

TRUCK DRIVER MISCLASSIFICATION:

Climate, Labor, and Environmental Justice Impacts



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Introduction

The next great challenge for California climate policy lies in the transportation sector. Vehicles account for fully 40% of all greenhouse gas emissions in California, the most of any economic sector in our state, and consistent and significant reductions in vehicle emissions remain elusive.

In the transportation sector, commercial trucking is a critical focus area for climate policy. Heavy-duty vehicles emit a fifth of all transportation-related greenhouse gases. They also produce toxic air pollutants that significantly increase risk of cancer and other severe health challenges for California residents, particularly in low-income communities of color.

To meet these challenges, California has passed and continues to develop new policies designed to accelerate the adoption of low- and zero-emissions vehicles in the commercial trucking subsector. These policies set increasingly stringent emissions standards for commercial trucks over time and provide incentives to buy down the cost of new vehicles and retrofits in advance of these mandates.

This report analyzes a major barrier to successful implementation of new clean truck standards: the common trucking industry practice of classifying (and often misclassifying) truck drivers as independent contractors rather than employees.

Contracting out truck driving shifts the costs of truck ownership and operation from trucking companies to individual truck drivers. Contract truck drivers, particularly misclassified contractors, earn low incomes and face high capital costs. While regulatory compliance costs for large trucking firms represent a small percent of total revenue, contract truck drivers face compliance expenses far in excess of their yearly income. Under the contractor business model, truck drivers least equipped financially to buy and maintain clean vehicles bear the financial burden of attaining the state's climate goals in this sector.

This report describes the fundamental misalignment of the contractor business model in trucking with California's climate goals. The report proceeds by discussing:

- California's policies to reduce heavy-duty truck emissions.
- The environmental, public health, and environmental justice impacts of non-compliance with emissions standards.
- The nature of the contractor business model, evidence of the widespread misclassification of independent contractors, and the consequent low incomes of truck drivers.
- The direct link between low road industry practices and the failure to meet emissions standards.¹
- Policy principles that can address the climate, economic justice, and environmental justice challenges in the commercial trucking industry.

Currently, the low road labor practice of misclassifying workers in the trucking industry undermines climate action by shifting the costs of emission reductions to the most economically vulnerable actors in the industry: contract truck drivers. Because drivers are unequipped to meet emissions standards, communities impacted by truck pollution continue to suffer the effects. With the correct policy levers in place, California policymakers have an opportunity to support a trucking industry that complies with climate policy and that upholds employment and labor laws for California workers.

Key Findings

This report documents the direct relationship between truck driver misclassification and climate and clean air impacts. It also presents win-win policies to protect California's climate, workers, and pollution-burdened communities. This report makes the following key findings:

- Low road labor practices are widespread in trucking, particularly in the contractor industry segment. Since trucking deregulation in the 1980s, a destructively competitive market environment has forced companies to cut costs, including by reducing compensation to truck drivers.
- High prevalence of truck driver misclassification is found in local freight trucking, local pickup and delivery, and the long-haul trucking segments of the California trucking industry.
- Drivers that meet the legal standard to be classified as employees but are misclassified as independent contractors earn very low wages and must finance expensive vehicles with high interest loans to comply with clean vehicle rules.
- As a result of the capital barriers contractors face, this segment of the trucking industry has the lowest compliance rates with California's current clean vehicle regulations, with compliance rates of 61% with the landmark Truck and Bus Rule, compared to 83% for large firms that directly employ truck drivers. Non-compliant trucks in the contractor segment represent 44% of all non-compliant trucks, a significantly greater share than their share of all operating trucks.

Contract trucking and misclassification impede compliance with California's climate and clean air goals. These low road labor practices drive up toxic pollution emissions, which disproportionately affect health outcomes of low-income communities of color. Without further action, contracting and misclassification will hinder the critical and imminent transition to zero-emissions trucks. This report highlights the opportunity for California to build the high road to an equitable low-carbon transition in the truck transportation sector.

Statewide Clean Truck Policies: Progress and Impacts to Date

California heavy-duty on-road truck emissions are regulated by the Air Resources Board (CARB). CARB classifies heavy-duty trucks as those with a gross vehicle weight rating (GVWR) of 14,000 pounds or more.² CARB regulates emissions through a variety of regulatory mechanisms, including requirements on vehicle operations, such as limits on the amount of time vehicles can spend idling; and engine emission standards on fleets, or classes of vehicles, managed and in use by operators, such as particulate matter (PM) emission requirements on commercial trucks.³

CARB's fleet requirements are the most important of the policies affecting the heavy-duty sector, as these drive the greatest reductions in air pollution.⁴ These policies will also be essential to transitioning commercial vehicles to zero greenhouse gas emissions technology over the coming years, as regulations move from sales and manufacturer requirements to fleet requirements. Fleet requirements mandate specific emissions control measures from vehicle operators and are often customized for industry segments. Rules include the Drayage Truck Regulation for port trucks, the Innovative Clean Transit Rule for transit buses, and the Truck and Bus Regulation. All require the periodic purchase or retrofit of vehicles to meet specified and increasingly stringent emissions reductions standards.

California's most far reaching heavy-duty fleet requirement is the 2008 Truck and Bus Rule. The rule is an engine and vehicle standard that applies to all privately and federally owned trucks and buses over 14,000 pounds GVWR operating in California. It requires that owners or lessees of trucks adopt newer trucks (with a progressively more recent Mile Year (MY) engine) or Diesel Particulate Filters (or DPF, which filter PM exhaust before emission) by specific dates.⁵ Trucks are considered *out-of-compliance* with the rule if they operate with engines older than the Mile Year requirements, or without a functioning DPF.

The stated intent of the Truck and Bus Rule is to accelerate the replacement of "older, high-emitting, heavy-duty trucks with long service lives" and thereby reduce pollution emissions to levels that conform to Federal Clean Air Act requirements.⁶ The rule is a centerpiece of the California State Implementation Plan (SIP)—the statewide strategy to achieve federal Clean Air Act compliance, and is described by CARB as "one of the most...important tools to reduce smog-forming and toxic emissions and protect public health in disadvantaged communities."⁷

Regulated Entities

For the purposes of California fleet requirements, the owner or lessee of a vehicle registered with the Department of Motor Vehicles (of California or any other state) is the entity regulated by vehicle rules. If a vehicle is leased, the regulated entity is the lessee if the lease duration is longer than one year, or the lender, if the lease duration is less than one year.⁸

When contract truck drivers own their truck or lease it, and possess Motor Carrier authority, which is often the case among misclassified truck drivers as described below, they become the responsible entity for maintaining insurance, ensuring environmental compliance, and other

