



# DIVIDED HIGHWAY

The Importance of Uniform, Achievable  
Nationwide Automobile Standards

## INTRODUCTION

In April 1975, President Gerald Ford delivered a major speech on regulatory reform at the annual meeting of the U.S. Chamber of Commerce. President Ford's pitch to the business community was not deregulation, but smarter regulation that recognizes the complex factors affecting costs and benefits—and ultimately, American consumers. He made a persuasive case that regulatory agencies need to do a better job of considering the practical impacts of federal regulations on families and businesses:

*"The question is...whether, in making changes in our regulations, would they make more sense in terms of costs added and benefits gained. When I talk about costs, I am not just talking about cold figures in a bookkeeping ledger. I am talking about what you pay in the marketplace—in the supermarket, in the clothing store, in the ladies boutique. Ultimately, all such costs are paid by you, the producers, and your wives, the consumers.*

*All too often, the Federal Government promulgates new rules and regulations which raise costs and consumer prices at the same time, to achieve small or somewhat limited social benefits. In these cases we must either revise proposed rules and regulations to lower their costs, or we must not adopt them in the first place. Moreover, we must examine the whole range of existing rules and regulations to determine whether modifications could lower costs without significantly sacrificing their objectives."*<sup>1</sup>

President Ford's speech came at a time when the Arab Oil Embargo was still fresh in everyone's mind. A key element of his agenda discussed at the Chamber that day was Ford's call for comprehensive energy policy legislation to address America's growing dependence on foreign oil, and the price and supply shocks that accompanied it. Eight months later, Congress passed, and Ford signed, the Energy Policy and Conservation Act of 1975 (EPCA), the nation's first comprehensive energy legislation. The act imposed a ban on the export of crude oil, established the Strategic Petroleum Reserve (SPR), and authorized the Department of Transportation to establish the nation's first vehicle fuel economy targets.

Fast forward nearly half a century, and the severe energy scarcity that threatened the economic and national security position of the United States and led to enactment of EPCA has given way to an era of energy abundance. As a result,

*Unfortunately, due to a multitude of factors, One National Program is now on the brink of potential dissolution into a patchwork of incompatible state and federal standards.*

the U.S. is now producing record amounts of crude oil (and the most recent government forecast suggests even larger production out to 2050), exporting record amounts of oil, and tapping SPR for budgetary instead of national security reasons. Affordable fuel prices and consumer preferences for larger vehicles also have changed the vehicle mix, making it more difficult for auto manufacturers to comply with increasingly stringent Corporate Average Fuel Economy (CAFE) standards established under EPCA.

Originally a program designed primarily to improve energy security starting in the 1970s, the CAFE program was merged with other federal and state efforts aimed at reducing greenhouse gas (GHG) emissions. California set separate GHG standards for automobiles that were to be phased-in starting in 2009, which 13 other states and the District of Columbia had also adopted. Also in 2009, EPA had completed actions to establish the prerequisite for implementing GHG standards for automobiles. The emergence of these separate GHG regulatory authorities impacting automobiles presented a complex challenge due to their distinct statutory objectives and heavily overlapping impacts on automobile markets. Recognizing these interrelationships, policymakers in 2010 harmonized the fuel economy standards between the Department of Transportation's CAFE standards, EPA's GHG regulations, and state GHG regulations led by California.

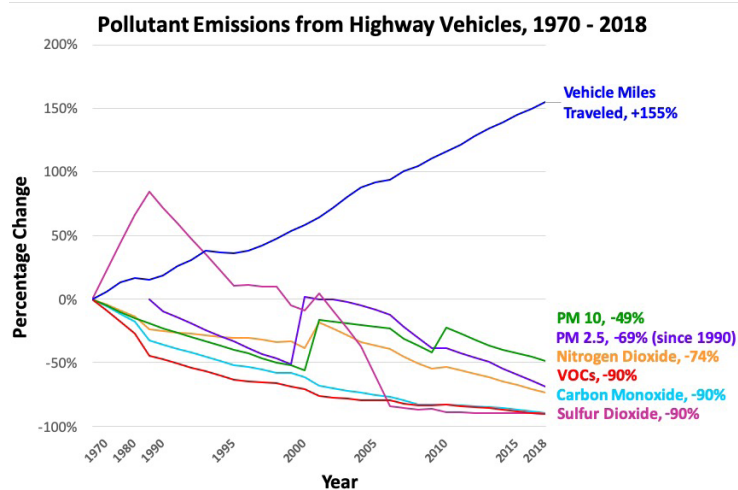
This harmonization of state and federal standards, known as One National Program (ONP), initially succeeded in uniting disparate interests and objectives into sound and effective regulatory policy. The ONP has allowed for a more efficient compliance process and reduced costs under which automobile manufacturers can sell a single national fleet of new vehicles across every state in U.S. that meets the state and federal standards. This significantly reduces vehicle design, supply chain, and distribution costs. Unfortunately, due to a multitude of factors, ONP is now on the brink of potential dissolution into a patchwork of incompatible state and federal standards.

