

# Selective Accountability: Performance Indicators and Legislators' Behavior

---

T. Buchot<sup>†</sup>, C. Louis-Sidois<sup>\*</sup>, E. Mougin<sup>†</sup>

EEA Congress — Bordeaux  
28 August 2025

<sup>†</sup>ENS de Lyon, Center for Economic Research on Governance, Inequality and Conflict

<sup>\*</sup>WU (Vienna University of Economics and Business)

## **Transparency and behavior:**

- ▶ Being observed affects individual and collective behavior [Finan et al., 2017]
- ▶ Transparency regulation tends to change incentives [Prat, 2005]

## **Media and political accountability:**

- ▶ Media plays a key role in enhancing the effectiveness of transparency [Louis-Sidois and Mougin, 2023]
- ▶ Common idea: Media coverage disciplines politicians and improves their effort and performance.  
[Besley and Burgess 2001, Snyder and Strömberg, 2010]

- ▶ NGOs and journalists are increasingly publishing statistics on politicians' activity [François and Rozemberg, 2019, Parasio 2022].

*“Around the world, thousands of journalists embraced [...] the claim that integrating data practices [...] would enable the whole profession to [...] make governments more transparent, shed light on social issues, and help citizens make better-informed decisions”.*

*Computing the news, Parasio (2022).*

## The rise of Data Journalism

---

- ▶ NGOs and journalists are increasingly publishing statistics on politicians' activity [François and Rozemberg, 2019, Parasia 2022].

*“Around the world, thousands of journalists embraced [...] the claim that integrating data practices [...] would enable the whole profession to [...] make governments more transparent, shed light on social issues, and help citizens make better-informed decisions”.*

*Computing the news, Parasia (2022).*

### **An increasing number of databases and quantitative materials are available to citizens and journalists:**

- ▶ A wide range of topics (economy, politics, environment, ...).
- ▶ On the political side: *GovTrack.us* in the US, *TheyWorkForYou* in the UK, *NosDéputés.fr* in France, ...

### However:

- ▷ Transparency regulation can have detrimental effects
- ▷ Statistical indicators could distort incentives and may be manipulated:

*"Today, in committee, we see up to 30 MPs taking turns to defend exactly the same thing, solely to boost their attendance record."*

Alain Vidalies (French Minister for Relations with Parliament), 2012

⇒ **Net effect is unclear**

### RQ: How do performance indicators and their media coverage impact politicians' behavior?

- Activity of French legislators in the **National Assembly** and in the **Senate** (2007-2020)
- **NosDéputés.fr** and **NosSénateurs.fr**: websites providing statistical indicators of legislators activity
- **Visibility** of indicators mediated by **press coverage**

### **RQ: How do performance indicators and their media coverage impact politicians' behavior?**

- Activity of French legislators in the **National Assembly** and in the **Senate** (2007-2020)
  - **NosDéputés.fr** and **NosSénateurs.fr**: websites providing statistical indicators of legislators activity
  - **Visibility** of indicators mediated by **press coverage**
1. **Data-driven transparency:** What is the effect of greater visibility (data-driven monitoring tool) on politicians' behavior?
- Mixed evidence on the sole impact of websites on performances

### **RQ:** How do performance indicators and their media coverage impact politicians' behavior?

- Activity of French legislators in the **National Assembly** and in the **Senate** (2007-2020)
  - **NosDéputés.fr** and **NosSénateurs.fr**: websites providing statistical indicators of legislators activity
  - **Visibility** of indicators mediated by **press coverage**
1. **Data-driven transparency:** What is the effect of greater visibility (data-driven monitoring tool) on politicians' behavior?
    - Mixed evidence on the sole impact of websites on performances
  2. **Media intermediation:** What is the role of the media in making these data visible to the public, and does it influence accountability mechanisms?
    - Collective accountability: general press coverage of indicators  $\Rightarrow$  higher performance on all indicators
    - Individual accountability: being namely mentioned in the press do not trigger additional reaction

### **RQ:** How do performance indicators and their media coverage impact politicians' behavior?

- Activity of French legislators in the **National Assembly** and in the **Senate** (2007-2020)
  - **NosDéputés.fr** and **NosSénateurs.fr**: websites providing statistical indicators of legislators activity
  - **Visibility** of indicators mediated by **press coverage**
1. **Data-driven transparency:** What is the effect of greater visibility (data-driven monitoring tool) on politicians' behavior?
    - Mixed evidence on the sole impact of websites on performances
  2. **Media intermediation:** What is the role of the media in making these data visible to the public, and does it influence accountability mechanisms?
    - Collective accountability: general press coverage of indicators  $\Rightarrow$  higher performance on all indicators
    - Individual accountability: being namely mentioned in the press do not trigger additional reaction
  3. **Counter-effects of accountability:** What are the net effects, and do we observe any drawbacks?
    - Press coverage of indicators  $\Rightarrow$  changes in the nature of parliamentary work

### 1. Media coverage and performance of politicians:

- Focus on politicians' activities observed by the media [Besley and Burgess 2001; Snyder and Strömberg 2010; Larreguy et al. 2020; Djourelouva and Durante 2022]

### 2. Transparency policies and their effects:

- Disciplining effect of transparency [Ferraz and Finan 2008; Benesch et al. 2008] but it can trigger a misalignment between the principal and the agent [Prat 2005; Hansen et al. 2018]
- Over-investment in visible but less useful public goods [Mani and Mukand 2007; Johannessen 2019], Predictable audits delay corruption [Bobonis et al. 2016], Non-academic, anecdotal evidence of manipulation [Acatrinei and Quenel 2019]

### 3. Determinants of politicians' performance:

- Effects of electoral competition [Galasso and Nannicini 2011; Bełdowski et al. 2022; Gavaille and Vershelde 2017]
- Length of legislative terms on parliamentary attendance [Dal Bó and Rossi 2011]

# Outline

---

Context and Data

Identification Strategies

Results

Mechanisms

Conclusion

## Context and Data

---

### Politicians' behavior:

- ▶ Activity of French legislators in the National Assembly and in the Senate (2007-2020)
  - **The National Assembly:** 577 MPs are elected for **5-year terms** per district
  - **The Senate:** 348 (343 before 2011) Senators are elected by **indirect suffrage** for 6-years terms (10 before 2003)

### Politicians' behavior:

- ▷ Activity of French legislators in the National Assembly and in the Senate (2007-2020)
  - **The National Assembly**: 577 MPs are elected for **5-year terms** per district
  - **The Senate**: 348 (343 before 2011) Senators are elected by **indirect suffrage** for 6-years terms (10 before 2003)

### Performance indicators:

- ▷ Statistical indicators became widely used in France thanks to the NGO *Regards Citoyens*,
- ▷ Launched two websites:
  - **NosDéputés.fr** in September 2009 → National Assembly (**MPs**)
  - **NosSénateurs.fr** in September 2011 → Senate (**Senators**)

### Politicians' behavior:

- ▷ Activity of French legislators in the National Assembly and in the Senate (2007-2020)
  - **The National Assembly**: 577 MPs are elected for **5-year terms** per district
  - **The Senate**: 348 (343 before 2011) Senators are elected by **indirect suffrage** for 6-years terms (10 before 2003)

### Performance indicators:

- ▷ Statistical indicators became widely used in France thanks to the NGO *Regards Citoyens*,
- ▷ Launched two websites:
  - **NosDéputés.fr** in September 2009 → National Assembly (**MPs**)
  - **NosSénateurs.fr** in September 2011 → Senate (**Senators**)
- ▷ Both websites provide **identical indicators** to track the activities of each legislator in both chambers
- ▷ **Visibility** of indicators mediated by **press coverage**
- ▷ Stark differences in terms of visibility between both websites

Synthèse générale de l'activité parlementaire  
sur toute la législature

(mise-à-jour quotidienne, dernière en date le 18/06/17 à 07H40)

Activité mensuelle moyenne de tous les députés :

