

VANDERBILT LAW REVIEW

VOLUME 66

MARCH 2013

NUMBER 2

Cultivating a Green Political Landscape: Lessons for Climate Change Policy from the Defeat of California's Proposition 23

*Eric Biber**

INTRODUCTION.....	400
I. WHY PROPOSITION 23 LOST	403
A. <i>The Background of Proposition 23</i>	403
B. <i>The Interest Group Landscape for the Proposition 23 Campaign</i>	411
C. <i>California's Energy-Policy History and Its Political and Economic Impacts</i>	420
II. IMPLICATIONS FOR CLIMATE CHANGE POLICY AND ENVIRONMENTAL LAW	425
A. <i>The Benefits of Strategically Using Interest Groups to Build Environmental Law</i>	428
B. <i>Further Implications: The Scientist Myth, the Importance of Efficiency in Climate Change</i>	

* Assistant Professor of Law, University of California, Berkeley. Thanks to Asher Luzzatto, Abigail Johnson, Heather Mapes, Maria Stamas, Zachary Markarian, and Jill Jaffe for research assistance. Thanks to Andrew Guzman, Bruce Huber, Justin McCrary, Kevin Quinn, Katarina Linos, Jack Citrin, Dan Farber, Jason Schultz, Jennifer Urban, Prasad Krishnamurthy, Ty Alper, Karen Tani, Steve Weissman, David Weisbach, Saul Levmore, Adam Samaha, William Buzbee, KC Bishop, and James Melton for helpful comments and advice. All errors remain my own.

	<i>Policy, and the Role of States in Climate Change Policy</i>	434
III.	RESPONDING TO OBJECTIONS: DEMOCRACY, SUBOPTIMAL OUTCOMES, AND STRATEGIC OPPOSITION	440
IV.	LESSONS FROM A COMPARISON OF CALIFORNIA AND FEDERAL EXPERIENCES WITH CLIMATE CHANGE POLICY	447
	CONCLUSION	453

INTRODUCTION

In the fall of 2010, two major political battles over climate change in the United States reached their climax. At the federal level, efforts to enact comprehensive climate change legislation—already in doubt after the Senate refused to consider legislation passed by the House—were terminated for the near future by a landslide win for conservative Republicans, who are overwhelmingly hostile to climate change legislation, in midterm Congressional elections.¹ At the state level, California voters considered Proposition 23, a ballot initiative that would have effectively repealed the state’s comprehensive global warming statute (AB 32, enacted in 2006).² Yet despite the fact that the 2010 elections produced a wave of conservative Republican victories across the United States, from the local to the federal level, Proposition 23 lost handily, by over twenty points.

Why did Proposition 23 lose by such a large margin? An obvious answer might simply be that California is unique in the United States, politically, culturally, and economically, and therefore is far more receptive to aggressive environmental legislation. But that facile answer would, first of all, not be entirely correct³ and, second of all, would beg the questions: Why is California so different on environmental issues? And might the reasons behind that difference inform the development of climate change policy at the federal level?

1. Phil Plait, *Every Single Republican Senate Hopeful Is Against Climate Change Action*, DISCOVER MAG. (Sept. 29, 2010, 9:04 AM), <http://blogs.discovermagazine.com/badastronomy/2010/09/29/every-single-republican-senate-hopeful-is-against-climate-change-action/> (discussing a survey showing that Republican candidates for the U.S. Senate in the 2010 elections overwhelmingly rejected federal action on climate change).

2. ETHAN ELKIND ET AL., CALIFORNIA AT THE CROSSROADS: PROPOSITION 23, AB 32, AND CLIMATE CHANGE 1 (2010), available at http://www.law.berkeley.edu/files/CLEE-California_at_the_Crossroads.pdf.

3. See *infra* notes 43–51 and accompanying text.

As it turns out, California is different in significant part because of history, specifically the long history of its aggressive efforts to develop energy policy that increases efficiency and reduces dependence on fossil fuels. Those policies have, over the years, created an interest group landscape that is supportive of stricter efforts to restrict carbon emissions and hostile to efforts to repeal energy efficiency and renewable energy mandates—as shown by the details of the campaign over Proposition 23.

The campaign over California's Proposition 23 shows that history does make a difference in policy dynamics. That insight—which builds on a significant political science literature emphasizing history and path dependence in policy development⁴—matters for the debates over climate change policy. Many commentators on climate change policy have focused more on the economics of climate change than the politics. Even when they have looked at the politics, it has been a “snapshot,” static analysis of what efforts might be able to be enacted *now*, rather than an analysis of how policy choices today might make future efforts more feasible. While there are a few scholars who have looked at the political dynamics of climate change policy,⁵ the campaign over Proposition 23 provides a unique

4. For useful overviews of this literature, see, for example, Paul Pierson, *The Study of Policy Development*, 17 J. POL'Y HIST. 34 (2005); Paul Pierson, *When Effect Becomes Cause: Policy Feedback and Political Change*, 45 WORLD POL. 595 (1993) (book review).

5. On the importance of a dynamic political analysis in understanding how policy changes occur and of understanding how policy changes shape the political environment, see ERIC M. PATASHNIK, REFORMS AT RISK: WHAT HAPPENS AFTER MAJOR POLICY CHANGES ARE ENACTED 3–4, 9–11 (2008). For a similar discussion in the context of climate change policy, see Rachel Brewster, *Stepping Stone or Stumbling Block: Incrementalism and National Climate Change Legislation*, 28 YALE L. & POL'Y REV. 245, 252–55 (2010) (noting the problems of static cost-benefit analyses of climate change legislation that fail to consider whether such legislation will inspire future actions that will be more effective); Brian J. Cook, *Arenas of Power in Climate Change Policymaking*, 38 POL'Y STUD. J. 465, 468 (2010) (noting importance of understanding politics dynamically in predicting feasibility of different climate change policy options). Some literature has focused on the specific context in which industry, concerned about differential state regulation in a national market, pushes for “defensive preemption” by the federal government, and how this dynamic might advance climate change policy. *E.g.*, J.R. DeShazo & Jody Freeman, *Timing and Form of Federal Regulation: The Case of Climate Change*, 155 U. PA. L. REV. 1499, 1504–16 (2007); *see also* sources cited *infra* note 146 (describing, for example, efforts by impacted industries to lobby for national action in order to equalize the playing field). For an early attempt to examine the role of policy dynamism in the development of environmental law, see generally E. Donald Elliott et al., *Toward a Theory of Statutory Evolution: The Federalization of Environmental Law*, 1 J.L. ECON. & ORG. 313, 314–17 (1985). There have also been efforts to explore the role of policy and political dynamism in debates over the proper roles of federal and state governments in environmental law. *See, e.g.*, William W. Buzbee, *Contextual Environmental Federalism*, 14 N.Y.U. ENVTL. L.J. 108 (2005); Ann E. Carlson, *Iterative Federalism and Climate Change*, 103 NW. U. L. REV. 1097 (2009).

opportunity to explore how those dynamics actually might play out in practice, and to develop broader lessons for climate change policy.

The defeat of Proposition 23 teaches that, since history matters, an important factor in considering climate change policy is not just what is economically efficient, and not just what is politically possible today, but also what policies will increase the odds of enacting effective climate change policy in the future and decrease the effectiveness of a future backlash undoing those effective policies. Climate change policies that encourage significant investments by regulated industry, that build up new industries that depend upon climate change policy (and therefore will support the maintenance and expansion of that policy), and that are perceived by voters as having significant economic benefits will all be more effective. California's energy policies from the 1970s on had all of these effects, and they paid off in the campaign over Proposition 23.

The other lesson from the campaign over Proposition 23 is that incrementalism can be a successful strategy for climate change policy⁶: a comprehensive solution may only be achievable once intermediate policy steps have cultivated a friendly political landscape by building up supportive interest groups. Incrementalism has implications for a range of debates in climate change policy and environmental law. It shows the flaws in standard criticisms of interest group influence in environmental policymaking, since efficient environmental regulation may often be advanced by incremental compromises with important special interest groups. It also provides an additional rationale for allowing state-level experimentation in environmental law, since state efforts like those in California can provide a seed from which interest group support for efficient and desirable federal legislation can grow.

Of course, California's climate change legislation is truly only one of many steps needed to reduce future climate change; federal legislation and international steps are essential. Nonetheless, proponents of climate change legislation at the federal level should take note of the message from the defeat of Proposition 23: the most important feature of any effort to address climate change may not be whether or not it is the best policy vehicle in an ideal world, but whether or not it will create political momentum for future steps in the climate change arena.

6. I use the term "incrementalism" here to not just refer to an overall regulatory or policy approach that is phased in or tightened over time, but also to the use of what might be wholly different or unrelated regulatory or policy approaches to create a supportive political landscape for later regulatory or policy approaches.

Part I of this Article briefly describes the background of Proposition 23, the campaign over the Proposition, and its electoral defeat. It then explores various reasons for the defeat of Proposition 23, including how the history of California's environmental and energy regulation helped lay the groundwork for the defeat of Proposition 23 by nurturing the creation of a vibrant renewable energy and energy efficiency industry. Part II explores the implications of Proposition 23 for the scholarly climate change policy and environmental law literature. Part III addresses possible problems with the strategic use of interest groups to advance policy goals, specifically arguments that such efforts might undermine democracy or lead to suboptimal policy outcomes. Part IV compares the campaign over Proposition 23 with the fight over federal climate legislation in 2009 and 2010 in order to develop tentative proposals for improving the chances of successful federal climate legislation

I. WHY PROPOSITION 23 LOST

A. *The Background of Proposition 23*

In 2006, the California legislature passed AB 32, which provided for an economy-wide regulatory system for carbon dioxide emissions in the state. The statute delegates broad powers to the California Air Resources Board to reduce greenhouse gas emissions to 1990 levels by 2020.⁷ AB 32 is part of a much larger state effort to improve energy efficiency and reduce California's carbon dioxide emissions, including limits on carbon emissions by automobiles and other mobile sources in the state, requirements that land-use planning take into account impacts on carbon emissions, and requirements that appliances and building codes increase energy efficiency.⁸ AB 32 is the most aggressive state-level effort in the United States to address climate change.⁹

Proposition 23 as drafted would have "suspended" the implementation of AB 32 until the statewide unemployment rate fell to 5.5 percent for at least one full year.¹⁰ While the provision was

7. CAL. HEALTH & SAFETY CODE §§ 38510, 38550 (West 2007).

8. For an overview of California's energy efficiency and renewable energy legislation, see *infra* Table 1.

9. W. Michael Hanemann, *How California Came to Pass AB 32, the Global Warming Solutions Act of 2006*, at 1 (Dep't of Agric. & Res. Econ. & Pol'y, Univ. of Cal. at Berkeley, Working Paper No. 1040, 2007), available at <http://escholarship.org/uc/item/1vb0j4d6>.

10. ELKIND ET AL., *supra* note 2, at 1.

billed as merely a temporary pause on climate change policy until the state economy recovered, given historic employment data for California it would have effectively repealed the statute: that level of unemployment has been reached three times in California since 1976.¹¹ During the campaign over Proposition 23, the statewide unemployment rate was about twelve percent.¹²

Proposition 23 qualified for the California statewide ballot in November 2010 by receiving approximately eight hundred thousand signatures from registered voters, almost twice the required number.¹³ The campaign for the Proposition was initially highly touted by the press.¹⁴ Contributions during the campaign were significant: a total of over forty million dollars.¹⁵ Valero and Tesoro, Texas-based oil companies, provided the lion's share of the funding for the Yes side of the campaign: ninety-three percent of the Yes campaign contributions came from oil corporations, and Valero itself contributed over five million dollars.¹⁶ The opposition to the campaign received about thirty-one million dollars, almost three times as much as the \$10.5 million raised by the Yes campaign.¹⁷ Polling throughout the

11. *Id.*

12. See Margot Roosevelt, *Proposition 23 Poll Shows a Dead Heat Among California Voters*, L.A. TIMES, Sept. 24, 2010, <http://latimesblogs.latimes.com/greenspace/2010/09/proposition-23-poll-global-warming-california.html> (quoting employment data in September 2010).

13. Chris Rizo, *Referendum on Calif. Greenhouse Law Appears Headed for Voters*, LEGAL NEWSLINE (May 3, 2010), <http://www.legalnewsline.com/spotlight/226957-referendum-on-calif-greenhouse-law-appears-headed-for-voters>.

14. See, e.g., Suzanne Goldenberg, *Prop 23 Battle Heats Up in California as Schwarzenegger Comes Out Fighting*, GUARDIAN, Sept. 30, 2010, <http://www.guardian.co.uk/environment/2010/sep/30/prop-23-battle-heats-up> (characterizing Proposition 23 as an attack against Governor Schwarzenegger's "green legacy . . . [and] a landmark environmental law").

15. Disaggregate data can be found at the California secretary of state's campaign finance reporting website. Cal. Sec'y of State, *Campaign Finance: Proposition 023*, CAL-ACCESS, <http://cal-access.sos.ca.gov/Campaign/Measures/Detail.aspx?id=1324800&session=2009> (last visited Oct. 18, 2012); see also Margot Roosevelt, *Proposition 23: Backers Were Outspent, Out-Organized*, L.A. TIMES, Nov. 12, 2010, <http://latimesblogs.latimes.com/greenspace/2010/11/proposition-23-defeat-global-warming-climate-change-initiative.html> (highlighting the funding disparity between supporters and opponents of Proposition 23); *California Prop. 23 – Campaign Contributions – Nov. 2010*, MAPLIGHT, <http://maplight.org/content/california-prop-23-nov-2010> (last updated Nov. 4, 2010) (providing aggregate figures as well as more detailed data in spreadsheet format).

16. ENVIRONMENT CALIFORNIA, ANNUAL REPORT: A RECAP OF OUR WORK FOR OUR MEMBERS IN 2010, at 4 (2010), available at http://www.environmentcalifornia.org/sites/environment/files/Environment-California_2010-Annual-Report.pdf.

17. *California Prop. 23 – Campaign Contributions – Nov. 2010*, *supra* note 15.

campaign showed the race initially tight, but toward the end shifting significantly against.¹⁸

Following the trends of the polls during the campaign, Proposition 23 lost by a substantial margin: 61.6 percent against to 38.4 percent for.¹⁹ The defeat of Proposition 23 might have been expected in a state that was strongly Democratic,²⁰ even in the 2010 elections. Regression analysis of voting patterns at the county level for Proposition 23 does show that by far the strongest correlations with a county's vote for Proposition 23 were the partisan affiliation of voters in the district, as reflected by the vote in the 2010 gubernatorial election;²¹ the higher the vote for the Democratic candidate, the lower the vote for Proposition 23.²²

18. Compare Margot Roosevelt, *Proposition 23 Poll Shows a Dead Heat Among California Voters*, L.A. TIMES, Sept. 24, 2010, <http://latimesblogs.latimes.com/greenspace/2010/09/proposition-23-poll-global-warming-california.html> (showing polling data from September 2010 at forty percent in favor of Proposition 23 and thirty-eight percent opposed), with John Hoeffel & Margot Roosevelt, *California Voters Turning Against Prop. 19 and Prop. 23, Poll Shows*, L.A. TIMES, Oct. 21, 2010, <http://articles.latimes.com/2010/oct/21/local/la-me-1021-prop-poll-20101021> (showing polling data from October 2010 at forty-eight percent opposed and thirty-seven percent in favor). Other polling data showed Proposition 23 running behind even earlier. See MARK DICAMILLO & MERVIN FIELD, FIELD RESEARCH CORP., THE FIELD POLL, RELEASE NO. 2342, at 1 (2010), available at <http://www.field.com/fieldpollonline/subscribers/Rls2342.pdf> (finding forty-eight percent opposed and thirty-six percent in favor from a survey conducted between June 22 and July 5, 2010).

19. See *infra* Table 2 (providing details).

20. See DICAMILLO & FIELD, *supra* note 18, at 4–5 (showing Republicans supporting Proposition 23 forty-seven percent to thirty-three percent, Democrats opposing fifty-seven percent to thirty-one percent, and independents opposing fifty-three percent to twenty-nine percent); *Mining the Field Poll: Climate Change, Gov, Senate*, CALBUZZ (July 12, 2010), <http://www.calbuzz.com/2010/07/mining-the-field-poll-climate-change-gov-and-senate/> (analyzing July 2010 polling data showing support for Proposition 23 very high among voters supporting Republican candidates and very low among voters supporting Democratic candidates).

21. See *infra* Table 4 (providing data).

22. Less important were economic and demographic factors: while higher unemployment rates correlated with higher votes for Proposition 23, the relationship was not statistically significant. Using alternative estimates of partisanship (proportion of the vote for the Democratic candidate for U.S. President in 2008, or proportion of county voters registered as Democrats) resulted in finding stronger relationships with economic or demographic variables. Using the presidential vote as an independent variable led to a finding that both the average income in a county as well as the proportion of the county population that is Hispanic had statistically significant positive correlations with voting “Yes” on Proposition 23. Using Democratic registration levels resulted in unemployment levels having a statistically significant positive relationship with voting “Yes” on Proposition 23. This regression analysis must be taken with a grain of salt: the analysis cannot provide full insights into individual voter decisionmaking since we only have data aggregated at the county level. This is what political scientists call the “ecological fallacy.” See generally, e.g., Anthony S. Chen et al., *Explaining the Contemporary Alignment of Race and Party: Evidence from California's 1946 Ballot Initiative on Fair Employment*, 22 STUD. AM. POL. DEV. 204 (2008) (providing an overview of the problem and

But the margin and distribution of the votes are nonetheless surprising: Proposition 23 lost in some of the most Republican counties of the state, some of which are as conservative as Oklahoma.²³ Proposition 23 lost in counties with a plurality of registered Republican voters, ranging from rural counties such as Butte,²⁴ Calaveras,²⁵ El Dorado,²⁶ Nevada,²⁷ Placer,²⁸ and San Luis Obispo,²⁹ to suburban counties such as Riverside,³⁰ and urban counties such as San Diego.³¹ Proposition 23 lost by bigger margins than all of the Republican statewide elected office candidates, including the Republican candidates for governor, Meg Whitman, and U.S. Senate, Carly Fiorina.³² The votes against Proposition 23 were higher than the votes for either the Democratic candidate for governor, Jerry Brown,

various sophisticated statistical methods to address it, including using more fine-grained voting data at the precinct level).

23. For instance, California's 23rd Congressional district in the 113th Congress was given a partisan voting index ("PVI") of +18 Republican by the Cook Political Report, which would make the district tied with the second-most conservative district in Oklahoma (the most conservative district in Oklahoma has a PVI of +24 Republican). See THE COOK POLITICAL REPORT, PARTISAN VOTING INDEX, DISTRICTS OF THE 113TH CONGRESS: 2004 & 2008, at 2A.3, 2A.7 (2012), available at http://cookpolitical.com/application/writable/uploads/2012_PVI_by_District.pdf.

24. 39.23 percent Republican voter registration versus 34.71 percent Democrat; 54.8 percent voted against Proposition 23, and the total number of anti-Proposition 23 voters (40,501) exceeded the total number of registered Democrats (40,168). See CAL. SEC'Y OF STATE, STATEMENT OF VOTE: NOVEMBER 2, 2010, GENERAL ELECTION 2, 91 (2011), available at <http://www.sos.ca.gov/elections/sov/2010-general/complete-sov.pdf>.

25. 42.88 percent Republican voter registration versus 32.32 percent Democrat; 50.6 percent voted against Proposition 23, and the total number of anti-Proposition 23 voters (9,742) exceeded the total number of registered Democrats (9,288). *Id.*

26. 44.92 percent Republican voter registration versus 30.19 percent Democrat; 51.1 percent voted against Proposition 23, and the total number of anti-Proposition 23 voters (38,309) exceeded the total number of registered Democrats (32,579). *Id.*

27. 40.04 percent Republican voter registration versus 33.66 percent Democrat; 55.20 percent voted against Proposition 23, and the total number of anti-Proposition 23 voters (24,781) exceeded the total number of registered Democrats (20,668). *Id.*

28. 48.23 percent Republican voter registration versus 28.89 percent Democrat; 52.20 percent voted against Proposition 23, and the total number of anti-Proposition 23 voters (71,800) exceeded the total number of registered Democrats (58,609). *Id.*

29. 39.89 percent Republican voter registration versus 34.96 percent Democrat; 57.20 percent voted against Proposition 23, and the total number of anti-Proposition 23 voters (58,159) exceeded the total number of registered Democrats (54,715). *Id.* at 2, 92.

30. 41.87 percent Republican voter registration versus 36.29 percent Democrat; 51.10 percent voted against Proposition 23. In this county, the total number of anti-Proposition 23 voters (240,366) did not exceed the total number of registered Democrats (311,312). *Id.*

31. 36.27 percent Republican voter registration versus 35.92 percent Democrat; 56.20 percent voted against Proposition 23. In this county, the total number of anti-Proposition 23 voters (490,431) did not exceed the total number of registered Democrats (518,080). *Id.*

32. See *infra* Table 2 (providing numerical data).

or U.S. Senate, Barbara Boxer.³³ Indeed, Proposition 23 lost by a margin comparable to the landslide victory for President Obama in 2008, even though the electorate in 2010 was older and whiter.³⁴ The degree of defeat for Proposition 23 was historically quite large as well: of the 126 statewide ballot measures in California from the March 2000 primary election onward, Proposition 23's "for" vote total was almost a standard deviation below the average.³⁵

The history of energy legislation in California also belies any claims that the vote for Proposition 23 was purely determined by partisanship. The most vocal advocate for climate change policy in California was Arnold Schwarzenegger, the Republican Governor from 2003 to 2010.³⁶ Legislative passage for twelve major energy and climate change bills enacted since 2002 generally involved some level of bipartisan support: approximately fifteen percent of Assembly Republicans and twenty percent of Senate Republicans voted for final passage of these bills, with no discernible decline in support over time.³⁷ Indeed, eighteen percent of Assembly Republicans and twenty percent of Senate Republicans in 2011 voted for SBX1-2,³⁸ which required thirty-three percent of electricity in California to come from renewable sources by 2020, an extremely aggressive mandate.

Another comparison that makes clear that California voters do not automatically vote for the "liberal" position in initiatives is between the outcome on Proposition 23 and another high-profile initiative to repeal an important liberal policy triumph in California. Just two years before, California voters had barely approved Proposition 8, which undid a California Supreme Court ruling that

33. See *infra* Table 2 (providing numerical data).

34. President Obama won 61.1 percent of the vote in California in 2008, while Senator McCain won thirty-seven percent of the vote. CAL. SEC'Y OF STATE, STATEMENT OF VOTE: NOVEMBER 4, 2008, GENERAL ELECTION 8 (2008). For national comparisons on voter demographics from 2008 to 2010, see Ezra Klein, *Democrats Lost Big Because Young Voters Stayed Home*, WASH. POST WONKBLOG (Nov. 3, 2010, 10:48 AM), http://voices.washingtonpost.com/ezra-klein/2010/11/democrats_lost_big_because_you.html; see also MARK DiCAMILLO & MERVIN FIELD, FIELD RESEARCH CORP., THE FIELD POLL, RELEASE NO. 2366, at 4–5 (2010), available at <http://www.field.com/fieldpollonline/subscribers/Rls2366.pdf> (finding that likely California voters in 2010 were older, whiter, more conservative, and more male than overall registered voters).

35. The average "for" vote was 50.3 percent and the standard deviation was 13.8 percent.

36. See Hanemann, *supra* note 9, at 17–23 (describing Schwarzenegger's central role in advancing the passage of AB 32).

37. See *infra* Tables 5 & 6.

38. See *infra* Tables 5 & 6.

held that prohibiting same-sex marriage was unconstitutional.³⁹ Many counties that voted against Proposition 23 voted for Proposition 8.⁴⁰ The outcome in the vote on Proposition 8—in which voters changed the legal status quo—also demonstrates that the vote on Proposition 23 cannot be purely explained by voter resistance to changing the law through the ballot box.