## STRONGER ENERGY: CLEANER, STRONGER TRANSPORTATION

At the time of the original CAFE standards in 1975, passenger vehicles averaged a paltry 13.5 miles per gallon (mpg). Ten years later, this figure had risen to over 17 mpg. After a period of stagnation through the mid-2000s, in which vehicles added features, grew larger, and increased power, fuel economy again began rising slowly but steadily. Today it stands at 22.4 mpg (Figure 1). While the mileage improvements over the last decade may appear modest, it is important to recognize that they have occurred during a time in which consumer preferences have shifted heavily toward larger and more capable vehicles. This remarkable progress—making vehicles larger, safer, and more fuel efficient—is due thanks to technological advances in engine and propulsion design, materials, operating systems, aerodynamics, and off-cycle systems such as improved air conditioning efficiency.

Perhaps even more remarkable than fuel economy gains, however, is the dramatic reduction in emissions of air pollutants from vehicle exhausts during this time. Since 1970, total national emissions of volatile organic compounds, carbon monoxide, and sulfur dioxide from vehicles have fallen by 90%, while emissions of nitrogen oxides—a key contributor to ozone formation—have declined by 74% (note: these statistics include heavy-duty vehicles as well).<sup>2</sup> Moreover, when accounting for new vehicles only, emissions rates of carbon monoxide, nitrogen oxides, and non-methane organics decreased over 99%.<sup>3</sup> This illustrates the importance of continued fleet turnover to environmental gains. Perhaps even more impressive, these emissions reductions have been achieved alongside substantial growth in the U.S. population and economy that have contributed to a near tripling of vehicle miles traveled (Figure 2).

**Figure 2. Pollutant Emissions from Highway Vehicles, 1970 – 2018.**

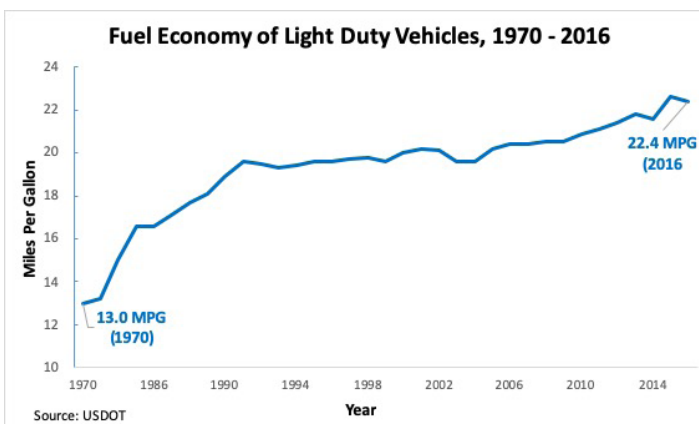


These advances are a direct result of decades of planning, investment and partnership between federal, state, and private sector stakeholders. This technological focus and cooperative regulatory spirit is the essence of Global Energy Institute's (GEI) Cleaner, Stronger initiative, and a major reason why America's air quality is now among the cleanest in the world.

This progress can and should continue, informed by a sensible framework that takes into account costs, technological achievability, and the practical market impacts of any regulatory program. Decades of history have proven that automakers are capable of achieving steady progress on fuel economy that does not sacrifice other consumer priorities such as safety and affordability. While continued progress has become increasingly challenging, there is confidence that gains can be made in the near-term. To this end, we believe the Trump Administration's proposal to keep fuel economy GHG standards flat is misguided and insufficient. However, for reasons described in this report, it is important to recognize that going too far, too fast—as the 2012 fuel economy and GHG standards rulemaking did—could harm not only the U.S. auto sector, but American consumers and the broader U.S. economy.

For this reason, it is imperative that all sides work together to identify a flexible, achievable, middle-ground path to continued fuel economy gains and preservation of ONP. The following sections summarize the circumstances that led to the current impasse, why such a compromise is needed, and the potential harms likely to result in the absence of one.

