

# Vetting for Virtue: Democracy's Challenge in Excluding Criminals from Office

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## **Online Appendix**

This appendix accompanies the article published in the *American Political Science Review*.

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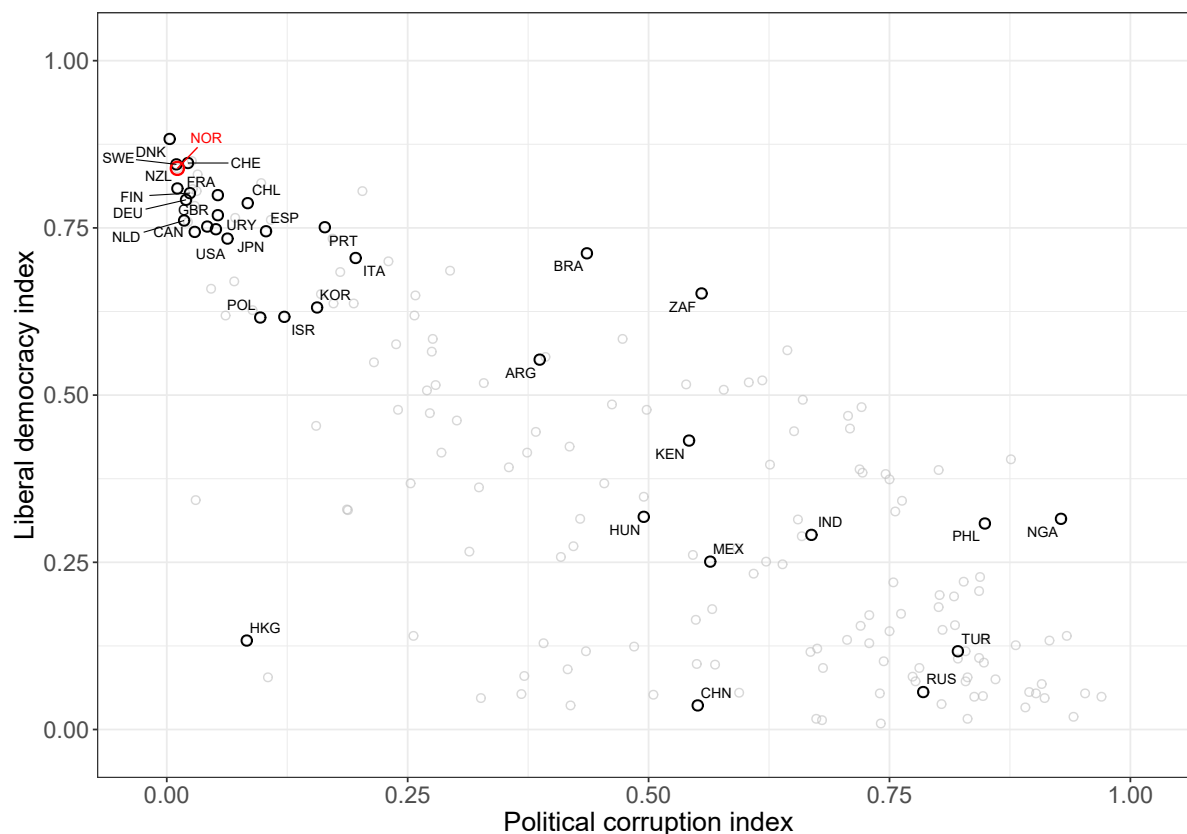
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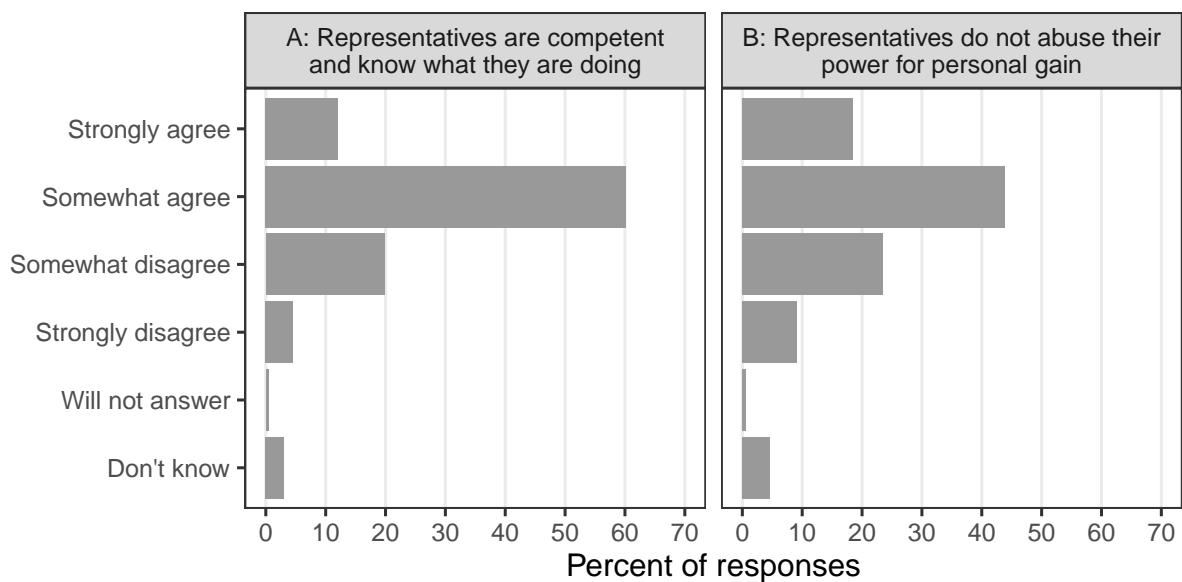
# Appendix A: Supplementary analyses

Figure A.1: Benchmarking Norway: Cross-National Variation in Liberal Democracy and Political Corruption



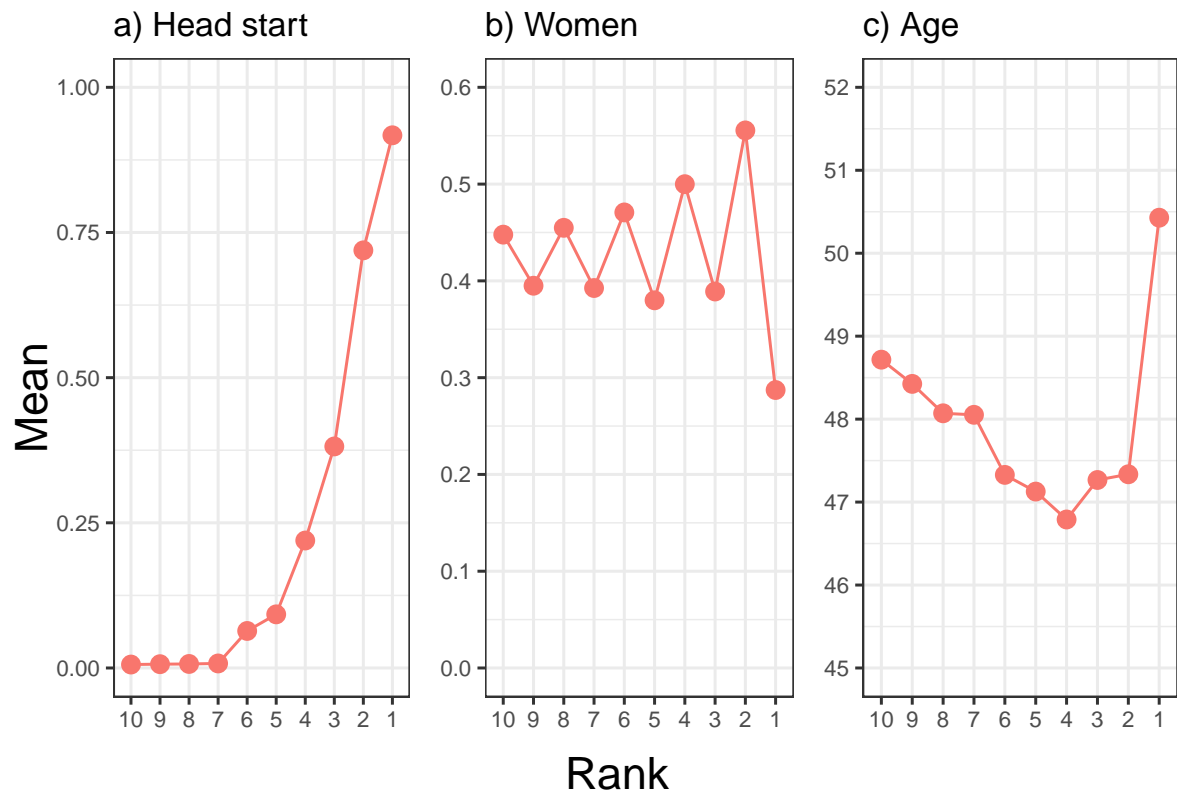
Notes: Each point represents a country in 2024. The horizontal axis shows V-Dem's political corruption index ( $v2x\_corr$ ), an aggregate measure of bribery, embezzlement, and other forms of corruption in the executive, public administration, legislature, and judiciary, scaled from 0 (least corruption) to 1 (most corruption). The vertical axis shows V-Dem's liberal democracy index ( $v2x\_libdem$ ), which combines the electoral democracy index with indicators of civil liberties, rule of law, and judicial and legislative constraints on the executive, scaled from 0 (lowest level of liberal democracy) to 1 (highest). Norway, the country on which our study focuses, is highlighted with a red circle, a subset of benchmark countries used for comparison is shown with black circles and labels, and all remaining countries appear as light gray hollow circles in the background. Source: Coppedge et al. (2025).

Figure A.2: Public Perceptions of Elected Representatives' Competence and Integrity



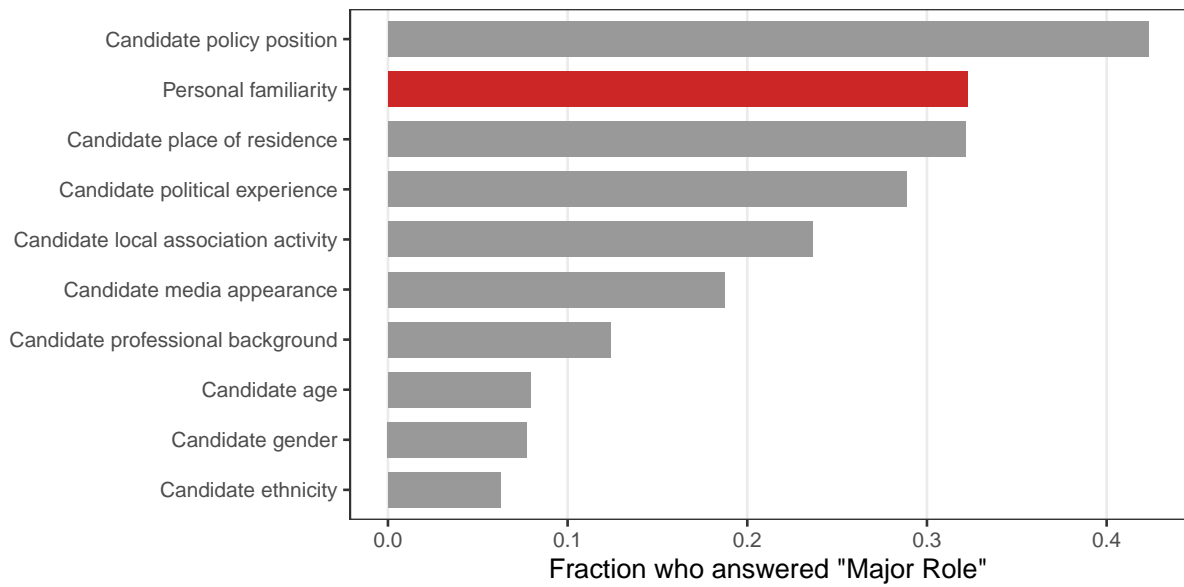
Notes: This figure shows the fraction of survey respondents who agree with the statements given in each panel heading. The data comes from the 2019 Local Election Survey (Lokalvalgsundersøkelsen). Panel A reports responses to the statement: “Most of the elected representatives in this municipality are generally competent and know what they are doing” (n=3,954). Panel B reports responses to the statement “The elected representatives in this municipality do not abuse their power for their own personal gain” (n=3,936).

Figure A.3: Characteristics by Initial Rank Position



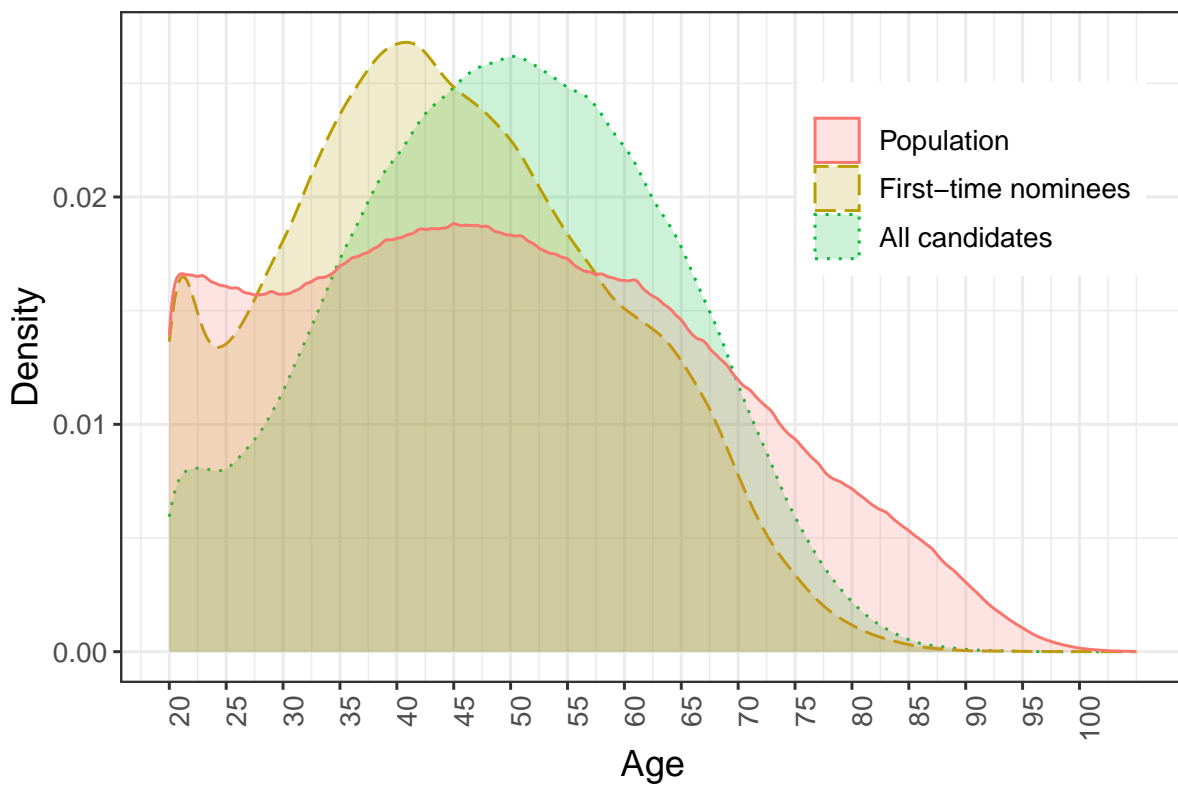
Notes: This figure shows how candidate characteristics vary with initial list rank: Panel A reports the fraction receiving a head start, Panel B the share of women, and Panel C the mean age. The figure is constructed using data from Fiva, Sørensen and Vølle (2024).

