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Parliamentary Questions and the Probability of Reelection in the UK House of Commons

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Abstract

Members of worldwide parliaments partake in debates, where they have the opportunity to hold governments to account by asking pre-submitted questions. The UK House of Commons uses a ballot system to determine which members are selected to ask a question from those who expressed an interest in doing so. This paper is the first in the literature to exploit this randomization to show that the asking of such questions increases a member's chances of being reelected by their constituents.

It is shown that while the ordering of parliamentary questions is determined at random, the practicalities of conducting debates introduce a potentially endogenous element to the determination of which questions receive oral answers (particularly the speed at which questions are answered). This paper uses a matched sampling approach to cope with such non-random cases, but also includes alternative results, to show that the findings are not reliant on the use of this technique.

1   Introduction

In the UK House of Commons, the daily agenda typically consists of one or more parliamentary debates. These debates are usually focused on a particular government department, with the ministers responsible for that department facing questions posed by other members. As well as simply finding out the answers to their questions, such debates offer members the chance to hold the government to account for their

policies, as well as raising awareness of particular issues. Alongside these objectives, this paper focuses on the payoffs that members themselves can accrue by having their questions answered.

The present study exploits the institutional structure of the UK parliamentary system to create a quasi-experiment. This approach means that this study can hope to infer a causal link between the act of asking parliamentary questions and the probability of reelection

1.1 UK Parliamentary Questions Procedure

Since 1989, the order in which parliamentary questions are addressed has been determined by a random ballot (Sandford (2012)). From the pool of submitted questions, those to be answered are drawn in order, up to some pre-determined cut-off. This limit is chosen as the maximum number of questions that could conceivably be reached during the time allocated to the debate, the current maximum being 25 questions. All these questions are placed on the 'Order Paper' for the debate, whereas questions not drawn among this group are discarded.

The debate proceeds through these listed questions in numerical order, with each asking member allowed one 'follow-up' question. The 'Speaker' presiding over the debate can also exercise some influence over how many questions are reached on the Order Paper. In doing so, the Speaker faces a trade-off between ensuring that each question is treated adequately, and ensuring that as many questions as possible are given oral answers.

Given that the number of questions listed on the Order Paper is chosen as the maximum that could potentially be answered during the time allocated to the debate, this debating process usually results in a set of questions which are not reached, and therefore not given an oral answer in the House of Commons. Such questions listed on the Order Paper but not reached during the debate itself are given written answers.

There are various examples of international parliamentary systems that use random ballots to select which questions are asked in parliamentary bodies, in the event that debates are over-subscribed (Canada and Scotland, for example, use similar ballots). A key component of the UK system, and one that is crucial to this analysis, is the recording of those questions not selected for direct oral answer. This facilitates the construction of a comparable control group, against which the answered questions can be compared.

1.2 Oral Versus Written Questions

It can safely be assumed that Members of Parliament who listed questions for oral answer have an interest in their questions being reached in the debate, given that the option of submitting questions specifically for written answer is also available to them, with such questions always guaranteed to be answered.

This can be stated more formally using an expected utility setting, where a member who would like to ask a question in Parliament has the choice of submitting that question for oral or written answer. Both are assumed to have the same cost (e.g. time and preparation), denoted c. All questions submitted for written answer are guaranteed a written response, which can be assumed to offer the member a guaranteed utility payoff U_w. This guaranteed payoff is assumed to make the member exactly indifferent between submitting a written question and not doing so ($U_w = c$).

By submitting a question for oral answer, the member faces a probability p that their question will be selected to go on the Order Paper. This implies a probability $1 - p$ that the question is not selected for the Order Paper, in which case their question receives no answer at all. This is assumed to offer the member a payoff zero. If selected for the Order Paper, the question then has a chance q of being reached in the debate. If the question is reached, it receives an oral answer, giving a payoff U_o, whereas if it is not reached, it receives a written answer.

By choosing to submit an oral question in the first place, the member has revealed that their expected payoff from doing so is greater than the cost of doing so, and also exceeds that of submitting a written question. This means the following two conditions must hold:

$$p \left(q U_o + (1 - q) U_w \right) \geq c$$
$$p \left(q U_o + (1 - q) U_w \right) - c \geq U_w - c$$

Given that $U_w = c$, these participation and incentive constraints are effectively equivalent, and can be rewritten as:

$$p U_w + p q \left(U_o - U_w \right) \geq U_w$$

Given that $p U_w \leq U_w$, the only way that this expression can be satisfied is if you have $U_o \geq U_w$.

Furthermore, if either $p < 1$ or $q < 1$, it must be the case that $U_o > U_w$. So, if there is either any chance of not being selected for the Order Paper, or of the question not being reached in the debate, if a member has submitted an oral question, it must be the case that the payoff to that member from having their question answered on the floor of the House exceeds the payoff from having that same question receive a written answer.

This paper takes the preferences described above as given, assuming throughout that members submitting questions for oral answer would prefer their questions to be reached in the debate, as opposed to receiving a written answer.

1.3 Parliamentary Questions Literature

The political science literature includes many studies regarding questions submitted in Parliament. Martin and Rozenberg (2012) list many international examples where data on parliamentary questions has been used make inferences about the role of legislators and the impact that these questions may have. Saalfeld (2011) uses questions submitted in the UK House of Commons during the 2005 Parliament to examine whether MPs with "visible-minority" backgrounds are more likely to ask questions relating to these minorities, finding in fact that the ethnicity of constituents plays a more prominent role. John and Bevan (2011) consider trends in the types of questions asked during Prime Minister's Questions between 1997 and 2008. Using Irish data, Martin (2011) also looks in detail at the content of questions asked in Parliament, to assess to what extent questions are focused towards local as opposed to national issues.

Many studies have been conducted on the wider behavior of political representatives, such as their parliamentary voting behavior. Cowley and Stuart (2008) and Cowley and Stuart (2009) are examples which study such voting behavior in the UK case.

There is a wide literature in the area of voter responses to political behavior, even restricting attention to the UK case. In one example, Sanders and Norris (2005) consider the effect of political advertising on voter behavior. In another related paper, Sanders et al. (2007) consider the effectiveness of internet-based surveys in predicting voter behavior.

There has been very little work in the political science literature, however, on the determinants of the political success of legislators. An important reason for this, is that such studies face the problem of distinguishing whether any correlation is caused by the characteristics of politicians themselves, as opposed to their observed behavior. An exception is Loewen et al. (forthcoming), which uses a natural experiment in the Canadian House of Commons to test whether political representatives who

are chosen at random to propose legislation are more likely to achieve reelection. That study is therefore complimentary to the one presented here, in that both exploit randomizations within parliamentary institutions to reveal ways in which constituents reward certain behavior by their legislators.

To my knowledge, however, there is no study which uses the randomization process with which parliamentary questions are chosen to make inferences about their effects. This may be a result of the fact that in most international settings, the questions randomized out according to such processes are discarded, making it impossible to use those cases as a comparison group. Furthermore, even in the UK case there is no dataset available which records the answered and unanswered questions in one place. This paper combines a number of different sources to conduct the analysis.

The use of this randomization forms the basis of all the findings reported in this paper. Under an effective randomization, reported results cannot be attributed to self-selection into treatment or control groups, which in turn means that all unobserved characteristics of the members that make up these two groups should be equivalently distributed across the two groups.

1.4 Data Collection

The UK Parliament website lists the Order Papers for each day in the House of Commons since 27 October 1997.[1] This translates to three full parliamentary terms, leading up to elections in 2001, 2005, and 2010, with the exception of the first few months following the 1997 election.[2] These Order Papers contain all the questions listed for all the debates taking place on that day, in the order that they will be addressed, as well as a numeric code, which is assigned to each question.