**Figure 1. Fuel Economy Trends, 1970 – 2016.**



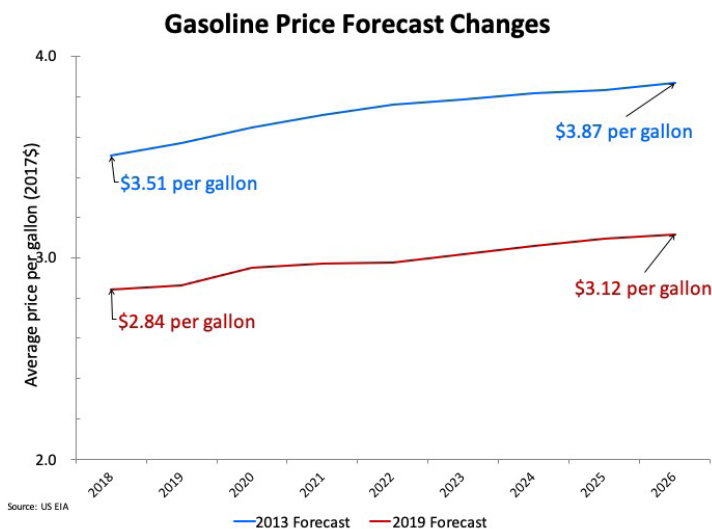
## UNEXPECTED DIVERGENCE: REGULATORY STANDARDS, TECHNOLOGY AND MARKETS

At the time it was finalized in 2012, the joint EPA/DOT fuel economy/GHG rulemaking was considered optimistic and aggressive, but potentially achievable based on market and technological forecasts at that time. The rule called for average real world fuel economy of new vehicles to achieve a 40 mpg average by model year 2025—nearly a 50% increase over model year 2016. However, a number of factors changed since the issuance of the 2012 rulemaking that make a mid-course correction necessary.

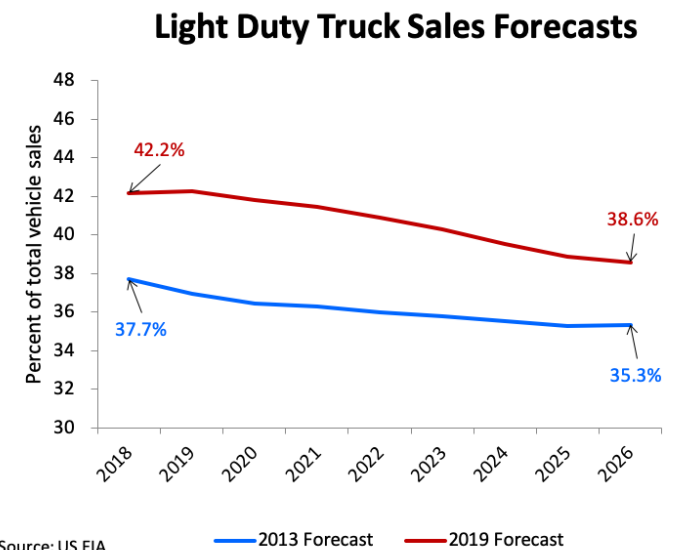
One important factor is a significant change to projected fuel costs, which in turn increases customer payback periods for certain advanced technologies and hybrids. When the rule was finalized, the federal government was predicting a far different market environment. For example, the final rule projected steadily rising gas prices—averaging \$3.68, \$3.77, and \$3.82 per gallon in 2016, 2017, and 2018, respectively.<sup>4</sup> In large part due to the shale revolution and America's newfound energy renaissance, actual gas prices during those years averaged just \$2.58—31% lower than forecast.

This price differential is likely to persist. The chart in Figure 3 shows the difference in the price of gasoline projected for the years 2018 through 2030 made by the Energy Information Administration (EIA) in 2013—the first year the 2012 CAFE rule was included—and in 2019. Over this forecast period, the price of a gallon of gasoline is expected to average about 19% less than was projected just six

**Figure 3. Fuel price forecast changes, 2013 – 2019.**



**Figure 4. Light duty truck sales forecasts, 2013 - 2019.**



years ago. This unanticipated fuel affordability, together with shifting consumer priorities, contributed to equally inaccurate auto market forecasts.

In addition to lower fuel prices, 2012 government forecasts expected (relatively fuel efficient) new cars to outsell (relatively fuel inefficient) light trucks by approximately 2 to 1 from 2016 to 2018.<sup>5</sup> In a few short years, these forecasts were shown to be highly inaccurate. In fact, industry data show the actual ratio was closer to 50/50, and that, in 2018, car sales dipped to a 60-year low, and were outsold by light trucks for the first time ever.<sup>6</sup> If past is prologue, these trends are likely to persist. Figure 4 shows the percentage of sales of conventional light duty trucks (i.e., pick-ups and SUVs) projected by EIA in 2013 and again in 2019. EIA now expects that conventional light duty trucks will account for an average 10.7% larger share (or 3.8 percentage points) of vehicle sales over the 2018 to 2030 period. As a result of this trend and other factors, the corresponding mileage per gallon is now forecast to be about 2.5% less than was being forecast in 2013. The changing consumer preferences and market dynamics reflected in these forecast illustrates that achieving the 2012 standard is getting more difficult, not less.