Figure A.4: Reasons for Casting Personal Votes



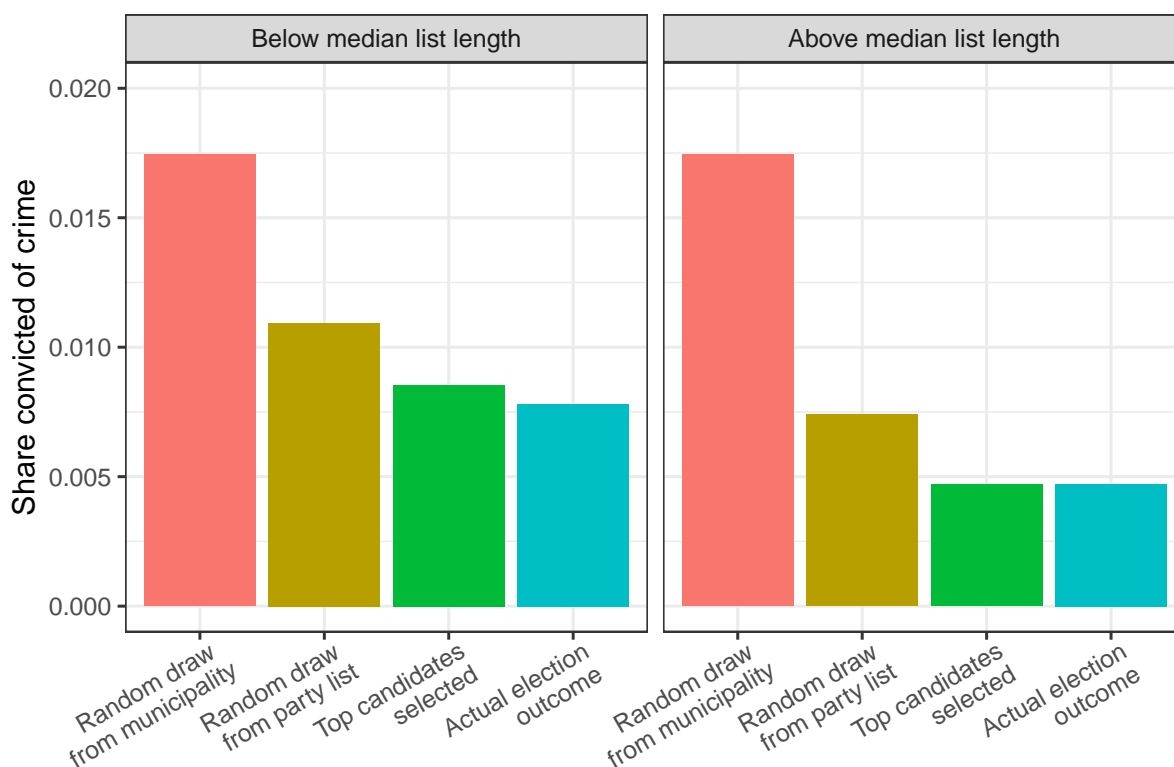
*Notes: This figure, adapted from Cox, Fiva and King (2024), presents survey evidence of voters' reasons for casting personal votes. Reported are the fraction of survey respondents answering that they cast a personal vote because the reason given in the legend played a 'major role'. Alternative responses are 'don't know', 'no role', and 'some role'. Data from the 2019 Local Election Survey (Lokalvalgsundersøkelsen) (n= 2,612). The analysis is restricted to the 1,628 respondents who report that they cast a personal vote.*

Figure A.5: Age Distribution of General Population, First-Time Nominees, and All Candidates



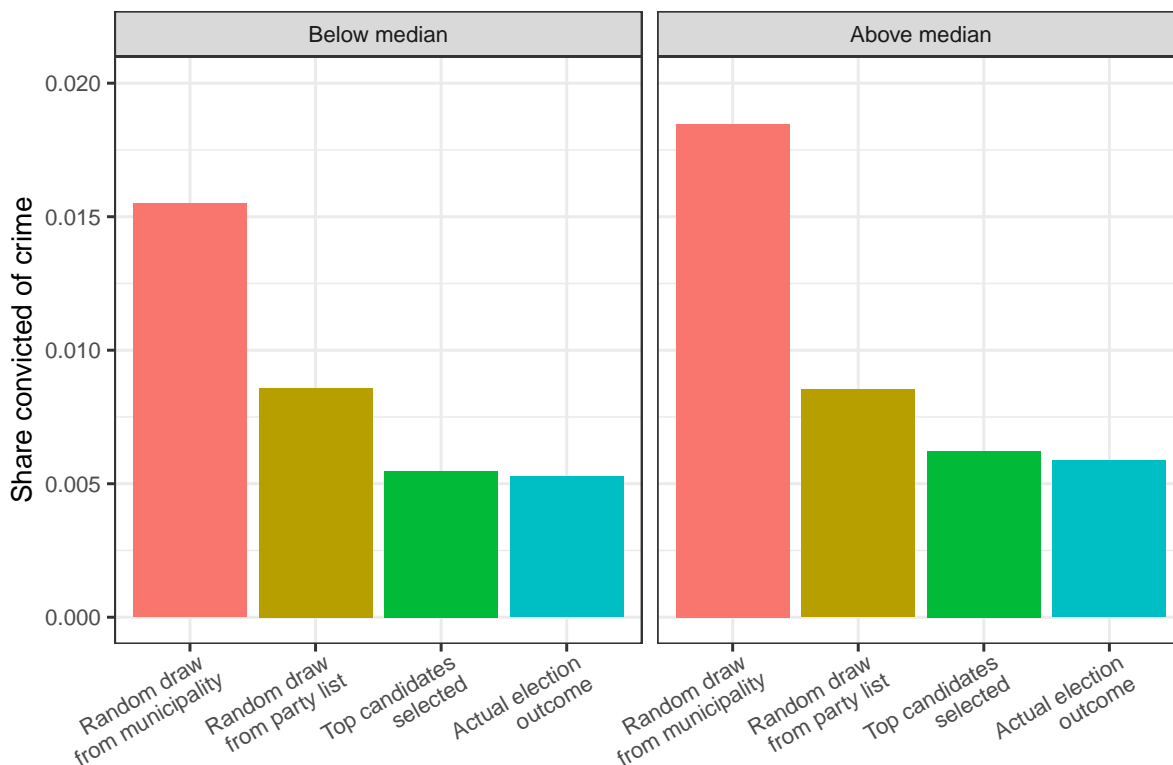
Notes: This figure displays the age composition of different subgroups of the population. We split the sample into three groups: individuals not running for local office in year  $t$  ( $N=17,627,265$ ), individuals who are running for local office for the first time in year  $t$  ( $N=81,213$ ), and all candidates (including first-time nominees) running for local office ( $N=259,992$ ). We use data from elections held in 2007, 2011, 2015, and 2019.

Figure A.6: Criminal Involvement in Local Councils in Counterfactual Election Outcomes By List Length



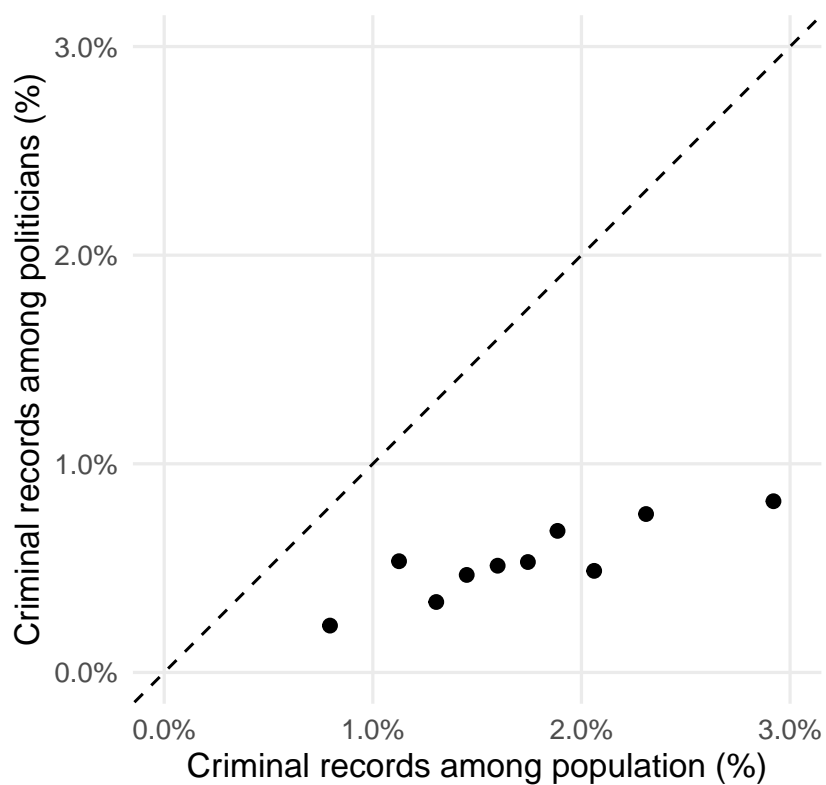
Notes: This figure displays the share of individuals who committed a crime resulting in a court-issued legal sanction within the five years preceding the election year ( $t - 5$  to  $t - 1$ ) for different counterfactual and actual election outcomes. The sample is divided into two mutually exclusive groups: candidates running for parties with a list length below the municipal median ('Below median list length'), and candidates running for parties with a list length above the municipal median ('Above median list length'). The left-most bar (red) represents council members randomly drawn from the entire eligible population residing in the municipality ("Random draw from municipality", based on 1,000 draws). The next bar to the right (brown) shows council members randomly drawn from the relevant electoral list ("Random draw from list", 1,000 draws). The subsequent bar (green) represents top candidates selected from a party list in the order they appear on the ballot, thereby mimicking a closed-list electoral system ("Top candidates selected"). Finally, the right-most bar (turquoise) depicts the actual election outcome ("Actual election outcome"). We use data from elections held in 2003, 2007, 2011, 2015, and 2019.

Figure A.7: Criminal Involvement in Local Councils in Counterfactual Election Outcomes By Population Size



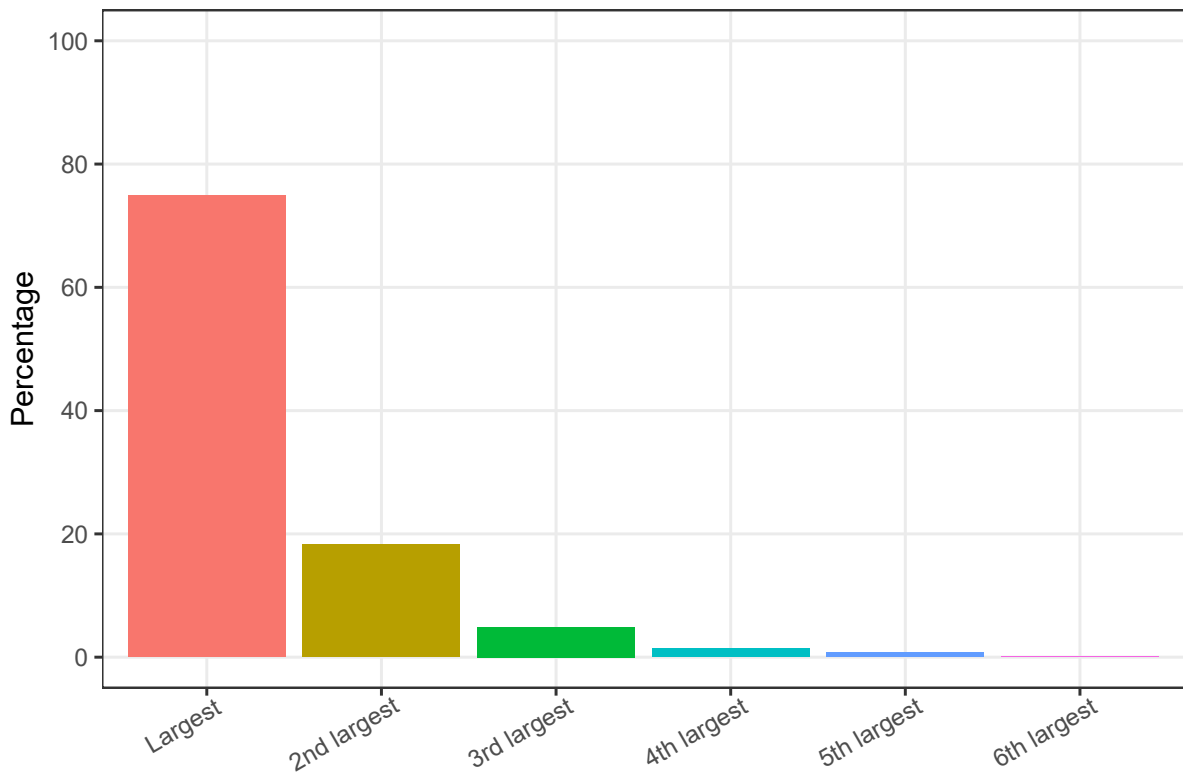
*Notes: This figure displays the share of individuals who committed a crime resulting in a court-issued legal sanction within the five years preceding the election year ( $t - 5$  to  $t - 1$ ) for different counterfactual and actual election outcomes. The sample is divided into two mutually exclusive groups: municipalities with population sizes below the median in the election year ('Below median',  $N = 1,073$  municipalities) and municipalities with population sizes above the median in the election year ('Above median',  $N = 1,072$  municipalities). The left-most bar (red) represents council members randomly drawn from the entire eligible population residing in the municipality ("Random draw from municipality", based on 1,000 draws). The next bar to the right (brown) shows council members randomly drawn from the relevant electoral list ("Random draw from list", 1,000 draws). The subsequent bar (green) represents top candidates selected from a party list in the order they appear on the ballot, thereby mimicking a closed-list electoral system ("Top candidates selected"). Finally, the right-most bar (turquoise) depicts the actual election outcome ("Actual election outcome"). We use data from elections held in 2003, 2007, 2011, 2015, and 2019.*

