**Internalizing Environmental Risk: Insurance Design and Firm Behavior in Hazardous Industries**

**Kaleb Javier**

### This project maps directly onto PERC's mission.

The setting is gas stations, but the question is not. The dissertation uses underground storage tanks as a laboratory for a much bigger question regarding when replacing government provision with private markets actually improves environmental outcomes. USTs happen to be the one setting where a state (Texas, 1999) replaced a public insurance program and forced facilities into private risk-based markets, providing a clean natural experiment. The tank is the vehicle rather than the point.

### What PERC cares about, and why this fits

PERC's founding premise is that properly structured markets (property rights, price signals, and polluter liability) produce better environmental outcomes than government programs. My project is a direct empirical test of that thesis. Under the old Texas public fund, every facility paid the same uniform premium regardless of tank risk. Classic moral hazard suggests that socializing costs reduces investment in prevention. Private insurers replaced that with risk-based pricing, where older tanks and worse compliance resulted in higher premiums. That is the market doing exactly what PERC argues it should: aligning private incentives with environmental stewardship by making polluters bear the costs of the risks they create.

### The broader payoff

The UST setting is a representative example of a whole class of environmental problems where government has stepped in as insurer or guarantor, such as mining bonds, Superfund, or natural resource damages, and the same moral hazard logic applies. The framework I'm building generalizes. PERC's portfolio already includes work on conservation finance, environmental bonding, and market-based liability. This project gives them rigorous causal evidence on the mechanism they've been advocating for: that market discipline, not mandates, can realign firm behavior with environmental protection.