News Content in Government-Controlled Media
(Preliminary and Incomplete)

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December 23, 2019

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Motivation

- Most autocracies are low and middle income
- Institutions matter for economic development
  - How autocracies govern is important for development and political economy
- Government-controlled media is a powerful tool
  - Minimize strategically harmful information
  - Maximize strategically advantageous (propaganda)
- The way it works is not obvious...

Motivation

- ▶ Observation 1:
  - ▶ Some events are observable by citizens and cannot be completely censored (would erode trust/efficacy of media)
- ▶ Observation 2:
  - ▶ There is competition across newspapers and politicians, even in autocracies
  - ▶ E.g., in China, cross-regional political competition for GDP (e.g., Persson and Zhuravskaya, 2009), news market competition (e.g., Qin et al., 2018)
  - ▶ Competition for readers could increase truthful reporting

Motivation

- ▶ How do governments balance news and censorship?
- ▶ How does (cross-region) political competition within the Party affect news coverage?

This Paper

- ▶ Document news coverage of coal mine accidents in China
  - ▶ Autocratic central regime known to control all media
  - ▶ Coal mine accidents are politically sensitive and publicly observable
- ▶ Useful variation for empirical identification

What we do

- Party newspapers (directly controlled by the state, institutional subscribers): compare coverage of coal mine accidents
  - State owned vs. privately owned
  - Local vs. not local
- Repeat for "independent" newspapers (relatively independent, individual subscribers)

Main Results

- ▶ Political turnover positively associated with mining accidents
- ▶ Party newspapers provide less coverage for accidents in state-owned mines than privately owned mines
  - ▶ Driven by sensitive emotional but not politically taboo news about deaths/family of victims
- ▶ No such difference in independent newspapers
- ▶ Censorship is partly driven by local political objectives

Existing Literature

- Media influence on behavior (e.g., Enikolopov et al., 2011)
- Government influence on media (e.g., Qian and Yanagizawa, 2009)
- Media in autocracies (e.g., Egorov and Sonin, 2009)
- Media in China (e.g., Qin et al., 2018, Chen and Yang, 2019)
- 1998 decentralization of regulation increased coal mine mortality in China (Jia and Nie, 2017)

Roadmap

- ▶ Background
- ▶ Conceptual Framework
- ▶ Data
- ▶ Results
- ▶ Conclusion

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Background – Coal Mine Accidents

- ▶ Mine accidents are observable
  - ▶ Mines can be large, e.g., >10,000 employees
  - ▶ Usually the main industry of a region, most locals will have relatives or friends employed by the mine
- ▶ Mining is dangerous
  - ▶ In 2007, mortality per coal produced in China 30X to 50X higher than U.S.
  - ▶ 10X higher than India
- ▶ Controversy is salient
  - ▶ e.g., Miners allowed 3 children under One Child Policy

Background – 2007 Reform

- *Reports and Investigation Regulations of Production Safety Accidents* in June 1st, 2007
- All accidents are reported within one hour
- State Council takes over the investigation if deaths ≥ 30
  - visit mine, written report within 3 days
- Possible demotion of the associated bureaucrat or politician
- Our study:
  - Focus on 30+ deaths accidents, 2007 and later.
  - Pre-2007 is a quasi-placebo

Background – Mine Ownership

- State-owned mines are owned and managed by the central/provincial governments
- "Privately-owned" mines are all other mines (local government, individuals)
- State-owned mines are typically larger and older
- The ownership of a mine is usually well-known (e.g., in the name)

Background – Party Newspapers

- 2015 national readership rate 45.7%, per capita # of articles read 54.76
- All newspapers are state owned and ultimately, state controlled
- "Party" are daily newspapers
  - Subscribed by all government and Party institutions
    - Factories, offices, schools, on billboards in parks, village centers
  - Broadcasts Party ideology
  - CCP directly manages and finances
- "Independent": subsidiaries (evening, metro) of Party newspapers
  - Similar circulation rates
  - Subscribed by individuals, revenues from advertising
  - Can't directly contradict the Party.
  - Independent management, more editorial discretion