Nor was the vote on Proposition 23 a low-turnout affair that was determined only by those most interested in climate change policy: the number of votes on Proposition 23 was higher than that for many other propositions on the ballot (third highest of the nine measures on the ballot),⁴¹ and comparable to that for contested state-wide and Congressional races.⁴² Of the 10,300,392 total voters in the 2010 elections in California, 9,778,407 cast a vote on Proposition 23.

Californians are famously proenvironmental,⁴³ and support for environmental causes in general was strongly associated with

39. Proposition 8 was enacted by a vote of 52.3 percent to 47.7 percent. CAL. SEC'Y OF STATE, *supra* note 34, at 13.

40. For instance, all of the counties listed above, as well as major counties that traditionally vote Democratic or are swing counties, such as Los Angeles and Sacramento, voted for Proposition 8. *Id.* at 60–62.

41. See *infra* Table 2. The measures with higher vote totals were Proposition 19 and Proposition 21. Several of the other measures on the ballot were very high profile: Proposition 19 sought to legalize marijuana in California; Propositions 20 and 27 addressed redistricting of congressional and state legislature seats; Propositions 22 and 25 sought to reform the state budget process (a major issue given California's ongoing budget crisis).

42. See *infra* Table 2 (providing numerical results).

43. Despite California's reputation as a tree-hugging state, on some polling questions there are not significant differences between the environmental preferences of Californians and those of Americans at large. Compare, e.g., MARK BALDASSARE ET AL., PUB. POLICY INST. OF CAL., CALIFORNIANS & THE ENVIRONMENT 20 (2011), available at http://www.ppic.org/content/pubs/survey/S_711MBS.pdf (finding in a July 2011 poll that fifty-six percent of Californians believe the federal government is not doing enough to address global warming), MARK BALDASSARE ET AL., PUB. POLICY INST. OF CAL., CALIFORNIANS & THE ENVIRONMENT 8 (2010), available at http://www.ppic.org/content/pubs/survey/S_710MBS.pdf (finding in a July 2010 poll that seventy-nine percent of Californians believe the government should address climate change through regulation of emissions), and MARK DICAMILLO & MERVIN FIELD, FIELD RESEARCH CORP., THE FIELD POLL, RELEASE NO. 2380, at 3 (2011), available at <http://www.field.com/fieldpollonline/subscribers/Rls2380.pdf> (finding in a June 2011 poll that thirty-eight percent of Californians support building more nuclear power plants), with JON KROSNICK & ANA VILLAR, STANFORD WOODS INST. FOR THE ENV'T, GLOBAL WARMING POLL, at Q33b (2010), available at <http://woods.stanford.edu/docs/surveys/Global-Warming-Survey-Selected-Results-June2010.pdf> (finding in a June 2010 poll that seventy-six percent of Americans believe the government should address climate change through regulation of greenhouse gas emissions), ANTHONY LEISEROWITZ ET AL., YALE UNIV. & GEORGE MASON UNIV., CLIMATE CHANGE IN THE AMERICAN MIND: PUBLIC SUPPORT FOR CLIMATE & ENERGY POLICIES IN MAY 2011, at 3 (2011), available at <http://environment.yale.edu/climate/files/PolicySupportMay2011.pdf> (finding in a May 2011 poll that fifty-four percent of Americans believe the President should do more to address global warming and fifty-seven percent believe the U.S.

opposition to Proposition 23. For instance, there was a strong correlation at the county level between a No vote on Proposition 23 and a Yes vote on Proposition 21 on the same ballot;⁴⁴ Proposition 21 would have imposed an eighteen dollar registration fee on all automobiles in the state to support state parks (and would have granted all registered vehicle owners in the state free access to state parks).⁴⁵

But Californians also do not automatically vote for every ballot initiative that purports to help the environment. Other ballot initiatives in November 2010 can be plausibly characterized as environmental or environmentally related, yet in those initiatives the proenvironment side lost: Proposition 21, while supported by environmental groups, failed by a vote of 57.3 percent against to 42.7 percent for;⁴⁶ accordingly, significant numbers of No voters on Proposition 21 also voted No on Proposition 23. Proposition 26 would have required a two-thirds vote for any increase in government fees, expanding the state constitutional requirement for two-thirds votes for tax increases;⁴⁷ it was opposed by environmental groups, but it passed by 52.5 for to 47.5 against.⁴⁸ Environmental initiatives have regularly failed in past elections in California as well, often by significant margins: Proposition 87 in 2006 would have imposed a severance tax on oil and gas extraction in California to fund renewable energy research; it was defeated 54.6 percent against to 45.4 percent for.⁴⁹ Proposition 130 in 1990 (“Forests Forever”) would have imposed significant restrictions on timber harvesting in California, with a focus on protecting old-growth forests. Even though the initiative campaign

Congress should do more), and LEISEROWITZ ET AL., *supra*, at 8, 14 (finding in a May 2011 poll that forty-seven percent of Americans support building more nuclear power plants, but only thirty-three percent support building more nuclear power plants in their local area).

44. See *infra* Table 4 (providing numerical evidence).

45. CAL. SEC’Y OF STATE, PROPOSITION 21: TITLE, SUMMARY, AND ANALYSIS 24 (2010), available at <http://cdn.sos.ca.gov/vig2010/general/pdf/english/21-title-sum-analysis.pdf>.

46. See *infra* Table 2; see also CAL. SEC’Y OF STATE, PROPOSITION 21: ARGUMENTS AND REBUTTALS 28 (2010), available at <http://cdn.sos.ca.gov/vig2010/general/pdf/english/21-arg-rebuttals.pdf> (identifying at least two California environmental groups as sponsors of ballot arguments in favor of Proposition 21).

47. CAL. SEC’Y OF STATE, PROPOSITION 26: TITLE, SUMMARY, AND ANALYSIS 56 (2010), available at <http://cdn.sos.ca.gov/vig2010/general/pdf/english/26-title-sum-analysis.pdf>.

48. See *infra* Table 2; see also CAL. SEC’Y OF STATE, PROPOSITION 26: ARGUMENTS AND REBUTTALS 60 (2010), available at <http://cdn.sos.ca.gov/vig2010/general/pdf/english/26-arg-rebuttals.pdf> (identifying the California League of Conservation Voters as a sponsor of ballot arguments opposed to Proposition 26).

49. See *infra* Table 3; see also CAL. SEC’Y OF STATE, CALIFORNIA GENERAL ELECTION: OFFICIAL VOTER INFORMATION GUIDE 70 (2006), available at <http://vote2006.sos.ca.gov/voterguide/pdf/English.pdf> (providing a description of Proposition 87).

coincided with the height of political battles over protecting redwood forests in northern California, the initiative failed 53.13 percent against to 47.87 percent for.⁵⁰ A study of environmental initiatives in California from 1970 through 1994 found that the environmental side won in only about half of the contests.⁵¹

Finally, while it is the case that propositions usually face a “burden of persuasion” with voters, such that undecided voters tend to vote against propositions for which they have very little information,⁵²

50. See *infra* Table 3. One recent environmental initiative that did pass in California passed by a smaller margin than the margin of defeat for Proposition 23. In 2002, Proposition 40 authorized the issuance of four billion dollars in bonds to support park expansion and environmental restoration work. CAL. SEC’Y OF STATE, CALIFORNIA PRIMARY ELECTION: OFFICIAL VOTER INFORMATION GUIDE 6 (2002), available at http://www.sos.ca.gov/elections/viguide_pe02/bp_pe02.pdf. This initiative passed by a margin of 56.9 percent for and 43.1 percent against. See *infra* Table 3. No money was spent in the campaign in opposition to Proposition 40. *California Online Voter Guide: 2002*, CAL. VOTER FOUND., <http://www.calvoter.org/voter/elections/archive/2002/primary/propositions/topten.html> (last updated May 10, 2002). In 2008, two ballot initiatives that purported to be proenvironmental, but in fact were highly controversial and did not receive strong support from environmental groups, were defeated: Proposition 7, which would have greatly expanded the state’s renewable portfolio standard, was seen as overly ambitious and counterproductive by major state environmental groups; and Proposition 10, which would have given massive subsidies to natural gas–fueled vehicles, was also seen as counterproductive and as the pet project of a Texas billionaire. See *infra* Table 3 (showing vote totals); see also Tom Zeller, Jr., *California Renewable-Energy Initiatives Defeated*, N.Y. TIMES GREEN BLOG (Nov. 5, 2008, 10:06 AM), <http://green.blogs.nytimes.com/2008/11/05/california-renewable-energy-initiatives-tank/> (discussing details of the initiatives).

Like Proposition 23, two other significant ballot measures in recent California political history were opposed by environmental groups. Of those, one was defeated by a larger margin than Proposition 23. Proposition 138 in 1990 (“The Big Stump,” as it was nicknamed by its opponents) was a counterinitiative to the “Forests Forever” Proposition, supported by the timber industry, including Louisiana-Pacific Corporation and Georgia-Pacific Corporation. Richard C. Paddock, *Proposition 130: Logging Firms Portray Themselves as Environmentalists*, L.A. TIMES, Nov. 3, 1990, http://articles.latimes.com/1990-11-03/news/mn-3222_1_timber-industry. It would have allowed for deregulation of the timber industry in California, and it failed 71.16 percent against to 28.84 percent for. *Infra* Table 3. Proposition 90 in 2006 would have greatly expanded the circumstances in which the government would be required to compensate property owners for loss of value as a result of regulation. See CAL. SEC’Y OF STATE, *supra* note 49, at 90 (providing a description of Proposition 90). It lost in a close race, 52.4 percent against to 47.6 percent for. *Infra* Table 3.

51. See Matthew E. Kahn & John G. Matsusaka, *Demand for Environmental Goods: Evidence from Voting Patterns on California Initiatives*, 40 J.L. & ECON. 137 (1997). Kahn and Matsusaka identify sixteen environmentally related initiatives from 1970 through 1994, of which only six passed; however, two of these initiatives were opposed by environmental groups and neither passed. Thus, the overall success rate of environmental groups in California among the initiatives studied was fifty percent (eight of sixteen).

52. See SHAUN BOWLER & TODD DONOVAN, *DEMANDING CHOICES: OPINION, VOTING, AND DIRECT DEMOCRACY* 43–66 (1st paperback ed. 2000) (showing, for example, that negative voting increases as more ill-informed voters are drawn into the electorate); Michael S. Kang, *Democratizing Direct Democracy: Restoring Voter Competence Through Heuristic Cues and “Disclosure Plus”*, 50 UCLA L. REV. 1141, 1155–56 (2003) (showing how campaign spending is

this also does not appear to fully explain the substantial margin of defeat for Proposition 23, which lost by the largest amount of any of the propositions on the 2010 ballot and by a significant amount historically.⁵³

B. The Interest Group Landscape for the Proposition 23 Campaign

So why did Proposition 23 fail by such a large margin? One place to start is the financial records for the campaign for Proposition 23. As noted above, opponents of the Proposition outspent proponents by a significant margin. This runs counter to the standard prediction of social scientists that policy proposals with concentrated costs and diffuse benefits (such as most environmental regulation) will tend to be at a disadvantage politically, particularly in terms of resources.⁵⁴

Two sets of interest groups would appear to have the most at stake in any outcome of Proposition 23: renewable energy companies that would benefit from restrictions on carbon-based energy, and the oil and gas industry, which is the California industry most directly harmed by regulatory efforts to restrict carbon emissions. Based on those interests, one would expect these groups to have been heavily involved in the campaign on each side. Interestingly, the story told by the campaign finance records is not that simple.⁵⁵ While there was

more effective in opposition to a ballot measure than in support of one, in the absence of heuristic cues).

53. See *infra* Tables 2 & 3 (providing vote totals).

54. According to public choice theory, large groups that receive small per capita benefits or face small per capita costs will be at a substantial organizational disadvantage compared to small groups that receive large per capita benefits or face large per capita costs. See generally MANCUR OLSON, *THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS* 1–3 (Harvard Univ. Press rev. ed. 1971); PATASHNIK, *supra* note 5, at 7–8 (summarizing the political science literature); Eric Biber, *The Importance of Resource Allocation in Administrative Law*, 60 ADMIN. L. REV. 1, 42–49 (2008) (showing repercussions of the theory in a regulatory context). Climate change policy is intended to reduce the damage to the global climate from carbon dioxide emissions. The benefits of such policy are public goods that are distributed across the population of the entire planet. The costs of such policy (at least direct costs) are disproportionately felt by large industrial organizations that produce or use large amounts of fossil fuels, such as oil companies and automobile manufacturers. Accordingly, one would expect the opponents of climate regulation to generally have a substantial organizational advantage, and therefore a resource advantage. I expand further on this point below.

The public choice dynamics discussed here are not insurmountable, as the passage of numerous environmental statutes in the past forty years makes clear. See Daniel A. Farber, *Politics and Procedure in Environmental Law*, 8 J.L. ECON. & ORG. 59 (1992); see also *infra* note 183 and accompanying text (comparing the resources brought to bear by environmentalists and industry in the debate over federal climate legislation).

55. Nor is the story from county-level voting patterns that simple. Neither the amount of energy produced by renewable projects within a county, nor the potential energy that renewable

prominent press coverage of support by Silicon Valley renewable energy venture capitalists for the “No on 23” campaign,⁵⁶ and while renewable energy companies and venture capitalists did donate substantial amounts to the “No on 23” campaign, their donations were both relatively late in the campaign and also only comprised a minority of the overall donations.⁵⁷ Much of the anti-23 contributions were from individual donors, nonprofits, or unions.⁵⁸ Why renewable

projects could produce within a county, had any correlation with the final vote on Proposition 23. See *infra* Table 4. Of course, renewable energy production represents only a fraction of the impact that the renewable energy industry has on the state economy. Energy production and potential totals are underinclusive measures of the economic impacts of renewable energy, as they exclude the production of renewable energy equipment and renewable energy innovation.

56. See, e.g., Todd Woody, *A Foil for the Koch Brothers?*, N.Y. TIMES GREEN BLOG (Mar. 15, 2011, 2:28 PM), <http://green.blogs.nytimes.com/2011/03/15/a-foil-for-the-koch-brothers/> (discussing the role of a prominent venture capitalist in opposition to Proposition 23). Leading Silicon Valley trade associations also opposed Proposition 23. See Marc Lifisher, *Ballot Initiatives Divide a Usually United Business Front*, L.A. TIMES, Oct. 31, 2010, <http://articles.latimes.com/2010/oct/31/business/la-fi-business-election-20101031> (noting opposition of Silicon Valley Leadership Group); Andrew S. Ross, *More Heavy Hitters Say “No” to Prop 23*, THE BOTTOM LINE (Oct. 19, 2010, 3:16 PM), <http://blog.sfgate.com/bottomline/2010/10/19/more-heavy-hitters-say-no-to-prop-23/?tsp=1> (highlighting a statement from leading Silicon Valley investors opposed to Proposition 23).

57. Corporations and individuals with a clear cleantech affiliation represented at least thirty percent of the total. This is likely a conservative estimate since many individuals did not indicate their affiliation. Approximately three million dollars was donated by two leading venture capitalists in the cleantech industry (or their spouses): John Doerr and Vinod Khosla. *California Prop. 23 – Campaign Contributions – Nov. 2010*, *supra* note 15. Another five million dollars was donated by Thomas Steyer (and his wife), who the press describes as heavily involved in cleantech venture capital. *Id.*; see also Adam Nagourney, *California Braces for Showdown on Emissions*, N.Y. TIMES, Sept. 16, 2010, <http://www.nytimes.com/2010/09/17/us/17pollute.html> (noting support by venture capitalists for “No on 23” campaign).

Contributions from venture capitalists in the cleantech industry did not come in until later in the campaign. See Margot Roosevelt, *Prop. 23 Foes Pouring Money into Campaign*, L.A. TIMES, Oct. 15, 2010, <http://articles.latimes.com/2010/oct/15/local/la-me-prop-23-20101015> (indicating that most donations from cleantech sources to “No on 23” campaign came in late September and early October); Emilie Middlesworth, *Alternative Energy Companies Clean Energy, KiOR, Inc. Fund Prop. 23 Opposition*, MAPLIGHT (Oct. 28, 2010), <http://maplight.org/content/72417> (noting late contributions to opposition campaign from alternative energy corporations).

58. Approximately sixty percent of the funding for the opposition to Proposition 23 came from individuals. See *California Prop. 23 – Campaign Contributions – Nov. 2010*, *supra* note 15. Among the top contributors were environmental organizations (such as National Wildlife Federation, the League of Conservation Voters, and The Nature Conservancy), and wealthy individuals or philanthropists not directly connected to cleantech (such as Bill Gates, the spouse of a Google cofounder, an Intel cofounder, the sons of the founder of Gap, and hedge fund managers). See *id.* Overall, while renewable energy industry lobbying has grown substantially in recent years, Cassandra LaRussa, *Solar, Wind Power Groups Becoming Prominent Washington Lobbying Forces After Years of Relative Obscurity*, OPEN SECRETS BLOG (Aug. 25, 2010, 4:41 PM), <http://www.opensecrets.org/news/2010/08/solar-wind-power-groups-becoming-pr.html>, the renewable energy industry still invests only a fraction of what other major industries (such as oil and gas) invest into lobbying efforts. See, e.g., Sarah Laskow, *How Big is “Big Wind”?*, AM. PROSPECT, June 17, 2011, <http://prospect.org/article/how-big-big-wind> (comparing expenditures

energy did not play a larger or earlier role in the campaign is somewhat mysterious. It could be because new industries are more reluctant to play in the political arena, because the regulatory system most at issue in Proposition 23 did not directly affect the energy policies that most benefited renewable energy companies,⁵⁹ or because the renewable energy industry did not feel a need to contribute in large amounts because of the substantial public donations.

Also surprising is the pattern of donations on the other side of the ledger. Not only did oil and gas companies donate the vast majority of money for the “Yes on 23” campaign, but the vast majority of the Yes money also came from outside of the state.⁶⁰ Two Texas oil companies, Valero and Tesoro, were the largest two individual contributors to the “Yes on 23” campaign.⁶¹ Valero, the largest single contributor, has multiple California refineries and a substantial California retail presence.⁶² Valero and Tesoro saw AB 32 as a threat to their market position because, as independent refining companies without their own oil-production facilities, they depended exclusively on the low-margin refining business for profits, a business that is particularly vulnerable to downturns in gasoline consumption (due to, for instance, greenhouse gas regulation).⁶³ To make matters worse for both Valero and Tesoro, they had invested in particularly capital-intensive refineries for “dirty,” heavy, high-sulfur oil⁶⁴ that is

between the alternative energy industry and the oil and gas industry in 2010); LaRussa, *supra* (comparing expenditures between the alternative energy industry and other energy-related industries in 1998).

59. For example, Proposition 23 would not have directly affected California’s Renewable Portfolio Standard (“RPS”), which requires utilities to buy a certain proportion of their electricity from renewable sources.

60. See *California Prop. 23 – Campaign Contributions – Nov. 2010*, *supra* note 15 (indicating that more than seventy percent of total Yes funding came from outside the state).

61. See *id.* (indicating that these two companies, both of which are headquartered in Texas, combined to contribute 66.8 percent of total Yes funding).

62. See *Company History*, VALERO, <http://www.valero.com/OURBUSINESS/Pages/CompanyHistory.aspx> (last visited Oct. 14, 2012).

63. See ANTHONY ANDREWS, ROBERT PIROG & MOLLY F. SHERLOCK, CONG. RESEARCH SERV., R41478, THE U.S. OIL REFINING INDUSTRY: BACKGROUND IN CHANGING MARKETS AND FUEL POLICIES 17–19 (2010) (describing the profitability of independent oil refining companies). Large integrated companies such as ExxonMobil, which have their own production facilities, stayed out of the Proposition 23 campaign, perhaps because the integrated companies can make money from oil production and refining. *Id.* at 18 (noting that Valero, an independent refiner, does not own petroleum reserves); see also Jad Mouawad, *Chilly Climate for Oil Refiners*, N.Y. TIMES, Dec. 24, 2009, http://www.nytimes.com/2009/12/24/business/energy-environment/24refining.html?_r=0 (“Plagued by boom-and-bust cycles of rapid expansion followed by sharp belt-tightening, refining companies have often struggled to operate at a profit.”).

64. See THE ELLA BAKER CTR. & CAL. ENVTL. JUSTICE ALLIANCE, THE TOXIC TWINS: DUO BEHIND ENVIRONMENTAL ROLLBACK ARE TWO OF CALIFORNIA’S BIGGEST SOURCES OF DEADLY

particularly vulnerable to drops in gasoline demand.⁶⁵ These investments were also particularly vulnerable to one of the regulatory standards proposed for adoption by California under AB 32: a “low-carbon fuel standard” that would penalize refining that required significant energy inputs, such as refining high-sulfur oil.⁶⁶

CHEMICALS 3 (2011), available at http://caleja.org/wp-content/uploads/2011/06/2010_0810_toxic_twins.pdf (stating the Valero and Tesoro have expanded their capacity in California to process sulfur-laden types of oil known as “sour” and “heavy” crudes); VALERO ENERGY CORP., OPERATING HIGHLIGHTS AND THROUGHPUT VOLUMES & YIELDS 8–16 (2012), available at <http://www.valero.com/InvestorRelations/Documents/2012%20Operating%20Highlights%202002%20through%20Q2012.pdf> (showing reliance on heavy oil at California refineries); *Wilmington*, VALERO, <http://www.valero.com/OurBusiness/OurLocations/Refineries/Pages/Wilmington.aspx> (last visited Oct. 14, 2012) (noting that Valero’s Wilmington, California refinery focuses on heavy, high-sulfur oil).

65. See Kirsten Korosec, *Valero Energy Hunkers Down in Challenging Sour Crude Refining Market*, CBS NEWS (July 28, 2009), http://www.cbsnews.com/8301-505123_162-43040615/valero-energy-hunkers-down-in-challenging-sour-crude-refining-market/ (noting that “Valero’s heavy, sour crude refining operations have been hit especially hard” due to low demand for fuel).

66. See DAVID MONTGOMERY ET AL., CHARLES RIVER ASSOCS., ECONOMIC AND ENERGY IMPACTS RESULTING FROM A NATIONAL LOW CARBON FUEL STANDARD 21–23, 25 (2010), available at <http://consumerenergyalliance.org/wp/wp-content/uploads/2010/06/CRA-LCFS-Final-Report-June-14-2010.pdf> (showing that petroleum demand is negatively influenced by the Low Carbon Fuel Standards (“LCFS”) mandate); DAVE REED, TESORO COS., INC., CLIMATE CHANGE UPDATE – AB32/LOW CARBON FUEL STANDARD 1, 13–14 (2010), available at <http://wonkroom.thinkprogress.org/wp-content/uploads/2010/07/TesoroPresentation.pdf?mobile=nc> (stating that AB 32 will cause refineries to undergo thinning margins, potentially causing shutdown of some refineries); MICHAEL WHATLEY, HBW RES., LOW CARBON FUEL STANDARDS: DEVELOPMENT, MECHANICS, AND IMPACTS 9 (2009), available at <http://consumerenergyalliance.org/wp/wp-content/uploads/2009/07/microsoft-powerpoint-argus-crude-oil-summit-presentation-compatibility-mode.pdf> (stating that the penalty scheme will act as a tax on high-carbon fuels); HAROLD YORK, WOOD MACKENZIE, IMPLICATIONS FOR CRUDE OIL CARBON INTENSITY DIFFERENTIATION UNDER THE LCFS 5, 9–11 (2011), available at http://www.arb.ca.gov/fuels/lcfs/workgroups/advisorypanel/20110630_Wood_Mackenzie.pdf (stating that heavy crude refineries operate on smaller margins, and that high fuel prices are likely to negatively affect all oil refining margins). Valero had also recently invested heavily in ethanol, which California regulators had characterized as a high-carbon fuel that should be disfavored (despite its nominal “alternative energy” status). See VALERO, IP WEEK DOWNSTREAM SESSION 45 (2011), available at http://webcache.googleusercontent.com/search?q=cache:bG_Zqes56XUJ:www.energyinst.org/filegrab/%3Fref%3D901%26f%3DWoodMackenzieGlobalRefining...+%22IP+week+downstream+session%22&cd=1&hl=en&ct=clnk&gl=us&client=safari (stating that the carbon emissions deficit from crude oil refining must be offset by blending in more low CI fuels); Mouawad, *supra* note 63 (“We recognize that ethanol is an important side of the fuel mix that is not going to go anywhere.”).

