# Bound by Borders: Voter Mobilization through Social Networks

Gary W. Cox<sup>1</sup> Jon H. Fiva<sup>2</sup> Max-Emil M. King<sup>3</sup>

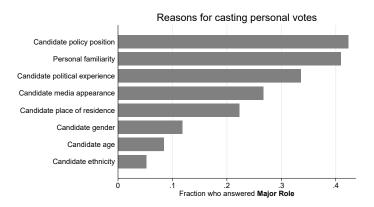
British Journal of Political Science

<sup>&</sup>lt;sup>1</sup>Stanford University

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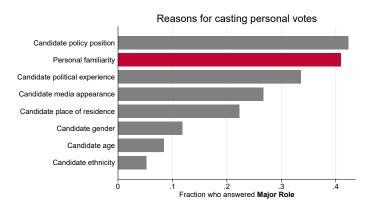
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- Reduce the cost of voting
- Increase the cost of not voting
- Signal relevant information

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We study larger networks that reach across district boundaries using rich administrative data from Norway

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- From which country they originate
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- Identification
  - Temporal variation in mobilization exposure
  - Cross-district geographic spread of networks (à la Black, 1999)

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  - Effects  $\nearrow$  when: network size  $\searrow$ , distance  $\searrow$ , viability  $\nearrow$
  - Sharp drop-off in mobilization impulse as networks cross district borders

The paradox of voting (Downs, 1956)

$$P \times B > C$$

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#### Two schools of thought on turnout:

Individual decisions, e.g., civic duty (Riker and Ordeshook, 1968), altruism (Fowler, 2006); resources (Brady et. al, 1995)

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'The jury is still out on what the foundations of micro-level turnout are' (Smets and van Ham, 2013, p. 345)

### Outline

- Intro
- Institutional setting
- Data & network classification
- Empirical specification
- Results: Baseline
- Results: Distance to border
- Results: Why do immigrants mobilize more?
- Conclusion

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 Local level is responsible for key welfare services – employ 17 percent of the labor force

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- Parties can give certain candidates a "head start"
- Number of seats determined by party votes
- Candidates determined by ex-post rank on party lists

### Example: Oslo Labor Party (2015)

Rank ex-ante	Candidate
1	Raymond Johansen
2	Tone Tellevik Dahl
3	Rina Mariann Hansen
4	Frode Jacobsen
5	Anders Ørnø Røberg Larsen
6	Khamshajiny Gunaratnam
7	Andreas Halse
8	Victoria Marie Evensen
9	Didrik Beck
10	Julie Lødrup
11	Rune Gerhardsen
12	Turid Birkeland
13	Abdullah Alsabeehg
14	Susann S Jørgensen
15	Dag Bayegan Harlem
16	Roja Darian
17	Frode Jarl Kyvåg
18	Mari Morken
19	Per Anders Torvik Langerød
20	Gro Balaas
21	Jon Reidar Øyan
	• • •
65	Thorvald Stoltenberg

Rank ex-ante	Candidate	Votes
1	Raymond Johansen	23,311
2	Tone Tellevik Dahl	5,988
3	Rina Mariann Hansen	3,076
4	Frode Jacobsen	2,701
5	Anders Ørnø Røberg Larsen	3,131
6	Khamshajiny Gunaratnam	4,031
7	Andreas Halse	2,144
8	Victoria Marie Evensen	2,675
9	Didrik Beck	1,607
10	Julie Lødrup	2,314
11	Rune Gerhardsen	3,340
12	Turid Birkeland	3,058
13	Abdullah Alsabeehg	3,796
14	Susann S Jørgensen	1,419
15	Dag Bayegan Harlem	927
16	Roja Darian	1,221
17	Frode Jarl Kyvåg	4,490
18	Mari Morken	1,704
19	Per Anders Torvik Langerød	1,641
20	Gro Balaas	1,576
21	Jon Reidar Øyan	1,596
	•••	
65	Thorvald Stoltenberg	3,857