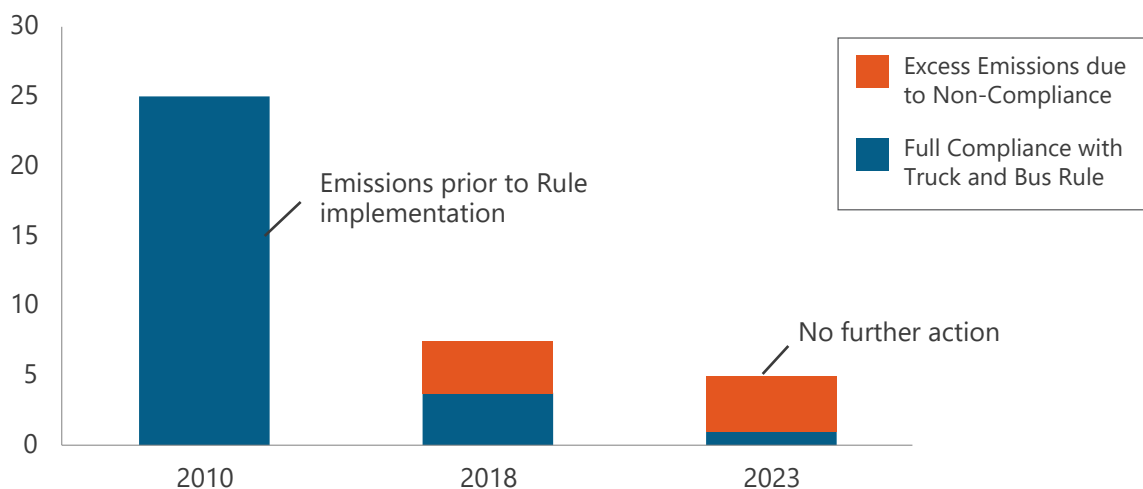
statutory requirements of commercial motor carriers.⁹ Conversely, for trucking companies that employ their drivers and own vehicles in operation, the company becomes the regulated entity for fleet rules.

(Non) Compliance: Environmental and Environmental Justice Outcomes

The Truck and Bus Rule has very successfully and significantly reduced emissions of key air pollutants and sets a precedent for more comprehensive fleet rules in California. As shown in Exhibit 1, current total statewide particulate matter emissions (PM 2.5) from vehicles subject to the rule are approximately 70% lower than before the rule was implemented in 2010. Likewise, statewide NOx emissions are approximately 50% lower now than before implementation.¹⁰ Comparable data are not available on the impact of this rule on greenhouse gas emissions, because the rule addresses only toxic air pollutants. New rules will make explicit the goal of greenhouse gas emissions reductions in addition to traditional air pollutants.

Exhibit 1. Emissions of Particulate Matter 2.5 and Diesel Rule Compliance

Statewide PM2.5 Emissions from Vehicles Subject to Truck and Bus Rule



Despite this significant progress for air quality, however, industry noncompliance still undermines the potential benefits of a fully implemented Truck and Bus Rule. As shown in Exhibit 1, CARB compliance data show that in December 2018, PM 2.5 emissions statewide were still approximately double the amount expected if all covered trucks complied with the rule. And as of July 2019, 182,176 trucks registered in California were out-of-compliance with the rule. Evidence presented in this report suggests that contractors drive a significant share of non-compliant vehicles.

The impact of non-compliance on air quality is significant. According to CARB, diesel particulate matter emitted by vehicles subject to the Truck and Bus Rule accounts for 70% of cancer risk from

toxic air contaminants in California. The medical burden of diesel PM-related illnesses costs the state \$29 billion annually in healthcare spending. This disproportionately harms low-income communities of color.¹¹

EPA research shows that environmental outcomes depend on both maintenance and operation of cleaner trucks. This research estimates that inadequate maintenance and tampering causes 89% greater PM emissions in internal combustion trucks than properly maintained vehicles, even in newer model (cleaner) trucks that meet federal standards.¹²

Future Climate Policies: California's Fleet Requirements

CARB and California lawmakers are considering several new fleet rules that, like the Truck and Bus Rule, will require substantial industry changes to accelerate the adoption of zero-emission and electric vehicles. The first set of these new fleet rules is already in place in the public sector. CARB's 2018 and 2019 Innovative Clean Transit Rule and Airport Shuttlebus Regulation have established the foundation for industry transition. CARB's Advanced Clean Trucks rulemaking and Senate Bill 44, currently being considered by the State Senate, would require fleet transitions on the scale of the Truck and Bus Rule beginning in the early 2020s.

Successful implementation of these new rules will require that the state address the underlying barriers to adoption posed by the structure of the commercial trucking industry. If, for instance, non-compliance rates in the new rules parallel Truck and Bus Rule non-compliance rates, hundreds of thousands of trucks will not meet fleet electrification goals.

The Contractor Business Model and Employee Misclassification in the Commercial Trucking Sector

Low road labor practices in the trucking industry impede compliance with clean truck standards. The following sections document low road practices such as the prevalence of contracting in the trucking industry, the persistent problems of misclassification, and the consequent low incomes of misclassified contract truck drivers.

Origins and Role of Contracting in Trucking

The industry practice of truck driver misclassification began in the early 1980s, following the passage of the 1980 federal Motor Carrier Act (MCA). The MCA deregulated the US trucking industry, ending a 40-year period of trucking market oversight by the US Interstate Commerce Commission and eliminating price controls and restrictions on market entrants.¹³ The competitive forces unleashed by deregulation changed the industry dramatically, bankrupting thousands of companies and forcing remaining and new companies to adopt cost-saving business strategies.¹⁴

The trucking firm practice of contracting with drivers for their services became a standard strategy across many parts of the commercial trucking industry by the mid-1990s. Contracting allows

companies in many instances to shift responsibility for equipment to truck drivers, reduce payroll expenses such as employment taxes and employee fringe benefits, and retain the same effective control over the transporting of loads.¹⁵ Some trucking firms transformed their business model after deregulation entirely, becoming brokers by selling their trucks to former employee drivers and leasing those drivers' services on an exclusive basis. Other firms partially or mostly retained their truck drivers as employees.¹⁶

Broadly speaking, deregulation led to significant deterioration of working conditions in the US trucking industry. For twice as much measurable output today, long-haul truckers now make 40% less in wages than they did in the late 1970s, when trucking was considered highly desirable blue-collar work. Union bargaining power decline as a result of deregulation also contributed to wage stagnation in the sector: whereas 57% of truck drivers were unionized in 1980, just over 10% were unionized in 1997, the date of the most recent study of unionized workers.¹⁷

Misclassification of Contract Truck Drivers

Truck drivers that are contracted by trucking companies to transport loads may be legitimate independent contractors or misclassified employees. The term "contract truck drivers" used here describes drivers who lease or own their own truck and are paid by trucking firms as independent contractors. The term includes both legitimate independent contractors and misclassified employees.