Nom	Semaines	Commission		Hémicycle		Amendements			Rapports	Propositions		Questions	
	d'activité	réunion	interv.	interv. longues	interv. courtes	proposés	signés	adoptés	écrits	écrites	signées	écrites	orales
François Brottes	4,13	16,32	166,23	51,39	65,45	11,61	19,29	12,77	0,13	0,10	1,16	4,55	0,06
Éric Straumann	3,96	7,81	8,00	4,72	14,64	6,32	166,68	4,21	0,11	0,06	7,60	5,85	0,34
Régis Juanico	3,94	11,43	8,83	4,51	7,94	3,21	37,83	8,15	0,28	0,00	1,72	2,04	0,17
Pascal Popelin	3,91	8,45	12,21	18,13	24,09	4,34	16,53	9,49	0,49	0,00	1,66	5,51	0,36
Frédérique Massat	3,85	12,43	21,32	5,19	4,53	3,89	32,19	12,72	0,06	0,02	1,96	1,32	0,19
Jean-Paul Chanteguet	3,83	10,30	47,64	5,30	4,09	12,64	24,43	11,70	0,15	0,09	1,62	0,68	0,15
Jean-Luc Laurent	3,83	9,38	5,72	16,64	34,81	13,19	38,40	8,19	0,02	0,09	1,43	1,02	0,62
Jacques Myard	3,83	10,68	19,30	12,04	44,26	6,94	86,87	2,26	0,11	0,21	4,04	2,38	0,43
Christophe Caresche	3,81	9,15	12,00	11,66	13,55	9,13	19,23	5,34	0,55	0,13	1,11	0,02	0,17
Charles de Courson	3,81	8,85	75,30	68,26	42,74	50,55	114,87	5,19	0,13	0,00	0,77	1,47	0,74
Patrick Hetzel	3,81	7,09	16,30	35,89	41,43	37,74	250,79	7,53	0,11	0,19	10,40	13,66	0,64
Claude Bartolone	3,79	1,53	8,45	97,60	384,91	0,00	0,02	0,02	0,06	0,04	0,98	0,00	0,00
Karine Daniel	3,78	5,89	2,44	1,56	0,11	1,11	9,78	1,89	0,11	0,00	1,89	1,44	0,44
Éric Alauzet	3,77	9,26	15,51	22,74	5,55	20,53	138,87	16,36	0,11	0,00	1,40	3,91	0,62
Olivier Falorni	3,77	7,34	9,11	6,17	3,19	2,11	72,53	9,15	0,02	0,09	0,79	5,70	0,66
Danielle Auroi	3,74	9,60	32,87	6,72	3,72	4,74	134,70	15,91	0,66	0,36	1,60	2,94	0,53
Guillaume Chevrollier	3,74	10,60	7,11	10,15	2,30	3,79	66,04	1,91	0,09	0,06	2,36	12,30	0,66
Marie-Hélène Fabre	3,72	8,91	4,26	2,04	0,83	3,17	41,62	12,51	0,13	0,17	1,85	10,55	0,21

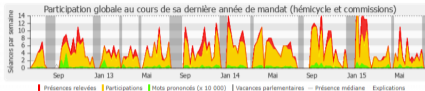
Les chiffres en couleur indiquent que le député se trouve pour le critère indiqué parmi les 150 premiers ou les 150 derniers.

Télécharger les données : [CSV](#) — [JSON](#) — [XML](#) — [Tableau](#) [Ouvrir data](#)

Retrouvez les données historiques mois par mois au travers de l'[API de NosDéputés.fr](#)

Summary of legislative rankings over legislature XIV

François Brottes, ancien député de la 5ème circonscription de l'Isère



Activité totale (31 mois) : : 128 : 506 : 5137 : 1593 : 360 : 4 : 3 : 36 : 141 : 2

Informations

Mandat clos rempli du 20 Juin 2012 au 19 août 2015 (prolongation de mission temporaire)  
 Sa page NosDéputés.fr pour l'ancienne législature  
 Parti politique (rattachement financier) : Parti socialiste  
 Profession : Directeur associé de société  
 Page sur le site de l'Assemblée nationale  
 Page sur Wikipédia  
 Site web

Travaux législatifs

Ses principaux dossiers durant la législature

Tarification progressive de l'énergie (600 interventions)  
 Transition énergétique (238 interventions)  
 Croissance activité et égalité des chances économiques (131 interventions)  
 Consommation (103 interventions)

Tous ses dossiers

Travaux en commissions

Travaux en hémicycle

Toutes ses interventions

Questions au gouvernement

Ses dernières questions orales

18/02/15 : Projet de loi macron  
 23/04/13 : Stratégie économique

Toutes ses questions orales

Ses dernières questions écrites

23/06/15 : Ministère des affaires sociales (politique sociale)  
 02/06/15 : Ministère du travail (travail)  
 02/06/15 : Ministère de l'éducation nationale (enseignement)  
 4 commentaires  
 02/06/15 : Ministère de l'intérieur (tourisme et loisirs)

Toutes ses questions écrites

Le mandat de ce député est achevé.

Champ lexical (sur l'ensemble de la législature)

accident agricole alimentaire allemand alstom accident agricole alimentaire allemand alstom  
 AREVA AREVA artisan ASN auto-entrepreneur automobile banque  
 bois bonus-malus BPI bâtiment capacité centrale  
 chantier charbon charrie chauffage CLF client combustible compteur  
 concurrence consommateur consommation  
 construction CRE créne distribution déchet déchets  
 démantèlement EDF enquête EPR exploitation  
 électricité électrique énergétique facture fermeture  
 filière forester forêt fournisseur foyer gaz génération impact  
 installation logement malus mer mobile MOX médiateur  
 métropole nucléaire numérique on-das opérateur  
 ordonnance outre-mer parc PLU producteur production  
 propriétaire pêche quartier quatrième génération  
 renouvelable RTT réacteur réseau réseaux schéma  
 scot scénario stockage sûreté tarif tourisme transition urbanisme  
 vente volume véhicule

Tous ses mots

Productions parlementaires

Ses derniers rapports

04/03/13 : Rapport de la Commission des affaires économiques en vue de la lecture définitive de la proposi...  
 09/01/13 : Rapport de la Commission des affaires économiques sur, en nouvelle lecture, la proposition de L...  
 21/12/12 : Rapport sur les dispositions restant en discussion de la proposition de loi visant à préparer l...  
 25/09/12 : Rapport de la Commission des affaires économiques sur la proposition de loi, après engagement d... (9 commentaires)

Tous ses rapports

François Brottes profile (legislature XIV)

## Data collection:

1. Data on **MPs (N=1381)** and **Senators (N=771)** activity between 2007 and 2020
  - Indicators: attendance, interventions, questions, amendments, ... [List of indicators](#)
  - Construction of an **aggregate indicator** of overall activity
  - Unit of observation: weekly activity of a legislator
2. Comprehensive dataset of articles mentioning the websites over the period:
  - Local and national outlets (print and online)
  - For each article: identify indicators and legislators mentioned
  - **≠ in visibility**: 885 articles for **NosDéputés.fr** vs 94 articles for **NosSénateurs.fr**

# Exemples of Articles in Local Outlets

## Spécialiste des questions de défense

**Christophe Galloteau UMP**  
10e circ. - Meris du Lyonnais



► **Activité parlementaire**  
Sept questions, une proposition de loi, dix co-signatures de proposition de loi, quatre interventions en séance publique, 22 interventions en commission, 15 semaines d'activité et 27 présences en commission.

► **Commentaire**  
Dans un sous-marin ou un hélicoptère, sur des bases françaises ou des théâtres d'opération à l'étranger, Christophe Galloteau s'est engagé dans l'armée. En tout cas dans les questions de défense, dans lesquelles il est en train de se spécialiser. Membre de la commission de la Défense nationale et des Forces armées, il est également président du groupe d'études Industrie de défense. « J'ai été désigné co-éditeur du livre blanc sur la Défense et la Sécurité nationale par le président de la République », explique le député.

## Justice, sécurité et sectes

**Georges Fenech UMP**  
11e circ. - Sud Lyonnais



► **Activité parlementaire**  
Quarante questions écrites, une proposition de loi, 21 co-signatures de proposition de loi, cinq interventions en séance publique, six interventions en commission, 15 semaines d'activité et 22 présences en commission.

► **Commentaire**  
Membre de la commission des Lois, Georges Fenech a travaillé sur les questions du harcèlement sexuel, du mariage pour tous et a intégré le conseil d'orientation de l'Observatoire national de la délinquance et des réponses pénales. Président du groupe d'études Sectes, il a rejoint l'embarcadere de ses domaines de prédilection : justice et sécurité. « Dans l'opposition, on ressent une forme de frustration, mais encore plus une responsabilité, car il faut se battre davantage. »

## Les questions de politique étrangère

**Michel Terrot UMP**  
12e circ. - Sud-Ouest lyonnais



► **Activité parlementaire**  
Trente-deux questions écrites, aucune proposition de loi, 21 co-signatures de proposition de loi, 2 interventions en séance publique, 14 interventions en commission, 18 semaines d'activité et 38 présences en commission.

► **Commentaire**  
Secrétaire de la commission des Affaires étrangères, Michel Terrot a entamé un nouveau mandat en héritant d'un rapport relatif aux rapports intellectuels et artistiques entre la France et la Grèce. M. S. Syrie... le député a également engagé de nombreuses auditions sur les questions de politique étrangère. En marge de son domaine de prédilection, Michel Terrot se veut être également un généraliste : « J'essaie de travailler sur tous les textes indiqués et, je suis très présent. »

## Une mission sur le retour des soldats

**Philippe Musnier UMP**  
13e circ. - Est lyonnais



► **Activité parlementaire**  
425 questions écrites, une proposition de loi, vingt co-signatures de proposition de loi, trois interventions en séance publique, six interventions en commission, 17 semaines d'activité et 25 présences en commission.