Figure A.8: Criminal Records Among Politicians Relative to the Population



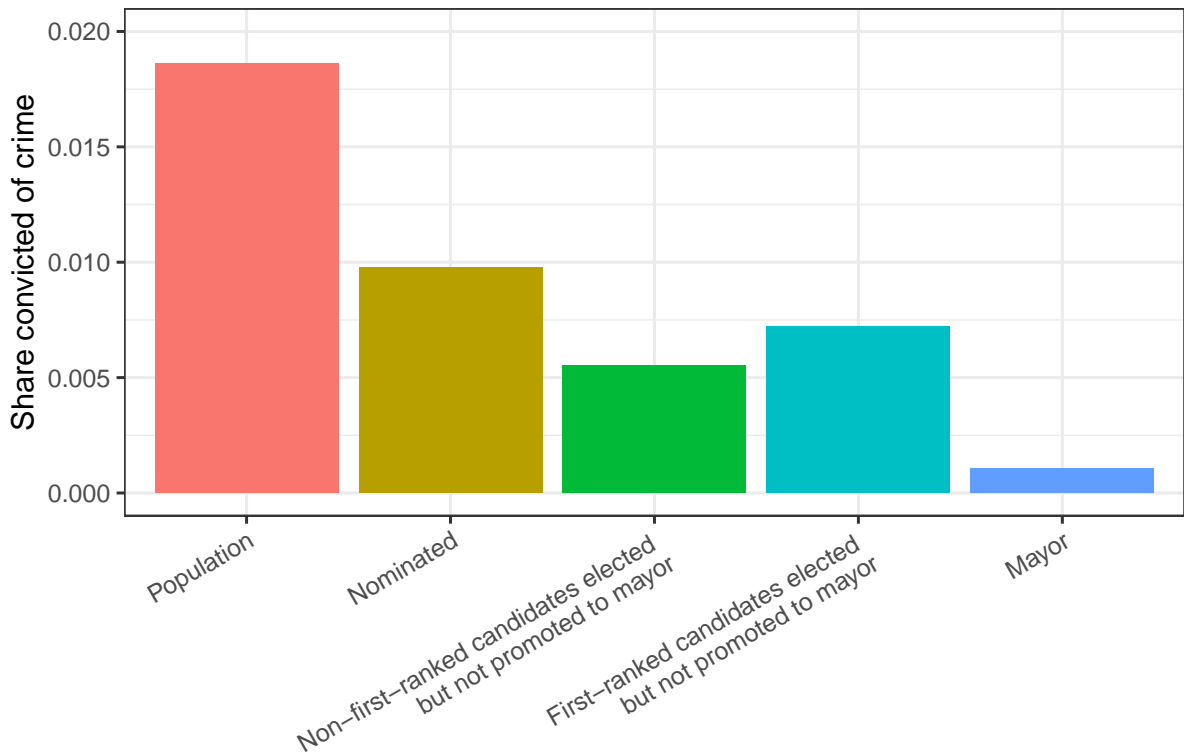
*Notes: This binned scatterplot shows the relation between the prevalence of criminal records among politicians and the general population across municipality-years. Individuals with a criminal records are those who committed a crime resulting in a court-issued legal sanction within the five years preceding the election year ( $t-5$  to  $t-1$ ). Municipality-years are sorted by the population's share with a criminal record and divided into ten equal-sized bins. Each bin includes 203 observations ( $N=2,030$ ). The dashed 45-degree line indicates equal prevalence in the population and among politicians.*

Figure A.9: Lists With Mayor by Local Party Size



*Notes: This figure shows the percentage of mayors coming from the largest party, second largest party, third largest party, and so on, based on party vote shares in local council elections from 2003 to 2019. The figure is constructed using data from Fiva, Sørensen and Vølle (2024).*

Figure A.10: Criminal Involvement of Politicians and Citizens



*Notes: This figure displays the share of individuals who committed any type of crime resulting in a court-issued legal sanction within the five years preceding the election year ( $t - 5$  to  $t - 1$ ). The population is divided into five mutually exclusive categories: individuals not running for local office in year  $t$  ('population';  $N=17,627,265$ ), candidates running for local office in year  $t$  that are not elected ('nominated';  $N=212,207$ ), non-first-ranked candidates who were elected to local office in year  $t$  and did not serve as mayors ('elected';  $N=36,690$ ), first-ranked candidates who were elected to council and were not promoted to mayor ( $N=9,167$ ), and those elected to local office in year  $t$  who were appointed mayors ('mayor';  $N=1,918$ ). We use data from elections held in 2003, 2007, 2011, 2015, and 2019.*

Table A.1: Criminal Convictions Among First-Time Nominees and the General Population, by Type of Crime

	Drug (1)	Economic (2)	Violence (3)	Traffic (4)	Other (5)
<i>Variables</i>					
First-time nominee = 1	-0.0035*** (0.0002)	-0.0015*** (0.0002)	-0.0025*** (0.0002)	-0.0003 (0.0002)	-0.0004*** (0.0002)
<i>Fixed-effects</i>					
Year	Yes	Yes	Yes	Yes	Yes
Age	Yes	Yes	Yes	Yes	Yes
Gender	Yes	Yes	Yes	Yes	Yes
Working status	Yes	Yes	Yes	Yes	Yes
Income decile	Yes	Yes	Yes	Yes	Yes
Municipality	Yes	Yes	Yes	Yes	Yes
<i>Fit statistics</i>					
Observations	14,453,044	14,453,044	14,453,044	14,453,044	14,453,044
R <sup>2</sup>	0.01500	0.00890	0.01047	0.00430	0.00301
Mean dep. var.	0.00780	0.00439	0.00445	0.00271	0.00138

*Notes:* This table displays the regression results from Equation 1, comparing criminal involvement between first-time nominees ( $N = 81,213$ ) and the general population ( $N = 14,372,180$ ). Criminal involvement is defined as having committed a crime resulting in a court-issued legal sanction within the five years preceding the election year ( $t - 5$  to  $t - 1$ ). Criminal activities are broken down into five mutually exclusive categories. Standard errors are clustered at the municipality level. Full model results are reported in Appendix Table G.4. Significance levels: \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

Table A.2: Comparison of Criminal Background of Top-Ranked and Lower-Ranked Candidates

	Drug (1)	Economic (2)	Violence (3)	Traffic (4)	Other (5)
<i>Variables</i>					
Rank = 1	-0.0020*** (0.0003)	-0.0005 (0.0004)	-0.0002 (0.0004)	-0.0009** (0.0004)	0.0000 (0.0003)
Rank = 2	-0.0005 (0.0005)	-0.0006 (0.0004)	-0.0012*** (0.0002)	-0.0009** (0.0004)	-0.0003 (0.0002)
Rank = 3	-0.0010* (0.0005)	-0.0005 (0.0004)	-0.0002 (0.0004)	-0.0010** (0.0004)	0.0003 (0.0003)
Rank = 4	-0.0006 (0.0005)	-0.0006 (0.0004)	-0.0011*** (0.0003)	-0.0002 (0.0004)	0.0005 (0.0004)
Rank = 5	-0.0006 (0.0005)	-0.0004 (0.0005)	0.0008 (0.0005)	-0.0004 (0.0005)	-0.0005** (0.0003)
Rank = 6	-0.0002 (0.0005)	0.0003 (0.0005)	-0.0009*** (0.0003)	0.0000 (0.0005)	0.0000 (0.0003)
Rank = 7	-0.0011** (0.0005)	-0.0003 (0.0005)	-0.0005 (0.0004)	0.0003 (0.0005)	0.0007* (0.0004)
Rank = 8	-0.0007 (0.0005)	-0.0005 (0.0004)	0.0005 (0.0005)	-0.0005 (0.0004)	0.0004 (0.0004)
Rank = 9	-0.0001 (0.0005)	-0.0012*** (0.0004)	-0.0007* (0.0003)	-0.0004 (0.0005)	-0.0001 (0.0003)
<i>Fixed-effects</i>					
Age	Yes	Yes	Yes	Yes	Yes
Gender	Yes	Yes	Yes	Yes	Yes
Working status	Yes	Yes	Yes	Yes	Yes
Income decile	Yes	Yes	Yes	Yes	Yes
List-year	Yes	Yes	Yes	Yes	Yes
<i>Fit statistics</i>					
Observations	259,966	259,966	259,966	259,966	259,966
R <sup>2</sup>	0.06891	0.05620	0.06625	0.05640	0.06184
Mean dep. var.	0.00283	0.00212	0.00145	0.00205	0.00097

*Notes:* This table displays the regression results from Equation 2, comparing criminal involvement across candidates of varying ranks. Criminal involvement is defined as having committed a crime resulting in a court-issued legal sanction within the five years preceding the election year ( $t - 5$  to  $t - 1$ ). Criminal activities are broken down into five mutually exclusive categories. We use candidates ranked 10 and above ( $N = 152,085$ ) as the reference group. Each estimate represents the difference in the proportion of candidates with a criminal record between those in the 10+ category and those ranked 1st, 2nd, 3rd, 4th, and so on. Standard errors are clustered at the municipality level. Full model results are reported in Appendix Table G.5. Significance levels: \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

Table A.3: Rank Improvements After Personal Votes by Crime Type

	(1)	(2)	(3)	(4)	(5)
<i>Variables</i>					
Drug	-0.0738*** (0.0193)	-0.0755*** (0.0192)	-0.0929*** (0.0192)	-0.0646*** (0.0188)	-0.0859*** (0.0194)
Economic	-0.0958*** (0.0229)	-0.1052*** (0.0230)	-0.1177*** (0.0228)	-0.0935*** (0.0230)	-0.0961*** (0.0237)
Violence	-0.0373 (0.0250)	-0.0403 (0.0249)	-0.0618** (0.0249)	-0.0449* (0.0246)	-0.0734*** (0.0254)
Traffic	-0.0240 (0.0232)	-0.0262 (0.0233)	-0.0482** (0.0230)	-0.0458** (0.0227)	-0.0527** (0.0228)
Other	-0.0005 (0.0305)	0.0000 (0.0305)	-0.0168 (0.0306)	-0.0058 (0.0308)	-0.0122 (0.0316)
Initial rank	0.0038*** (0.0003)	0.0040*** (0.0003)	0.0040*** (0.0003)	0.0040*** (0.0004)	0.0096*** (0.0005)
<i>Fixed-effects</i>					
Year	Yes	Yes	Yes	Yes	
Age		Yes	Yes	Yes	Yes
Gender			Yes	Yes	Yes
Working status				Yes	Yes
Income decile				Yes	Yes
List-year					Yes
<i>Fit statistics</i>					
Observations	247,853	247,853	247,853	247,851	247,851
R <sup>2</sup>	0.00740	0.00982	0.01419	0.02525	0.09456
Mean dep. var.	0.56823	0.56823	0.56823	0.56823	0.56823

*Notes:* This table displays the regression results from Equation 3, analyzing the share of candidates improving (or maintaining) their rank due to personal votes between criminal and non-criminal politicians. Criminal involvement is defined as having committed a crime resulting in a court-issued legal sanction within the five years preceding the election year ( $t - 5$  to  $t - 1$ ). We split the sample into two mutually exclusive groups: 1) Candidates who were convicted of having committed a crime ( $N = 2,202$ ), and 2) candidates who were not ( $N = 245,651$ ). Criminal activities are broken down into five mutually exclusive categories. Each estimate represents the difference in the share improving (or maintaining) the ranks due to personal votes between politicians who committed the specific type of crime. Standard errors are clustered at the municipality level. Full model results are reported in Appendix Table G.6. Significance levels: \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

## Appendix B: Overview of court-issued legal sanctions

Appendix Table B.1 reports the 25 most common crimes that resulted in court-issued legal sanctions in 2019 by subgroups of crimes. Driving under the influence (DUI) was the most common crime that resulted in a court-issued legal sanction, followed by drug-related offenses under the penal code, speeding, assault, and violence against an officer.

While modest speeding as such is considered a minor infringement in Norway, some cases are considered so serious that they end up in court. In 2019, 175,655 cases of speeding resulted in the less severe punishments issued by the police or the public prosecutor's office, highlighting how special the 1,311 cases that ended up in court were. Similarly, minor drug offenses such as possession or personal use are usually punished with a penalty charge notice, whereas more serious offenses such as distribution, import, or possession of large quantities receive punishments issued by the courts.<sup>1</sup>

Appendix Table B.2 summarizes the number of criminal incidents that have led to court-issued legal sanctions in our full sample. The data reveal that imprisonment is the predominant form of punishment, accounting for nearly 50% of all legal penalties handed down by the courts. This table also highlights the variation in sentencing across different types of crimes, providing insight into how the courts punish different offenses. For example, while prison sentences are imposed in 50% of economic crime cases, they are significantly less common in traffic-related offenses, where only 27% of the convictions result in incarceration.

Appendix Table B.3 summarizes the conviction rates for different subgroups of legal sanctions, relative to the year the crime was committed. There are two primary reasons for delays in crime recording. First, certain offenses may go undetected for several years

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<sup>1</sup>Of the 16,026 drug-related crimes in 2019, less than half resulted in a court-issued legal sanction. Of the 4,875 drug-related crimes that were punished according to the penal code of Norway, about half resulted in a court-issued legal sanction. DUI offenses constitute a violation of the Road Traffic Act (*vegtrafikkloven*) but are recorded in the register as drug related crimes. While 858 DUI-offenses resulted in less severe punishments issued by the police or the prosecutor's office in 2019, whereas 3,735 of the DUI-offenses ended up with a court-issued legal sanction. DUI penalties: Fine for blood alcohol concentration (BAC) up to 0.05%, fine with conditional/unconditional imprisonment for BAC between 0.05% and 0.12%, and fine with unconditional imprisonment for BAC over 0.12%.

Table B.1: Top 25 Most Common Offenses in the Norwegian Population (2019)

Main Crime Group	Detailed description	N
Drugs	Driving under the influence	3,735
Drugs	Drugs, the penal code	2,772
Traffic	Speeding	1,312
Violence	Assault	745
Violence	Violence against an officer	704
Violence	Bodily harm	603
Economic	Fraud	588
Economic	Aggravated fraud	471
Traffic	Other or unspecified breach of the Road Traffic Act	434
Economic	Theft	416
Violence	Threat against an officer	342
Economic	Aggravated theft	333
Other	Obstructing and opposing public authority	306
Traffic	Driving without a valid driver's license	282
Violence	Other or unspecified sexual offence	226
Violence	Rape	222
Other	Document- and ID-breach	218
Violence	Abuse in intimate/familiar relationship	210
Other	Arms, fire and explosives legislation	208
Violence	Reckless behavior and personal harassment	166
Violence	Threat	140
Other	Immigration legislation	134
Violence	Robbery	129
Economic	Receiving stolen property	124
Economic	Accounting violation	121
Sum (all crimes)		16,824

*Notes: This table is constructed from publicly available aggregate statistics from Statistics Norway (<https://www.ssb.no/statbank/table/13579/>), which report the 25 most common offenses leading to a court-issued legal sanction in 2019. These data provide a more detailed breakdown of offense types than the restricted-access administrative crime data used in our main analysis. The row "Sum (all crimes)" indicates the total sum of offenses that led to a court-issued legal sanction.*

following their occurrence, or they may only be reported by the victim at a later stage. Second, the legal process involved in resolving crimes can be protracted.<sup>2</sup> In our analysis, we exclude crimes committed in 2022, the final sample year, as the data for that year is likely incomplete.

