reports how each experiment affects the choices of representatives (i.e., the probability they run for re-election, run for higher office or leave Congress). Similarly, Table 3 reports how the experiments affect the choices of senators. Next, Table 4 describes how each experiment alters the value of a House or Senate seat. This is defined as the monetary payment that would make a member of Congress indifferent between staying in Congress and exiting.[24] Finally, Table 5 reports how the experiments alter the decisions of politicians when they exit Congress (i.e., the percentage who take private sector jobs, public sector jobs, or retire completely).

The most important aspect of Tables 1-5 is that we report not just how each experiment would affect the average behavior of the whole population of politicians, but also how each policy would specifically affect the behavior of particular groups of politicians. The characteristics of politicians that we consider are the politician's latent type (i.e., whether a politician is a skilled type or an achiever type), political party, age at time of entry into Congress, and two career background characteristics: whether the politician is from a political family and whether he/she had prior political experience before entering Congress.

The reason we look at these characteristics is that it is of considerable interest to ask whether the policies we consider might alter the composition of Congress along these dimensions. For example, one might be particularly concerned about a policy that lowers the value of a seat in Congress for the type that values legislative achievement relative to the type that does not.

The two career background characteristics we examine – political family and prior political experience – seem particularly interesting in light of Weber's distinction between those who view politics as primarily a source of income vs. those who "live for" politics. *A priori*, one might expect those who work their way up through the ranks in local political jobs before attaining election to

[24] For example, a senator whose seat is up for re-election would choose to run if and only if equation (11) exceeds equation (8), that is if $V_{RS}(XS_{it}, s) > V_E(XP_{it})$. To calculate the value of the seat to such a senator, we must calculate the amount by which $V_{RS}(XS_{it}, s)$ exceeds $V_E(XP_{it})$. A payment of this magnitude would render the politician indifferent between running for re-election and exiting voluntarily. Similar quantities can be calculated for senators and

federal office to be more likely to be of the type who view politics as a source of sustenance (although, of course, one could make other arguments). Similarly, one would expect that those from political "dynasty" families are more likely to be of the type that "lives for" politics.

Before we present our results, an important caveat is in order. As the data used in estimation only contain members of Congress, our analysis is conditional on election to Congress. Thus, we can only evaluate the impact of policy changes on the career decisions of politicians who are already sitting members of Congress, not on the composition of the pool of potential candidates who choose to run for Congress in the first place. Nevertheless, we believe our analysis is still suggestive in this regard. For instance, policies that lower the value of a congressional seat for "achievers" relative to non-achievers would typically reduce the relative number of achievers who run for Congress in the first place. But we cannot go beyond this qualitative statement to make any quantitative assessment of such a policy's impact on the pool of candidates.

3.2. Baseline Simulation

Before turning to the policy experiments, a few aspects of the baseline simulations are notable. First, as we see in Table 1, while the average duration of a political career is 9.61 years, it is much greater for skilled politicians than others – 12.72 vs. 7.51 years – and it is quite a bit greater for the type of politician who values legislative achievements ("achievers") than for those who do not – 10.56 vs. 9.29 years. Also notable is that politicians with prior political experience before entering Congress have longer careers than those who do not – 9.85 vs. 8.81 years.

As we see in Table 2, achiever representatives have a much higher probability of running for Senate than non-achievers – 4.03% vs. 2.75% – yet they also have a higher probability of running for re-election to the House – 92.27% vs. 90.90%. Skilled politicians have a slightly lower probability of running for re-election to the House than unskilled, but they have a much higher probability of running for Senate – 4.37% vs. 1.29%.

In Table 4, the average value of a House seat is $616,228. But this value is quite a bit greater for achievers than non-achievers – $683,641 vs. $594,434 – and for the skilled than the unskilled – $658,294 vs. $559,425. Of course, the large value for achievers arises largely because they get utility from legislative accomplishments, a non-monetary return to office that other politicians do not get. And the value is greater for skilled politicians primarily because they are more likely to win re-election attempts.

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representatives in other situations. Viewed another way, the "value of the seat" is how much better off the politician is by remaining in Congress rather than exiting, converted into monetary terms.

Finally, in Table 5, we see that skilled politicians are much more likely to completely retire when they leave Congress than unskilled politicians – 27.2% vs. 7.6%. This is because skilled politicians rarely exit via electoral defeat, but rather because they have actually chosen to retire. As noted earlier, this may well signal a desire to retire in general, not just from politics. Interestingly, conditional on continuing to work, skilled politicians are more likely to choose private sector employment than unskilled politicians – 61% vs. 56%.

3.3. Policies that Limit Career Advancement within Congress

The first group of experiments we consider pertains to policies that limit the possibility of career advancement within Congress, by which we mean being named to an important House committee or successfully moving from the lower to the upper house of Congress.

Experiment 1a **(NOCOMSENIOR)**: Our first policy experiment is a change in rules that eliminates any seniority advantage for being named to important House committees. The effect of this policy can be seen by comparing the second column of Tables 1A through 5A, which describes behavior under the policy, with the first column, which describes behavior under the existing policy baseline. For instance, in Table 1A, we see that, for all members of the House, the policy reduces the average length of service in the House from 4.49 to 4.44 terms – a very minor effect.

A couple notable differences by type are apparent however. Note that the average length of service for achievers actually increases from 4.71 to 4.80 terms, while that of non-achievers drops from 4.42 to 4.34 terms. The reason this occurs is that, without seniority as a determinant of committee appointment, achievers are more likely to be named to major committees.[25] This gives achievers an incentive to stay in the House longer.[26] Hence such a policy would appear to have desirable features in terms of its influence on the composition of the House (though the effect is modest). Also notable is that the average length of service for those who come from a "political family" increases from 4.53 to 4.87 years, a non-negligible effect (while average length of service drops slightly for other members). This change occurs for a similar reason to that noted above.

[25] As the reader will recall from Section 2.4, achievers are less likely to be the skilled type, making it harder for them to gain seniority via repeated re-election.

[26] There are two apparently puzzling aspects of this result. First, for achievers, despite the fact that the average length of service increases, the probability of running for re-election drops from 92.27% to 92.03% (see Table 2A). This can be explained by the fact that probability of winning re-election is higher for members of important committees (see Section 2.4), and the policy change makes them more likely to be named to such committees. Second, the value of a House seat for the achiever type goes down, from \$683k to \$674k, which again appears inconsistent with longer average length of service. This can be explained by two factors. First, remember that the value of House seat is the difference $\max\{V_{RH}(XH_{it}, h), V_{RS}(XH_{it}, h)\} - V_E(XP_{it})$. As committee membership is valuable in post-congressional employment, making committee membership more likely for achievers will raise their value of the outside option, accounting for both the lower value of a seat and the lower probability of seeking re-election.

Experiment 1b **(NOCOM)**: The second experiment we consider is eliminating House committees. This is obviously highly unrealistic, but it is useful for assessing the role that the possibility of being named to an important committee plays in politicians' career decisions. As we can see from Table 1A, the overall effect of abolishing committees in the House is a 4% reduction in the average duration of congressional careers (from 9.61 to 9.27 years). Not surprisingly, this results from a 5% reduction in the average number of terms in the House, but virtually no change in the average number of terms in the Senate.[27] The decrease in the average number of House terms is a consequence of the fact that, on average, as we can see from Table 2A, the probability a House member runs for reelection decreases from 91.2% to 90.4%. Conversely, the probability of running for the Senate (conditional on a seat being up for election) increases from 3.1% to 3.6%, and the probability of leaving Congress voluntarily increases slightly from 6.7% to 7.3%.

Of course, the reason abolishing House committees reduces the probability a House member runs for re-election by 0.8 points is that it lowers the value of a House seat. Specifically, as we see in Table 4A, this experiment reduces the average value of a House seat from $616,228 to $600,989, or 2.5%. The policy has virtually no effect on the average value of a seat in the Senate. With respect to post-congressional career decisions, the effect of the policy is to decrease the fraction of politicians who retire after leaving Congress by 2.5 percentage points, and to increase the relative fraction of politicians who choose to remain in the public sector by about 2 points (Table 5A).

Again, the effects of the policy differ greatly across types of politicians. For instance, the average number of House terms for skilled politicians falls from 5.86 to 5.48, a reduction of 0.38 terms, while that for unskilled politicians only falls from 3.54 to 3.43, a reduction of only 0.11 terms. Thus, the effect is almost 4 times greater for skilled politicians.[28] Abolishing committees has a larger impact on skilled politicians because seniority is an important determinant of being named to committees, and skilled politicians are more likely to achieve seniority via repeated re-election.

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[27] Note that although the policy only directly affects House representatives, to the extent that it influences their decisions to run for the Senate, it may also indirectly affect the average behavior of senators. The same is true for Experiment 1a.

[28] There is another apparently puzzling aspect of this result: In Table 2A, we see that for skilled politicians the abolition of important House committees causes the probability of running for re-election to drop from 91.05% to 90.19%, a 0.85 point drop, while for regular politicians the drop is from 91.48% to 90.66%, a 0.82 point drop. This difference is negligible, so why does the average number of terms drop so much more for skilled politicians? Again, the answer has to do with re-election probabilities. Membership in important committees raises re-election probabilities, and it is based in part on seniority. Skilled politicians tend to achieve more seniority, because they have longer career durations, and hence they are more likely to be chosen for important committees. Thus, abolition of House committees reduces their re-election chances more than those of unskilled politicians.

It is also notable that the reduction in average number of terms is 3 times greater for Democrats than Republicans. This is because, during our entire sample period, the Democrats controlled the House, and so committee membership was more valuable for them. The effect of abolishing committees is also greater for relatively younger politicians (i.e., politicians who enter Congress before the age of 50, which is the average age at entry in the data). For them, the average number of House terms falls by 0.31, while for their older counterparts it only falls by 0.11 terms.