► **Commentaire**  
Élu secrétaire de la commission de la Défense et co-rapporteur de la mission sur le retour des troupes françaises en Afghanistan, il a prêté ses voix de l'alternance : « C'est le jeu de la démocratie, mais ce qui est effrayant, c'est qu'on est face à un mur. Nous respectons le pouvoir législatif, il n'est face au secrétaire et au diagnostic de la majorité. Même François Mitterrand était plus ouvert. Ça ne nous empêche de faire notre travail... »

## Tourné vers l'énergie et l'industrie

**Yves Biain PS**  
14e circ. - Sud-Est lyonnais



► **Activité parlementaire**  
Deux-vingt questions écrites, aucune proposition de loi, deux co-signatures de proposition de loi, six interventions en séance publique, onze interventions en commission, 19 semaines d'activité et 40 présences en commission.

► **Commentaire**  
« Il faut le temps de connaître l'industrie, mais on a vite été dans le bain avec le projet de loi de finances. » Premier mandat également pour Yves Biain, membre de la commission des Affaires économiques et président du groupe d'études Industrie chimique. Un saut qui l'entraîne fortement la circonscription sur laquelle il est impliqué. Yves Biain est également membre du conseil supérieur de l'économie sociale et solidaire et responsable pour le PS du texte actuellement en discussion sur la sobriété énergétique.

96

LUNDI 21 JANVIER 2013 - LE PROGRES ■ 11

Le Progrès — 21/01/2013

la Nouvelle  
République.fr

SPORTS

LOISIRS

DEUX-SÈVRES ► Qu'ont fait vos députés à Paris depuis 2007 ?

## Qu'ont fait vos députés à Paris depuis 2007 ?

Publié le 01/04/2012 à 05:46 | Mis à jour le 24/04/2017 à 17:45



POLITIQUE - DEUX-SÈVRES



Sur le site NosDeputes, c'est Jean Greiller qui est le plus assidu.

© Photo AP

En quelques clics sur le site NosDeputes.fr, on peut vérifier quelle a été l'activité des députés des Deux-Sèvres au Palais Bourbon.

Trois sur quatre (excepté Jean-Marie Morisset) sont candidats à leur réélection. A une dizaine de jours du premier tour des élections législatives, jetons un coup d'œil sur l'activité parlementaire de trois députés sortant des Deux-Sèvres. Il suffit d'aller faire un tour sur le site indépendant NosDeputes.fr. Bien entendu, l'ensemble des données ne tient pas compte du travail mené par les députés dans leurs propres circonscriptions, en dehors du Palais Bourbon. Ni un classement, ni un bulletin de notes, mais un bilan établi à partir de plusieurs critères.

La Nouvelle République — 06/01/2012

## Identification Strategies

---

$$y_{it} = \beta_1 \cdot \text{HighCoverage}_t + \beta_2 \cdot \text{MentionMP}_{it} \\ + \beta_3 \cdot \text{PostWebsite}_t + \text{MP} \times \text{Legislature}_{it} + \gamma_t + \epsilon_{it}$$

### Where:

- ▷  $y_{it}$ : performance of MP  $i$  in week  $t$
- ▷  $\text{HighCoverage}_t$ : equals 1 if the number of articles about [NosDéputés.fr](#) published during the 12 weeks preceding week  $t$  is above the median
- ▷  $\text{MentionMP}_{it}$ : equals 1 if MP  $i$  is mentioned in the press during the 12 weeks preceding week  $t$
- ▷  $\text{PostWebsite}_t$ : equals 1 after the launch of the website
- ▷  $\text{MP} \times \text{Legislature}_{it}$ : individual  $\times$  legislative term FEs  $\rightarrow$  “within MP” approach
- ▷  $\gamma_t$ : time FEs  $\rightarrow$  account for political cycle

$$y_{itc} = \beta_1 \cdot \text{HighCoverage}_{tc} + \beta_2 \cdot \text{MentionLegislator}_{itc} \\ + \beta_3 \cdot \text{PostWebsite}_{tc} + \text{Legislator} \times \text{Legislature}_{itc} + \gamma_{tc} + \epsilon_{it}.$$

### Where:

- ▷  $y_{itc}$ : performance of legislator  $i$ , member of chamber  $c$ , during week  $t$
- ▷  $\text{HighCoverage}_{tc}$ :
  - $c = \text{MP}$ : equals 1 if the number of articles about [NosDéputés.fr](#) published during the 12 weeks preceding week  $t$  is above the median
  - $c = \text{Senator}$ : equals 1 if the number of articles about [NosSénateurs.fr](#) published during the 12 weeks preceding week  $t$  is  $> 0$
- ▷  $\text{MentionLegislator}_{itc}$ : equals 1 if  $i$  of  $c$  is mentioned in the press during the 12 weeks preceding week  $t$
- ▷  $\text{PostWebsite}_{tc}$ :
  - $c = \text{MP}$ : equals 1 after [NosDéputés.fr](#) (Sept. 2009)
  - $c = \text{Senator}$ : equals 1 after [NosSénateurs.fr](#) (Sept. 2011)
- ▷  $\text{Legislator} \times \text{Legislature}_{itc}$ : Individual  $\times$  legislative term (of the [National Assembly](#)) FEs
- ▷  $\gamma_{tc}$ : time  $\times$  chamber FEs  $\rightarrow$  account for political cycles of both chambers

## Results

---

## Results: Effect on Aggregate Indicator

	Dependent Variable: Aggregate Indicator			
	Model 1		Model 2	
	(1)	(2)	(3)	(4)
High Coverage MPs	0.085*** (0.005)	0.095*** (0.009)	0.071*** (0.010)	0.028*** (0.010)
Mention Legislator	-0.002 (0.013)	-0.001 (0.013)	0.008 (0.014)	0.019 (0.015)
High Coverage Senators			0.018 (0.011)	-0.005 (0.010)
Post Website	0.057*** (0.013)		0.008 (0.012)	0.014 (0.018)
Sample	MPs	MPs	MPs + Sen.	MPs + Sen.
Observations	326,617	326,617	490,600	490,600
Mean DepVar	0.00	0.00	0.02	0.02
Adjusted R2	0.20	0.20	0.19	0.19
Legislator × Legislature FE	✓	✓	✓	✓
Week of Year FE	✓		✓	
Legislature Year FE	✓		✓	
Month FE		✓		✓

**Notes:** \*  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ . Standard errors in parentheses are clustered at the Legislator × Legislature level. Observations are the weekly aggregate indicator for each legislator from 2007 until 2020, giving equal weight to all indicators and standardized to have a mean of 0 and a standard deviation of 1.

## Alternative Measures of Press Coverage of Indicators

- ▷ We refine our measure of media coverage to capture more granular variations in media intensity
- ▷ Focus on **Model 1** → we use the number of articles as a **continuous variable**
- ▷ We rely on different functional forms:
  - logarithm of the number of articles, inverse hyperbolic sine transformation . . .
  - Share of articles citing **NosDéputés.fr** out of the total number of articles about the National Assembly

⇒ **Positive and significant effect** of increased media coverage across all specifications [Details](#)

↪ **Likely explanation:** MPs update their beliefs about media attention:

- ▷ When more articles have recently been published, MPs anticipate increased scrutiny and respond by exerting more effort

# Disaggregated Effects on Parliamentary Activity

- ▶ We estimate our two models using **each performance indicator** as the dependent variable
  - **High Coverage of indicators for MPs:** positive and significant effect on most indicators

[Fig. Model 1](#)

[Fig. Model 2](#)

[Table Model 1](#)

[Table Model 2](#)

- ▶ Investigating changes in the **nature of parliamentary work:**

## 1. Degree of **similarity of written questions:**

indicators press coverage  $\Rightarrow$   $\uparrow$  share of identical or highly similar written questions [Details](#)

## 2. Distribution of the **word count in oral interventions** in plenary sessions:

indicators press coverage  $\Rightarrow$   $\uparrow$  short interventions and  $\downarrow$  very long interventions [Details](#)

- ▶ **Exogeneity of press coverage of indicators:**
  - Conditional on time fixed-effects, past levels of activity in the National Assembly do not predict press coverage of indicators. [Figure](#) [Table](#)
  - Results are robust when controlling for all articles published about the National Assembly. [Table](#)
- ▶ **Alternative aggregate indicator** [Table](#)
- ▶ **Focus only on legislators in office before [Nosdeputes.fr](#)** [Table](#)
- ▶ **Alternative specification with different time lengths:**
  - *HighCoverage* accounts for articles published in the past 8 to 16 weeks, as opposed to the 12-week window used in the main specification. [Table](#)
- ▶ **Change in fixed effects specification:** e.g. week fixed effects [Table](#)
- ▶ **Trimmed outcomes and alternative models.:** e.g. Tobit [Table](#)

## Mechanisms

---

## Visibility in the media or peer-effects? (Focusing on MPs)

---

### ▷ **Peer-effect:**

- MPs adjust their behavior in response to connected MPs actions [Canen et al., 2023]
- In our setting: increased activity by some MPs would trigger positive reactions and adjustments of connected MPs

### ▷ **Press effect:**

- Greater press visibility can foster MP accountability and activity [Snyder and Strömberg, 2010]

## Visibility in the media or peer-effects? (Focusing on MPs)

### ▷ Peer-effect:

- MPs adjust their behavior in response to connected MPs actions [Canen et al., 2023]
- In our setting: increased activity by some MPs would trigger positive reactions and adjustments of connected MPs

### ▷ Press effect:

- Greater press visibility can foster MP accountability and activity [Snyder and Strömberg, 2010]

### ▷ Two empirical strategies:

- **Media competition within district** as a proxy for media influence
- Measure of **congruence** to assess the impact of media influence on MPs' behavior [Details](#)

▷ We find that MPs respond more strongly to media coverage in environments with lower competition and greater congruence

⇒ **Press effect is the dominant mechanism**

## Conclusion

---

## Concluding remarks

---

### Main Results:

- ▷ Positive effect of indicators on performance, **mainly driven by general press coverage**
- ▷ **Monitoring tools must be visible** to have a significant impact
- ▷ No additional effect of individual coverage
- **Selective + Collective Accountability**

### **Broader Discussion:**

- ▷ **Performance Indicators:** Contribution to the debate on the effectiveness of performance indicators.
- ▷ **Political Accountability:** Suggests that collective accountability through general press coverage is one of the primary channel.