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Conceptual Framework

- ▶ Central government + Local government
    - ▶ Can influence news content
    - ▶ Signal the competence of the central government in general
        - ▶ Location of accident doesn't matter
- ▶ Local: signal competence of local government
    - ▶ Censor news about local accidents in local state-owned mines

Empirical Estimation

$$y_{ij} = \alpha + \beta Local_{ij} + \gamma(Local_{ij} \times StateOwned_i) + \delta_i + \eta_j + \varepsilon_{ij} \quad (1)$$

- mine i, newspaper j,
- accident (mine) fixed effects, δ_i
- newspaper (region) fixed effects, δ_i
- Poisson regressions
- Standard errors are clustered at the accident level.
- If Party newspapers try to censor bad news about state-owned mines, then $\gamma < 0$.
- Expect smaller effects for independent papers

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Data

- Mining accidents
  - State Administration of Work Safety (SAWS): production safety accidents with 10+ deaths, 2000-
  - Center for Research on the Epidemiology of Disasters in Brussels (EM-DAT) used by Qin et al. (2018)
- We focus on accidents with 30+ deaths, 2000-2018
  - 80 accidents
  - mine's name, location, date of the accident, ownership and size.

News Coverage

- Text analysis of WiseSearch database (1999 –)
- Newspapers that have ever reported an article containing the phrase "coal mine accident".
  - Search for mine name + accident-specific keyword (e.g. "explosion" "permeation")
- Variables: names, management and location of newspaper, name and location of the coal mine, the dates of the accident and article, and the word count of the article.
- Final sample: 31,249 articles, 684 newspapers

News Content – Manual Reading

- ▶ 65% of articles occur within one or two weeks of accident, include most articles about the occurrence or magnitude
- ▶ Found no variation in fact reporting
  - ▶ Consistent with the ministry publishing an official report within 3 days
- ▶ Coverage after 2 weeks are usually in-depth or more general articles

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Descriptive Results – Mine Accidents and Political Turnover

		LPM			Logit	
	(1)	(2)	(3)	(4)	(5)	(6)
Sample:	All	Pre-2007	Post-2007	All	Pre-2007	Post-2007
	A. Deputy Governors (in charge of Production Safety)			B. Party Secretaries, Deputy Party Secretaries, Govenors		
Dep Var Mean	**0.669**	**0.562**	**0.731**	**0.552**	**0.604**	**0.522**
# of State Owned Accidents	-0.0287	0.0745	-0.114	0.0181	0.0431	0.123
	(0.0625)	(0.1230)	(0.1280)	(0.0679)	(0.1250)	(0.1330)
# of Non-State Owned Accidents	0.0597	-0.157	0.368**	0.0181	0.0431	0.123
	(0.1460)	(0.1440)	(0.1430)	(0.0679)	(0.1250)	(0.1330)
Constant	0.655***	0.546***	0.717***	0.519***	0.578***	0.479***
	(0.0073)	(0.0197)	(0.0081)	(0.0106)	(0.0231)	(0.0102)
Observations	589	217	372	589	217	372
	0.342	0.319	0.385	0.181	0.213	0.228

The dependent variable heading spans columns (1)–(6): Dependent Variable: Political Turnover Dummy Variable

Notes: The sample comprises of an unbalanced panel of provinces 2000 to 2016. All regressions control for province FE and year FE. The standard errors are clustered at province level.

Party Newspaper Coverage

Sample:	# Articles		# Total Words	
	(1) 7 Days	(2) 14 Days	(3) 7 Days	(4) 14 Days
	A. Party Newspapers			
Dep Var Mean	*0.600*	*0.783*	*337.9*	*482.8*
Local Accident	1.170***	1.381***	1.799***	2.053***
	(0.233)	(0.242)	(0.289)	(0.287)
Local Accident x State-owned Mine	-0.681**	-0.856**	-0.978***	-1.231***
	(0.306)	(0.371)	(0.300)	(0.358)
Constant	-2.316***	-2.311***	2.952***	2.941***
	(0.168)	(0.140)	(0.196)	(0.155)
Observations	6,775	6,775	6,775	6,775
Local Accident+Local Accident x State-owned Mine	**0.489**	**0.526**	**0.821**	**0.822**
p-value	**0.0352**	**0.0985**	**0.000367**	**0.00551**

The header spans: Dependent Var: over all four columns.