Alongside these Order Papers, the UK Parliament also publishes online transcripts for all the debates which take place in the House of Commons on their 'Hansard' pages. These transcripts contain the questions from the Order Paper that were actually asked when the debates took place. By combining the two, it is possible to create a dataset which lists all the questions from the Order Papers, as well as whether each of these questions was reached within the time allocated to the debate, in which case it would have received an oral answer.

In 2010, the UK Parliament Library published a research paper containing a list of all Members of Parliament, between 1979 and 2010. This paper is used to gather background data on MPs, including

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[1]The Order Papers for two days, 15 July 1999 and 18 January 2002, are missing, but of a total of 1657 days over the time period in question, these represent just 0.12% of the dataset.

[2]The 1997 General Election took place on 1 May. Following the election, oral debates restarted at the end of May, and continued through June and July. Parliament was then in recess until 27 October, from which point Order Papers are available online.

gender, age, party affiliation and ministerial positions. The dependent variable of interest (reelection) is collected from datasets compiled by the UK Electoral Commission. In both cases, the data is matched with the data on individual questions, based on constituency and member names.

1.5 Research Questions

This chapter will consider whether the act of asking parliamentary questions affects the reelection prospects of Members of Parliament (MPs) in the UK House of Commons. If having a parliamentary question successfully chosen to be answered orally in the House of Commons is valued by constituents, this will be reflected in their voting behavior, and therefore the probability that the member is successful in achieving reelection.

A second related research question involves the degree to which the selection of parliamentary questions can truly be considered as random. In particular it is necessary to ascertain whether the randomization in ordering questions is effective in offering all members who submit questions an equal chance of having their question selected to receive an oral answer. Questions submitted by members who are then absent from the debates are not answered, and questions that are submitted by more than one member for the same debate are also treated altogether. Furthermore, the number of questions answered during the debate will depend on the speed at which the debate progresses. As all these factors may be non-random, it may be possible for members to circumvent the randomized nature of the debates to influence the probability that their question receives an oral answer.

Any non-randomness in the allocation to treatment and control groups (i.e. whether the question was reached during the debate) will have to be explicitly accounted for in the estimation methods that follow.

1.6 Paper Outline

The next section of this paper will set the scene by using a simple ordinary least squares estimation to determine whether members who have more questions selected for oral answer are more likely to be reelected. Section 3 will then highlight some ways in which the randomized procedure by which questions are selected to receive an oral answer could be undermined. Next, Section 4 will propose an alternative estimation method, based on a matched-sampling approach, which aims to address the problems posed by this endogeneity in the selection of questions to be given oral answers. Section 5 will provide the results from some robustness checks and the final section will outline the conclusions of the study.

2 Regression Analysis Based on Individual Members

2.1 A Basic Ordinary Least Squares (OLS) Specification

The first method used will be to take each Member of Parliament over a parliamentary term as a single observation, and count how many times that member was successful and unsuccessful in the ballot. The hypothesis behind such a model is that if the selection of questions to be answered is indeed a random one, then the inclusion of the number of unanswered questions in the regression would control for the fact that members who ask more questions are likely to have particular characteristics, which may also influence their probability of reelection.

In particular, once the total number of questions asked is controlled for, it is assumed that the number of questions answered is effectively allocated at random, and is therefore exogenous in the regression equation.

- $i = 1, \ldots, I$ is the set of Members of Parliament (MPs)

- $t = 1, \ldots, T$ is the set of elections for which data is available (2001, 2005, 2010)

- y_{it} is a binary variable indicating whether member i was reelected in election t (dependent variable)[3]

- a_{it} is the number of questions asked by member i in the lead-up to election t that received oral answers

- s_{it} is the number of questions submitted by member i in the lead-up to election t that did not receive an oral answer (not reached during the debate)

- X_{it} is a set of other characteristics of member i in the lead-up to election t (party, age, gender)

- E_{it} is a set of dummy variables indicating which election followed the tabling of the question

- C_{it} is a set of dummy variables capturing constituency fixed effects

Using these definitions, the basic model can be written as:

$$y_{it} = \gamma_0 + \gamma_1 a_{it} + \gamma_2 s_{it} + \gamma_3 X_{it} + \gamma_4 E_{it} + \gamma_5 C_{it} + \epsilon_{it}$$

[3]Throughout this study, MPs who did not seek reelection are treated in exactly the same way as those who were unsuccessful. There is likely to be some degree of endogeneity involved in members' decisions as to whether to stand for reelection, with those members who suspect they are unlikely to win being disproportionately more likely not to stand.

In this model, if two members i and j share the same characteristics ($s_{it} = s_{jt} = s$, $X_{it} = X_{jt} = x$, $E_{it} = E_{jt} = e$, $C_{it} = C_{jt} = c$), including the number of unanswered questions, but member j has one more answered question than member i, you have:

$$E\left[y_{it} \mid a, s, x, e, c\right] = \gamma_0 + \gamma_1 a + \gamma_2 s + \gamma_3 x + \gamma_4 e + \gamma_5 c + E\left[\epsilon_{it} \mid a, s, x, e, c\right]$$

$$E\left[y_{jt} \mid a + 1, s, x, e, c\right] = \gamma_0 + \gamma_1\left(a + 1\right) + \gamma_2 s + \gamma_3 x + \gamma_4 e + \gamma_5 c + E\left[\epsilon_{jt} \mid a + 1, s, x, e, c\right]$$

The change in the expected probability of reelection from having an extra answered question is then given by:

$$E\left[y_{jt} \mid a + 1, s, x, e, c\right] - E\left[y_{it} \mid a, s, x, e, c\right] = \gamma_1 + E\left[\epsilon_{jt} \mid a + 1, s, x, e, c\right] - E\left[\epsilon_{it} \mid a, s, x, e, c\right]$$

The assumption that questions are chosen at random to be answered from those on the Order Paper implies that for any given combination of member characteristics and fixed effects, you have $E\left[\epsilon_{it} \mid a, s, x, e, c\right] \equiv E\left[\epsilon_{it} \mid s, x, e, c\right]$, which in turn implies that the effect of an increase in the number of questions asked by a member can be identified simply by calculating the resulting change in the probability of reelection, conditional on the number of unanswered questions:

$$\gamma_1 = E\left[y_{jt} - y_{it} \mid s, x, e, c\right] = \triangle E\left[y \mid s, x, e, c\right]$$

Table 1 shows the results of regressions using such specifications, with standard errors clustered at the member level. The first column in Table 1 includes no controls, and simply calculates the effect of members having an extra question answered and unanswered on the probability of reelection. In this simplest specification, with no controls, results suggest that members who have one more question answered over the course of a parliamentary term have a lower probability of being reelected.

The second column shows the results of a similar specification, but in this case including dummy variables to control for the parliamentary term for which the total number of questions has been calculated. After including these dummy variables, a member who asks a higher number of parliamentary questions is found to have a higher probability of reelection. Specifically, having an extra parliamentary question answered is found to increase the probability of reelection by 0.18 percentage points. This is

Table 1: Linear probability models estimating the effect of having an extra question answered in the House of Commons on a member's probability of reelection. The dependent variable is a binary variable indicating whether the member was reelected in the following election (1 = 'yes', 0 = 'no'), with mean = 0.752 and standard deviation = 0.432).

