



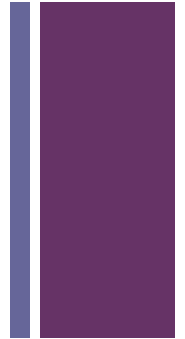
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Arguing about coal seam gas: frame conflicts over the future of fracking in Australia

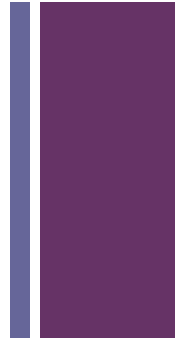


+ Frame Analysis



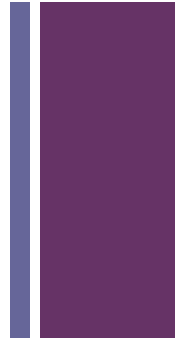
- Framing has become a critical explanatory variable in theories of policy emergence and evolution (eg Dudley, 1999; Grant, 2009; Hajer & Laws 2006; Hisschemöller & Hoppe, 1996; Kaufman & Smith, 1999; Laws & Rein, 2003; Rasmussen, 2011; Schmidt, 2006/2013; Scholten & Van Nispen, 2008; Sørensen, 2006; van Eeten, 2001; Yanow, 2009; Peffley and Hurwitz 2007; Baumgartner et al. 2008; Althaus and Kim 2006; Berinsky and Kinder 2006; Sharp and Joslyn 2003; Shah et al. 2002; Baumgartner et al. 2008)
- We define *frames* as containing a set of meanings that organize objects and events in relation to a wider context of activity. They are external to the observer, directing one's attention to particular attributes of an object while deflecting attention from other aspects (Burke 1966, 44–45).
- As our interest is in the strategic construction of a set of meanings we focus on communications, rather than in how individuals (cognitively) make meanings for themselves (cf. Entman 1993; Snow and Benford 1988; Goffman 1974).

+ Our study



- Seeks to:
 - contribute to the literature by examining why policy frames change *over time*
 - struggle for survival *between frames* within an 'ecology of competing frames' (van Hulst and Yanow 2014)
 - struggle *between policy actors* who sponsor particular frames (Watts and Maddison 2012; Ferree and Merrill 2000; Ferree et al. 2002)
 - use a novel methodological approach to address this question
- We ask the following questions:
 - **RQ1:** What policy frames are present in these articles?
 - **RQ2:** To what extent has the presence of policy frames changed over time?
 - **RQ3:** What policy actors have supported what frames?
 - **RQ4:** Why have particular policy frames and their presence changed over time?
- We focus on the broadcast media because it remains a central site where actors on multiple sides of a controversial issue are represented and policy actors compete with each other to gain legitimacy and construct core meanings about policy issues (Camson and Wolfsfeld 1993; Carvalho, 2007; Shanahan et al., 2011; Evensen et al., 2014)

+ Our contribution



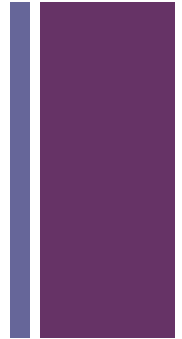
- **Conceptual** – provides an account of why policy frames change within a broader ‘ecology of competing frames’ by linking policy frames to those who sponsor them.
- **Methodological** – moves beyond existing studies that select pre-determined time points in which to conduct a frame analysis by combining computational methods with a ‘small-n’ analysis .
- **Empirical** – Topic of CSG regulation dominated by contestation of what is ‘enough’ regulation and over the nature of risks. The representation of actors changes between our three windows of observation. The frames sponsored by policy actors remains relatively constant, although federal politicians (ALP and Coalition) have adopted a common frame (the states are responsible for regulating the CSG industry).

+ Why do policy frames change?

