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Authors

Pierce, Gregory
Connolly, Rachel

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Can Smog Repairs Create Social Justice? The Tune In & Tune Up Smog Repair Program in the San Joaquin Valley

Gregory Pierce and Rachel Connolly (2018)
gspierce@ucla.edu

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Research Issue

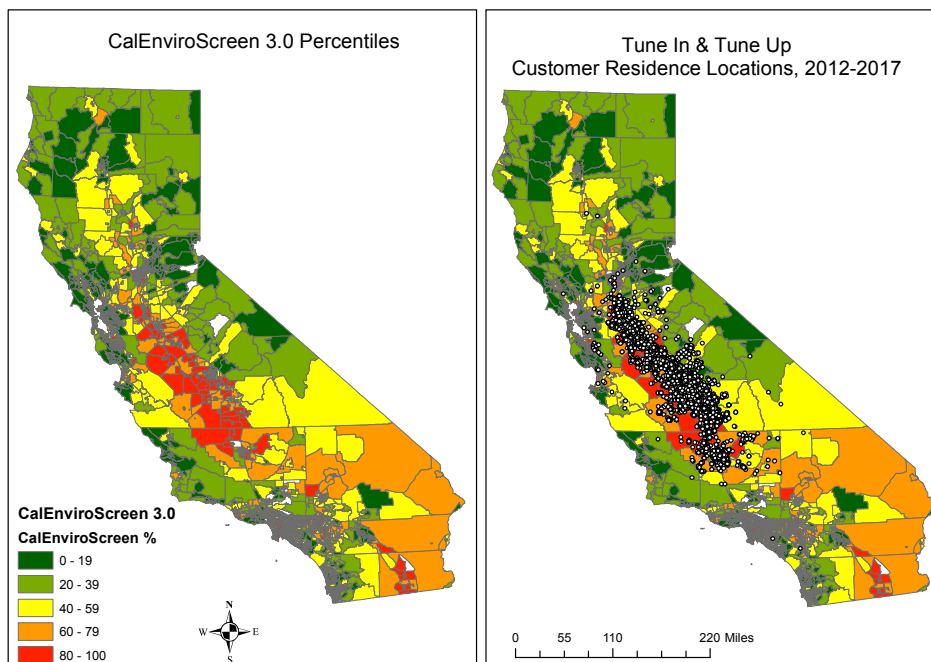
High levels of car travel contribute to poor air quality in California's San Joaquin Valley (SJV), but car usage is unlikely to decline in the near future, as the region is not dense enough to support an effective transit system as an alternative for personal travel. The region's air quality presents a significant environmental justice concern given the high percentage of minority and low-income residents in the Valley.

To combat the harm caused by high-emitting vehicles, the SJV Air Pollution Control District and the nonprofit Valley Clean Air Now (Valley CAN) started the Tune In & Tune Up (TI&TU) program, providing SJV residents with free emission testing and vouchers for smog repair at a series of publicly-held events across the Valley. Since 2012, the program has distributed more than \$12 million in redeemed vouchers.

UCLA researchers evaluated the TI&TU program's efficiency, environmental, and equity outcomes, and considered its relevance for expansion and adoption in other regions. Their findings are not only relevant to regional and state policymakers in California's transportation planning and air quality fields, but to practitioners and scholars studying policies to support transportation equity and environmental justice more broadly.

KEY TAKEAWAYS

- The Tune In & Tune Up program has successfully balanced efficiency, equity, and environmental priorities in the most environmentally disadvantaged region of the state.
- The grassroots approach of the program should be considered a model for California legislators, funders and administrators of prospective transportation investments who are expected to achieve both air quality and distributional goals.
- In regions unable to offer robust car-alternative, travel options, smog repair programs can best achieve emissions reductions and livelihood support for car-dependent, disadvantaged households.



Source: CalEnviroScreen 3.0, OEHHA

Figure: The TI&TU program provides environmental and economic support to the most environmentally-unjust areas in the state

Main Findings

- Outreach works. The program's strategy to reach communities throughout the region resulted in substantial participation, with more than 40,000 individuals attending TI&TU events between 2012 and 2017 — about 4 percent of all SJV households. Every county in the region received substantial benefits from the program.
- The program is suited to finding the most important cars. TI&TU effectively reached owners of the most critical cars for air quality — those most likely to contribute to local emissions and least likely to be captured in existing air quality detection models.
- Prioritizing equity is key. The program effectively distributed the majority of its benefits to SJV neighborhoods with lower incomes, a higher percentage of minority households, and greater environmental concerns than the regional average.

“In regions unable to offer robust car-alternative travel options, smog repair programs can best achieve emissions reductions and livelihood support for disadvantaged households.”

Study

The primary data used in this study was extracted from Valley CAN's database of participant, vehicle, and smog repair information from nearly 42,000 event attendees between 2012 and 2017. Program participant data was explored and analyzed using various analysis and mapping programs. Researchers also attended several TI&TU events to observe the program process, and interview Valley CAN staff and program participants.

Conclusion / Recommendations

- Policymakers and planners should look to TI&TU as a model for reducing smog while balancing efficiency, equity, and environmental priorities.
- Smog repair programs similar to TI&TU should be considered as a complementary approach to meeting air quality standards in low- or moderate-density regions throughout the United States, especially where the built environment does not allow for the cost-effective construction of a full-service transit network or where financing for zero-emissions vehicles is constrained.

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Brief by: Ryan Yowell



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