	(1) Reelected	(2) Reelected	(3) Reelected	(4) Reelected	(5) Reelected
Total answered questions	-0.00209*	0.00176	0.00149	0.00140	0.00310*
	(-2.24)	(1.64)	(1.42)	(1.45)	(2.11)
Total unanswered questions	0.00485***	0.00115	0.000871	0.0000872	-0.00133
	(6.04)	(1.24)	(0.94)	(0.10)	(-0.89)
Conservative Party			0.0991***	0.0715**	0.276**
			(4.44)	(2.99)	(3.09)
Liberal Democrat Party			0.0398	-0.0259	0.111
			(1.12)	(-0.71)	(0.74)
Other party, excluding Labour			-0.108*	-0.0882	-0.0622
			(-2.02)	(-1.68)	(-0.39)
Changed party			-0.334***	-0.284**	-0.196
			(-3.73)	(-3.04)	(-1.27)
Ministerial position				0.0752**	0.153***
				(3.11)	(3.56)
Age				0.0338**	0.0777***
				(2.88)	(4.04)
Age squared				-0.000387***	-0.000842***
				(-3.39)	(-4.70)
Years service				-0.0231***	-0.0523***
				(-4.65)	(-6.27)
Years service squared				0.000482***	0.000820***
				(3.34)	(4.08)
Female				-0.0796**	-0.0183
				(-3.16)	(-0.25)
Election dummies	No	Yes	Yes	Yes	Yes
Constituency dummies	No	No	No	No	Yes
Observations	1659	1659	1659	1659	1659
Adjusted R^2	0.023	0.053	0.083	0.176	0.297

t statistics in parentheses

Standard errors clustered at member level

Dataset includes all parliamentary questions over the parliamentary term, except the first few months of 1997 (see previous footnote)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

found to be very close to significant at the 10% level, with a t-statistic of 1.64.

Columns 3 and 4 introduce some extra control variables, first for the party affiliation of members, and then for various other characteristics relating to seniority and gender. The introduction of these extra control variables slightly reduces the size of the coefficient of interest, as well as the t-statistic.

Discussion of the other coefficients is kept to a minimum, as none benefit from the same type of randomization as the one for answered questions, making it hard to infer causality. In short, members representing the Conservative Party are found to be more likely to be reelected. This reflects a generally increasing share of Conservative MPs in the House of Commons over the time-period covered here, following Labour's landslide victory in the 1997 election. Changing parties within an electoral term is found to have a strongly negative effect on reelection prospects, as many voters presumably retain a strong loyalty to the member's former party (for which they were probably previously elected). Older MPs and those with ministerial status are more likely to be reelected, but a longer period of service reduces a member's chances of reelection.

Column 5 includes the same set of control variables, and adds a set of dummy variables to control for the constituencies that the members represent. The inclusion of these extra controls increases the size of the coefficient associated with having an extra question answered to 0.31 percentage points. This represents a large increase in the estimated coefficient, and is also associated with a t-statistic that represents statistical significance at the 5% level.

2.2 Interpretation of Initial Results

The identification strategy pursued in this section reports a coefficient which calculates the effect of a member asking one extra question during a parliamentary term. Among all the members in the sample, Figure 1 shows that there are many members who ask no questions at all over the parliamentary term. By contrast, however, the maximum number of questions successfully asked by a single MP in a parliamentary term is 174, with a standard deviation of 19.98 questions.

The implied linear relationship reported in Table 1 therefore implies that a one standard deviation increase in the number of questions successfully asked by an MP will result in a 6.2 percentage point increase in the probability of reelection. This effect shows that not only is the effect statistically significant, but that it is also of sufficient magnitude to have a non-negligible impact on the probability of reelection.

Figure 1: Total answered questions for each member in each electoral term (mean = 15.38, standard deviation = 19.98)
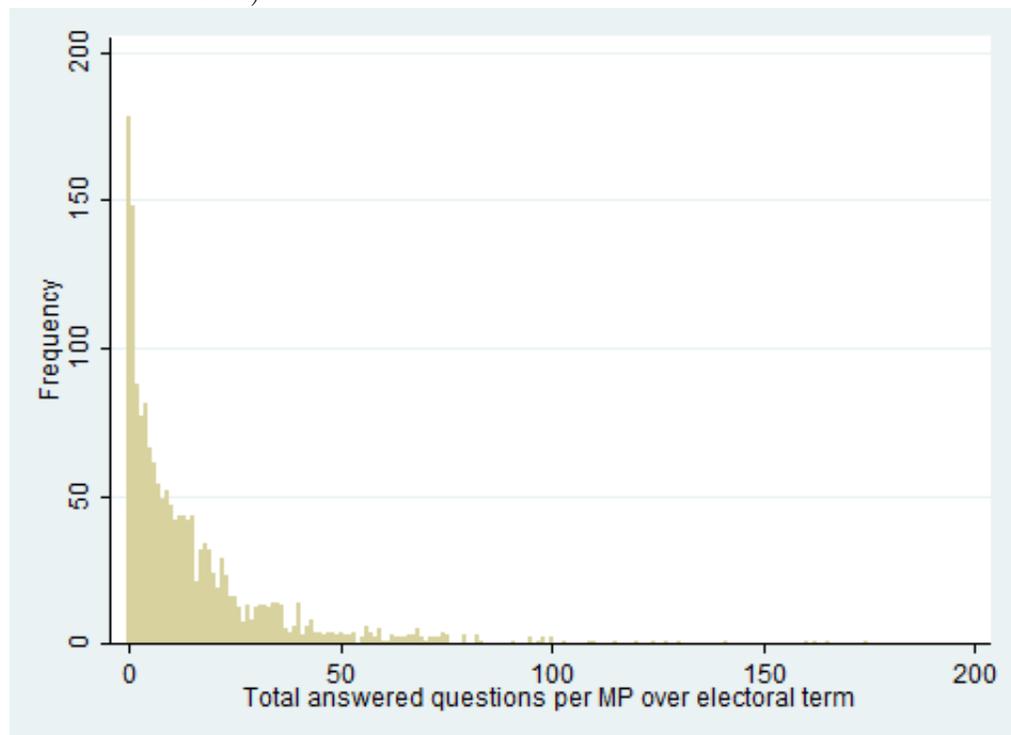
2.3 A Critique of the Basic Methodology

The method employed up to this point faces the potential criticism, however, that in certain debates questions may be more likely to be answered than in others, in a way which violates the assumptions of the model.

For example, if one particular government department evokes a lot of interest among members, it may be that debates related to this department generate longer questions and answers, with more follow-up questions from other members, and therefore proceed at a slower pace. In such debates a lower proportion of listed questions will be answered than would be expected in other debates. If a member has a particular interest in this department, they may submit a disproportionate number of questions for answer in these debates. Such members would therefore be likely to see a high number of unanswered questions, and a low number of answered questions. This would violate the assumptions of the model above.

To address this problem, a matching-style method will be used, which in effect directly compares the reelection outcomes of members whose questions received an oral answer, with the outcomes of members who submitted a question to be answered in the same debate, but whose question was not reached in the allotted time.

3   Randomization In Practice

Throughout this paper, much of the analysis will exploit the fact that the ordering of questions, which in turn determines which ones are asked, is determined at random. However, it is necessary to test the degree to which this randomization process is effective.

3.1   Sources of Endogeneity in the Allocation to Treatment

Even with the knowledge that the ordering of questions is determined by a random draw, it is still potentially possible for members with a particular interest in asking a question to influence their chances of doing so.

The first way that this could be achieved is for more than one member to agree to ask the same question. In such cases parliamentary procedure determines that the member with the first occurrence of a question on the Order Paper asks the question, but that other members who submitted the same question also have a chance to ask a follow-up question in the debate itself.