Approach	Actor Representation Approaches	Frame Adoption Approaches
Analytical Focus	The distribution of actors given voice in a debate	The changing distribution of frames that actors attach to a policy
Mechanism	Policy frames change when the distribution of actors in a debate change	Policy frames change when policy actors use different frames
Examples	Baumgartner and Jones (1993) Bachrach and Baratz (1962)	Kingdon (1984) Hall (1993) Kriesi (2004)

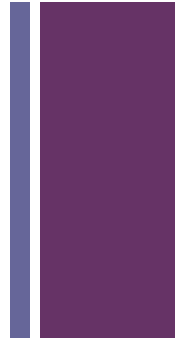
Adapted from Steensland (2008)

+ Methodological Approach



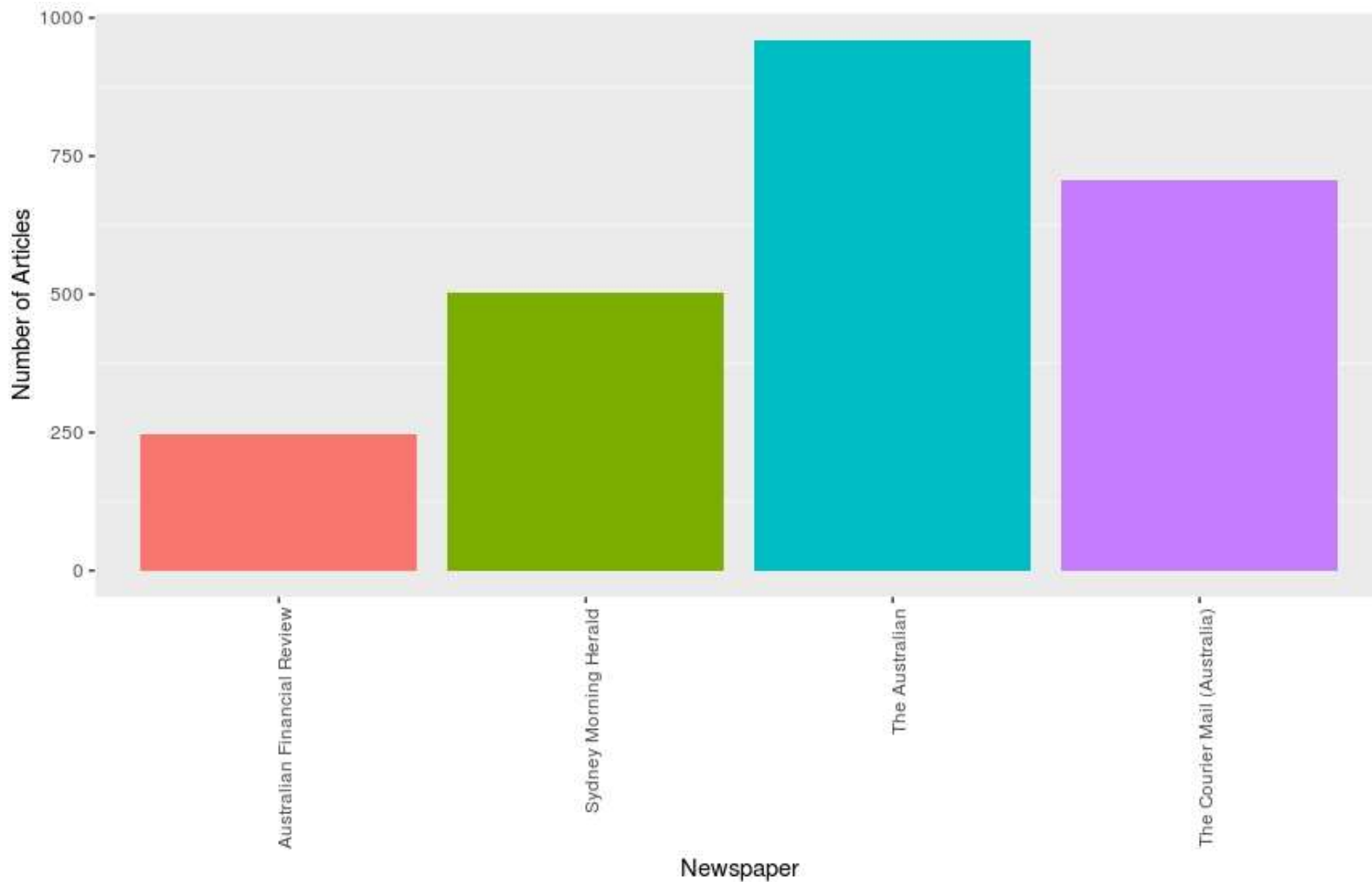
- There has been broad support for ‘hybrid approaches’ that examine social phenomenon by combining computational and manual methods (Boräng *et al.* 2014; Lewis *et al.* 2013)
- Computational methods provide researchers with the opportunity to systematically ‘scale up’ the analysis of frames (Van Holt *et al.*, 2012; Mcnamara, 2005; Grimmer and Stewart 2013; Kluver and Mahoney 2015)
- Manual methods provide researchers with the opportunity to provide for contextual sensitivity (Hand and Hillyard 2014; Aipperspach *et al.* 2006; Lewis *et al.* 2013)
- Existing applications include:
 - identifying the impact of interest group frames on public policy outcomes (Kluver and Mahoney 2015)
 - framing in parliamentary debates, committee deliberations and presidential speeches (Schonhardt-Bailey 2005b, 2008; Bailey and Schonhardt-Bailey 2008; Weale *et al.* 2012).

