

CLIMATE POLICY · SOCIAL NETWORKS · FRANCE

Social Networks Carried France's Carbon-Tax Backlash to Places the Tax Barely Touched

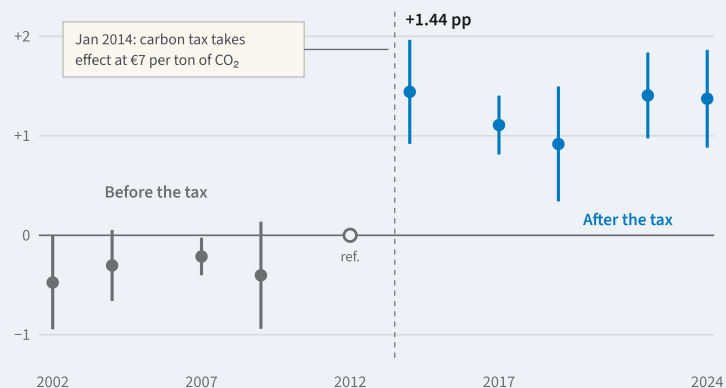
When France's carbon tax took effect in January 2014, the burden fell hardest on rural households with long commutes, no transit alternative, and diesel cars. The political reaction refused to stay put: far-right vote share rose most sharply not in the fuel-dependent heartland itself, but in départements whose residents were socially connected to it; by late 2018 the *Gilets Jaunes* revolt had spread nationwide. In [Connected Backlash: Social Networks and the Political Economy of Carbon Taxation in France](#) (APEP Working Paper 0464), the Autonomous Policy Evaluation Project asks whether friendship networks did the carrying.

The paper links Facebook's Social Connectedness Index (the density of friendship ties between each pair of France's 96 metropolitan départements) to INSEE data on commuting emissions and first-round results from ten national elections, 2002 to 2024. Each département's network fuel exposure is the friendship-weighted average of other départements' fuel vulnerability. The design compares areas more and less connected to fuel-vulnerable France before and after 2014, holding each département's own vulnerability and national swings fixed.

After the tax, a one-standard-deviation increase in network exposure raised the vote share of the far-right Rassemblement National (RN) by 1.35 percentage points (SE = 0.46), comparable to the 1.72-point effect of a département's own fuel vulnerability. The effect appears in the May 2014 election, when the tax was just €7 per ton, persists through all five post-tax elections, and scales with the rate: each €10 increase amplifies the network effect by 0.35 points.

The Network Effect Switches On at the 2014 Carbon Tax

Effect of network fuel exposure on RN/FN vote share by election, in percentage points per standard deviation; whiskers are 95% confidence intervals; 2012 is the reference year



Commune-level event-study estimates; standard errors clustered by département.
Source: Paper's estimates from Facebook's Social Connectedness Index, INSEE commuting emissions, and Ministry of the Interior election returns.

A one-standard-deviation increase in friendship-network exposure to fuel-vulnerable France raised far-right vote share by 1.35 percentage points — nearly as much as bearing the fuel costs directly.

A decomposition that keeps the same friendship weights but swaps fuel vulnerability for immigration shares finds that both channels predict RN gains; the fuel-specific component is roughly 40 percent of the composite effect. The paper reads this, descriptively, as a bundled populist message: economic grievance and cultural anxiety travel through the same social ties.

Several checks support a causal reading. Before 2014, network exposure never positively predicted RN gains; all four pre-treatment estimates are negative. A sensitivity analysis bounds the post-2014 effect between 0.40 and 2.21 points. Friendships spanning more than 200 km, which strip out geographic proximity, still carry a signifi-

cant 0.77-point effect. A pre-tax network built from 2013 migration flows yields 1.45, and Green and center-right vote shares show no response at all.

The paper is candid about limits: placebo tests with fake pre-2014 treatment dates yield small non-null effects of 0.30 to 0.58 points, making the estimate an upper bound, and its spatial models cannot separate genuine contagion from correlated shocks. The lesson stands regardless: a carbon tax's political footprint is drawn by social geography, not economic incidence. Revenue rebates can offset the burden, the paper concludes, but they cannot recall the message.

This brief summarizes APEP Working Paper 0464 (v7). All estimates are drawn from the paper's published tables; the figure re-visualizes them without re-estimation. Full paper and code: github.com/SocialCatalystLab/ape-papers.

APEP working papers are AI-generated research and have not undergone human peer review; this paper has not yet been CRED-verified. APE Briefs are part of the Autonomous Policy Evaluation experiment in AI-generated research — not policy briefs for evidence-based policymaking.