One out-of-state oil company that contributed to the Proposition 23 campaign did not have any California refineries. Flint Hill Resources, a subsidiary of Koch Industries, had a new facility in Minnesota designed to handle Canadian tar sands oils that would be disfavored under a low carbon fuel standard that Minnesota was considering; Koch Industries accordingly opposed low carbon fuel standards in general. *Lowering Standards?*, DISCOVERY: THE QUARTERLY NEWSLETTER OF KOCH COMPANIES (Koch Indus., Inc., Wichita, Kan.), Jan. 2010, available at http://www.kochind.com/perspectives/perspectives_detail.aspx?id=20. Other companies also expressed concerns that additional states might also adopt California’s low-carbon fuel standards. See WHATLEY, *supra*, at 10 (stating that several states in the Northeast and Pacific

In contrast, the oil and gas industry in California kept a much lower profile. Chevron, one of the largest oil companies in the country, with its headquarters and many of its refining facilities in California, stayed neutral in the campaign.⁶⁷ Chevron's neutrality in the campaign might have in part been the result of significant investments it had already undertaken to make its California operations more efficient.⁶⁸

Other major California industries that would seem to have a major stake in climate change policy either stayed neutral or even opposed Proposition 23. The California Chamber of Commerce, for instance, took no position on the initiative (in sharp contrast to the opposition of the U.S. Chamber of Commerce to federal climate legislation being considered at the same time).⁶⁹ California electricity and gas utilities either stayed neutral or opposed.⁷⁰ Pacific Gas and Electric ("PG&E"), one of the largest electric utilities in the state,

Northwest might follow California's lead); *see also* CHARLES RIVER ASSOCS., *supra*, at 8 (noting some detrimental effects of a nationwide LCFS).

67. *California Prop. 23 – Campaign Contributions – Nov. 2010, supra* note 15. Only a few medium-sized and some small California oil companies contributed to the Proposition 23 campaign. Occidental Petroleum, based in southern California, donated three hundred thousand dollars; Tower Energy, based in northern California, donated two hundred thousand dollars; World Oil Corp., also based in southern California, donated one hundred thousand. *Id. See generally* Roosevelt, *supra* note 57 (stating that support for Prop. 23 was funded primarily by oil refiners).

68. *See* Letter from Stephen D. Burns, Manager of Cal. Gov't Affairs, Chevron, to Lawrence Goulder, Econ. and Allocation Advisory Comm. Chair, Cal. Air Res. Bd. (Nov. 24, 2009), *available at* http://www.climatechange.ca.gov/eaac/comments/2009-11-24_Chevron_letter.pdf (describing initiatives that Chevron had undertaken in pursuit of energy efficiency and arguing that companies who have excelled in this area should not be punished under Prop. 23 for their early, affirmative approach to energy efficiency). There are, of course, other possible reasons for Chevron's position. *See infra* text accompanying notes 100–04.

69. *See* ERIC POOLEY, THE CLIMATE WAR, 202–03 (2010) (describing efforts by the U.S. Chamber of Commerce to stop climate legislation at the federal level); Marc Lifsher, *Ballot Initiatives Divide a Usually United Business Front*, L.A. TIMES, Oct. 31, 2010, <http://articles.latimes.com/2010/oct/31/business/la-fi-business-election-20101031> (noting the neutrality of the California Chamber of Commerce); *see also View Endorsements and Share Your Vote*, CALIFORNIACHOICES.ORG, <http://californiachoices.org/ballot-measures-2010-11/endorsements> (last updated Oct. 19, 2012) (listing endorsements by major California organizations). The California Chamber of Commerce has taken strong positions against other environmental legislation in the state. *See, e.g., Strong Opposition Keeps Ban on Foam Food Containers in Assembly*, CALCHAMBER (Sept. 21, 2011), <http://www.calchamber.com/Headlines/Pages/09212011-StrongOppositionKeepsBanonFoamFoodContainersinAssembly.aspx> (highlighting successful opposition to the proposed polystyrene food container ban). The California Manufacturers and Technology Association did support Proposition 23. *See* Roosevelt, *supra* note 57.

70. No California electric utility contributed to the Proposition 23 campaign. The three largest utilities all opposed it. Lifsher, *supra* note 69.

contributed to the opposition to Proposition 23.⁷¹ PG&E's stance appeared to reflect two factors: first, its significant investment in renewable energy and other low-carbon energy projects in response to prior California energy legislation;⁷² second, the regulatory structure governing electricity utility rates in California that had for decades supported utility efforts to encourage their consumers to conserve energy, in contrast to the traditional model, which simply paid utilities for increased production and consumption of energy.⁷³

This interest group landscape made it relatively easy for the No side to raise much more money than the Yes side in the campaign. That dominance of funding for the No side may have had a significant impact on voting behavior: while there is some uncertainty about how exactly spending in initiative campaigns affects voting behavior, it does seem that spending in opposition to initiatives is often successful.⁷⁴ Again, because of the lack of funds for Proposition 23 from major business interests within the state, proponents likely had a harder job raising funds for their campaign and opponents likely had a much easier time, making the uphill battle for Proposition 23 even steeper.

The interest group landscape also affected the rhetoric of the campaign in a way that might also have altered voting behavior. The dominance of out-of-state donations on the Yes side of the campaign⁷⁵

71. PG&E was one of the top eighteen contributors to the opposition campaign, donating five hundred thousand dollars. *California Prop. 23 – Campaign Contributions – Nov. 2010*, *supra* note 15. PG&E also supported the initial enactment of AB 32 in 2006. *Fighting Climate Change*, PAC. GAS & ELEC., <http://www.pge.com/myhome/environment/pge/climate/> (last visited Oct. 14, 2012).

72. POOLEY, *supra* note 69, at 60–61 (describing how PG&E began canceling plans for coal-fired plant construction in the late 1970s and shifting investments into renewable energy and efficiency); DeShazo & Freeman, *supra* note 5, at 1509 n.24 (noting that heavy investment by PG&E into hydropower and natural gas has led PG&E to be more supportive of greenhouse gas regulation than other utilities).

73. POOLEY, *supra* note 69, at 60–61 (noting the Californian origins of the reforms).

74. See SHAUN BOWLER & TODD ANDREW DONOVAN, DEMANDING CHOICES: OPINION, VOTING, AND DIRECT DEMOCRACY 54 (2000) (stating that people tend to vote against measures where the “no” side dominated campaign spending); Elizabeth Garrett, *Money, Agenda Setting, and Direct Democracy*, 77 TEX. L. REV. 1845, 1847 (1999) (arguing that funding in opposition of an initiative is far more effective than funding in support); David G. Magleby, *Let the Voters Decide? An Assessment of the Initiative and Referendum Process*, 66 U. COLO. L. REV. 13, 39 (1994) (“Well-funded campaigns make a difference in initiative outcomes, generally by fostering more ‘no’ voting.”). *But see* Thomas Stratmann, *Is Spending More Potent for or Against a Proposition? Evidence from Ballot Measures*, 50 AM. J. POL. SCI. 788, 788 (2006) (finding that proponent spending is as effective as opponent spending).

75. See *California Prop. 23 – Campaign Contributions – Nov. 2010*, *supra* note 15 (indicating that approximately seventy-one percent of the contributions for the Yes campaign

allowed the opponents of Proposition 23 to cast the initiative as an effort by “Texas oil companies” to dictate Californian policy.⁷⁶ Polling data during the campaign indicated the effectiveness of this message to Californian voters.⁷⁷ This makes sense, since low-information voters in initiative campaigns often rely on heuristic cues in making voting decisions, and an important heuristic cue can be which interest groups support an initiative.⁷⁸ Voters often conclude that if a particular special interest is the dominant supporter of an initiative, that initiative is not in the public interest and should be opposed.⁷⁹ Because so much of the money in support of Proposition 23 came from not just oil companies, but *out-of-state* oil companies, it was a relatively easy argument for opponents to make that the Proposition was an effort to get special favors for special interests.

A third way in which the interest group landscape might have affected voter decisions has to do with economic impacts of the initiative. A major argument made by the “No on 23” campaign was that “green jobs” in the renewable energy industry were an important part of California’s economic future and would have been threatened

came from out of state, while approximately thirty percent of the contributions for the No campaign came from out of state).

76. See, e.g., *Official Voter Information Guide, Prop 23*, CAL. SEC’Y OF STATE, <http://voterguide.sos.ca.gov/past/2010/general/propositions/23/arguments-rebuttals.htm> (last visited Oct. 14, 2012) (“Big Texas oil companies and state politicians who receive oil company money designed Prop. 23 to repeal clean energy and air pollution standards in California.”); StopDirtyEnergyProp, *No on 23: (Enough) TV Ad*, YOUTUBE (Nov. 1, 2010), <http://www.youtube.com/user/stopdirtyenergyprop> (arguing that Prop. 23 allows Texas oil companies to benefit at California’s expense). A popular campaign sign distributed by one of the groups opposing Proposition 23 read “Stop Texas Oil: Hell No on 23 & 26.” *Stop Texas Oil: Hell No on 23 & 26*, CREDO VICTORY FUND AGAINST PROP 23 & TEX. OIL COS., http://act.credoaction.com/campaign/stop_texas_oil/ (last visited Oct. 14, 2012). A YouTube channel for campaign ads against Proposition 23 is entitled: StopTexasOil. *StopTexasOil*, YOUTUBE, <http://www.youtube.com/user/stoptexasoil> (last visited Oct. 14, 2012).

77. See BOB EPSTEIN, ENVTL. ENTREPRENEURS, LESSONS FROM PROP 23 – WINNING ENVIRONMENTAL CAMPAIGNS IN THE “TEA PARTY” ERA 19 (2011), available at <http://www.e2.org/jsp/controller?docName=lessonsfromprop23> (stating that a top message among persuadable voters was that Prop. 23 was “funded primarily by two Texas oil companies who are two of the worst polluters in California”); see also Bradford Plumer, *In California, Climate Politics Are Tricky... For Republicans*, THE NEW REPUBLIC (Sept. 8, 2010, 1:45 PM), <http://www.tnr.com/blog/the-vine/77527/in-california-climate-politics-are-tricky-republicans> (suggesting that big petroleum companies have gotten into trouble for opposing California’s climate law).

78. BOWLER & DONOVAN, *supra* note 74, at 149–50; Kang, *supra* note 52, at 1157–60.

79. For instance, a study of voter behavior in a 1988 California election found that voters, when presented with five competing initiatives to reform car insurance rates and regulation in the state, used information about which initiative was supported by which interest group to identify and reject the proindustry initiatives. Arthur Lupia, *Shortcuts Versus Encyclopedias: Information and Voting Behavior in California Insurance Reform Elections*, 88 AM. POL. SCI. REV. 63, 63, 72 (1994).

by the repeal of AB 32.⁸⁰ Polling by the “No on 23” campaign indicated that the jobs argument had great traction for many voters.⁸¹ That argument may have had more plausibility precisely because so few in-state businesses took a public position in favor of Proposition 23.

One intriguing result from the county-level vote analysis further supports the idea that the dynamics in the campaign over Proposition 23 were unusual compared to most political debates over climate change policy. The per capita carbon emissions from a county (a rough estimate of how dependent a county’s economy is on burning fossil fuels) did not have a relationship with the county’s final vote on Proposition 23. This contrasts with other research that has found an inverse relationship between levels of carbon dioxide emissions and

80. See, e.g., EPSTEIN, *supra* note 77, at 19 (arguing that Prop. 23 will eliminate jobs “by killing California’s clean energy and clean technology industries”); *Official Voter Information Guide, Prop 23*, *supra* note 76 (“California is the hub of innovation and investment in clean energy technologies and businesses. But Prop. 23 would reverse the state’s clean energy laws, jeopardizing billions in economic growth and hundreds of thousands of jobs.”); StopDirtyEnergyProp, *Prop 23 Documentary Clip: Clean Energy Economy Threatened*, YOUTUBE (Oct. 21, 2010) <http://www.youtube.com/watch?v=5MAVk1D45rY&list=UUWRFviuRmMciBtSBlyfgBFQ&index=12&feature=plcp> (arguing that Prop. 23 threatens to eliminate clean energy jobs). The Yes campaign for its part heavily emphasized the economic cost of AB 32 and the need for jobs in a state with high unemployment. It conspicuously avoided any questioning of climate science or of the need to address climate change, instead exclusively emphasizing the need to adjust the timing of California’s response because of the recession. See, e.g., Tom Tanton, Op-Ed., *Shelving of Climate Law Closer*, ORANGE CNTY. REGISTER, May 10, 2010, <http://www.ocregister.com/opinion/state-248116-jobs-unemployment.html> (arguing that California must suspend AB 32 to allow for the state to recover from high unemployment and a severe recession); *Official Voter Information Guide*, *supra* note 76 (“Other countries and states prudently postponed implementing their global warming laws until economic conditions improve.”); YesOnProp23, *Santa Maria: The Road to Building a Stronger Economy*, YOUTUBE (Sept. 1, 2010) <http://www.youtube.com/watch?v=bCCRspZv3bI&list=UUbPCxKNQ4tiR3QNDJCVUJxQ&index=10&feature=plcp> (arguing that California should not go “full speed ahead” on AB 32 at the height of a prolonged recession).

81. See, e.g., EPSTEIN, *supra* note 77, at 20 (indicating that sixty-five percent of voters believed that clean technologies were and would continue to be important sources of jobs in California). The No campaign made the role of out-of-state campaign donations and “green jobs” two of the three prongs of its campaign (the third was the potential impact on public health of the repeal of AB 32). The campaign consciously avoided discussing climate change as a reason for opposing AB 32, because its polling indicated that this rationale was only important for voters who were already firmly opposed to Proposition 23. *Id.* at 22 (stating that making a case against Prop. 23 based explicitly on the need to address global warming was not an effective theme with swing voters). Polling data at the national level in 2009–10 produced similar results. See POOLEY, *supra* note 69, at 383–84, 436 (stating that climate change is the least important message to convey to voters); see also Andrew C. Ravkin, Op-Ed., *Beyond the Climate Blame Game*, N.Y. TIMES (Apr. 25, 2011, 2:18 PM), <http://dotearth.blogs.nytimes.com/2011/04/25/beyond-the-climate-blame-game/> (citing polling data showing relatively weak support for addressing climate change even among those who are most alarmed by the possibility of global warming).

public support for climate change policy.⁸² Similarly, recent research on congressional voting patterns on federal climate change legislation, legislation that was pending immediately before and during the campaign, found that the likelihood of a congressional representative voting for climate change legislation in 2009 was highly correlated not just with ideology and income level (higher income made such a vote more likely) but also with the carbon emissions from the representative's district (lower carbon emissions made such a vote more likely).⁸³ The congressional debates over federal climate change legislation in 2009 and 2010 also showed regional conflicts that were based on the importance of carbon for local economies, including conflicts within the Democratic Party.⁸⁴

Certainly there are important constraints in drawing comparisons between such different data sources (county-level voting data, polling data, and legislator voting behavior), but nonetheless the pattern is suggestive. Partisan affiliation and ideology surely played a role in the demise of Proposition 23: California, even in the wave election of 2010, is overall a liberal state and a state that values environmental protection highly, and that helped defeat Proposition 23. But in contrast to other contexts, in California the amount of

82. See Kari Marie Norgaard, *Climate Denial: Emotion, Psychology, Culture, and Political Economy*, in THE OXFORD HANDBOOK OF CLIMATE CHANGE AND SOCIETY 399, 402 (2011) (citing Hanno Sandvik, *Public Concern over Global Warming Correlates Negatively with National Wealth*, 90 CLIMATIC CHANGE 333, 333 (2008)) (reporting “a ‘marginally significant’ tendency that nations’ per capita carbon dioxide emissions are negatively correlated to public concern”); Sammy Zahran et al., *Climate Change Vulnerability and Policy Support*, 19 SOC’Y & NAT. RESOURCES 771, 783 (2006) (“[C]itizens in states with higher levels of carbon dioxide emissions appear less likely to support personally costly climate change policies.”).

83. See Michael I. Cragg & Matthew E. Kahn, *Carbon Geography: The Political Economy of Congressional Support for Legislation Intended to Mitigate Greenhouse Gas Production* 19–21 (Nat’l Bureau of Econ. Research, Working Paper No. 14963, 2009) (indicating that reducing a district’s carbon emissions, increasing a district’s per capita income, and decreasing ideology all correlate with an increased likelihood that a representative will vote in favor of climate change legislation); see also Stephen P. Holland et al., *Some Inconvenient Truths About Climate Change Policy: The Distributional Impacts of Transportation Policies* 30 (MIT Ctr. for Energy & Envtl. Pol’y Research, Working Paper No. 2011-016, 2011) (noting that greater district gains from renewable fuel subsidies were negatively correlated with the likelihood of that district’s representative to vote in favor of cap-and-trade regulation).

84. See, e.g., POOLEY, *supra* note 69, at 234–35, 416 (noting opposition to climate legislation from coal-state Democrats); *id.* at 390–91 (noting opposition to climate legislation from farm-state Democrats); Tom Munteer, *Comprehensive Federal Legislation to Regulate Greenhouse Gas Emissions*, 39 ENVTL. L. REP. 11,068, 11,069 (2009) (noting a feud between coastal liberals and legislators from the Rust Belt and farm states); see also Ryan Lizza, *As The World Burns*, THE NEW YORKER, Oct. 11, 2010, http://www.newyorker.com/reporting/2010/10/11/101011fa_fact_lizza (noting the difficulty of consolidating support among legislators for the climate change bill).

carbon emissions at the county level is not a strong correlate with voting patterns. It may well be that for all of the reasons given above (lack of in-state business support for the initiative and dominance by out-of-state players in the Yes campaign), California voters concluded that, whatever the merits of Proposition 23, their position on it should not be primarily determined by any potential impacts on energy prices or the role of energy in California's economy. The lack of California business support for Proposition 23 may have provided an important heuristic cue to voters that AB 32 was not a major threat to their way of life, regardless of the role that carbon plays in their local economy.⁸⁵

C. California's Energy-Policy History and Its Political and Economic Impacts

So what explains the interest group dynamics in the campaign over Proposition 23? One explanation is the long history in California of aggressive efforts to encourage energy conservation and renewable energy production, beginning in the 1970s with legislation that imposed stringent efficiency mandates for appliances in the state.⁸⁶ In

85. Note that any difference between California and the rest of the country cannot be based on a claim that California has no significant fossil fuel industries. The state has a substantial oil and gas industry. See *Producing Wells and Production of Oil, Gas, and Water by County – 2010**, CAL. DEPT OF CONSERVATION (Oct. 7, 2011), ftp://ftp.consrv.ca.gov/pub/oil/temp/NEWS/Producing_Wells_OilGasWater_10.pdf (summarizing oil and gas production by county in California); *Natural Gas Gross Withdrawals and Production*, U.S. ENERGY INFO. ADMIN. (Sept. 28, 2012), http://www.eia.gov/dnav/ng/ng_prod_sum_a_EPG0_FPD_mmcf_a.htm (indicating that California produced over two hundred and seventy million cubic feet of natural gas in 2010). California's oil production is approximately ten percent of total U.S. oil production, which is greater than production in Oklahoma or Louisiana and nearly as much as in Alaska. *Crude Oil Production*, U.S. ENERGY INFO. ADMIN. (Sept. 27, 2012), http://www.eia.gov/dnav/pet/pet_crd_crpdn_adc_mbbbl_a.htm. California's natural gas production is much smaller relative to national levels, totaling about one percent of U.S. natural gas production. *Natural Gas Gross Withdrawals and Production*, *supra*.

86. See Ann E. Carlson, *Energy Efficiency and Federalism*, 107 MICH. L. REV. FIRST IMPRESSIONS 63, 65 (2008) (stating that the need to regulate appliances stemmed from the misaligned incentives between the purchasers and end users of appliances); Hanemann, *supra* note 9, at 4–8 (stating that one of the mandates of the California Energy Commission was to establish appliance efficiency standards). California was the first state to enact such standards, prompting other state standards and eventually federal standards. See STEVEN NADEL ET AL., AM. COUNCIL FOR AN ENERGY-EFFICIENT ECON., LEADING THE WAY: CONTINUED OPPORTUNITIES FOR NEW STATE APPLIANCE AND EQUIPMENT EFFICIENCY STANDARDS 2–3 (2006) (“California adopted the first appliance standards law in 1974 and in the early and mid-1980s, other states (including Florida, Kansas, Massachusetts, and New York) adopted standards on various products.”). California has continued to be aggressive in setting standards for appliances not covered by the federal standards. See *id.* (noting California's numerous recent product efficiency standards that are not preempted by federal standards); Carlson, *supra*, at 68 (noting that the

the late 1970s and early 1980s, California aggressively encouraged renewable energy production through tax credits and other subsidies.⁸⁷ Along with the rest of the country, California took a hiatus from aggressive alternative energy efforts from the mid-1980s through the mid-1990s, but the state redoubled its efforts in the late 1990s.⁸⁸ In 2002, California imposed a renewable portfolio standard (“RPS”) that required utilities in the state to obtain twenty percent of their electricity from renewable sources by 2017.⁸⁹ In 2002, California’s AB 1493 imposed regulatory standards for carbon emissions from automobiles,⁹⁰ triggering a high-profile conflict with the federal government over whether those standards were preempted by federal fuel-efficiency requirements.⁹¹ In 2006, California enacted AB 32, the Global Warming Solutions Act, which requires economy-wide regulation of carbon dioxide and other greenhouse gases in the state, coordinated through the state Air Resources Board. Table 1 provides a full overview of California’s history of energy efficiency and renewable energy legislation. The legislation has had a significant impact on the amount of renewable energy produced in California, and on energy efficiency in the state over the forty years from the 1970s to the present.⁹²

California has also received a tremendous amount of investment in renewable energy and energy efficiency technology. For instance, between 2006 and 2010 California was the recipient of

federal government has followed California’s regulatory lead on at least eight separate occasions).

87. See *infra* Table 1 (describing the numerous energy reform efforts undertaken by California).

88. See *infra* Table 1 (showing a lack of energy reform efforts in California from the mid-1980s to mid-1990s).

89. S.B. 1078, 2002 Leg., Reg. Sess. (Cal. 2002).

90. A.B. 1493, 2002 Leg., Reg. Sess. (Cal. 2002).

91. See Ann E. Carlson, *Federalism, Preemption, and Greenhouse Gas Emissions*, 37 U.C. DAVIS L. REV. 281, 283 (2003) (noting that the California bill may be preempted by multiple federal statutes).