Legitimate independent contractors constitute a significantly different population of truck drivers from misclassified contract truck drivers. Legitimate independent contractors often work in specialized segments of the trucking industry, handle specialized cargo, arrange their own business with shippers, and work unaffiliated with one company on an exclusive basis.

The Transportation Research Board (TRB), a research unit of the National Academies of Sciences, identifies the following traits that distinguish independent contractors from "dependent" contract drivers in the commercial trucking industry:

While an independent contractor operates under its own authority¹⁸, locates its own freight, and manages its own financial and operational affairs, a dependent contractor operates under another motor carrier's authority, hauls that motor carrier's freight, and that motor carrier manages its affairs to a significant degree.¹⁹

What TRB describes as a "dependent" contract truck driver corresponds to the definition of misclassified workers under current California law. Misclassification is itself the predicate to a violation of federal or state law (usually tax and employment laws) that occurs when an employer classifies a worker as an independent contractor when the legal definition for employee status is met.²⁰

There is a history of jurisprudence on employee misclassification in federal and state courts and regulatory agencies, notably in the California Court of Appeals *Borello* decision, the much discussed California Supreme Court *Dynamex* decision, regional National Labor Relations Board

decisions, and the California Department of Labor Standards Enforcement (DLSE) office.²¹ While the test used by various agencies and courts varies, the main traits that confer legal status as an employee rather than an independent contractor are: drivers lease their services to *one company* over a significant period of time; they *do not completely direct their own work*; they *do not establish business relationships with shippers*, control their workload, or the rates they are paid. Legitimate independent contractors can be distinguished because they “operate under their own legal authority to provide freight services to customers (which could include shippers, freight brokers, or other motor carriers).”²²

It is important to note that industry jargon including the terms ‘Independent Owner Operator’ and ‘dependent contractor’ are not legally definitive and can easily obscure the actual control relationship between a truck driver and their employer. Independent contractors are either legitimately engaged as such or they are misclassified employees.

When businesses willfully misclassify employees as independent contractors to avoid compliance with labor standards and tax laws, they in turn place themselves in violation of many other state and federal laws.²³ Misclassified truck drivers work without any of the typical employment rights to overtime pay, sick leave, workers compensation, disability benefits, and other rights and benefits that employees are legally entitled to.²⁴ Misclassified workers also may not seek recourse through collective action to improve their employment conditions, since organizing and bargaining by contractors may constitute violations of anti-trust laws.²⁵

All told, illegally classifying employees as independent contractors allows trucking firms to evade labor and employment laws and offload as much as 30% of payroll, equipment, and benefits costs onto drivers.²⁶

Misclassification by Industry Segment

Misclassification is concentrated in specific segments of the commercial trucking industry. Trucking industry analysts typically segment the industry by major freight and service types, including the ownership of the transported goods (private versus for-hire carriers); the distance the load travels (local freight versus long-distance); and whether the load fills the whole truck or whether partial loads are assembled to fill a truck (Truck Load versus Less than Truck Load).

Private carriers, who haul their own goods and whose primary business is not trucking, represent approximately 40–50% of total trucking industry revenue and jobs, and misclassification is rare in this segment.²⁷ Private carriers include large retailers, manufacturers, distributors, agricultural companies, and construction companies, as well as small retailers such as a locally owned florist or laundry business.

By contrast, for-hire carriers are trucking companies that sell their services to other companies and entities, and commonly use contract truck drivers.²⁸ The for-hire segment includes both long-haul trucking and short-haul trucking. Each of these sub-segments is plagued by significant misclassification problems.

Since misclassification is illegal, limited data exist on its extent, but it is clear that misclassification is concentrated in segments where the use of contract truck drivers is prevalent. Using the markers of misclassification described by courts and the Transportation Research Board (above), the following are segments where misclassification is prevalent.²⁹

Short-Haul Trucking

Short-haul trucking carriers typically operate a dry van trailer within California state lines. The primary lines of business in short-haul or local freight trucking include package delivery, port trucking, and local delivery jobs ranging across a wide variety of assignments.³⁰ More than 90% of all local freight industry establishments in California are estimated to be contract truck drivers.³¹ Very low barriers to entry and relatively less need for reliability in local freight trucking create especially competitive markets in this segment. These market forces, more than in any other segment, push carriers towards independent contracting arrangements.³²

In the package delivery segment of short-haul trucking, firms such as FedEx Ground, Amazon, and XPO Logistics all use contract truck drivers, and studies and lawsuits have documented evidence of widespread misclassification at these companies.³³ However, it is important to note that package delivery also includes some high road trucking companies such as package giants UPS and USPS, which employ their workers, comply with labor and tax laws, and provide family-supporting wages and benefits.³⁴

In the port trucking segment, known as port drayage, industry analysts have documented the most egregious record of misclassification in the trucking industry, along with other forms of labor exploitation and human rights abuses.³⁵ Monaco and Grober estimate that 85–90% of port driving operations are carried out by contractors.³⁶ A number of academic studies analyzing ports across the country suggest that between 75% and 85% of workers likely meet core misclassification criteria.³⁷ Port drivers have filed more than 1,000 claims with the California Division of Labor Standards Enforcement (DLSE) for violations related to misclassification. The Labor Commissioner has issued 448 decisions in these cases and found drivers were owed more than \$50 million in damages collectively.³⁸

Trucking industry analysts expect vehicle automation to fundamentally change work patterns across the trucking industry; however for the short-haul trucking segment, automation is expected to result in significant driver employment growth over the next 10 to 20 years, especially in sub-segments that are prone to low road employment and misclassification.³⁹

Long-Haul Trucking

Long-haul trucking carriers typically carry loads farther than 450 miles and deliver loads across states or across the country.⁴⁰ Industry analysts have identified this segment as one with high concentrations of misclassified truck drivers.⁴¹ A 2010 national study using a representative sample of drivers by the National Institute on Occupational Safety and Health (NIOSH) found that approximately 28% of long-haul drivers are leased contractors without their own operating

authority.⁴² These drivers meet TRB-suggested criteria for “dependent contractors” who would likely be considered misclassified under a number of legal tests, including current California law. This 28% figure is similar to a 1998 survey by Belzer, and estimates by the North American Council for Freight Efficiency.⁴³

Income of Misclassified Drivers

Misclassified contract truck drivers earn exceedingly low incomes after expenses of truck loans or leases, fuel, maintenance, repairs, and payment of self-employment taxes, and workers compensation contributions are considered. Misclassified contract drivers in port trucking earn gross incomes averaging \$28,783 before taxes, while employee port drivers earn an average of \$35,000 annually.⁴⁴ Median wages of long-haul employee drivers in the full Truck Load category were slightly above \$53,000 in 2018, while median wages for contractors in this segment were \$44,520.⁴⁵ Package delivery employees earned median wages of \$35,610 in 2017, according to BLS data, while an industry periodical estimates that in 2018 misclassified package deliverers at one large national carrier earned approximately \$40,000 annually before the cost of equipment, fuel, maintenance, and other business costs.⁴⁶ A 2007 study of the same national carrier found that these business costs amount to approximately \$10,000 per year.⁴⁷

These figures do not provide data on the hourly rates earned by misclassified contractors. In many segments, truck drivers work significantly more than 40 hours per week, and net hourly wages in these cases are below California’s minimum wage.⁴⁸

Environmental Consequences of Contracting and Misclassification

The environmental consequences of low road labor practices in the trucking industry are significant. Evidence suggests that non-compliance with clean truck standards is concentrated in the contract driver segments of the industry, where several specific barriers to compliance are common.