Clearly, not all cases where duplicate questions appear on the Order Paper are a result of this type of collusion between members. If a subject is particularly topical at the time when questions are submitted, it is also plausible to assume that members independently chose to submit the same question to the minister responsible. Furthermore, some members have been known to complain that their questions have been 'grouped' with others, when they considered the questions to be sufficiently distinct to warrant separate treatment. Whatever the reasons behind such duplications, it is possible that their occurrence is non-random, and therefore a system which treats such questions differently could have a non-random allocation to treatment or control.

If a member is unable to attend a debate for which they have a question listed on the Order Paper, then that question is not asked during the debate. Such non-attendance could be correlated with the characteristics of members, as well as with their position on the Order Paper (later questions are less likely to be reached), which means such absences could be non-random and also create an endogenous element to the selection of questions to receive oral responses.

Another factor which could undermine the randomness of questions answered is the speed at which the debate is conducted. Given that each debate continues for a fixed amount of time, the rate at which questions are answered will in turn affect how many questions are reached among those listed on the Order Paper. Any member taking part in the debate, and particularly the minister facing the

questions, may be able to exert some control over which questions are reached. For example, a minister may provide long-winded answers to earlier questions, in cases where they see many potentially hostile questions from opposition party members further down the Order Paper.

The 'Speaker' in charge of the debate may also play a role in the speed at which debates are conducted. The Speaker is an elected member of Parliament, who presides over debates in the House. The Speaker has the authority to decide which (if any) members are able to ask supplementary questions related to those on the Order Paper, aside from the questioner themself, and is charged with ensuring that the rules of the House are upheld. On taking the role, the Speaker is required to sever all previous links to political parties, to ensure their impartiality in the position.

As an unbiased member, the Speaker faces a trade-off between on one hand ensuring that questions are answered fully, and on the other, ensuring that as many questions are answered as possible. Through this influence, the Speaker could also potentially undermine the randomness with which questions are selected for oral answer in the House of Commons.

3.2   Descriptive Statistics Comparing Answered and Unanswered Questions

3.2.1   Difference-in-Means Tests Based on the Complete Dataset

Table 2 compares the background characteristics of MPs among those questions that received oral answers in the House of Commons, with those among the questions that were not reached during debates, and therefore received written answers. The final column shows the results of t-tests looking for statistically significant differences between the mean values of these characteristics between the two groups. In this setting, all answered questions, duplicate or not, are treated in the same way, and questions not asked because the member was not in attendance are treated exactly the same as all other unanswered questions.

To be clear, given that the order of questions is determined completely at random, if the occurrence of duplicated questions, the non-attendance of members, and the speed of debates were not influenced by any of the members present, it should be expected that there would be no significant differences between the averages of any of the observable characteristics across the two groups.

Results in Table 2 show, however, that there are statistically significant differences between the two groups in terms of observable characteristics. Among those questions which are reached during the debate and therefore receive oral answers, there is a higher proportion of opposition party members. Furthermore, among the questions that are reached, there is a higher proportion of questions posed by

Table 2: Descriptive statistics and difference-in-means tests for the treatment and control groups across the entire dataset. Taking each question asked as a separate data point, the treatment group includes all questions asked in Parliament ($N = 25521$), whereas the control group includes all questions submitted, but not reached during the debate ($N = 28934$).

	Answered questions	Unanswered questions	Difference
Conservative Party	0.354	0.330	0.0243**
			(3.144)
Liberal Democrat Party	0.114	0.103	0.0113**
			(3.034)
Other party, excluding Labour	0.0322	0.0336	-0.00138
			(-0.522)
Changed party	0.0139	0.0108	0.00309
			(1.549)
Ministerial position	0.458	0.422	0.0364***
			(4.849)
Age	53.34	52.88	0.461***
			(3.333)
Age squared	2924.0	2874.2	49.87***
			(3.335)
Years service	11.46	10.86	0.601***
			(4.107)
Years service squared	201.9	184.9	17.00**
			(3.079)
Female	0.185	0.183	0.00189
			(0.355)
Observations	54455		

Standard errors clustered at member level

t-statistics reported in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

members who have held a ministerial position (defined as a position on the government or opposition front-benches in the House of Commons). Finally, questions in the treatment group are asked on average by older members, and members who have held office for a longer period of time.

Taken as a whole, Table 2 shows statistically significant differences on many of the observable characteristics between the treatment and control groups, despite the fact that questions are drawn and ordered completely at random.

3.2.2 The Cause of Observed Endogeneity

Given that it is not the main focus of this study, detailed discussions of the reasons behind these observed differences between the treatment and control groups are omitted. In short, results point to the speed at which the debates progress being endogenously determined as the main cause of the non-random allocation to treatment. The matched sampling approach that will be introduced in Section 4 is found to be effective in eradicating these differences, while simultaneously ensuring that each debate contributes an equal number of questions to the treatment and control groups in the regressions that follow.

Specifically, results point to the Speaker being more likely to conduct debates in such a way as to admit questions from members representing opposition parties, and who have higher levels of authority. This is the first time that such a natural experiment has been used to report such a finding, and warrants further attention elsewhere. The focus of the rest of this paper, however, will be to devise an estimation approach which addresses this non-random element in the determination of which parliamentary questions receive an oral answer.

4   Ordinary Least Squares Based on Matched Sampling

To control for the observed non-randomness in determining which parliamentary questions receive oral answers in the UK House of Commons, a method will be used which drops those observations most likely to be allocated to the treatment or control group in a non-random way. Observations are also dropped in such a way that each debate is equally represented in the treatment and control groups. As such, this method also simultaneously controls for the influence that specific debates might have on outcomes, by ensuring that any such effects influence the treatment and control groups in equal measure. This method is akin to a matching estimator (Rosenbaum and Rubin (1983); LaLonde (1986); Heckman et al.

(1998); Angrist and Lavy (2001); A. Smith and E. Todd (2005); Diamond and Sekhon (2012)), where questions in the treatment group are matched with a corresponding question in the control group, based on the debate for which they were submitted. As with a simple matching estimator, each observation that received the treatment (having a question answered in this case) is effectively compared to a single counterpart that did not receive the treatment (an unanswered question), which is deemed comparable on the basis of some observed characteristic, which in this case is the debate for which the questions were submitted. Ho et al. (2007) propose a similar approach as a means for reducing a model's dependence on the parametric assumptions that are made after the data has been "preprocessed" in this way, following related work by Rubin (1973) and Rosenbaum and Rubin (1984).

4.1   Matched Sampling Methodology

Questions where the member was not present at the debate (1932 questions, or 3.5% of the dataset), and duplicated questions (1451 questions, or 2.7% of the dataset) are not subject to the same randomization process as other questions, so both types of question are removed from the dataset for the results reported in this section.

After removing such cases, the matched sampling method involves dropping observations whenever there are an unequal number of questions in the treatment and control group for a given debate. To simultaneously solve the problem of non-random allocation to the treatment and control groups, through endogeneity in the speed at which the debate is conducted, the questions chosen to be dropped are those closest to the cutoff point (at which the debate ended), as these are seen as the most likely to be subject to non-random allocation to treatment or control.