Moreover, the most fuel efficient vehicle categories—hybrids, plug-in hybrids, and fully electric vehicles (EVs)—collectively comprised less than 4% of new vehicle sales

in 2018.<sup>7</sup> These disappointing figures are certainly not due to a lack of marketplace options. Consumers now have a plethora of highly efficient vehicles to choose from. Between 2012 and 2018, the number of vehicle models capable of achieving 40 MPG or more quadrupled (from 20 to 80), while the number of EV models grew from just 12 to 58.<sup>8</sup> These figures highlight a key challenge inherent in fuel economy standards: compliance is determined based on the products that consumers buy, not what automakers send to dealer showrooms. Clearly, factors other than vehicle mileage are driving consumer behavior, such as safety, performance, family needs, and more.

***This does not mean that progress on fuel economy has stopped—it continues to improve, just at a slower than anticipated rate. This slowdown has exacerbated the gap between real-world fuel economy and the 2012 rules, which built in the steepest annual increases into the later years of the MY2012-2025 standards.***

Together, these optimistic forecasts of technological progress and market preferences combined with pessimistic forecasts on fuel prices to make the already aggressive standards set in 2012 become practically unworkable and out of reach. This does not mean that progress on fuel economy has stopped—it continues to improve, just at a slower than anticipated rate. This slowdown has exacerbated the gap between real-world fuel economy and the 2012 rules, which built in the steepest annual increases into the later years of the MY2012-2025 standards.

This leaves automakers with no direct technological path to achieve the standards, except perhaps via cross-subsidization in which electric vehicles are sold at a substantial loss while the cost of lower mileage vehicles is raised to dampen their sales and ease financial losses. Such a scenario was surely not intended by Congress in

either EPCA or the Clean Air Act (CCA), and would clearly harm auto consumers and manufacturers alike.

Anticipating the potential for such a scenario, the Obama Administration appropriately incorporated an important checkpoint mechanism into the 2012 rule designed to evaluate progress toward original targets and modify their stringency if necessary. This “mid-term evaluation” (MTE) was originally planned to last approximately two years and be completed in April 2018. However, in just a 45 day period between November 2016 and January 2017, EPA proposed and then immediately finalized an MTE determination recommending no changes to the standards. This extremely unusual and controversial process included a comment period of just 21 days, followed by a final determination that responded to more than 100,000 public comments in just nine business days.

In early 2017, EPA re-opened the MTE rulemaking and conducted a more thorough review, which was completed in April 2018. This review found that the 2012 standards were based on outdated information, and that more recent data suggested that they were too stringent. The EPA thus concluded that the standards are not appropriate and should be revised, setting the stage for the current proposal that is under consideration. Most automakers agreed with the need for revisions to the program in light of the aforementioned market and technological dynamics. However, led by California, numerous states have objected, arguing that the 2012 standards can be achieved through aggressive deployment of electric vehicles.

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## WHERE THINGS STAND

In August 2018, EPA and the National Highway Traffic Safety Administration (NHTSA) released proposed changes to the CAFE/GHG program. The rule, officially titled the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, would halt progress on fuel economy and GHG emissions reductions by holding standards flat for Model Years 2021-2026. The agencies' central argument in favor of not tightening standards is to increase safety and affordability. The proposal's underlying regulatory analysis projects that, compared to the existing rule, SAFE would increase the safety of the fleet by increasing fleet turnover, and lower the cost of owning a new car by \$2,340.

While the Chamber agrees with EPA's and NHTSA's conclusion reached in the 2018 mid-term review that the 2012 standards are no longer reasonably achievable, it also opposes the agencies' proposal to hold standards flat for the foreseeable future. It is clear that continued progress on fuel economy and emissions reductions can be achieved without undue harm to the economy. Indeed, continuous and predictable year-over-year efficiency improvements are key to enabling the U.S. to maintain environmental and manufacturing leadership. The Chamber supports robust efforts to continue such fuel economy gains, recognizing that they must proceed at a more modest pace that factors in the changing market dynamics that were not envisioned in 2012, as well as the need to maintain the fleet turnover necessary for safety and emissions improvements to be broadly realized.

The proposed rule includes another key provision that is potentially even more impactful: it would rescind a special waiver granted by the EPA to the state of California under CCA Section 209 to set its own, more stringent standards (known as Low-Emission Vehicle) LEV standards. EPA's objective in rescinding this waiver is to preserve ONP and avoid a severe market disruption that would accompany a bifurcated market. In the absence of waiver rescission, California could maintain the more stringent 2012 standards in spite of the current federal effort to reform them. It is important to note that such a scenario may not simply result in one standard for California residents and another in the rest of the country. Using authority under Section 177 of the CAA, 13 other states have chosen to adopt California's tighter LEV standards as well.<sup>9</sup> However, EPA's proposal asserts that Section 177 applies only to

traditional criteria pollutants and thus excludes greenhouse gases, meaning that waiver states would lose their authority to adopt tighter greenhouse gas standards.