92. California’s total renewable energy production (defined as wind, solar, geothermal, biomass, and small hydroelectric) increased from approximately five gigawatt hours in 1975 to over thirty gigawatt hours in 2005, with the largest absolute increases happening in geothermal and biomass. ARTHUR H. ROSENFELD, CAL. ENERGY COMM’N, CALIFORNIA PROGRESS IN ENERGY-EFFICIENT BUILDINGS: THE LONG VIEW: 1974 – 2030, at 60 (2008), available at <http://www.energy.ca.gov/2008publications/CEC-999-2008-018/CEC-999-2008-018.PDF>. Through 2003, energy efficiency programs saved approximately forty thousand gigawatt hours of electricity in California. Audrey B. Chang, Arthur H. Rosenfeld & Patrick K. McAuliffe, *Energy Efficiency in California and the United States*, in CLIMATE CHANGE SCIENCE AND POLICY 483 (Stephen H. Schneider et al. eds., 2009). Overall per capita electricity use has remained more or less constant in California since the mid-1970s, compared to a fifty percent increase in that time frame for the United States as a whole. *Id.* at 437.

between forty and fifty percent of the total venture capital investment in renewable energy/cleantech made in the United States.⁹³ California registered the largest number of patents in the cleantech field in this time frame as well.⁹⁴ This investment and research created jobs in the state as well.⁹⁵ While it is difficult to prove direct causation between

93. See DAVID CHENG ET AL., *CLEANTECH GRP. LLC, CALIFORNIA IN PERSPECTIVE: A REVIEW OF STATE ENERGY POLICIES AND THEIR IMPACT ON HIGH GROWTH CLEANTECH MARKETS 3* (2010), available at <http://www.cleantech.com/wp-content/uploads/2011/11/California-in-perspective-state-energy-policy-cleantech.pdf> (“California companies received 40% of all dollars that have flowed into market categories related to AB 32.”); THE PEW CHARITABLE TRUSTS, *THE CLEAN ENERGY ECONOMY: REPOWERING JOBS, BUSINESSES, AND INVESTMENTS ACROSS AMERICA 53* (2009), available at <http://www.pewenvironment.org/uploadedFiles/PEG/Publications/Report/Clean%20Energy%20Economy.pdf> (concluding that California received fifty-two percent, or \$6,580,426,908, in cleantech venture capital between 2006 and 2008). The next closest state was Massachusetts at \$1,278,462,000. *Id.*; see also AIR RES. BD., CAL. ENVTL. PROT. AGENCY, *CALIFORNIA’S CLIMATE PLAN* (2011), available at http://www.arb.ca.gov/cc/cleanenergy/clean_fs2.pdf (“In 2009, while other sectors saw little or no investment, the clean technology sector in California received \$2.1 billion, 60% of the total in North America. Venture capital investments in the Golden State totaled nearly \$6.6 billion from 2006 to 2008, about five times more than our nearest competitor, and more than all other states combined.”). Recently, some of this cleantech investment has been moving away from energy production and toward technological efforts to manage behavior and reduce carbon emissions. See Claire Cain Miller, *In Clean Tech, Venture Capital Looks for Problem-Solvers*, N.Y. TIMES, Oct. 25, 2011, <http://www.nytimes.com/2011/10/26/business/energy-environment/in-clean-tech-venture-capital-looks-for-problem-solvers.html> (asserting that it is possible to have a major impact on an individual’s carbon footprint by recreating business models and behaviors).

94. From 1999 to 2008, California companies registered 1,401 patents, representing 16.7 percent of total U.S. patents. THE PEW CHARITABLE TRUSTS, *supra* note 93, at 35 exhibit 15. The next closest state, New York, registered 909 patents during that period, representing 10.8 percent of total U.S. patents. *Id.*; see also Jerry Hirsch, *California Leads Venture Funding for Electric Vehicle Technology*, L.A. TIMES (Dec. 7, 2011, 1:56 PM), <http://latimesblogs.latimes.com/technology/2011/12/electric-vehicles-venture-funding-jobs.html> (reporting on study that finds California leading in venture capital investment and patents related to electric vehicles).

95. Estimates vary depending on how different studies define the category of renewable energy or cleantech. A study by The Pew Charitable Trusts, using conservative assumptions about the size of the cleantech industry, found that between 1998 and 2007, the number of jobs in cleantech in California rose 6.74 percent, from 116,441 to 125,390, providing about 16.3 percent of the total number of cleantech jobs in the United States; the next highest was Texas at 55,646. THE PEW CHARITABLE TRUSTS, *supra* note 93, at 8 exhibit 1. Another study found that “core green energy jobs” in California increased from one hundred and eleven thousand in 1995 to one hundred and seventy-four thousand in 2009, an increase of 56 percent. NEXT 10, *MANY SHADES OF GREEN: REGIONAL DISTRIBUTION AND TRENDS IN CALIFORNIA’S GREEN ECONOMY 9* (2011), available at http://www.next10.org/next10/publications/pdf/2011_Many_Shades_of_Green_FINAL.pdf. A third study from the Brookings Institution found that California had 30,321 cleantech jobs in 2010—this was the most of any state in the country, accounted for 16 percent of all cleantech jobs in the United States, and represented an increase from 17,386 jobs in 2003. BROOKINGS INST., *SIZING THE CLEAN ECONOMY: A NATIONAL AND REGIONAL CLEAN JOBS ASSESSMENT* app. at 5 (2011), available at http://www.brookings.edu/~media/Files/Programs/Metro/clean_economy/0713_clean_economy_ex_appendix2.pdf. Other studies provided estimates of total green jobs in California in 2006 of between forty-four thousand and seventy-three thousand. CAROL ZABIN & ANDREA BUFFA, UNIV. OF CAL. BERKELEY CTR. FOR LABOR

California's history of strong public support for renewable energy and the state's leadership in renewable energy investment and jobs, many observers have relied on the close connection between the two to argue for a causal linkage.⁹⁶

Strategic choices and direct investments by existing energy companies in response to this policy landscape are also important. Changes in rate-regulation strategies in California in the 1970s led the major investment-owned utilities to focus their investments more on energy conservation than on building new power plants,⁹⁷ and later renewable portfolio standards encouraged them to invest in renewable energy projects over new fossil fuel generation.⁹⁸ As a result, investor-owned utilities such as PG&E opposed Proposition 23, showing the

RESEARCH & EDUC., ADDRESSING THE EMPLOYMENT IMPACTS OF AB 32, CALIFORNIA'S GLOBAL WARMING SOLUTIONS ACT 2, 24 (2009), available at <http://laborcenter.berkeley.edu/greenjobs/index.shtml>. For other claims as to the job benefits of renewable energy in California, see Hunter L. Lovins, *Climate Capitalism: The Business Case for Climate Protection*, 28 PACE ENVTL. L. REV. 735, 763–64 (2010) (documenting the increase in clean-sector jobs in California), and Marc Lifsher, *California Has a Quarter of Solar Jobs*, L.A. TIMES, Oct. 17, 2011, <http://articles.latimes.com/2011/oct/17/business/la-fi-solar-jobs-20111017> (reporting on study claiming that California had twenty-five percent of all solar jobs in the United States in 2011). Clean energy jobs may come at the expense of other energy jobs in the oil and gas industries, and the total number of net jobs created by green energy is difficult to calculate. See Matthew L. Wald, *Solar Power Industry Falls Short of Hopes in Job Creation*, N.Y. TIMES, Oct. 25, 2011, <http://www.nytimes.com/2011/10/26/business/energy-environment/in-terms-of-jobs-solar-energy-lacks-power.html> (suggesting that job growth in one energy sector may offset employment in another sector). However, even if the jobs are simply transferred from another industry to clean energy, that shift nonetheless will change the political landscape in an important way.

96. See, e.g., PATRICK R. BURTIS ET AL., NATURAL RES. DEF. COUNCIL, CREATING THE CALIFORNIA CLEANTECH CLUSTER 29 (2004), available at <http://www.nrdc.org/air/energy/cleantech/cleantech.pdf> (finding that, of twenty-five cleantech investors surveyed, seventy-nine percent said California's public policy is a prominent factor in their cleantech investment decisions, and ninety-one percent said a proenvironmental public policy stance can be a driver in bringing new businesses and investments to the state); CHENG ET AL., *supra* note 93, at 5 (finding a strong correlation between state cleantech policies and cleantech investment); JAMES STACK ET AL., E2, CLEANTECH VENTURE CAPITAL: HOW PUBLIC POLICY HAS STIMULATED PRIVATE INVESTMENT 24–25 (2007), available at <http://www.e2.org/ext/doc/CleantechReport2007.pdf> (finding that, of forty-one cleantech investors surveyed, eighty-four percent believed that proactive environmental public policy can be a driver in attracting new cleantech businesses and jobs to a state or region, sixty-five percent said state renewable portfolio standards had been important or critical to investment decisions, and sixty-nine percent cited California as having done the best job of encouraging cleantech startup companies); Janet Laughlin Sawin, *The Role of Government in the Development and Diffusion of Renewable Energy Technologies: Wind Power in the United States, California, Denmark, and Germany, 1970–2000*, at 366–90 (Sept. 2001) (unpublished Ph.D. dissertation, Tufts University) (on file with author) (concluding that public policy was central to the rise of wind-energy development in California).

97. See *supra* notes 67–73 and accompanying text (discussing investments made by utilities to comply with existing regulations).

98. E.g., S.B. 1078, 2002 Leg., Reg. Sess. (Cal. 2002).

importance of significant investments in shaping the political responses of economic actors to future policy changes.⁹⁹

Putting the parts together, we find a history of energy legislation that supported the creation of a renewable energy industry as well as encouraged other major energy industries in the state (e.g., oil and gas companies and electricity utilities) to make significant investments to adjust toward a lower-carbon future. That in turn led the energy industry groups to sit out the campaign over Proposition 23 or even oppose the initiative. The lack of in-state support for Proposition 23 not only handed opponents a golden sound bite for campaign ads and might have driven low-information voters away from supporting the initiative, but it also may have discouraged any split within the Democratic Party over climate change policy, in contrast to the debate at the federal level. This understanding of the campaign shows the importance of using legal tools (whether regulations, subsidies, or taxes) to shape and build politically and economically powerful interest groups that can push for, or at least not resist, further policy efforts in the future.¹⁰⁰ In other words, Proposition 23 provides an example of the importance of strategically thinking about the dynamic impacts of legislation in shaping the future political landscape such that further policy changes are more feasible.

Some additional support for this view comes from comparing the interest group landscape in 2006, when AB 32 was enacted, and 2010, when the Proposition 23 campaign occurred. For many California business interests, their neutrality in the Proposition 23 campaign came after strongly opposing the initial enactment of AB 32 four years earlier and other, prior energy legislation. The California Chamber of Commerce had fought the enactment of both AB 32 as

99. See PATASHNIK, *supra* note 5, at 31–33, 169 (noting the importance of investment in determining political outcomes); *id.* at 126, 150 (illustrating the importance of investment in determining policy dynamics through examples ranging from airline deregulation to the acid rain cap-and-trade program); Saul Levmore, *Interest Groups and the Problem with Incrementalism*, 158 U. PA. L. REV. 815, 819–27 (2010) (noting a similar dynamic); see also R. Shep Melnick, *Strange Bedfellows Make Normal Politics: An Essay*, 9 DUKE ENVTL. L. & POL'Y F. 75, 89–90 (1998) (noting that investments made by businesses to comply with regulations create incentives for these firms to advocate strict enforcement to gain a market advantage).

100. See PATASHNIK, *supra* note 5, at 28–29 (noting the importance of economic forces in determining the success of policy changes, and the importance of “policy feedback,” in which policy changes alter the political landscape and so make future policy changes more or less likely). Patashnik uses the term “creating constituencies” to refer to the use of policy changes to create constituencies that will fight to protect prior changes or push for future ones. *Id.* at 30; see also Carlson, *supra* note 5, at 1136 (noting how industry groups that benefit from regulation can push for further regulation).

well as AB 1493 in 2002.¹⁰¹ Chevron and an important regional oil trade association, the Western States Petroleum Association, opposed AB 32, but neither contributed to the Proposition 23 campaign.¹⁰² While there may have been multiple reasons for the change in position, including a strategic calculation that the ballot initiative was a losing proposition not worth investing in compared to lobbying in the legislature,¹⁰³ another possibility is that investments made by California firms in the wake of AB 32 in order to comply with the law made further resistance unattractive.¹⁰⁴

II. IMPLICATIONS FOR CLIMATE CHANGE POLICY AND ENVIRONMENTAL LAW

If the defeat of Proposition 23 is more than just a story of ideology and partisanship, then it has important implications for the future of U.S. climate change policy specifically, and environmental law more generally. Proposition 23 helps us understand the importance of law as a tool to shape the economic and political landscape in a dynamic way that affects future policy choices.¹⁰⁵

101. See Felicity Barringer, *Officials Reach California Deal to Cut Emissions*, N.Y. TIMES, Aug. 31, 2006, <http://www.nytimes.com/2006/08/31/washington/31warming.html> (noting that the California Chamber of Commerce led the opposition to emissions controls); Hanemann, *supra* note 9, at 10, 20–21 (discussing the role of the California Chamber of Commerce in the legislative process).

102. *Oil Industry Warns California Climate Bill May Slash Fuel Production*, ENERGY WASHINGTON WEEK, May 10, 2006 (describing the Western State Petroleum Association's opposition to AB 32); A.C. Thompson & Sonya Hubbard, *Oil Slick*, CTR. FOR INVESTIGATIVE REPORTING (Apr. 23, 2008), <http://cironline.org/reports/oil-slick-2168> (describing Chevron's opposition to AB 32); *California Prop. 23 – Campaign Contributions – Nov. 2010*, *supra* note 15 (providing a list of all Prop 23. campaign contributions).

103. Additionally, California oil companies may have been concerned that supporting Proposition 23 might have angered important Democratic political leaders and Governor Schwarzenegger. These political leaders might have then pushed for other policies (such as imposing a severance tax on oil and gas production in California) that might have been even more harmful to the industry's interests than AB 32.

104. See *supra* note 99 and accompanying text (discussing the interplay between incremental investment caused by regulations and political incentives).

105. See Brewster, *supra* note 5, at 252–58 (noting importance of dynamic analysis, and applying the concept to the possibility that national climate change legislation will encourage the growth of industry that will support international climate change policy). Many political scientists have examined the dynamics of how policy is made and noted the potential for feedback effects from policies. See PATASHNIK, *supra* note 5, at 3–11, 29 (providing overview of the relevant literature, and listing key exceptions to the overall pattern); PAUL PIERSON, *POLITICS IN TIME: HISTORY, INSTITUTIONS, AND SOCIAL ANALYSIS* 17–34 (2004) (providing overview of the concept); Jacob S. Hacker & Paul Pierson, *Business Power and Social Policy: Employers and the Formation of the American Welfare State*, 30 POL. & SOC'Y 277, 305–13 (2002) (describing the importance of feedback effects in the context of Social Security policy history);

The first priority in climate change policy should be to increase the economic and political support for future climate legislation by building the industry that has a political and economic stake in expanding climate legislation. Following the lead of California, this might mean an emphasis on options that are relatively noncontroversial politically, such as subsidies and tax credits for renewable energy, or renewable portfolio standards.¹⁰⁶ (RPS have, in fact, become quite popular at the state level around the country.)¹⁰⁷ These options might encourage investment by companies into renewable technologies (such that they have a stake in preserving or expanding the scope for renewable energy) and the creation of jobs by companies in the field (providing credibility for economic arguments for renewable energy). Both factors seem to have played a significant role in the Proposition 23 campaign.

Paul Pierson, *Not Just What, but When: Timing and Sequence in Political Processes*, 14 *STUD. AM. POL. DEV.* 72, 74–79 (2000) (overview of the concept). Political scientist Eric Patashnik has studied how policy changes fare after enactment, and how the structure of those policy changes affects the likelihood of whether those policy changes will be sustained or reversed. PATASHNIK, *supra* note 5, at 2–15, 176–80; see also Daryl J. Levinson, *Parchment and Politics: The Positive Puzzle of Constitutional Commitment*, 124 *HARV. L. REV.* 658, 687–88 (2011) (noting possibility of “[p]ositive political feedback”).

106. A number of think tanks and policy analysts have argued for a reframing of U.S. and global climate policy around subsidies for research and development in clean energy in order to inspire innovation for low-cost clean energy in the future. See, e.g., JOSH FREED ET AL., *THIRD WAY, JUMPSTARTING A CLEAN ENERGY REVOLUTION WITH A NATIONAL INSTITUTES OF ENERGY* 1–2 (2009), available at https://docs.google.com/viewer?url=http%3A%2F%2Fthebreakthrough.org%2Fblog%2FJumpstarting_Clean_Energy_Sept_09.pdf (advocating research and development to drive a clean-energy revolution); STEVEN F. HAYWARD ET AL., *POST-PARTISAN POWER: HOW A LIMITED AND DIRECT APPROACH TO ENERGY INNOVATION CAN DELIVER CLEAN, CHEAP ENERGY, ECONOMIC PRODUCTIVITY AND NATIONAL PROSPERITY* 8–9 (2010), available at http://thebreakthrough.org/blog/2010/10/postpartisan_power.shtml (pushing for comprehensive investment in clean energy and energy-innovation education); GWYNN PRINS ET AL., *INST. FOR SCI., INNOVATION, & SOC., UNIV. OF OXFORD, THE HARTWELL PAPER: A NEW DIRECTION FOR CLIMATE POLICY AFTER THE CRASH OF 2009*, at 19–21 (2010), available at <http://eprints.lse.ac.uk/27939/> (supporting clean-energy investment to create positive political feedback for climate action); MATTHEW STEPP ET AL., *INFO. TECH. & INNOVATION FOUND., TEN PRINCIPLES FOR CREATING A NEW U.S. CLEAN ENERGY POLICY* 2–3 (2011), available at <http://www.itif.org/publications/ten-principles-creating-new-us-clean-energy-policy> (advocating innovation investment to reduce the cost of producing clean energy); Michael Shellenberger et al., *Fast, Clean & Cheap: Cutting Global Warming's Gordian Knot*, 2 *HARV. L. & POL'Y REV.* 93, 94 (2008) (advocating clean-energy infrastructure). Many of these emphasize the relative political feasibility of subsidies in comparison to proposals such as carbon taxes or cap-and-trade that could substantially increase energy costs for consumers. See, e.g., HAYWARD ET AL., *supra*, at 7 & n.13 (noting broad public support for investment in innovative energy technologies); Shellenberger et al., *supra*, at 100–01 (noting public opposition to high energy costs).

107. See Cinnamon Carlarne, *Notes from a Climate Change Pressure-Cooker: Sub-Federal Attempts at Transformation Meet National Resistance in the USA*, 40 *CONN. L. REV.* 1351, 1366–67 (2008) (discussing state efforts to combat climate change).

There are limits to the effectiveness of many of these tools. A problem with subsidies for renewable fuels is that they will not necessarily lead to a drop in the consumption of nonrenewables, given the very low cost of production for many fossil fuels.¹⁰⁸ This point has been a major critique of proposals that rely exclusively on subsidies and tax credits to advance climate change policy; these critics argue that there is no substitute for raising the price of carbon.¹⁰⁹ But if we see subsidies and tax credits as an intermediate step designed to build political and economic support for future regulatory measures, then the tension between subsidies and increasing the price of carbon disappears over the medium term.

The actual use of a policy not as an end in itself, but instead as a way to achieve future policy progress, is not novel. There are historic precedents for policymakers consciously attempting to build private industry so as to build political support for policy goals. For instance, the Atomic Energy Commission after World War II consciously adopted a course of supporting the growth of a commercial nuclear power industry in order to create a powerful interest group that could provide support for the agency (particularly in its efforts to remain independent of the military) and for the growth of atomic energy in the United States.¹¹⁰ The Commission was successful in inspiring private industry to build dozens of nuclear power plants in the late 1960s and early 1970s despite the economic and safety risks of the

108. This is related to the “green paradox” in which carbon regulation may result in accelerated extraction of fossil fuels. See Hans-Werner Sinn, *Public Policies Against Global Warming*, 15 INT’L TAX & PUB. FIN. 360, 380–82 (2008) (arguing that, in the absence of constraints on fossil fuel suppliers, carbon taxes aimed at reducing demand may actually increase the pace of global warming).

109. See POOLEY, *supra* note 69, at 296 (quoting a leading climate activist as saying that a cap on carbon “has to be the litmus test of a good climate bill”); Carolyn Fischer & Richard G. Newell, *Environmental and Technology Policies for Climate Mitigation*, 55 J. ENVTL. ECON. & MGMT. 142, 142–44 (2008) (concluding that subsidies as a stand-alone tool are inefficient and costly); Stephen H. Schneider & Lawrence H. Goulder, *Achieving Low-Cost Emissions Targets*, 389 NATURE 13, 13 (1997) (concluding that taxes are superior to subsidies in achieving climate policy goals). *But see* Daron Acemoglu et al., *The Environment and Directed Technical Change*, 102 AM. ECON. REV. 131, 133 (2012) (developing model that indicates that subsidies may be economically efficient for developing renewable energy in combination with a carbon tax).

110. See BRIAN BALOGH, CHAIN REACTION: EXPERT DEBATE AND PUBLIC PARTICIPATION IN AMERICAN COMMERCIAL NUCLEAR POWER 1945–75, at 60–119 (1991) (chronicling the symbiosis of the commercial nuclear power energy industry and the Atomic Energy Commission, and discussing this duo’s consequent influence on congressional policymaking).

new technology,¹¹¹ and the nuclear power industry has become a powerful interest group in the energy policy arena.

*A. The Benefits of Strategically Using Interest Groups to Build
Environmental Law*

The notion that interest groups may interact with political structures in order to advance particular policy agendas is, of course, hardly a new one in law or political science. A classic example of the concept is the “iron triangle,” in which a powerful economic interest group aligns with a sympathetic administrative agency and a sympathetic congressional committee to entrench specific policy goals in the political process.¹¹² The traditional academic attitude toward the interaction between powerful economic interests and political structures has been negative: “iron triangles” have generally been portrayed in the literature as skewing the policy process away from the public interest (however defined) in favor of the rich and powerful.¹¹³

This is equally true in the context of environmental law. Writing in the field is deeply concerned about the risk of “agency capture,” in which powerful political interests capture and subvert administrative agencies (perhaps with the help of Congress).¹¹⁴ Capture results in a diversion of those agencies from their proper statutory tasks and ineffective implementation of environmental policy, contrary to the desires of the majority of the public.¹¹⁵

Some commentators—many with economics backgrounds, and generally falling into the camp of “free market environmentalism”—

111. See *id.* at 177–220 (describing how pressure from nuclear scientists created the impetus for the development of nuclear reactors despite apparent problems related to safety and economic viability).

112. See *id.* at 62–63 (providing overview of the “iron triangle” concept).

113. *Id.* at 64 (“Much of the scholarly literature on iron triangles is critical. It compares this style of governing to a more idealized pluralist model and finds time and time again that the common good has been sacrificed for narrower achievements.”).

114. See, e.g., Biber, *supra* note 54, at 40–42 & n.141 (asserting that, as public choice theory suggests, regulated industries organize in opposition to effective regulation); Michael Blumm, *Public Choice Theory and the Public Lands: Why Multiple Use Failed*, 18 HARV. ENVTL. L. REV. 405, 406–08 (1994) (discussing how environmental regulations have failed due to pressure from local industry); Daniel A. Farber, *Taking Slippage Seriously: Noncompliance and Creative Compliance in Environmental Law*, 23 HARV. ENVTL. L. REV. 297, 297–300 (1999) (discussing how industry noncompliance is a barrier to effective environmental regulation).