The impact of abolishing House committees on duration of House service is strikingly greater for politicians who do not come from "political dynasty" families. For them the reduction in average number of House terms is 0.23, while for those from political families it is a negligible 0.03. Abolishing House committees also has a much larger effect on those with prior political experience than those without. For those with prior experience, the average number of terms falls by 0.26, while for those without it only falls by 0.06.

Another interesting phenomenon is that the probability of running for Senate increases far more for House representatives with prior political experience (from 3.05% to 3.63% or 0.58 points), than for those without (from 3.11% to 3.23% or 0.12 points). They apparently have some success in these bids, as average terms in the Senate increases from 2.03 to 2.23. Similarly, the probability of running for Senate increases more for those from political families (from 3.40% to 4.12% or 0.72 points), than for those who are not (from 3.05% to 3.51% or 0.46 points). Other groups with relatively large increases in probability of running for Senate are the skilled politicians (from 4.37% to 5.14% or 0.77 points) compared to the unskilled (from 1.29% to 1.44% or 0.15 points), and the "young" entrants (from 3.91% to 4.64% or 0.73 points) compared to the "old" entrants (from 1.39 to 1.45% or 0.06 points). Effects on achievers/non-achievers and Republicans/Democrats are quite similar.

Experiment 1c **(NOSEN)**: The third experiment we consider is a policy that forbids House members from running for the Senate. As we see in Table 1A, this causes an increase from 4.49 terms to 4.78 terms in the average duration of service in the House. At the same time, as we see in Table 4A, this policy reduces the value of a House seat from $616,228 to $601,187, or 2.4%. This illustrates that a policy that reduces the value of a House seat does not necessarily reduce average length of service (and vice-versa). Of course, what is going on here is that House careers sometimes end because House members lose bids for higher office. By precluding the option to run for Senate, we simultaneously lengthen the average duration of House service (by "saving" representatives from losing) while reducing the option value of a House seat. As we see in Table 2A, there is an

increase in the probability House members run for reelection (from 91.2% to 92.9%), and a slight increase in their probability of exiting Congress voluntarily (from 6.7% to 7.2%).

Turning attention to how the effects of the policy differ across types of politicians, we see that effects are markedly stronger for skilled politicians, Republicans, "younger" entrants, and those from political families. For instance, for skilled politicians the average number of House terms increases by 0.69, while for unskilled politicians it only increases by 0.08.

The figures for Republicans and Democrats are 0.43 and 0.17, respectively. Note that Republicans had a higher probability of running for Senate in the baseline (3.51% vs. 2.75% for Democrats). Because Republicans were in the House minority during our estimation period, and because the demographics of the Senate tend to be relatively more favorable for Republicans,[29] more of the value of a House seat for Republicans comes from the option value of eventually running for the Senate. This can be seen in Table 5A: eliminating the option to run for Senate reduces the value of a House seat by $25,000 for Republicans but only by $8,000 for Democrats.

This result provides a good illustration of how an experiment like forbidding running for Senate, which is completely unrealistic, and hence of no policy interest, can nevertheless be of considerable scientific interest. As we see, the experiment enables us to quantify an important difference between Republicans and Democrats in what motivates their career paths.

Next, we note that for "younger" entrants (i.e., those elected to the House before age 50) the average duration of service in the House increases from 4.98 to 5.45 years, while for older entrants it is essentially unchanged. The average value of a House seat falls by $16,500 for the former group but only $4,000 for the latter. Analogous to the previous discussion of Republicans vs. Democrats, this difference arises because under the baseline it is much more common for "younger" entrants to run for Senate if that option becomes available to them (i.e., 3.91% vs. only 1.39% older entrants). Similar observations could be made for skilled vs. unskilled politicians, where there is again a large divergence in the probability of running for Senate under the baseline.

3.4. Policies that Limit Career Opportunities outside Congress

The second group of experiments we consider pertains to policies that limit the post-congressional career opportunities of politicians, or the value of congressional experience in the post-congressional labor market.

[29] Many House seats are from relatively liberal urban areas, while more Senate seats are from conservative rural States.

Experiment 2a **(NOEXP)**: First we consider an experiment where congressional experience is of no value in post-congressional employment. On average, this policy increases the duration of congressional careers from 9.61 to 9.97 years, increases the probability a House member seeks re-election from 91.23% to 92.76%, sharply reduces the probability a House member runs for Senate from 3.07% to 1.41%, and increases the value of a House seat from $616,228 to $659,546 (which is 7% or $43,000). It may appear paradoxical that a policy that renders congressional experience worthless in other occupations would increase the value of a seat in Congress. However, it should be recalled that the value of a seat is defined as the difference in the expected present value of lifetime payoffs if the politician seeks re-election to his/her seat vs. choosing to exit Congress. This policy experiment increases the value of a seat by reducing the politician's earnings capacity outside of Congress. In response, politicians make a greater effort to stay in Congress. One manifestation of this is that House members avoid running for Senate, which is generally a very risky venture.

The effects of this policy differ radically by type. Note that for skilled politicians the average duration of a career increases from 12.72 to 13.97 years, while for unskilled politicians it declines slightly, from 7.51 to 7.46. Similarly, the probability a skilled politician runs for re-election increases from 91.05% to 93.54%, while that of an unskilled politician is little changed. And the value of a House seat increases by $65,000 for the former and only $4,000 for latter. Here the dynamics of the model come into play. The skilled politician knows his/her probability of winning elections is very high. Thus, with his/her post-congressional opportunities curtailed, it becomes optimal to try hard to hold on to his/her valuable seat. The same is true of unskilled politicians – their post-congressional opportunities are also curtailed - but for them there is a second countervailing force. They also know their probability of winning elections is not so high, and there is a good chance they will eventually be pushed unwillingly into the post-congressional labor market, where their experience is worthless. In a sense they are better off if this were to happen sooner rather than later (i.e., the longer they wait, the more their post-congressional human capital deteriorates). So for the unskilled, these two forces roughly cancel, leaving the value of a seat essentially unchanged.

Another interesting aspect of this policy is that it has a much larger effect on Republicans than on Democrats. For Republicans the average duration of a political career increases by 0.61 years (from 9.10 to 9.71 years), while for Democrats it increases by only 0.14 years (from 10.06 to 10.20). The reason is that, under the baseline, post-congressional experience returns are greater for

Republicans than Democrats (i.e., they are less likely to retire after leaving Congress than Democrats – 13% vs. 17%).

Finally, it is also worth noting the effects of the policy on post-congressional career choices. Not surprisingly, eliminating the returns to congressional experience in the post-congressional labor market increases the fraction of politicians who completely retire upon exiting Congress from 15.5% to 25.7%. More subtly, it increases the fraction who choose to work in the public sector from 36% to 39%, while reducing the fraction who work in the private sector from 49% to 35%. This occurs because, under the baseline, experience returns are much greater in the private sector.

Experiment 2b **(NOPRIV)**: Second, we consider an experiment in which we preclude former members of Congress from accepting employment in the private sector. This experiment is actually of some policy relevance. While banning private sector employment is certainly not a serious proposal, curtailing it in various ways, such as precluding lobbying activities or employment with firms that rely heavily on government contracts, have been discussed. This experiment can at least give us an idea of the direction of impact of such policies.

The results of this experiment are for the most part strikingly similar to those from the experiment of eliminating experience returns, as can be seen by comparing columns 5 and 6 of Tables 1A through 5A. The reason they are so similar is because experience returns are much greater in the private sector than in the public sector.

Experiment 2c **(NOPUB)**: Third, we consider an experiment in which we preclude former members of Congress from taking other positions in the public sector. This is again an experiment of no policy relevance, but it addresses some interesting scientific questions. To what extent do members of Congress view congressional careers as a stepping-stone to other prestigious offices such as governorships, judgeships, cabinet posts or even the presidency? If such opportunities were precluded, then to what extent would their behavior change?

In general, the effects of preventing politicians from holding other political offices after leaving Congress are much smaller than the effects of preventing them from working in the private sector. As we see in Table 1A, this experiment increases the average duration of a congressional career by 0.15 years (from 9.61 to 9.76) compared to 0.33 years for eliminating the option of private sector employment. Thus, it appears that, in general, the option of post-congressional political employment has less influence on the career decisions of members of Congress than does the option of post-congressional private sector employment.

These two policy changes also affect different types of politicians in dramatically different ways. Recall that prohibiting private sector employment increased the average duration of congressional careers for skilled politicians by over a year but slightly reduced that of unskilled politicians. In contrast, as we see in Table 1A, prohibiting other political jobs increases average congressional career length for unskilled politicians by 0.20 years while increasing that of skilled politicians by only 0.05 years. This occurs because the political sector is far more important for the post-congressional careers of unskilled politicians. As we see in the baseline simulation in Table 5, column 1, 41% of unskilled politicians choose the political sector upon leaving Congress, while only 28.5% of skilled politicians do so. There are two reasons for this pattern. First, a much larger fraction of skilled politicians completely retire when they leave Congress (27% vs. 7.6% for the unskilled). Of course, this is because skilled politicians typically leave voluntarily rather than via electoral defeat, meaning they are often ready for complete retirement. Second, while the correlation between political and private sector skills is quite weak, what correlation there is suggests that skilled politicians have a comparative advantage in the private sector.

Another notable pattern is that the effect of eliminating the option of post-congressional public sector employment is much greater for politicians who come from political families than for those who do not. For the former the average length of a congressional career increases by 0.75 years, while for the latter it increases by only 0.11 years. This can also be seen in Table 2A, in the 1.04 point increase in the probability of running for re-election to the House for representatives in the former group (from 91.20% to 92.24%), compared to only an 0.31 point increase for those in the latter. Clearly, those from political families have a greater taste for (or receive greater rewards from) political employment than other politicians, so when they lose the option of post-congressional political employment they make a greater attempt to prolong their careers in Congress.

