

Parking Cash-out Programs at Employment Sites

Overall effect on California petroleum use		Affects Petroleum Demand Through Intermediate Indicators:	
Magnitude	Low-Medium	Primary	Mode Choice
Certainty	High	Secondary	
Applicable Level of Government	State, air district, local		
Relevant Laws or Cases Affecting Factor	California Health and Safety Code §§ 39608, 43016, and 43845 South Coast Air Quality Management District Rules 2202 and 1504 and other air district and local regulations		
Overall Time-Horizon of Reversal	California could achieve the full potential of existing parking cash-out law with improved compliance in the near-term. Expanding cash-out policy to require unbundled parking leases at certain employment sites and multi-employer program administration offers a mid-term option to increase the program’s fuel use and air-quality benefits.		
Relevant Topics	parking, employment, monetary incentives, fringe benefits, existing policy		
Summary	Existing California law requires many employers of more than 50 to offer employees the option to choose a cash payment in lieu of any parking subsidy offered. Such a program allows employers to reduce the number of parking spaces they purchase or lease and offers employees an additional economic incentive to carpool, cycle, walk or use transit for their commute. Although the law is almost two decades old, a lack of information impedes oversight and enforcement.		

Introduction

Employer-based programs are a potentially effective means to implement trip reduction measures and improve air quality. Commutes in California are, on average, longer than most other trips. Because commutes occur during peak travel times, they contribute to additional traffic congestion and spikes in air pollution. Commutes also make up a large proportion of total statewide vehicle travel (about 23%).

The extent of air pollution varies by air basin, a low-level atmospheric boundary formed by geographic features. The U.S. Environmental Protection Agency has established acceptable thresholds for an air basin’s ambient levels of carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide. When air basins fail to meet these thresholds, states must develop a basin or statewide implementation plan to reduce ambient air pollution levels below acceptable thresholds. Deficient air basins are known as non-attainment areas. California has established stricter air quality standards (Health and

Safety Code § 39608), and some air basins that meet federal attainment status fail to meet state attainment status.

Table 1: Air basin non-attainment in California

Air Basin	U.S. EPA Non-Attainment Status
Chico	PM 2.5 ¹
Coachella Valley	PM 10 ² , Ozone 8 hour (severe 15)
Imperial Valley	PM 10, PM 2.5
Mammoth Lake, Mono Basin, Owens Valley	PM 10
Sacramento Valley	Ozone 8 hour (severe 15), PM 10, PM 2.5
San Diego County	Ozone 8 hour (marginal)
San Francisco Bay Area	PM 2.5
San Joaquin Valley	Ozone 8 hour (extreme), PM 2.5
South Coast Air Basin	Lead, Ozone 8 hour (extreme), PM 10, PM 2.5
Ventura County	Ozone 8 hour (serious)
West Mojave	Ozone 8 hour
Yuba	PM 2.5

Source: (U.S. Environmental Protection Agency, 2012)

All air basins in California currently meet carbon monoxide attainment status. The South Coast Air Quality Management District basin achieved attainment status in 2004 (California Air Resources Board, 2011).

Employee commute reduction programs

Employer-based programs are a potentially effective means to improve air quality and implement trip reduction measures. Employer-based programs offer several advantages over government-based programs, as employers can better tailor programs to individual or departmental needs.

Commutes are some of longest trips Californians take. Work-related vehicle trips to and from home average 13.2 miles per day versus a daily average of less than 7 miles for all

¹ Fine particulate matter smaller than 2.5 micrometers in diameter

² Particulate matter between 2.5 and 10 micrometers in diameter, such as soot and dust

non-work trips (U.S. Federal Highway Administration, 2011). In California, trips between home and work make up an estimated 24.3% of annual VMT (U.S. FHWA National Household Travel Survey, 2010). Commutes are regular and repeated, so changing patterns can have a pronounced effect on annual vehicle activity.

Employers have unique, proprietary information available on employees' commuting patterns. For instance, employers can match employees with similar schedules living in a similar area for ridesharing. Additionally, employers control many of employees' economic incentives (e.g. salary and benefits) and can subsidize parking or alternative mobility options as a fringe benefit.

Employers have a variety of travel demand management options available, including vanpool, transit subsidies, telecommuting, shifted start times (to avoid peak hour congestion), and flexible-time work schedules (to reduce the number of commuting days). We focus on parking cash-out because its effects are well-understood and California has required some employers to offer cash-out programs for over 20 years.

Parking cash-out in California

California Health and Safety Code § [43845](#) requires certain employers located in an air basin that doesn't meet the stricter California attainment status for any pollutant to offer a parking cash-out program. The law applies to employers of 50 or more persons that obtain parking spaces under a separate arrangement from their primary lease, or when the cost of parking is a separate line item in the primary lease. Employers must offer a cash allowance to all employees eligible for free or subsidized parking as a fringe benefit equivalent. Those who do not take the parking benefit can take the cash allowance, which is the same as the employer's parking subsidy, defined as the employer's parking cost less any employee contributions. An employer's cash-out program should incorporate measures to ensure employees don't take the parking cash-out allowance and then park in a nearby neighborhood with underpriced or under regulated parking.

The California Air Resources Board may impose a civil penalty of up to \$500 per violation on noncompliant employers (Health and Safety Code § 43016). A city, county, or air district may adopt its own implementation measure, provided it complies with state law. A city, county, or air district may also enact its own enforcement and penalty mechanism, provided it includes notice of employer violation and an appeals process.

South Coast Air Quality Management District's parking cash-out implementation

The South Coast Air Quality Management District manages the Los Angeles metropolitan air basin. The District has issued a number of employer-based rules designed to improve regional air quality.