115. See, e.g., Biber, *supra* note 54, at 41–42 (noting that industry resistance causes agency inaction); Farber, *supra* note 114, at 319–20 (noting that lack of transparency provides an opportunity to stymie agency action).

carry this critique even further. They argue that environmental nongovernmental organizations should be seen as interest groups like any other, seeking their own ends and goals (often not congruent with the public interest).¹¹⁶ They condemn the “Baptist and bootlegger” alliances that these organizations have developed with industry to advance environmental legislation and regulation.¹¹⁷ The argument is that the alliances result in suboptimal regulatory systems that reduce overall social welfare by distorting incentives and imposing barriers to entry, and that also may not achieve the highest level of environmental quality.¹¹⁸

116. See, e.g., Michael S. Greve, *Introduction: Environmental Politics Without Romance*, in ENVIRONMENTAL POLITICS: PUBLIC COSTS, PRIVATE REWARDS 1, 8–9 (Michael S. Greve & Fred L. Smith, Jr. eds., 1992) (arguing that environmental groups defend less efficient “command and control” regulation because such a system “provide[s] substantial organizational and financial benefits for those groups”); Marc K. Landy & Mary Hague, *The Coalition for Waste: Private Interests and Superfund*, in ENVIRONMENTAL POLITICS: PUBLIC COSTS, PRIVATE REWARDS, *supra*, at 67, 74–77 (arguing that environmental groups support existing federal hazardous waste liability laws because they “promote . . . [their] broader political agenda” that is disconnected from environmental quality).

117. “Baptist and Bootlegger” refers to Prohibition, when Baptists allied with bootleggers to support strict prohibition laws. Baptists were motivated by their opposition to legal alcohol sales, while bootleggers favored strict enforcement of the prohibition to ensure continuation of their illegal alcohol operations. See Jonathan Baert Wiener, *On the Political Economy of Global Environmental Regulation*, 87 GEO. L.J. 749, 760 (1999) (discussing historical alliance between Baptists and Bootleggers). According to these commentators, environmental groups play the role of Baptists, and regulated industry plays the role of bootleggers. See Bruce Yandle & Stuart Buck, *Bootleggers, Baptists, and the Global Warming Battle*, 26 HARV. ENVTL. L. REV. 177, 185–90 (2002) (describing the roles played by each group). The claim is that environmental regulation that environmental groups pursue also produces benefits (e.g., raising the barriers to entry in an industry) that regulated industry supports and seeks to advance. See Wiener, *supra*, at 754–61 (noting the benefits to both environmentalists and industry). From 2009 to 2010, opponents of a federal climate bill explicitly accused environmentalists and industry of participating in a “Baptist and Bootlegger” alliance to “transfer[] wealth from some companies and all consumers” to selected companies. POOLEY, *supra* note 69, at 169; see also Yandle & Buck, *supra*, at 189–90 (arguing that the push for global climate regulation is primarily a result of efforts by industry to achieve self-serving benefits).

118. See, e.g., Jonathan H. Adler, *Clean Fuels, Dirty Air*, in ENVIRONMENTAL POLITICS: PUBLIC COSTS, PRIVATE REWARDS, *supra* note 116, at 19, 23–29 [hereinafter Adler, *Clean Fuels, Dirty Air*] (arguing that the clean fuels program in the 1990 Clean Air Act can be primarily explained by corporate lobbying and that the result was an economically inefficient program with relatively minor environmental benefits); Daniel F. McInnis, *Ozone Layers and Oligopoly Profits*, in ENVIRONMENTAL POLITICS: PUBLIC COSTS, PRIVATE REWARDS, *supra* note 116, at 129, 145–51 (arguing that global ozone treaties were primarily the result of corporate lobbying and that the result was an expensive regulatory program to address a highly uncertain environmental threat). But see Jonathan H. Adler, *Rent Seeking Behind the Green Curtain*, REGULATION, No. 4, 1996, at 26, 32 (“Just because environmental policy measures are often influenced by special interest considerations does not mean they do not achieve environmental goals.”); Bruce Yandle, *Public Choice at the Intersection of Environmental Law and Economics*, 8 EUR. J. L. & ECON. 5, 21 (1999) (conceding that “only a few studies indicate that federal regulation may have actually harmed the environment”).

There is therefore, on the surface, a deep tension between the claim that Proposition 23 shows the utility of strategically building up industry to create economic and political “facts-on-the-ground” that will help advance environmental policy, and the many critiques that entrenched interest groups produce suboptimal environmental policy. But that is only on the surface.

There is certainly much truth to some of these concerns about the possible ways that powerful interest groups can influence and adjust the political and regulatory processes. There is ample evidence (for instance) that regulated industry has systematic advantages in the implementation process in environmental law.¹¹⁹ However, particularly for the “Baptist and bootlegger” critiques, there is an important missing element to the analysis: an understanding of what the appropriate counterfactual is for any comparison.

Any policy analysis is necessarily a relative one, a comparison of various options to achieve social objectives.¹²⁰ The “Baptist and bootlegger” critiques usually contend that some alternative policy scheme (usually market mechanisms such as tradeable permits, taxes, or even enhanced property rights) would achieve the same or better environmental goals at lower overall social cost than traditional regulatory structures (often called “command-and-control”).¹²¹ These critics then proceed from this comparison to assert that environmentalists, by allying with industry to advance these

119. See, e.g., Wendy Wagner et al., *Rulemaking in the Shade: An Empirical Study of EPA's Air Toxic Emission Standards*, 63 ADMIN. L. REV. 99, 100–04 (2011) (describing significant imbalance in industry versus environmental participation in federal air toxic emissions regulation).

120. See generally NEIL K. KOMESAR, IMPERFECT ALTERNATIVES: CHOOSING INSTITUTIONS IN LAW, ECONOMICS, AND PUBLIC POLICY 3–13 (1994) (discussing how policy analysis necessarily involves the overlooked importance of deciding which institution, of many possible alternatives, makes the ultimate decision).

121. See, e.g., Adler, *Clean Fuels, Dirty Air*, *supra* note 118, at 19, 40–41 (arguing for emission fee system to address pollution from automobiles); Greve, *supra* note 116, at 1, 8–9 (arguing for a regulatory system that mimics market incentives); Fred L. Smith, Jr., *Conclusion: Environmental Policy at the Crossroads*, in ENVIRONMENTAL POLITICS: PUBLIC COSTS, PRIVATE REWARDS, *supra* note 116, at 177, 190–95 (arguing for return to primarily private management of environmental risk); Roger Meiners & Bruce Yandle, *Common Law and the Conceit of Modern Environmental Policy*, 7 GEO. MASON L. REV. 923, 961 (1999) (stating that they do not believe that “command-and-control regulation by a central agency such as the EPA can be expected to produce ‘good’ results by any measure (whether measured by economic efficiency, environmental outcomes, or protection of personal freedom)"); Yandle, *supra* note 118, at 17–18 (arguing that Baptist and bootlegger alliances lead to socially inefficient outcomes).

traditional regulatory structures, have somehow “sold out” in a way that is objectionable or socially suboptimal.¹²²

The question is whether the “optimal” policy instruments are, indeed, politically realistic.¹²³ If they are not, then the appropriate comparison is not between traditional regulatory instruments and a theoretical market-based or property system that might solve all of our environmental and economic problems in a socially optimal way.¹²⁴

122. See, e.g., Greve, *supra* note 116, at 1, 8–9, 12–13 (asserting that environmental groups are part of a broader movement to advance “corporate socialism” and rent seeking); Landy & Hague, *supra* note 116, at 67, 74–77 (asserting that environmental groups, by allying with the hazardous waste treatment industry, have “sacrifice[d] environmental benefits that could readily be attained” if they only pushed for complete reform of U.S. hazardous waste liability laws); Meiners & Yandle, *supra* note 121, at 961 (asserting that only those “who prefer to engage in rent-seeking activities” should support the current environmental regulatory system and that the EPA was not “actually . . . created to protect the environment”); Yandle, *supra* note 118, at 12–13 (arguing that environmental groups care more about rent seeking than environmental protection); Todd J. Zywicki, *Baptists?: The Political Economy of Environmental Interests Groups*, 53 CASE W. RES. L. REV. 315, 317, 333–34, 340–41 (2002) (asserting that the failure of environmental groups to pursue market-based regulatory strategies shows that their behavior is “better explained by a model of private advantage” and the “pursuit of wealth, power, and the personal gratification of environmental activities groups and their leaders”); Todd J. Zywicki, *Environmental Externalities and Political Externalities: The Political Economy of Environmental Regulation and Reform*, 73 TUL. L. REV. 845, 874 (1999) [hereinafter Zywicki, *Environmental Externalities*] (asserting that environmental groups “are both direct and indirect beneficiaries of the current command-and-control regime” and support it “even when it has negative consequences to the environment when compared to more efficient regulatory mechanisms”).

123. See, e.g., Landy & Hague, *supra* note 116, at 74–75 (asserting that improvements in law “could readily be attained”).

124. I am assuming that market-based mechanisms, tax schemes, or enhanced property protections for environmental resources would, in fact, be more optimal economically than traditional regulatory instruments. While that is certainly true in many circumstances, there are also examples to the contrary. See, e.g., Maximilian Auffhammer & Ryan Kellogg, *Clearing the Air? The Effects of Gasoline Content Regulation on Air Quality*, 101 AM. ECON. REV. 2687, 2688 (2011) (finding that a state program without market trading performed better than a federal program with trading, and that the state program benefits exceeded costs); Meredith Fowlie, *Emissions Trading, Electricity Restructuring, and Investment in Pollution Abatement*, 100 AM. ECON. REV. 837, 863 (2010) (finding that command-and-control regulations of smog from large stationary sources of air pollution were economically superior to cap-and-trade regulation).

In addition, many of the assertions that current environmental regulations are suboptimal from an environmental perspective are quite speculative, or even groundless. For instance, one critic claims that ozone regulation must have been the result of corporate lobbying because the benefits of protecting the ozone layer (and reducing the production of chemicals believed to cause the destruction of the ozone layer) are so uncertain. McInnis, *supra* note 118, at 129, 150–51. Of course, almost all environmental regulation involves some level of uncertainty, so this argument would counsel against almost all regulation. Moreover, ex post, it appears that the benefits from ozone regulation have been enormous. See Wiener, *supra* note 117, at 773 (noting that the ozone treaty “may well have saved the stratospheric ozone layer” even though it involved a coalition between industry and environmental groups). Even the most famous example—a study of the 1977 Clean Air Amendments that showed how an alliance of environmentalists and Eastern coal producers combined to impose a costly air pollution control standard on power utilities—can only argue that stricter environmental standards might have been imposed in a hypothetical,

Instead, the appropriate comparison is between politically feasible traditional regulatory instruments and the even more politically feasible option of *doing nothing about the environmental problems in the first place*.¹²⁵ In these circumstances, it almost always appears

alternative world where the political environment produced different outcomes. The 1977 Amendments did not weaken the standards imposed in the 1970 Act in any way, but instead traded off one set of possible environmental gains for another. See BRUCE A. ACKERMAN & WILLIAM T. HASSLER, CLEAN COAL/DIRTY AIR 38–41, 44–65 (1981) (noting how the alignment of political forces in Congress scuttled attempts to create more effective clean air regulations, while discussing how a hypothetical, ideal regulatory agency would have sought to address air pollution) *id.* at 90 n.*, 93 (noting how any health benefits from rejecting the compromise would be offset by visibility and other pollution costs elsewhere). Indeed, the authors admitted that they did not know how to create an administrative structure that would avoid the political dynamics evidenced in the 1977 Amendments. See *id.* at 118 n.* (stating that authors do not “presently know how to design an expert agency of the kind hypothesized”).

There are other weaknesses in much of the Baptist and bootlegger literature. It cannot explain the appearance of much of modern environmental law, since industry did not advocate for the enactment of the initial statutes in the early 1970s. See Wiener, *supra* note 117, at 756 (concluding that rent seeking cannot offer a plausible explanation for the origin of environmental law). The empirical evidence of much of the rent-seeking claims is thin. Melnick, *supra* note 99, at 78 (“[Studies] do not demonstrate either that successful rent-seeking is common or that rent-seekers can prevail without assistance from environmental groups or other broad-based constituencies.”); Wiener, *supra* note 117, at 757; Nathaniel O. Keohane et al., *The Positive Political Economy of Instrument Choice in Environmental Policy* 33 (Res. for the Future, Discussion Paper No. 97-25, 1997), available at <http://www.scribd.com/doc/56519071/12/Generation-of-Rents-and-Erection-of-Entry-Barriers> (noting that “there are no conclusive empirical validations” of industry demand for command-and-control regulations). Some of the studies relied upon in the literature are of dubious quality. See, e.g., Franklin G. Mixon, Jr., *Public Choice and the EPA: Empirical Evidence on Carbon Emissions Violations*, 83 PUB. CHOICE 127, 129–36 (1995) (study purporting to find political pressure on EPA to reduce findings of greenhouse gas emissions violations from 1988 to 1990, but that appears to conflate carbon monoxide, which has minimal greenhouse gas effects, with carbon dioxide); Meiners & Yandle, *supra* note 121, at 955 (citing the Mixon study as one example from the “large body of empirical work” that supports public choice critiques of environmental regulation in the global warming context). Other studies have found only mixed evidence of effective rent seeking, even for massive regulatory programs like the 1990 Clean Air Act amendments that created the acid rain regulatory system. See Paul L. Joskow & Richard Schmalensee, *The Political Economy of Market-Based Environmental Policy: The U.S. Acid Rain Program*, 41 J.L. & ECON. 37, 37–40 (1998).

125. See, e.g., DAVID G. VICTOR, GLOBAL WARMING GRIDLOCK 63–72 (2011) (concluding that national climate change policies will inevitably involve relatively inefficient, but politically sustainable, direct regulations that mask the cost of climate policy); Robert W. Hahn, *The Political Economy of Environmental Regulation: Towards a Unifying Framework*, 65 PUB. CHOICE 21, 40–42 (1990) (encouraging economists studying instrument choice to make the comparisons between politically realistic regulatory programs and politically realistic tax programs, which will require context-specific analysis); Barry Rabe et al., *State Competition as a Source Driving Climate Change Mitigation*, 14 N.Y.U. ENVTL. L.J. 1, 33–34 (2005) (noting that rent seeking or protectionist legislation will be more inefficient than an ideal outcome, but whether it is ultimately bad for the environment or society “necessarily raises a question of second-bests, and it is hard to say exactly whether the regulations that resulted were better than the status quo, or indeed what status quo they should be compared to”).

that traditional regulation is the superior outcome to no regulation at all,¹²⁶ and environmental groups should hardly be faulted for making temporary alliances with industry in order to advance environmental policy, even if particular elements of the resulting regulatory policy can be criticized as suboptimal compared to some ideal benchmark.¹²⁷

126. See, e.g., Cass Sunstein, *Cost-Benefit Default Principles*, 99 MICH. L. REV. 1651, 1657 (2001) (stating that command-and-control regulation “appears, by most accounts, to survive cost-benefit balancing, producing aggregate benefits in the trillions of dollars, well in excess of the aggregate costs” and noting that the EPA estimated the costs of the Clean Air Act to be thirty-seven billion dollars and the benefits to be over one trillion dollars, with outside estimates showing a benefit-cost ratio of three to one). John Graham has noted:

In each year from 1992 through 2006, the estimated benefits of major rules [by the Office of Management and Budget] exceeded the estimated costs. The total benefits of major rules during this period exceeded the total costs by more than 300%. And from 2001 to 2006, the average annual benefits from major rules were more than double the rate of the previous eight years. If these ex ante estimates are accurate, they suggest that new federal regulations have contributed to a substantial improvement in social welfare in the United States.

John D. Graham, *Saving Lives Through Administrative Law and Economics*, 157 U. PA. L. REV. 395, 482 (2008); see also ACKERMAN & HASSLER, *supra* note 124, at 117 (“If faced with a choice between the bastardized Clean Air Act of today or the pathetically weak legal regime prevailing before the first Earth Day, no doubt we would settle for what we have.”); Robert W. Crandall et al., *Clearing the Air: EPA’s Self-Assessment of Clean-Air Policy*, REGULATION, No. 4, 1996, at 35, 37 (“No one doubts that even the most crude and inefficient form of pollution control at an elemental level is likely to produce benefits in excess of costs.”); Nicholas Z. Muller et al., *Environmental Accounting for Pollution in the United States Economy*, 101 AM. ECON. REV. 1649, 1671–73 (2011) (arguing that significant additional regulation for coal-fired power plants would be easily justified from a cost-benefit perspective). The criticisms of inefficiencies in environmental regulation are generally that we might get equivalent or better regulation for less cost, not that the status quo overall produces more costs than benefits. See Sunstein, *supra*, at 1657–60 (identifying the central problems that cost-benefit analysis seeks to address as “poor priority setting, excessively costly tools, and inattention to the unfortunate side-effects of regulation”).

127. See, e.g., DAVID VOGEL, TRADING UP: CONSUMER AND ENVIRONMENTAL REGULATION IN A GLOBAL ECONOMY 21–22, 260–61 (1995) (describing how Baptist and bootlegger alliances can make environmental regulation more feasible); James M. Buchanan & Gordon Tullock, *Polluters’ Profits and Political Response: Direct Controls Versus Taxes*, 65 AM. ECON. REV. 139, 142–43, 147 (1975) (noting industry’s preference for regulation over taxes to address environmental harms, and encouraging economists to understand the relevant political realities and consider “institutional arrangements” that make taxes more palatable or even to consider regulatory choices); E. Donald Elliott et al., *Toward a Theory of Statutory Evolution: The Federalization of Environmental Law*, 1 J.L. ECON. & ORG. 313, 326 (1985) (noting that the structure of collective action challenges in environmental problems “creates a strong incentive for [political actors] to pursue a less than ideal outcome in order to avoid an even less desirable result”); Rabe et al., *supra* note 125, at 34–37 (arguing that protectionist environmental legislation can be an important tool for overcoming collective action failures and result in improvements in social welfare); Wiener, *supra* note 117, at 750 (“[A] coalition of both civic republicans and parochial rent-seekers may be a necessary precondition to the enactment of key environmental laws.”); *id.* at 758 (“[T]he enactment of apparently skewed legislation might reflect the best outcome possible, not the role of dastardly special interests.”); *No Perfect Programme*, THE ECONOMIST, <http://www.economist.com/blogs/democracyinamerica/2011/10/green-jobs-stimulus> (Oct. 14, 2011)

Thus, once we understand that environmental policy is truly about what is possible in the political landscape that we live in (not in the political landscape that we wish we lived in), we have to come to terms with the hard reality that there will always be entrenched interest groups in existence, distorting policy outcomes. The question is then whether we seek to fight every entrenched interest group in order to achieve optimal policy, or whether instead we come to terms with the world that we live in and ally, co-opt, or otherwise use entrenched interest groups to make environmental policy better on the margins.¹²⁸ A strategic interpretation of the Proposition 23 campaign shows a way to cultivate the interest group landscape so as to improve climate policy in the near term, and in the real world, by building up interest groups for whom advancing climate policy is in their own best interests.

B. Further Implications: The Scientist Myth, the Importance of Efficiency in Climate Change Policy, and the Role of States in Climate Change Policy

There are three ways in which a strategic, dynamic role for U.S. climate policy both contrasts with and contributes to themes that are present in the law and policy literature on climate change. The first is what climate policy scholar David Victor calls the “scientist myth,” a myth sometimes found in the policy debates: if climate scientists simply produced additional climate science, that would further reduce the uncertainty over climate forecasts; or if scientists, policymakers, activists, or scholars all just asserted loudly and forcefully enough that the “science of climate change is settled” and properly educated the public about the science, then the political debate would move toward a focus on which solutions to climate

(arguing that any energy policy will necessarily involve compromise with powerful political interests).

128. For instance, the environmental groups that compromised with Eastern coal producers in the 1977 Clean Air Act amendments did so to protect other gains in that legislation, such as restrictions on air pollution in areas that already met air quality standards (the Prevention of Significant Deterioration (“PSD”) program), restrictions that otherwise might have been a target for the powerful coal industry. The environmental groups might have also concluded that only so many political battles could be won with so many interest groups, and a strategic alliance with the coal industry would protect the PSD program that was the most important goal. See ACKERMAN & HASSLER, *supra* note 124, at 31, 36, 41, 44–47 (noting the political threat that the coal industry posed, the importance of the PSD program to environmental groups, and the powerful array of interests opposed to PSD). Indeed, when the environmental groups backed away from the compromise in the administrative process, the coal industry was able to prevent any significant change to that compromise. *Id.* at 98–103.

change should be adopted, rather than whether any solutions should be adopted.¹²⁹ The problem with this approach is that in climate science (as in many other areas of environmental science), the level of uncertainty that is politically significant will directly correlate with the level of conflict over the policy question at issue.¹³⁰ As the stakes for any individual policy question increase, various actors in the political process will have increased incentives to scrutinize the relevant science and deconstruct it by identifying the inevitable assumptions and inferences that are needed to make connections between scientific results and policy answers.¹³¹ Those assumptions and inferences are inevitable because the complexity and dynamism of our natural environment mean that it is often the case that science cannot provide conclusive answers to the policy questions that most interest us.¹³² This is particularly true in a complex field such as climate science.

The key, then, to getting traction in the debates over climate policy, and to moving toward the adoption of effective policy solutions to the problem of climate change, is not to focus on resolving uncertainty or trying to browbeat political opponents into conceding that there is no uncertainty. The key is instead to shape the economic and political landscape so that there is less reason for various actors to contest the science and emphasize the inevitable uncertainty in the science.¹³³ The campaign over Proposition 23 did not focus on whether

129. See VICTOR, *supra* note 125, at 42 (noting that this belief “leads policy advocates (and their opponents) to invest heavily in finding a scientific consensus (or undermining it)”); see also Matthew C. Nisbet, *Public Opinion and Participation*, in OXFORD HANDBOOK ON CLIMATE CHANGE AND SOCIETY 355, 362 (John S. Dryzek et al. eds., 2011) (noting “popular assumption” that improved public knowledge will result in increased public support for climate change); Kari Marie Norgaard, *Climate Denial: Emotion, Psychology, Culture, and Political Economy*, in OXFORD HANDBOOK ON CLIMATE CHANGE AND SOCIETY, *supra*, at 399, 400–01 (“For nearly twenty years the majority of research on climate change from both disciplines presumed information was the limiting factor in public non-response.”); Ravkin, *supra* note 81 (“[F]or far too long climate campaigners have had a tendency to speak of the science pointing to rising risks from building emissions of greenhouse gases and their favored solutions in a single breath.”).

130. See Eric Biber, *Which Science? Whose Science? How Scientific Disciplines Can Shape Environmental Law*, 79 U. CHI. L. REV. 471, 482 (2012); Daniel Sarewitz, *How Science Makes Environmental Controversies Worse*, 7 ENVTL. SCI. & POL’Y 385, 394–96 (2004).

131. Biber, *supra* note 130, at 533; Sarewitz, *supra* note 130, at 396.

132. Biber, *supra* note 130, at 476.

133. For instance, Victor notes that the key factor that lead the international community to adopt stringent limitations on substances that deplete the ozone layer was not a scientific consensus that the ozone layer was in danger or about the mechanisms by which the layer was being degraded, but instead was changes in “underlying interests and abilities,” specifically a conclusion by the leading manufacturers of ozone-depleting substances that substitutes were feasible and would be profitable. VICTOR, *supra* note 129, at 44–46, 220–21; see also RICHARD E. BENEDICK, OZONE DIPLOMACY: NEW DIRECTIONS IN SAFEGUARDING THE PLANET 306–32 (1998).

climate change was happening or not—surprisingly, not even the proponents of the Proposition made that the focal point of their campaign.¹³⁴ The focus was on jobs and to some extent Californian jingoism. Opponents did not need to convince Californians that climate science was settled, because they did not need to rely on arguments about climate science. If the cost of climate policy was low (or in fact was a net gain for California), then whether or not a climate catastrophe might occur in the future was not that important to voters.¹³⁵

Another major element of the debate over climate change policy has been a focus on which instrument—cap-and-trade, a carbon tax, subsidies, or traditional “command-and-control” regulation—would be most effective at this present time in leading the way to reducing carbon emissions. Many, many trees have been sacrificed in debates over the relative economic and political pros and cons of each of these options.¹³⁶ The economic side of these debates tends to be quite

134. See *supra* note 102. This was even as climate change skepticism reached new heights of political prominence in the United States, particularly in the Republican Party.