Finally, we note that this policy also has very different effects on members of Congress depending on whether they have prior political experience. For those without prior political experience the average duration of a congressional career increases by 0.64 years (from 8.81 to 9.45 years) while for those with prior experience the increase is a negligible 0.01 years. Recall that those without prior experience are more likely to be the unskilled type.

3.5. Policies that Change Monetary and Non-Monetary Payoffs within and outside Congress

The third group of experiments we consider pertains to policies that affect the relative wages and other rewards to politicians within vs. outside Congress. We consider four policies, which are:

3a) eliminating congressional pensions, 3b) a 20% decrease in the congressional wage, 3c) the elimination of rewards from legislative accomplishments, and 3d) a 20% across-the-board wage increase in post-congressional occupations. The results are reported in Tables 1B through 5B.

Experiment 3a **(NOPEN)**: First, we consider an experiment in which we eliminate congressional pensions. This reduces the average length of a political career by almost half a year (from 9.61 to 9.14 – see Table 1B), which is larger than the effect on average career length of any policy change we have considered so far. The effect is about three times greater for skilled than unskilled politicians (i.e., 0.77 years vs. 0.25 years). Of course, the effect is much greater for politicians who are young at entry. It is about the same for achievers and non-achievers, but about twice as great for Democrats (0.61 years) than Republicans (0.31 years). The larger effect for Democrats stems at least in part from the fact that, under the baseline, they are 4 percentage points more likely than Republicans to completely retire after leaving Congress (see Table 5B).

Interestingly, the effect of eliminating pensions on career length is negligible for those from political families and those with no prior political experience. Rather, the decline is concentrated among those who held prior political office or come from non-political families. This is consistent with our earlier conjecture that these individuals are most likely to be the type who, to use Weber's terminology, view politics as a vocation (rather than an avocation), or who have political careers (rather than being career politicians) to use Mattozzi and Merlo's terminology. This type is more concerned with post-congressional monetary rewards, of which retirement benefits are one.

Note that abolishing pensions actually increases the value of a congressional seat slightly – see Table 4B. This may seem counter-intuitive, but, as discussed earlier, it makes sense given that the value of a seat is defined as the monetary payment required to make a member of Congress indifferent between staying in Congress vs. exiting. Eliminating pensions does reduce the value of continuing in Congress (as part of the monetary reward is removed), but it reduces the value of the exit option even more. Finally, as we see in Table 5B, the probability a politician completely retires after leaving Congress is drastically reduced, from 15.5% to only 4.9%. The increase in public sector employment (5.6 points) is slightly larger than that of private sector employment (5.1 points).

In summary, we see that reducing congressional pensions would tend to induce earlier exit from Congress by politicians who are more skilled, younger, Democrats, held local political office prior to entering Congress, and do not come from "political dynasty" families. There is little differential impact on achievers vs. non-achievers.

Experiment 3b **(CWAGEDECR)**: Second, we consider an experiment in which we reduce the congressional wage by 20%. This induces a far greater drop in the average length of a congressional career than any policy we have considered up until now. Specifically, according to Table 1A, the average duration of a congressional career drops by 1.34 years (from 9.61 to 8.27). Notice that this policy reduces the value of seat in the House from $616,228 to $491,905 (or 20%), but it only reduces the value of a seat in the Senate from $1,673,762 to $1,512,592 (or 10%) – see Table 4B. The difference arises because a much larger fraction of the rewards to sitting in the Senate are non-pecuniary. Consistent with these figures, the probability a House member runs for re-election drops from 91.23% to 86.69% (see Table 2B); viewed another way, the probability of not running for re-election increases by about 50% (from 8.77% to 13.31%).

Qualitatively, the effects of reducing salaries on different groups are quite similar to the effects of eliminating pensions. This is not surprising, as pensions are just deferred compensation. Again the effect is about three times greater for skilled than unskilled politicians (i.e., 2.25 years vs. 0.84 years). Notice in Table 4B that the value of a House seat falls by roughly $133,000 for the skilled type, but only about $109,000 for the unskilled type. As with pensions, the effect is much greater for politicians who are young at entry (1.74 years) than for older entrants (0.79 years), and almost twice as great for Democrats (1.70 years) as Republicans (0.93 years).

As was the case with pensions, the effect of reducing congressional wages is about the same for achievers and non-achievers. This, along with the finding that the effect is much greater for skilled politicians, represent our main empirical results germane to the theoretical literature discussed in the introduction, which looks at effects of congressional wages on the type composition of elected officials. Specifically, our results imply that reduced monetary payoffs (either wages or pensions) from serving in Congress will: (i) not disproportionately encourage "achievers" – i.e., those who value legislative accomplishments – to leave Congress, while (ii) disproportionately encouraging skilled politicians – i.e., those who are relatively good at winning elections – to leave Congress. Thus, if one accepts that the "quality" of politicians is better represented by their ability to legislate, rather than their ability to win, our results suggest that wage reductions would not disproportionately induce high quality politicians to leave Congress.

The main difference between the wage and pension results is that the effect of reducing congressional wages on career length is not negligible for those from political families and those with no prior political experience. Indeed, effects for those from political and non-political families are rather similar (though the effect for the latter type is still slightly larger). However, the effect for

those with prior political experience (1.48 years) is again quite a bit larger than for those without prior political experience (0.88 years).

Interestingly, the 20% drop in congressional wages leads to a substantial reduction in the fraction of politicians who retire immediately after leaving Congress, from 15.5% to 10% (see Table 5B). This is more than half as large as the drop caused by eliminating pensions. This occurs largely because politicians are now simply younger (by 1.34 years) when they leave office, and in part because pensions will now be lower. There is also an increase in the frequency of voluntarily leaving Congress from 6.7% to 10.3% (see Table 2B) – that is, a higher proportion of leavers do so voluntarily rather than due to electoral defeat.

Notably, the drop in voluntary retirement upon leaving Congress is much greater among skilled politicians (from 27% to 17%) than unskilled politicians (from 7.5% to 5%). This is because, under the baseline, skilled politicians rarely leave Congress via electoral defeat. Hence, they often leave Congress with the intention of completely retiring. But under the experiment, exiting to work in the private sector becomes a more attractive option. Thus, using the terminology of the prior literature discussed in the introduction, the wage reduction converts them from "career politicians" to people with "political careers."

In another experiment that is not reported in the tables, we eliminated congressional wages entirely. This experiment is interesting because it allows us to assess the total value of House and Senate seats that come from salary vs. all other factors. Of the $616,228 total value of a House seat, $501,332 comes from the expected present value of salary payments, while $114,896 comes from utility derived from serving in Congress, including perks of office, the possibility of legislative accomplishments, increased wages after leaving Congress, etc. At first glance one might interpret the large difference in these figures to suggest that House members are primarily interested in salary. But, in our view, the most remarkable aspect of the calculation is that the average value of a House seat remains positive even if salary is completely eliminated. House members would still choose to run for re-election 59% of the time even if salary were eliminated. This implies that the non-salary rewards to serving in the House are substantial. The situation is even more striking in the Senate. Of the total value of a Senate seat, only $737,377 comes from the expected present value of salary, while $936,386 comes from non-salary rewards. Senators would still choose to run for re-election 75% of the time even if salary were eliminated.

Experiment 3c **(NOACH)**: Third, we consider an experiment in which we eliminate the possibility of important legislative accomplishments (or, viewed another way, we eliminate the utility that politicians get from such achievements). This is another experiment that falls into the category of being completely unrealistic, but it serves a useful purpose – namely, to shed light on the importance of legislative accomplishments for the career decisions of politicians.

Eliminating legislative achievements has only a small effect on the average length of a congressional career, reducing it from 9.61 to 9.43 years on average. To put this 0.18 year decline in context, it is only about half that induced by eliminating committees (0.34 years) and little more than a third of that induced by eliminating pensions (0.47 years). Of course, this experiment reduces the average career duration of achiever types (0.38 years) much more than that of non-achiever types (0.13 years).[30] Is also has differential effects on other types, reflecting the fact that some types are more likely to be achievers (i.e., skilled politicians, politicians who are younger when they enter Congress, and members of Congress with prior political experience). Interestingly, the effect is much larger for Democrats than Republicans.

The main difference between this policy and the ones we have considered previously is that it has a much larger effect on senators than on representatives. As we see in Tables 2B and 3B, for representatives the probability of running for re-election drops by 0.6 percentage points, while, for senators it drops by 3.0 points. For achiever-type representatives the drop is 1.45 percentage points, while for achiever type senators it is roughly 4 percentage points. Of course, this reflects the fact that major legislative accomplishments are more likely for senators, and hence they obtain a larger fraction of the payoff for service in Congress from such accomplishments than do House members. As we see, under the baseline, the value of a House seat is roughly $90,000 (or 13%) greater for achievers than non-achievers, but for senators it is about $295,000 (or 16%) greater. Eliminating the payoffs from legislative accomplishments reduces the value of a seat for achievers in the House by $68,000 (or 10%), but it reduces that for achievers in the Senate by $265,000 (or 15%).

Experiment 3d **(PCWAGEINCR)**: In the fourth experiment, we increase wages in all post-congressional occupations by 20%. This causes the average duration of a congressional career to drop by 1.62 years (from 9.61 years to 7.99 years). This is a slightly larger effect than that caused by reducing congressional wages 20% (which caused average career duration to drop 1.34 years).

[30] While the main effect of eliminating achievements is to reduce the payoff for serving in Congress for achiever type, there are some indirect effects on probabilities of re-election and committee appointment. Eliminating achievements equalizes these probabilities between achievers and non-achievers, which has a small impact on the non-achiever type.