This can be shown more formally as follows:

- i represents the set of members

- d represents the set of debates

- a_{idt} is a binary variable indicating whether the question asked in debate d by member i received an oral answer

Let n_{id} represent the number at which the question of member i is drawn to be asked in the debate. Furthermore, let N_d represent the total number of questions listed on the Order Paper for the debate. This is a subset of the total number of questions submitted for the debate (regardless of whether they

Figure 2: Two example debates, one where more than half the questions are answered ($\overline{n}_A > N_A/2$), and another where less than half are answered ($\overline{n}_B < N_B/2$)
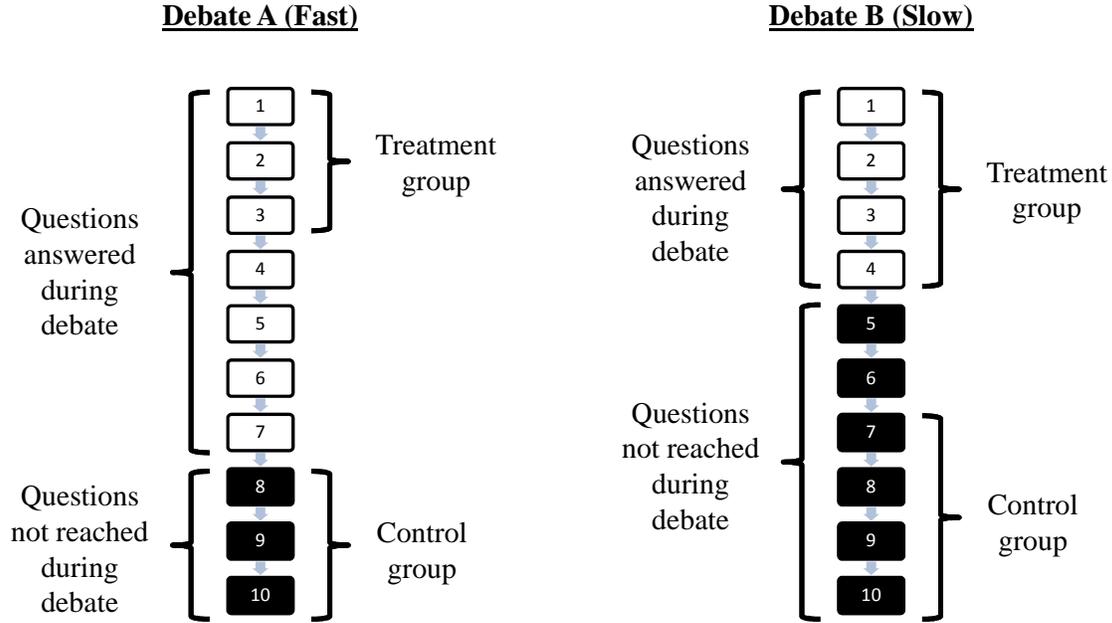
made it onto the Order Paper), itself denoted S_d. Finally, let $\overline{n}_d$ represent the number assigned to the last question reached in debate d, i.e. the 'cutoff' point.

Now you have:

$$
a_{idt} = \begin{cases} 1 & \text{if } n_{id} \leq \overline{n}_d \\ 0 & \text{otherwise} \end{cases}
$$

Now, if $\overline{n}_d > N_d/2$, this means that more than half of the questions listed for answer in debate d received an oral answer. In such cases, the last questions from the treatment group will be dropped from the analysis. More specifically, any question such that $N_d - \overline{n}_d < n_{id} \leq \overline{n}_d$ will be dropped from the sample if $\overline{n}_d > N_d/2$.

Conversely, if less than half of the questions listed on the Order Paper for debate d received an oral answer ($\overline{n}_d < N_d/2$), then the first questions from the control group will be dropped from the analysis. In particular, any question such that $\overline{n}_d < n_{id} \leq N_d - \overline{n}_d$ will be dropped from the sample if $\overline{n}_d < N_d/2$.

To illustrate, Figure 2 shows the questions listed on the Order Paper for two debates, one which

proceeds fast (Debate A), and another which proceeds slowly (Debate B).

Debate A in Figure 2 shows the case where more than half of the questions listed on the Order Paper are reached during the debate (7 of the 10 questions listed, illustrated as clear boxes). If the number of questions answered in such debates is non-random (as was shown to be the case in Section 4), the questions which are likely to have particular (non-random) characteristics, are those that were reached only because the debate proceeded quickly (questions 4 to 7 in this case). The questions at the start of the debate would have been reached anyway, and those at the end were not reached, even though the debate proceeded quickly. In debates where more than half of the questions are reached, the treatment group is taken as the first questions in the debate, up to the number of questions which matches the size of the control group (questions 1 to 3 in Debate A).

In Debate B in Figure 2, less than half of the questions are reached during the debate itself, so in this case the control group is larger. In such cases, any non-randomness in the speed at which the debate is conducted is likely to have resulted in fewer questions being answered than would otherwise have been the case. This means that the questions most likely to be non-random are those appearing immediately after the cutoff at which the debate ended. Again, to ensure equal numbers in the treatment and control groups, some observations must be dropped, and in this case, it is questions immediately after the cutoff which are removed.

4.2   Descriptive Statistics Under Matched Sampling

Before reporting the results of the ordinary least squares estimator based on the matched sample, it is necessary to consider whether the process of dropping observations had any effect on the comparability of the treatment and control groups, by looking at the descriptive statistics of the two groups in terms of observable characteristics of members.

Previously in Section 4, when looking at the dataset as a whole, it was shown that there were statistically significant differences between the treatment and control groups. In particular, the questions that were reached during the debates were on average asked more often by opposition members, with a higher average age, ministerial status, and length of parliamentary service.

Table 3 shows that the process of dropping observations has resulted in the treatment and control groups becoming far more comparable, with no statistically significant differences reported between any of the observable characteristics of the members asking questions in either group.

This supports the claim that it is those questions closest to the cutoff which are the cause of the

Table 3: Descriptive statistics and difference-in-means tests for the treatment and control groups with both groups equivalently distributed across debates. Taking each question asked as a separate data point, the treatment group includes all questions asked in Parliament ($N = 17193$), whereas the control group includes all questions submitted, but not reached during the debate ($N = 17193$).

	Answered questions	Unanswered questions	Difference
Conservative Party	0.335	0.341	-0.00535
			(-0.986)
Liberal Democrat Party	0.111	0.106	0.00465
			(1.437)
Other party, excluding Labour	0.0332	0.0328	0.000349
			(0.178)
Changed party	0.0132	0.0117	0.00145
			(1.230)
Ministerial position	0.438	0.436	0.00279
			(0.493)
Age	52.98	53.05	-0.0718
			(-0.727)
Age squared	2885.5	2892.9	-7.410
			(-0.696)
Years service	11.03	11.03	0.00151
			(0.0158)
Years service squared	190.5	189.4	1.109
			(0.305)
Female	0.187	0.186	0.000582
			(0.131)
Observations	34386		

Standard errors clustered at member level

t-statistics reported in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

statistically significant differences between the two groups that were found previously when considering the entire sample. The matched sampling approach used here is effective in eradicating those differences because it disproportionately removes the questions closest to the cutoff, which are the source of the bias.

4.3   Estimation Based on the Matched Sample

The first key difference between the following estimation strategy and the OLS framework reported in Section 2 is that in this case each observation corresponds to a question, as opposed to a member. The second is that in this specification, comparisons are made between members who successfully and unsuccessfully answered questions, so the control group is now exclusively made up of members whose questions were listed on the Order Paper, but were not asked. Members who had no questions listed on the Order Paper during a parliamentary term do not contribute to the findings. By contrast, in the first specification, non-ministerial members who asked no questions during the parliament were counted as zeros.

