TIPs Project
Private Governance
Approaches to Climate Change

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The Private Governance Conceptual Shift
Which City, State or Country is This?

“XXXX Announces Goal to Eliminate 20 Million Metric Tons of Greenhouse Gas Emissions”

• February 25, 2010
• Exceeded reductions target by end of 2015
• Joint announcement with EDF
Environmental Governance
Traditional View

• Actors
  • Federal Government
  • State Government
  • Local Government
  • Regional Governments
  • International Agencies/Organizations (UN, etc.)

• Actions
  • Domestic Constitutional, Statutory, Regulatory Laws, Policies, Programs, Subsidies and Taxes
  • International Agreements
Federal Environmental Regulations

(photo by Michael Gerrard)
Major Pollution Control Statutes 1970-2015
(Vandenbergh 2013, 2014)

Included:
- 1970: Clean Air Act, National Environmental Policy Act
- 1972: Federal Water Pollution Control Act, Coastal Zone Management Act
- 1974: Safe Drinking Water Act
- 1977: Surface Mining Control and Reclamation Act
- 1980: Clean Air Act Amendments, Liability Act
- 1984: Hazardous and Solid Waste Amendments (to RCRA)
- 1986: Emergency Planning and Community Right-to-Know Act
- 1990: Oil Pollution Act

Excluded:
- 1986: SDWA Amendments
- 1987: Water Quality Act
- 1988: FIFRA Amendments
- 1996: FQPA, SDWA Amendments
- 2002: CERCLA Amendments
Polarization: 1970-2013

McCright et al., 2014

Note: Since 1970s, the LCV has tracked votes on bills relating to key environmental issues (ranging from air and water quality to wildlife and forest conservation to climate change) and has calculated an environmental voting score for each member of the House and the Senate. Briefly, a member’s score, which can range from 0 to 100, is the number of pro-environment votes cast divided by the total number of votes on key environmental issues.

Fig. 1. Average league of conservation voters environmental voting score for democrats and republicans in congress, 1970–2013.
Trends in Public Support

What Has Filled the Gap?
Private Environmental Governance

(TOWARD SUSTAINABILITY (2012))

Total number of ecolabels by year of launch
Source: Ecolabel Index (www.ecolabelindex.com)
Private Climate Governance
The Paris Gap

Best case Paris gap = 33 GT CO$_2$e through 2025
Climate Change
Worldview and Confirmation Bias

(Vandenbergh, Raimi & Gilligan 2014)

IPCC: Likelihood that Observed Climate Change is Mostly Anthropogenic
Motivated Reasoning

• Motivated reasoning
  • Reasoning that is motivated by desire to maintain existing beliefs, rather than desire for accuracy

• Confirmation bias
  • People seek out and remember information that fits with their existing beliefs
Solution Aversion

Campbell & Kay, 2014
• “Record High in U.S. Say Big Government Greatest Threat” – Gallup (2013)
• 72% of U.S. respondents said that big government was a greater threat to the future of the country than big business or big labor
• Partisan divide: 92% of Republicans, 56% of Democrats
Private Climate Governance
Vandenbergh & Gilligan (2015, forthcoming 2017)

• Bypass Solution Aversion with Private Sector Responses
• Buy Time -- ~ Gigaton of CO₂ Per Year
• Drivers
• Initiatives
  • Corporations
  • Households
  • Other Actors and Actions
Private Climate Governance
Global Supply Chains

Vandenbergh & Gilligan (forthcoming 2017)

- Regulators
- Advocacy Groups
- Investors
- Retail Customers
- Lenders
- Employees

Retailer

Manufacturer

Supplier

Supplier

Supplier

• Profit Motive: Efficiencies
  - Market Failures
  - Behavioral Failures
• Climate Mitigation Motive
  - Managers
  - Employees

Private Climate Governance
Global Supply Chains

Vandenbergh & Gilligan (forthcoming 2017)
TIPs Research
Private Governance Approaches to Climate Change: Projects

• Motivation: Avoiding Solution Aversion
• The Problem of Scale: Employee Energy Benefits
• The Reliability of Results: Interdisciplinary Meta-analysis
Does Private Governance Reduce Solution Aversion?
Maki, Wallston & Vandenberg, in progress

- Randomly assigned 1,128 US adults to read a message about
  - (1) private governance approaches to climate change,
  - (2) public governance non-tax approaches to climate regulations,
  - or (3) or a nationwide carbon tax
People who read about private governance approaches to climate change, compared to the other topics, were more supportive of private governance approaches, and believed them to be more effective and feasible ($ps < .01$)

