

March 1, 2019

The Oregon Joint Committee on Carbon Reduction

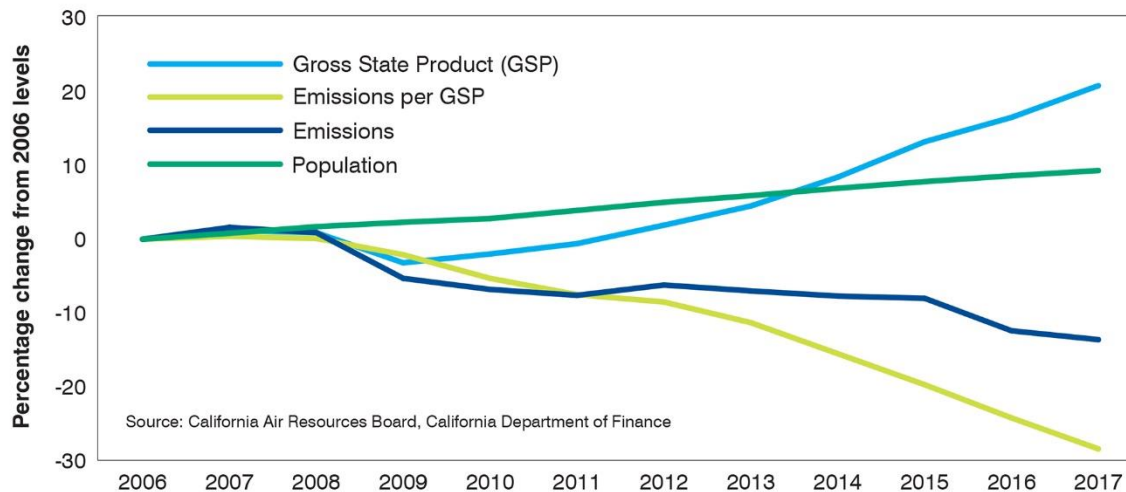
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Subject: HB 2020

Environmental Defense Fund would like to provide the Joint Committee on Carbon Reduction with a preview of new research that is relevant to Oregon’s consideration of HB 2020, which would create a Cap and Invest program. This research evaluates the impacts of the California program on regulated manufacturers which receive very similar treatment to the proposals Oregon has for its own Energy Intensive and Trade Exposed manufacturers. The initial results show that Cap and Trade led firms to cut pollution while maintaining production and growing jobs and payrolls relative to similar firms in other states where there was no carbon price.

In the over five years of California Cap and Trade, statewide emissions have declined and the economy has grown and added jobs faster than the national average (we have an EDF [factsheet](#) that provides more detail on these trends); this is the first study to be able to use real world data to show that Cap and Trade has directly contributed to this trend.

California emissions and economic growth since 2006



About the study

These research results are being prepared for submission as two papers to peer reviewed journals. EDF wants to be clear that while the authors do not anticipate any changes in the results, that is always a possibility during the peer review process. Because of the time consuming nature of peer review, EDF wants to provide The Committee with a preview of these highly relevant results now, while Oregon is considering its own effort to design a cap for carbon pollution that works for Oregon.

The authors of these two related studies have looked at the first four years of cap-and-trade data from California and compared the manufacturing sectors and individual facilities to similarly situated sectors and facilities in other states that don't have a price on carbon and used this comparison to draw conclusions about the impacts of Cap and Trade. The lead author on both studies is Dr. Matthew Zaragoza-Watkins who started his career at the California Air Resources Board, began this research as an Environmental Defense Fund Economist, and is currently an Assistant Professor of Economics at Vanderbilt University. Authors of the second paper include [Jonathan Camuzeaux](#) of EDF and Ireri Hernandez.

A factsheet summarizing the results will be available soon and details about any aspect of the research are available upon request. Dr. Zaragoza-Watkins could also be available to present the research or answer questions if helpful.

More about the Results

Critics of ambitious climate action often speculate that carbon pricing will be bad for jobs and production. But these initial results show that, in reality, California Cap and Trade is having an overall positive effect.

- The initial results estimate a 10% pollution reduction in covered California facilities. About half of this reduction comes from facilities making on-site reductions to reduce the amount of pollution required to make each product. The other half comes from expanded production at more efficient facilities still within California.
- Jobs and more recently wages (2015) are showing an increase in the California regulated manufacturing sectors under Cap and Trade relative to other states. These results are small but significant for the first years of Cap and Trade and worth watching closely in the future. More research would be needed to pinpoint the reason, but jobs could be increasing because utilizing labor is less pollution intensive than the alternative. Wage increases could be due to greater demand for skilled manufacturing workers coupled with very low unemployment.
- Production appears unaffected with similar results observed between capped and similar but uncapped sectors in other states. Firms receive more free allowances the more they produce – instead of the more they emit – so there is a strong incentive to maintain output.

How California Cap and Trade works for covered manufacturers

Oregon is considering allocating allowances to Emissions Intensive and Trade Exposed manufacturers in a similar way to California – but at even more generous levels.

In California, manufacturing firms receive some free allowances because they compete against firms in other locations that do not face a carbon price, making it unlikely that California firms would be able to pass through the price of carbon to consumers; so, absent free allocation, they

would face a competitive disadvantage. Ultimately, free allocation is meant to prevent businesses from moving to other locations without carbon pricing which would be bad for the local economy and emissions.

California benchmarked their free allocation to the performance of the most efficient facility in each industry. Allocation is then adjusted annually based on production – to mitigate any incentive to reduce output – and downward based on the overall decline of the cap.

Sincerely,

A handwritten signature in cursive script that reads "Erica Morehouse".

Erica Morehouse
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