Rank ex-ante	Candidate	V ot es	Bonus
1	Raymond Johansen	23,311	25,608
2	Tone Tellevik Dahl	5,988	25,608
3	Rina Mariann Hansen	3,076	25,608
4	Frode Jacobsen	2,701	25,608
5	Anders Ørnø Røberg Larsen	3,131	25,608
6	Khamshajiny Gunaratnam	4,031	25,608
7	Andreas Halse	2,144	25,608
8	Victoria Marie Evensen	2,675	25,608
9	Didrik Beck	1,607	25,608
10	Julie Lødrup	2,314	25,608
11	Rune Gerhardsen	3,340	0
12	Turid Birkeland	3,058	0
13	Abdullah Alsabeehg	3,796	0
14	Susann S Jørgensen	1,419	0
15	Dag Bayegan Harlem	927	0
16	Roja Darian	1,221	0
17	Frode Jarl Kyvåg	4,490	0
18	Mari Morken	1,704	0
19	Per Anders Torvik Langerød	1,641	0
20	Gro Balaas	1,576	0
21	Jon Reidar Øyan	1,596	0
	• • •		
65	Thorvald Stoltenberg	3,857	0

Rank ex-ante	Candidate	Votes	Bonus	Rank ex-post
1	Raymond Johansen	23,311	25,608	1
2	Tone Tellevik Dahl	5,988	25,608	2
3	Rina Mariann Hansen	3,076	25,608	5
4	Frode Jacobsen	2,701	25,608	6
5	Anders Ørnø Røberg Larsen	3,131	25,608	4
6	Khamshajiny Gunaratnam	4,031	25,608	3
7	Andreas Halse	2,144	25,608	9
8	Victoria Marie Evensen	2,675	25,608	7
9	Didrik Beck	1,607	25,608	10
10	Julie Lødrup	2,314	25,608	8
11	Rune Gerhardsen	3,340	0	18
12	Turid Birkeland	3,058	0	20
13	Abdullah Alsabeehg	3,796	0	15
14	Susann S Jørgensen	1,419	0	32
15	Dag Bayegan Harlem	927	0	44
16	Roja Darian	1,221	0	38
17	Frode Jarl Kyvåg	4,490	0	12
18	Mari Morken	1,704	0	26
19	Per Anders Torvik Langerød	1,641	0	28
20	Gro Balaas	1,576	0	31
21	Jon Reidar Øyan	1,596	0	30
65	Thorvald Stoltenberg	3,857	0	14

Rank ex-ante	Candidate	Votes	Bonus	Rank ex-post ▼
1	Raymond Johansen	23,311	25,608	1
2	Tone Tellevik Dahl	5,988	25,608	2
6	Khamshajiny Gunaratnam	4,031	25,608	3
5	Anders Ørnø Røberg Larsen	3,131	25,608	4
3	Rina Mariann Hansen	3,076	25,608	5
4	Frode Jacobsen	2,701	25,608	6
8	Victoria Marie Evensen	2,675	25,608	7
10	Julie Lødrup	2,314	25,608	8
7	Andreas Halse	2,144	25,608	9
9	Didrik Beck	1,607	25,608	10
33	Geir Lippestad	7,470	0	11
17	Frode Jarl Kyvåg	4,490	0	12
23	Mobashar Banaras	4,014	0	13
65	Thorvald Stoltenberg	3,857	0	14
13	Abdullah Alsabeehg	3,796	0	15
43	Khalid Mahmood	3,652	0	16
26	Prableen Kaur	3,457	0	17
11	Rune Gerhardsen	3,340	0	18
29	Nasir Mushtaq Ahmed	3,217	0	19
12	Turid Birkeland	3,058	0	20
24	Birgit Lovise Røkkum Skarstein	2,722	0	21
	• • •			
65	Henrik Hovland	411	0	65

Rank ex-ante	Candidate	Votes	Bonus	Rank ex-post ▼	Elected
1	Raymond Johansen	23,311	25,608	1	Yes
2	Tone Tellevik Dahl	5,988	25,608	2	Yes
6	Khamshajiny Gunaratnam	4,031	25,608	3	Yes
5	Anders Ørnø Røberg Larsen	3,131	25,608	4	Yes
3	Rina Mariann Hansen	3,076	25,608	5	Yes
4	Frode Jacobsen	2,701	25,608	6	Yes
8	Victoria Marie Evensen	2,675	25,608	7	Yes
10	Julie Lødrup	2,314	25,608	8	Yes
7	Andreas Halse	2,144	25,608	9	Yes
9	Didrik Beck	1,607	25,608	10	Yes
33	Geir Lippestad	7,470	0	11	Yes
17	Frode Jarl Kyvåg	4,490	0	12	Yes
23	Mobashar Banaras	4,014	0	13	Yes
65	Thorvald Stoltenberg	3,857	0	14	Yes
13	Abdullah Alsabeehg	3,796	0	15	Yes
43	Khalid Mahmood	3,652	0	16	Yes
26	Prableen Kaur	3,457	0	17	Yes
11	Rune Gerhardsen	3,340	0	18	Yes
29	Nasir Mushtaq Ahmed	3,217	0	19	Yes
12	Turid Birkeland	3,058	0	20	Yes
24	Birgit Lovise Røkkum Skarstein	2,722	0	21	No
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65	Henrik Hovland	411	0	65	No