Once the dataset has been reduced in this way, the effect of a question being asked as opposed to receiving a written answer is estimated using ordinary least squares (OLS) on the remaining observations. Formally:

- $t = 1, \ldots, T$ represents the set of elections.

- y_{idt} is a binary variable reflecting the reelection outcome of a member i in election t, who asked a question in debate d (dependent variable).

- q_{idt} is a binary variable indicating whether the question of member i in debate d received an oral answer (1), or was not reached and thus received a written answer (0).

- X_{idt} is a set of control variables associated with member i at the time of debate d.

- D_{idt} is a set of dummy variables capturing debate fixed effects.

- C_{idt} is a set of dummy variables capturing constituency fixed effects.

Using these definitions, this model can be written as:

$$y_{idt} = \beta_0 + \beta_1 q_{idt} + \beta_2 X_{idt} + \beta_3 D_{idt} + \beta_4 C_{idt} + \epsilon_{idt}$$

In this specification, given that a member i had a question selected to be placed on the Order Paper in debate d, the probability that the question was answered is 0.5, independent of any characteristics of the member asking the question, the constituency they represent, or the debate for which the question was submitted. This means that any effect from q_{idt} on the probability of reelection can be attributed to q_{idt} itself, as opposed to any other characteristics (observed or otherwise) associated with the observation. Some controls are still included in the estimated regressions, however, given that they improve the precision of the findings. Standard errors will once again be clustered at the member level in all the results that follow.

Reducing the dataset as outlined above, but without any further controls, Table 4 shows that a question being reached in the debate increases the probability that the member who asked the question was reelected in the following election by 0.42 percentage points over another member, whose question was on the Order Paper but was not answered (Column 1). This effect is found to be far from significant at the 5% level, however, with a t-statistic of 0.98.

The subsequent two columns (Column 2 and Column 3) each include further control variables, first for party affiliation, and next for various other member characteristics. The adjusted-R^2 value jumps from zero to 0.18 after including these variables. The coefficient of interest remains close to 0.004, implying that among the answered questions the members who posed the questions have a probability of being reelected that is 0.40 percentage points higher than it would have been had their question appeared on the Order Paper, but too far down the list to receive an oral answer.

After including a set of dummy variables for each of the constituencies in the sample (Column 4), the adjusted-R^2 jumps to 0.59. It is unsurprising that the inclusion of variables which control for the constituency represented by each member explains a large part of the variation in reelection probabilities, given the strength of geographical voting norms which exist among the UK electorate. The coefficient of interest remains fairly constant at just over 0.004, but is not found to be statistically significant at the 5% level, with a t-statistic of 1.49.

The inclusion of a set of dummy variables controlling for debate-specific effects has very little effect on the adjusted-R^2 (Column 5). This in unsurprising, given that the matched sampling approach used here to remove those questions most likely to have been allocated to treatment or control in a non-random way, also implies that each debate is equally represented in the treatment and control groups. The effects of individual debates is therefore already being controlled for through the model specification,

Table 4: Linear probability models with reelection at the forthcoming election as the dependent variable (mean = 0.823, standard deviation = 0.381), based on the subsample of the dataset which ensures that the distribution of debates is equivalent across the treatment and control groups. The treatment group includes questions reached in the debate, and control group includes all questions further down the Order Paper and therefore not asked ($N = 17193$ in both cases).

|	(1) Reelected	(2) Reelected	(3) Reelected	(4) Reelected	(5) Reelected
Question asked	0.00419	0.00447	0.00396	0.00428	0.00421
	(0.98)	(1.06)	(0.99)	(1.49)	(1.48)
Conservative Party		0.0932***	0.0396	0.316***	0.370***
		(3.52)	(1.20)	(3.86)	(4.27)
Liberal Democrat Party		0.0690	-0.0171	0.434**	0.483***
		(1.85)	(-0.37)	(2.96)	(3.34)
Other party, excluding Labour		-0.313***	-0.247*	-0.110	-0.0376
		(-3.46)	(-2.55)	(-0.57)	(-0.20)
Changed party			-0.240	-0.145	-0.151
			(-1.60)	(-0.65)	(-0.74)
Ministerial position			0.0680*	-0.0229	0.0317
			(2.03)	(-0.41)	(0.57)
Age			0.0481**	0.145***	0.134***
			(3.11)	(5.45)	(5.44)
Age squared			-0.000534***	-0.00152***	-0.00140***
			(-3.44)	(-6.02)	(-6.02)
Years service			-0.0163**	-0.0407***	-0.0348***
			(-2.78)	(-4.11)	(-3.54)
Years service squared			0.000305	0.000684**	0.000539*
			(1.80)	(2.67)	(2.10)
Female			-0.0830**	-0.0686	-0.0295
			(-2.95)	(-0.79)	(-0.36)
Constituency dummies	No	No	No	Yes	Yes
Debate dummies	No	No	No	No	Yes
Observations	34386	34386	34386	34386	34386
Adjusted R^2	0.000	0.040	0.176	0.586	0.593

t statistics in parentheses

Standard errors clustered at member level

Dataset includes all parliamentary questions over the parliamentary term, except the first few months of 1997 (see previous footnote)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 3: Answered questions minus unanswered questions for each member in each electoral term (mean = -2.06, standard deviation = 11.05)
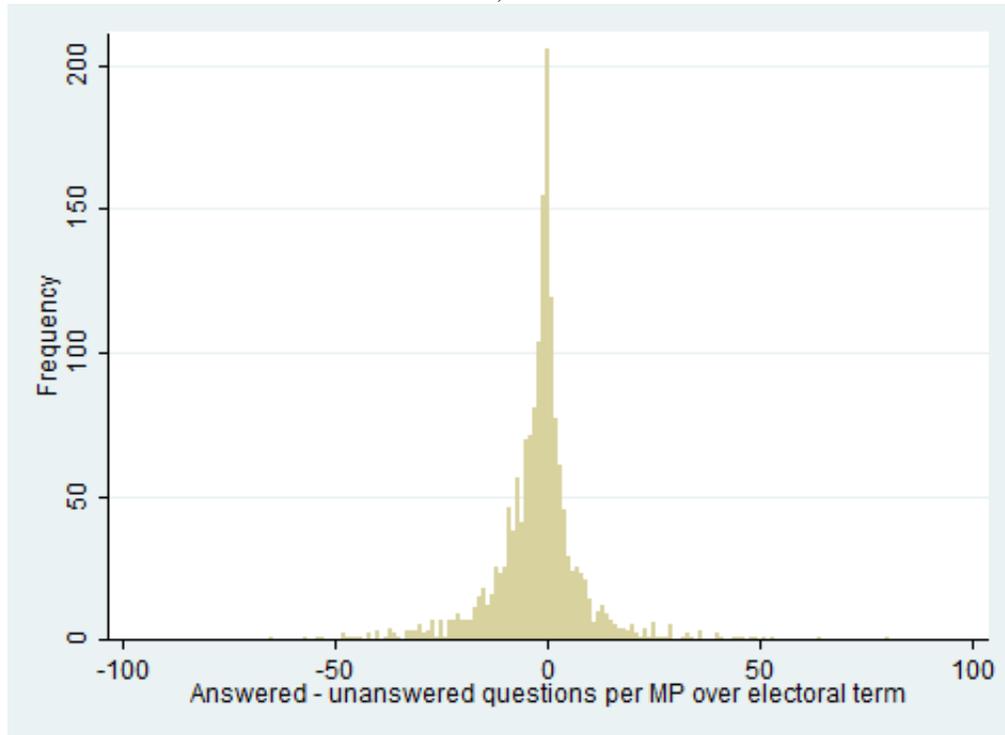
which means that the inclusion of debate-fixed effects adds little to the explanatory power of the model.