Complicating the matter further, California and numerous other states have also established a separate Zero Emission Vehicles (ZEV) program that requires major manufacturers to produce a certain number of plug-in EVs (or attain a proportionate number of credits). This ZEV program was not incorporated into the 2012 harmonized rulemaking and therefore adds an additional layer of regulatory uncertainty and confusion into any forthcoming dispute between California and the federal government.

In June 2019, a group of 17 auto manufacturers wrote to President Trump calling for a compromise to be reached that would preserve good auto jobs and keep new vehicles affordable for more Americans through a final rule with "the necessary structure and compliance tools to achieve annual fuel economy improvements midway between the existing standards and the preferred path outlined by your Administration last summer."<sup>10</sup> Shortly thereafter, the state of California and four automakers announced an alternative framework that would maintain the key features of the 2012 standard, but push back its target achievement date from 2025 to 2026.<sup>11</sup> Importantly, the agreement reiterated the need to maintain ONP, stating "we recognize the importance of compromise and we all agree that a framework maintaining a national solution is the preferred path forward." However, California issued a statement accompanying the agreement threatening to "move forward with our current standards" if the White House does not agree to its framework.

As a practical matter, any scenario that results in two sets of standards—whether via continuation of California's waiver authority while NHTSA and EPA modify federal standards, or via waiver repeal accompanied by state defiance of the NHTSA/EPA revisions—is sure to result in chaos and confusion throughout the country. It is also sure to result in a storm of complex litigation that will take years to resolve, injecting even more uncertainty into markets and disrupting efforts to plan, invest, and deliver continued fuel economy and emissions gains.

## CAUTION AHEAD: POTENTIAL RAMIFICATIONS OF DISSOLUTION OF ONE NATIONAL PROGRAM

Accordingly, it is imperative that EPA and California resume good faith negotiations and work together to preserve ONP with standards that continue progress on emissions and fuel economy. Failure to achieve a workable solution is likely to trigger significant market dislocation at the expense of American consumers, the auto industry and its employees and suppliers, as well as the broader U.S. economy. The collateral damage has potential to be significant if not severe, and will include a number of aspects, including:

### Uncertainty

By far, the greatest concern resulting from dissolution of ONP is the immediate and substantial uncertainty that would accompany it. Inevitable and unpredictable litigation surrounding such circumstances would likely take years to resolve. During this time, manufacturers dependent on multi-year lead times for planning and investment of various models and mixes would be left to do little more than guess at potential outcomes of the dispute. Additionally, auto dealers could see product restrictions impact their ability to meet consumer demand for certain types of vehicles.

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### Environmental Tradeoffs

While perhaps counterintuitive, there are important environmental tradeoffs that may accompany overly stringent fuel economy standards. A key underappreciated

factor in reducing vehicle emissions and improving air quality is ensuring continued fleet turnover. In recent years, the rate of fleet turnover has slowed, in part due to the increased costs for new vehicles. This slower turnover results in a greater proportion of older, less fuel-efficient vehicles on U.S. roads. Overly stringent standards can raise vehicle costs, remove access to other attributes that consumers demand, and lower affordability for price sensitive customers. Ultimately, this results in a greater percentage of consumers choosing to either drive older, less safe, and less efficient vehicles longer, or purchase used vehicles instead of new ones.

The SAFE proposal placed great emphasis on this point and asserts that such circumstances also delay improvements in safety and other vehicle attributes that are common in newer cars:

*The average age of the in-service fleet has been increasing, and when fleet turnover slows, not only does it take longer for fleet-wide fuel economy and CO<sub>2</sub> emissions to improve, but also safety improvements, criteria pollutant emissions improvements, many other vehicle attributes that also provide societal benefits take longer to be reflected in the overall U.S. fleet as well because of reduced turnover. Raising vehicle prices too far, too fast, such as through very stringent fuel economy and CO<sub>2</sub> emissions standards (especially considering that, on a fleet-wide basis, new vehicle sales and turnover do not appear strongly responsive to fuel economy), has effects beyond simply a slowdown in sales.<sup>12</sup>*

We agree with the agencies' concern. But as stated previously, the SAFE proposal to hold current standards flat due to these concerns is also short-sighted. Clearly, a middle-ground "sweet spot" exists where continued progress can be achieved that does not result in unintended consequences that undermine environmental, safety, and economic goals. While each mile-per-gallon of progress is more challenging than the last, numerous vehicle technologies hold promise for continued improvement. With sufficient lead time and flexibility, technologically feasible standards that deliver on this promise can be crafted.