<sup>2</sup>Bhuller, Khoury and Løken (2025) records an average span of six months from the initial charging of a defendant to the commencement of the court trial. Following this, the average duration for the entire court processing is approximately three months. Moreover, the possibility of appeals can further extend the time before a final verdict is reached.

Table B.2: Distribution of Legal Sanctions by Crime Type, 1998–2021

Sentence	Drug	Economic	Violence	Traffic	Other	N
Prison	0.458	0.501	0.611	0.268	0.309	207,845
Probation	0.430	0.299	0.197	0.313	0.231	143,297
Community punishment	0.069	0.164	0.127	0.092	0.053	46,555
Fine	0.043	0.033	0.049	0.327	0.401	43,305
Other type of reaction	0.001	0.002	0.016	0.000	0.005	2,003
	1.000	1.000	1.000	1.000	1.000	443,005

*Notes: This table summarizes the distribution of court-issued legal sanctions for Norwegian offenses committed between 1998 and 2021. Each cell reports the share of offenses within a given crime category (Drug, Economic, Violence, Traffic, Other) that resulted in a specific type of legal reaction. For example, the value 0.458 in the “Drug–Prison” cell means that 45.8% of drug offenses in our data resulted in a prison sentence. The unit of observation is an offense, and individuals may appear multiple times if they committed multiple crimes. The column N reports the total number of offenses receiving each reaction type.*

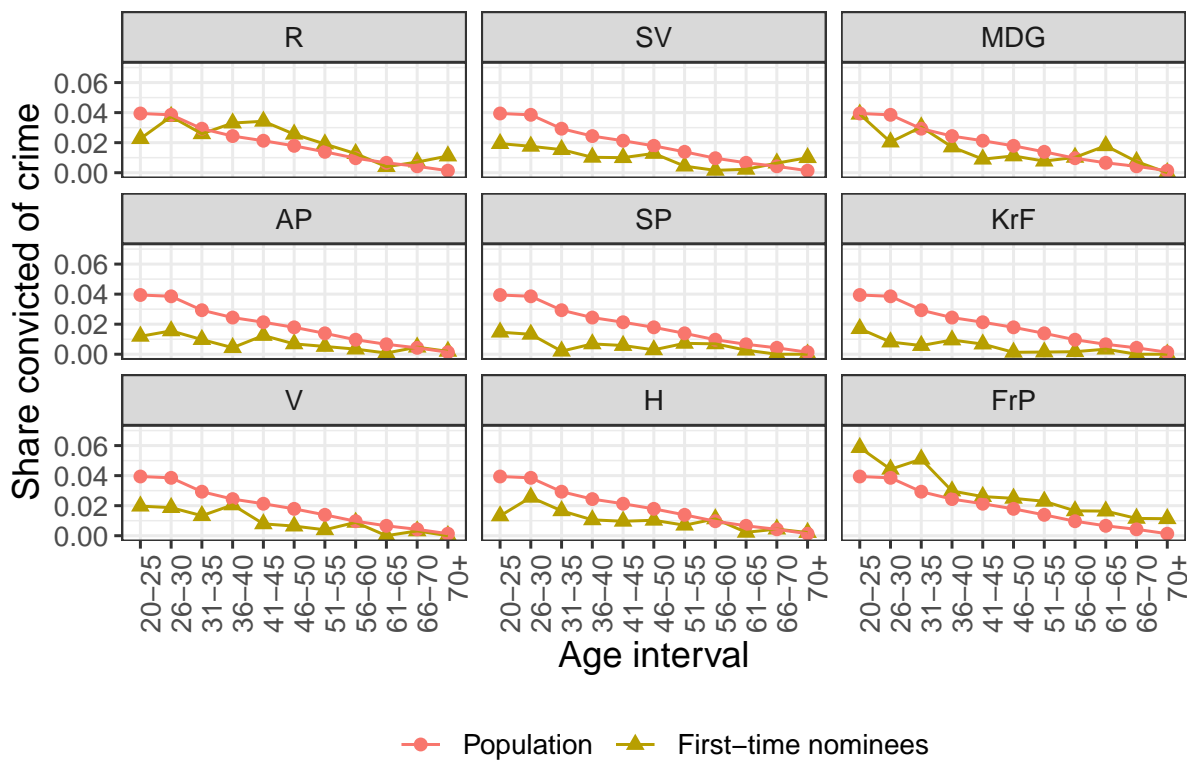
Table B.3: Timing of Legal Sanctions Relative to the Offense Year

Type of penalty	t=0	t+1	t+2	t+3	t+4	t+5
Prison	0.27	0.77	0.93	0.97	0.99	0.99
Probation	0.28	0.79	0.93	0.98	0.99	0.99
Community punishment	0.23	0.73	0.92	0.98	0.99	1.00
Other type of reaction	0.11	0.63	0.87	0.94	0.97	0.98
Penalty by judgment	0.28	0.80	0.95	0.99	1.00	1.00

*Notes: This table reports the distribution of time lags between when an offense was committed and when the legal sanction was issued. For each type of sanction, the table shows the share of cases where the sanction was issued in the same year as the offense ( $t = 0$ ), in the following year ( $t + 1$ ), and so on up to five years later ( $t + 5$ ).*

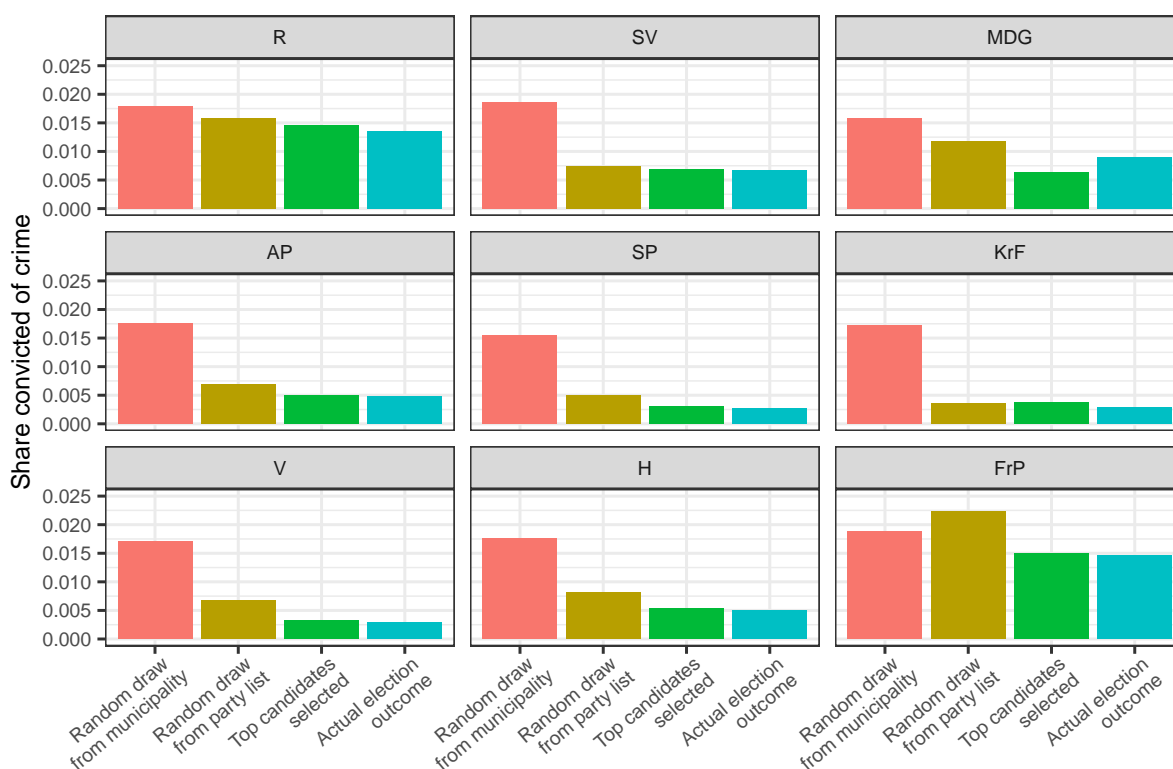
## Appendix C: Subgroup analyses by political party

Figure C.1: Conviction Rates of First-time Nominees and Citizens by Party



Notes: This figure displays the share of individuals who committed a crime resulting in a court-issued legal sanction within the five years preceding the election year ( $t-5$  to  $t-1$ ). We split the sample into two mutually exclusive groups: individuals not running for local office in year  $t$  ( $N=14,372,180$ ), and individuals who are running for local office for the first time in year  $t$  ( $N=81,213$ ). Additionally, the analysis segments the sample by political affiliation, allowing for a comparison between individuals from each party and the general population. We use data from elections held in 2007, 2011, 2015, and 2019.

Figure C.2: Criminal Involvement in Local Councils in Counterfactual Election Outcomes By Party



Notes: This figure displays the share of individuals who committed a crime resulting in a court-issued legal sanction within the five years preceding the election year ( $t - 5$  to  $t - 1$ ) for different counterfactual and actual election outcomes. The sample is segmented by political party, arranged from “left” to “right” along the political spectrum: the Red Party (R; established in 2008), Socialist Left Party (SV; 1961), Green Party (MdG; 1988), Labor Party (AP; 1887), Centre Party (SP; 1920), Christian Democratic Party (KrF; 1933), Liberal Party (V; 1884), Conservative Party (H; 1884), and Progress Party (FrP; 1973). The left-most bar (red) represents council members randomly drawn from the entire eligible population residing in the municipality (“Random draw from municipality”, based on 1,000 draws). The next bar to the right (brown) shows council members randomly drawn from the relevant electoral list (“Random draw from list”, 1,000 draws). The subsequent bar (green) represents top candidates selected from a party list in the order they appear on the ballot, thereby mimicking a closed-list electoral system (“Top candidates selected”). Finally, the right-most bar (turquoise) depicts the actual election outcome (“Actual election outcome”).

Table C.1: Initial Nomination: Comparison Between First-Time Nominees and the General Population by Party

	All parties (1)	R (2)	SV (3)	MDG (4)	AP (5)	SP (6)	KrF (7)	V (8)	H (9)	FrP (10)
<i>Variables</i>										
First-time nominee = 1	-0.0067*** (0.0004)	0.0007 (0.0038)	-0.0063*** (0.0013)	-0.0051** (0.0021)	-0.0075*** (0.0007)	-0.0125*** (0.0008)	-0.0114*** (0.0009)	-0.0086*** (0.0012)	-0.0063*** (0.0009)	0.0036** (0.0018)
<i>Fixed-effects</i>										
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Age	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Gender	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Working status	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Income decile	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Fit statistics</i>										
Observations	14,453,044	14,374,884	14,378,756	14,376,051	14,388,651	14,384,181	14,378,786	14,380,034	14,385,004	14,381,353
R <sup>2</sup>	0.03029	0.03038	0.03038	0.03038	0.03037	0.03037	0.03038	0.03038	0.03037	0.03037
Mean dep. var.	0.01811	0.01814	0.01814	0.01814	0.01813	0.01813	0.01813	0.01814	0.01813	0.01815

*Notes:* This table displays the regression results from Equation 1, comparing criminal involvement between first-time nominees ( $N = 81,213$ ) and the general population ( $N = 14,372,180$ ). The sample is segmented by political party, arranged from "left" to "right" along the political spectrum: the Red Party (R; established in 2008), Socialist Left Party (SV; 1961), Green Party (MdG; 1988), Labor Party (AP; 1887), Centre Party (SP; 1920), Christian Democratic Party (KrF; 1933), Liberal Party (V; 1884), Conservative Party (H; 1884), and Progress Party (FrP; 1973). Criminal involvement is defined as having committed a crime resulting in a court-issued legal sanction within the five years preceding the election year ( $t - 5$  to  $t - 1$ ). Standard errors are clustered at the municipality-level. Significance levels: \*\*\*, 0.01, \*\*, 0.05, \*, 0.1

Table C.2: Best at the Top: Comparison Between Top-Ranked and Lower-Ranked Candidates by Party

	All parties (1)	R (2)	SV (3)	MDG (4)	AP (5)	SP (6)	KrF (7)	V (8)	H (9)	FrP (10)
<i>Variables</i>										
Rank = 1	-0.0033*** (0.0008)	-0.0007 (0.0071)	-0.0004 (0.0021)	-0.0063 (0.0060)	-0.0042** (0.0017)	-0.0042*** (0.0016)	0.0003 (0.0017)	-0.0027 (0.0021)	-0.0039** (0.0018)	-0.0077** (0.0033)
Rank = 2	-0.0036*** (0.0008)	-0.0022 (0.0065)	-0.0018 (0.0019)	-0.0040 (0.0054)	-0.0048*** (0.0012)	-0.0034*** (0.0013)	-0.0019** (0.0010)	-0.0040** (0.0018)	-0.0009 (0.0021)	-0.0086** (0.0034)
Rank = 3	-0.0022** (0.0010)	-0.0060 (0.0066)	0.0058* (0.0031)	-0.0062 (0.0058)	-0.0025 (0.0023)	-0.0030* (0.0016)	0.0010 (0.0020)	0.0014 (0.0027)	-0.0059*** (0.0018)	-0.0057 (0.0037)
Rank = 4	-0.0016 (0.0010)	0.0023 (0.0076)	-0.0025 (0.0022)	-0.0055 (0.0057)	-0.0015 (0.0020)	-0.0021 (0.0016)	0.0027 (0.0022)	0.0024 (0.0028)	-0.0039** (0.0019)	-0.0045 (0.0037)
Rank = 5	-0.0016 (0.0010)	0.0022 (0.0068)	0.0010 (0.0026)	-0.0040 (0.0073)	-0.0034* (0.0019)	-0.0060*** (0.0012)	-0.0004 (0.0014)	-0.0015 (0.0023)	-0.0023 (0.0024)	0.0043 (0.0046)
Rank = 6	-0.0006 (0.0009)	0.0039 (0.0076)	0.0003 (0.0024)	-0.0059 (0.0061)	-0.0018 (0.0020)	-0.0033** (0.0016)	-0.0001 (0.0015)	0.0039 (0.0029)	-0.0021 (0.0024)	0.0015 (0.0044)
Rank = 7	-0.0009 (0.0010)	-0.0065 (0.0062)	-0.0009 (0.0023)	0.0016 (0.0067)	-0.0039** (0.0019)	-0.0019 (0.0017)	0.0007 (0.0016)	0.0052* (0.0031)	-0.0012 (0.0025)	0.0001 (0.0040)
Rank = 8	-0.0010 (0.0010)	-0.0003 (0.0068)	-0.0004 (0.0024)	-0.0126** (0.0049)	-0.0011 (0.0021)	-0.0012 (0.0019)	0.0025 (0.0019)	0.0021 (0.0027)	0.0007 (0.0025)	-0.0062 (0.0040)
Rank = 9	-0.0023** (0.0009)	0.0006 (0.0079)	0.0023 (0.0027)	-0.0090 (0.0062)	-0.0019 (0.0020)	-0.0017 (0.0017)	0.0001 (0.0017)	-0.0027 (0.0023)	-0.0049** (0.0020)	-0.0045 (0.0040)
<i>Fixed-effects</i>										
Age	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Gender	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Working status	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Income decile	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
List-year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Fit statistics</i>										
Observations	259,966	9,029	29,186	6,532	49,523	42,524	25,051	29,387	41,011	27,723
R <sup>2</sup>	0.07074	0.10405	0.06266	0.14257	0.04772	0.05210	0.06722	0.08132	0.05707	0.08348
Mean dep. var.	0.00903	0.00683	0.00683	0.00683	0.00683	0.00683	0.00683	0.00683	0.00683	0.00683