### **External Validity:**

- ▷ Statistical indicators are widely used and have raised similar questions in other countries.
- ▷ We believe our results are of interest beyond the French context.

**Thank you for your attention**  
**[tom.buchot@ens-lyon.fr](mailto:tom.buchot@ens-lyon.fr)**

---

## Appendix

---

## What Indicators Do Websites Cover?

- ▶ **Interventions in Plenary Sessions**
  - Short vs. long interventions (above or below 20 words)
- ▶ **Attendance and Interventions in Committees**
- ▶ **Questions to the Government**
  - Oral questions, Written questions
- ▶ **Amendments**
  - Proposed, Signed, *Adopted*
- ▶ **Parliamentary Reports**
- ▶ **Parliamentary Proposals**
  - Written, Signed
- ▶ ***Aggregate Outcome***
  - *Based on interventions and attendance, called **number of weeks of activity**.*

# Summary Statistics

Indicators	Panel A: Performance of legislators						Panel B: Press Coverage			
	MPs			Senators			MPs		Senators	
	Mean	SD	Max	Mean	SD	Max	Number of mentions	Number of articles	Number of mentions	Number of articles
Total press	.	.	.	.	.	.	.	885	.	95
Citing indicators	.	.	.	.	.	.	3920	480	434	58
<b>Interventions</b>										
Interv. committees	1.32	7.54	894	1.62	7.69	685	273	148	30	18
Short interv. plenary	2.92	24.85	2,632	2.78	20.06	759	260	133	4	2
Long interv. plenary	1.84	9.58	673	2.33	11.41	548	434	196	16	10
<b>Attendance</b>										
Attendance committees	0.76	0.82	7	0.77	0.83	5	532	212	62	21
<b>Questions</b>										
Written questions	0.74	4.48	967	0.30	1.38	100	254	147	28	17
Oral questions	0.05	0.22	3	0.04	0.21	4	175	115	23	16
<b>Amendements</b>										
Signed amendements	12.31	34.25	1,557	5.79	17.93	556	236	118	28	17
Written amendements	1.30	14.86	1,551	0.83	5.29	556	147	81	0	0
Adopted amendements	1.42	5.53	373	0.99	3.73	216	75	44	9	5
<b>Proposals</b>										
Written proposals	0.02	0.18	19	0.02	0.14	7	175	95	22	16
Signed proposals	0.49	1.15	22	0.20	0.54	16	132	76	12	8
<b>Reports</b>										
Written reports	0.02	0.16	9	0.04	0.21	7	177	95	31	17
Activity (overall)	.	.	.	.	.	.	1050	349	135	48

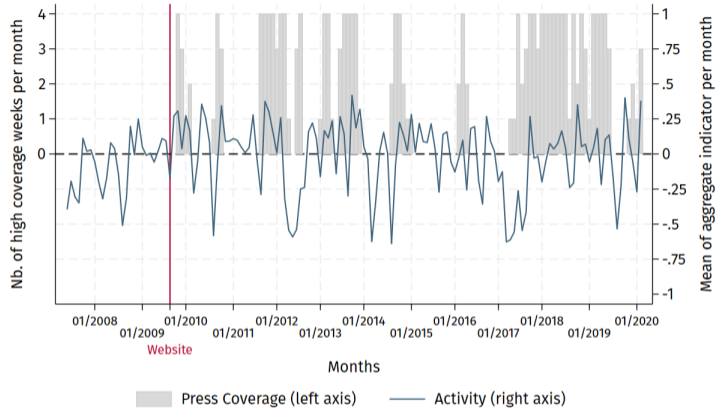
[Back](#) **Notes:** *Number of mentions:* total number of mentions. *Number of articles:* number of distinct articles that mention at least once a legislator for the indicator. *Total press:* distinct number of articles that mentions “Nosdeputes” or “Nossenateurs”. *Citing indicators:* distinct number of articles that mention at least one legislator. *Activity (overall):* mentions on weeks of activity, or activity in general.

## Computation of the Aggregate Indicator

$$\text{Aggregate Indicator}_{itlc} = \frac{1}{\sigma_{lc}^A} \cdot \sum_s \frac{y_{itlc}^s - \bar{y}_{lc}^s}{\sigma_{lc}^s}.$$

$\bar{y}_{lc}^s$  denotes the mean of indicator  $s$  over the legislature  $l$  in chamber  $c$  (Senate or National Assembly), and  $\sigma_{lc}^s$  represents its standard deviation. The term  $\sum_s (y_{itlc}^s - \bar{y}_{lc}^s) / \sigma_{lc}^s$  reflects the sum of the normalized performances on all indicators  $s$  of legislator  $i$  serving in chamber  $c$  during week  $t$ . It assigns equal weight to all indicators, which are standardized to have the same distribution (mean of zero and standard deviation of one). Therefore,  $\text{Aggregate Indicator}_{itlc}$  has a mean of zero. To ensure that the final aggregate indicator also has a standard deviation of one, we compute the standard deviation of the sum,  $\sigma_{lc}^A$ , and divide the result by this standard deviation. [Back](#)

# Aggregate activity measure and Press Coverage



Monthly MP activity and media pressure

Notes: An observation is a month.

[Back](#)

## Determinants of Indicators Coverage

	Number of articles				Articles > 0		
	(1) OLS	(2) OLS	(3) Poisson	(4) OLS	(5) OLS	(6) OLS	(7) OLS
Activity (4 weeks)	0.338 (0.497)	0.371 (0.488)	0.294 (0.212)	0.072 (0.201)	0.036 (0.049)	-0.003 (0.063)	0.044 (0.048)
Activity (8 weeks)	-0.477 (0.378)	-0.467 (0.383)	-0.157 (0.312)	-0.150 (0.133)	-0.038 (0.043)	-0.038 (0.040)	-0.036 (0.041)
Activity (12 weeks)	0.300 (0.254)	0.293 (0.263)	-0.084 (0.279)	0.129 (0.129)	0.008 (0.041)	-0.020 (0.072)	0.007 (0.043)
Coverage Assembly		1.601* (0.795)					0.371** (0.141)
Observations	430	430	428	428	430	428	430
Adj./Pseudo R2	0.12	0.13	0.37	0.28	0.10	0.17	0.10
Mean Dep. Var.	1.26	1.26	1.28	1.26	0.45	0.45	0.45
Week of Year FE	✓	✓		✓	✓		✓
Legislature Year FE	✓	✓		✓	✓		✓
Year FE	✓	✓		✓	✓		✓
Month FE			✓			✓	

**Notes:** \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . An observation is a week after September 2009. Estimation of:  
 $y_t = \beta_1 \cdot \text{Activity}_{t-4} + \beta_2 \cdot \text{Activity}_{t-8} + \beta_3 \cdot \text{Activity}_{t-12} + \beta_4 \cdot \ln(\text{CoverageAssembly}_t) + \text{WeekOfYear}_t + \text{LegislatureYear}_t + \text{Year}_t + \text{epsilon}_t$ .  
 Dependent variables: *Articles*: number of articles covering Nosdeputes.fr in the week (Columns 1 to 4). *Articles > 0*: dummy variable equals to 1 if at least one article covering Nosdeputes.fr was published in the week (Columns 5 to 7). Standard errors clustered at the year level. *Activity (4 (resp. 8 or 12) weeks)*: average value of the aggregate activity indicator over the preceding 4 (resp. 8 or 12) weeks. *Coverage Assembly*: logarithm of the total number of articles covering the National Assembly in the week. [Back](#)