While the effects of increasing non-congressional wages or reducing congressional wages are generally quite similar, the two policies are not entirely symmetric. As we see in Table 2B, both policies raise the probability of voluntary exit from the House by essentially the same amount (3.5 percentage points). But raising wages outside Congress induces a much larger increase in the probability a representative runs for Senate (from 3.1% to 6.0%) than does reducing congressional wages (from 3.1% to 4.6%).[31] Running for Senate is a risky venture, but it becomes more attractive when the penalty for losing is reduced by higher wages in post-congressional employment. Thus, the shorter average duration of congressional careers when non-congressional wages are increased 20% vs. when congressional wages are cut 20% is almost entirely due to a higher rate of running for Senate – and often losing – under the former policy.

Another way in which the two policies differ is that an across-the-board 20% wage increase in all post-congressional occupations leads to a substantial increase in the share of politicians who take private sector jobs after leaving Congress (i.e., 20 percentage points – see Table 5B), while having little effect on the share who take public sector jobs. (Since wages in the private sector are on average higher than in the public sector, a 20% wage increase in both sectors leads to an increase in the absolute differential between private and public sector wages). In contrast, a reduction in the congressional wage by 20% leads to only a 2 point increase in the share taking private sector jobs, and a 3 point increase in the share taking public sector jobs.

In terms of how different types are affected, effects of increasing non-congressional wages are generally quite similar to those for reducing congressional wages. The reduction in average congressional career duration is again larger for skilled politicians, Democrats, those who are younger at entry, and those with prior political experience. The only notable difference is that here the effect is noticeably larger for those from non-political families (1.65 years) than for those from political families (1.18 years). In the case of reduced congressional wages, the difference was smaller.[32]

[31] On the other hand, when we look at the Senate, the effects of the two policies are almost identical. As we see in Table 3B, raising wages outside Congress by 20% increases the probability of voluntary exit from the Senate by 3 percentage points, while reducing congressional wages by 20% increases it by 2.9 points.

[32] For House members from non-political families, the increase in the probability of running for Senate is much greater when non-congressional wages are increased (3 points) than when the congressional wage is reduced (1.5 points). This accounts for the larger drop in their average career duration under the non-congressional wage experiment. In contrast, for members from political families, the increases under the two policy changes are more similar (1.7 points and 1.2 points, respectively). Thus, the change in their average career duration under the two policies is also very similar.

3.6. Policies that Limit Opportunities for Re-election

The fourth and final group of experiments we consider pertains to policies that limit chances for re-election. We consider two policies, which are: 4a) eliminating the seniority advantage in congressional elections, and 4b) imposing term limits, with a maximum of 4 terms in the House and 2 in the Senate. The results of these experiments are reported in Tables 1B through 5B.

Experiment 4a **(NOELECSENIOR)**: One of the key empirical findings of DKM is that, in the House, seniority substantially increases the probability of victory in elections, even after controlling for political skill.[33] The causal effect of seniority on probability of election may arise through several channels. First, members of Congress tend to accumulate more power with greater seniority. This enables them to gain more spending earmarked for their districts, which gives voters an incentive to return them to office even if they have disagreements on policy. It also makes it easier for the politician to raise money for election campaigns. Second, there may simply be a learning effect: with experience, the politician may become better at running campaigns or raising campaign funds. Third, with time a politician may acquire more connections and more control over the local political apparatus. Such factors would again help with fundraising, get-out-the-vote efforts, and so on.

Of course, eliminating the seniority advantage is another experiment that cannot be implemented in reality. However, it is nevertheless of some policy interest as there do exist several serious proposals for campaign reforms that would potentially reduce the advantage of more senior politicians. These include campaign finance reform, spending limits, requirements for equal media access, etc. Experiment 4a can at least shed some light on the qualitative impact of such proposals on decisions of incumbent members of Congress.[34]

As we see in Table 1B, eliminating the seniority advantage reduces the average duration of a congressional career by 1.35 years, almost exactly the same effect as the 20% congressional wage reduction. Interestingly, this does not occur by lowering the probability of running for re-election to the House. In fact, as we see in Table 2B, this probability actually rises slightly (by 0.1 points), primarily because the probability of running for Senate falls. Without the seniority advantage, the chance of winning a bid for the Senate is reduced, making politicians slightly more likely to run for

[33] Note that, if one fails to control for political skill, then seniority will tend to be spuriously significant in an equation for probability of winning elections. This is because prior victories proxy for political skill.

[34] It is important to stress that what we call the "seniority advantage" is distinct from the "incumbency advantage." All the members of Congress in our sample are of course incumbents, so we cannot estimate the incumbency advantage. We can only estimate how it increases with seniority.

re-election to the House. For both members of the House and Senate, the increase in the probability of exiting Congress voluntarily is minor (particularly when we compare it to the effect of the 20% congressional wage reduction). So why is the reduction in average career length about the same as under that policy? It is not primarily because of any behavioral response by the members of Congress, but simply because of the mechanical effect that, without the seniority advantage, they are more likely to suffer electoral defeat.

Now consider the effect on different types of politicians. Many of the policies we have previously considered had a much larger effect on skilled than on unskilled politicians. One has to be careful about making such a comparison, because skilled politicians have much longer career durations under the baseline (12.72 vs. 7.51 years). Thus, whether an effect is "greater" for skilled politicians can depend on whether one looks at percentage or level differences. In all prior cases where we stated an effect was larger for skilled politicians, this distinction was irrelevant, because differences were so large. But that is not the case here. For skilled politicians the decline in average career length is 1.69 years or 13%. For unskilled politicians the decline is 1.17 years which is 16%. Thus, there is no unambiguous answer to the question of which group is most affected by the policy.

The policy has a larger effect on non-achievers (1.45 years or 16%) than achievers (1.10 years or 10%), on Democrats (1.53 years or 15%) than Republicans (1.18 years or 13%), and on politicians who enter Congress when under 50 (2.09 years or 19%) than on those who enter when over 50 (0.90 years or 11%). Effects are also larger for those from non-political families and those with prior political experience than for their counterparts from political families and without prior political experience, respectively. From a policy point of view, the main result of interest here is that policies that limit seniority advantages will have a greater tendency to induce non-achiever types to leave Congress – possibly a positive aspect for such policies.

***Experiment 4b* (TLIMITS)**: Finally, we consider the impact of congressional term limits. Of course, these could be set in many ways, so as an example we consider a 4-term limit in the House and a 2-term limit in the Senate. Imposing term limits reduces the average duration of congressional career by 3.55 years (from 9.61 years to 6.06 years). The effect is much larger in the House, where the average number of terms drops from 4.49 to 2.61, than in the Senate, where average number of terms served drops only from 2.08 to 1.56.

The reduction in average career length is not merely a mechanical result of politicians hitting up against the term limits. There is an important behavioral response as well. The probability

that a House member runs for re-election drops by 9.36 percentage points, while the probability of running for Senate or leaving Congress voluntarily both roughly double. In the Senate, the probability of voluntary exit increases by 55%. These behavioral changes arise because the value of a House seat falls by 32% while that of a Senate seat falls by 21%.

Turning to differences in effects by type, we see that the reduction in average career duration is far greater for skilled politicians (5.65 years) than for unskilled politicians (2.28 years). This is because, under the baseline, skilled politicians rarely lose elections, and can usually leave Congress when they choose to do so. Thus, it is not surprising that term limits have a much greater impact on their career choices than those of unskilled politicians. A very interesting pattern is that imposing term limits leads to a dramatic increase in the probability that House members attempt to run for Senate. As we see in Table 2B, for skilled politicians this probability increases from 4.37% to 10.71%, while for unskilled politicians it increases from 1.29% to 2.65%.

Term limits have similar effects on achievers and non-achievers. For the former, the average career length is reduced by 3.84 years or 36%, while for the latter it is reduced by 3.47 years or 37%. Effects are also very similar for those from political and non-political families.

But large differences emerge in other dimensions. Strikingly, the effect is much greater for Democrats (4.06 years or 40%) than for Republicans (2.97 years or 33%). This is because the constraint is more often binding for Democrats, who serve an average of 4.72 terms in the House under the baseline, than it is for Republicans, who serve an average of 4.21 years. After term limits are imposed politicians from both parties serve an average of exactly 2.61 House terms. This analysis highlights a feature of term limits that to our knowledge has not been previously noted: they will always tend to favor the minority party relative to the majority party. Members of the majority party will on average have longer career durations, and therefore they will be impacted more by term limits. As we've seen, seniority increases election probabilities. Thus, term limits will force exit by senior members of the majority party more often, replacing them with new candidates who have neither an incumbency nor seniority advantage.[35]

[35] In *The Federalist 51* Madison argued that term limits would diminish the power of the legislative branch relative to the executive by depriving it of its most able and experienced members, which is consistent with what we find here. But it does not appear that Madison considered the potential impact on political parties that we note here (which is unsurprising as he did not anticipate the creation of the party system). In the year after our sample ended, 1994, the Republicans finally won back control of the House while running on the "Contract with America" platform, which included as one of a ten key initiatives: "A first-ever vote on term limits to replace career politicians with citizen legislators," by which they meant a congressional resolution proposing a constitutional amendment to impose term limits. Consistent with our results, this resolution was defeated once the Republicans actually had the majority.

Terms limits also have a much larger effect on politicians who are younger when they enter Congress and on those with prior political experience before entering Congress. The average career length of those with prior experience declines by 3.76 years compared to 2.87 years for those without prior experience. In each case, the reason appears to be similar to that given for why term limits have a larger effect on Democrats. Those who are younger at the time of entry or who have prior political experience both have longer average career durations under the baseline. Thus, they are more likely to be impacted by term limits.

Finally, looking at Table 5B, we see that, not surprisingly, imposing term limits leads to a sharp decline in the fraction of politicians who retire after exiting Congress – by about 10 percentage points. There is a 3 percentage point increase in the share of private sector jobs, and a 7 point increase in the share of jobs in the public sector. Thus, imposition of congressional term limits leads to a greater tendency to transition into other types of political jobs after exiting Congress.