135. Indeed, opposition primarily from out-of-state interests may have made even more convincing the argument that AB 32 was good economically for Californians, since it implied that interests in competing states (such as Texas) were afraid of what California was doing. Other states that have enacted efforts to address climate change generally have also framed those policies as low-cost, economically feasible choices. See BARRY G. RABE, STATEHOUSE AND GREENHOUSE: THE EMERGING POLITICS OF AMERICAN CLIMATE CHANGE POLICY 29–31, 38, 50, 118–19 (2004) (stating that some states frame their policy reactions to climate change as a response to an “economic development opportunity” or an “economic threat” and that states that have enacted greenhouse gas strategies have tended to do so because they believe it is in their economic interest); Barry G. Rabe, *The Aversion to Direct Cost Imposition: Selecting Climate Policy Tools in the United States*, 23 GOVERNANCE 583, 592 (2010) (“A key element in their state policy work was selecting climate policy tools that could be framed primarily as an economic development enhancement . . .”).

136. See generally, e.g., Reuven S. Avi-Yonah & David J. Uhlmann, *Combating Global Climate Change: Why a Carbon Tax Is a Better Response to Global Warming than Cap and Trade*, 28 STAN. ENVTL. L.J. 3 (2009); Alex Rice Kerr, *Why We Need a Carbon Tax*, ENVIRONS: ENVTL. L. & POL’Y J. 69 (2010) (arguing that a carbon tax presents the best alignment of technology, capital, and policy to directly respond to the approaching energy and environmental crisis); Roberta Mann, *The Case for the Carbon Tax: How to Overcome Politics and Find our Green Destiny*, 39 ENVTL. L. REP. 10,118 (2009) [hereinafter Mann, *The Case for the Carbon Tax*] (arguing that a carbon tax is the best regulatory approach but that significant impediments, namely the United States’s cultural aversion to taxes, must be overcome); Roberta Mann, *To Tax Carbon or Not to Tax Carbon – Is That the Question?*, NAT. RESOURCES & ENV’T, Summer 2009, at 44 [hereinafter Mann, *To Tax Carbon*] (asserting that implementation of a carbon tax and cap-and-trade system will play an essential role in reducing carbon dioxide emissions); Robert R. Nordhaus & Kyle Danish, *Assessing the Options for Designing a Mandatory U.S. Greenhouse Gas Reduction Program*, 32 B.C. ENVTL. AFF. L. REV. 97 (2005) (evaluating four approaches to regulation: upstream or downstream cap-and-trade, greenhouse gas tax, product standards, and hybrid programs); Robert N. Stavins, *A Meaningful U.S. Cap-and-Trade System to Address Climate Change*, 32 HARV. ENVTL. L. REV. 293 (2008) (proposing an upstream, economy-wide CO₂

sophisticated, trying to understand how different policy options will dynamically affect the future of energy in the U.S. economy.¹³⁷ The political side of these debates generally focuses more on what options are more likely to pass right now, though there are some exceptions.¹³⁸

In the case of California, a wide range of policy options has been used to encourage the development of clean energy: subsidies, tax breaks, regulatory mandates, and cap-and-trade.¹³⁹ The campaign over Proposition 23 did not turn on which particular climate instruments had been adopted in the past forty years of energy policy in California or which policy option the state Air Resources Board might choose to implement AB 32. (In fact, AB 32 gave the Board tremendous leeway in terms of the policy tools it could adopt, ranging from traditional regulation to cap-and-trade to a carbon tax.) Again, if a strategic interpretation of the Proposition 23 campaign is correct, then what was important was that energy policy had generally been aggressively pursued and had significantly altered the economic (and therefore the political) landscape in the state. The details over which policy option is more or less effective economically over the next forty years may be far less important than ensuring that some significant policy option, any significant policy option, is adopted.¹⁴⁰ Similarly,

cap-and-trade system with gradual emissions reductions over time). Such debates are also present in the public arena. *See, e.g.*, POOLEY, *supra* note 69, at 338 (quoting op-ed by senior Environmental Defense Fund staffer arguing for cap-and-trade over a carbon tax); *id.* at 362–63 (describing calls by New York Times op-ed columnist Tom Friedman for a carbon tax because of simplicity); *id.* at 368–69 (presenting calls by a leading climate scientist for carbon tax over cap-and-trade).

137. *See, e.g.*, Schneider & Goulder, *supra* note 109, at 13 (noting most economic comparisons conclude that a carbon tax is superior).

138. *See, e.g.*, Avi-Yonah & Uhlmann, *supra* note 136, at 45 (acknowledging political resistance as a disadvantage of the carbon tax); Kerr, *supra* note 136, at 69, 94–95 (endorsing a carbon tax despite the practical political challenge of enacting tax legislation); Mann, *The Case for the Carbon Tax*, *supra* note 136, at 10,124–25 (“Politicians undoubtedly fear charges of supporting higher taxes.”); Nordhaus & Danish, *supra* note 136, at 161 (noting that political acceptability is a major obstacle to a greenhouse gas tax); Stavins, *supra* note 136, at 351 (“[N]o policy proposal should be ruled out on this basis, and it is conceivable that carbon taxes may be politically feasible in future years . . .”). Patashnik has briefly discussed that cap-and-trade might be preferable to a carbon tax because the former creates incentives for industry to support the policy after enactment, since industry has a stake in the new policy system, and that industry might even push for further policy changes in the future as a result of those incentives. PATASHNIK, *supra* note 5, at 179–80.

139. *See infra* Table 1. In October 2011, California’s Air Resources Board adopted a cap-and-trade approach for implementing AB 32. *See* Julie Cart, *California Becomes the First State to Adopt Cap-and-Trade Program*, L.A. TIMES, Oct. 21, 2011, <http://articles.latimes.com/2011/oct/21/local/la-me-cap-trade-20111021>.

140. The risk with seeking the optimal policy outcome is that the “perfect will become the enemy of the good.” *See* Daniel A. Farber, *Climate Justice*, 110 MICH. L. REV. 985, 989 (2012)

while it is essential to ensure that a policy option is politically feasible today, it may be essential to consider what policy options will best succeed at encouraging future progress in the years to come.

The third major theme is the role of federalism in U.S. climate policy. California's aggressive efforts to regulate greenhouse gas emissions provoked a series of high-profile confrontations with the federal government and regulated industry over whether California's efforts were preempted by federal law.¹⁴¹ That in turn prompted some significant debates among legal scholars as to whether state and local efforts to deal with climate change are appropriate and/or constitutional, a particularly important question for an issue that seems inherently global.¹⁴² Those debates have identified a range of rationales for state and local participation, from correcting regulatory

(reviewing ERIC A. POSNER & DAVID WEISBACH, *CLIMATE CHANGE JUSTICE* (2010)) (identifying “the fallacy of the hypothetical alternative”). According to Farber:

This is a common type of argument: although it may be true that *A* would be better than *B*, we should not adopt *A* because there might be some other hypothetical alternative that would be superior to *A*. Yet, we are not told what these other alternatives might be, whether implementation would actually be feasible, or that the alternatives would be politically viable.

Id.; see also Robert W. Hahn, *Climate Policy: Separating Fact from Fantasy*, 33 HARV. ENVTL. L. REV. 557, 565, 590 (2009) (citing economists who argue for the pursuit of second-best efforts to address climate change that are politically feasible, even if they are not economically ideal, and arguing for possibly less efficient national-level climate change efforts as a second-best choice); *Democracy in America: Should Southerners Pay Higher Taxes than Yankees?*, THE ECONOMIST (June 24, 2011, 1:32 PM), <http://www.economist.com/blogs/democracyinamerica/2011/06/inequality-and-taxation> (identifying the concept of “an objectively incoherent defence of powerful interests: in the face of a pragmatically possible reform . . . an argument is invoked whose full implications would require an even more thoroughgoing reform . . . which since the thoroughgoing reform is a political non-starter results only in defeat of the pragmatic reform and no other change. This is a pretty effective strategy for defending powerful interests . . .”). *Contra* Kerr, *supra* note 136, at 95 (“Politicians have a responsibility to resist lobbying pressure from the private sector and convince their constituents to join them in doing what is right, not just what is popular. Anything less is a failure of leadership in a period of crisis.”).

141. See, e.g., DeShazo & Freeman, *supra* note 5, at 1521–22; Jody Freeman, *The Obama Administration's National Auto Policy: Lessons from the “Car Deal,”* 35 HARV. ENVTL. L. REV. 343, 349–52 (2011) (describing the enactment and ramifications of the California law).

142. See generally, e.g., David E. Adelman & Kirsten H. Engel, *Reorienting State Climate Change Policies to Induce Technological Change*, 50 ARIZ. L. REV. 835 (2008); William W. Buzbee, *State Greenhouse Regulation, Federal Climate Change Legislation, and the Preemption Sword*, 1 SAN DIEGO J. CLIMATE & ENERGY L. 23 (2009); Carlson, *supra* note 86; Alice Kaswan, *Decentralizing Cap-and-Trade? The Question of State Stringency*, 1 SAN DIEGO J. CLIMATE & ENERGY L. 103 (2009). For arguments that subnational regulation is counterproductive, see generally Brewster, *supra* note 5; Cary Coglianese & Jocelyn D'Ambrosio, *Policymaking Under Pressure: The Perils of Incremental Responses to Climate Change*, 40 CONN. L. REV. 1411 (2008); Joseph Allan MacDougald, *Why Climate Law Must Be Federal: The Clash Between Commerce Clause Jurisprudence and State Greenhouse Gas Trading Systems*, 40 CONN. L. REV. 1431 (2008); Jonathan B. Wiener, *Think Globally, Act Globally: The Limits of Local Climate Change Policies*, 155 U. PA. L. REV. 1961 (2007).

failures at the federal level,¹⁴³ to providing room for democratic expressions of subnational positions on climate change,¹⁴⁴ to allowing for experimentation in the development of climate policies,¹⁴⁵ to using the threat of regulatory fragmentation to force industry to seek action at a federal level.¹⁴⁶

A strategic interpretation of the Proposition 23 campaign helps identify another rationale for allowing state and local participation in climate policy: the possibility of developing industry at the state level that could, in the future, push for policy changes in other states or at the federal level. The renewable energy industry in California, for example, could push for federal legislation that would increase both the level and geographic scale of regulatory or other policies that support renewable energy.¹⁴⁷ There is some evidence that this dynamic is already playing out. The aggressive RPS standards in California have encouraged the rapid development of renewable energy in Oregon and Washington for export to California.¹⁴⁸ This is a bottom-up way of developing climate policy—constructing the interest

143. See, e.g., Buzbee, *supra* note 142, at 28–32 (listing the regulatory failure risks of climate change legislation); Kaswan, *supra* note 142, at 114–15 (suggesting states “could directly make up for the federal failure”).

144. See, e.g., Kaswan, *supra* note 142, at 118–23 (offering democratic justifications for state stringency).

145. E.g., Benjamin K. Sovacool, *The Best of Both Worlds: Environmental Federalism and the Need for Federal Action on Renewable Energy and Climate Change*, 27 STAN. ENVTL. L.J. 397, 430–31 (2008) (“State action can provide opportunities for experimentation in designing policy, as the simultaneous action of many states promotes competition and innovation.”).

146. See Brewster, *supra* note 5, at 263–65 (arguing that the way state-level measures “can generate a positive political dynamic to support further measures is by creating an industry demand for a uniform regulatory standard”); DeShazo & Freeman, *supra* note 5, at 1504–16 (noting that industry will demand federal standards that preempt inconsistent state regulation); Wiener, *supra* note 142, at 1974–75 (“A patchwork of inconsistent state regimes stimulates U.S. federal action to harmonize national regulation.”).

147. See DeShazo & Freeman, *supra* note 5, at 1510–11 & n.30 (describing how state efforts to build up renewable energy industries might create interest groups that push for subsequent federal legislation).

148. See Ted Sickinger, *The Cost of Green: Huge Eastern Oregon Wind Farm Raises Big Questions About State, Federal Subsidies*, OREGON LIVE (Mar. 12, 2011, 1:04 PM), http://www.oregonlive.com/politics/index.ssf/2011/03/post_20.html (noting that California buys more than half of all wind power produced in the Pacific Northwest and is a major driver for the establishment of renewable projects in those states); James Holman, *Power-Hungry California Is Hot for the Northwest Clean Energy*, OREGON LIVE (Aug. 24, 2008, 12:00 AM), http://www.oregonlive.com/environment/index.ssf/2008/08/california_utilities_look_to_o.html (same). California policymakers have been aware of the potential for their efforts to shape other states’ policies and have seen that potential as an argument for California’s efforts. Rabe, *supra* note 135, at 590.

groups that would support climate policy at the federal level by encouraging their growth at the state level.¹⁴⁹

III. RESPONDING TO OBJECTIONS: DEMOCRACY, SUBOPTIMAL OUTCOMES, AND STRATEGIC OPPOSITION

There are at least three possible critiques of this approach: one relates to its normative appeal, and the other two relate to its effectiveness. First, this approach could be seen as calling for the manipulation of the democratic process to address climate change, something that might not be justifiable in a democratic system of governance. Second, building up particular industries might result, in the long run, in more harm than good to the cause of addressing climate change. Third, those interest groups threatened by climate change policy (e.g., oil, gas, and coal) might themselves recognize this dynamic and therefore oppose any efforts to change the interest group landscape in any way that might be potentially harmful to their interests.

The first critique is that the strategic use of public policy to nurture and grow interest groups in a way that affects the democratic process might be seen as antidemocratic. Politicians and policymakers develop policy in an effort to manipulate public opinion (by changing the economic and political landscape that helps shape that opinion) and also, by encouraging the growth of interest groups that might skew the decisionmaking process, subvert the ability of the general public to influence the political process. One problem with this argument is that it implies that *any* public policy might be considered antidemocratic because all public policy choices will inevitably affect the interest group landscape and public opinion.¹⁵⁰

149. See VICTOR, *supra* note 125, at 242–45 (calling for a “bottom up” approach to international climate policy that begins with individual agreements among particular countries). An excellent example of this dynamic is the development of a multistate cap-and-trade carbon emissions trading system in the northeastern United States. Economic pressures across state lines (due to the nature of the electric grid and utility ownership patterns) strongly encouraged many small states to enter into the trading system and auction the allowances, rather than give them away. See Bruce Huber, *How Did Reggie Do It?*, 39 *ECOLOGY L.Q.* (forthcoming), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2018329 (“[S]tate legislatures have embraced auctions as a source of revenue to offset adverse rate effects.”); see also Vivian E. Thomson & Vicki Arroyo, *Upside-Down Cooperative Federalism: Climate Change Policymaking and the States*, 29 *VA. ENVTL. L.J.* 1, 54–61 (2011) (noting the possibility that state efforts might inspire or encourage efforts in other states to pursue climate change policy).

150. Any taxation, spending, or regulatory program will create winners and losers and affect the ability and desire of various members of the public to lobby the government going forward.

But there is a more fundamental problem with this antidemocratic critique in the specific context of climate change. The impacts of greenhouse gas emissions within the United States are not felt exclusively, or even predominantly, within the borders of the United States. Greenhouse gas emissions will affect the lives and livelihoods of billions of people around the world, given the global-commons nature of climate change. And those billions of people have absolutely no representation in the U.S. political process, despite the potentially devastating effects that U.S. greenhouse gas emissions might have on the citizens of countries such as Tuvalu, Bangladesh, India, or sub-Saharan African countries, many of which are already among the poorest in the world and which have contributed the least to greenhouse gas emissions.¹⁵¹ Indeed, few seriously argue that there is no obligation on the part of the United States and other developed countries to address climate change in some way. There are, however, significant debates about whether that aid should come in the context of efforts to reduce (or mitigate) climate change in the future or to assist poorer countries with adaptation, the size of the obligation, the institutional means to fulfill it, etc.¹⁵²

Yet the costs and benefits of climate change mitigation and adaptation will not likely fall uniformly across the planet, and many have speculated that the United States will disproportionately reap the benefits of greenhouse gas emissions while avoiding many of the costs.¹⁵³ Given that distribution of costs and benefits, some observers

151. See, e.g., Robert Mendelsohn et al., *The Distributional Impact of Climate Change on Rich and Poor Countries*, 11 ENV'T & DEV. ECON. 159, 173 (2006) ("Overall, the poor will suffer the bulk of the damages from climate change . . .").

152. For arguments that developed countries owe an obligation to address climate change, see generally Simon Caney, *Climate Change and the Future: Discounting for Time, Wealth, and Risk*, 40 J. SOC. PHIL. 163 (2009); Simon Caney, *Justice and the Distribution of Greenhouse Gas Emissions*, 5 J. GLOBAL ETHICS 125 (2009); Stephen M. Gardiner, *Climate Justice*, in OXFORD HANDBOOK ON CLIMATE CHANGE AND SOCIETY, *supra* note 129, at 309, 314–15 (noting "consensus" that developed nations have obligation to carry more of the burden to address climate change); Henry Shue, *Global Environment and International Inequality*, 75 INT'L AFF. 531 (1999); Henry Shue, *Subsistence Emissions and Luxury Emissions*, 15 L. & POL'Y 39 (1993). For a review of traditional arguments that an ethical obligation exists for developed countries to address climate change that is skeptical, but that nonetheless concludes some obligation is owed, see generally ERIC POSNER & DAVID WEISBACH, CLIMATE CHANGE JUSTICE (2010).

153. Cass R. Sunstein, *The World vs. the United States and China? The Complex Climate Change Incentives of the Leading Greenhouse Gas Emitters*, 55 UCLA L. REV. 1675, 1677 (2008) (noting that the United States "lack[s] a strong incentive to solve the problem"). *But see* Jody Freeman & Andrew Guzman, *Climate Change and U.S. Interests*, 109 COLUM. L. REV. 1531, 1600 (2009) (arguing that aggressive climate change action is in the best interests of the United States, considering all costs and benefits).

have expressed skepticism that the American political system will ever seriously address climate change.¹⁵⁴

Thus, climate change is a classic example of an interjurisdictional pollution spillover in which the operation of the political system at one level will lead to a both economically inefficient and unjust outcome at another level—a situation that might justify superseding the decisionmaking process of the suboptimal level, whether democratic or not.¹⁵⁵ If the strategic use of interest groups might help advance productive climate change policy, we are left with a tradeoff between any negative impacts on American democracy and the economic costs and costs to justice of inaction on climate change. Given the likely marginal democratic impacts of the strategic use of interest groups and the potential stakes of climate change,¹⁵⁶ it seems that this trade-off weighs heavily against the antidemocratic argument.

There is one additional reason to be skeptical of the antidemocratic argument. If climate change does have significant negative impacts on the economies and societies of countries around the world, countries that have different cost-benefit analyses than the United States, those countries might explore relatively affordable actions that would allow them to unilaterally reduce the negative effects of climate change. In fact, techniques do exist that would allow a country such as India, Nigeria, or Brazil to “reset” the global thermostat through what scientists call “geoengineering.” Perhaps the most plausible of these techniques would involve the injection of sulfur aerosol particles into the upper atmosphere, where they would reflect more of the sun’s incoming light from the planet’s surface (what

154. *E.g.*, Sunstein, *supra* note 153, at 1700 (expressing uncertainty about whether the United States will act).

155. *See, e.g.*, Richard L. Revesz, *The Race to the Bottom and Federal Environmental Regulation: A Response to Critics*, 82 MINN. L. REV. 535, 540–42 (1997).

156. One reason those impacts might be minimal is that our existing constitutional system is hardly a model of democracy, and is also already subject to serious flaws that undermine its responsiveness to public opinion. For instance, the recent, dramatic increase in the use of the filibuster in the Senate has made an already undemocratic institution (given the malapportionment of Senators by population) even more undemocratic. Senators from twenty-one states (which could represent at a minimum only 8.3 percent of the U.S. population) could, in theory, block any legislation. *See* David Roberts, *How 7.4% of Americans Can Block Humanity’s Efforts to Save Itself*, GRIST (Nov. 12, 2009, 5:41 PM), <http://www.grist.org/article/2009-11-12-how-7.4-of-americans-can-block-humanitys-efforts-to-save-itself>; *see also* BOB DAHL, *HOW DEMOCRATIC IS THE US CONSTITUTION?* 48–54, 81–82 (2001) (noting undemocratic elements of the U.S. Constitution, such as malapportionment of Senators by population and the selection of the President by the electoral college). Likewise, as previously discussed, public choice dynamics already systematically shape our political process, and it is unclear that the strategic use of interest groups to combat climate change will make the problem any worse.

scientists call adjusting the planetary “albedo”).¹⁵⁷ The annual cost of deploying this technology at a level that would offset most estimates of man-made global warming ranges between ten billion to one hundred billion dollars, well within what is affordable for many countries around the world.¹⁵⁸ There are many risks and problems with using sulfur aerosols.¹⁵⁹ But from the perspective of protecting the ability of the American public to exercise democratic accountability over climate change policy, it is hard to see a worse outcome than having another country unilaterally set the global thermostat. However, American inaction on climate change policy only increases the risk of such an outcome.

A related democratic critique of the strategic use of interest groups to advance climate change policy is that it will encourage rent seeking by private actors that will either actually undermine the functioning of democracy, or create the perception that democracy is being undermined by various actors seeking “corrupt bargains.” A recent example of this concern is the political debate over the bankruptcy of the solar energy firm Solyndra, which had been the recipient of federal loan guarantees. Republicans have asserted that the Obama Administration improperly favored political friends through the government’s support for Solyndra.¹⁶⁰ The controversy appears to have reduced the support among Republicans for alternative energy subsidies,¹⁶¹ and the risk of rent seeking appears to motivate many of the critiques by “free-market environmentalists” of

157. The technology more or less mimics the impacts of a massive volcanic eruption, such as the eruption of Mt. Pinatubo in 1991, which temporarily but significantly reduced global temperatures. See generally Paul J. Crutzen, *Albedo Enhancement by Stratospheric Sulfur Injections: A Contribution to Resolve a Policy Dilemma?*, 77 CLIMATIC CHANGE 211 (2006) (describing the basic technology and science).

158. See Alan Robock et al., *Benefits, Risks, and Costs of Stratospheric Geoengineering*, 36 GEOPHYSICAL RES. LETTERS L19703 (2009) (“Several billion dollars is a lot of money, but compared to the international gross national product, this amount would not be a limiting factor . . .”).

159. See *id.* (summarizing research on the risks, including possible negative impacts on the South Asian monsoon and the need to maintain sulfur injections into the atmosphere on a continual basis for centuries or longer to avoid catastrophic short-term temperature increases).

160. See, e.g., Jonathan Cohn, *The Case for Solyndra*, NEW REPUBLIC (Sept. 29, 2011, 12:00 AM), <http://www.tnr.com/blog/jonathan-cohn/95520/solyndra-bankrupt-solar-panel-green-job-obama-waste>; William Galston, *Slow Down on the Solyndra Criticism! Government Can Foster Innovation*, NEW REPUBLIC (Sept. 16, 2011, 12:00 AM), <http://www.tnr.com/article/the-vital-center/95002/solyndra-westinghouse-solar-brad-plumer-department-energy>.