Notes: The sample comprises of news articles during 2007-2016. Observations are at the accident-newspaper level. All columns present Poisson regressions, which control for accident FE and newspaper FE. Standard errors are clustered at the accident level.

Independent Newspaper Coverage

	Dependent Var:			
	# Articles		# Total Words	
	(1)	(2)	(3)	(4)
Sample:	7 Days	14 Days	7 Days	14 Days
	B. Independent Newspapers			
Dep Var Mean	*0.660*	*0.837*	*447*	*616.5*
Local Accident	0.744***	0.830***	1.257***	1.313***
	(0.230)	(0.229)	(0.283)	(0.288)
Local Accident x State-owned Mine	-0.175	-0.459	-0.376	-0.685
	(0.423)	(0.585)	(0.489)	(0.663)
Constant	-4.271***	-3.875***	2.921***	3.068***
	(0.546)	(0.555)	(0.600)	(0.502)
Observations	10,325	10,325	10,325	10,325
Local Accident+Local Accident x State-owned Mine	**0.569**	**0.371**	**0.882**	**0.628**
p-value	**0.119**	**0.499**	**0.0326**	**0.307**
Party-Ind: Local Accident p-value	**0.0236**	**0.0019**	**0.0316**	**0.0068**
Party-Ind: Local Accident x State-owned Mine p-value	**0.0905**	**0.244**	**0.1295**	**0.267**

Notes: The sample comprises of news articles during 2007-2016. Observations are at the accident-newspaper level. All columns present Poisson regressions, which control for accident FE and newspaper FE. Standard errors are clustered at the accident level.

Placebo: Other Industrial Accidents

	Dependent Var: News Coverage within 7 Days			
	# Articles		# Total Words	
	(1)	(2)	(3)	(4)
Sample:	Mining	Other	Mining	Other
	A. Party Newspapers			
Dep Var Mean	**0.600**	**0.990**	**337.9**	**870.5**
Local Accident	1.170***	0.536***	1.799***	0.741***
	(0.233)	(0.129)	(0.289)	(0.158)
Local Accident x State-owned	-0.681**	-0.267	-0.978***	-0.476
	(0.306)	(0.227)	(0.300)	(0.297)
Constant	-2.316***	-1.883***	2.952***	3.465***
	(0.168)	(0.157)	(0.196)	(0.198)
Observations	6,775	7,859	6,775	7,859
Local Accident+Local Accident x State-owned	0.489	0.269	0.821	0.265
p-value	0.0352	0.103	0.000367	0.256

Notes: The sample comprises of news articles during 2007-2016. Observations are at the accident-newspaper level. All columns present Poisson regressions, which control for accident FE and newspaper FE. Standard errors are clustered at the accident level.

Placebo: Pre-2007

	Dependent Var: # of Articles			
	# Articles		# Total Words	
	(1)	(2)	(3)	(4)
Sample:	7 Days	14 Days	7 Days	14 Days
	A. Party Newspapers			
Dep Var Mean	**0.754**	**0.917**	**323.8**	**415.4**
Local Accident	0.855***	0.880***	1.336***	1.287***
	(0.131)	(0.113)	(0.00568)	(0.00474)
Local Accident x State-owned Mine	0.145	0.227	0.249***	0.303***
	(0.266)	(0.235)	(0.0113)	(0.00988)
Observations	2,090	2,090	2,090	2,090
	B. Independent Newspapers			
Dep Var Mean	**0.755**	**0.886**	**365.3**	**446.1**
Local Accident	0.822***	0.898***	0.755***	0.805***
	(0.108)	(0.0940)	(0.00481)	(0.00406)
Local Accident x State-owned Mine	0.160	0.185	0.408***	0.343***
	(0.188)	(0.172)	(0.00830)	(0.00752)
Observations	4,125	4,180	4,125	4,180