4. Conclusion

When considering the costs and benefits of policy changes that affect members of Congress – such as changes in congressional wages and pensions, limitations on post-congressional employment opportunities, campaign finance reforms designed to reduce incumbency advantages, term limits, etc. – it is important to consider how such policies would affect their decision making. Of particular interest is whether such policies might lead to different behavioral responses by different types of politicians. For example, in the theoretical literature, there has been interest in the question of how increases in congressional salaries would affect the "quality" of members of Congress (with "quality" defined in various different ways) – see, e.g., Besley (2004), Caselli and Morelli (2004), Messner and Polborn (2004), Mattozzi and Merlo (2007).

In this paper, we have provided a quantitative analysis of the effects of a variety of policies that affect the costs and benefits from serving in the U.S. Congress on career decisions of politicians. We conduct the analysis using the empirical framework of Diermeier, Keane and Merlo (2005). In their model, members of Congress consider several factors when deciding whether to run for re-election or higher office, including congressional salaries, non-pecuniary rewards from sitting in Congress (including perks of office, utility from legislative accomplishments, etc.), and effects of congressional experience on post-congressional employment opportunities.

Our main empirical results are summarized in Table 6. The rows contain types of politician, while the columns list policies. A ** entry indicates that imposition of that policy

disproportionately induces that type of politician to exit Congress. For example, we find that a 20% reduction in the congressional wage disproportionately induces skilled politicians to exit Congress. The effect is also relatively large for Democrats, members who were relatively young when first elected to Congress, and those with no prior political experience (generally in local office) before entering Congress.

Here, a "skilled" politician means one who is effective at winning elections. However, when considering the "quality" of politicians, we would argue that perhaps a more important consideration is whether they are the "achiever" type – that is, the type that values and is effective at securing significant legislative accomplishments (i.e., significant legislation, important investigations, etc.). Note that a salary reduction does not cause the achiever type to disproportionately exit Congress. Thus, referring to the theoretical papers on the impact of salary noted above, our conclusion is that salary does not differentially impact the career decisions of high vs. low quality members of Congress, although it does affect skilled politicians relatively more.

However, as we see in Table 6, we do find three types of policy changes that would disproportionately induce non-achievers to leave (or achievers to stay) in the Congress. These are policies that would (i) eliminate seniority as a determinant of key committee assignments, (ii) restrict private sector employment after leaving Congress, or (iii) reduce the seniority advantage in elections. An example of (ii) would be restricting former members of Congress from working as lobbyists, while examples of (iii) would be various types of campaign finance reform that reduce the fundraising advantages of incumbents (e.g., public finance, spending limits, etc). Our analysis suggests that these types of policies would tend to tip the composition of Congress towards achiever types, by increasing their continuation probabilities[36] relative to those of non-achievers.

Two other results are worth commenting on. First, note that term limits would have similar effects on achiever and non-achiever types. Thus, they would not help to improve the quality composition of Congress in this sense.[37] Second, we find that term limits would disproportionately reduce the continuation probabilities of members of the majority party (Democrats during our sample period). This has the interesting implication (to our knowledge not previously noted) that term limits would make it more difficult to sustain substantial congressional majorities over time.

[36] The "continuation probability" is a composite of the probability of seeking re-election and probability of winning.

[37] A limitation of our analysis is that, while we predict that term limits would not disproportionately induce either the achiever or non-achiever type to exit Congress, we do report how shorter terms would affect the ability of the achievers to realize achievements. Presumably, their ability to realize achievements would decline, consistent with Madison's

While our analysis extends and generalizes most of the existing empirical literature on the study of political careers, there are several important issues we have neglected to address in this paper which represent possible directions for future research. One issue concerns the initial decisions of politicians to run for Congress, or more broadly, the decisions of people to become politicians. Progress on successfully addressing this question critically hinges on the collection of new data on the pool of potential candidates for public offices.[38]

Another important issue concerns the role of fundraising and campaigning in political careers. The seniority advantage in elections that we find in our analysis presumably represents, at least in part, the campaign fundraising advantage of more senior members of Congress. An extension of our model which incorporates fundraising *explicitly* could, for example, be used to address the interesting question of whether the intense fundraising and campaigning necessary to run for Congress serves as a deterrent to "public spirited" politicians, and tends toward an adverse selection of "political dealmakers" who are beholden to lobbyists and special interests. Such a model could also be used to assess the potential effects of various campaign finance reforms like those that have recently been proposed in the U.S.

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arguments against term limits in *The Federalist 51, 53*. Indeed, the DKM estimates imply that seniority is a significant predictor of achievement in both the House and Senate.

[38] The extent of this limitation should not be exaggerated however. The steady state representation of a given type (e.g. achievers) in Congress depends both on their continuation probability (one minus the exit probability) and their entry probability. In our analysis, we have calculated continuation probabilities but not entry probabilities. However, the two probabilities will usually (though not always) be closely linked. That is, a policy that increases the value of a seat in Congress will typically increase both the continuation probability of existing members and the attractiveness of running for Congress in the first place. The exceptions to this general principle are policies that restrict the options of politicians upon exit from Congress. As we saw in experiments 2a, 2b and 2c, such policies increase the value of holding on to a seat in Congress by reducing the value of the exit option. But they reduce the value of attaining a seat in Congress in the first place.

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Table 1A: Duration of Congressional Careers

Politicians' characteristics	Baseline	1a - NOCOM SENIOR	1b - NOCOM	1c - NOSEN	2a - NOEXP	2b - NOPRIV	2c - NOPUB
Average Duration of Career in Congress (Years)							
All	9.61	9.59	9.27	9.86	9.97	9.94	9.76
Skilled	12.72	12.76	12.11	13.26	13.97	13.81	12.77
Non skilled	7.51	7.45	7.33	7.64	7.46	7.45	7.71
Achiever	10.56	10.73	10.09	10.82	11.16	11.05	10.74
Non achiever	9.29	9.19	8.98	9.53	9.56	9.56	9.43
Democrat	10.06	9.99	9.50	10.12	10.20	10.37	10.06
Republican	9.10	9.11	8.99	9.54	9.71	9.43	9.41
Age at entry < 50	10.78	10.65	10.32	11.18	11.39	11.34	10.98
Age at entry ≥ 50	7.93	8.04	7.71	7.95	7.99	8.01	8.01
Political family	9.70	10.01	10.05	10.69	10.36	10.37	10.45
Non political family	9.61	9.56	9.22	9.81	9.95	9.91	9.72
Prior experience	9.85	9.76	9.40	10.05	10.12	10.07	9.86
No prior experience	8.81	9.00	8.80	9.19	9.49	9.50	9.45
Average Duration of Career in House of Representatives (Terms)							
All	4.49	4.44	4.27	4.78	4.72	4.68	4.58
Skilled	5.86	5.79	5.48	6.55	6.65	6.50	5.94
Non skilled	3.54	3.53	3.43	3.62	3.51	3.51	3.64
Achiever	4.71	4.80	4.44	5.11	5.06	4.98	4.87
Non achiever	4.42	4.34	4.21	4.68	4.62	4.59	4.49
Democrat	4.72	4.64	4.40	4.89	4.81	4.92	4.73
Republican	4.21	4.21	4.11	4.64	4.61	4.39	4.39
Age at entry < 50	4.98	4.87	4.67	5.45	5.36	5.31	5.08
Age at entry ≥ 50	3.78	3.83	3.67	3.81	3.82	3.81	3.86
Political family	4.53	4.87	4.50	5.25	4.94	5.00	5.06
Non political family	4.48	4.42	4.25	4.75	4.71	4.66	4.55
Prior experience	4.59	4.50	4.33	4.87	4.79	4.73	4.62
No prior experience	4.12	4.24	4.06	4.46	4.47	4.50	4.43
Average Duration of Career in Senate (Terms)							
All	2.08	2.08	2.08	2.08	2.18	2.15	2.05
Skilled	2.40	2.39	2.32	2.44	2.57	2.52	2.27
Non skilled	1.78	1.76	1.83	1.84	1.87	1.82	1.84
Achiever	2.15	2.16	2.13	2.15	2.30	2.28	2.12
Non achiever	2.00	2.01	2.04	2.00	2.04	2.01	1.99
Democrat	2.13	2.22	2.21	2.18	2.32	2.24	2.16
Republican	2.02	1.93	1.95	1.96	2.03	2.05	1.94
Age at entry < 50	2.22	2.25	2.28	2.24	2.41	2.36	2.25
Age at entry ≥ 50	1.80	1.77	1.72	1.83	1.80	1.80	1.68
Political family	2.03	1.69	2.23	2.02	2.11	1.94	1.88
Non political family	2.08	2.11	2.07	2.08	2.18	2.16	2.06
Prior experience	2.14	2.14	2.11	2.12	2.19	2.16	2.05
No prior experience	1.87	1.88	1.97	1.92	2.15	2.10	2.07

Table 1B: Duration of Congressional Careers (continued)