+ Research Design

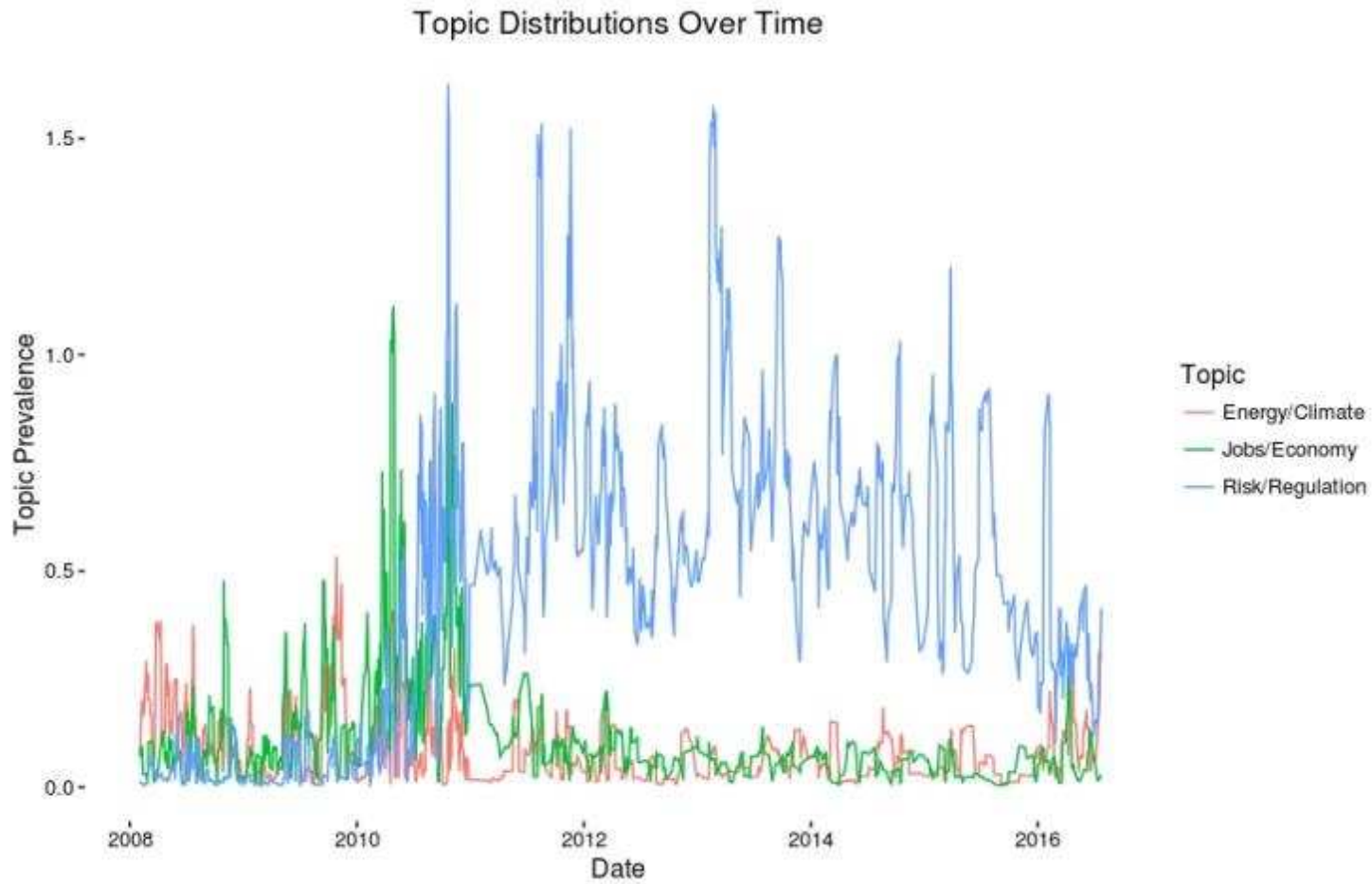
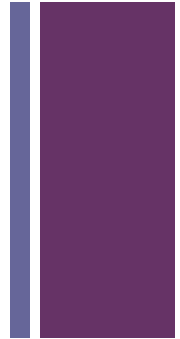