Example: Oslo Labor Party (2015)

Rank ex-ante	Candidate	V ot es	Bonus	Rank ex-p ost ▼	Change
1	Raymond Johansen	23,311	25,608	1	0
2	Tone Tellevik Dahl	5,988	25,608	2	0
6	Khamshajiny Gunaratnam	4,031	25,608	3	3
5	Anders Ørnø Røberg Larsen	3,131	25,608	4	1
3	Rina Mariann Hansen	3,076	25,608	5	-2
4	Frode Jacobsen	2,701	25,608	6	-2
8	Victoria Marie Evensen	2,675	25,608	7	1
10	Julie Lødrup	2,314	25,608	8	2
7	Andreas Halse	2,144	25,608	9	-2
9	Didrik Beck	1,607	25,608	10	-1
33	Geir Lippestad	7,470	0	11	22
17	Frode Jarl Kyvåg	4,490	0	12	5
23	Mobashar Banaras	4,014	0	13	10
65	Thorvald Stoltenberg	3,857	0	14	51
13	Ab dullah Alsab eeh g	3,796	0	15	-2
43	Khalid Mahmood	3,652	0	16	27
26	Prableen Kaur	3,457	0	17	9
11	Rune Gerhardsen	3,340	0	18	-7
29	Nasir Mushtaq Ahmed	3,217	0	19	10
12	Turid Birkeland	3,058	0	20	-8
24	Birgit Lovise Røkkum Skarstein	2,722	0	21	3
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65	Henrik Hovland	411	0	65	-12

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65	Thorvald Stoltenberg	3,857	0	14	51
64	Eskil Pedersen	2,360	0	23	41
61	Bashe Musse	2,199	0	24	37
57	Munir Jaber	1,637	0	29	28
43	Khalid Mahmood	3,652	0	16	27
33	Geir Lippestad	7,470	0	11	22
40	Fatima Ali Madar	1,806	0	25	15
62	Monica Semb Sætre	832	0	47	15
41	Ulrik Imtiaz Rolfsen	1,704	0	27	14
23	Mobashar Banaras	4,014	0	13	10
29	Nasir Mushtaq Ahmed	3,217	0	19	10
51	Arshad Mubarak Ali	1,074	0	42	9
26	Prableen Kaur	3,457	0	17	9
60	Marianne Andenæs	733	0	52	8
45	Andreas Olsen	1,137	0	39	6
39	Elvis Chi Nwosu	1,398	0	34	5
17	Frode Jarl Kyvåg	4,490	0	12	5
56	Lene Løken	745	0	51	5
38	Zaineb Al Samarai	1,419	0	33	5
24	Birgit Lovise Røkkum Skarstein	2,722	0	21	3
6	Khamshajiny Gunaratnam	4,031	25,608	3	3
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65	Dag Bayegan Harlem	927	0	44	-29

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- 3) Driving distance between BSU centroids (Institute of Transport Economics)

Summary Stats

Size distributions

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#### Family

- Narrow: Mother, father, sibling, children
- Broad: Mother, father, sibling, children, grandparents, grandchildren, aunts, uncles, nieces, nephews and cousins

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- Narrow: Co-worker at the same workplace and age group
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#### **Immigrants**

- Narrow: Country of birth + occupation (3-digit ISCO)
- Broad: Country of birth + occupation (2-digit ISCO)

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#### **Immigrants**

- Narrow: Country of birth + occupation (3-digit ISCO)
  - 231 University and higher education teachers
  - 234 Primary school and early childhood teachers
- Broad: Country of birth + occupation (2-digit ISCO)
  - 23 Teaching professionals

Summary Stats Size distributions

#### Family

- Narrow: Mother, father, sibling, children
- Broad: Mother, father, sibling, children, grandparents, grandchildren, aunts, uncles, nieces, nephews and cousins

