

Federalism, Preemption, and Greenhouse Gas Emissions

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TABLE OF CONTENTS

INTRODUCTION.....	282
I. A SHORT PRIMER ON GLOBAL WARMING.....	286
A. <i>What Do We Do About Global Warming?</i>	287
B. <i>International and National Efforts</i>	288
C. <i>States and Global Warming</i>	290
II. THE LEGAL STATUS OF A.B. 1493.....	292
A. <i>The Bill's Terms</i>	292
B. <i>A.B. 1493 and the EPA</i>	292
C. <i>CAA Preemption</i>	299
D. <i>Energy Policy and Conservation Act Preemption</i>	303
E. <i>Preemption and the U.S. Supreme Court</i>	305
F. <i>California, Preemption, and the Clean Air Act</i>	307
G. <i>Should California Regulate On Its Own?</i>	310
III. LESSONS FOR OTHER AREAS OF ENVIRONMENTAL LAW	311
CONCLUSION	318

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INTRODUCTION

Though the earth already faces environmental problems as a result of global warming, the greatest risk of environmental catastrophe caused by climate change lies in the future. Scientists warn that if carbon dioxide concentrations and global temperatures continue to rise over the course of the twenty-first century the world could face increasingly severe floods, storms, fires, and drought, higher rates of insect borne diseases, glacial melting, rises in sea levels, and reductions in biodiversity.¹ What we do today about global warming, then, has major consequences for future generations.

Rather than waiting for national leadership, California has recently enacted one of the most far-reaching bills to address global warming.² Many other states, too, have quietly begun to fill the void in leadership that some believe exists at the national level.³ In the past two and a half years a third of states have enacted legislation or executive orders designed to reduce the production of greenhouse gases.⁴

California's legislation, known as A.B. 1493, requires its Air Resources Board (CARB) to develop regulations "that achieve the maximum feasible and cost-effective reduction of greenhouse gas emissions from motor vehicles."⁵ CARB must promulgate the regulations by January 1, 2005, for model years beginning in 2009; the state legislature has a year from January 1, 2005, "to review and determine if new legislation is needed."⁶

¹ Intergovernmental Panel on Climate Change, CLIMATE CHANGE 2001: SYNTHESIS REPORT 8-9 (2001) [hereinafter CLIMATE CHANGE 2001].

² CAL. HEALTH & SAFETY CODE § 43018.5 (West 2003).

³ For example, the state of Oregon now sets standards for carbon dioxide emissions for new power plants. Nebraska was the first of several states to adopt a program to sequester carbon in agricultural practices. See BARRY G. RABE, GREENHOUSE & STATEHOUSE, THE EVOLVING STATE GOVERNMENT ROLE IN CLIMATE CHANGE 7 (Nov. 2002) (analyzing efforts to reduce greenhouse gas emissions in nine states). The State of New York is working with nine other states to develop a regional cap and market-based trade system to reduce carbon dioxide emissions from power plants. *Governor Announces Cooperation on Clean Air Initiative*, July 25, 2003, available at http://www.state.ny.us/governor/press/year03/july24_03.htm (last visited August 5, 2003).

⁴ See RABE, *supra* note 3 at 7. Rabe also notes that several states have moved affirmatively to block climate change efforts — for example sixteen states have passed resolutions urging the U.S. Senate not to ratify the Kyoto Protocol, and Michigan recently passed a law preventing its state agencies from proposing rules or regulations to reduce greenhouse gas emissions without legislative approval. *Id.*

⁵ CAL. HEALTH & SAFETY CODE § 43018.5(a) (West 2003).

⁶ *Id.* § 43018.5(2)(B).

Yet California's efforts to regulate automotive greenhouse gas emissions may never come to fruition. The state enacted A.B. 1493 under special authority granted to it under the federal Clean Air Act (CAA), which explicitly preempts all states other than California from regulating mobile source emissions.⁷ California has used this special authority regularly since the provision's enactment in 1967 — the state's leadership in regulating mobile source air pollution brought us catalytic converters, low-emission vehicles, and unleaded gasoline, among other technologies; and its leadership in regulating mobile source pollution has been a given in environmental policymaking circles. But the Bush Administration's Environmental Protection Agency (EPA) has just issued legal opinions claiming that the CAA does not cover greenhouse gas emissions, including the most prevalent gas, carbon dioxide.⁸ If the Bush Administration's position is upheld, A.B. 1493 may never take effect.