161. See David Weigel, *Chart of the Day: The Solyndra Effect*, SLATE (Dec. 8, 2011, 3:33 PM), http://www.slate.com/blogs/weigel/2011/12/08/chart_of_the_day_the_solyndra_effect.html (showing thirty percent decline in Republican support for greater alternative energy research funding between 2006 and 2011).

the current regulatory system and of environmental groups.¹⁶² Again, the question is whether this risk (which perhaps can be reduced by appropriate design choices) outweighs the benefits of building up an interest group base for climate change politics.¹⁶³

As for effectiveness, there certainly are risks to the approach of consciously building up particular economic sectors in order to advance climate change policy. Policymakers might guess wrongly as to how to best encourage the growth of industry and interest groups that might in turn push for future climate policy. They might not succeed in encouraging the growth of industry. Worse, they might succeed in encouraging the growth of the wrong industry, industry that turns out to not have incentives to push for effective climate policy in the future, “locking-in” climate policy to a suboptimal or even counterproductive course.¹⁶⁴ The best example of this risk has been

162. See Zywicki, *Environmental Externalities*, *supra* note 122, at 912–13 (arguing that, because of risk of rent seeking, environmental regulation should only be pursued when benefits are large); *supra* notes 120–28 and accompanying text (discussing potential tradeoffs of market-driven reform); see also Donald T. Hornstein, *Self-Interest, Politics, and the Environment—A Response to Professor Schroeder*, 9 DUKE ENVTL. L. & POL’Y F. 61, 63 (1998) (noting that rent-seeking critiques of environmental law may lead to the “normative case that this whole body of legislation is suspect”); Wiener, *supra* note 117, at 754 (noting that “the typical complaint from public choice theorists is not that there is too little environmental regulation . . . but that there is too much” because that regulation is primarily rent seeking). Of course, the risk of rent seeking should be present across the board in policy, such that it should be equally high in the context of defense spending, highway construction, health care, agricultural policy, or criminal justice. The focus of some “free-market environmentalist” scholars on deregulation in the environmental context therefore might be the result of an implicit valuation of the benefits of environmental protection as being small and, therefore, outweighed by the risks of rent seeking. And indeed, some of the leading scholars appear to be skeptical of environmental concerns, such as the existence of climate change. See, e.g., Yandle & Buck, *supra* note 117, at 229 (expressing “hope that the fear of global warming will subside, along with efforts to control the world’s energy economies”); *id.* at 198–200 (adding, after emphasizing the uncertainty in the science in climate change, that “[o]ne thing, however, is certain: implementation of greenhouse controls like those in the Kyoto Protocol will introduce further distortions into the current economic state, creating opportunities for rent-seeking and bootlegging . . .”).

163. For an example of a proposal to encourage renewable energy research while reducing the risk of rent seeking, see Jonathan H. Adler, *Eyes on a Climate Prize: Rewarding Energy Innovation to Achieve Climate Stabilization*, 35 HARV. ENVTL. L. REV. 1, 1 (2011). It is possible that any effort to reduce rent seeking might also reduce the interest group benefits of any policy. For instance, a prize system as proposed by Adler might not build up the kind of economic base that might be needed for effective lobbying.

The fear of rent seeking has also been drawn upon by critics of cap-and-trade policies and advocates of a carbon tax. See Mann, *The Case for the Carbon Tax*, *supra* note 136, at 10, 123. However, it is unclear why the tax system would be any less vulnerable than cap-and-trade to rent seeking. The many complexities of the federal tax code show the possible risks of rent seeking.

164. See Coglianese & D’Ambrosio, *supra* note 142, at 1423–25 (noting this risk and calling it the “lock-in” problem).

the aggressive federal push for the development of corn-based ethanol biofuels.¹⁶⁵ The politics here are impeccable: the subsidies and tax credits for corn-based ethanol have encouraged significant investments in farms, refineries, and fuel distribution systems;¹⁶⁶ rural constituencies (particularly in the Great Plains, at the heart of the ethanol industry) are overrepresented in the U.S. Senate and therefore have disproportionate political power;¹⁶⁷ the industry is fairly concentrated and maintains a powerful lobbying force.¹⁶⁸ The problem is that it has become clear that corn-based ethanol is not an adequate solution to climate change, and in fact probably makes the problem worse.¹⁶⁹ Thus, empowering the corn-based ethanol industry arguably has led to a cul-de-sac in climate policy, as its interests in expanding its particular niche in the energy market are not congruent with effective climate policy.¹⁷⁰

Corn-based ethanol shows the risks of trying to empower industry that will support future climate policy. But first, cul-de-sacs

165. See *id.* at 1424 (citing ethanol as an example of the problem).

166. See Robert W. Hahn, *Ethanol: Law, Economics, and Politics*, 19 STAN. L. & POL'Y REV. 434, 434 (2008) (predicting huge growth in ethanol production resulting from government policies); Donald T. Hornstein, *The Environmental Role of Agriculture in an Era of Carbon Caps*, 20 HEALTH MATRIX 145, 153–54 (2010) (recounting history of society's ethanol demand). For an overview of the relevant law, see Hahn, *supra*, at 437–41. Estimates of the total amount spent on ethanol subsidies range into the tens of billions of dollars. *Id.* at 439–40.

167. The benefits of ethanol subsidies also were concentrated in specific rural counties. See Stephen P. Holland et al., *Some Inconvenient Truths About Climate Change Policy: The Distributional Impacts of Transportation Policies* 16–17 (Energy Inst. at Haas, Working Paper No. 220, 2011).

168. See Hahn, *supra* note 166, at 461–63 (describing the power of ADM, a major ethanol provider); Hornstein, *supra* note 166, at 160–62 (describing the power of ethanol lobby in the context of climate legislation in Congress).

169. Hahn, *supra* note 166, at 446–49; Hornstein, *supra* note 166, at 154–57. There are also potential negative impacts from biofuels on food prices. Hornstein, *supra* note 166, at 154–55. In a small bit of irony, the largest contributor to the Proposition 23 Yes campaign was Valero, a Texas refiner that had recently invested in ethanol. The decision of California regulators to categorize ethanol as a high-carbon fuel that would be disfavored under the new regulatory scheme might have contributed to Valero's decision to fund Proposition 23. See *supra* note 66 and accompanying text (regarding Valero's interesting funding position); see also Hornstein, *supra* note 166, at 157–60 (describing how California regulatory policies disadvantage corn-based ethanol and other efforts by ethanol industry to attack those policies).

170. See, e.g., POOLEY, *supra* note 69, at 390–91 & 391 n.* (describing how farm state Democrats successfully pushed for corn-based ethanol to be favorably treated in Waxman-Markey, despite its known environmental problems). It is possible that by encouraging the development of research and investment in biofuels that are more effective from a climate perspective, support for corn-based ethanol will have a long-run beneficial effect. This, in turn, depends on factors such as how transferable investments in corn-based ethanol are to other, more sustainable biofuels, and how willing the corn-based ethanol industry is to accept or even encourage policy that pushes a shift to these other fuels.

need not be one way. It can be possible to undo the errors of policy mistakes. The primary tax credit for ethanol, for instance, just ended as a result of environmental and budgetary critiques of the fuel.¹⁷¹ Second, as I noted earlier, entrenched interest groups are an inevitable part of the political landscape. Climate policy will have to work with or against those entrenched interest groups. One option is to try and fight all or many of those entrenched interest groups in hopes of designing a climate policy that is as flexible and optimal as possible, but with the risk of failing to enact any climate policy at all. Another option is to try to work with and shape the interest group landscape, increasing the possibility of enacting a climate policy, but also increasing the risk that any such climate policy might be dysfunctional or ineffective in one way or another.¹⁷² Proposition 23 gives a possible example of the promise of this second approach; maybe the concomitant risks are therefore worth accepting.¹⁷³

Third, it is quite plausible that sophisticated, strategic interest groups are very aware of the possibility of dynamic shifts in the political and economic landscape because of policy changes, and that they therefore might resist even small policy steps that could build up interest groups that would pose a threat in the future. Indeed, there is evidence that fossil fuel industries are currently quite aware of this threat and have taken aggressive steps to challenge or eliminate subsidies, tax credits, and other support for renewable energy because of the long-term risk that a rising renewable energy industry might

171. Robert Pear, *After Three Decades, Tax Credit for Ethanol Expires*, N.Y. TIMES, Jan. 1, 2012, <http://www.nytimes.com/2012/01/02/business/energy-environment/after-three-decades-federal-tax-credit-for-ethanol-expires.html>.

172. See POOLEY, *supra* note 69, at 402–03 (arguing that complexity of the cap-and-trade provisions in Waxman-Markey was necessary to obtain passage, and that a “simple carbon tax” “would never pass” unless it became just as complicated).

173. There are two other possible risks that seem relatively less important. First, aggressive climate change policy in one jurisdiction may support the growth of supportive industry in that jurisdiction, but push industries that oppose further policy into other jurisdictions, where they might increase their political control and prevent policy changes. See Brewster, *supra* note 5, at 278 (calling this “political leakage”). At least at the domestic level within the United States, however, the chances that California’s climate policies will lead to a higher level of (for instance) coal-based industry in states such as West Virginia or Kentucky, and therefore will interfere with progress at the federal level, seem relatively small. Such states are already heavily coal-dependent, and in any case, the more likely movement of industry is overseas, rather than domestically.

Second, successful incremental policy may “lull” the public and the political system into not taking additional steps to address climate change. See Coglianesse & D’Ambrosio, *supra* note 142, at 1425. But lulling may not occur if the political and economic interests created by incremental policy steps see it as in their self-interest to push for additional legislation.

pose to them.¹⁷⁴ In other words, perhaps there is no low-hanging fruit in climate change policy, from a political context, and there is no advantage to an incremental approach.

While this concern is real, it is not insurmountable. Powerful political actors might be co-opted through the right kinds of policy choices and used to resist the pressures from other interest groups. This is in fact what happened in California, where the electric utilities became strong advocates for AB 32 and important counterweights to out-of-state oil and gas interests. Some kinds of incremental steps will be more politically appealing than others—renewable portfolio standards have been an example of this up to now—and therefore more difficult for opposing interest groups to resist. Of course, opposing interest groups will not be savvy and sophisticated at all times, allowing an opening for initial steps that might then build momentum.

IV. LESSONS FROM A COMPARISON OF CALIFORNIA AND FEDERAL EXPERIENCES WITH CLIMATE CHANGE POLICY

At the same time Proposition 23 was soundly defeated, the U.S. Congress failed to enact significant climate policy at the federal level. The political odds seemed as good as they could get for federal legislation: a President who had campaigned on the issue and strong majorities for the political party that had made the issue part of its policy agenda. Yet while a comprehensive bill passed the House of Representatives, it had little or no chance of passage in the Senate, where states that have significant economic dependence on fossil fuels (such as Wyoming and West Virginia) have political power disproportionate to their population.

Certainly those who pushed for a climate bill in 2009–10 were quite aware of the importance of working with existing interest groups and making the case that climate policy has economic benefits.¹⁷⁵ They argued that the climate bill would produce “green jobs” in the renewable energy industry; they conducted difficult negotiations with

174. See Suzanne Goldenberg, *Conservative Thinktanks Step Up Attacks Against Obama's Clean Energy Strategy*, THE GUARDIAN (May 8, 2012, 4:44 PM), <http://www.guardian.co.uk/environment/2012/may/08/conservative-thinktanks-obama-energy-plans> (alleging coordinated effort by conservative think tanks funded by oil, gas, and coal industry to attack renewable power mandates in individual states).

175. See POOLEY, *supra* note 69, at 385–86 (arguing that proponents understood that “[g]ood intentions” will not solve global warming, and that “[w]ithout lobbyists from Goldman and Credit Suisse and [other industries] pushing hard for a climate bill because it was in their interest to do so, the lobbyists from the coal and oil industries would never be defeated”).

representatives of the electricity industry to find ways to ease the difficult transition away from coal.¹⁷⁶ Yet the bill still failed.

What lessons can we draw from the comparison between the failure at the federal level and the success at the state level in California? The Proposition 23 campaign was fought on an economic and political landscape that had already changed in response to prior energy legislation in the state. As a result, the arguments about the potential for jobs and economic growth from renewable energy were more plausible in California, where the renewable energy industry had already significantly developed. In contrast, at the federal level, the public had doubts about whether green jobs would, in fact, materialize.¹⁷⁷ The fact that industry had already partially adapted to existing climate policies in California meant that climate legislation in the state did not have to make explicit giveaways to get buy-in from industry.¹⁷⁸ That contrasted with the “Christmas tree” appearance of the federal climate bill, in particular the giveaways of carbon dioxide

176. For examples of supporters of climate legislation relying on jobs as a key argument, including candidate and President Obama, see, for example, *id.* at 279–81, 285–92, 298, 354–58, 383–84, 388–90. For an overview of those difficult negotiations, see *id.* at 359–81. Proponents also counted on support from the financial industry, which would benefit from setting up the infrastructure for a market-based mechanism. *Id.* at 384–85. Of course, in the wake of the global financial crisis, many critics saw this as a bug, not a feature. *Id.*

The environmental groups generally supported cap-and-trade in the push for federal legislation, in direct contrast to predictions by “free-market environmentalists” that any carbon regulation would be command and control because of rent seeking by industry and environmental groups. See Yandle & Buck, *supra* note 117, at 193 (“[A]n important implication of the bootleggers and Baptists theory is that global environmental regulation will overwhelmingly favor flat command-and-control standards, rather than taxes or tradable permits.”); see also Zywicki, *Environmental Externalities*, *supra* note 122, at 881 (arguing that environmental groups should show a preference for more efficient regulation but do not do so and do not support market-based regulations). Equally problematic for these predictions is California’s adoption of a cap-and-trade system for greenhouse gases, over the objections of environmental groups that sought a carbon tax. See Ann Carlson, *AB 32 Lawsuit: Assessing the Environmental Justice Arguments Against Cap and Trade*, LEGAL PLANET (Mar. 22, 2011), <https://legalplanet.wordpress.com/2011/03/22/ab-32-lawsuit-assessing-the-environmental-justice-arguments-against-cap-and-trade/> (describing litigation); Cara Horowitz, *Court Issues Final Ruling in AB 32 Challenge*, LEGAL PLANET (Mar. 21, 2011), <https://legalplanet.wordpress.com/2011/03/21/court-issues-final-ruling-in-ab-32-challenge-enjoins-implementation-of-ab-32-scoping-plan-pending-ceqa-fixes/> (same).

177. Compare BOB EPSTEIN, LESSONS FROM PROP 23—WINNING ENVIRONMENTAL CAMPAIGNS IN THE “TEA PARTY” ERA (2011), available at <http://www.e2.org/ext/doc/Epstein-ERG-April2011.pdf> (showing polling data that sixty-five percent of Californians believe renewable energy is a plausible source of future jobs, versus twenty-five percent who are skeptical), with POOLEY, *supra* note 69, at 415 (citing national polling data that showed skepticism about clean energy jobs).

178. AB 32 contains no specific allocations for allowances to any industry group, and is extremely short in comparison to Waxman-Markey.

emission allowances to industry, which opponents seized upon to argue that it was part of a conspiracy by big business.¹⁷⁹

In hindsight, perhaps the better choice at the federal level in 2009–10 would have been to enact a bill that focused on relatively noncontroversial choices, such as providing long-term subsidies and tax breaks for renewable energy research, development and/or installation,¹⁸⁰ or a national RPS.¹⁸¹ Such legislation would have been more likely to pass now, and it would have laid the economic and political groundwork (just as in California) for more aggressive efforts in the future.¹⁸²

The importance of laying that groundwork was made particularly clear by the nature of the debate over the federal climate bill. Advocates for the bill had significant amounts of money at their disposal for advertising and lobbying, an unusual turn of events from the standard situation in environmental policy.¹⁸³ Yet opponents of the bill were still able to turn public opinion against the proposal.¹⁸⁴

179. For discussion of the allowances given to industry to obtain their support, POOLEY, *supra* note 69, at 376–78. For discussion of how giveaways were used by opponents to attack Waxman-Markey, see, for example, *id.* at 332–33, 364–65, 386–87, 411. Proponents of Waxman-Markey contended that all of the various elements went toward “consumer protection, green job creation, and clean energy R&D.” *Id.* at 357; see also PATASHNIK, *supra* note 5, at 143 (arguing that the presence of large giveaways in order to ensure the enactment of policy changes shows that the underlying political dynamics are not favorable for the durability of those changes).

180. A weakness of existing federal renewable energy subsidies is that they have been extended for only a year or two at a time, reducing their effectiveness in encouraging long-term investment. See Kate Galbraith, *Future of Solar and Wind Power May Hinge on Federal Aid*, N.Y. TIMES, Oct. 25, 2011, <http://www.nytimes.com/2011/10/26/business/energy-environment/future-of-solar-and-wind-power-may-hinge-on-federal-aid.html>. Longer-term subsidies might be much more effective in building the renewable energy industry in the United States, even if those subsidies are not higher. *Id.*; see also MARK MURO ET AL., BROOKINGS INST., *SIZING THE CLEAN ECONOMY: A NATIONAL AND REGIONAL JOBS ASSESSMENT* 33–41 (2011) (noting the significant drop off in renewable funding that will occur with expiration of stimulus bill support in 2012–13, and noting the impact this will have on long-term renewable energy investment); Tiffany Hsu, *Obama’s Clean-Energy Goals Have Industry Questioning Feasibility*, L.A. TIMES, Jan. 27, 2011, <http://articles.latimes.com/2011/jan/27/business/la-fi-obama-clean-energy-20110127>.

181. A major strategy choice facing Democrats in 2009 was whether to pursue one single, large energy bill, or split it into two bills (subsidies/RPS and cap-and-trade). POOLEY, *supra* note 69, at 314–15, 414–15. The former choice won out in the House. *Id.* Leading Senators, however, sought to take a different approach. *Id.* at 314–15, 416.

182. The large subsidies given to renewable energy in the 2009 economic stimulus bill may help significantly in laying this groundwork. See Mounteer, *supra* note 84, at 11,090 (outlining history, structure, and outlays of the economic stimulus bill regarding investments in renewable energy).

183. Former Vice President Al Gore promised to raise \$300 million for three years of media advertising to support climate change legislation from 2008 through 2010, as well as provide significant additional support for lobbying and activism. POOLEY, *supra* note 69, at 117, 304–05, 328–83; see also MATTHEW C. NISBET, *CLIMATE SHIFT: CLEAR VISION FOR THE NEXT DECADE OF*

PUBLIC DEBATE 2 (2011), available at http://climateshiftproject.org/wp-content/uploads/2011/08/ClimateShift_report_June2011.pdf (describing other large gifts of money amounting to tens of millions of dollars to environmental organizations to campaign for climate change policy); *id.* at 15 (estimating that environmental organizations spent about \$394 million on climate change policy in 2009). The actual total raised by Gore appears to amount to somewhat less than promised. *See id.* at iv, 13 tbl.1.6, 14 tbl.1.7, 21–22 (concluding that Gore’s organizations raised and spent a total of about \$115 million in 2008 and 2009). While this amount was vastly greater than the activist group spending from opposing non-profits (such as the Competitive Enterprise Institute), *id.* at 7–8, tpls.1.1 & 1.2; POOLEY, *supra* note 69, at 121, it was comparable to the spending on lobbying and advertising by industry trade associations, NISBET, *supra*, at 9 tbl.1.3, 16–17 & fig.1.1 (calculating that industry associations spent \$218 million on climate and energy issues in 2009, and that the total including conservative think tanks was \$259 million); POOLEY, *supra* note 69, at 185–86, 299, 407 (describing tens of millions of dollars spent on lobbying and media by the coal industry in 2008 to oppose climate legislation); *id.* at 202–03, 228 (describing lobbying and advertising efforts by the U.S. Chamber of Commerce and National Association of Manufacturers); *id.* at 220, 299, 405–06, 410–11 (describing heavy lobbying and advertising by individual companies and trade associations including the American Petroleum Institute). On the other hand, industry was not unified; there were significant industry players who helped support (to a greater or lesser extent) the push for climate legislation, such as General Electric, Duke Energy, and others, as part of the U.S. Climate Action Partnership, or USCAP. *See* NISBET, *supra*, at 16–21 & tpls.1.09–1.11 (showing that corporations and trade associations that publicly supported federal climate legislation spent approximately \$217 million on all lobbying activities (not just climate change), while those opposed spent approximately \$272 million on all lobbying activities); POOLEY, *supra* note 69, at 139–41, 154–55, 332–33 (describing each company’s support). Some observers have questioned the estimates of spending provided by Nisbet, arguing that he significantly overestimated environmental fundraising and spending, and underestimated industry fundraising and spending. *See* Joe Romm, *Climate Shift Data Reanalysis Makes Clear Opponents of Climate Bill Far Outspent Environmentalists*, THINKPROGRESS (Apr. 19, 2011, 4:18 PM), <http://thinkprogress.org/romm/2011/04/19/207910/climate-shift-data-reanalysis/> (reanalyzing “Nisbet’s debunked financial analysis”); *see also* Andrew C. Revkin, *Beyond the Climate Blame Game*, N.Y. TIMES (Apr. 25, 2011, 2:18 PM), <http://dotearth.blogs.nytimes.com/2011/04/25/beyond-the-climate-blame-game/> (providing debate overview regarding Nisbet report).

The simple calculations of money, however, do not tell the entire story. First, industry and conservative groups had an advantage in that their donations were predominantly taxable ones that are more usable for lobbying and activism, while environmental groups predominantly raised tax-deductible donations that were restricted in how they could be used for lobbying, NISBET, *supra*, at 9, 15–18. Second, calculation of all lobbying by corporations listed as publicly supporting federal climate change legislation is somewhat misleading, as those corporations were sometimes only fickle allies. *See* POOLEY, *supra* note 69, at 154–55 (describing how Duke Energy only occasionally allied with environmentalists in legislative fights); Romm, *supra* (noting changing waves of corporate sponsorship of climate legislation). Third, opponents of climate change legislation appeared to have been more effective in putting their money into television advertising. NISBET, *supra*, at 21–22 (finding that supporters of legislation spent about \$48 million on advertising and opponents spent \$167 million, with more provided by oil company advertising intended to improve their corporate images). In addition, there was significant free conservative media (such as Rush Limbaugh and Glenn Beck) that vociferously attacked climate legislation. *See, e.g.*, POOLEY, *supra* note 69, at 362–63, 396–98, 400–01, 411–13.

184. *See, e.g.*, POOLEY, *supra* note 69, at 235–36, 301–03 (describing how coal industry advertising increased favorability ratings for the coal industry, a major opponent of climate legislation, and for increasing public support for delaying climate legislation until “clean coal” technology was available); *id.* at 401–02 (“butt kicking” by conservative media after Waxman-

The challenge in climate policy (as many commentators have noted) is that addressing the problem will require significant changes in behavior by the public at large, such as changes in the form and nature of transportation, the built environment, and consumption choices.¹⁸⁵ This stands in contrast to most of the past efforts to deal with environmental problems, which have emphasized imposing regulatory mandates and costs on industry through command-and-control regulation, meaning that industry is faced with the burden of adjustment (instead of the public). Focusing the burden on regulated industry probably makes the public choice dynamics of enacting environmental legislation worse (since regulated industry tends to be a relatively small, concentrated group), but for the public it likely minimizes the appearance of costs of environmental regulation.¹⁸⁶ The costs of environmental regulation are probably much more important for the public in the context of climate change given the fundamental role that carbon emissions play in modern, industrial economies,¹⁸⁷ and this was a major factor in the debate over the federal climate bill as opponents constantly raised the issue of cost.¹⁸⁸

Markey passed the House “left the bill’s reputation in tatters”); *id.* at 419 (describing a rise in climate skepticism in the American public in the wake of the debate over Waxman-Markey).