Particularly true for political conservatives and moderates, as reading about private governance made conservatives more likely to state that carbon emissions should be reduced, and private governance approaches were the ideal way to reduce such emissions ($p < .05$)
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Employee Energy Benefits (EEBs)
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EEB Research Questions

• What are employee energy benefits, and what types of benefits are being offered?
• Why are employers offering these benefits?
• What effect might these benefits have on employee morale?
• What effect might these benefits have on employee environmental behavior?
## TIPs Research

### What Types of EEBs Are Being Offered?

Maki, McKinney, Cohen, Vandenbergh & Gilligan, under review

<table>
<thead>
<tr>
<th>Subsidies</th>
<th>Incentives</th>
<th>Transportation Support</th>
<th>Information</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offer discounts for solar panels</td>
<td>Provide rewards for carpooling</td>
<td>Reserve preferential parking for carpoools</td>
<td>Provide informational pamphlets, newsletters, or internal websites</td>
<td>Support working from home</td>
</tr>
<tr>
<td>Offer discounts for hybrid cars</td>
<td>Offer discounts, rewards, or free passes for taking the bus</td>
<td>Organize carpooling to work programs</td>
<td>Offer classes/courses</td>
<td>Host local farmer’s markets</td>
</tr>
<tr>
<td>Offer discounts for home energy audits or retrofits</td>
<td>Provide rewards for people who walk or bike to work</td>
<td>Reserve preferential parking for hybrids</td>
<td>Provide carbon footprint calculators</td>
<td>Organize environmental volunteering opportunities</td>
</tr>
<tr>
<td></td>
<td>Use competitions, quizzes, or games to incentivize home behavior change</td>
<td>Host electric car charging station</td>
<td>Offer access to energy use feedback software</td>
<td>Encourage donations/dollar-for-dollar matching</td>
</tr>
<tr>
<td>Offer discounts for other “green” products (e.g., recycled goods, organic food)</td>
<td>Provide free energy efficient lightbulbs</td>
<td>Provide free bike storage</td>
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<tr>
<td></td>
<td>Provide free energy efficient lightbulbs</td>
<td>Organize guaranteed rides home for people who miss the bus</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Organize shuttle service to work/ between work sites</td>
<td>Organize guaranteed rides home for people who miss the bus</td>
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</tbody>
</table>
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What Types of EEBs Are Being Offered?
MTurk Survey

• Industries most commonly offering the benefits were:
  • State and local government (20%)
  • Health care/education (18%)
  • Professional/banking and finance/information technology (17%)

• Less common in:
  • Transportation/warehousing industry (11%)
  • Manufacturing and construction (10%)
  • Service industry (9%)
  • Wholesale/retail trade (5%)

• Employees offered employee energy benefits were also most likely to be
  • Working for a large private sector employer with more than 500 employees (51%),
  • Working for a publicly traded company (52%)
  • Salaried (61%)
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Why Are Employers Offering EEBs?
What Effects Might EEBs Have on Employee Morale and Behavior?

- 482 full-time employees
  - 82 (17%) reported being offered EEBs
    - 52 (63%) reported participating in the EEBs

- What types of EEBs does your employer offer?

- How satisfied are you with your position?

- To what extent do EEBs influence your energy and environmental behavior at home and at work?
EEB Effects
Morale, Workplace Behavior and Spillover

• Employees who enrolled in EEBs reported that EEBs were between “somewhat” to “moderately” influencing their environmental behaviors at home and work

• Employees who were offered EEBs tended to be more satisfied with their positions ($r = 12, p < .01$)
Interdisciplinary approaches to meta-analysis allow for greater consideration of applied issues.

Meta-level info should give policymakers increased confidence in the size of intervention effects, the ability to examine intervention effects in different contexts.

Additional reporting standards: specifics about how study interventions were implemented, the cost of the interventions, and the expected amount of behavior change resulting from the intervention.

Dynamic or frequently updated meta-analyses: constantly updated best practices to assist policymakers.

Publicly available meta-analytic data sets: allow policymakers to examine subsets of empirical studies that best approximate relevant contexts for new policies (e.g., public education campaigns; workplace environmental behavior change programs).
Private Climate Governance Project
TIPs Research

• Vandenbergh & Gilligan, Beyond Politics: The Private Governance Response to Climate Change (forthcoming, Cambridge University Press)
• Maki, Cohen & Vandenbergh, Using Meta-Analysis in the Social Sciences to Improve Environmental Policy (in press)
Private Climate Governance Project
Other Research


• Buying Time TEDx Talk at http://youtu.be/2bXNcEQ6QX0

• Climate Change Research Network at http://law.vanderbilt.edu/academics/academic-programs/environmental-law/climate-change-network/

• Behavioral Wedge at https://my.vanderbilt.edu/behavioralwedge/