#### Co-workers in SME's ( $\leq 100$ employees)

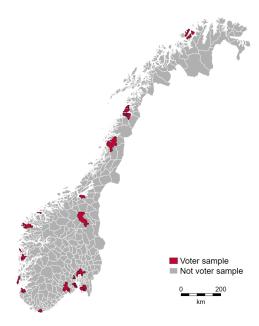
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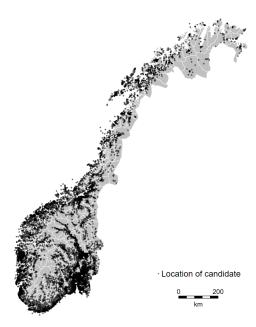
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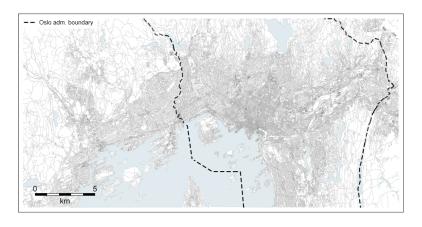


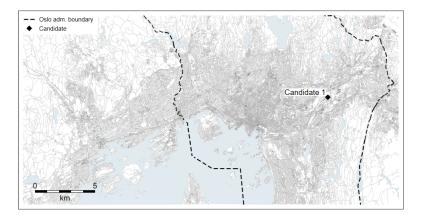


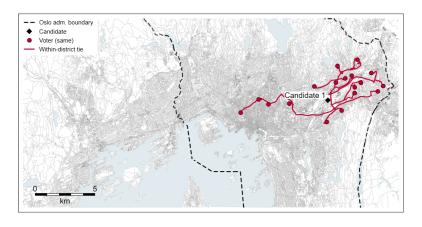


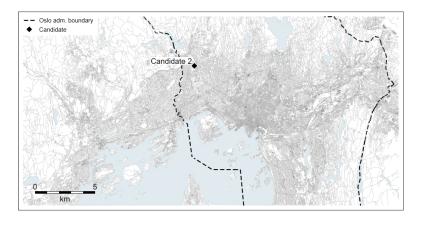


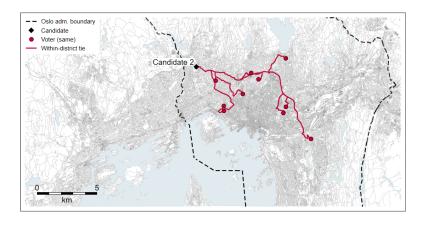


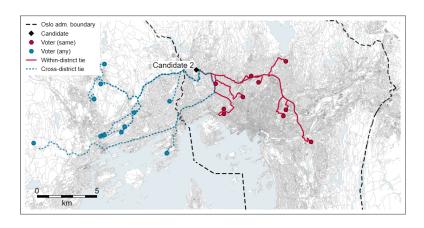


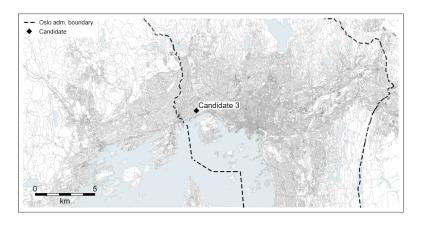


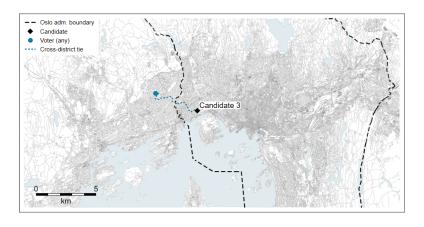












# Empirical specification

$$Turnout_{ibt} = \alpha_{ib} + \lambda_t + \beta AnyDistrict_{it} + \gamma SameDistrict_{it} + \varepsilon_{ibt}$$

- Turnout = 1 if voter i, who resides in BSU b, voted in year t
- ullet AnyDistrict=1 if a member of i's network ran for office at t
- SameDistrict = 1 if a member of i's network ran for office at t in i's district

Expectation:  $\beta \approx 0, \gamma > 0$ 

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Inference is drawn from voters who have a network member entering or exiting politics. Voters that move do not contribute to identification (because of  $\alpha_{ib}$ ).