Politicians' characteristics	Baseline	3a - NOPEN	3b - CWAGE DECR	3c - NOACH	3d - PCWAGE INCR	4a - NOELEC SENIOR	4b - TLIMIT
Average Duration of Career in Congress (Years)							
All	9.61	9.14	8.27	9.43	7.99	8.26	6.06
Skilled	12.72	11.95	10.47	12.29	9.98	11.03	7.07
Non skilled	7.51	7.26	6.67	7.43	6.53	6.34	5.23
Achiever	10.56	10.13	9.27	10.18	9.04	9.46	6.72
Non achiever	9.29	8.81	7.93	9.16	7.63	7.84	5.82
Democrat	10.06	9.45	8.36	9.71	8.15	8.53	6.00
Republican	9.10	8.79	8.17	9.10	7.81	7.92	6.13
Age at entry < 50	10.78	10.09	9.04	10.42	8.69	9.11	6.46
Age at entry ≥ 50	7.93	7.79	7.14	7.98	6.94	7.03	5.44
Political family	9.70	9.60	8.49	9.63	8.52	8.71	6.18
Non political family	9.61	9.11	8.26	9.42	7.96	8.23	6.05
Prior experience	9.85	9.23	8.37	9.55	8.12	8.37	6.09
No prior experience	8.81	8.85	7.93	9.03	7.57	7.88	5.94
Average Duration of Career in House of Representatives (Terms)							
All	4.49	4.22	3.73	4.40	3.57	3.85	2.61
Skilled	5.86	5.44	4.62	5.66	4.29	5.23	2.92
Non skilled	3.54	3.40	3.07	3.51	3.04	2.90	2.37
Achiever	4.71	4.44	3.90	4.58	3.78	4.19	2.67
Non achiever	4.42	4.16	3.68	4.34	3.51	3.76	2.60
Democrat	4.72	4.36	3.79	4.54	3.66	3.95	2.61
Republican	4.21	4.05	3.66	4.23	3.46	3.73	2.61
Age at entry < 50	4.98	4.57	4.00	4.80	3.79	4.23	2.71
Age at entry ≥ 50	3.78	3.71	3.32	3.81	3.23	3.32	2.47
Political family	4.53	4.45	3.77	4.48	3.66	4.14	2.61
Non political family	4.48	4.20	3.73	4.39	3.56	3.84	2.61
Prior experience	4.59	4.24	3.77	4.43	3.61	3.90	2.62
No prior experience	4.12	4.16	3.57	4.29	3.43	3.69	2.59
Average Duration of Career in Senate (Terms)							
All	2.08	2.05	2.00	2.01	1.93	2.10	1.56
Skilled	2.40	2.25	2.20	2.25	2.14	2.41	1.62
Non skilled	1.78	1.84	1.79	1.77	1.69	1.87	1.47
Achiever	2.15	2.13	2.08	2.07	2.01	2.19	1.58
Non achiever	2.00	1.96	1.92	1.96	1.86	1.99	1.54
Democrat	2.13	2.22	2.07	2.11	2.02	2.29	1.57
Republican	2.02	1.86	1.93	1.91	1.84	1.88	1.55
Age at entry < 50	2.22	2.20	2.14	2.16	2.04	2.30	1.61
Age at entry ≥ 50	1.80	1.75	1.75	1.73	1.70	1.77	1.45
Political family	2.03	2.13	1.95	1.98	1.98	1.92	1.58
Non political family	2.08	2.04	2.01	2.02	1.93	2.11	1.56
Prior experience	2.14	2.09	1.99	2.08	1.98	2.15	1.56
No prior experience	1.87	1.88	2.04	1.79	1.77	1.95	1.57

Table 2A: Decisions of Representatives

Politicians' characteristics	Baseline	1a - NOCOM SENIOR	1b - NOCOM	1c - NOSEN	2a - NOEXP	2b - NOPRIV	2c - NOPUB
Run for Re-Election to the House (percentage)							
All	91.23	90.96	90.39	92.85	92.76	92.45	91.59
Skilled	91.05	90.68	90.19	93.41	93.54	93.28	91.31
Non skilled	91.48	91.33	90.66	92.03	91.61	91.21	91.95
Achiever	92.27	92.03	91.50	94.24	94.11	93.87	93.04
Non achiever	90.90	90.60	90.03	92.38	92.31	91.96	91.10
Democrat	91.48	91.28	90.75	92.83	92.91	92.66	91.89
Republican	90.88	90.52	89.90	92.88	92.57	92.14	91.16
Age at entry < 50	91.57	91.21	90.46	93.51	93.58	93.20	91.84
Age at entry ≥ 50	90.56	90.48	90.27	91.43	91.01	90.83	91.08
Political family	91.20	91.80	90.61	93.33	92.88	93.17	92.24
Non political family	91.23	90.90	90.38	92.82	92.75	92.40	91.54
Prior experience	91.28	90.88	90.33	92.88	92.95	92.46	91.62
No prior experience	91.05	91.24	90.61	92.75	92.08	92.39	91.46
Run for the Senate (percentage, conditional on option available)							
All	3.07	3.30	3.55	na	1.41	1.76	3.04
Skilled	4.37	4.84	5.14	na	2.05	2.58	4.37
Non skilled	1.29	1.24	1.44	na	0.45	0.54	1.26
Achiever	4.03	4.04	4.54	na	1.81	2.02	3.48
Non achiever	2.75	3.05	3.22	na	1.28	1.67	2.89
Democrat	2.75	2.99	3.22	na	1.24	1.45	2.53
Republican	3.51	3.71	4.00	na	1.64	2.20	3.73
Age at entry < 50	3.91	4.14	4.64	na	1.70	2.20	3.80
Age at entry ≥ 50	1.39	1.66	1.45	na	0.80	0.81	1.51
Political family	3.40	2.66	4.12	na	1.20	1.52	3.23
Non political family	3.05	3.34	3.51	na	1.42	1.78	3.02
Prior experience	3.05	3.40	3.63	na	1.41	1.86	3.15
No prior experience	3.11	2.93	3.23	na	1.41	1.38	2.64
Exit Congress Voluntarily (percentage)							
All	6.73	6.85	7.25	7.15	6.30	6.39	6.4
Skilled	6.04	6.09	6.39	6.59	5.10	5.01	5.78
Non skilled	7.66	7.85	8.39	7.97	8.10	8.44	7.21
Achiever	5.04	5.28	5.48	5.76	4.69	4.79	4.65
Non achiever	7.28	7.38	7.83	7.62	6.84	6.93	6.98
Democrat	6.69	6.73	7.11	7.17	6.27	6.38	6.43
Republican	6.79	7.02	7.45	7.12	6.34	6.40	6.35
Age at entry < 50	5.83	6.04	6.45	6.49	5.29	5.33	5.63
Age at entry ≥ 50	8.51	8.43	8.77	8.57	8.47	8.63	7.92
Political family	6.56	6.44	6.66	6.67	6.32	5.83	5.64
Non political family	6.74	6.88	7.29	7.18	6.30	6.42	6.45
Prior experience	6.69	6.86	7.26	7.12	6.12	6.30	6.29
No prior experience	6.88	6.81	7.24	7.25	6.99	6.71	6.78

Table 2B: Decisions of Representatives (continued)

Politicians' characteristics	Baseline	3a - NOPEN	3b - CWAGE DECR	3c - NOACH	3d - PCWAGE INCR	4a - NOELEC SENIOR	4b - TLIMIT
Run for Re-Election to the House (percentage)							
All	91.23	91.29	86.69	90.60	85.73	91.37	81.87
Skilled	91.05	91.37	86.39	90.56	84.74	91.91	81.17
Non skilled	91.48	91.17	87.06	90.66	86.89	90.54	82.58
Achiever	92.27	92.34	88.29	90.82	86.49	92.67	82.57
Non achiever	90.90	90.93	86.16	90.53	85.48	90.93	81.66
Democrat	91.48	91.54	86.67	90.82	85.71	91.48	82.00
Republican	90.88	90.94	86.70	90.30	85.75	91.21	81.72
Age at entry < 50	91.57	91.53	86.70	90.60	85.20	92.12	82.00
Age at entry ≥ 50	90.56	90.81	86.65	90.60	86.65	89.88	81.67
Political family	91.20	91.70	86.23	89.97	86.94	92.03	82.32
Non political family	91.23	91.26	86.71	90.64	85.65	91.32	81.85
Prior experience	91.28	91.29	86.52	90.54	85.87	91.40	81.79
No prior experience	91.05	91.25	87.28	90.81	85.23	91.24	82.18
Run for the Senate (percentage, conditional on option available)							
All	3.07	3.37	4.58	3.13	6.03	1.81	6.69
Skilled	4.37	4.76	6.73	4.49	8.99	2.40	10.71
Non skilled	1.29	1.51	1.86	1.32	2.50	0.91	2.65
Achiever	4.03	4.11	5.73	3.73	7.77	2.15	8.28
Non achiever	2.75	3.12	4.20	2.94	5.46	1.69	6.20
Democrat	2.75	2.95	4.21	2.85	5.77	1.65	6.13
Republican	3.51	3.94	5.07	3.52	6.38	2.02	7.38
Age at entry < 50	3.91	4.27	5.89	4.04	7.88	2.21	8.48
Age at entry ≥ 50	1.39	1.62	2.17	1.41	2.76	1.00	3.72
Political family	3.40	3.10	5.62	3.84	6.07	1.39	6.83
Non political family	3.05	3.39	4.51	3.09	6.03	1.84	6.68
Prior experience	3.05	3.45	4.65	3.23	6.06	1.84	6.87
No prior experience	3.11	3.09	4.32	2.78	5.94	1.71	6.06
Exit Congress Voluntarily (percentage)							
All	6.73	6.48	10.27	7.32	10.25	7.44	13.69
Skilled	6.04	5.46	9.11	6.45	9.23	6.49	11.71
Non skilled	7.66	7.83	11.72	8.47	11.45	8.86	15.67
Achiever	5.04	4.92	7.90	6.70	8.31	5.90	11.90
Non achiever	7.28	7.00	11.05	7.51	10.88	7.96	14.24
Democrat	6.69	6.50	10.53	7.29	10.45	7.43	13.95
Republican	6.79	6.44	9.94	7.36	9.98	7.45	13.38
Age at entry < 50	5.83	5.62	9.37	6.71	9.52	6.42	12.35
Age at entry ≥ 50	8.51	8.12	11.91	8.47	11.52	9.46	15.89
Political family	6.56	6.27	10.07	7.50	9.06	7.06	13.24
Non political family	6.74	6.49	10.29	7.31	10.32	7.46	13.72
Prior experience	6.69	6.41	10.39	7.31	10.10	7.38	13.67
No prior experience	6.88	6.70	9.85	7.35	10.79	7.62	13.79