Concentration of Non-Compliant Trucks in the Contractor Segment

Exhibit 2 presents Truck and Bus Rule compliance data from July 2019. Data are differentiated by fleet size, which indicates the number of trucks operating under the ownership of a single trucking establishment (as described in the section on ‘regulated entities’). Fleets with 1 to 3 trucks include contract truck drivers (both legitimate independent contractors and misclassified employees) and very small private fleets.

Exhibit 2: Truck and Bus Rule Compliance Statistics, July 2019

Fleet Size (# of Trucks)	Total Non-Compliant	Share of Non-Compliant Trucks
1 to 3	79884	44%
4 to 20	45143	25%
21 to 100	28227	15%
>100	28922	16%
Total	182176	—

CARB data provide clear evidence that non-compliance is concentrated in the contractor segment of the commercial trucking industry. As shown in Exhibits 2 and 3, fleets with 1 to 3 trucks, where contract truck drivers are found, boast the largest share of non-compliant trucks, with 44% of all non-compliant trucks.⁴⁹ Although 1 to 3 truck fleets represent nearly half of non-compliant trucks, they comprise only one fifth of total trucks in operation in California, and only a third of the number of trucks operating for fleets of 100 trucks or more, according to most recently available data.⁵⁰ Exhibit 4 shows that fleets with 1 to 3 trucks have the lowest compliance rate with the rule among all fleets, according to most recently available data.⁵¹

Exhibit 3: Total Truck and Bus Non-Compliant Trucks Operating in California by Fleet Size, 2019

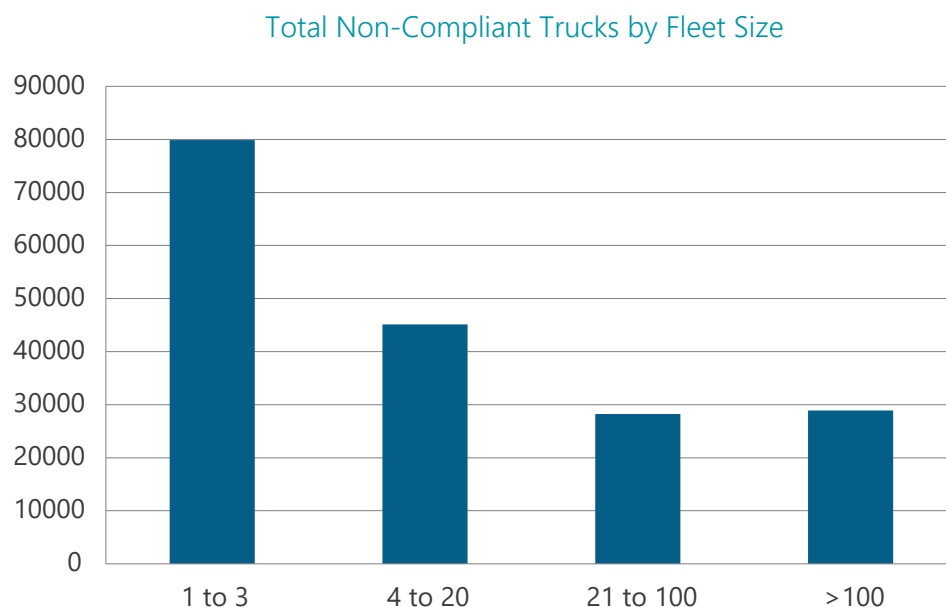
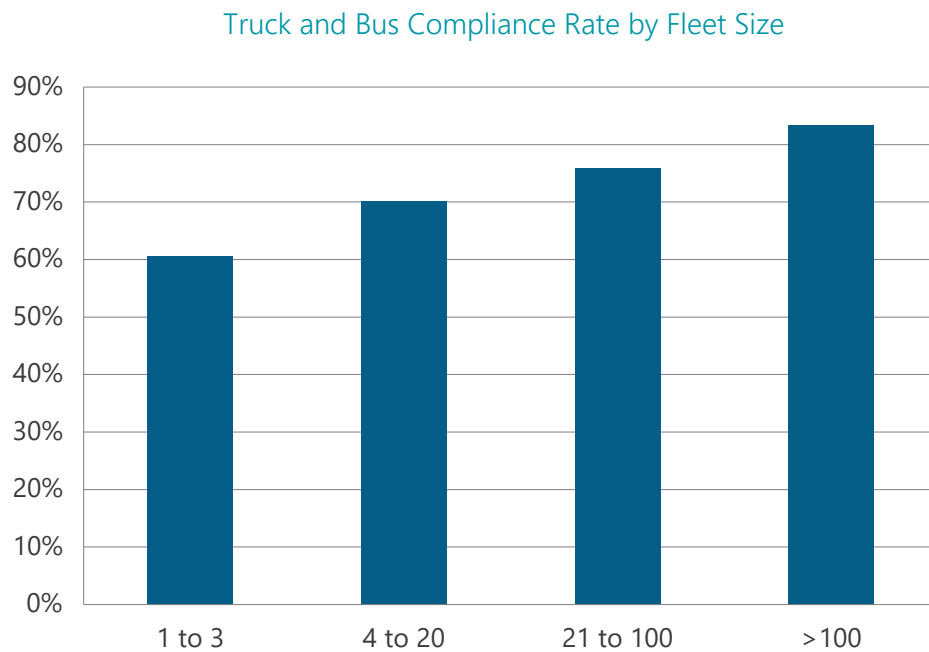


Exhibit 4: Truck and Bus Rule Compliance Rates by Fleet Size, 2017



Barriers to Compliance are Largely Due to Capital Constraints of Contract Truck Drivers

Studies published by the US Environmental Protection Agency, the International Council on Clean Transportation, the US Department of Transportation, and METRANS all confirm that the capital constraints faced by contract truck drivers create a structural barrier to adoption of clean vehicles in the trucking industry.⁵² In a survey of the literature on clean vehicle adoption barriers, Klemick et al. summarize that “limited access to capital for owner-operators combined with high upfront costs...and lack of awareness about new technologies [create]...barriers to technology adoption.”⁵³ Giuliano et al. clarify the importance of the trucking company ownership structure to raising capital and investing in clean vehicles:

The truck ownership model is important to understand when discussing new and potentially costly technologies since owner operators typically work on slim margins and cannot easily raise capital for replacement equipment.⁵⁴

Low incomes in contract trucking, as described above, are the primary reason contract drivers lack capital for clean vehicle investments. Natural gas trucks, diesel particulate filters, and especially electric trucks add significant business costs for contract drivers.⁵⁵ CARB estimates that a 2018 Mile Year diesel tractor trailer costs \$134,000, and in 2024, when electric truck standards may take effect, an electric tractor trailer will, CARB projects, cost \$232,000.⁵⁶ Clean-running diesel trucks also cost approximately 70% more to maintain than conventional trucks.⁵⁷

Steep vehicle financing costs for contractors add greater dimension to the capital barrier. Interest rates for private truck loans to large carriers average approximately 5%, according to a recent CARB electric truck cost analysis.⁵⁸ For contract drivers, interest rates are much higher. In fact, CARB created a subsidized loan program for contract drivers in California that *reduced* standard interest rates to 13.4%.⁵⁹ Industry studies and investigative journalism have also uncovered predatory lending by truck companies to their contract truck drivers.⁶⁰

CARB's Efforts at Improving Compliance Focus on Low-Income Contract Truck Drivers

CARB regulatory actions to improve compliance from 2008 to 2019 have been focused on the barriers discussed above and have clearly concentrated on the contract truck driver segment. CARB vehicle subsidy assistance has been primarily aimed at fleets of 1 to 3 trucks because of the inability of these fleets to meet vehicle standards and remain in business. For example, CARB has permitted numerous extensions to the compliance deadlines for small fleets and created the \$1.2 billion subsidized state-backed loan fund mentioned above, exclusively for small fleets.

Even so, this assistance has not completely solved the non-compliance problem, and CARB plans to enforce compliance by de-registering 50,000 non-compliant California-registered trucks at the end of 2019 as an enforcement backstop, most of which are in the 1 to 3 fleet size category.

Companies with Likely Misclassified Drivers Control Non-Compliant Trucks

While companies that misclassify are often smaller, under-the-radar operations, even very large companies misclassify their workers. CARB compliance data show examples of non-compliant trucks driven by likely misclassified contract truck drivers for major corporations. As discussed above, contract truck drivers who operate under a larger company's operating authority work exclusively for that company; they, therefore, fit the profile of misclassified workers under various legal tests. CARB compliance data show instances in which many Truck and Bus Rule non-compliant trucks belong to contractors who operate under the federal Motor Carrier number of a large trucking company.⁶¹

There will be many instances of non-compliant trucks driven by likely misclassified drivers without the combination of indicators described above and presented below. We can safely assume, for instance, that many non-compliant trucks operated by misclassified drivers are prevalent in the short-haul segment. In this segment, federal operating authority may not be required and yet many drivers are still misclassified. The data below should be treated as a snapshot and not indicative of the full extent of misclassification among Truck and Bus Rule non-compliant entities.

Exhibit 5 shows the number of non-compliant trucks operated by contract truck drivers under a number of large companies' authority. The relative size of companies, in revenue terms, is presented to offer a picture of the financial capacity of companies to achieve compliance.⁶² Company size is important because large trucking firms are better equipped to absorb the costs of fleet transitions than low-income contract truck drivers. While the companies exhibited below

report annual revenue in the hundreds of millions to billions of dollars, drivers face substantially greater capital constraints to vehicle upgrades. A notable point of comparison within this data snapshot is UPS, a high road company operating with employee drivers, which has only 9 trucks that were out-of-compliance with the Truck and Bus Rule as of July 2019.

Exhibit 5: Large Companies with Truck and Bus Rule Non-Compliant Trucks Operated by Likely Misclassified Contractors

Company Name	Trucks out of Compliance	Company Annual Revenue 2018	Rank, US Trucking Companies by Revenue
Landstar Systems, Inc.	2027	\$4.6B	7 th
UniGroup Inc.	610	\$1.8B	16 ^{th*}
SIRVA, Inc.	499	\$1.5B	23 rd
FedEx Ground	462	\$27.2B	2 nd
Atlas Van Lines	416	\$900M	—
Mercer Transportation	403	\$493M	50 th
Bennett Motor Express	275	\$612M	49 th
HVH Transportation	236	—	—

While the instances presented above show that even very large companies misclassify their workers, small firms that misclassify proliferate in the highly fragmented trucking market and regulatory landscape, particularly in local and port trucking sub-segments. Ultimately, misclassification is less an episodic problem of misbehavior by large or small companies, and instead a failure of public policy to create labor market conditions that incentivize fair competition towards high road, environmentally accountable economic development.

Conclusion and Policy Recommendations

This report documents the significant problem of non-compliance with clean vehicle policies in the commercial trucking industry. It presents evidence of the concentration of non-compliance in the contract trucking sector, and the out-sized share of trucks driven by contract truck drivers that are in violation of California’s clean truck regulations. It reviews research that highlights capital constraints as a key barrier to compliance, particularly among contract truck drivers, and shows that CARB’s regulatory responses to non-compliance are focused almost exclusively on fleets with 1 to 3 trucks. The report also links contract trucking, where compliance is lowest, to evidence of high prevalence of misclassification of truck drivers as contractors instead of employees. It concludes that the low incomes of contract drivers, including misclassified truck drivers, are a key obstacle to full compliance with clean truck standards.

California policymakers and regulators should consider the following principles that can reduce the social and environmental externalities associated with the contractor business model in trucking:

- **Principle: Enforce Existing Labor and Employment Law**

The California Labor and Workforce Development Agency should use its authority to enforce all labor and employment laws and regulations that cover the commercial trucking sector and target proactive enforcement activities in the segments of the trucking industry where there is evidence of misclassification. The California Supreme Court's recent *Dynamex* Decision identifies a clear set of criteria for distinguishing between employees and contractors in business arrangements such as trucking. *Bordello*, the previous precedent-setting decision with regard to California trucking establishments, did so as well. Under both legal regimes, but especially under the *Dynamex* ruling, California courts, enforcement agencies, and regulators are well positioned to eliminate illegal independent contracting and reduce the impact of this practice on California's climate regulations. Assembly Bill 5 would codify the *Dynamex* decision as applied to wage orders and expand it to the labor code and the unemployment insurance code.⁶³

- **Principle: Subsidize the High Road**

The California Air Resources Board and other California public agencies, as participants in the market via funding for incentives, subsidies and other financial assistance, can allocate financial support that either enables low road employers, and perpetuates unfair competition, or that supports and levels the playing field for high road employers. California agencies should take care to not inadvertently subsidize trucking companies that willfully misclassify workers as contractors and should avoid further enabling this unsustainable business model. In awarding subsidies, agencies should require that companies identify their employment and contracting practices and only award funds to companies that can document legal and responsible employment practices.