Results

Table: Baseline results

	Family		Co-workers		Immigrants	
	(1) Close	(2) Extended	(3) Ag e- est bl .	(4) Estbl.	(5) 3-digit	(6) 2- digit
No candidate in network	ref.	ref.	ref.	ref.	ref.	ref.
Any District	0.006 (0.003)	0.002 (0.002)	-0.001 (0.003)	-0.003 (0.002)	-0.004 (0.004)	-0.004 (0.004)
Same District	0.026 (0.005)	0.015 (0.004)	0.014 (0.005)	0.010 (0.004)	0.045 (0.012)	0.036 (0.010)
Observations	2,801,126	2,801,126	1,087,562	1,087,562	239,810	239,810
Clusters	3,733	3,733	3,702	3,702	3,535	3,535
Mean turnout (%)	66.56	66.56	66.50	66.50	41.19	41.19

Placebo simulations

Split by family type

Table: Baseline results

	Family		Co-workers		Immigrants	
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Placebo simulations

Split by family type

Table: Two-Step Mobilization

	Co-workers and families			Immigrants and families		
	$\begin{array}{c} \hline (1) \\ Candidate \\ \to co-wkr. \to \end{array}$	$(2)$ Candidate $\rightarrow$ fam. $\rightarrow$	(3)	$ \begin{array}{c} \hline (4) \\ Candidate \\ \rightarrow imm.\rightarrow \end{array} $	(5) Candidate $\rightarrow$ fam. $\rightarrow$	(6)
	family	co-worker	Pooled	family	immigrant	Pooled
No candidate in network	ref.	ref.	ref.	ref.	ref.	ref.
Any District	0.001 (0.002)	-0.003 (0.002)	-0.001 (0.001)	-0.002 (0.006)	0.006 (0.004)	0.003
	(0.002)	(0.002)	(0.001)	(0.000)	(0.004)	(0.004)
Same District	0.006	0.003	0.005	0.015	0.018	0.019
	(0.004)	(0.004)	(0.003)	(0.013)	(0.011)	(0.008)
Observations	2,801,126	2,801,126	2,801,126	2,801,126	2,801,126	2,801,126
Clusters	3,733	3,733	3,733	3,733	3,733	3,733
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	family	co-worker	Pooled	family	immigrant	Pooled
No candidate in network	ref.	ref.	ref.	ref.	ref.	ref.
Any District	0.001 (0.002)	-0.003 (0.002)	-0.001 (0.001)	-0.002 (0.006)	0.006 (0.004)	0.003
	(0.002)	(0.002)	(0.001)	(0.000)	(0.004)	(0.004)
Same District	0.006	0.003	0.005	0.015	0.018	0.019
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Any District	0.001 (0.002)	-0.003 (0.002)	-0.001 (0.001)	-0.002 (0.006)	0.006 (0.004)	0.003
	(0.002)	(0.002)	(0.001)	(0.000)	(0.004)	(0.004)
Same District	0.006	0.003	0.005	0.015	0.018	0.019
	(0.004)	(0.004)	(0.003)	(0.013)	(0.011)	(0.008)
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Mean turnout (%)	66.56	66.56	66.56	66.56	66.56	66.56

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	family	co-worker	Pooled	family	immigrant	Pooled
No candidate in network	ref.	ref.	ref.	ref.	ref.	ref.
Any District	0.001 (0.002)	-0.003 (0.002)	-0.001 (0.001)	-0.002 (0.006)	0.006 (0.004)	0.003
	(0.002)	(0.002)	(0.001)	(0.000)	(0.004)	(0.004)
Same District	0.006	0.003	0.005	0.015	0.018	0.019
	(0.004)	(0.004)	(0.003)	(0.013)	(0.011)	(0.008)
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Results - Baseline 17/25

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# Summary of first set of results

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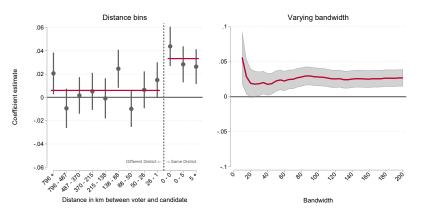
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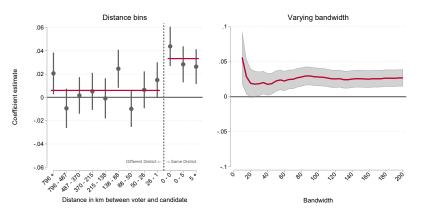
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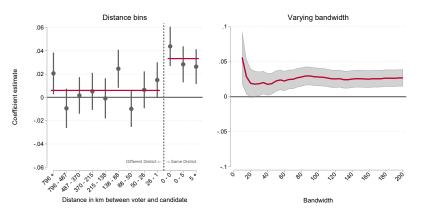
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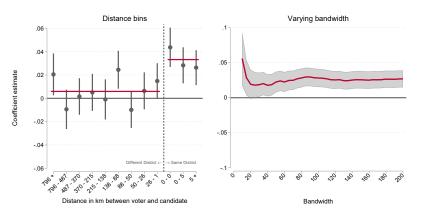
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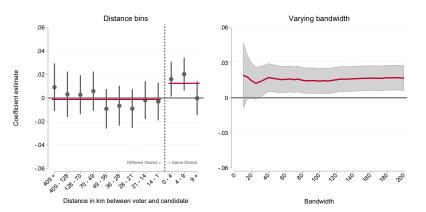
Next: How do district boundaries shape the mobilization impulse?