Table 3A: Decisions of Senators

Politicians' characteristics	Baseline	1a - NOCOM SENIOR	1b - NOCOM	1c - NOSEN	2a - NOEXP	2b - NOPRIV	2c - NOPUB
Run for Re-Election to the Senate (percentage)							
All	85.24	84.57	84.36	85.21	85.79	86.55	85.81
Skilled	87.48	86.62	86.41	87.37	87.70	89.12	86.63
Non skilled	81.55	80.94	80.93	82.82	82.96	82.63	84.52
Achiever	86.86	85.49	86.85	86.92	87.68	87.13	86.57
Non achiever	83.27	83.53	81.48	82.71	83.36	85.83	84.94
Democrat	85.44	84.63	85.88	85.13	86.31	87.3	85.46
Republican	84.98	84.50	82.43	85.32	85.10	85.6	86.23
Age at entry < 50	86.66	85.95	86.12	86.50	87.44	88.00	86.72
Age at entry ≥ 50	81.19	80.54	79.04	82.36	81.42	82.7	83.06
Political family	88.00	84.72	85.95	88.28	85.42	87.82	83.97
Non political family	85.05	84.57	84.24	84.99	85.81	86.46	85.94
Prior experience	85.46	85.11	84.22	84.83	86.18	86.31	85.75
No prior experience	84.36	82.34	84.89	86.59	84.33	87.45	86.04
Exit Congress Voluntarily (percentage)							
All	14.76	15.43	15.64	14.79	14.21	13.45	14.19
Skilled	12.52	13.38	13.59	12.63	12.30	10.88	13.37
Non skilled	18.45	19.06	19.07	17.18	17.04	17.37	15.48
Achiever	13.14	14.51	13.15	13.08	12.32	12.87	13.43
Non achiever	16.73	16.47	18.52	17.29	16.64	14.17	15.06
Democrat	14.56	15.37	14.12	14.87	13.69	12.70	14.54
Republican	15.02	15.50	17.57	14.68	14.90	14.40	13.77
Age at entry < 50	13.34	14.05	13.88	13.50	12.56	12.00	13.28
Age at entry ≥ 50	18.81	19.46	20.96	17.64	18.58	17.30	16.94
Political family	12.00	15.28	14.05	11.72	14.58	12.18	16.03
Non political family	14.95	15.43	15.76	15.01	14.19	13.54	14.06
Prior experience	14.54	14.89	15.78	15.17	13.82	13.69	14.25
No prior experience	15.64	17.66	15.11	13.41	15.67	12.55	13.96

Table 3B: Decisions of Senators (continued)

Politicians' characteristics	Baseline	3a - NOPEN	3b - CWAGE DECR	3c - NOACH	3d - PCWAGE INCR	4a - NOELEC SENIOR	4b - TLIMIT
Run for Re-Election to the Senate (percentage)							
All	85.24	84.32	82.31	82.22	82.24	83.89	77.09
Skilled	87.48	85.58	84.14	83.44	83.89	84.90	78.48
Non skilled	81.55	82.29	79.20	80.35	79.23	82.64	75.10
Achiever	86.86	86.66	84.03	82.82	85.80	85.67	78.47
Non achiever	83.27	81.36	80.20	81.56	78.26	81.49	75.74
Democrat	85.44	85.87	82.96	82.65	82.98	84.41	77.16
Republican	84.98	82.19	81.52	81.69	81.29	83.14	77.01
Age at entry < 50	86.66	85.68	83.83	82.99	82.90	85.80	77.50
Age at entry ≥ 50	81.19	80.26	78.00	80.07	80.26	79.17	76.15
Political family	88.00	84.05	87.13	79.59	79.57	80.15	81.40
Non political family	85.05	84.34	81.95	82.40	82.46	84.14	76.77
Prior experience	85.46	84.82	81.67	83.21	82.55	84.09	76.75
No prior experience	84.36	82.38	84.64	78.08	81.04	83.14	78.36
Exit Congress Voluntarily (percentage)							
All	14.76	15.68	17.69	17.78	17.76	16.11	22.91
Skilled	12.52	14.42	15.86	16.56	16.11	15.10	21.52
Non skilled	18.45	17.71	20.80	19.65	20.77	17.36	24.90
Achiever	13.14	13.34	15.97	17.18	14.20	14.33	21.53
Non achiever	16.73	18.64	19.80	18.44	21.74	18.51	24.26
Democrat	14.56	14.13	17.04	17.35	17.02	15.59	22.84
Republican	15.02	17.81	18.48	18.31	18.71	16.86	22.99
Age at entry < 50	13.34	14.32	16.17	17.01	17.10	14.20	22.50
Age at entry ≥ 50	18.81	19.74	22.00	19.93	19.74	20.83	23.85
Political family	12.00	15.95	12.87	20.41	20.43	19.85	18.60
Non political family	14.95	15.66	18.05	17.60	17.54	15.86	23.23
Prior experience	14.54	15.18	18.33	16.79	17.45	15.91	23.25
No prior experience	15.64	17.62	15.36	21.92	18.96	16.86	21.64

Table 4A: Value of a Congressional Seat

Politicians' characteristics	Baseline	1a - NOCOM SENIOR	1b - NOCOM	1c - NOSEN	2a - NOEXP	2b - NOPRIV	2c - NOPUB
Average Value of a House Seat							
All	616,228	615,054	600,989	601,187	659,546	663,271	641,284
Skilled	658,294	657,063	644,278	632,867	723,705	731,413	680,347
Non skilled	559,425	559,796	544,341	554,585	563,897	562,384	589,731
Achiever	683,641	674,351	665,970	664,814	740,762	736,852	706,771
Non achiever	594,434	595,291	579,827	579,583	632,322	638,152	619,348
Democrat	615,100	616,817	600,629	607,250	668,435	667,595	642,598
Republican	617,820	612,621	601,486	593,070	647,599	657,198	639,470
Age at entry < 50	642,337	640,247	625,878	619,841	700,080	698,052	670,418
Age at entry ≥ 50	564,593	566,140	553,538	560,622	572,574	588,904	583,100
Political family	634,612	628,817	619,591	610,259	687,107	686,606	651,742
Non political family	615,083	614,130	599,790	600,564	657,771	661,715	640,580
Prior experience	617,450	617,087	602,500	601,882	661,646	665,893	642,787
No prior experience	611,517	607,788	595,505	598,588	651,788	653,605	635,888
Average Value of a Senate Seat							
All	1,673,763	1,665,688	1,662,439	1,690,801	1,941,381	1,786,820	1,678,961
Skilled	1,746,769	1,732,713	1,728,119	1,817,264	2,080,648	1,910,486	1,749,588
Non skilled	1,552,792	1,545,791	1,551,784	1,550,824	1,735,810	1,596,454	1,566,013
Achiever	1,809,194	1,800,580	1,804,285	1,809,503	2,069,997	1,918,397	1,819,673
Non achiever	1,514,395	1,514,068	1,500,769	1,521,125	1,778,837	1,626,597	1,519,190
Democrat	1,722,419	1,703,866	1,713,279	1,735,405	1,999,733	1,846,288	1,723,842
Republican	1,612,571	1,617,777	1,598,102	1,630,072	1,866,455	1,711,810	1,626,066
Age at entry < 50	1,734,115	1,725,209	1,715,297	1,782,592	2,061,103	1,874,790	1,735,011
Age at entry ≥ 50	1,506,437	1,498,666	1,506,522	1,498,215	1,631,805	1,556,500	1,516,411
Political family	1,694,462	1,698,576	1,654,776	1,653,598	1,951,387	1,834,588	1,677,845
Non political family	1,672,394	1,663,683	1,663,028	1,693,408	1,940,737	1,783,582	1,679,039
Prior experience	1,674,329	1,658,558	1,661,877	1,692,661	1,954,157	1,791,272	1,679,878
No prior experience	1,671,616	1,695,353	1,664,594	1,684,011	1,894,097	1,769,871	1,675,557

Table 4B: Value of a Congressional Seat (continued)

Politicians' characteristics	Baseline	3a - NOPEN	3b - CWAGE DECR	3c - NOACH	3d - PCWAGE INCR	4a - NOELEC SENIOR	4b - TLIMIT
Average Value of a House Seat							
All	616,228	621,229	491,905	601,659	489,800	590,461	418,322
Skilled	658,294	670,413	525,335	643,135	517,775	631,145	459,528
Non skilled	559,425	555,799	450,260	546,994	456,845	529,012	377,329
Achiever	683,641	693,991	547,764	615,744	535,451	641,860	454,913
Non achiever	594,434	596,657	473,666	597,191	474,718	573,029	407,156
Democrat	615,100	625,874	491,973	598,168	488,298	593,432	413,282
Republican	617,820	614,935	491,815	606,415	491,783	586,424	424,561
Age at entry < 50	642,337	645,559	511,502	624,428	500,649	617,187	439,937
Age at entry ≥ 50	564,593	574,190	456,130	558,256	470,727	537,165	383,023
Political family	634,612	642,698	508,643	612,814	494,963	600,733	431,593
Non political family	615,083	619,820	490,854	600,954	489,456	589,767	417,503
Prior experience	617,450	623,091	493,037	603,721	490,173	591,892	420,630
No prior experience	611,517	614,514	487,833	594,280	488,437	585,252	410,131
Average Value of a Senate Seat							
All	1,673,763	1,690,264	1,512,592	1,528,661	1,413,427	1,656,759	1,322,786
Skilled	1,746,769	1,776,338	1,577,629	1,600,486	1,456,540	1,766,851	1,358,170
Non skilled	1,552,792	1,549,178	1,401,954	1,417,678	1,335,266	1,520,961	1,272,205
Achiever	1,809,194	1,823,722	1,640,940	1,544,262	1,542,372	1,767,954	1,404,629
Non achiever	1,514,395	1,525,987	1,359,484	1,512,020	1,271,855	1,510,736	1,244,806
Democrat	1,722,419	1,742,997	1,564,965	1,563,159	1,464,534	1,696,018	1,350,436
Republican	1,612,571	1,618,119	1,448,578	1,486,128	1,348,896	1,601,973	1,292,327
Age at entry < 50	1,734,115	1,751,424	1,561,343	1,570,412	1,445,247	1,719,998	1,346,143
Age at entry ≥ 50	1,506,437	1,512,810	1,378,131	1,417,425	1,321,989	1,507,517	1,271,359
Political family	1,694,462	1,680,452	1,532,854	1,518,367	1,410,812	1,658,633	1,327,830
Non political family	1,672,394	1,690,965	1,511,067	1,529,388	1,413,638	1,656,635	1,322,421
Prior experience	1,674,329	1,689,603	1,516,782	1,528,284	1,413,990	1,660,967	1,321,510
No prior experience	1,671,616	1,692,881	1,497,292	1,530,223	1,411,286	1,640,994	1,327,609