## Emissions Leakage

A scenario in which the bifurcated market described earlier develops and persists is also likely to undermine environmental goals. This is due to high rates of emissions leakage from California and other “177 states” to the rest of the country. Under such a scenario, reductions achieved in California the “177 states” would simply allow the federal standard followed by all other states to be met through a sales mix of less fuel efficient vehicles. An important academic paper by Stanford and University of Pennsylvania economists studied this leakage, finding that its impact could almost entirely undercut gains from stricter standards:<sup>13</sup>

*One overlooked factor is the potential for significant interactions between the state initiatives and existing federal corporate average fuel economy (CAFE) standards. Consider an auto manufacturer that, prior to the imposition of the Pavley [i.e., California and “CCA 177 states”] limits, was just meeting the U.S. CAFE standard. Now it must meet the (tougher) Pavley requirement through its sales of cars registered in the adopting states. In meeting the tougher Pavley requirements, its overall U.S. average fuel economy now exceeds the national requirement: the national constraint no longer binds. This means that the manufacturer is now able to change the composition of its sales outside of the Pavley states, selling more large cars with lower fuel-economy. Indeed, if all manufacturers were initially constrained by the national CAFE standard, and there were no offsetting beneficial technological spillovers, the Pavley requirements would lead to “emissions leakage” of 100% at the margin: the reductions within the Pavley states would be completely offset by emissions increases outside of those states!*

The paper goes on to forecast that actual leakage would be somewhat lower (65%) due to technological spillovers resulting from mandates in the 177 states. Regardless, it is likely that efforts by those states to impose tighter standards will be heavily offset due to this phenomenon. Moreover, consumers in some states will have a more limited choice of vehicles in some states versus other states, with the California standard essentially shifting availability of larger cars and trucks away from Californians, while non-177 states indirectly subsidize higher fuel economy sales in California.

## Opportunity costs

While regulatory policies such as CAFE can and should be used to incentivize private sector technology investments, overly stringent standards that result in reduced revenues and greater capital constraints could have the opposite effect. As economist Julian Morris wrote on behalf of the George Washington University Regulatory Studies Center:<sup>14</sup>

*[T]he requirement to invest in fuel economy improvements may lead manufacturers to reduce their investments in some other kinds of vehicle improvements, either due to capital constraints or in order to keep down the final purchase price of vehicles, or both. Examples of such foregone investment might include safety enhancements, improvements in comfort, and investments in the development of connected and autonomous vehicles... Another related effect of CAFE standards that is practically impossible to estimate is the consequence of resources diverted away from the development of innovative technologies, such as automation. Such technologies offer potentially enormous benefits, ranging from reductions in collisions to improved productivity.*

## Broader Economic Impacts

The automobile industry is an enormously important economic sector, historically contributing 3.0 – 3.5 percent of overall U.S. gross domestic product (GDP) and directly employing an estimated 1.5 million people in the design, manufacturing, sales, and service of motor vehicles.<sup>15</sup> Additionally, the industry is a very large consumer of materials and services from other sectors, from machinery and computing to advertising, finance, and more. Together, these direct and indirect activities amount to a net employment contribution in the U.S. economy of more than 7 million jobs, and state and federal tax revenue generation of \$206 billion.<sup>16</sup>

It is important to recognize that the geographic distribution of these jobs—particularly with respect to manufacturing—are generally concentrated in the Midwest and Southeast regions of the country (Figure 5).<sup>18</sup> These states’ economies are disproportionately vulnerable to regulatory disruption, especially compared to California and Section 177 states that are home to relatively little manufacturing jobs.