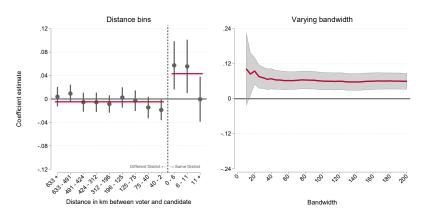












Results - Immigrants

Why are immigrants mobilized more?

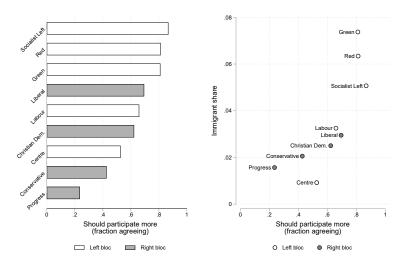
Table: Family effects split by Natives vs. Immigrants

	Nat	ives	Immigrants		
	(1) (2)		(3) Close	(4) Extended	
	Close	Extended	Close	Extended	
No candidate in network	ref.	ref.	ref.	ref.	
Any District	0.006	0.002	0.023	0.027	
	(0.003)	(0.002)	(0.028)	(0.026)	
Same District	0.021	0.012	0.139	0.127	
	(0.005)	(0.004)	(0.043)	(0.041)	
Observations	2,301,710	2,301,710	408,566	408,566	
Clusters	3,723	3,723	3,601	3,601	
Mean turnout (%)	71.59	71.59	39.39	39.39	

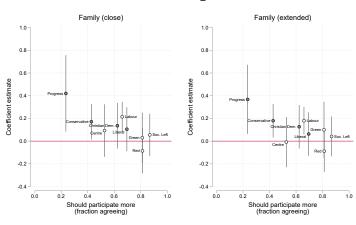
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	Nat	ives	lmmi	grants
	(1) Close	(2) Extended	(3) Close	(4) Extended
No candidate in network	ref.	ref.	ref.	ref.
Any District	0.006 (0.003)	0.002 (0.002)	0.023 (0.028)	0.027 (0.026)
Same District	0.021 (0.005)	0.012 (0.004)	0.139 (0.043)	0.127 (0.041)
Observations	2,301,710	2,301,710	408,566	408,566
Clusters	3,723	3,723	3,601	3,601
Mean turnout (%)	71.59	71.59	39.39	39.39

Family mobilization several times greater for immigrants. A 'Jackie and Jill' effect? (Anzia and Berry, 2011)



# Mobilization effects negatively correlated with attitudes toward immigrants



O Left bloc

Right bloc

# Conclusion

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- Within districts: impulse falls weakly with incr. distance
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Difficult to convert votes into seats when group members are spread inefficiently across districts (e.g., Rodden, 2019; Taylor & Johnston, 1979)



└ Appendix

Q

Born

Create account Log in ...

## 

文 1 language ~

Article Talk Read Edit View history

From Wikipedia, the free encyclopedia

For other people named Khalid Mahmood, see Khalid Mahmood (disambiguation),

Khalid Chaudry Mahmood (born 12 April 1959) is a Pakistani Norwegian politician for the Labour Party.

Born in Pakistan, he migrated to Norway as a teenager and studied economics at the University of Oslo. Mahmood has also worked as a journalist, author and been on the board of several organisations. In 1983 he was elected to serve in Oslo city council. He was re-elected in 1987, not in 1991 but again in 1995. I'll Having originally represented the

#### Khalid Chaudry Mahmood

12th of April, 1959 Mehta Losar, Punjab, Pakistan

Nationality Norwegian

Alma mater University of Oslo

Occupation Politician

Conservative Party, he joined the Labour Party in 1995. He left the Conservative Party in protest against a proposal to introduce financial reports regarding the immigrant population [2] He was re-elected to the city council in 1999, 2003, 2007 and 2011. In 2011, he was placed on the last spot on the Labour electoral list, but was elected due to getting most personal votes of all candidates. [3] in 2015, he was named the longes sitting city council representative, having been elected for eight periods. [4]

He also served as a deputy representative to the Norwegian Parliament from 2005. [5]