Notes: This table displays the regression results from Equation 2, comparing criminal involvement among candidates of varying ranks. The sample is segmented by political party, arranged from "left" to "right" along the political spectrum: the Red Party (R; established in 2008), Socialist Left Party (SV; 1961), Green Party (MdG; 1988), Labor Party (AP; 1887), Centre Party (SP; 1920), Christian Democratic Party (KrF; 1933), Liberal Party (V; 1884), Conservative Party (H; 1884), and Progress Party (FrP; 1973). In this table criminal involvement, is defined as having committed a crime resulting in a court-issued legal sanction within the five years preceding the election year ( $t-5$  to  $t-1$ ). We use candidates ranked 10 and above as the reference group. Each estimate indicates the difference in the proportion of candidates with a criminal record between the reference group and those ranked 1st, 2nd, 3rd, 4th, and so on, by party. Standard errors are clustered at the municipality level. Significance levels: \*\*\*, 0.01, \*\*, 0.05, \*, 0.1

Table C.3: Rank Improvements After Personal Votes by Crime Type

	All parties (1)	R (2)	Sv (3)	MDG (4)	AP (5)	SP (6)	KrF (7)	V (8)	H (9)	FrP (10)
<i>Variables</i>										
Crime	-0.0751*** (0.0108)	-0.0272 (0.0543)	-0.0255 (0.0339)	-0.0258 (0.0593)	-0.1084*** (0.0262)	-0.1345*** (0.0344)	-0.1463** (0.0626)	-0.0492 (0.0401)	-0.0974*** (0.0269)	-0.0636*** (0.0214)
Initial rank	0.0096*** (0.0005)	0.0078*** (0.0008)	0.0099*** (0.0007)	0.0072*** (0.0013)	0.0094*** (0.0004)	0.0105*** (0.0004)	0.0121*** (0.0009)	0.0095*** (0.0007)	0.0089*** (0.0006)	0.0093*** (0.0004)
<i>Fixed-effects</i>										
Age	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Gender	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Working status	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Income decile	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
List-year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Fit statistics</i>										
Observations	247,851	8,059	28,169	5,913	47,698	40,769	23,745	27,835	39,292	26,371
R <sup>2</sup>	0.09453	0.15655	0.09572	0.18011	0.08675	0.08933	0.11729	0.09539	0.09268	0.10346
Mean dep. var.	0.56823	0.64214	0.56111	0.66582	0.55063	0.56803	0.58846	0.55707	0.55411	0.57814

Notes: This table displays the regression results from Equation 3, analyzing the share of candidates improving (or maintaining) their rank due to personal votes between criminal and non-criminal politicians. The sample is segmented by political party, arranged from "left" to "right" along the political spectrum: the Red Party (R; established in 2008), Socialist Left Party (SV; 1961), Green Party (MdG; 1988), Labor Party (AP; 1887), Centre Party (SP; 1920), Christian Democratic Party (KrF; 1933), Liberal Party (V; 1884), Conservative Party (H; 1884), and Progress Party (FrP; 1973). In this table, criminal involvement is defined as having committed a crime resulting in a court-issued legal sanction within the five years preceding the election year ( $t - 5$  to  $t - 1$ ). In Column (1) we split the sample into two mutually exclusive groups: 1) Candidates who were convicted of having committed a crime ( $N = 2,202$ , and 2) candidates who were not ( $N = 245,651$ ). Columns (2) through (10) perform the same analysis, segmented by political party. Each estimate represents the difference in the share improving (or maintaining) the ranks due to personal votes between convicted and non-convicted politicians. Standard errors are clustered at the municipality level. Significance levels: \*\*\*, 0.01, \*\*, 0.05, \*, 0.1

## Appendix D: Association between criminal background and observable behaviors in our data

This appendix examines whether a criminal background in Norway is associated with observable behaviors in our data that may be relevant for holding public office. Norway’s robust legal system and high institutional integrity mean that criminal convictions are unlikely to result from politically motivated prosecution or selective enforcement. In this context, a conviction can be interpreted as a credible indicator of actual misconduct. To assess potential differences between individuals with and without prior convictions, we examine three outcomes: (i) recidivism, (ii) compliance with tax regulations (proxied by penalty taxes),<sup>3</sup> and (iii) making charitable donations.

In Figure D.1, we divide the entire Norwegian population in our sample as of 2003 into two mutually exclusive: those convicted of a crime between 1998-2003, and those with no criminal record in that period.

The left-most panel of Figure D.1 shows that individuals with a criminal background were much more likely to commit a crime between 2004 - 2022 when compared to their non-criminal counterparts. This underscores that, despite the Norwegian justice system’s strong emphasis on rehabilitation, recidivism remains prevalent.

The middle panel of Figure D.1 shows that individuals with prior convictions were also more likely to receive penalty taxes between 2004-2015. These results indicate that past criminal behavior is associated with a higher likelihood of non-compliant or opportunistic financial reporting, reinforcing concerns about candidate integrity.<sup>4</sup>

The rightmost panel of Figure D.1 shows whether individuals made any charitable donations.<sup>5</sup> We measure whether individuals convicted between 1998–2003 made at least

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<sup>3</sup>The penalty tax is imposed on individuals who submit incorrect or incomplete information to tax authorities, leading to financial gain. Exceptions exist for honest mistakes due to illness, inexperience, or other excusable circumstances.

<sup>4</sup>Appendix Table D.1 confirms that these results are robust when using a stricter penalty tax measure (*skjerpet tilleggs-skatt*), which applies in cases of grossly negligent or particularly severe misreporting.

<sup>5</sup>See Sørensen (2024) for further analysis of the relationship between charitable giving and political candidacy in Norway.

one charitable donation between 2004–2022. The results show that those with prior convictions were less likely to donate during this period, indicating a difference in this form of voluntary financial contribution.<sup>6</sup>

Beyond self-interest, some individuals with a criminal background may enter politics with the intention of advocating for policy change. Given Norway’s strong emphasis on rehabilitation (Bhuller et al., 2020), this motivation seems plausible. However, our findings indicate that criminal activity persists in our sample, even among elected politicians (see Appendix Figure D.2). This raises concerns about the selection of candidates with a history of criminal involvement into office and suggests that, rather than signaling successful reintegration, a criminal record may reflect deeper patterns of behavior relevant to political performance.

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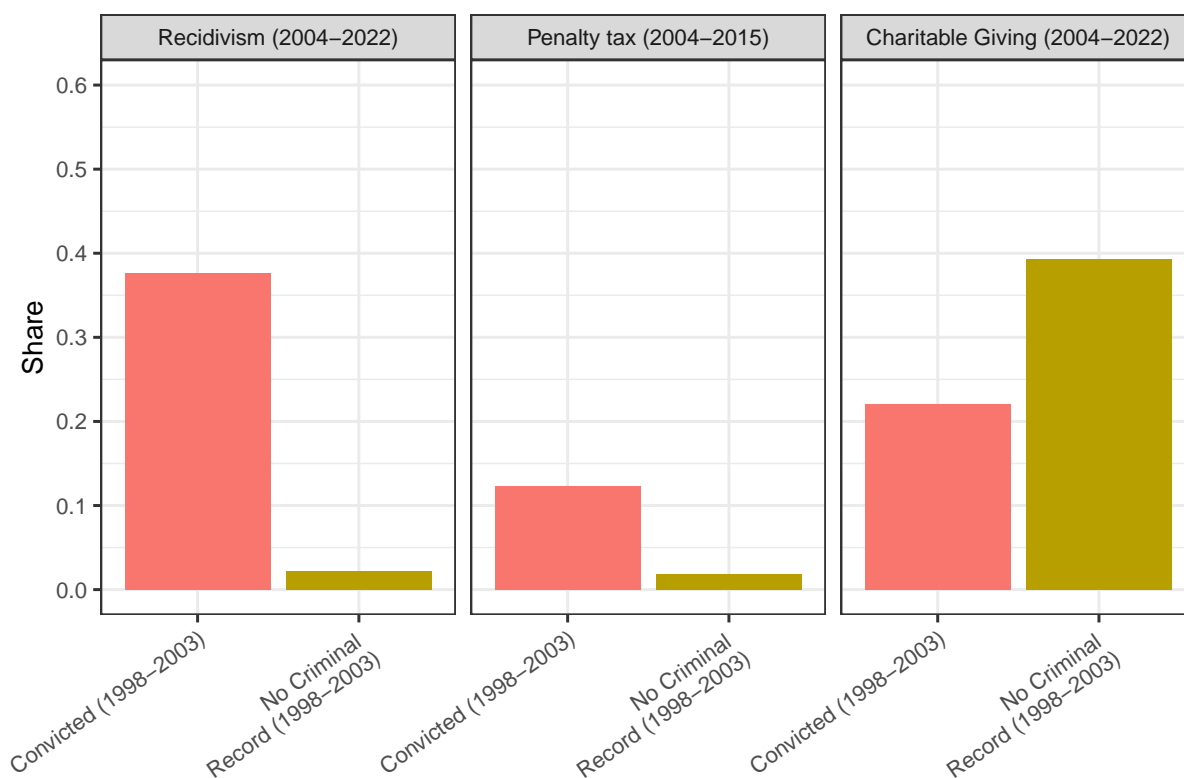
<sup>6</sup>Appendix Table D.1 confirms that all observed differences in subsequent criminal behavior, receipt of tax penalties for inaccurate or incomplete reporting, and charitable donations are statistically significant and robust to the inclusion of controls. The same pattern holds for elected politicians, as shown in Appendix Figure D.2.

Table D.1: Correlation Table Past Crime and Future Outcomes for the Norwegian Population

	Crime (future) (1)	(2)	Penalty tax (3)	(4)	Charity (5)	(6)	Penalty tax (strict) (7)	(8)
<i>Variables</i>								
Convicted of crime (1998-2003)	0.3542***	0.3219***	0.1041***	0.0850***	-0.1729***	-0.1096***	0.0002***	0.0002***
	(0.0018)	(0.0017)	(0.0012)	(0.0012)	(0.0015)	(0.0016)	(0.0001)	(0.0001)
<i>Fixed-effects</i>								
Age		Yes		Yes		Yes		Yes
Gender		Yes		Yes		Yes		Yes
Working status		Yes		Yes		Yes		Yes
Income decile		Yes		Yes		Yes		Yes
Municipality		Yes		Yes		Yes		Yes
<i>Fit statistics</i>								
Observations	3,255,085	3,254,989	3,255,085	3,254,989	3,255,085	3,254,989	3,255,085	3,254,989
R <sup>2</sup>	0.09767	0.11801	0.01217	0.02726	0.00288	0.06047	0.00003	0.00015
Mean dep. var.	0.03034	0.03034	0.02085	0.02084	0.38898	0.38898	0.00003	0.00003

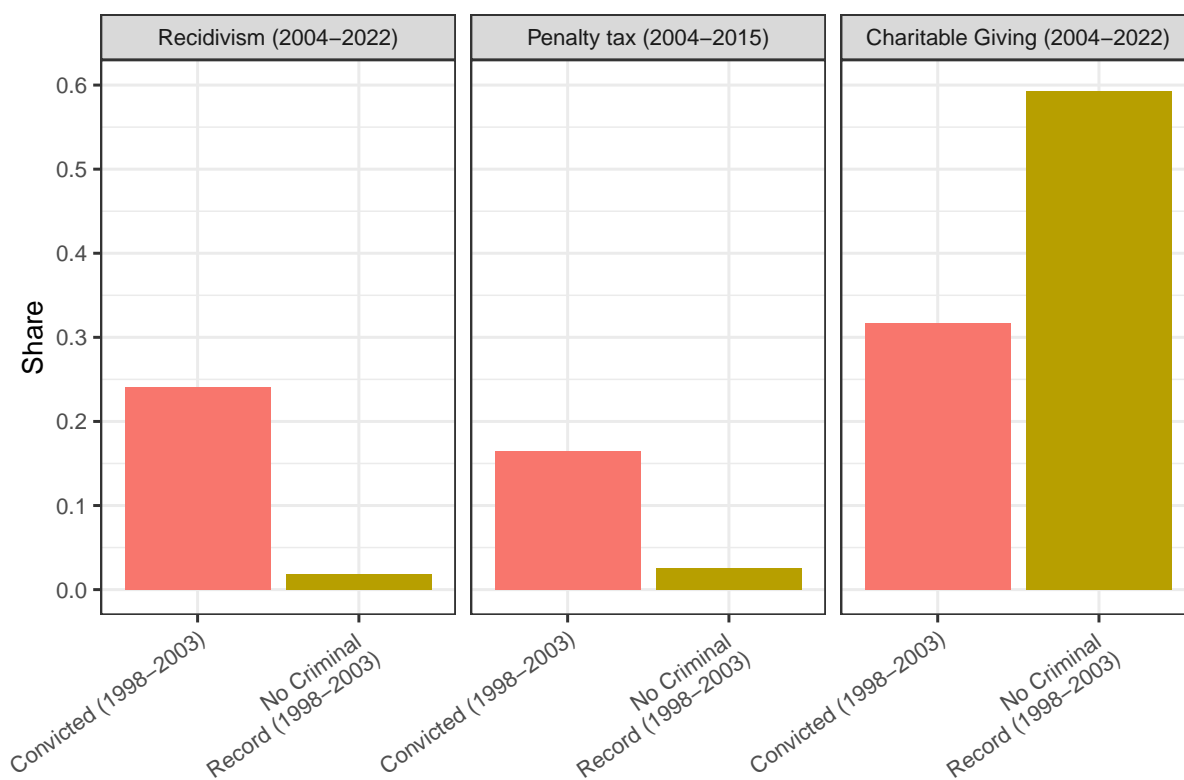
*Notes: his table reports estimated associations between committing at least one crime in 1998-2003 and four outcomes measured in later years: (i) conviction of a new crime (2004-2022), (ii) receiving a penalty tax for inaccurate or incomplete tax reporting (2004-2015), (iii) donating to a charitable organization (2004-2022), and (iv) receiving a strict penalty tax (2004-2015). Columns (1)-(2) report results for future crime, (3)-(4) for penalty tax, (5)-(6) for charitable donations, and (7)-(8) for strict penalty tax. The sample consists of individuals (excluding politicians) who committed at least one crime during 1998-2003 (N = 76,343) and those who did not (N = 3,178,742). Standard errors are clustered at the individual level. Significance levels: \*\*\*: 0.01, \*\*: 0.05, \*: 0.1*