- **Principle: Ensure Controlling Corporations are the Regulated Entity**

At present, misclassified contract truck drivers bear the burden of clean vehicle adoption instead of their employers. In designing future engine standards and fleet rules, CARB and the legislature should clarify that the regulated entity for these rules is the company controlling the contractor, if that driver operates for a larger company as a misclassified contractor.

California policies should support jointly meeting workforce, equity, and environmental goals in a rapidly changing trucking industry. Implementation of these policy principles can help to build a high road commercial trucking industry capable of making an equitable transition to zero-emissions vehicles, providing family-supporting jobs for truck drivers, and easing the pollution burden on low-income communities of color.

Citations

"2017 Annual Enforcement Report." California Air Resources Board, June 2018. https://ww3.arb.ca.gov/enf/reports/2017_enf_annual_report.pdf?_ga=2.101834178.251385925.1565028062-1966306306.1541801704.

"2018 Updates to the California State Implementation Plan." California Air Resources Board, October 25, 2018. <https://ww3.arb.ca.gov/planning/sip/2018sipupdate/2018update.pdf>.

"About—Truck and Bus Regulation." Government. California Air Resources Board. Accessed August 5, 2019. <https://ww2.arb.ca.gov/our-work/programs/truck-and-bus-regulation/about>.

"Advanced Clean Trucks Total Cost of Ownership Discussion Document." Preliminary Draft. California Air Resources Board, February 22, 2019. https://ww2.arb.ca.gov/sites/default/files/2019-02/190225tco_0.pdf.

Bensman, D. "Port Trucking as a Test Case of Precarious Work in the Grey Zone of Work and Employment." *Revue Interventions Economiques* 58 (2017). <https://journals.openedition.org/interventionseconomiques/3537>.

Bensman, D., and Y. Bromberg. "Port Truckers Survey at New Jersey Ports." New Brunswick, New Jersey: Rutgers University, 2008.

Bonacich, Edna. "Pulling the Plug: Labor and the Global Supply Chain." *New Labor Forum* 12, no. 2 (Summer 2003): 41–48.

Burks, S, M Belzer, and et al. "Trucking 101—An Industry Primer." Transportation Research Circular. Transportation Research Board of the National Academies, December 2010. <http://onlinepubs.trb.org/onlinepubs/circulars/ec146.pdf>.

California Air Resources Board. "Tying Compliance with CARB's Truck and Bus Regulation to DMV Registration." Informational Update, n.d. <https://www.arb.ca.gov/board/books/2018/121318/18-10-5pres.pdf>.

Carré, Françoise. "(In)Dependent Contractor Misclassification." Briefing Paper. Economic Policy Institute, June 8, 2015. <https://www.epi.org/publication/independent-contractor-misclassification/>.

Chen, Guang, Karl Sieber, and Jennifer Lincoln. "NIOSH National Survey of Long-Haul Truck Drivers: Injury and Safety." *Accident Analysis & Prevention* 85 (December 2015): 66–72.

Cummings, Scott. *Blue and Green: The Drive for Justice at America's Port*. Urban and Industrial Environments. MIT Press, 2018.

"Development of Emission Rates for Heavy-Duty Vehicles in the Motor Vehicle Emissions Simulator MOVES2010." Technical Report. US EPA, August 2012. <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100F80L.PDF?Dockey=P100F80L.PDF>.

Giuliano, Genevieve, Lee White, and Sue Dexter. "Developing Markets for Zero-Emission Vehicles in Goods Movement." National Center for Sustainable Transportation and METRANS, March 2018. https://ncst.ucdavis.edu/wp-content/uploads/2017/05/NCST-TO-037-Giuliano_Developing-Markets-for-ZEVs-in-Goods-Movement_Final-Report_MARCH-2018.pdf.

"Glossary—'Long Haul.'" Federal Motor Carrier Safety Administration. Accessed August 15, 2019. <https://www.fmcsa.dot.gov/protect-your-move/glossary>.

Gonzalez, Lorena. Assembly Bill No. 5, Pub. L. No. 5, Business and Professions; Labor; Unemployment Insurance (2019). https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200AB5.

Hanley, Caroline, and Michael Douglas. "High Road, Low Road, or Off Road? Economic Development Strategies in the American States." *Economic Development Quarterly* 28, no. 3 (2014): 220–29.

Harrison, Robert, Nathan Hutson, and Jason West. "Characteristics of Drayage Operations at the Port of Houston, Texas." Southwest Region University Transportation Center Center for Transportation Research University of Texas at Austin, 2007. https://pdfs.semanticscholar.org/b854/d54fdce7a658445104e51a590bb9d454f632.pdf?_ga=2.48104431.938759327.1565030971-648258552.1565030971.

"Independent Contractor Misclassification Imposes Huge Costs on Workers and Federal and State Treasuries." Factsheet. National Employment Law Project, July 2015. <https://www.nelp.org/wp-content/uploads/Independent-Contractor-Costs.pdf>.

"Inequitable Exposure to Air Pollution from Vehicles in California." Union of Concerned Scientists, February 2019. <https://www.ucsusa.org/sites/default/files/attach/2019/02/cv-air-pollution-CA-web.pdf>.

Johanssen, Erin. "FedUp with FedEx: How FedEx Ground Tramples Workers' Rights and Civil Rights." American Rights at Work, October 2007. <http://www.jwj.org/wp-content/uploads/2013/12/fedupwithfedex.pdf>.

Klemick, Heather, Elizabeth Kopits, and Keith Sarget. "Heavy-Duty Trucking and the Energy Efficiency Paradox." Working Paper. NCEE Working Paper Series. U.S. Environmental Protection Agency, January 2014. https://www.epa.gov/sites/production/files/2014-12/documents/heavy-duty_trucking_and_the_energy_efficiency_paradox.pdf.

"Labor Commissioner Posts List of Port Trucking Companies with Unsatisfied Judgments for Labor Violations." News Release. California Department of Industrial Relations, January 2, 2019. <https://www.dir.ca.gov/DIRNews/2019/2019-01.pdf>.

"Local Freight Trucking in California." Market Research Report. IBISWorld, January 2019. <https://www.ibisworld.com/industry-trends/market-research-reports/california/transportation-warehousing/local-freight-trucking-in-california.html>.

Monaco, Kristen. "Incentivizing Truck Retrofitting in Port Drayage: A Study of Drivers at the Ports of Los Angeles and Long Beach." California State University Long Beach: METRANS, February 2008. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.409.9858&rep=rep1&type=pdf>.

Monaco, Kristen, and Lisa Grobar. "A Study of Drayage at the Ports of Los Angeles and Long Beach." METRANS, December 15, 2004. https://www.metrans.org/sites/default/files/research-project/AR%2004-01_final_draft_0_0.pdf.