Back to Example



└─ Appendix



# □ Khalid Mahmood (Norwegian politician)

文<sub>A</sub> 1 language ∨

Article Talk Read Edit View history

From Wikipedia, the free encyclopedia

"In 2011, he was placed on the last spot on the Labour electoral list, but was elected due to getting most personal votes of all candidates"

1983 he was elected to serve in Oslo city council. He was re-elected in 1987, not in 1991 but again in 1995. Ill Having originally represented the Conservative Party, he joined the Labour Party in 1995. He left the Conservative Party in protest against a proposal to introduce financial reports regarding the immigrant population. He was re-elected to the city council in 1999, 2003, 2007 and 2011 In 2011, he was placed on the last spot on the Labour electoral list, but was elected due to getting most personal votes of all candidates. A 2015 he was named the longes sitting city council representative, having been elected for eight periods.

He also served as a deputy representative to the Norwegian Parliament from 2005. [5]

Back to Example

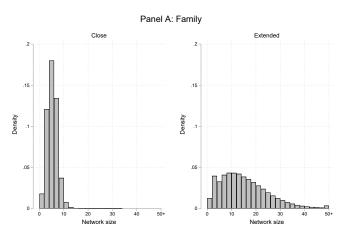
Table: Municipality-Level Summary Statistics

		uded ipalities	Excl munici	uded palities
	Mean SD		Mean	SD
Population	84,571	132,625	7,572	9,428
Vote-eligible population	66,784	106,118	5,975	7,409
Pre-school age (percent)	7.24	0.70	6.47	1.28
School age (percent)	12.28	0.98	12.15	1.43
66 years and older (percent)	15.03	2.48	18.35	3.58
Women (percent)	49.72	0.73	49.12	1.04
Unemployed (percent)	2.52	0.60	2.01	0.71
Immigrants (percent)	13.68	4.65	9.24	3.41
Turnout (percent)	58.36	4.01	63.12	6.07
N	25		403	

Table: Networks Summary Statistics

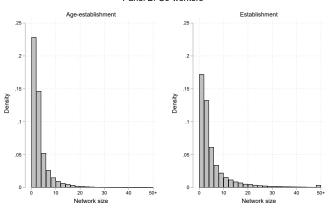
Panel A: 2015		mily 400,563)	Co-wor (N = 54:		Immigrants (N = 119,905)	
	Close	Extended	Age-estbl.	Estbl.	3-digit	2-digit
Number of unique networks	1,400,563	1,400,563	171,716	97,443	8,372	4,167
Voters with $AnyDistrict = 1$	40,656	115,058	36,357	77,072	47,190	64,092
Voters with $SameDistrict = 1$	9,664	18,533	12,154	26,463	3,049	4,899
Network size (average)	4.85	14.92	3.17	5.58	14.32	28.77
Distance (km) $ AnyDistrict = 1$	260.17	309.94	85.43	79.79	324.81	297.09
Distance (km) $ SameDistrict = 1$	4.59	6.14	8.28	7.97	9.13	9.12
Panel B: 2019		mily 400,563)	Co-wor (N = 54:			grants 19,905)
	Close	Extended	Age-estbl.	Estbl.	3-digit	2-digit
Number of unique networks	1,400,563	1,400,563	171,716	97,443	8,372	4,167
Voters with $AnyDistrict = 1$	36,961	111,096	36,563	79,485	48,917	64,676
Voters with $SameDistrict = 1$	8,914	17,768	11,522	25,680	2,173	3,619
Network size (average)	4.85	14.92	3.17	5.58	14.32	28.77
Distance (km) $ AnyDistrict = 1$	269.69	325.17	109.68	100.45	352.43	307.85
Distance (km) $ SameDistrict = 1$	4.95	6.40	8.38	8.04	8.96	9.09

### Network Size Distributions

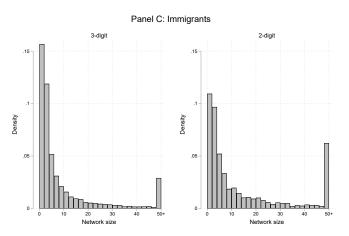


#### Network Size Distributions





## Network Size Distributions



# Definition of BSU

"The purpose of dividing the municipalities in basic statistical units is to establish small, stable geographical units giving a flexible basis for presentation of regional statistics. Basic statistical units are geographically coherent and shall be as homogeneous as possible with respect to natural conditions, economic base, communication and building structure." (Statistics Norway, 2022)