## Alternative Measures of Press Coverage and Legislator's performance

	Dependent Variable: Aggregate Indicator			
	Model 1			
	(1)	(2)	(3)	(4)
Articles (log)	0.030*** (0.004)			
Articles (log+1)		0.027*** (0.003)		
Articles (asinh)			0.023*** (0.003)	
Share articles ND/Assembly				0.049*** (0.006)
Mention Legislator	-0.000 (0.014)	0.005 (0.013)	0.006 (0.013)	-0.001 (0.013)
Post Website		0.048*** (0.014)	0.045*** (0.015)	0.087*** (0.013)
Observations	260,948	326,617	326,617	322,580
MeanDepVar	0.01	0.00	0.00	0.00
Adjusted R2	0.21	0.20	0.20	0.20
Legislator × Legislature FE	✓	✓	✓	✓
Week of Year FE	✓	✓	✓	✓
Legislature Year FE	✓	✓	✓	✓

**Notes:** \*  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ . Standard errors in parentheses are clustered at the Legislator × Legislature level. Column 1: periods with at least one article. [Back](#)

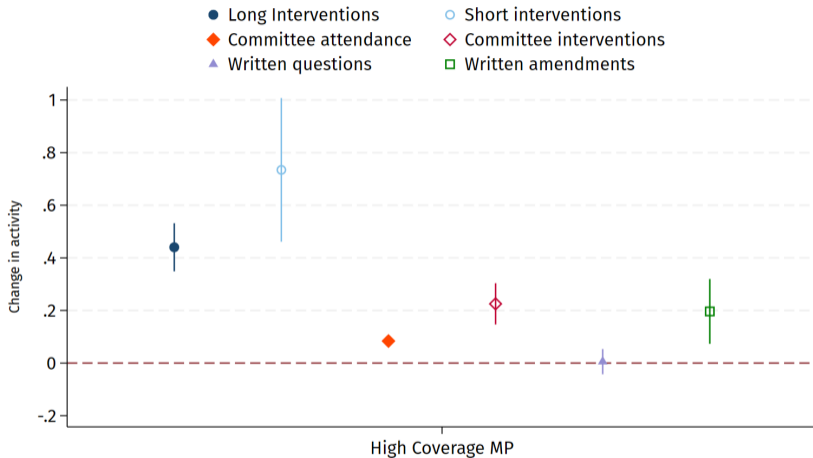
# Disaggregated Results — Model 1

	Plenary Sessions			Committees		Questions		Amendments		Reports	Proposals	
	(1) Agg. Indic.	(2) Long interventions	(3) Short interventions	(4) Attendance	(5) Interventions	(6) Oral	(7) Written	(8) Written	(9) Signed	(10) Written	(11) Written	(12) Signed
High Coverage MPs	0.085*** (0.005)	0.440*** (0.047)	0.734*** (0.139)	0.084*** (0.004)	0.225*** (0.040)	0.002** (0.001)	0.005 (0.024)	0.196*** (0.063)	1.798*** (0.123)	0.003*** (0.001)	0.001 (0.001)	0.009** (0.004)
Mention MP	-0.002 (0.013)	-0.107 (0.137)	-0.147 (0.419)	0.021 (0.013)	-0.203** (0.081)	0.003 (0.002)	0.006 (0.050)	-0.396*** (0.132)	-0.781* (0.437)	-0.000 (0.002)	-0.001 (0.002)	0.027** (0.013)
Mention MP Indic.		-0.295 (0.239)	0.052 (0.724)	-0.011 (0.019)	-0.316 (0.262)	-0.005 (0.005)	0.446* (0.249)	0.097 (0.369)	-1.264 (0.853)	0.003 (0.006)	-0.004 (0.006)	0.118*** (0.035)
Post Website	0.057*** (0.013)	-0.221* (0.120)	-0.408 (0.375)	0.316*** (0.010)	0.196*** (0.069)	0.002* (0.001)	0.422*** (0.061)	-1.140*** (0.143)	-4.960*** (0.278)	-0.001 (0.001)	0.003 (0.002)	-0.093*** (0.013)
Sample	MPs	MPs	MPs	MPs	MPs	MPs	MPs	MPs	MPs	MPs	MPs	MPs
Observations	326,617	326,617	326,617	326,617	326,617	326,617	326,617	326,617	326,617	326,617	326,617	326,617
Mean DepVar	0.00	1.73	2.74	0.72	1.26	0.05	0.73	1.23	11.61	0.02	0.02	0.47
Adjusted R2	0.20	0.11	0.23	0.24	0.07	0.03	0.08	0.04	0.27	0.06	0.04	0.19
MP × Legislature FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Week of Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year of Legis. FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

**Notes:** \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Estimation of Model 1. Standard errors in parentheses are clustered at the Legislator × Legislature level. Observations are weekly performance indicators for each MP from 2007 until 2020.

[Back](#)

## Disaggregated Results — Model 1



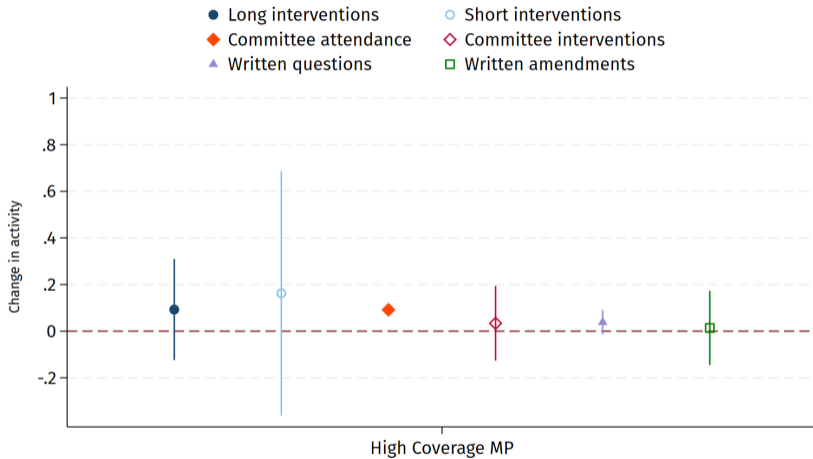
## Disaggregated Results — Model 2

	Plenary Sessions			Committees		Questions		Amendments		Reports	Proposals	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Agg. Indic.	Long interventions	Short interventions	Attendance	Interventions	Oral	Written	Written	Signed	Written	Written	Signed
High Coverage MPs	0.063*** (0.010)	0.092 (0.111)	0.161 (0.268)	0.092*** (0.007)	0.034 (0.082)	0.001 (0.001)	0.038 (0.027)	0.014 (0.081)	1.534*** (0.173)	0.001 (0.002)	0.001 (0.001)	0.022*** (0.006)
Mention Legislator	0.008 (0.014)	-0.097 (0.129)	-0.108 (0.351)	0.011 (0.012)	-0.081 (0.087)	0.002 (0.002)	0.005 (0.046)	-0.274** (0.119)	-0.472 (0.381)	0.003 (0.002)	-0.000 (0.002)	0.025** (0.012)
Mention Legis. Indic.		-0.049 (0.304)	0.470 (0.773)	-0.013 (0.019)	-0.186 (0.416)	-0.003 (0.005)	0.398* (0.224)	0.009 (0.354)	-1.123 (0.807)	-0.008 (0.006)	-0.003 (0.006)	0.111*** (0.032)
Post Website	0.009 (0.012)	-0.528*** (0.135)	-0.560 (0.351)	0.201*** (0.011)	0.474*** (0.108)	-0.004*** (0.001)	0.246*** (0.043)	-0.927*** (0.107)	-4.491*** (0.223)	-0.001 (0.002)	0.003** (0.002)	-0.079*** (0.010)
Sample	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.
Observations	490,600	490,600	490,600	490,600	490,600	490,600	490,600	490,600	490,600	490,600	490,600	490,600
Mean DepVar	0.02	2.02	2.87	0.76	1.43	0.05	0.58	1.13	9.86	0.03	0.02	0.38
Adjusted R2	0.19	0.13	0.23	0.24	0.09	0.03	0.10	0.04	0.27	0.07	0.04	0.20
Legislator × Legislature FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Week of Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Legislature Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

**Notes:** \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Estimation of Model 2. Standard errors in parentheses are clustered at the Legislator × Legislature level. Observations are weekly performance indicators for each legislator from 2007 until 2020.