4.4 Interpretation of Findings

Results from this adapted matched sampling model show that after controlling for member characteristics, as well as fixed effects associated with constituencies and debates, the effect of having a question answered, as opposed to being placed on the Order Paper, but not being reached and therefore remaining unanswered, is to increase the member's probability of reelection by 0.42 percentage points.

The control group here consists of questions listed on the Order Paper which did not receive an oral answer. When interpreting these reported findings, it is therefore the difference between the number of answered and unanswered questions which is of interest. In this sense, the most successful member in the dataset over the course of an electoral term had 174 questions answered, compared with 94 unanswered, implying a difference of +80 questions. Conversely, the most unsuccessful member only had 35 questions answered, compared with 100 questions unanswered, implying a difference of -65 questions. Figure 3 plots all such differences across all members and all electoral terms.

The standard deviation associated with the number of answered minus unanswered questions across all the members is 11.05 questions. A coefficient of 0.004 therefore implies that a member who has a

number of answered minus unanswered questions one standard deviation higher than another member should expect to have their chances of reelection increased by 4.6 percentage points.

5 Extensions and Robustness Checks

5.1 The Complete Dataset

Given that the method employed in Section 4 involves dropping some observations, it is informative to consider whether the results would have been affected if the dataset had not been reduced in this way.

Results in Table 4 showed a positive relationship between having questions answered as opposed to unanswered, although the effect was not found to be statistically significant at the 5% level. It is possible to run a similar analysis, but without dropping observations in the same way. These specifications rely on a set of dummy variables capturing debate fixed effects to control for the effects of different debates. However, the benefits from the larger dataset come at the price of including those observations deemed most likely to be allocated to the treatment or control group in a non-random way.

For the sake of brevity, the results are left to the Appendix, where Table 5 reports the results of similar regressions as those in Table 4, but based on the entire dataset. In short, these specifications show that the results reported in Table 4 are not reliant on the use of the matched sampling approach, and are equally evident when considering the dataset as a whole. Once all control variables are included in the specification, questions that receive an oral answer are found to be asked by members who are 0.40 percentage points more likely to be reelected, as opposed to those questions that appeared on the Order Paper but were not asked. This effect is roughly equivalent to the one found when the dataset was reduced under the previous matched sampling approach. Furthermore, owing to the fact that this finding is based on a larger sample size, this result is found to be statistically significant at the 10% level, with a t-statistic of 1.69.

5.2 Intention-to-Treat Specifications

An alternative method for which results are robust to any potential non-randomness in the selection of questions to receive an oral answer is to use an 'intention-to-treat' (ITT) specification. Again, this specification is based on the full dataset where each observation corresponds to a parliamentary question.

If a question appears towards the top of the Order Paper (a 'low-numbered' question), it is taken as part of the treatment group in this model, whereas any question further down the Order Paper

is placed in the control group (a 'high-numbered question'). Across all the debates recorded in the dataset, 47% of the questions listed on the Order Paper receive oral answers. In this ITT analysis, the first 47% of questions in each debate are therefore counted as 'low-numbered', with all the remaining questions marked as 'high-numbered'. Given that the position of a question on the Order Paper cannot be influenced by any of the participants in the debate, this allocation is truly exogenous.

Results listed in Table 6 in the Appendix show a consistently positive effect from having a 'low-numbered' question on the Order Paper, as opposed to a 'high-numbered' question. The effect is found to be smaller effect than the estimated effect from Tables 4 and 5 of actually having a question answered, however. With all controls included, questions that are assigned a low number on the Order Paper are found to be asked by members who are 0.16 percentage points more likely to be reelected. While these results are far from statistically significant, they continue to suggest a positive relationship between members' randomly allocated position on the Order Paper and their subsequent probability of reelection.

5.3 The Ordinary Least Squares Specification Based on the Reduced Sample

A final robustness check involves running the basic ordinary least squares specification proposed in Section 2 but using the reduced dataset from the matched sampling approach. The results are again left to the Appendix (Table 7), and show a slightly larger positive effect effect than was found originally when counting all questions from the entire sample. Specifically, once all controls are included, the act of asking an extra parliamentary question is found to increase a member's probability of reelection by 0.32 percentage points, whereas the effect was estimated as 0.31 percentage points in Section 2. Furthermore, this effect is again found to be statistically significant at the 5% level, with an associated t-statistic of 2.11.

6 Conclusion

This paper aimed to test whether the asking of oral parliamentary questions in the House Of Commons increases a member's probability of being reelected to Parliament in the following election.

The way in which constituents choose their political representatives is of great interest to social scientists. Economists should be particularly interested in the degree to which legislators have an incentive to partake in day-to-day parliamentary business. The relationship between a political representative and

their constituents can be thought of in a principal-agent setting, where constituents observe some proportion (or signal) of the work of their representative over a parliamentary term before choosing whether to reelect them for the following term. A crucial part of this relationship is whether constituents can be shown to reward parliamentary activity in their voting behavior.

While many previous studies have considered the effect of legislator behavior on election outcomes, none have considered the impact of asking parliamentary questions on reelection chances. A key reason for this is that members who ask many parliamentary questions are likely to have particular characteristics, which may be unobservable. A study which does not address this issue would not be able to separate the effect of members' parliamentary activity from the effect of these unobservable characteristics on reelection outcomes. By exploiting a natural experiment within the institutional structure of the House of Commons, this paper is able to rule out the impact of unobservable characteristics by assuming them to be equally distributed among the treatment and control groups, and therefore makes a valuable contribution to the understanding of the relationship in question.

The identification strategy used to answer this question relied on the randomized way in which parliamentary questions are ordered, which in turn affects their probability of receiving an oral answer. In particular, members wishing to ask a parliamentary question are invited to submit their questions ahead of the debate. Once submitted, a random ballot is used to determine which of these questions appear on the Order Paper, and the order in which they will be answered. This ballot has a direct effect on which questions receive an oral answer, because time constraints usually dictate that only the first questions listed on the Order Paper will be reached during the time allotted to the debate.

A basic ordinary least squares specification counting the number of answered and unanswered questions for each MP over each parliamentary term revealed that after controlling for the number of unanswered questions, members with a higher number of answered questions were more likely to be reelected in the following election.

While the ordering of questions is determined at random, this finding relies on the idea that each time a member's question appears on the Order Paper, there is an equal (or at least exogenous) chance that their question receives an oral answer. One way in which this assumption could potentially be violated would be if any of the debate participants, including the Speaker, exerted some control over the speed at which debates progressed, and therefore the number of questions that received an oral answer in debates.

In fact it has been shown that there exist some statistically significant differences between the observable characteristics of the members whose questions receive an oral answer, and those members whose questions are selected to be placed on the Order Paper for debates, but are not reached, and therefore receive written answers. Further analysis, omitted from these results, has been conducted into the reasons behind these differences. Results suggest that the influence of the Speaker plays a key role.

To account for this non-random element to whether questions are answered, a matched sampling approach was adopted, which dropped those observations most likely to have been allocated to the treatment or control group in a non-random way. The method also ensures that debates are equally distributed across the treatment and control groups, which implies that once a member's question is listed on the Order Paper, it has a probability of being answered of 0.5. By comparing means across the same set of observable characteristics between the treatment and control groups (answered and unanswered questions), it was shown that this matched sampling approach was successful in eliminating the statistically significant differences between the two parts of the sample. Using this reduced sample, it was possible to estimate the effect on reelection probability of having a question answered in Parliament, as opposed to submitting a question which was not reached during the debate (and instead received a written answer).