▶ Back to Data

Map of Oslo BSU's

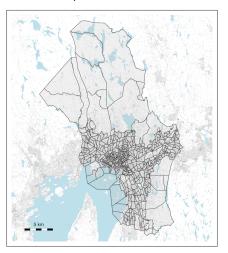
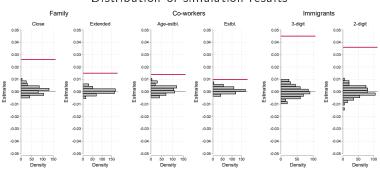


Table: Baseline with BSU-year fixed effects

	Far	nily	Co-wo	rkers	Immigrants		
	(1) Close	(2) Extended	(3) Age-estbl.	(4) Estbl.	(5) 3- digit	(6) 2-digit	
No candidate in network	ref.	ref.	ref.	ref.	ref.	ref.	
Any District	0.006 (0.003)	0.002 (0.002)	-0.000 (0.003)	-0.002 (0.002)	-0.004 (0.004)	-0.006 (0.004)	
Same District	0.027 (0.005)	0.016 (0.004)	0.013 (0.005)	0.009 (0.004)	0.039 (0.012)	0.033	
Observations	2,029,996	2,029,996	752,908	752,908	150,494	150,494	
Clusters	3,683	3,683	3,624	3,624	3,241	3,241	
Mean turnout (%)	66.56	66.56	66.50	66.50	41.19	41.19	

Distribution of simulation results



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Table: Split by family type

	(1)	(2)	(3)	(4)	(5)	(6) Nieces &	(7) Aunts &	(8)
	Parents	Siblings	Children	Gran dpar.	Grandch.	n eph ews	uncles	Cousins
No network candidate	ref.	ref.	r ef.	ref.	ref.	ref.	ref.	r ef.
Any District	0.006	0.007	0.002	-0.030	-0.009	0.004	-0.002	-0.000
	(0.005)	(0.004)	(0.006)	(0.019)	(0.011)	(0.003)	(0.004)	(0.003)
Same District	0.032	0.012	0.035	0.006	0.001	0.008	0.003	-0.003
	(0.012)	(0.008)	(0.009)	(0.044)	(0.019)	(0.009)	(0.013)	(0.010)
Observations	2,801,126	2,801,126	2,801,126	2,801,126	2,801,126	2,801,126	2,801,126	2,801,126
Clusters	3,733	3,733	3,733	3,733	3,733	3,733	3,733	3,733
Mean turnout (%)	66.56	66.56	66.56	66.56	66.56	66.56	66.56	66.56

Table: Split by number of co-workers

	2-5 co-w	orkers/	6-15 co-v	workers	16+ co-workers		
	(1) Age-estbl.	(2) Estbl.	(3) Ag e- estbl.	(4) Estbl.	(5) Ag e- estbl.	(6) Estbl.	
No network candidate	ref.	ref.	ref.	ref.	ref.	ref.	
Any District	-0.003 (0.007)	-0.006 (0.008)	-0.001 (0.005)	-0.005 (0.005)	0.001 (0.005)	-0.002 (0.003	
Same District	0.028 (0.014)	0.040 (0.017)	0.016 (0.008)	0.017 (0.009)	0.005 (0.008)	0.006	
Observations	478,054	245,446	422,968	352,094	186,540	490,02	
Clusters	3,681	3,640	3,644	3,647	3,555	3,657	
Mean turnout (%)	64.72	64.39	66.60	63.91	70.85	69.42	

Table: Split by country of origin

	Europe inc. Russia		Africa		Asia		North America		South America	
	(1) 3-digit	(2) 2-digit	(3) 3-digit	(4) 2-digit	(5) 3-digit	(6) 2-digit	(7) 3-digit	(8) 2-digit	(9) 3-digit	(10) 2-digit
No network candidate	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Any District	-0.007 (0.005)	-0.007 (0.005)	0.011 (0.019)	0.025 (0.017)	-0.007 (0.008)	-0.008 (0.008)	0.028 (0.031)	0.007 (0.032)	0.053 (0.028)	0.026
Same District	0.040 (0.021)	0.008 (0.015)	0.079 (0.025)	0.057	0.039	0.056 (0.015)	-0.101 (0.355)	-0.033 (0.124)	-0.080 (0.058)	-0.047
Observations	113,928	113,928	29,474	29,474	80,822	80,822	6,034	6,034	8,590	8,590
Clusters	3,453	3,453	2,479	2,479	3,134	3,134	1,710	1,710	1,880	1,880
Mean turnout (%)	33.92	33.92	48.55	48.55	46.76	46.76	54.52	54.52	49.44	49.44

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