[Back](#)

## Disaggregated Results — Model 2



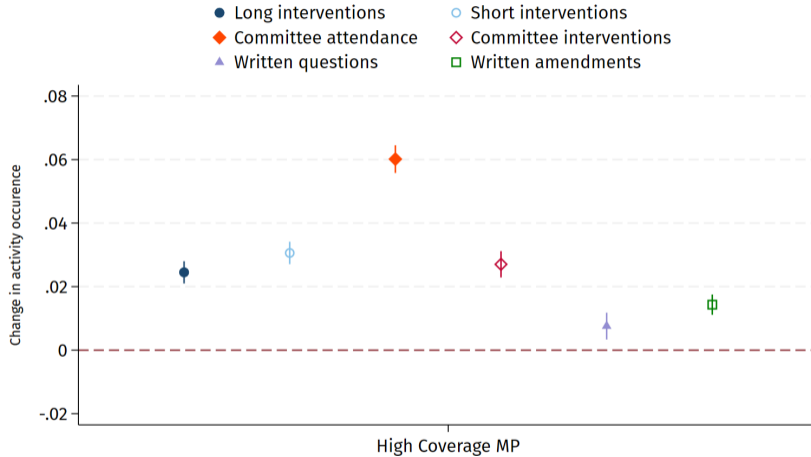
## Extensive Margin — Model 1

	Plenary Sessions		Committees		Questions		Amendments		Reports	Proposals	
	(1) Long interventions	(2) Short interventions	(3) Attendance	(4) Interventions	(5) Oral	(6) Written	(7) Written	(8) Signed	(9) Written	(10) Written	(11) Signed
High Coverage MPs	0.025*** (0.002)	0.031*** (0.002)	0.060*** (0.002)	0.027*** (0.002)	0.002** (0.001)	0.008*** (0.002)	0.014*** (0.002)	0.043*** (0.002)	0.002*** (0.001)	0.001** (0.001)	0.006*** (0.002)
Mention MP	0.007 (0.005)	0.014*** (0.005)	0.015** (0.007)	0.012** (0.006)	0.003 (0.002)	0.016*** (0.006)	-0.013** (0.005)	0.012* (0.007)	0.000 (0.002)	0.000 (0.001)	0.014*** (0.005)
Mention MP Indic.	-0.010 (0.009)	-0.015* (0.009)	-0.005 (0.010)	-0.013 (0.013)	-0.005 (0.005)	-0.000 (0.013)	0.023** (0.010)	-0.007 (0.012)	0.002 (0.004)	-0.002 (0.004)	0.022** (0.011)
Post Website	0.007* (0.004)	-0.008* (0.005)	0.204*** (0.007)	0.098*** (0.006)	0.003** (0.001)	0.069*** (0.006)	-0.032*** (0.003)	-0.029*** (0.005)	-0.001 (0.001)	0.001 (0.001)	-0.173*** (0.005)
Sample	MPs	MPs	MPs	MPs	MPs	MPs	MPs	MPs	MPs	MPs	MPs
Observations	326,617	326,617	326,617	326,617	326,617	326,617	326,617	326,617	326,617	326,617	326,617
Mean DepVar	0.18	0.18	0.52	0.25	0.05	0.25	0.12	0.45	0.02	0.01	0.25
Adjusted R2	0.15	0.22	0.24	0.20	0.03	0.16	0.18	0.37	0.06	0.05	0.15
MP × Legislature FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Week of Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Legislature Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

**Notes:** \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Estimation of Model 2. Standard errors in parentheses are clustered at the Legislator × Legislature level. Observations are weekly performance indicators for each legislator from 2007 until 2020. Dependent variables are dummies = 1 if the legislator made at least one activity on the indicator.

[Back](#)

# Extensive Margin — Model 1



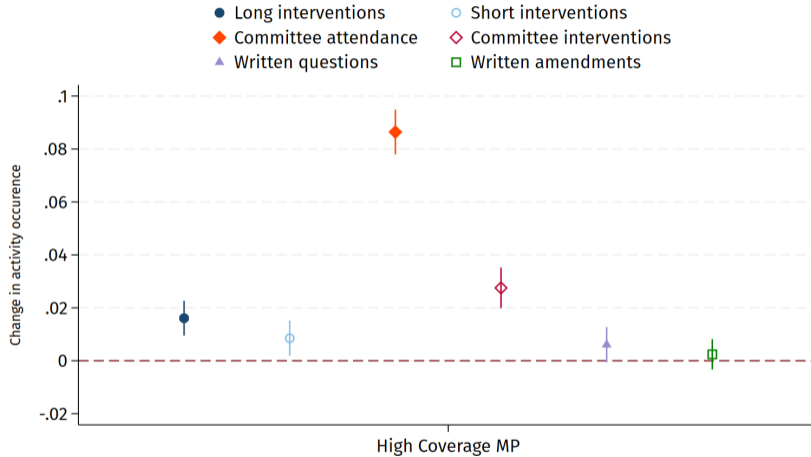
## Extensive Margin — Model 2

	Plenary Sessions		Committees		Questions		Amendments		Reports	Proposals	
	(1) Long interventions	(2) Short interventions	(3) Attendance	(4) Interventions	(5) Oral	(6) Written	(7) Written	(8) Signed	(9) Written	(10) Written	(11) Signed
High Coverage MPs	0.016*** (0.003)	0.008** (0.003)	0.086*** (0.004)	0.028*** (0.004)	0.001 (0.001)	0.006* (0.003)	0.002 (0.003)	0.020*** (0.004)	-0.001 (0.001)	0.002* (0.001)	-0.021*** (0.003)
Mention Legislator	0.010* (0.005)	0.017*** (0.005)	0.007 (0.007)	0.012** (0.006)	0.002 (0.002)	0.015** (0.006)	-0.005 (0.005)	0.014** (0.007)	0.002 (0.002)	0.001 (0.001)	0.017*** (0.005)
Mention Legis. Indic.	-0.009 (0.009)	-0.016* (0.009)	-0.003 (0.011)	-0.022* (0.013)	-0.004 (0.005)	-0.000 (0.012)	0.019** (0.010)	-0.010 (0.012)	-0.005 (0.005)	-0.002 (0.004)	0.018 (0.011)
Post Website	-0.020*** (0.004)	-0.023*** (0.004)	0.128*** (0.007)	0.067*** (0.005)	-0.003** (0.001)	0.034*** (0.005)	-0.032*** (0.003)	-0.056*** (0.005)	-0.001 (0.001)	0.001 (0.001)	-0.130*** (0.005)
Sample	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.
Observations	490,600	490,600	490,600	490,600	490,600	490,600	490,600	490,600	490,600	490,600	490,600
Mean DepVar	0.21	0.19	0.55	0.28	0.05	0.21	0.12	0.44	0.02	0.01	0.22
Adjusted R2	0.16	0.22	0.23	0.21	0.03	0.17	0.16	0.32	0.08	0.04	0.14
Legislator × Legislature FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Week of Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Legislature Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

**Notes:** \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Estimation of Model 2. Standard errors in parentheses are clustered at the Legislator × Legislature level. Observations are weekly performance indicators for each legislator from 2007 until 2020. Dependent variables are dummies = 1 if the legislator made at least one activity on the indicator.

[Back](#)

## Extensive Margin — Model 2



# Controlling for coverage of the Assembly

## Control for press coverage of the National Assembly

	Plenary Sessions			Committees		Questions		Amendments		Reports	Proposals	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Agg. Indic.	Long interventions	Short interventions	Attendance	Interventions	Oral	Written	Written	Signed	Written	Written	Signed
<b>General effect</b>												
Post Website	0.065*** (0.013)	-0.185 (0.118)	-0.347 (0.367)	0.314*** (0.010)	0.210*** (0.070)	0.003* (0.001)	0.399*** (0.059)	-0.999*** (0.127)	-4.375*** (0.267)	-0.001 (0.001)	0.002 (0.002)	-0.095*** (0.013)
Coverage Assembly	-0.046*** (0.006)	-0.085* (0.045)	-0.159 (0.121)	0.021*** (0.004)	-0.162*** (0.043)	-0.004*** (0.001)	0.001 (0.026)	-0.320*** (0.069)	-0.379** (0.171)	-0.001 (0.001)	0.000 (0.001)	-0.082*** (0.005)
High Coverage	0.087*** (0.005)	0.451*** (0.047)	0.754*** (0.141)	0.087*** (0.004)	0.241*** (0.040)	0.002** (0.001)	0.001 (0.024)	0.208*** (0.063)	1.885*** (0.124)	0.003*** (0.001)	0.001 (0.001)	0.009** (0.004)
<b>Individual effect</b>												
Mention MP	-0.002 (0.013)	-0.095 (0.137)	-0.133 (0.418)	0.020 (0.013)	-0.202** (0.081)	0.004 (0.002)	0.006 (0.050)	-0.394*** (0.132)	-0.769* (0.437)	-0.000 (0.002)	-0.001 (0.002)	0.029** (0.013)
Mention MP Indicator		-0.303 (0.239)	0.036 (0.723)	-0.010 (0.019)	-0.321 (0.262)	-0.006 (0.005)	0.443* (0.249)	0.109 (0.369)	-1.250 (0.852)	0.003 (0.006)	-0.005 (0.006)	0.117*** (0.035)
Observations	322,580	322,580	322,580	322,580	322,580	322,580	322,580	322,580	322,580	322,580	322,580	322,580
Mean DepVar	0.00	1.73	2.75	0.72	1.27	0.05	0.74	1.24	11.73	0.02	0.02	0.48
Adjusted R2	0.20	0.11	0.23	0.24	0.07	0.03	0.08	0.04	0.27	0.06	0.04	0.19
Week of Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year of Legi FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MP × Legi FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

**Notes:** \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Standard errors in parentheses are clustered at the Legislator  $\times$  Legislature level. *CoverageAssembly*: dummy variable equal to 1 if the number of articles about the National Assembly in the previous 12 weeks is higher than the median (14770).

