


Climate Change Economics

Jon Haveman, Ph.D.

LWVO: Climate Crisis in Oakland What We Can Do

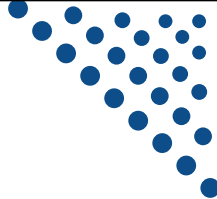
November 13, 2019




1

National Economic Education Delegation

- **Vision**
 - One day, the public discussion of policy issues will be grounded in an accurate perception of the underlying economic principles and data.
- **Mission**
 - NEED unites the skills and knowledge of a vast network of professional economists to promote understanding of the economics of policy issues in the United States.
- **NEED Presentations**
 - Are **nonpartisan** and intended to reflect the consensus of the economics profession.





2

2

Who Are We?

• Honorary Board: 44 members

- 2 Fed Chairs: Janet Yellen, Ben Bernanke
- 6 Chairs Council of Economic Advisers
 - o Furman (D), Rosen (R), Bernanke (R), Yellen (D), Tyson (D), Goolsbee (D)
- 3 Nobel Prize Winners
 - o Akerlof, Smith, Maskin

• Delegates: 367 members

- At all levels of academia and some in government service
- All have a Ph.D. in economics
- Crowdsource slide decks
- Give presentations

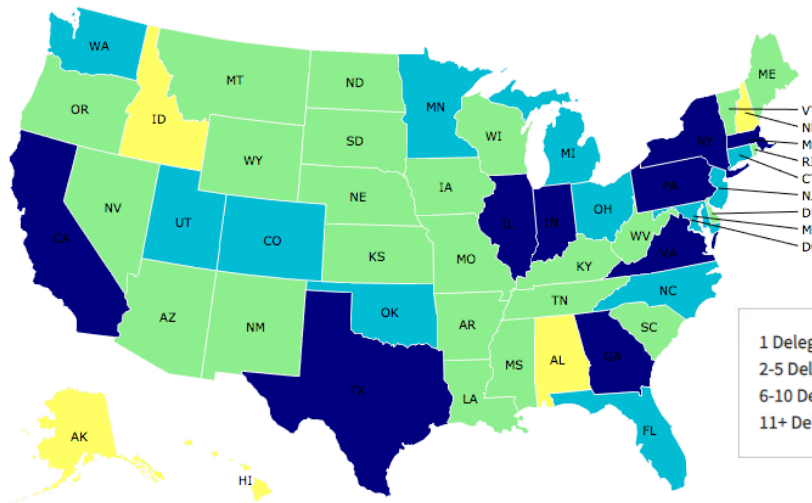
• Global Partners: 42 Ph.D. Economists

- Aid in slide deck development



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Where Are We?



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Credits and Disclaimer

- **This slide deck was authored by:**
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- **Disclaimer**
 - NEED presentations are designed to be nonpartisan.
 - It is, however, inevitable that the presenter will be asked for and will provide their own views.
 - Such views are those of the presenter and not necessarily those of the National Economic Education Delegation (NEED).



5

Topics

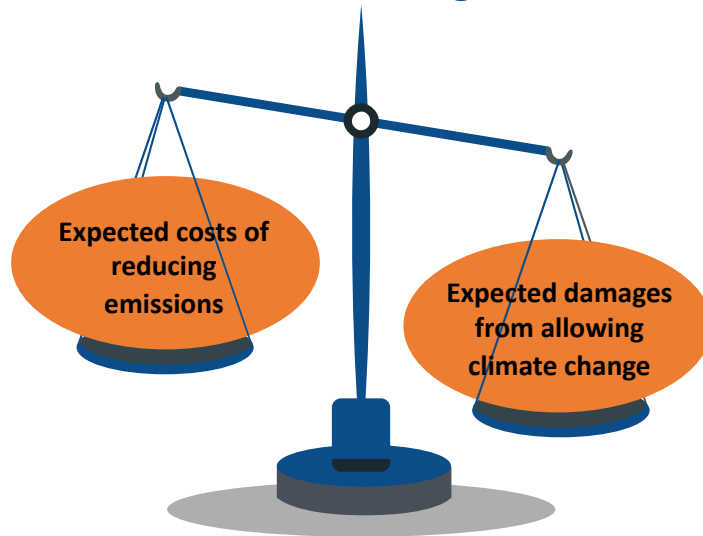
- **The Economic Cost Conversation**
- **Policy Instruments**



6

How Economists Decide How Much to Fight Climate Change

- Cost Benefit Analysis
- Weigh:



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7

Cost-Benefit Analysis of Fighting Climate Change

- Most economic models suggest the costs of keeping warming below 2°C are relatively small:
 - **1-4% of GDP by 2030.**
- Costs of acting to keep warming below 2°C are almost certainly less than future economic damages they would avoid:
 - **7 - 20% of worldwide GDP.**



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8

Economic Growth and Climate Change Action Are Compatible

- Abating greenhouse gas emissions is costly...
... but climate change damages are even more costly.
- Economic growth comes with consequences that we have to deal with, including climate consequences.
- Goal: design policies that reach climate goals at the least possible cost.



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9

Policies That Reduce Emissions: INDIRECTLY

- Subsidizing R&D
- Grid / infrastructure
- Energy efficiency mandates and subsidies
- Mandating renewable energy (*e.g.*, renewable portfolio standards)
- Land use policies



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10

Policies That Reduce Emissions: Directly

- **Regulation**

- Emissions standards or limits
 - o E.g., CAFE standards
- Best when addressing a single source.

- **Market-oriented policies**

- Putting a price on emissions
 - o Subsidizing green energy (*e.g.*, feed-in tariffs)
 - o Tax or cap & trade
- Preferred when addressing multiple sources.



Thoughts on Regulation vs Market-Oriented

- **Equity.**

- Both types of policies are regressive.
 - o Cap and Trade and a Carbon Tax can offset regressivity.
 - o Regulations can not.

- **Efficiency.**

- Market-oriented policies tend to achieve emissions reduction at much lower cost.
 - o Example: CAFÉ Standards vs Carbon Tax
 - Tax is significantly more efficient.
 - Why?



Summary

- **We need to reduce emissions to balance the costs of action against the costs of inaction.**
- **Scientists and the IPCC recommend that we work to keep warming below 1.5 degrees celsius.**
 - *Economists believe that this goal is well worth the costs!*
- **Taxes and cap and trade are proven effective tools to fight climate change!**
- **Other tools may also be necessary.**



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13

What We Can Do

- **Educate yourself about a Carbon Tax.**
 - Easy, Efficient, Elegant, and Equitable
- **Speak up – question your representatives who don't support market-based solutions.**
- **Think hard about local land use measures.**
- **Support organizations that are working hard on efficient policies.**
 - E.g., Citizen's Climate Lobby



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14

14