Table 5A: Post-Congressional Career Decisions

Politicians' characteristics	Baseline	1a - NOCOM SENIOR	1b - NOCOM	1c - NOSEN	2a - NOEXP	2b - NOPRIV	2c - NOPUB
Percentage that Choose the Private Sector (Upon Exit From Congress)							
All	48.64	48.86	49.28	47.94	35.01	na	70.84
Skilled	44.23	45.97	46.15	42.45	28.62	na	60.73
Non skilled	51.64	50.81	51.41	51.51	39.01	na	77.76
Achiever	49.87	50.57	51.86	47.57	34.37	na	72.77
Non achiever	48.22	48.27	48.38	48.07	35.22	na	70.18
Democrat	47.58	48.07	48.29	47.63	32.78	na	68.91
Republican	49.90	49.78	50.44	48.30	37.60	na	73.13
Age at entry < 50	49.24	49.88	50.47	48.96	35.37	na	72.84
Age at entry ≥ 50	47.79	47.38	47.51	46.47	34.50	na	67.96
Political family	49.21	49.54	46.28	47.70	34.11	na	69.21
Non political family	48.61	48.82	49.46	47.95	35.06	na	70.94
Prior experience	49.02	48.42	49.22	47.35	35.05	na	70.87
No prior experience	47.35	50.35	49.48	49.94	34.85	na	70.75
Percentage that Choose the Public Sector (Upon Exit From Congress)							
All	35.83	36.59	37.74	35.81	39.26	71.10	na
Skilled	28.54	28.65	32.08	28.57	27.46	52.51	na
Non skilled	40.78	41.96	41.60	40.53	46.65	83.07	na
Achiever	35.60	34.95	35.49	36.12	40.36	71.56	na
Non achiever	35.91	37.16	38.51	35.71	38.88	70.95	na
Democrat	35.09	35.26	37.03	35.26	39.80	67.93	na
Republican	36.71	38.15	38.57	36.45	38.63	74.82	na
Age at entry < 50	36.42	37.23	37.48	35.45	40.69	73.42	na
Age at entry ≥ 50	34.98	35.67	38.12	36.33	37.26	67.92	na
Political family	33.33	35.25	36.79	34.87	37.12	65.04	na
Non political family	35.99	36.67	37.79	35.87	39.40	71.47	na
Prior experience	35.00	36.44	37.39	35.49	38.91	70.70	na
No prior experience	38.68	37.10	38.94	36.90	40.44	72.48	na
Percentage that Retire (Upon Exit from Congress)							
All	15.52	14.55	12.99	16.25	25.73	28.90	29.16
Skilled	27.23	25.39	21.77	28.98	43.92	47.49	39.27
Non skilled	7.58	7.23	6.98	7.96	14.34	16.93	22.24
Achiever	14.53	14.48	12.65	16.32	25.27	28.44	27.23
Non achiever	15.87	14.57	13.10	16.23	25.89	29.05	29.82
Democrat	17.33	16.66	14.69	17.11	27.41	32.07	31.09
Republican	13.39	12.06	10.99	15.25	23.77	25.18	26.87
Age at entry < 50	14.34	12.90	12.05	15.59	23.94	26.58	27.16
Age at entry ≥ 50	17.23	16.95	14.36	17.20	28.24	32.08	32.04
Political family	17.46	15.21	16.93	17.43	28.77	34.96	30.79
Non political family	15.40	14.51	12.74	16.18	25.54	28.53	29.06
Prior experience	15.97	15.14	13.39	17.17	26.04	29.30	29.13
No prior experience	13.97	12.54	11.58	13.16	24.71	27.52	29.25

Table 5B: Post-Congressional Career Decisions (continued)

Politicians' characteristics	Baseline	3a - NOPEN	3b - CWAGE DECR	3c - NOACH	3d - PCWAGE INCR	4a - NOELEC SENIOR	4b - TLIMIT
Percentage that Choose the Private Sector (Upon Exit From Congress)							
All	48.64	53.70	50.67	50.39	59.04	50.53	51.69
Skilled	44.23	54.04	48.27	47.73	59.62	47.80	51.76
Non skilled	51.64	53.48	52.43	52.26	58.61	52.42	51.63
Achiever	49.87	54.58	52.33	50.77	61.64	51.47	53.17
Non achiever	48.22	53.41	50.10	50.26	58.14	50.21	51.15
Democrat	47.58	54.20	52.17	50.37	58.19	49.32	51.67
Republican	49.90	53.13	48.86	50.42	60.06	51.97	51.71
Age at entry < 50	49.24	54.13	52.42	51.20	60.39	51.80	52.73
Age at entry ≥ 50	47.79	53.10	48.08	49.21	57.00	48.70	50.10
Political family	49.21	55.11	51.91	51.52	59.48	50.33	51.59
Non political family	48.61	53.62	50.60	50.32	59.01	50.54	51.70
Prior experience	49.02	53.59	51.12	50.27	58.43	50.85	52.06
No prior experience	47.35	54.09	49.11	50.81	61.14	49.44	50.40
Percentage that Choose the Public Sector (Upon Exit From Congress)							
All	35.83	41.40	39.25	35.83	35.26	38.74	42.46
Skilled	28.54	38.22	34.98	29.31	31.00	32.35	39.65
Non skilled	40.78	43.53	42.37	40.41	38.38	43.17	44.76
Achiever	35.60	41.34	38.23	36.05	32.14	38.14	43.26
Non achiever	35.91	41.42	39.60	35.76	36.33	38.95	42.17
Democrat	35.09	40.28	37.08	34.80	35.35	38.77	42.17
Republican	36.71	42.70	41.88	37.07	35.14	38.71	42.82
Age at entry < 50	36.42	42.16	39.70	36.31	35.20	39.47	44.35
Age at entry ≥ 50	34.98	40.31	38.58	35.13	35.34	37.70	39.57
Political family	33.33	39.67	37.53	33.33	34.20	37.91	41.50
Non political family	35.99	41.50	39.35	35.99	35.32	38.79	42.52
Prior experience	35.00	41.56	38.76	35.43	35.73	38.31	42.07
No prior experience	38.68	40.86	40.96	37.21	33.63	40.26	43.81
Percentage that Retire (Upon Exit from Congress)							
All	15.52	4.90	10.08	13.77	5.70	10.73	5.85
Skilled	27.23	7.74	16.75	22.96	9.38	19.85	8.59
Non skilled	7.58	2.99	5.20	7.33	3.01	4.41	3.61
Achiever	14.53	4.08	9.44	13.19	6.22	10.39	3.57
Non achiever	15.87	5.18	10.30	13.99	5.53	10.84	6.68
Democrat	17.33	5.52	10.75	14.83	6.46	11.91	6.17
Republican	13.39	4.18	9.26	12.52	4.80	9.32	5.47
Age at entry < 50	14.34	3.71	7.88	12.49	4.41	8.74	2.92
Age at entry ≥ 50	17.23	6.59	13.34	15.66	7.66	13.59	10.33
Political family	17.46	5.23	10.56	15.15	6.32	11.76	6.92
Non political family	15.40	4.88	10.05	13.68	5.67	10.66	5.78
Prior experience	15.97	4.85	10.12	14.30	5.84	10.85	5.87
No prior experience	13.97	5.06	9.93	11.98	5.24	10.30	5.79

Table 6: Effects of Policies by Politicians' Characteristics

A. Policy Experiments 1a – 2c

Politicians' characteristics	1a - NOCOM SENIOR	1b - NOCOM	1c - NOSEN	2a - NOEXP	2b - NOPRIV	2c - NOPUB
Skilled		**				**
Non skilled			**	**	**	
Achiever						
Non achiever	**			**	**	
Democrat		**	**	**	**	**
Republican						
Age at entry < 50	**	**				
Age at entry ≥ 50			**	**	**	
Political family						
Non political family	**	**	**	**	**	**
Prior experience	**	**		**	**	
No prior experience						**

B. Policy Experiments 3a – 4b

Politicians' characteristics	3a - NOPEN	3b - CWAGE DECR	3c - NOACH	3d - PCWAGE INCR	4a - NOELEC SENIOR	4b - TLIMIT
Skilled	**	**	**	**		**
Non skilled						
Achiever			**			
Non achiever					**	
Democrat	**	**	**	**	**	**
Republican						
Age at entry < 50	**	**	**	**	**	**
Age at entry ≥ 50						
Political family						
Non political family	**			**	**	
Prior experience	**	**	**	**	**	**
No prior experience						

Note: The table indicates groups of politicians that are relatively more affected by the policy, in that the duration of their political career declines *relative* to non-members of that group. For example, a ****** next to the "non-achiever" type in the experiment 1a column indicates that this experiment causes the average career duration for this group to drop by a quantitatively significant amount relative to the "achiever" type.