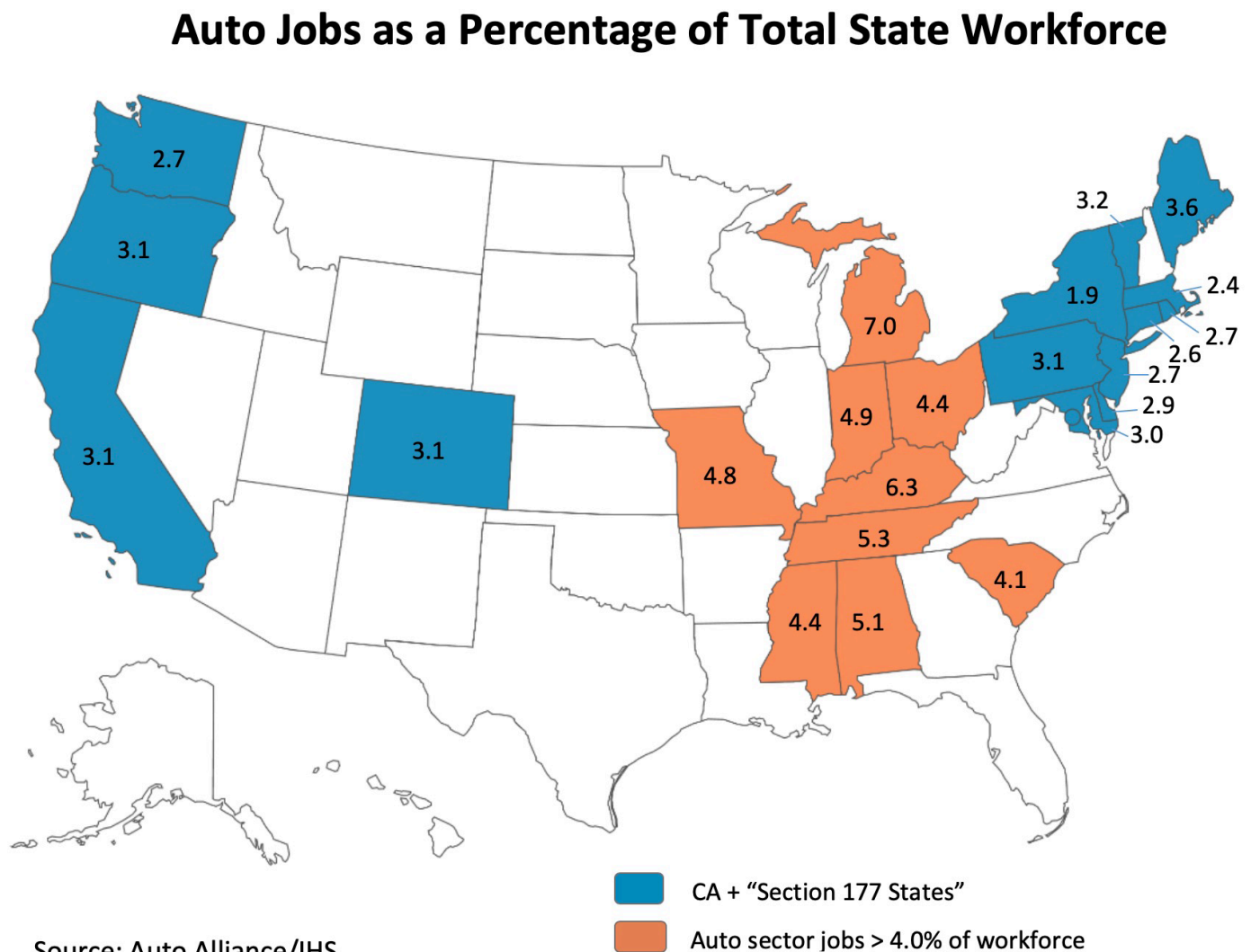
Moreover, the uncertainty and potential harm that could result if ONP dissolves is only one of numerous headwinds faced by the auto sector writ large. The finalization of the SAFE rule comes during a period of great uncertainty and fragility in the sector. Market experts estimate that, in the first half of 2019, auto sales declined 2.2% year-over-year, and that this pace will accelerate to 3.4% in the second half.<sup>17</sup> Risks cited include President Trump's tariffs and trade war, ongoing union negotiations, and questions about the broader economy in the U.S. and China.

Trade and tariff issues are particularly troublesome. A recent study by the Center for Automotive Research (CAR) concluded that "the cumulative effect of the Section 232 steel and aluminum tariffs, Section 301 China tariffs, USMCA, and the potential 25 percent Section 232 tariff

on imported autos and auto parts could lead to a 1.3 million drop in U.S. light vehicle sales, 366,900 fewer U.S. jobs, and \$30.4 billion lower U.S. economic output."<sup>19</sup> CAR estimates that the cumulative effect of these policies could cause new car prices to rise by \$2,750 on average, and that "higher automotive parts prices will drive up the price of vehicle maintenance and repair, so even holding on to an existing vehicle will become more expensive."

It goes without saying that the exacerbation of existing uncertainties, increased costs, and general confusion that would accompany dissolution of ONP is likely to result in further ripple effects that reach well beyond the auto sector itself and ultimately threaten to harm the broader U.S. economy.

Figure 5. Auto Jobs as a Percentage of Total State Workforce.