185. See, e.g., Katrina Fischer Kuh, *Capturing Individual Harms*, 35 HARV. ENVTL. L. REV. 155, 159–61 (2011) (providing overview of relevant literature); Michael P. Vandenbergh & Anne C. Steinemann, *The Carbon-Neutral Individual*, 82 N.Y.U. L. REV. 1673, 1673 (2007) (noting that one-third of carbon emissions could be eliminated through actions taken by individuals).

186. See VICTOR, *supra* note 129, at 66–67 (noting government control of cost visibility); Eric Biber, *Climate Change and Backlash*, 17 N.Y.U. ENVTL. L.J. 1295, 1317–25 (2009) (noting political dynamics of regulating climate change-causing behaviors may be difficult because of resistance to imposing constraints on long-standing individual activities); Katrina Fischer Kuh, *When Government Intrudes: Regulating Individual Behaviors that Harm the Environment*, 61 DUKE L.J. 1111, 1125 (2012) (noting that there is often much greater political resistance to direct regulation of individual behavior compared to regulation of industrial activities that will, indirectly, affect individual actions); Jonathan Chait, *Why Health Care Reform Beat Out Climate*, NEW REPUBLIC (Sept. 10, 2010, 2:30 PM), <http://www.tnr.com/blog/jonathan-chait/77589/why-health-care-reform-beat-out-climate> (arguing that the primary goal of policymakers after failure of Waxman-Markey is to achieve climate change policy by minimizing the public appearance of cost, rather than actual cost); M.S., *The Irony of the Tragedy of the Commons*, ECONOMIST (Feb. 24, 2011, 10:58 PM), http://www.economist.com/blogs/democracyinamerica/2011/02/environmental_regulation (noting survey that finds that American public prefers regulation to cap-and-trade or taxation as solutions to climate change).

187. For instance, imposition of a carbon tax or cap-and-trade constraints will result in higher gasoline prices for drivers and higher electricity prices for consumers.

188. For examples of opponents challenging federal climate change policy on cost grounds, and offering amendments that would suspend any legislation if any cost increases occurred at all, see POOLEY, *supra* note 69, at 230–31, 239, 337, 350–51, 358, 365, 387–88, 401–02. The public support for legislation tends to fall significantly when cost is put into consideration. *Id.* at 238 (describing poll in which support for legislation falls from sixty-six percent to forty-four percent if it would result in higher gas prices in the short term). The scale and scope of

Climate policy thus might present different political dynamics than traditional environmental regulation. Traditional environmental regulation tends to exemplify benefits that are broadly distributed, and costs that are concentrated, and such legislation is difficult to pass absent aggressive political efforts by leading political “entrepreneurs.”¹⁸⁹ But while climate policy might involve this dynamic to some extent,¹⁹⁰ it also involves broadly distributed costs and benefits.¹⁹¹ While this might seem to make the passage of legislation easier,¹⁹² in the context of environmental regulation this might not in fact be the case. Where environmental regulation (as with climate change) requires substantial changes in long-standing, individual behavior by the public at large, the politics may be quite toxic.

Building the political and economic interest groups that support climate policy (as in California) might make this task easier in two ways: First, if the public sees the benefits of climate policy as plausibly more than just environmental ones, then that might make a significant difference in the political feasibility of legislation.¹⁹³ Second, if the political and economic interest groups in favor of climate change become powerful enough, then the political dynamics of

regulating greenhouse gas emissions, for instance, means that it will be much more likely that increased costs for industry (such as electricity utilities) will be passed through to consumers in a way that is significant and, therefore, politically relevant. Utility executives feared that they would be blamed by the public for the high raises, resulting in a political and regulatory backlash. *Id.* at 336–37. Waxman-Markey made extensive efforts to avoid raising the retail price of electricity. *Id.* at 351 n.*.

189. Political scientist James Q. Wilson calls this “entrepreneurial politics.” James Q. Wilson, *The Politics of Regulation*, in *THE POLITICS OF REGULATION* 357, 370 (James Q. Wilson ed., 1980); see also Cook, *supra* note 5, at 468, 477 (noting the difficulty of enacting legislation in this kind of political environment). High profile political leadership was generally absent throughout the debates on climate policy, POOLEY, *supra* note 69, at 238–39 (noting climate activist lamenting the lack of an “elder statesman” to take the lead), particularly leadership from the White House, *id.* at 242 (climate activists concluding that only presidential leadership would push a climate bill through); *id.* at 392, 398, 414–20 (concluding that lack of public White House leadership doomed the climate bill in 2009-10).

190. The more that a regulatory system is able to force costs on regulated industry without allowing costs to pass through to consumers, the more it will resemble this option.

191. The benefits are reductions in damaging changes to the global climate, benefits that are shared by all humans. The costs would be (in the context of the United States) the risk of increased energy prices, shared by all consumers of energy.

192. Wilson calls this kind of dynamic “majoritarian politics” and argues that it depends on receiving substantial public support for success. Wilson, *supra* note 189, at 367–68.

193. This is particularly so because the economic benefits will be present in the shorter term and are more concrete compared to the environmental benefits. See Jeffrey J. Rachlinski, *The Psychology of Global Climate Change*, 2000 U. ILL. L. REV. 299, 308 (discussing society’s balance of current economic and future environmental benefits).

climate change might change once again, to a situation where a concentrated industry might benefit from regulatory changes.¹⁹⁴ This dynamic is often the most promising in terms of encouraging the passage and implementation of legislation.¹⁹⁵

CONCLUSION

The campaign over Proposition 23 indicates the importance of history and developing an interest group landscape that is friendly to climate change legislation before developing comprehensive legislation. That does not mean that the only thing that matters is the interest group landscape. The voting patterns both in the U.S. Congress and among Californians indicate that climate change is also tied up with underlying partisan commitments¹⁹⁶ and likely cultural ones as well.¹⁹⁷ Making the interest group landscape more accommodating for climate change legislation may not solve partisan or cultural polarization over climate change—other solutions may be

194. Wilson calls this “client politics.” Wilson, *supra* note 189, at 369.

195. *Id.* (speculating that the rise of “watchdog” and “public interest” organizations may have made the politics more difficult). The success of the hazardous waste treatment industry in lobbying for stricter waste treatment and disposal standards is an example of this dynamic. See Landy & Hague, *supra* note 116, at 67 (describing the lobbying efforts of the hazardous waste treatment industry).

196. See *infra* Table 4. For additional evidence of the sharpening partisan divide on climate change, see Riley E. Dunlap & Aaron M. McCright, *A Widening Gap: Republican and Democratic Views on Climate Change*, ENVIRONMENT, Sept.-Oct. 2008, at 26, 26, available at <http://www.environmentmagazine.org/Archives/Back%20Issues/September-October%202008/dunlap-full.html> (“What had been a modest, but significant, difference in Republican and Democratic levels of pro-environmental voting in Congress since 1970 has grown over time, especially after the Republican takeover of the U.S. House of Representatives in 1994.”); Matthew C. Nisbet, *Communicating Climate Change: Why Frames Matter for Public Engagement*, ENVIRONMENT, Mar.-Apr. 2009, at 12, 14, available at <http://www.environmentmagazine.org/Archives/Back%20Issues/March-April%202009/Nisbet-full.html> (“Predictably, on climate change, poll analyses reveal politically polarized opinions, resulting in two Americas divided along ideological lines.”); Nisbet, *supra* note 129, at 360–61 (noting that climate change has joined other contentious issues like gun control and abortion as “one of the few issues that have come to define what it means to be a partisan in the United States”).

197. For evidence that cultural perspectives shape the policy preferences of Americans on climate change, see Dan M. Kahan et al., *Cultural Cognition of Scientific Consensus*, J. RISK RES., Feb. 2011, at 147, 166–67 (concluding that Americans’ beliefs related to climate change are grounded in “cultural variables”); Anthony Leiserowitz, *Climate Change Risk Perception and Policy Preferences: The Role of Affect, Imagery, and Values*, CLIMATIC CHANGE, July 2006, at 45, 63 (“Support for national and international climate policies was strongly associated with pro-egalitarian values, while opposition was associated with anti-egalitarian, pro-individualist and pro-hierarchical values.”); Robert E. O’Connor et al., *Who Wants to Reduce Greenhouse Gas Emissions?*, SOC. SCI. Q., Mar. 2002, at 1, 15 (“Although Democrats are more likely to support government mitigation programs, party identification accounts for much less variance than either cognitive or economic measures.”).

required for those challenges.¹⁹⁸ Nonetheless, ensuring that important political and economic interests groups are at least not opposed to climate change is a necessary, even if not sufficient, condition for legislation. It is therefore vital that this foundation be laid.

The path to climate change policy that I have briefly sketched in this Article is a circuitous one that requires building up interest groups that would support the climate change policy we need to avoid the worst possible outcomes.¹⁹⁹ This may be understandably frustrating to those who see the urgency of the problem of climate change and the need for political action as quickly as possible. Nevertheless, sometimes the most direct route is not the quickest. The efforts to extend the Kyoto process have failed so far at the international level, and the efforts to enact significant federal legislation have failed even with the most propitious political circumstances possible. Changing the underlying politics requires changing the interests of the people involved in the political process. Until that happens, we will be faced with failures again and again.

198. For suggestions as to possible solutions, see, for example, Dunlap & McCright, *supra* note 196, at 34 (“There is an obvious need for pollsters to monitor Americans’ views of global warming carefully over the next few years, paying special attention to the possibility that the views of self-identified Republicans and Democrats may converge or continue on their divergent paths. Regardless of their paths, though, the results will have major implications for policymaking on climate change.”); Kahan et al., *supra* note 197, at 169 (arguing that “communicators must attend to the cultural meaning as well as the scientific content of information” in order to effectively change public perceptions of climate change); Nisbet, *supra* note 196, at 22 (“One way to reach audiences is to recruit their influential peers to pass on selectively framed information about climate change that resonates with the background of the targeted audience and that addresses their personal information needs.”).

199. Some key political players think of the process in this dynamic way. See POOLEY, *supra* note 69, at 95 (quoting Senator Lieberman, a major proponent for climate legislation, stating that “[w]e needed to establish a long-term trajectory for emissions reductions because once we did that, we would flip the political game and empower the industries and resources of the future”).

Table 1: Historic Overview of Major California Energy Legislation

Title	Year	Description
AB 1575	1974	Created California Energy Commission (“CEC”) (then called State Energy Resources Conservation & Development Commission) with authority to establish energy conservation standards and incentives (including building code and appliance standards) and encourage conservation research and development. Building standards were first adopted in 1977 and updated on three-year cycle.
SB 218	1976	Income tax credit equal to 10% of the costs of solar energy equipment for heating, cooling, and electrical generation. Tax credit continues until 1986, then revived in 2001 and extended through 2005. (AB 1558, 1977; AB 2036, 1980; SB 17xx, 2001)
AB 1512	1977	Requires CEC to develop & coordinate R&D program for alternative sources of energy.
AB 3623	1978	Tax credits of 55% up to \$3000 for investment in small wind and solar systems, and 25% for any system exceeding \$12,000 in cost. Continued through 1986. Restored from 2001 through 2005 (SB17xx, 2001).
Proposition 7	1980	Ballot initiative passes that amends state’s constitution to give legislature authority to exclude construction of solar energy systems from property tax. Implemented by legislation until 1995, and then revived in 1999 through 2016. (SB 1306, 1980; SB 103, 1991; AB 1755, 1999; AB 1099, 2005; AB 1451, 2008)
CPUC Decision 82-12-055	1982	California Public Utility Commission (“CPUC”), rate regulatory agency for state, makes California the first state to adjust rate regulation for electricity utilities to remove disincentives for energy efficiency and conservation. (Decoupling)
CPUC Decision 83-09-054	1983	Establishes standard contract to encourage renewable energy purchases by utilities. (Interim Standard Offer Contract 4) Withdrawn in 1985 due to concerns of excess capacity and overpayments.

SB 656	1995	First net metering law in California which allows consumers to receive credit for electricity produced by on-site solar.
AB 1890	1996	Electricity deregulation ends decoupling, replaces with surcharge on electricity rates (public goods charge) to fund energy efficiency programs and renewable energy programs run by CEC and utilities. (AB 995, 2000 extended charge through 2012. SB 90, 1997 specified details of CEC renewable energy program.)
CEC Program	1998	Public Interest Energy Research (“PIER”) program created by CEC, funded by electricity surcharge. Supports R&D in energy efficiency and renewable energy.
CPUC Decision 01-03-073	2001	Creates Small Generator Incentive Program (“SGIP”) which provides payments for renewable energy production by consumers. Total amount paid since 2001 is \$421 million in utility rebates and \$371 million in CEC payments/incentives. (CPUC D05-12-044) Extended through 2016 by SB 412 (2010).
SB 1078	2002	Creates standard requiring retail electricity sellers to increase amount of renewable energy in portfolios by 1% per year and mandates (with qualifications) 20% renewables by 2017.
AB 1493	2002	Sets standards for emissions of greenhouse gases from autos and light duty trucks. Implemented by state Air Resources Board (“ARB”).
SB 812	2002	Creates California Climate Action Registry, which records/registers voluntary GHG reductions made since 1990 by participating entities.
AB 1007	2005	Requires ARB, in consultation with CEC and other state agencies, to develop and adopt state plan to increase use of alternative fuels, by June 30, 2007.
SB 1368	2006	Limits investments in baseload electricity generation by state utilities to power plants that meet an emissions performance standard (“EPS”) established by CEC and CPUC.

CPUC Decision 06-01-024	2006	CPUC establishes the California Solar Initiative to provide “up to \$2.8 billion in incentives for solar projects” and provide 3000 MW of solar power by 2017. (CPUC, 2005-06). (Replaces in part prior SGIP and CEC programs.)
SB 1	2006	“Million Solar Roofs” bill. Increases net metering, mandates that solar becomes a “standard option” for buyers of new homes by 2011.
AB 32	2006	Reduces greenhouse gas emissions to 1990 levels by 2020 and 80% reduction by 2050.
SB 107	2006	Accelerates RPS requirement from 2017 to 2010.
SB 375	2008	Requires local governments to develop ways to reduce climate change impacts from land-use planning decisions
SB X1-2	2011	RPS standard increased to 33% by 2020.

Table 2: Statewide Vote Breakdown and Total Votes for Major 2010 California Races

Proposition/Election	Votes For/Against (D)/(R)	Percentage For/Against (D)/(R)	Total Votes
Proposition 23 (Suspend AB 32)	3,733,883/ 5,974,564	38.4/ 61.6	9,778,407
Proposition 19 (Marijuana legalization)	4,643,592/ 5,333,230	46.5/ 53.5	9,976,822
Proposition 20 (Congressional redistricting)	5,743,069/ 3,636,892	61.2/ 38.7	9,379,961
Proposition 21 (State parks car registration fee)	4,190,643/ 5,615,595	42.7/ 57.3	9,806,238
Proposition 22 (Limitations on state use of local funds)	5,733,755/ 3,725,014	60.6/ 39.4	9,458,769
Proposition 24 (Business tax reform)	3,947,502/ 5,470,477	41.9/ 58.1	9,417,979
Proposition 25 (Majority budget vote)	5,262,052/ 4,292,648	55.1/ 44.9	9,554,700
Proposition 26 (2/3 Vote fee raise requirement)	4,923,824/ 4,470,234	52.5/ 47.5	9,394,968
Proposition 27 (Repeal of state legislature redistricting reforms)	3,736,443/ 5,468,703	40.6/ 59.4	9,205,146
Governor	5,428,149/ 4,127,391	53.8/ 40.9	10,089,046
Lieutenant Governor	4,917,880/ 3,820,971	50.2/ 39	9,796,574
Secretary of State	5,105,307/ 3,666,407	53.2/ 38.2	9,586,442
Treasurer	5,433,222/ 3,479,709	56.5/ 36.2	9,616,322
Controller	5,325,357/ 3,487,014	55.2/ 36/1	9,647,386
Attorney General	4,442,781/ 4,368,624	46.1/ 45.3	9,637,268
U.S. Senator	5,218,137/ 4,217,386	52.2/ 42.2	9,996,431

Note: All data from California Secretary of State.

Table 3: Proposition 23 Compared to Other Significant Environmentally Related Propositions in California

Proposition (Year) (Description)	Votes For/Against	Percentage For/Against
Proposition 23 (2010) (Suspend AB 32)	3,733,883/ 5,974,564	38.4/ 61.6
Proposition 87 (2006) (Oil severance tax)	3,861,217/ 4,635,265	45.40/ 54.6
Proposition 130 (1990) ("Forests Forever")	3,528,887/ 3,842,733	47.97/ 53.13
Proposition 90 (2006) (Takings)	3,932,043/ 4,324,722	47.60/ 52.40
Proposition 138 (1990) ("The Big Stump")	2,108,389/ 5,201,891	28.84/ 71.16
Proposition 40 (2002) (Parks bond initiative)	2,776,345/ 2,108,512	56.90/ 43.1
Proposition 1A (High-speed rail initiative)	6,680,485/ 6,015,944	52.70/ 47.30
Proposition 7 (Renewable energy mandate)	4,502,235/ 8,155,181	35.50/ 64.50
Proposition 10 (Alternative fuel vehicles)	5,098,666/ 7,464,154	40.50/ 59.50

Table 4: OLS Regression Coefficients with County-Level Proposition 23 Votes

Independent Variable	Coefficient	Standard Error	P-value
Yes Vote on Proposition 21 (2010)	-.335	.152	.03
Vote for Democratic Gubernatorial Candidate (2010)	-.556	.085	<.001
Unemployment Rate 2010	.003	.002	.18
Log Per Capita Carbon Emissions 2002	.001	.012	.915
Log Income 2010	-.007	.023	.97
Percentage Population Hispanic 2010	-.007	.053	.89
Log MW Total Renewable Energy Projects	.001	.001	.47
Log Total Renewable Energy Potential	-.003	.0025	.22
Constant	.837	.274	.004

Notes: Vote and registration data from California Secretary of State. Unemployment is the average annual rate for 2010 from Bureau of Labor Statistics. Income and Percentage Population Hispanic are from U.S. Census. Per Capital Carbon Emissions are as of 2002 and are from Kevin R. Gurney et al., *High Resolution Fossil Fuel Combustion CO₂ Emissions Fluxes for the United States*, 43 ENVTL. SCI. TECH. 5535 (2009). "MW Renewable Energy Projects" is in megawatts and is based on data from the California Energy Commission and the California Public Utilities Commission; they include all renewable energy projects (defined as wind, solar, and geothermal) either operational or approved as of October 2010. "Renewable Energy Potential" is based on data from the California Energy Commission, and is a sum of estimated potential high-speed wind, photovoltaic and thermal solar, and geothermal energy available for exploitation. See GEORGE SIMONS & JOE MCCABE, CALIFORNIA SOLAR RESOURCES, IN SUPPORT OF THE 2005 INTEGRATED ENERGY POLICY REPORT (2005), available at <http://www.energy.ca.gov/2005publications/CEC-500-2005-072/CEC-500-2005-072-D.PDF>; ELAINE SISON-LEBRILLA & VALENTINO TIANGCO, CALIFORNIA GEOTHERMAL RESOURCES, IN SUPPORT OF THE 2005 INTEGRATED ENERGY POLICY REPORT (2005), available at <http://www.energy.ca.gov/2005publications/CEC-500-2005-070/CEC-500-2005-070.PDF>; DORA YEN-NAKAFUJI, CALIFORNIA WIND RESOURCES (2005), available at <http://www.energy.ca.gov/2005publications/CEC-500-2005-071/CEC-500-2005-071-D.PDF>. Because all variables are continuous, analysis was done by ordinary least squares linear regression using Stata, with the robust HC3 command.

Table 5: California State Senate Votes on Major Climate and Energy Bills Enacted Since 2002

Year	SBX 1-2	SB 585	AB 724	SB 375	SB 107	AB 32	SB 1	SB 1368	AB 1007	SB 812	AB 1493	SB 1078	Total Votes
2011	3	7	0	1	1	1	12	1	2	4	2	3	37
2008	9	6	14	15	15	14	4	15	11	10	12	11	136
2006	24	22	19	24	21	22	24	20	24	26	23	25	274
2005	1	2	3	0	0	0	0	0	0	0	3	1	10
2002	27	29	19	25	22	23	36	21	26	30	25	28	311
2002	10	8	17	15	15	14	4	15	11	10	15	12	146
Total Reps	15	15	15	16	16	16	16	16	16	14	14	14	183
Total Dems	25	25	25	24	24	24	24	24	24	26	26	26	297
% Voting Rep Yes	25	54	0	6	6	6.7	75	6	15	29	14	21	21
% Rep Yes	20	47	0	6	6	6.25	75	6	12.5	29	14	21	20
% Voting Dem No	4	8.3	14	0	0	0	0	0	0	0	11.5	4	3.5
% Dem No	4	8	12	0	0	0	0	0	0	0	11.5	4	3
% Total Vote Yes	73	78	53	62.5	60	62	90	58	70	75	62.5	70	68
% Yes	67.5	72.5	47.5	62.5	55	57.5	90	52.5	65	75	62.5	70	65

Notes: % Voting Rep Yes refers to total of yes votes among Republican members who are recorded as voting for or against the bill; % Rep Yes refers to total of yes votes among all Republican members, regardless of whether they vote for or against the bill; % Voting Dem No refers to total of no votes among Democratic members who are recorded as voting for or against the bill; % Dem No refers to total of no votes among Democratic members, regardless of whether they vote for or against the bill; % Total Vote Yes refers to total of yes votes among all members voting for or against the bill; % Yes refers to total of yes votes among all members.

Table 6: California State Assembly Votes on Major Climate and Energy Bills Enacted Since 2002

	SBX 1-2	SB 585	AB 724	SB 375	SB 107	AB 32	SB 1	SB 1368	AB 1007	SB 812	AB 1493	SB 1078	Total Votes
Year	2011	2011	2011	2008	2006	2006	2006	2006	2005	2002	2002	2002	
Rep Yes Votes	5	7	10	7	5	2	9	1	4	0	0	7	57
Rep No Votes	19	16	15	22	27	30	19	31	28	30	27	23	287
Dem Yes Votes	51	51	52	42	48	46	41	45	48	46	42	48	560
Dem No Votes	0	0	0	0	0	2	0	1	0	1	3	0	7
Total Yes Votes	56	58	62	49	53	48	50	46	52	46	42	55	617
Total No Votes	19	16	15	22	27	32	19	32	28	31	30	23	294
Total Reps	28	28	28	32	32	32	32	32	32	30	30	30	366
Total Dems	52	52	52	48	48	48	48	48	48	50	50	50	594
% Voting Rep Yes	21	30	40	24	16	6	32	3	12.5	0	0	23	17
% Rep Yes	18	25	36	22	16	6	28	3	12.5	0	0	23	16
% Voting Dem No	0	0	0	0	0	4	0	2	0	2	6.7	0	1
% Dem No	0	0	0	0	0	4	0	2	0	2	6	0	1
% Total Vote Yes	75	78	81	69	66	60	72	59	65	60	58	71	68
% Yes	70	72.5	77.5	61	66	60	62.5	57.5	65	57.5	52.5	69	64

Note: % Voting Rep Yes refers to total of yes votes among Republican members who are recorded as voting for or against the bill; % Rep Yes refers to total of yes votes among all Republican members, regardless of whether they vote for or against the bill; % Voting Dem No refers to total of no votes among Democratic members who are recorded as voting for or against the bill; % Dem No refers to total of no votes among Democratic members, regardless of whether they vote for or against the bill; % Total Vote Yes refers to total of yes votes among all members voting for or against the bill; % Yes refers to total of yes votes among all members.