- Data:
 - Lexis-Nexis. Search term: 'coal seam gas'. Date range: 1 January 2008 to 31 July 2016. 2402 articles retrieved.
 - Four national newspaper titles and their weekend editions (The Sydney Morning Herald, The Australian, the Australian Financial Review and The Courier Mail)
- We used **topic modelling** (Latent Dirichlet allocation) to:
 - calculate the estimated topic proportions for each news article in our sample (Roberts and Tingley 2016)
 - select two policy-related topics (from 15) that consistently emerged: topics 11 and 13 – we report findings from one of these topics in this presentation
 - identify 'spikes' in coverage of a particular topic (data aggregated daily using a seven day rolling mean)
- We used **manual coding** (NVivo qualitative data analysis software) to identify:
 - 'named entities'
 - the frame/s deployed by policy sponsors (direct quote and paraphrased)
 - the position taken on CSG by the policy sponsor
- We found a high degree of face validity between the results from the computational methods and the manual coding, which is consistent with other research in this field. It also gives us confidence in the results generated by the computer (Boräng *et al.* 2014; Lewis *et al.* 2013)

+ Distribution of Reporting on Coal Seam Gas by Source



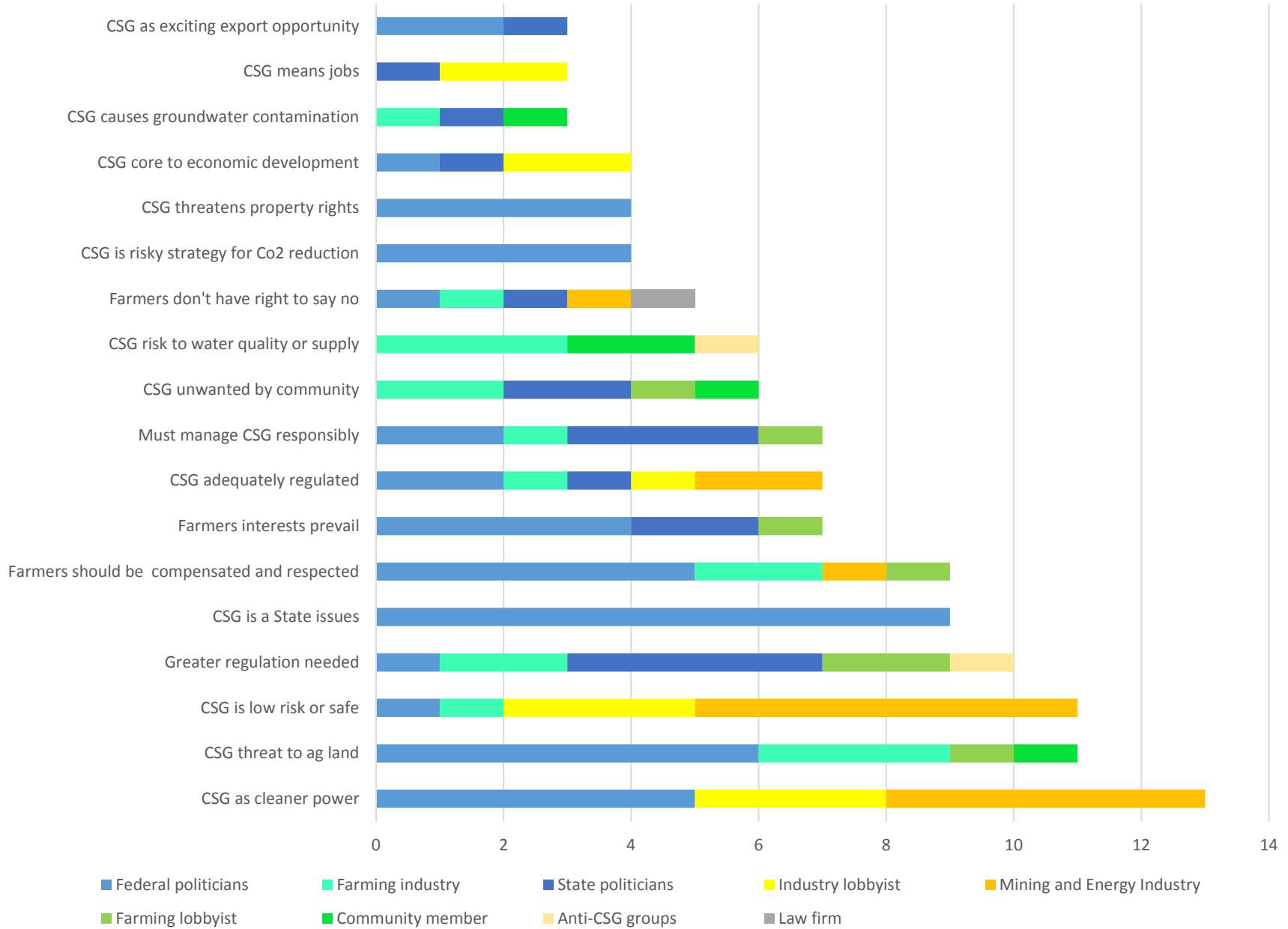
+ Topic Distribution (seven day rolling mean)