Figure D.1: Past Criminal Behavior and Future Outcomes



*Notes: This figure presents associations between past criminal behavior (1998-2003) and various outcomes in subsequent years. The sample includes the non-politician population, categorized into those who were convicted of at least one crime during 1998-2003 ( $N = 76,343$ ) and those who were not ( $N = 3,178,742$ ). The left-most panel displays the share of individuals who were convicted of at least one crime between 2004-2022. The middle panel shows the share of individuals penalized for providing inaccurate or incomplete information to tax authorities at least once between 2004-2015. The right-most panel presents the share of individuals who donated to a charity at least once between 2004-2022.*

Figure D.2: Past Criminal Behavior and Future Outcomes for Elected Politicians



*Notes: This figure presents associations between past criminal behavior (1998-2003) and various outcomes in subsequent years. The sample includes the all elected politicians in the 2003 election, categorized into those who were convicted of at least one crime during 1998-2003 ( $N = 79$ ) and those who were not ( $N = 9,772$ ). The left-most panel displays the share of individuals who were convicted of at least one crime between 2004-2022. The middle panel shows the share of individuals penalized for providing inaccurate or incomplete information to tax authorities at least once between 2004-2015. The right-most panel presents the share of individuals who donated to a charity at least once between 2004-2022.*

## Appendix E: Post-election dynamics

Individuals with criminal backgrounds who seek public office might exploit their positions for personal gain, potentially leading to higher levels of criminal behavior once elected. To study post-election dynamics, we implement an event study comparing individuals elected to local office for the first time in event year  $e = 0$  to those nominated but not elected in the same event year. We rely on the following specification:

$$Crime_{ie} = \sum_{j \neq -1} \iota_j \cdot \mathbf{I}[j = e] + \sum_{j \neq -1} \kappa_j \cdot \mathbf{I}[j = e] \cdot \mathbf{I}[elected_{ie}] + \lambda \cdot \mathbf{I}[elected_{ie}] + \sum_l \rho_l \cdot \mathbf{I}[l = list_i] + \epsilon_{ie} \quad (5)$$

In Equation (5), the parameters of interest,  $\kappa_j$ , capture the differences in crime propensity between treatment and control relative to the differences in  $e = -1$ . We use an event window spanning from  $e = -5$  to  $e = 5$ . Our baseline empirical specification also includes local party list fixed effects ( $\sum_l \rho_l \cdot \mathbf{I}[l = list_i]$ ), which means that all inference is drawn from candidates running for the same list in  $e = 0$ .

We also conduct a similar event study comparing candidates promoted to mayor with other mayoral candidates, namely, first-ranked candidates who were not ultimately promoted.<sup>7</sup> Since each local party list nominates only one first-ranked candidate, we substitute local party list fixed effects with municipality fixed effects, meaning that inference is drawn from different mayoral candidates running for office within the same municipality.

Figure E.1 displays standard event study plots, where the fraction who committed a crime at event time  $t$  is split between a treated group (brown triangles) and a control group (red circles). In the left-hand panel, the treated group consist of individuals elected to local office for the first time in year  $t = 0$ , while the control group consist of individuals who were nominated but not elected in  $t = 0$  or any previous year.<sup>8</sup> In the right-hand panel, the treatment group consist of individuals who were elected to mayor for the first

<sup>7</sup>In our sample, 98% of mayors are first-ranked on their party list.

<sup>8</sup>We are excluding those who get elected mayor.

time in  $t = 0$ , while the control group consist of individuals who were first-ranked but not elected mayor in year  $t = 0$  or in any previous year.

Both event plots show no evidence that winning office impacts criminal involvement. For elected mayors ( $N=780$ ), the treated line lies exactly at zero, indicating that no individuals engaged in any criminal activity in the years surrounding the election. In both event study analyses, the post-treatment estimates are quantitatively small and not statistically different from zero. These findings contrast with an event study of the economic returns to holding public office, documented in Appendix Figure E.2.<sup>9</sup> Thus, the null findings reported in Figure E.1 are unlikely to be explained by insufficient statistical power but rather reflect that criminal tendencies appear to be inherent characteristics, unaffected by electoral outcomes in our context.

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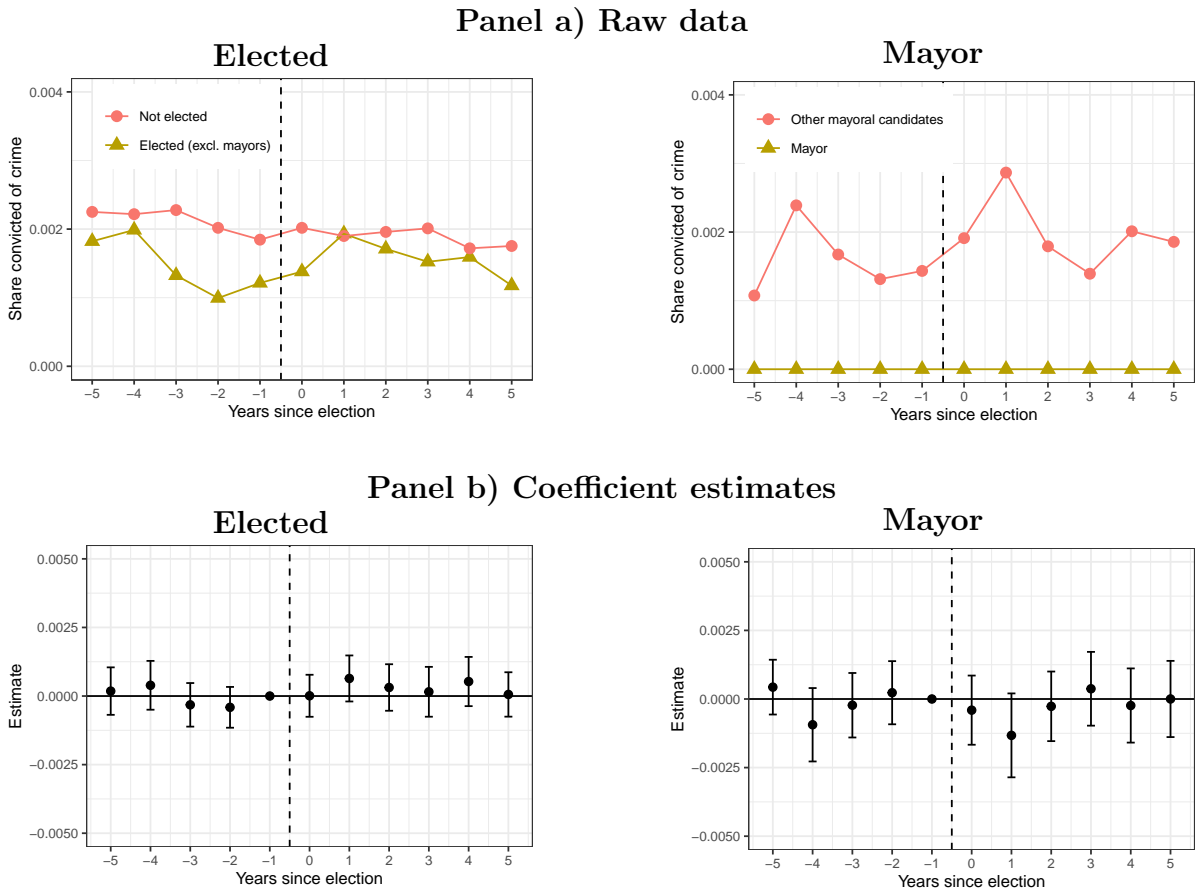
<sup>9</sup>Our analysis shows that being elected as a local councilor increases income by about NOK 40,000 (USD 4,000) in the year following the election, whereas being elected as mayor raises income by approximately NOK 160,000 (USD 16,000) over the same period. These findings align with Cirone, Cox and Fiva (2021), who also report significant economic returns for elected mayors using an event study design (comparing mayors and mayoral candidates in 2011), and smaller, statistically insignificant returns for elected local councilors based on an RD design for candidates running for office between 2003 and 2011.

Table E.1: Event Study Regression Table

	Councillor		Mayor	
	(1)	(2)	(3)	(4)
<i>Variables</i>				
Treated $\times$ t = -5	0.0002 (0.0004)	0.0002 (0.0004)	0.0004 (0.0005)	0.0004 (0.0005)
Treated $\times$ t = -4	0.0004 (0.0005)	0.0004 (0.0005)	-0.0010 (0.0007)	-0.0009 (0.0007)
Treated $\times$ t = -3	-0.0003 (0.0004)	-0.0003 (0.0004)	-0.0002 (0.0006)	-0.0002 (0.0006)
Treated $\times$ t = -2	-0.0004 (0.0004)	-0.0004 (0.0004)	0.0001 (0.0006)	0.0002 (0.0006)
Treated $\times$ t = 0	0.0000 (0.0004)	0.0000 (0.0004)	-0.0005 (0.0006)	-0.0004 (0.0006)
Treated $\times$ t = 1	0.0007 (0.0004)	0.0006 (0.0004)	-0.0014* (0.0007)	-0.0013* (0.0008)
Treated $\times$ t = 2	0.0004 (0.0004)	0.0003 (0.0004)	-0.0004 (0.0006)	-0.0003 (0.0006)
Treated $\times$ t = 3	0.0002 (0.0005)	0.0002 (0.0005)	0.0000 (0.0007)	0.0004 (0.0007)
Treated $\times$ t = 4	0.0005 (0.0005)	0.0005 (0.0005)	-0.0006 (0.0007)	-0.0002 (0.0007)
Treated $\times$ t = 5	0.0001 (0.0004)	0.0001 (0.0004)	-0.0004 (0.0007)	0.0000 (0.0007)
<i>Fixed-effects</i>				
Year	Yes		Yes	
Age		Yes		Yes
Gender		Yes		Yes
List-year		Yes		
Municipality-Year				Yes
<i>Fit statistics</i>				
Observations	1,743,800	1,743,800	94,436	94,436
R <sup>2</sup>	0.00006	0.01442	0.00031	0.02707

*Notes:* This table reports the event-study estimates from Equation 5. Criminal involvement is defined as having committed an offense resulting in a court-issued legal sanction within the five years preceding the election year ( $t - 5$  to  $t - 1$ ). Columns (1)–(2) report the estimated effect of being elected to local office for the first time. The treatment group consists of individuals elected for the first time in election year  $t = 0$  ( $N = 18,110$ ), while the control group consists of individuals who were nominated in  $t = 0$  but had never been elected before ( $N = 150,614$ ). Columns (3)–(4) report the estimated effect of becoming mayor for the first time. Here, the treatment group consists of individuals appointed mayor for the first time in  $t = 0$  ( $N = 780$ ), while the control group consists of first-ranked candidates who were not appointed mayor in  $t = 0$  and had never previously served as mayor ( $N = 8,371$ ). The omitted category is the event year  $t = -1$ . Standard errors are clustered at the municipality level. Full model results are reported in Appendix Table G.7. Significance levels: \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

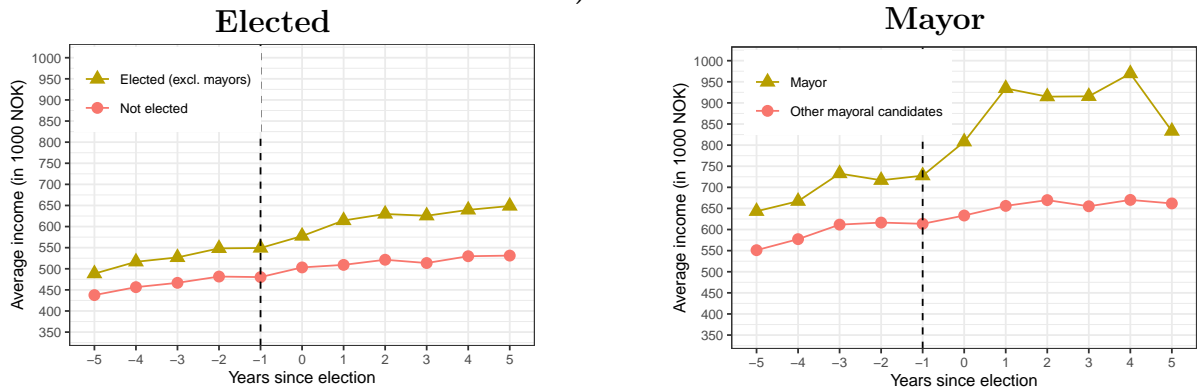
Figure E.1: The Effect of Winning Office on Criminal Convictions



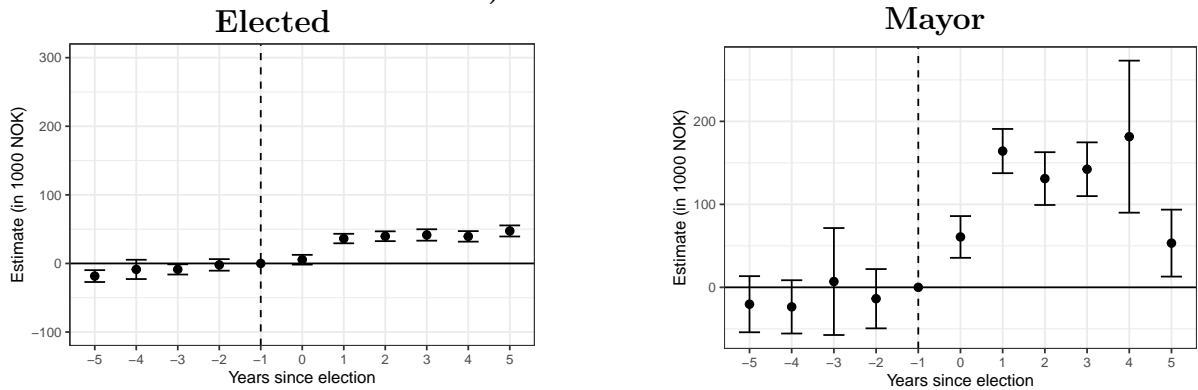
*Note:* Panel a) displays the fraction of treated (brown triangles) and untreated (red circles) for whom the outcome variable is equal to one at each event time  $t$ . Panel b) contains the estimates of the parameters of interest,  $\kappa_j$ , from Equation 5, along with the 95% confidence intervals. In the two left panels, the treatment group consist of individuals who were elected to local office for the first time (excluding those who were appointed mayor) in election year  $t = 0$  ( $N=18,110$ ), while the control group consist of individuals who were nominated in  $t = 0$  but not elected in  $t = 0$  or in any previous year ( $N=150,614$ ). In the two right panels, the treatment group consist of individuals who were appointed mayor for the first time in  $t = 0$  ( $N=780$ ), while the control group consist of individuals who were first-ranked but not appointed mayor in year  $t = 0$  or in any previous year ( $N=8,371$ ). The reference category is event period  $t = -1$ . Standard errors are clustered at the municipality level. We use data from elections held in 2003, 2007, 2011, 2015, and 2019. Numerical results are available in Appendix Table E.1.