[Back](#)

## Robustness checks: Alternative time frame for High Coverage MP (8 and 16 Weeks)

	Dependent Variable: Aggregate Indicator			
	Model 1		Model 2	
	(1)	(2)	(3)	(4)
High Coverage MPs (8 weeks)	-0.007 (0.005)		0.022** (0.009)	
High Coverage MPs (16 weeks)		0.078*** (0.006)		0.051*** (0.010)
Mention Legislator	0.025* (0.013)	0.003 (0.013)	0.039*** (0.014)	0.016 (0.014)
Post Website	0.119*** (0.013)	0.061*** (0.013)	0.074*** (0.012)	0.012 (0.012)
Sample	MPs	MPs	MPs + Sen.	MPs + Sen.
Observations	326,617	326,617	490,600	490,600
Mean DepVar	0.00	0.00	0.02	0.02
Adjusted R2	0.20	0.20	0.19	0.19
Legislator $\times$ Legislature FE	✓	✓	✓	✓
Week of Year FE	✓	✓	✓	✓
Legislature Year FE	✓	✓	✓	✓

**Notes:** \*  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ . Columns 1 and 2: estimation of Model 1. Columns 3 and 4: estimation of Model 2. Standard errors in parentheses are clustered at the Legislator  $\times$  Legislature level. Observations are the weekly aggregate indicator defined for each legislator from 2007 until 2020, giving equal weight to all indicators and standardized to have a mean of zero and a standard deviation of one.

## Robustness checks: Alternative sets of fixed effects

	Dependent Variable: Aggregate Indicator						
	Model 1		Model 2				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
High Coverage MPs	0.087*** (0.006)	0.095*** (0.009)	0.085*** (0.011)	0.044*** (0.011)	0.031*** (0.009)	0.089*** (0.010)	0.034*** (0.010)
Mention Legislator	0.020 (0.013)	0.024* (0.013)	0.032** (0.015)	0.043*** (0.014)	0.017 (0.015)	0.006 (0.014)	0.017 (0.014)
Post Website	0.031* (0.018)		-0.009 (0.015)	0.009 (0.021)	0.011 (0.018)	0.001 (0.014)	0.011 (0.018)
Sample	MPs	MPs	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.
Observations	326,617	326,617	490,601	490,601	490,600	490,601	490,601
Mean DepVar	0.00	0.00	0.02	0.02	0.02	0.02	0.02
Adjusted R2	0.18	0.19	0.17	0.17	0.23	0.19	0.19
Legislator FE	✓	✓	✓	✓			
Legislator × Legislature FE					✓		
Legislator × Term FE						✓	✓
Week of Year FE	✓		✓			✓	
Legislature Year FE	✓		✓			✓	
Month FE		✓		✓			✓
Week FE					✓		

**Notes:** \*  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ . Standard errors in parentheses are clustered at the Legislator × Legislature level. Observations are the weekly aggregate indicator defined for each legislator from 2007 until 2020, giving equal weight to all indicators and standardized to have a mean of zero and a standard deviation of one.

[Back](#)

## Robustness checks: Focusing only on legislators in office before Nosdeputes.fr

	Dependent Variable: Aggregate Indicator							
	Model 1				Model 2			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
High Coverage MPs	0.120*** (0.008)	0.125*** (0.013)			0.068*** (0.013)	0.023* (0.013)		
Articles (ln+1) × MP			0.048*** (0.004)	0.111*** (0.007)			0.033*** (0.009)	0.018* (0.010)
Mention Legislator	-0.013 (0.018)	-0.011 (0.019)	-0.013 (0.018)	-0.017 (0.019)	0.000 (0.020)	0.012 (0.021)	0.003 (0.020)	0.014 (0.021)
Sample	MPs	MPs	MPs	MPs	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.
Observations	208,709	208,709	208,709	208,709	316,498	316,498	316,498	316,498
Mean DepVar	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04
Adjusted R2	0.19	0.20	0.19	0.20	0.19	0.20	0.19	0.20
Legislator × Legislature FE	✓	✓	✓	✓	✓	✓	✓	✓
Week of Year FE	✓		✓		✓		✓	
Legislature Year FE	✓		✓		✓		✓	
Month FE		✓		✓		✓		✓

**Notes:** \*  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ . Standard errors in parentheses are clustered at the Legislator × Legislature level. Observations are the weekly aggregate indicator defined for each legislator from 2007 until 2020, giving equal weight to all indicators and standardized to have a mean of zero and a standard deviation of one.

[Back](#)

## Robustness checks: Alternative aggregate indicator

Dependent Variable: Alternative Aggregate Indicator								
	Model 1				Model 2			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
High Coverage MPs	0.088*** (0.005)	0.077*** (0.009)			0.069*** (0.011)	0.042*** (0.011)		
Articles (ln+1) × MP			0.038*** (0.003)	0.060*** (0.005)			0.035*** (0.008)	0.021*** (0.008)
Mention Legislator	-0.002 (0.013)	0.000 (0.013)	-0.001 (0.013)	-0.003 (0.013)	-0.001 (0.014)	0.013 (0.014)	-0.007 (0.014)	0.011 (0.014)
Post Website	0.170*** (0.016)		0.135*** (0.017)		0.089*** (0.016)	0.116*** (0.022)	0.036** (0.016)	0.088*** (0.023)
Sample	MPs	MPs	MPs	MPs	MPs + Sen.	MPs + Sen.	MPs + Sen.	MPs + Sen.
Observations	326,617	326,617	326,617	326,617	490,600	490,600	490,600	490,600
Mean DepVar	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02
Adjusted R2	0.20	0.21	0.20	0.21	0.20	0.21	0.20	0.21
Legislator × Legislature FE	✓	✓	✓	✓	✓	✓	✓	✓
Week of Year FE	✓		✓		✓		✓	
Legislature Year FE	✓		✓		✓		✓	
Month FE		✓		✓		✓		✓

**Notes:** \*  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ . Standard errors in parentheses are clustered at the Legislator × Legislature level. Observations are the weekly aggregate indicator defined for each legislator from 2007 until 2020, giving equal weight to all indicators and standardized to have a mean of zero and a standard deviation of one.

[Back](#)

## Robustness checks: Estimation with a Tobit Model

	Model 1		Model 2	
	(1)	(2)	(3)	(4)
High Coverage MPs	0.190*** (0.012)	0.254*** (0.021)	0.124*** (0.020)	0.042** (0.019)
Mention Legislator	0.026 (0.029)	0.024 (0.029)	0.034 (0.029)	0.064** (0.030)
Post Website	0.177*** (0.031)		0.057** (0.027)	0.091*** (0.035)
Sample	MPs	MPs	MPs + Sen.	MPs + Sen.
Observations	326,620	326,620	490,608	490,608
Legislator $\times$ Legislature FE	✓	✓	✓	✓
Week of Year FE	✓		✓	
Legislature Year FE	✓		✓	
Month FE		✓		✓

**Notes:** \*  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ . Standard errors in parentheses are clustered at the Legislator  $\times$  Legislature level. Observations are the weekly aggregate indicator defined for each legislator from 2007 until 2020, giving equal weight to all indicators and standardized to have a mean of zero and a standard deviation of one.

# Investigating the “Quality” of Parliamentary Activity

## ▶ **Measuring the quality of parliamentary work:**

- Difficult to measure the nature of the effort and the quality of interventions.
- Common criticisms and anecdotal evidence [Acatrinei and Quénel, 2019] point to manipulation or side effects of transparency [Prat 2005].

## ▶ **We focus on written questions sent by MPs to the government:**

- Written questions can be sent at any time, on any topic, directed to any member of the government, who is obligated to respond.
- **Easy way for legislators to improve their statistics,**

⇒ **We examine the degree of similarity of written questions as a proxy for the quality of the legislators’ work**

[Back](#)

# Anecdotal Evidence of Copy-Paste

## Question écrite n°8780 : Mise en œuvre effective de la pratique avancée infirmière

### 15ème Législature

Publication de la question au Journal Officiel du 29 mai 2018, page 4431  
Publication de la réponse au Journal Officiel du 5 juin 2018, page 4850

Question de : [Mme. Marie-Françoise LECHEVALIER](#)

Je sollicite l'attention de Mme la ministre des solidarités et de la santé sur la mise en œuvre effective en France de la pratique avancée infirmière. L'article 119 de la loi n° 2016-41 du 26 janvier 2016 de modernisation de notre système de santé a défini le cadre légal de l'exercice en pratique avancée. Afin de répondre aux défis majeurs du système de santé français confronté à une explosion des maladies chroniques nécessitant une prise en charge en long cours, avec un suivi par les professionnels de santé, et face à l'accroissement inquiétant des déserts médicaux, le Parlement a voulu que soient redéfinis les périmètres d'exercice des professionnels de **santé de niveau** intermédiaire (entre le bac +8 du médecin et le bac +3/4 des professionnels paramédicaux notamment des infirmières). Présents depuis les années 1960 aux **États-Unis d'Amérique** et au Canada, mais aussi au Royaume-Uni ou en Irlande, ces infirmiers de pratique avancée se voient reconnaître des compétences plus étendues, notamment de prescription, de renouvellement et d'adaptation de traitements, de réalisation d'actes, moyennant une formation supplémentaire de niveau Master. Ces professionnels jouent un rôle important de premier recours dans les zones reculées. Or le décret d'application qui, plus de deux ans après la promulgation de la loi, n'est pas encore publié est annoncé comme conservant au médecin un rôle central et ne conférant pas à l'infirmier de pratique avancée toute l'autonomie requise pour apporter la réponse nécessaire aux besoins de santé des citoyens. Il lui demande donc de bien vouloir lui indiquer les mesures envisagées par le Gouvernement pour que soit créé en France un véritable métier intermédiaire d'infirmier de pratique avancée doté de l'autonomie suffisante pour bien prendre en charge les patients.