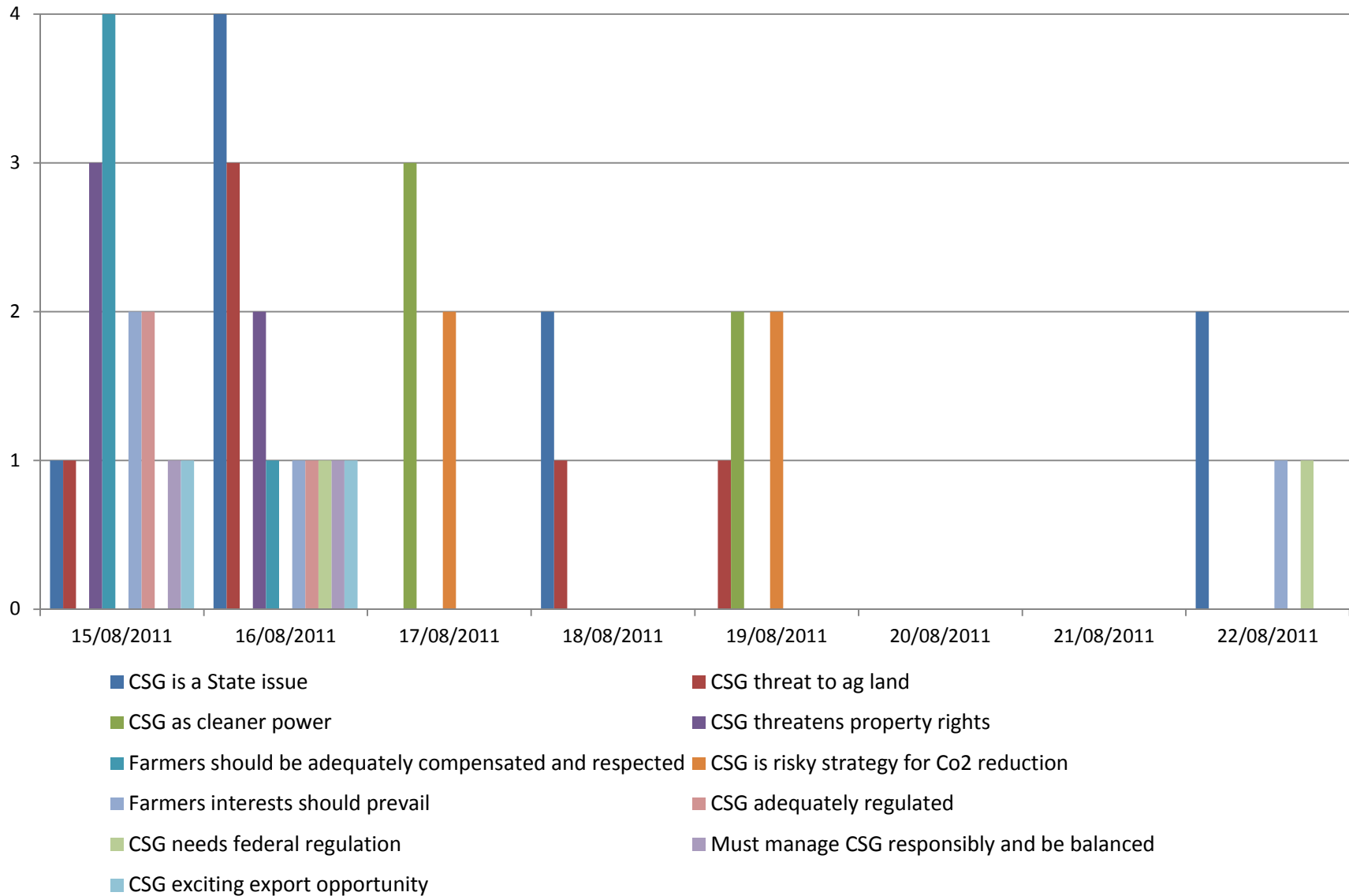
Oct 2010 Frames and actors



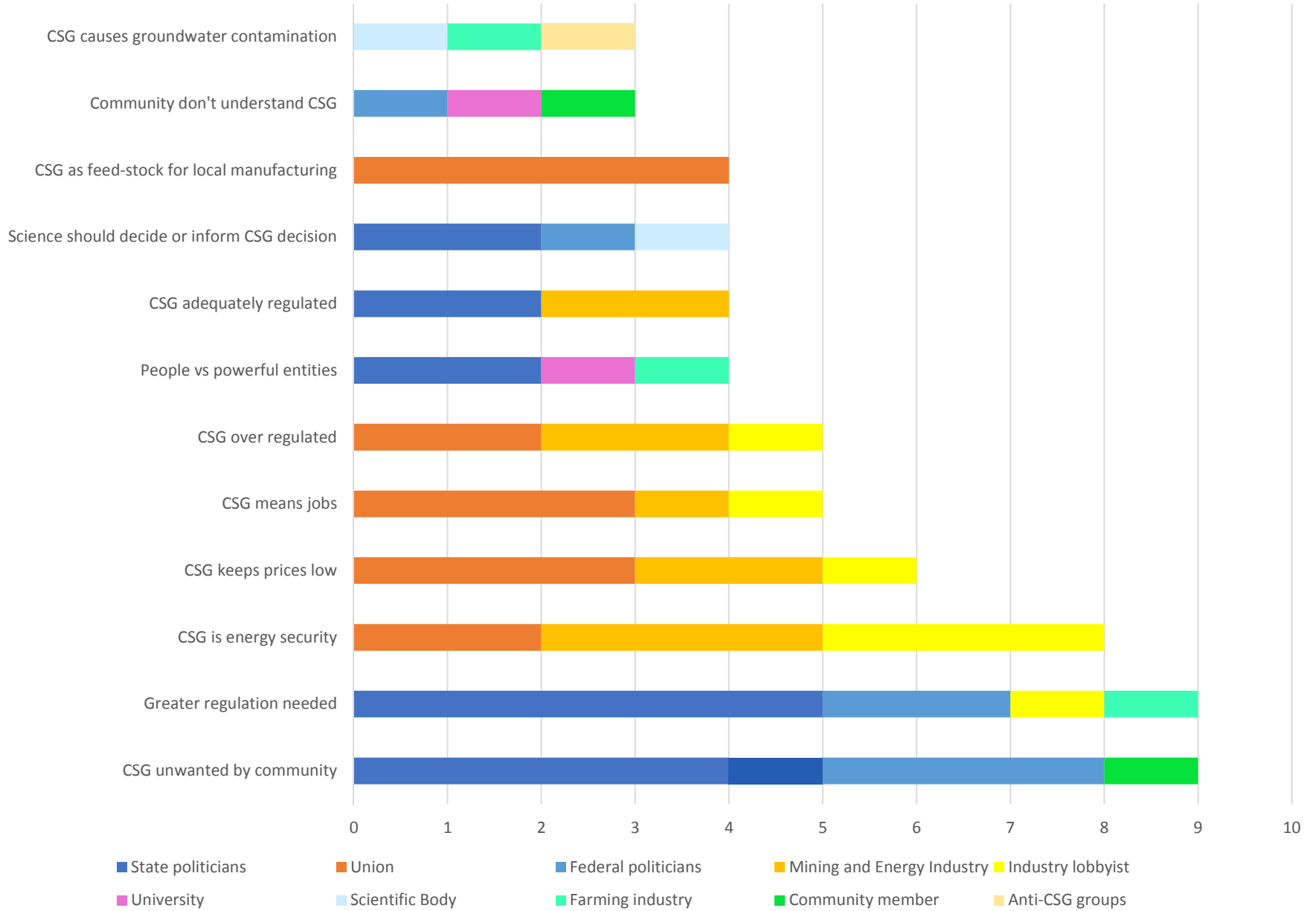
August 2011 Frames and actors



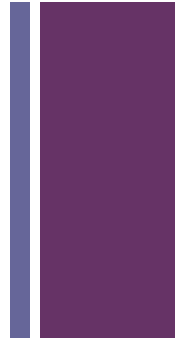
Feb 2011 Federal politicians frames over window



Feb 2013 Frames and actors



+ Discussion and Conclusion



- Government and industry actors are the most cited by the press.
 - Coverage focuses on political actors and major stakeholders such as farmers
- Government actors represent voices both in support of and opposed to CSG development.
- Frame diversity is particularly high among anti-CSG activists and stakeholders
 - The gas/mining industry tends to have a more stable message throughout
 - Suggests the anti-CSG campaign is struggling to gain traction
- Topics exit when there is convergence between actors: the frame diversity and frequency also decreases.
 - This is consistent with previous research showing that a focus on narrative and controversy drives news coverage (Blumler and Gurevitch 1995; Coleman and Blumler 2009; Wanta and Hu 1993)