Source: Auto Alliance/IHS

## THE PATH FORWARD

Thanks to sound implementation of laws such as EPCA, agencies such as EPA and NHTSA, and the dramatic changes in our energy fortunes and our technological capabilities in the subsequent decades, America's position on energy and the environment is better than it has ever been. The energy security motivations that drove passage of EPCA have largely been addressed, while continued emissions reductions have made America's air among the cleanest in the world. In short, we are cleaner and stronger today than we were yesterday, and we will be cleaner and stronger tomorrow than we are today. However, our work is not finished. New challenges such as climate change demand growing attention, and developing sound energy and environmental policy while balancing the complex web of federal, state, business, consumer, and economic interests is no small feat.

The theme of the U.S. Chamber meeting at which President Ford spoke on regulatory reform and energy policy in 1975 was "America's Future—Our Critical Choices." Ford counseled that regulators must look beyond "cold figures in a bookkeeping ledger" and seek to understand the real-world impacts of regulations from the perspective of American businesses, employees, and consumers. The importance of this advice has proven to be timeless, and failure to heed it as we debate the critical choices that will mark the next phase of fuel economy and vehicle GHG standards could derail our ability to build upon past successes.

It is not too late to avoid the potentially dire consequences described in this report. A workable compromise that continues to improve fuel economy, reduce emissions while recognizing market realities is not just possible, it is crucial. One National Program must remain in effect. While negotiations between EPA and California dissolved earlier this year, both sides

have indicated a willingness to resume discussions, leaving hope for a middle ground solution that could avoid the impending chaos and uncertainty. For this to happen, political leaders on both sides must recognize the importance of such a compromise not just to the auto sector, its extensive supply chain, associated industries or the more than 7 million related jobs it supports, but to the entire U.S. economy and the American consumer that it depends on. Accordingly, we call on federal, state, and private sector stakeholders to put politics aside, return to the negotiating table, and deliver for the American people.

***In short, we are cleaner and stronger today than we were yesterday, and we will be cleaner and stronger tomorrow than we are today. However, our work is not finished.***

## SOURCES

<sup>1</sup> President Gerald R. Ford's Remarks at the Annual Meeting of the U.S. Chamber of Commerce. April 28, 1975, available at <https://www.fordlibrarymuseum.gov/library/speeches/750220.asp>

<sup>2</sup> Source: EPA Air Pollutant Emissions Trends, available at <https://www.epa.gov/air-emissions-inventories/air-pollutant-emissions-trends-data>

<sup>3</sup> Federal Register Vol. 79, No. 81

<sup>4</sup> Based on 2012 EIA Annual Energy Outlook

<sup>5</sup> 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards, FR Vol. 76, No. 231.

<sup>6</sup> Automotive News, July 2018 <https://www.autonews.com/article/20180702/RETAIL01/180709977/car-sales-on-pace-to-hit-60-year-low>

<sup>7</sup> Ward's Automotive, 2019 data

<sup>8</sup> FuelEconomy.gov (mileage based on highway driving)

<sup>9</sup> "Section 177 states" that have adopted California's standards include Colorado, Connecticut, Delaware, Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, Vermont, Washington, and Washington, D.C.

<sup>10</sup> <http://media.freep.com/uploads/digital/Trump-GHG-CAFE-Letter-June-6-2019.pdf>

<sup>11</sup> California Air Resources Board, July 25, 2019. <https://ww2.arb.ca.gov/news/california-and-major-automakers-reach-groundbreaking-framework-agreement-clean-emission>

<sup>12</sup> Federal Register, Vol 83, page 49344, available at <https://www.federalregister.gov/documents/2018/10/01/2018-21195/light-duty-vehicle-ghg-program-technical-amendments>.

<sup>13</sup> Unintended consequences from nested state and federal regulations: The case of the Pavley greenhouse-gas-per-mile limits, *Journal of Environmental Economics and Management*, 63 (2012) 187–207, Lawrence H. Goulder, Mark R. Jacobsen, Arthur A. van Benthem,

<sup>14</sup> <https://regulatorystudies.columbia.gwu.edu/sites/g/files/zaxdzs1866/f/downloads/GW%20Reg%20Studies%20-%20SAFE%20Vehicles%20Rule%20-%20Public%20Interest%20Comment%20-%20Julian%20Morris.pdf>

<sup>15</sup> Center for Automotive Research, Contribution of the Automotive Industry to the Economies of All Fifty States and the United States, available at <http://www.cargroup.org/wp-content/uploads/2017/02/Contribution-of-the-Automotive-Industry-to-the-Economies-of-All-Fifty-States-and-the-United-States2015.pdf>

<sup>16</sup> *ibid.*

<sup>17</sup> Based on auto Alliance/IHS analysis, available at <https://autoalliance.org/in-your-state>

<sup>18</sup> Cox Automotive, June 2019. <https://www.coxautoinc.com/market-insights/2019-mid-year-review/>

<sup>19</sup> Center for Automotive Research, Consumer and Economic Impacts of U.S. Automotive Trade Policies



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