### Données clés

Auteur : [Mme. Marie-Françoise LECHEVALIER](#)

Type de question : Question écrite

Rubrique : Professions de santé

Ministère interrogé : Solidarités et santé

Ministère répondant : Solidarités et santé

Dates :

Question publiée le 29 mai 2018

Réponse publiée le 5 juin 2018

## Question écrite n°8199 : Statut d'infirmier de pratique avancée

### 15ème Législature

Publication de la question au Journal Officiel du 8 mai 2018, page 3849  
Publication de la réponse au Journal Officiel du 22 mai 2018, page 4320

Question de : [Mme. Marie-Françoise LECHEVALIER](#)

Je sollicite l'attention de Mme la ministre des solidarités et de la santé sur la mise en œuvre effective en France de la pratique avancée infirmière. L'article 119 de la loi n° 2016-41 du 26 janvier 2016 de modernisation de notre système de santé a défini le cadre légal de l'exercice en pratique avancée. Afin de répondre aux défis majeurs du système de santé français confronté à une explosion des maladies chroniques nécessitant une prise en charge en long cours, avec un suivi par les professionnels de santé, et face à l'accroissement inquiétant des déserts médicaux, le Parlement a voulu que soient redéfinis les périmètres d'exercice des professionnels de **santé en créant de nouveaux métiers en santé de** niveau intermédiaire (entre le bac +8 du médecin et le bac+3-4 des professionnels paramédicaux notamment des infirmières). Présents depuis les années 1960 aux **États-Unis** et au Canada, mais aussi au Royaume-Uni ou en Irlande, ces infirmiers de pratique avancée se voient reconnaître des compétences plus étendues, notamment de prescription, de renouvellement et d'adaptation de traitements, de réalisation d'actes, moyennant une formation supplémentaire de niveau master. Ces professionnels jouent un rôle important de premier recours dans les zones reculées. Or le décret d'application qui, plus de deux ans après la promulgation de la loi, n'est pas encore publié est annoncé comme conservant au médecin un rôle central et ne conférant pas à l'infirmier de pratique avancée toute l'autonomie requise pour apporter la réponse nécessaire aux besoins de santé des citoyens. Il lui demande donc de bien vouloir lui indiquer ce que le Gouvernement envisage pour que soit créé en France un véritable métier intermédiaire d'infirmier de pratique avancée doté de l'autonomie suffisante pour bien prendre en charge les patients.

### Données clés

Auteur : [Mme. Marie-Françoise LECHEVALIER](#)

Type de question : Question écrite

Rubrique : Professions de santé

Ministère interrogé : Solidarités et santé

Ministère répondant : Solidarités et santé

Dates :

Question publiée le 8 mai 2018

Réponse publiée le 22 mai 2018

Example of Copy-Paste in Written Questions

## Written Question: Approach

- ▷ We collect the text of **262,283** written questions for MPs and **64,476** for Senators.
  - ▷ We identify identical questions using cosine similarity measures:
    - We compute cosine similarity between each question and all previously asked questions within the same chamber  $c$  and within the same legislative term
    - Question = copy-pasted if similarity  $> 0.9$  with a prior question
- **We estimate our main model using the weekly share of copy-pasted questions as the dependent variable.**

[Back](#)

## Results — Copy-Pasting of Written Questions

	Model 1			Model 2		
	(1) Ratio copyp.	(2) New written qu.	(3) Length	(4) Ratio copyp.	(5) New written qu.	(6) Length
High Coverage MP	0.020*** (0.003)	-0.007 (0.014)	0.672 (0.868)	0.016*** (0.005)	-0.006 (0.018)	-0.488 (1.796)
Mention Legislator	-0.002 (0.007)	0.010 (0.036)	3.750 (2.612)	-0.005 (0.007)	0.009 (0.034)	4.106 (2.574)
Mention Legis. Indic.	0.001 (0.016)	0.060 (0.117)	-4.817 (4.972)	0.008 (0.015)	0.043 (0.103)	-7.236 (4.815)
Post Website	0.076*** (0.008)	0.173*** (0.037)	3.961* (2.353)	0.070*** (0.007)	0.076*** (0.028)	7.566*** (2.111)
Observations	80,941	326,617	80,941	104,455	490,600	104,455
MeanDepVar	0.18	0.53	221.98	0.16	0.43	226.15
Adjusted R2	0.22	0.12	0.19	0.20	0.14	0.20
Legislator × Legislature FE	✓	✓	✓	✓	✓	✓
Week of Year FE	✓	✓	✓	✓	✓	✓
Legislature Year FE	✓	✓	✓	✓	✓	✓

**Notes:** \*  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ . Standard errors in parentheses are clustered at the Legislator × Legislature level. Observations: Columns 1 and 4: share of questions asked by the legislator during the week classified as strict copy-paste, i.e., identical to another question submitted in a previous week. Columns 2 and 5: number of original written questions asked by the legislator during the week. Columns 3 and 6: average length of questions asked by the legislator during the week. All columns except columns 3 and 7 only include observations for which the number of written questions is non-zero. *Mention Legis. Indic.*: legislator mentioned on written questions in previous 12 weeks.

## Other Tests for Quality — MPs only

### ▷ Number of interventions:

- Measuring quality is challenging if we go beyond the topic-policy perspective:
  - ▷ Agnostic on what should be covered and how.
  - ▷ Influenced by the role of the political agenda.
- Instead, we examine the **word distribution** to test for potential changes in distribution.

Hurst (2006): "*[British MPs] will say just about anything to notch up their hit rate on sites such as theyworkforyou.com, where even the briefest intervention is classified as a speech.*"

### ▷ Data:

- **1,428,892 interventions** identified in plenary sessions.
- **400,675 interventions** identified in committees.

[Go back](#)

## Press Coverage and Oral Interventions

	Interventions in Plenary Sessions			Interventions in Committees		
	(1)	(2)	(3)	(4)	(5)	(6)
	Share $\leq$ 20	Share 21 - top 75%	Share $>$ top 75%	Share $\leq$ 20	Share 21 - top 75%	Share $>$ top 75%
High Coverage MPs	0.007** (0.003)	0.002 (0.001)	-0.009*** (0.003)	-0.009*** (0.002)	0.014*** (0.004)	-0.005 (0.004)
Mention MP	0.015* (0.009)	-0.005 (0.004)	-0.010 (0.008)	-0.002 (0.008)	-0.022** (0.009)	0.016* (0.010)
Mention MP Indic.	-0.022* (0.013)	0.007 (0.006)	0.015 (0.012)	0.014 (0.012)	0.020 (0.017)	-0.013 (0.018)
Post Website	-0.012 (0.007)	-0.009*** (0.003)	0.021*** (0.007)	0.007 (0.005)	0.047*** (0.009)	-0.054*** (0.010)
Sample: MPs	Interv. $>$ 0	Interv. $>$ 0	Interv. $>$ 0	Interv. $>$ 0	Interv. $>$ 0	Interv. $>$ 0
Observations	77,874	77,874	77,874	81,487	81,487	81,487
Mean DepVar	0.49	0.09	0.43	0.18	0.43	0.40
Adjusted R2	0.37	0.08	0.35	0.22	0.13	0.15
MP $\times$ Legislature FE	✓	✓	✓	✓	✓	✓
Week of Year FE	✓	✓	✓	✓	✓	✓
Legislature Year FE	✓	✓	✓	✓	✓	✓

Notes: \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Standard errors in parentheses are clustered at the Legislator  $\times$  Legislature level.

[Back](#)

# Mechanisms: District Congruence — Model 1

## Congruence at the department-year level

[Snyder and Strömberg, 2010]

Congruence  $\approx$  degree of overlap between outlets circulation areas and electoral districts

**Higher congruence**  $\rightarrow$  greater alignment between the department's readership and the outlet's total demand, thereby **increasing incentives for outlets to cover the department's affairs**, including local MPs

[Back](#)

Dependent Variable: Aggregate Indicator