"Motor Carrier Permit (MCP)—Frequently Asked Questions." State of California Department of Motor Vehicles. Accessed August 15, 2019. <https://www.dmv.ca.gov/portal/dmv/detail/vehindustry/mcp/mcpfaq>.

Murphy, Brett. "Rigged: Forced into Debt. Worked Past Exhaustion. Left with Nothing." *USA Today*, June 2017. <https://www.usatoday.com/pages/interactives/news/rigged-forced-into-debt-worked-past-exhaustion-left-with-nothing/>.

"Occupational Employment and Wages, May 2018 53-3033 Light Truck or Delivery Services Drivers." Bureau of Labor Statistics Occupational Employment Statistics, May 2018. <https://www.bls.gov/oes/current/oes533033.htm>.

Patel, Sejal. "From Clean to Clunker: The Economics of Emissions Control." BlueGreen Alliance, Los Angeles Alliance for a New Economy, Sierra Club, International Brotherhood of Teamsters, April 15, 2010. <https://web.archive.org/web/20111015172945/https://laane.org/downloads/FromCleantoClunkerReport.pdf>.

"Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles." California Air Resources Board, October 2000. <https://ww3.arb.ca.gov/diesel/documents/rrpfinal.pdf>.

Rittman et al v Amazon.com Inc et al, No. C16-1554- JCC (n.d.).

Roeth, Mike, Dave Kircher, and Joel Smith. "Barriers to the Increased Adoption of Fuel Efficiency Technologies in the North American On-Road Freight Sector." North American Council for Freight Efficiency, July 2013. https://www.theicct.org/sites/default/files/publications/ICCT-NACFE-CSS_Barriers_Report_Final_20130722.pdf.

Smith, Rebecca, Paul Marvy, and Jon Zerolnick. "The Big Rig Overhaul: Restoring Middle-Class Jobs at America's Ports Through Labor Law Enforcement." National Employment Law Project, Change to Win, Los Angeles Alliance for a New Economy, February 2014. <https://www.nelp.org/wp-content/uploads/2015/03/Big-Rig-Overhaul-Misclassification-Port-Truck-Drivers-Labor-Law-Enforcement.pdf>.

Soper, Spencer, and Thomas Black. "Amazon Thrives on FedEx Delivery Model, but Driver Pay Challenges Persist." *Transport Topics*, December 17, 2018. <https://www.ttnews.com/articles/amazon-thrives-fedex-delivery-model-driver-pay-challenges-persist>.

"Special Report: Top 50 Trucking Companies." *The Journal of Commerce*, April 16, 2018, 54–56.

"The Motor Carrier Efficiency Study 2007 Annual Report to Congress." U.S. Department of Transportation Federal Motor Carrier Safety Administration, March 2009. <https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/docs/MC-Efficiency-2007-Annual-Report-FINAL-March-2009-test.pdf>.

Truck and Bus Regulation, Title 13 California Code of Regulations § 2025 (2008). https://ww3.arb.ca.gov/msprog/onrdiesel/documents/tbfinalreg.pdf?_ga=2.95075423.251385925.1565028062-1966306306.1541801704.

“Updated: New Survey Data Reveals Increases in Driver Compensation.” American Trucking Associations, March 27, 2018. <https://www.trucking.org/article/New-Survey-Data-Reveals-Increases-in-Driver-Compensation>.

Viscelli, Steve. “Driverless? Autonomous Trucks and the Future of the American Trucker.” UC Berkeley Center for Labor Research and Education and Working Partnerships USA, September 2018. <http://laborcenter.berkeley.edu/pdf/2018/Driverless.pdf>.

———. *The Big Rig: Trucking and the Decline of the American Dream*. UC Press, 2016.

Endnotes

¹ In state economic development policy, a “high road” approach to economic development “emphasize(s) new job growth (as opposed to job poaching) and encourage local or regional competitive advantages based on high-value economic products, not merely lower production costs as in the low road approach.”; Hanley and Douglas, “High Road, Low Road, or Off Road? Economic Development Strategies in the American States”, 221.

² Truck and Bus Regulation, 1.

³ GVWR represents the maximum weight of a vehicle including engine, body, fuel, accessories, and passengers when the vehicle is fully loaded.

⁴ “Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles”, 25.

⁵ Link to compliance table

⁶ “2018 Updates to the California State Implementation Plan”, 74.

⁷ “About—Truck and Bus Regulation.”

⁸ Truck and Bus Regulation, 8.

⁹ Ibid.

¹⁰ California Air Resources Board, “Tying Compliance with CARB’s Truck and Bus Regulation to DMV Registration.”

¹¹ California Air Resources Board, “Tying Compliance with CARB’s Truck and Bus Regulation to DMV Registration”; “Inequitable Exposure to Air Pollution from Vehicles in California”, 3.

¹² “Development of Emission Rates for Heavy-Duty Vehicles in the Motor Vehicle Emissions Simulator MOVES2010”, 30.

¹³ Viscelli, *The Big Rig: Trucking and the Decline of the American Dream*, 11.

¹⁴ Belzer, *Sweatshops on Wheels: Winners and Losers in Trucking Deregulation*; Bensman, “Port Trucking as a Test Case of Precarious Work in the Grey Zone of Work and Employment.”

¹⁵ Viscelli, *The Big Rig: Trucking and the Decline of the American Dream*, 110.

¹⁶ Bensman, “Port Trucking as a Test Case of Precarious Work in the Grey Zone of Work and Employment”, 3.

¹⁷ Viscelli, *The Big Rig: Trucking and the Decline of the American Dream*, 22.

¹⁸ Either corporations or sole proprietorships can possess “operating authority”, referred to here as “authority”. The Motor Carrier Permit conveys operating authority to a trucking establishment and ensures compliance with vehicle use laws and compliance with “statutory requirements to

commercially operate motor vehicles on California’s highways”; “Motor Carrier Permit (MCP)—Frequently Asked Questions.”

¹⁹ Burks, Belzer, et al., “Trucking 101—An Industry Primer”, 11.

²⁰ Carré, “(In)Dependent Contractor Misclassification”, 3.

²¹ Cummings, *Blue and Green: The Drive for Justice at America’s Port*, 269.

²² Viscelli, “Driverless? Autonomous Trucks and the Future of the American Trucker”, xi.

²³ Carré, “(In)Dependent Contractor Misclassification”, 4.

²⁴ Carré, “(In)Dependent Contractor Misclassification”, 1.

²⁵ Carré, “(In)Dependent Contractor Misclassification”, 8.

²⁶ “Independent Contractor Misclassification Imposes Huge Costs on Workers and Federal and State Treasuries”, 1.

²⁷ Burks, Belzer, et al., “Trucking 101—An Industry Primer”, 18.