Figure E.2: The Effect of Winning Office on Income

Panel a) Raw data



Panel b) Coefficient estimates



Note: Panel a) displays the average pre-tax income, adjusted to 2015-kroner using the Norwegian Consumer Price Index (KPI), for treated (brown triangles) and untreated (red circles) at each event time  $t$ . Panel b) contains the estimates of the parameters of interest,  $\kappa_j$ , from Equation 5, along with the 95% confidence intervals. The estimation is done on a sample for which we have access to a broader set of administrative data from Statistics Norway, which we therefore are unable to merge with the criminal records. All estimates are adjusted to 2015-kroner. In the two left panels, the treatment group consist of individuals who were elected to local office for the first time (excluding those appointed mayor) in election year  $t = 0$  ( $N=18,831$ ), while the control group consist of individuals who were nominated in  $t = 0$  but not elected in  $t = 0$  or in any previous year ( $N=155,016$ ). In the two right panels, the treatment group consist of individuals who were appointed mayor for the first time in  $t = 0$  ( $N=786$ ), while the control group consist of individuals who were first-ranked but not appointed mayor in year  $t = 0$  or in any previous year ( $N=8,486$ ). The reference category is event period  $t = -1$ . Standard errors are clustered at the municipality level. We use data from elections held in 2003, 2007, 2011, 2015, and 2019.

## Appendix F: Summary statistics

Table F.1: Summary Statistics for Estimation Sample Used in Table 1

Variable	Statistic	Population	First-time nominees
Age	Mean	49.9	44.6
	SD	(18.3)	(14.2)
Men	Mean	0.5	0.5
	SD	(0.5)	(0.5)
Income	Mean	5.7	6.3
	SD	(2.2)	(2.1)
Working	Mean	0.7	0.8
	SD	(0.5)	(0.4)
Crime	Mean	0.018	0.012
	SD	(0.133)	(0.109)
Observations		14,372,180	81,213

*Notes: This table presents summary statistics for the estimation sample used for the estimation of Equation 1. The income decile and working status variables reflect their values in the year preceding the election year ( $t-1$ ). Crime is defined as whether an individual received a court-issued legal sanction for a criminal offense within the five years preceding the election year. We use data from elections held in 2007, 2011, 2015, and 2019.*

Table F.2: Summary Statistics for Estimation Sample Used in Table 2

Variable	Statistic	1	2	3	4	5	6	7	8	9	10+
Age	Mean	50.3	47.2	47.2	46.7	47.1	47.2	48	48	48.3	50.8
	SD	(10.7)	(12)	(12.5)	(13.1)	(13.4)	(13.5)	(13.7)	(13.9)	(14.1)	(14.3)
Men	Mean	0.7	0.4	0.6	0.5	0.6	0.5	0.6	0.5	0.6	0.6
	SD	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
Income	Mean	7.6	6.9	6.8	6.6	6.6	6.6	6.6	6.5	6.6	6.6
	SD	(1.8)	(1.9)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Working	Mean	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8
	SD	(0.2)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.4)	(0.4)	(0.4)	(0.4)
Crime	Mean	0.007	0.006	0.009	0.009	0.01	0.01	0.01	0.01	0.009	0.009
	SD	(0.083)	(0.076)	(0.094)	(0.093)	(0.099)	(0.1)	(0.101)	(0.097)	(0.092)	(0.096)
Observations		12,436	12,258	12,148	12,068	12,001	12,013	12,053	11,613	11,293	152,085

*Notes: This table presents summary statistics for the estimation sample used for the estimation of Equation 2. The column names refer to the initial rank, i.e. Rank = 1, Rank = 2, etc. The income decile and working status variables reflect their values in the year preceding the election year ( $t - 1$ ). Crime is defined as whether an individual received a court-issued legal sanction for a criminal offense within the five years preceding the election year. We use data from elections held in 2003, 2007, 2011, 2015, and 2019.*

Table F.3: Summary Statistics for Estimation Sample Used in Table 3

Variable	Statistic	Rank climb = 0	Rank climb = 1
Age	Mean	49.8	49.3
	SD	(14.1)	(13.7)
Men	Mean	0.5	0.6
	SD	(0.5)	(0.5)
Income	Mean	6.4	6.9
	SD	(2)	(2)
Working	Mean	0.8	0.9
	SD	(0.4)	(0.3)
Crime	Mean	0.01	0.008
	SD	(0.1)	(0.089)
Observations		107,016	140,837

*Notes: This table presents summary statistics for the estimation sample used for the estimation of Equation 3. The income decile and working status variables reflect their values in the year preceding the election year ( $t - 1$ ). Crime is defined as whether an individual received a court-issued legal sanction for a criminal offense within the five years preceding the election year. We use data from elections held in 2003, 2007, 2011, 2015, and 2019.*

# Appendix G: Full model results

Table G.1: Full Results for Table 1

	(1)	(2)	(3)	(4)	(5)
<i>Variables</i>					
Constant	0.0212*** (0.0004)				
First-time nominee = 1	-0.0066*** (0.0004)	-0.0092*** (0.0005)	-0.0102*** (0.0005)	-0.0073*** (0.0004)	-0.0067*** (0.0004)
Year = 2011	-0.0012*** (0.0004)	-0.0010** (0.0004)	-0.0010** (0.0004)	-0.0008* (0.0004)	-0.0008* (0.0004)
Year = 2015	-0.0040*** (0.0004)	-0.0037*** (0.0005)	-0.0039*** (0.0005)	-0.0034*** (0.0005)	-0.0034*** (0.0005)
Year = 2019	-0.0064*** (0.0004)	-0.0060*** (0.0005)	-0.0062*** (0.0005)	-0.0059*** (0.0006)	-0.0060*** (0.0006)
Male = 1			0.0250*** (0.0004)	0.0312*** (0.0005)	0.0312*** (0.0005)
Working status = 1				-0.0217*** (0.0005)	-0.0214*** (0.0006)
Income decile = 1				-0.0039*** (0.0015)	-0.0038*** (0.0014)
Income decile = 2				0.0050*** (0.0013)	0.0052*** (0.0012)
Income decile = 3				0.0192*** (0.0009)	0.0194*** (0.0009)
Income decile = 4				0.0117*** (0.0008)	0.0118*** (0.0007)
Income decile = 5				0.0067*** (0.0008)	0.0069*** (0.0008)
Income decile = 6				0.0011 (0.0008)	0.0012 (0.0008)
Income decile = 7				-0.0041*** (0.0008)	-0.0040*** (0.0008)
Income decile = 8				-0.0082*** (0.0008)	-0.0081*** (0.0008)
Income decile = 9				-0.0134*** (0.0008)	-0.0134*** (0.0008)
<i>Fixed-effects</i>					
Age		Yes	Yes	Yes	Yes
Municipality					Yes
<i>Fit statistics</i>					
Observations	14,453,393	14,453,393	14,453,393	14,453,044	14,453,044
R <sup>2</sup>	0.00037	0.01009	0.01881	0.02976	0.03029
Mean dep. var.	0.01811	0.01811	0.01811	0.01811	0.01811

Notes: See Table 1. Significance levels: \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

Table G.2: Full Results for Table 2

	(1)	(2)	(3)	(4)	(5)
<i>Variables</i>					
Constant	0.0092*** (0.0005)				
Rank = 1	-0.0023*** (0.0008)	-0.0020** (0.0008)	-0.0033*** (0.0008)	-0.0021*** (0.0008)	-0.0033*** (0.0008)
Rank = 2	-0.0034*** (0.0008)	-0.0043*** (0.0008)	-0.0028*** (0.0008)	-0.0022*** (0.0008)	-0.0036*** (0.0008)
Rank = 3	-0.0003 (0.0009)	-0.0013 (0.0009)	-0.0015 (0.0009)	-0.0012 (0.0009)	-0.0022** (0.0010)
Rank = 4	-0.0004 (0.0010)	-0.0017* (0.0010)	-0.0007 (0.0010)	-0.0005 (0.0010)	-0.0016 (0.0010)
Rank = 5	0.0006 (0.0010)	-0.0005 (0.0010)	-0.0009 (0.0010)	-0.0007 (0.0010)	-0.0016 (0.0010)
Rank = 6	0.0008 (0.0009)	-0.0002 (0.0009)	0.0004 (0.0009)	0.0005 (0.0009)	-0.0006 (0.0009)
Rank = 7	0.0011 (0.0010)	0.0003 (0.0010)	0.0001 (0.0010)	0.0000 (0.0010)	-0.0009 (0.0010)
Rank = 8	0.0003 (0.0010)	-0.0005 (0.0010)	-0.0001 (0.0010)	-0.0001 (0.0010)	-0.0010 (0.0010)
Rank = 9	-0.0007 (0.0009)	-0.0015* (0.0009)	-0.0017* (0.0009)	-0.0017* (0.0009)	-0.0023** (0.0009)
Year = 2007	0.0008 (0.0006)	0.0010* (0.0006)	0.0013** (0.0006)	0.0014** (0.0006)	
Year = 2011	0.0012** (0.0006)	0.0016*** (0.0006)	0.0019*** (0.0006)	0.0022*** (0.0006)	
Year = 2015	-0.0009 (0.0006)	-0.0003 (0.0006)	0.0001 (0.0006)	0.0004 (0.0006)	
Year = 2019	-0.0012** (0.0006)	-0.0006 (0.0006)	-0.0001 (0.0006)	0.0002 (0.0006)	
Male = 1			0.0107*** (0.0004)	0.0122*** (0.0004)	0.0109*** (0.0004)
Working status = 1				-0.0061*** (0.0008)	-0.0045*** (0.0008)
Income decile = 1				-0.0097 (0.0088)	-0.0110 (0.0090)
Income decile = 2				-0.0091* (0.0054)	-0.0093* (0.0055)
Income decile = 3				-0.0062 (0.0054)	-0.0062 (0.0055)
Income decile = 4				-0.0060 (0.0053)	-0.0064 (0.0054)
Income decile = 5				-0.0071 (0.0053)	-0.0068 (0.0054)
Income decile = 6				-0.0086 (0.0054)	-0.0079 (0.0055)
Income decile = 7				-0.0117** (0.0053)	-0.0105* (0.0054)
Income decile = 8				-0.0125** (0.0054)	-0.0112** (0.0055)
Income decile = 9				-0.0137** (0.0054)	-0.0123** (0.0055)
<i>Fixed-effects</i>					
Age		Yes	Yes	Yes	Yes
List-year					Yes
<i>Fit statistics</i>					
Observations	259,968	259,968	259,968	259,966	259,966
R <sup>2</sup>	0.00019	0.00356	0.00664	0.00812	0.07074

Notes: See Table 2. Significance levels: \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

Table G.3: Full Results for Table 3

	(1)	(2)	(3)	(4)	(5)
<i>Variables</i>					
Constant	0.5220*** (0.0042)				
Crime	-0.0562*** (0.0105)	-0.0601*** (0.0104)	-0.0794*** (0.0104)	-0.0602*** (0.0103)	-0.0751*** (0.0108)
Initial rank	0.0038*** (0.0003)	0.0040*** (0.0003)	0.0040*** (0.0003)	0.0040*** (0.0004)	0.0096*** (0.0005)
Year = 2007	-0.0170*** (0.0026)	-0.0146*** (0.0026)	-0.0125*** (0.0026)	-0.0118*** (0.0027)	
Year = 2011	-0.0091*** (0.0031)	-0.0047 (0.0031)	-0.0025 (0.0031)	-0.0057* (0.0032)	
Year = 2015	0.0075*** (0.0027)	0.0141*** (0.0028)	0.0168*** (0.0028)	0.0130*** (0.0028)	
Year = 2019	-0.0130*** (0.0038)	-0.0055 (0.0039)	-0.0020 (0.0039)	-0.0057 (0.0040)	
Male = 1			0.0668*** (0.0033)	0.0396*** (0.0030)	0.0284*** (0.0032)
Working status = 1				0.0454*** (0.0035)	0.0538*** (0.0036)
Income decile = 1				-0.0803** (0.0340)	-0.0992*** (0.0353)
Income decile = 2				-0.0528*** (0.0201)	-0.0786*** (0.0212)
Income decile = 3				-0.0665*** (0.0201)	-0.1002*** (0.0210)
Income decile = 4				-0.0764*** (0.0197)	-0.1118*** (0.0204)
Income decile = 5				-0.0570*** (0.0197)	-0.0832*** (0.0204)
Income decile = 6				-0.0436** (0.0197)	-0.0639*** (0.0203)
Income decile = 7				-0.0118 (0.0197)	-0.0204 (0.0203)
Income decile = 8				0.0276 (0.0195)	0.0338* (0.0202)
Income decile = 9				0.0706*** (0.0197)	0.1056*** (0.0205)
<i>Fixed-effects</i>					
Age		Yes	Yes	Yes	Yes
List-year					Yes
<i>Fit statistics</i>					
Observations	247,853	247,853	247,853	247,851	247,851
R <sup>2</sup>	0.00735	0.00976	0.01414	0.02523	0.09453
Mean dep. var.	0.56823	0.56823	0.56823	0.56823	0.56823

Notes: See Table 3. Significance levels: \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