Results again showed a positive relationship between having questions answered in Parliament, and the probability of reelection, of the same order of magnitude as was found under the basic ordinary least squares estimation. To ensure that this positive result was not caused by reducing the sample in this way, a similar analysis was conducted using the entire dataset, and found the results unchanged. While the size of the effect was reduced under an intention-to-treat (ITT) specification, the results remained positive under all combinations of control variables.

This paper says nothing about the paths of such influence and this could be a topic for future research. While debates are televised, it seems implausible to imagine that a substantial proportion of the electorate would watch these debates directly. It seems more likely that the media has an important role to play, for example through local newspapers reporting the actions of legislators at the national level. Personal networks within the constituency could also play an important role. As an example, a constituent may raise a very specific concern to their local MP, who might then choose to pursue the issue at the national level by posing the question directly to the minister responsible. In such cases, while the issue itself may be narrow and therefore not deemed newsworthy, other constituents who hear

of this episode via word-of-mouth may be heartened by the legislator's willingness to pursue the issue. Such sentiments could then be reflected in election outcomes.

To summarize, the motivation of this paper was to exploit a natural experiment brought about by the institutional structure in the House of Commons, to determine whether members who ask parliamentary questions are more likely to be reelected by their constituents. Initial results found this to be the case, and significantly so, but faced the potential criticism that the randomization process could potentially be undermined. A matched sampling approach was used to reduce the dataset to those observations least likely to have been affected by any non-random allocation to the treatment or control group. This was shown to result in a dataset where the treatment and control groups were comparable in terms of all observable characteristics, as should be expected under a randomization. Results based on this reduced sample were found to support the original finding.

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A Appendix

Table 5: Regressions controlling for debate fixed effects, counting each question (answered or unanswered) as an observation, based on the whole sample. The dependent variable is a binary variable indicating whether the member asking the question was reelected in the following election, with mean = 0.820 and standard deviation = 0.384.

	(1) Reelected	(2) Reelected	(3) Reelected	(4) Reelected	(5) Reelected
Question asked	-0.0194**	0.00615	0.00512	0.00486	0.00396
	(-3.01)	(1.72)	(1.46)	(1.46)	(1.69)
Conservative Party			0.119***	0.0496	0.342***
			(4.26)	(1.46)	(3.92)
Liberal Democrat Party			0.0949*	-0.0104	0.411**
			(2.53)	(-0.23)	(2.76)
Other party, excluding Labour			-0.303***	-0.244**	-0.0593
			(-3.62)	(-2.70)	(-0.33)
Changed party				-0.236	-0.162
				(-1.87)	(-0.81)
Ministerial position				0.0907**	0.0294
				(2.80)	(0.53)
Age				0.0422**	0.137***
				(2.92)	(5.58)
Age squared				-0.000471**	-0.00143***
				(-3.26)	(-6.17)
Years service				-0.0104	-0.0365***
				(-1.79)	(-3.68)
Years service squared				0.000150	0.000599*
				(0.88)	(2.34)
Female				-0.0695**	-0.0139
				(-2.59)	(-0.17)
Debate dummies	No	Yes	Yes	Yes	Yes
Constituency dummies	No	No	No	No	Yes
Observations	54455	54455	54455	54455	54455
Adjusted R^2	0.001	0.054	0.101	0.209	0.598

t statistics in parentheses

Standard errors clustered at member level

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 6: Linear probability models estimating the effect of having a question high up the Order Paper (likely to be answered), as opposed to a question lower down the Order Paper (unlikely to be answered) on the probability of reelection. This represents an 'intention-to-treat' (ITT) model, where reelection is captured by a binary variable, with mean = 0.820, standard deviation = 0.384.

	(1) Reelected	(2) Reelected	(3) Reelected	(4) Reelected	(5) Reelected
Low-numbered question	0.00559	0.00526	0.00203	0.00186	0.00163
	(1.55)	(1.49)	(0.64)	(0.82)	(0.74)
Conservative Party		0.0962***	0.0417	0.292***	0.342***
		(3.52)	(1.28)	(3.59)	(3.92)
Liberal Democrat Party		0.0690	-0.0187	0.367*	0.411**
		(1.74)	(-0.39)	(2.44)	(2.76)
Other party, excluding Labour		-0.323***	-0.253**	-0.124	-0.0593
		(-3.68)	(-2.66)	(-0.66)	(-0.33)
Changed party			-0.255	-0.154	-0.162
			(-1.80)	(-0.72)	(-0.81)
Ministerial position			0.0672*	-0.0151	0.0295
			(2.03)	(-0.27)	(0.53)
Age			0.0477**	0.147***	0.137***
			(3.05)	(5.59)	(5.58)
Age squared			-0.000530***	-0.00154***	-0.00143***
			(-3.38)	(-6.16)	(-6.17)
Years service			-0.0162**	-0.0418***	-0.0365***
			(-2.74)	(-4.27)	(-3.68)
Years service squared			0.000298	0.000729**	0.000600*
			(1.73)	(2.91)	(2.34)
Female			-0.0851**	-0.0487	-0.0138
			(-2.98)	(-0.58)	(-0.17)
Constituency dummies	No	No	No	Yes	Yes
Debate dummies	No	No	No	No	Yes
Observations	54455	54455	54455	54455	54455
Adjusted R^2	0.000	0.042	0.177	0.593	0.598

t statistics in parentheses

Standard errors clustered at member level

Dataset includes all parliamentary questions over the parliamentary term, except the first few months of 1997 (see previous footnote)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 7: Linear probability models estimating the effect of having an extra question answered in the House of Commons on a member's probability of reelection (mean = 0.752, standard deviation = 0.432). Estimates here are based on the dataset which counts only those questions which were used under the matched sampling approach.

	(1) Reelected	(2) Reelected	(3) Reelected	(4) Reelected	(5) Reelected
Total answered questions	-0.00213*	0.00182	0.00155	0.00143	0.00319*
	(-2.29)	(1.70)	(1.46)	(1.47)	(2.16)
Total unanswered questions	0.00482***	0.00102	0.000752	0.0000495	-0.00136
	(6.01)	(1.10)	(0.82)	(0.05)	(-0.90)
Conservative Party			0.102***	0.0697**	0.281**
			(4.56)	(2.90)	(3.15)
Liberal Democrat Party			0.0367	-0.0277	0.116
			(1.03)	(-0.76)	(0.77)
Other party, excluding Labour			-0.108*	-0.0882	-0.0610
			(-2.01)	(-1.68)	(-0.38)
Changed party			-0.317***	-0.271**	-0.197
			(-3.40)	(-2.77)	(-1.27)
Ministerial position				0.0791**	0.154***
				(3.25)	(3.50)
Age				0.0340**	0.0775***
				(2.90)	(3.97)
Age squared				-0.000389***	-0.000839***
				(-3.41)	(-4.61)
Years service				-0.0243***	-0.0533***
				(-4.89)	(-6.35)
Years service squared				0.000532***	0.000858***
				(3.68)	(4.24)
Female				-0.0831**	-0.0168
				(-3.26)	(-0.23)
Election dummies	No	Yes	Yes	Yes	Yes
Constituency dummies	No	No	No	No	Yes
Observations	1632	1632	1632	1632	1632
Adjusted R^2	0.023	0.054	0.083	0.174	0.289

t statistics in parentheses

Standard errors clustered at member level

Dataset includes all parliamentary questions over the parliamentary term, except the first few months of 1997 (see previous footnote)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$