Placebo: Coverage before the Accident

	Dependent Var: # of Articles during the 7 Days after, or before the accident			
	Party Newspapers		Independent Newspapers	
	(1)	(2)	(3)	(4)
	Baseline, 7 days after	7 days before	Baseline, 7 days after	7 days before
Dep Var Mean	**0.600**	**0.152**	**0.660**	**0.201**
Local Accident	1.170***	-0.385	0.744***	-0.196
	(0.0763)	(0.215)	(0.0760)	(0.160)
Local Accident x State-owned Mine	-0.681***	-23.45	-0.175	-24.28
	(0.199)	(111,124)	(0.174)	(127,382)
Constant	-2.316***	-4.160***	-4.271***	-3.257***
	(0.334)	(0.706)	(0.540)	(0.512)
Observations	6,775	6,775	10,325	10,325

Notes: The sample comprises of news articles during 2007-2016. Observations are at the accident-newspaper level. All columns present Poisson regressions, which control for accident FE and newspaper FE. Standard errors are clustered at the accident level.

Robustness: Omit Largest Accidents

Exclude Largest Accidents One at a Time (# of Deaths)	Dependent Var: # of Articles in 7 Days					
	(1) Full Sample	(2) Largest	(3) 2nd Largest	(4) 3rd Largest	(5) 4th Largest	(6) 5th Largest
Dep Var Mean	**0.600**	**0.619**	**0.541**	**0.599**	**0.591**	**0.596**
Local Accident	1.170***	1.213***	1.197***	1.153***	1.173***	1.109***
	(0.233)	(0.230)	(0.229)	(0.238)	(0.232)	(0.250)
Local Accident x State-owned Mine	-0.681**	-0.729**	-1.730*	-0.681**	-0.595**	-0.611*
	(0.306)	(0.303)	(1.019)	(0.296)	(0.298)	(0.321)
Constant	-2.316***	-2.308***	-2.321***	-2.271***	-2.284***	-2.292***
	(0.168)	(0.168)	(0.194)	(0.163)	(0.170)	(0.172)
Observations	6,775	6,504	6,504	6,504	6,504	6,504

Notes: The sample comprises of news articles during 2007-2016. Additional restrictions are stated in the column headings. Observations are at the accident-newspaper level. All columns present Poisson regressions, which control for accident FE and newspaper FE. Standard errors are clustered at the accident level.

Robustness: Additional Controls

- ▶ Province x Year FE
- ▶ Province-level controls: GDP, growth, Mining share of GDP, capital dummy
  - ▶ x State-owned
  - ▶ x Local
- ▶ Newspaper-level control: Distance to provincial capital
  - ▶ x State-owned
  - ▶ x Local

Heterogeneous Effects by Article Content

	Dependent Variable: # Articles within 7 Days					
	Extremely sensitive articles containing "Central Government", "Beijing", "Party" or names of National or Provincial Leaders		Sensitive articles containing "Family"		Less sensitive articles containing "Compensation"	
	Party	Independent	Party	Independent	Party	Independent
	(1)	(2)	(3)	(4)	(5)	(6)
Dep Var Mean	**0.213**	**0.273**	**0.110**	**0.158**	**0.0372**	**0.0549**
Local	1.510***	0.968***	1.651***	1.182***	1.831***	1.221***
	(0.125)	(0.114)	(0.165)	(0.136)	(0.290)	(0.243)
Local x State-owned Mine	-0.899***	-0.594*	-0.988***	0.0446	-0.749	0.0718
	(0.291)	(0.310)	(0.368)	(0.305)	(0.772)	(0.568)
Constant	-4.452***	-4.563***	-5.631***	-6.735***	-41.57	-27.00
	(0.781)	(0.658)	(1.155)	(1.225)	(11,237)	(30,254)
Observations	6,775	10,325	6,775	10,325	6,775	10,325

Notes: The sample comprises of news articles during 2007-2016. Observations are at the accident-newspaper level. All columns present Poisson regressions, which control for accident FE and newspaper FE. Standard errors are clustered at the accident level.

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Preliminary Conclusion

- ▶ Party newspapers censor coverage of accidents in local state-owned mines to minimize political responsibility
  - ▶ Exaggerate coverage of accidents in local privately owned mines
- ▶ Evidence on local government manipuation due to political objectives
  - ▶ Standard explanation of censorship in China is central manipulation
  - ▶ Censorship is actually highly decentralized and dependent on individual political motives.
- ▶ Policy implication: increasing # news outlets and regional political competition can *increase* censorship

The End

- Comments and suggestions welcome!