The District's [Rule 2202](#) outlines options for employers with more than 250 employees to mitigate motor vehicle emissions. The rule gives each employer an emissions reduction target for ozone precursors, nitrogen dioxide, and carbon monoxide and affords the employer flexibility in how they achieve the target. Employers may scrap old vehicles they own, implement an employee commute reduction program, invest in off-site air quality improvements, or pursue some combination of these three options.

Within the employee commute reduction program, employers are subject to average vehicle ridership requirements, defined as the ratio of employees arriving at the site to the number of vehicles arriving at the site during the morning peak commute time. Employment sites in

downtown Los Angeles must achieve 1.75 average vehicle ridership, those in urbanized portions of the Los Angeles metropolitan area must achieve 1.5 average vehicle ridership, and those located elsewhere in the air basin must achieve a 1.3 ratio.

Employers can increase their average vehicle ridership ratios through carpooling, vanpooling, schedule-shifting, and employee use of transit and other modes. Employers that fail to meet the District's targets must develop a transportation demand management and clean fleet plan and offer a parking cash-out program. Those that fail to do so are subject to fines.

The South Coast Air Quality Management District details their parking cash-out program in [Rule 1504](#). The District's cash-out program is consistent with the state cash-out law, but adds a requirement that employers keep compliance records, including the allowance amount and names of employees accepting the cash-out allowance. The Rule 1504 cash-out program applies to employers of 50 or more, while the increased oversight of Rule 2202 applies only to employers of 250 or more.

Enforcement of and expansion employee commute reduction programs and parking cash-out

UCLA Professor Donald Shoup (2013) believes that parking cash-out is seldom enforced, as regulators do not know which employers are required to participate. The law applies only to employers that obtain parking separately, through a private contract not typically recorded by or reported to government. Without information on how each employer obtains parking, regulators are unable to enforce cash-out regulations. Legislators attempted to eliminate this knowledge barrier by requiring new or renewed commercial leases for employers of 50 or more to list parking costs as a separate line item (AB 1186, 2009). Governor Schwarzenegger vetoed the bill.

In the SCAQMD, employers with more than 250 employees must conduct an annual survey to determine average vehicle ridership for peak hours and determine compliance. Failing to meet average vehicle ridership targets does not require that employers implement any measures, just that they signal a good faith effort from the highest ranking official at the worksite, establish a plan, and name an employee transportation coordinator. An employer can demonstrate good faith by sending staff to a marketing class, promoting transportation demand management measures among new and existing employees, and offering alternative mode commuters a guaranteed ride home.³ Employers that don't meet motor vehicle emissions reductions targets can submit 110% of their required compliance credits, typically by investing in off-site air quality improvements. The Southern California Air Quality Management District has little or no enforcement mechanism for employers with between 50 to 249 employees.

Multi-employer program administration and additional data collection can expand employee commute reduction programs, including parking cash-out. Multi-employer administration may be an effective trip reduction option for office parks or districts with multiple employers, even if few have more than 50 or 250 employees. Transportation management associations are not-for-profit, multi-employer organizations that can administer employee commute reduction programs, including cash-out, freeing individual employers from the administrative burden. Expanding the pool of employees participating in a commute

³ For more on guaranteed ride home programs, see the brief on Compensated and Real-time Rideshare

reduction program has additional benefits, such as improved rideshare matching and increased purchasing power for vanpool and transit pass programs.

Shoup (2013) believes that local governments could improve enforcement by collecting cash-out related information as part of other business processes. Shoup proposes that cities ask employers of more than 50 people whether they comply with § 43845 on annual business permit forms or other official documents. This question would alert employers to the cash-out law, and probably ensure compliance because most employers probably do not want to certify that they violate a state law.

How cash-out affects statewide demand for motor vehicle fuels

Willson (1991) estimates that employees drive between 25% and 34% fewer automobiles to work when cash-out is implemented in a central business district. Shoup (1997) found a range of 5% to 24% reductions in commute miles traveled one year after eight employers began offering a cash-out program. Shoup that the share of commuters who carpool to worked increased from 14% before cash out to 23% with cash out; the transit mode share increased from 6% before cash out to 9% with cash out. Shoup also believed that commute miles traveled would continue to decrease over time as more employees adjusted their travel patterns in response to parking cash out.

California's Legislative Analyst's Office estimates a 0.1% to 0.2% reduction in weekday vehicle miles traveled if 15% of an estimated 290,000 employees eligible for parking cash-out programs took the offer (Hill, 2002).

According to the state's Employment Development Department (2011), in 2011 roughly 8.7 million employees statewide work for businesses with over 50 employees, and about 4.3 million work for business with over 250 employees.

Within urbanized, transit-intensive counties of California, about 6 million employees work at employers of 50 or more, and about 3 million work at employers of 250 or more.⁴ To assess cash-out's effects, we calculated what would happen if 25% of firms between 50 and 250 employees and 50% of firms over 250 employees located in these counties offer a parking cash-out program. These assumptions produce roughly a 2.7% to 7.8% reduction in automobile commutes in urbanized, transit-intensive counties.

Statewide, we expect better enforcement of existing regulations would lead to a 0.6% to 2.5% reduction in motor vehicle fuel use due to a reduction in vehicle travel and an increase in system operations efficiency due to fewer peak hour trips. We would expect a 2% to 5% reduction in statewide motor vehicle fuel use from an expanded cash-out program with separated leasing of parking and multi-employer administration Through transportation management associations. Reductions in fuel use would be even higher (5% to 15%) if cash-out programs caused individuals or households to shed vehicles and seek other modes for non-work trips.

⁴ Specifically, we use Alameda, Contra Costa, Los Angeles, Orange, Sacramento, San Diego, San Francisco, San Mateo, and Santa Clara Counties

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