²⁸ Burks, Belzer, et al., “Trucking 101—An Industry Primer”, 18–24.

²⁹ Chen, Sieber, and Lincoln, “NIOSH National Survey of Long-Haul Truck Drivers: Injury and Safety”, 5.

³⁰ Viscelli, “Driverless? Autonomous Trucks and the Future of the American Trucker”, ii.

³¹ “Local Freight Trucking in California.”

³² Viscelli, “Driverless? Autonomous Trucks and the Future of the American Trucker”, 43.

³³ Carré, “(In)Dependent Contractor Misclassification”, 12; Viscelli, “Driverless? Autonomous Trucks and the Future of the American Trucker”, 16; Cummings, *Blue and Green: The Drive for Justice at America’s Port*, 244; Rittman et al v Amazon.com Inc et al.

³⁴ Johanssen, “FedUp with FedEx: How FedEx Ground Tramples Workers’ Rights and Civil Rights”, 8.

³⁵ Bonacich, “Pulling the Plug: Labor and the Global Supply Chain”, 46.

³⁶ Monaco and Grobar, “A Study of Drayage at the Ports of Los Angeles and Long Beach”, 7.

³⁷ “Independent Contractor Misclassification Imposes Huge Costs on Workers and Federal and State Treasuries”, 11; Bensman and Bromberg, “Port Truckers Survey at New Jersey Ports”; Smith, Marvy, and Zerolnick, “The Big Rig Overhaul: Restoring Middle-Class Jobs at America’s Ports Through Labor Law Enforcement”, 29.

³⁸ “Labor Commissioner Posts List of Port Trucking Companies with Unsatisfied Judgments for Labor Violations.”

- ³⁹ Viscelli, "Driverless? Autonomous Trucks and the Future of the American Trucker", 31.
- ⁴⁰ "Glossary—'Long Haul.'"
- ⁴¹ Viscelli, "Driverless? Autonomous Trucks and the Future of the American Trucker", 7.
- ⁴² Chen, et al., "NIOSH National Survey of Long-Haul Truck Drivers: Injury and Safety", 5.
- ⁴³ Burks, Belzer, et al., "Trucking 101—An Industry Primer", 10; Roeth, et al., "Barriers to the Increased Adoption of Fuel Efficiency Technologies in the North American On-Road Freight Sector", 16.
- ⁴⁴ Viscelli, "Driverless? Autonomous Trucks and the Future of the American Trucker", v.
- ⁴⁵ "Updated: New Survey Data Reveals Increases in Driver Compensation."; Calculated using industry standard figure cited "Contractors earn 16% less than median company driver"; Viscelli, *The Big Rig: Trucking and the Decline of the American Dream*, 145.
- ⁴⁶ "Occupational Employment and Wages, May 2018 53-3033 Light Truck or Delivery Services Drivers"; Soper and Black, "Amazon Thrives on FedEx Delivery Model, but Driver Pay Challenges Persist."
- ⁴⁷ Johanssen, "Fed Up with FedEx: How FedEx Ground Tramples Workers' Rights and Civil Rights", 8.
- ⁴⁸ Monaco, "Incentivizing Truck Retrofitting in Port Drayage: A Study of Drivers at the Ports of Los Angeles and Long Beach", 18; Viscelli, *The Big Rig: Trucking and the Decline of the American Dream*, 164.
- ⁴⁹ On July 26, 2019 CARB staff for Truck and Bus Rule implementation provided the compliance statistics for the rule in table format via email, as presented, current as of July 2019. These statistics summarize Truck Regulation Upload and Compliance Reporting System (TRUCRS) database compliance data. Data reported in the TRUCRS system reflect vehicles that intend to claim a flexibility option offered within the Truck and Bus Regulation, which delays (on a specified schedule) or removes the requirement to install emissions reduction technology. Any vehicle that already meets Truck and Bus Regulation requirements may or may not be captured in TRUCRS. It is not mandatory for trucks already in compliance with the rule to report in TRUCRS.
- ⁵⁰ See CARB 2017 Enforcement Report Table I-4 on total truck populations operating in California by fleet size; "2017 Annual Enforcement Report", I-4.
- ⁵¹ Ibid; the 2017 Enforcement Report is the most recent source for overall compliance data available at time of publication. Here, data from Table I-4 are aggregated across Registration Type and Weight Class to indicate truck compliance rates differentiated by fleet size alone.
- ⁵² "The Motor Carrier Efficiency Study 2007 Annual Report to Congress", 5.
- ⁵³ Klemick et al., "Heavy-Duty Trucking and the Energy Efficiency Paradox", 6, 19, 21, 27; Roeth, et al., "Barriers to the Increased Adoption of Fuel Efficiency Technologies in the North American On-Road Freight Sector", 6.

⁵⁴ Giuliano, White, and Dexter, "Developing Markets for Zero-Emission Vehicles in Goods Movement", 2.

⁵⁵ "Advanced Clean Trucks Total Cost of Ownership Discussion Document", 7.

⁵⁶ Ibid.

⁵⁷ Patel, "From Clean to Clunker: The Economics of Emissions Control", 5.

⁵⁸ "Advanced Clean Trucks Total Cost of Ownership Discussion Document", 7.

⁵⁹ On April 17, 2019 the California Pollution Control Financing Authority provided a dataset of loan data for all participants in the California Capital Access Program (CalCAP) On-Road Heavy-Duty Vehicle Air Quality Loan Program. This loan program provides loans to trucking entities with 10 or less trucks. Data included loan recipients number of trucks owned, loan amounts, and loan interest rates. To identify the average interest rate for loans to contract drivers granted through this program, average interest rate was calculated for all loan recipients since the inception of the program with 3 or less trucks in their fleet.

⁶⁰ Murphy, "Rigged: Forced into Debt. Worked Past Exhaustion. Left with Nothing"; Viscelli, *The Big Rig: Trucking and the Decline of the American Dream*, 148.

⁶¹ On June 14, 2019 CARB staff for Truck and Bus Rule implementation provided a dataset which included compliance data for all California truck fleets with 1 to 3 vehicles in the Truck and Bus compliance database (TRUCRS). Data for each fleet include compliance status (Yes/No), number of trucks, and motor carrier numbers affiliated with the fleet. To identify contract truck drivers operating under the Motor Carrier authority of a larger company, fleet data were hierarchized first by federal Motor Carrier number, and then by company name and CA MC number. Where multiple trucks under different company names and registered under different CA Motor Carrier numbers were affiliated with the same federal Motor Carrier numbers, these trucks were considered to be operated by contract truck drivers under a larger company's operating authority.

⁶² Revenues were compared to data presented in the Journal of Commerce on largest trucking companies by revenue; "Special Report: Top 50 Trucking Companies."

⁶³ Gonzalez, Assembly Bill No. 5.

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