Table G.4: Full Results for Appendix Table A.1

	Drug (1)	Economic (2)	Violence (3)	Traffic (4)	Other (5)
<i>Variables</i>					
First-time nominee = 1	-0.0035*** (0.0002)	-0.0015*** (0.0002)	-0.0025*** (0.0002)	-0.0003 (0.0002)	-0.0004*** (0.0002)
Year = 2011	-0.0004* (0.0002)	-0.0012*** (0.0002)	0.0002** ( $9.36 \times 10^{-5}$ )	0.0003*** ( $6.39 \times 10^{-5}$ )	$5.62 \times 10^{-5}$ ( $5.43 \times 10^{-5}$ )
Year = 2015	-0.0007*** (0.0003)	-0.0022*** (0.0002)	-0.0004*** (0.0001)	-0.0008*** ( $9.3 \times 10^{-5}$ )	-0.0003*** ( $7.41 \times 10^{-5}$ )
Year = 2019	-0.0016*** (0.0003)	-0.0037*** (0.0002)	-0.0011*** (0.0001)	-0.0008*** ( $8.72 \times 10^{-5}$ )	-0.0005*** ( $6.08 \times 10^{-5}$ )
Male = 1	0.0139*** (0.0002)	0.0070*** (0.0002)	0.0088*** (0.0002)	0.0048*** (0.0001)	0.0025*** (0.0001)
Working status = 1	-0.0119*** (0.0003)	-0.0062*** (0.0003)	-0.0066*** (0.0002)	-0.0010*** ( $5.26 \times 10^{-5}$ )	-0.0020*** ( $7.59 \times 10^{-5}$ )
Income decile = 1	-0.0009 (0.0008)	$5.42 \times 10^{-5}$ (0.0004)	-0.0010** (0.0004)	-0.0017*** (0.0004)	-0.0008** (0.0003)
Income decile = 2	0.0059*** (0.0006)	0.0039*** (0.0004)	0.0017*** (0.0005)	-0.0025*** (0.0005)	0.0007*** (0.0003)
Income decile = 3	0.0130*** (0.0007)	0.0055*** (0.0004)	0.0045*** (0.0007)	0.0001 (0.0003)	0.0016*** (0.0002)
Income decile = 4	0.0089*** (0.0006)	0.0025*** (0.0004)	0.0023*** (0.0007)	-0.0002 (0.0003)	0.0006*** (0.0002)
Income decile = 5	0.0062*** (0.0007)	0.0011*** (0.0004)	0.0007 (0.0007)	-0.0003 (0.0003)	$6.9 \times 10^{-5}$ (0.0002)
Income decile = 6	0.0031*** (0.0007)	-0.0005 (0.0004)	-0.0005 (0.0008)	-0.0005* (0.0003)	-0.0004* (0.0002)
Income decile = 7	0.0005 (0.0007)	-0.0021*** (0.0004)	-0.0015* (0.0008)	-0.0008*** (0.0003)	-0.0008*** (0.0002)
Income decile = 8	-0.0014** (0.0006)	-0.0033*** (0.0004)	-0.0025*** (0.0008)	-0.0011*** (0.0003)	-0.0011*** (0.0002)
Income decile = 9	-0.0039*** (0.0006)	-0.0047*** (0.0004)	-0.0041*** (0.0008)	-0.0013*** (0.0003)	-0.0014*** (0.0002)
<i>Fixed-effects</i>					
Age	Yes	Yes	Yes	Yes	Yes
Municipality	Yes	Yes	Yes	Yes	Yes
<i>Fit statistics</i>					
Observations	14,453,044	14,453,044	14,453,044	14,453,044	14,453,044
R <sup>2</sup>	0.01500	0.00890	0.01047	0.00430	0.00301
Mean dep. var.	0.00780	0.00439	0.00445	0.00271	0.00138

Notes: See Table A.1. Significance levels: \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

Table G.5: Full Results for Appendix Table A.2

	Drug (1)	Economic (2)	Violence (3)	Traffic (4)	Other (5)
<i>Variables</i>					
Rank = 1	-0.0020*** (0.0003)	-0.0005 (0.0004)	-0.0002 (0.0004)	-0.0009** (0.0004)	0.0000 (0.0003)
Rank = 2	-0.0005 (0.0005)	-0.0006 (0.0004)	-0.0012*** (0.0002)	-0.0009** (0.0004)	-0.0003 (0.0002)
Rank = 3	-0.0010* (0.0005)	-0.0005 (0.0004)	-0.0002 (0.0004)	-0.0010** (0.0004)	0.0003 (0.0003)
Rank = 4	-0.0006 (0.0005)	-0.0006 (0.0004)	-0.0011*** (0.0003)	-0.0002 (0.0004)	0.0005 (0.0004)
Rank = 5	-0.0006 (0.0005)	-0.0004 (0.0005)	0.0008 (0.0005)	-0.0004 (0.0005)	-0.0005** (0.0003)
Rank = 6	-0.0002 (0.0005)	0.0003 (0.0005)	-0.0009*** (0.0003)	0.0000 (0.0005)	0.0000 (0.0003)
Rank = 7	-0.0011** (0.0005)	-0.0003 (0.0005)	-0.0005 (0.0004)	0.0003 (0.0005)	0.0007* (0.0004)
Rank = 8	-0.0007 (0.0005)	-0.0005 (0.0004)	0.0005 (0.0005)	-0.0005 (0.0004)	0.0004 (0.0004)
Rank = 9	-0.0001 (0.0005)	-0.0012*** (0.0004)	-0.0007* (0.0003)	-0.0004 (0.0005)	-0.0001 (0.0003)
Male = 1	0.0035*** (0.0002)	0.0021*** (0.0002)	0.0020*** (0.0002)	0.0026*** (0.0002)	0.0011*** (0.0001)
Working status = 1	-0.0033*** (0.0005)	-0.0002 (0.0004)	-0.0010*** (0.0003)	-0.0003 (0.0003)	-0.0004 (0.0003)
Income decile = 1	-0.0028 (0.0053)	0.0003 (0.0038)	-0.0046** (0.0023)	-0.0042 (0.0057)	-0.0026 (0.0019)
Income decile = 2	-0.0020 (0.0029)	0.0010 (0.0023)	-0.0022 (0.0023)	-0.0079** (0.0036)	-0.0003 (0.0017)
Income decile = 3	0.0003 (0.0028)	0.0005 (0.0022)	-0.0013 (0.0023)	-0.0066* (0.0035)	-0.0008 (0.0018)
Income decile = 4	-0.0011 (0.0027)	0.0011 (0.0023)	-0.0011 (0.0022)	-0.0059* (0.0034)	-0.0010 (0.0019)
Income decile = 5	-0.0008 (0.0027)	0.0005 (0.0022)	-0.0010 (0.0022)	-0.0061* (0.0034)	-0.0012 (0.0018)
Income decile = 6	-0.0011 (0.0027)	0.0001 (0.0022)	-0.0013 (0.0022)	-0.0062* (0.0034)	-0.0014 (0.0019)
Income decile = 7	-0.0025 (0.0027)	-0.0010 (0.0022)	-0.0014 (0.0022)	-0.0060* (0.0034)	-0.0016 (0.0019)
Income decile = 8	-0.0027 (0.0027)	-0.0014 (0.0022)	-0.0014 (0.0022)	-0.0062* (0.0034)	-0.0014 (0.0019)
Income decile = 9	-0.0029 (0.0027)	-0.0020 (0.0022)	-0.0018 (0.0022)	-0.0061* (0.0034)	-0.0015 (0.0019)
<i>Fixed-effects</i>					
Age	Yes	Yes	Yes	Yes	Yes
List-year	Yes	Yes	Yes	Yes	Yes
<i>Fit statistics</i>					
Observations	259,966	259,966	259,966	259,966	259,966
R <sup>2</sup>	0.06891	0.05620	0.06625	0.05640	0.06184
Mean dep. var.	0.00283	0.00212	0.00145	0.00205	0.00097

Notes: See Table A.2. Significance levels: \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

Table G.6: Full Results for Appendix Table A.3

	(1)	(2)	(3)	(4)	(5)
<i>Variables</i>					
Constant	0.5221*** (0.0042)				
Drug	-0.0738*** (0.0193)	-0.0755*** (0.0192)	-0.0929*** (0.0192)	-0.0646*** (0.0188)	-0.0859*** (0.0194)
Economic	-0.0958*** (0.0229)	-0.1052*** (0.0230)	-0.1177*** (0.0228)	-0.0935*** (0.0230)	-0.0961*** (0.0237)
Violence	-0.0373 (0.0250)	-0.0403 (0.0249)	-0.0618** (0.0249)	-0.0449* (0.0246)	-0.0734*** (0.0254)
Traffic	-0.0240 (0.0232)	-0.0262 (0.0233)	-0.0482** (0.0230)	-0.0458** (0.0227)	-0.0527** (0.0228)
Other	-0.0005 (0.0305)	0.0000 (0.0305)	-0.0168 (0.0306)	-0.0058 (0.0308)	-0.0122 (0.0316)
Initial rank	0.0038*** (0.0003)	0.0040*** (0.0003)	0.0040*** (0.0003)	0.0040*** (0.0004)	0.0096*** (0.0005)
Year = 2007	-0.0170*** (0.0026)	-0.0146*** (0.0026)	-0.0124*** (0.0026)	-0.0118*** (0.0027)	
Year = 2011	-0.0092*** (0.0031)	-0.0047 (0.0031)	-0.0025 (0.0031)	-0.0057* (0.0032)	
Year = 2015	0.0075*** (0.0027)	0.0141*** (0.0028)	0.0168*** (0.0028)	0.0130*** (0.0028)	
Year = 2019	-0.0131*** (0.0038)	-0.0055 (0.0039)	-0.0020 (0.0039)	-0.0058 (0.0040)	
Male = 1			0.0668*** (0.0033)	0.0396*** (0.0030)	0.0284*** (0.0032)
Working status = 1				0.0454*** (0.0035)	0.0537*** (0.0036)
Income decile = 1				-0.0802** (0.0340)	-0.0992*** (0.0353)
Income decile = 2				-0.0527*** (0.0201)	-0.0786*** (0.0212)
Income decile = 3				-0.0664*** (0.0201)	-0.1001*** (0.0210)
Income decile = 4				-0.0763*** (0.0197)	-0.1117*** (0.0205)
Income decile = 5				-0.0569*** (0.0197)	-0.0832*** (0.0204)
Income decile = 6				-0.0436** (0.0197)	-0.0638*** (0.0203)
Income decile = 7				-0.0118 (0.0197)	-0.0203 (0.0203)
Income decile = 8				0.0276 (0.0195)	0.0338* (0.0202)
Income decile = 9				0.0706*** (0.0197)	0.1056*** (0.0205)
<i>Fixed-effects</i>					
Age		Yes	Yes	Yes	Yes
List-year					Yes
<i>Fit statistics</i>					
Observations	247,853	247,853	247,853	247,851	247,851
R <sup>2</sup>	0.00740	0.00982	0.01419	0.02525	0.09456

Notes: See Table A.3. Significance levels: \*\*\*: 0.01, \*\*: 0.05, \*: 0.1

Table G.7: Full Results for Appendix Table E.1

<i>Variables</i>	Councillor		Mayor	
	(1)	(2)	(3)	(4)
Constant	0.0020*** (0.0001)		0.0016*** (0.0005)	
Treated	-0.0006** (0.0003)	-0.0009*** (0.0003)	-0.0014*** (0.0004)	-0.0016*** (0.0005)
t = -5	0.0004*** (0.0001)	0.0002* (0.0001)	-0.0004 (0.0005)	-0.0008 (0.0005)
t = -4	0.0004** (0.0002)	0.0002 (0.0002)	0.0010 (0.0007)	0.0006 (0.0007)
t = -3	0.0004*** (0.0002)	0.0003** (0.0002)	0.0002 (0.0006)	0.0001 (0.0006)
t = -2	0.0002 (0.0002)	0.0001 (0.0002)	-0.0001 (0.0006)	-0.0002 (0.0006)
t = 0	0.0002 (0.0002)	0.0003* (0.0002)	0.0005 (0.0006)	0.0005 (0.0006)
t = 1	0.0001 (0.0001)	0.0003** (0.0002)	0.0014* (0.0007)	0.0018** (0.0008)
t = 2	0.0001 (0.0002)	0.0005*** (0.0002)	0.0004 (0.0006)	0.0008 (0.0007)
t = 3	0.0001 (0.0001)	0.0004*** (0.0001)	-0.0001 (0.0007)	0.0002 (0.0007)
t = 4	-0.0002 (0.0002)	0.0002 (0.0002)	0.0005 (0.0007)	0.0010 (0.0007)
t = 5	-0.0002 (0.0002)	0.0005** (0.0002)	0.0003 (0.0007)	0.0012 (0.0008)
Year = 2011	0.0001 (0.0001)		0.0000 (0.0004)	
Year = 2015	-0.0004*** (0.0001)		-0.0002 (0.0004)	
Year = 2019	-0.0005*** (0.0001)		-0.0004 (0.0004)	
Treated × t = -5	0.0002 (0.0004)	0.0002 (0.0004)	0.0004 (0.0005)	0.0004 (0.0005)
Treated × t = -4	0.0004 (0.0005)	0.0004 (0.0005)	-0.0010 (0.0007)	-0.0009 (0.0007)
Treated × t = -3	-0.0003 (0.0004)	-0.0003 (0.0004)	-0.0002 (0.0006)	-0.0002 (0.0006)
Treated × t = -2	-0.0004 (0.0004)	-0.0004 (0.0004)	0.0001 (0.0006)	0.0002 (0.0006)
Treated × t = 0	0.0000 (0.0004)	0.0000 (0.0004)	-0.0005 (0.0006)	-0.0004 (0.0006)
Treated × t = 1	0.0007 (0.0004)	0.0006 (0.0004)	-0.0014* (0.0007)	-0.0013* (0.0008)
Treated × t = 2	0.0004 (0.0004)	0.0003 (0.0004)	-0.0004 (0.0006)	-0.0003 (0.0006)
Treated × t = 3	0.0002 (0.0005)	0.0002 (0.0005)	0.0000 (0.0007)	0.0004 (0.0007)
Treated × t = 4	0.0005 (0.0005)	0.0005 (0.0005)	-0.0006 (0.0007)	-0.0002 (0.0007)
Treated × t = 5	0.0001 (0.0004)	0.0001 (0.0004)	-0.0004 (0.0007)	0.0000 (0.0007)
Male = 1		0.0021*** (0.0001)		0.0018*** (0.0003)
<i>Fixed-effects</i>				
Age		Yes		Yes
List-year		Yes		
Municipality-Year				Yes
<i>Fit statistics</i>				
Observations	1,743,800	1,743,800	94,436	94,436
R <sup>2</sup>	0.00006	0.01442	0.00031	0.02707

Notes: See Table E.1. Significance levels: \*\*\*, 0.01, \*\*, 0.05, \*, 0.1