Regardless of the Bush Administration's position, auto manufacturers are likely to sue to invalidate A.B. 1493 on the grounds that the California bill is preempted by both the CAA and another federal statute, the Energy Policy and Conservation Act (EPCA).⁹ Preemption doctrine has been used frequently by the Rehnquist Court and increasingly by the Bush Administration to consolidate power in the national government.¹⁰ Despite the fact that California is exempted from the CAA preemption provision codifying California's leadership in regulating mobile source *air pollution*, it remains an open question whether the courts or the federal government will allow the state to force technological changes designed to reduce mobile source *greenhouse gas emissions*.

Indeed, California's grant of regulatory flexibility under the CAA more generally is under attack on preemption grounds. At least four recent cases threaten the state's leadership role even as California's

⁷ 42 U.S.C. §§ 7543(b)(1), 7543(e)(2)(A) (2000).

⁸ See EPA's Authority to Impose Mandatory Controls to Address Global Climate Change Under the Clean Air Act, Gen. Couns. Mem. (Aug. 28, 2003) (on file with author) [hereinafter Gen. Couns. Mem. on Mandatory Controls] Notice of Denial of Petition for Rulemaking Control of Emissions from New Highway Vehicles and Engines, Gen. Couns. Mem. (Aug. 28, 2003) (on file with author) [hereinafter Notice of Denial].

⁹ 49 U.S.C. § 32919(a) (2000).

¹⁰ Richard Fallon has pointed out that over the past decade, the Supreme Court has decided 35 preemption cases and held in favor of federal preemption (thus prohibiting states from legislating independently) at least in part in 22 cases, despite its pro-federalism reputation. During the 1999 term, the Court found in favor of preemption in all 7 preemption cases it decided. See Richard Fallon, *The "Conservative" Paths of the Rehnquist Court's Federalism Decisions*, 69 U. CHI. L. REV. 429, 462-63 (2002). For a discussion of Bush preemption positions in environmental cases see *infra* text accompanying notes 66-91.

dramatic successes in reducing air pollution are facing setbacks.¹¹ The United States Supreme Court will hear one of the four cases during its 2003-04 term. That case, *Engine Manufacturers v. South Coast Air Quality Management District*, involves regulations issued by southern California's smog agency that require owners of large fleets of vehicles to purchase "clean" vehicles. Engine manufacturers, now joined by the Bush Administration, argue that the regulations are preempted by the CAA.¹² If the various preemption cases succeed, California's special regulatory role under the CAA will be in jeopardy.

Yet California's role is an especially interesting and promising example of what I call "modified federalism." The federalism debate, in its multiple forms, often views questions of governmental regulation as involving either state or federal regulation — what scholars have dubbed "dual federalism" or "dual sovereignty."¹³ Justice Brandeis' classic description of states as the "laboratories of democracy" certainly embraces this view.¹⁴ The contemporary debate about whether states "race to the bottom" in environmental regulation similarly suggests that the central question involves whether states or the federal government are best suited to enact socially optimal levels of environmental protection.¹⁵ Even those scholars who acknowledge the more

¹¹ See Miguel Bustillo, *Panel Urges State, U.S. to Help Curb Smog*, L.A. TIMES, Aug. 1, 2003, at B5 ("Southern California . . . has begun losing ground in its battle with smog after years of gains . . ."); Suzanne Paulson, *Air Pollution*, S. CAL. ENVTL. REPORT CARD 21, 29 (2003) ("Recent experience indicates that [new policies being phased in] are not aggressive enough."); South Coast Air Quality Management District, *AQMD Calls on State, Federal Government to Step Up Smog-Fighting Efforts*, available at http://www.aqmd.gov/news1/aqmp_briefing.htm (noting that 2003 is "worst smog season in seven years," and pointing out that Southern California had its first Stage 1 (most severe) smog day since 1998) (last visited Sept. 2, 2003). For a discussion of the four cases challenging California's role under the CAA, see discussion *infra* notes 134-46.

¹² See *Engine Mfrs. Assoc. v. S. Coast Air Quality Mgmt. Dist.*, 309 F.3d 550, 551 (9th Cir. 2002), cert. granted, 123 S. Ct. 2274 (2003); Andrew Bridges, *U.S. Backs Suit Against California Clean Air Rules*, B. GLOBE Aug. 31, 2003, available at http://www.boston.com/news/nation/articles/2003/08/31/us_backs_suit_against_calif_clean_air_rules/ (last visited Sept. 2, 2003).

¹³ See, e.g., Roderick M. Hills, Jr., *The Political Economy of Cooperative Federalism: Why State Autonomy Makes Sense and "Dual Sovereignty" Doesn't*, 96 MICH. L. REV. 813, 815 (1998); Philip J. Weiser, *Towards a Constitutional Architecture for Cooperative Federalism*, 79 N.C. L. REV. 663, 665 (2001) (characterizing recent Supreme Court statements as based on notion of "dual federalism").

¹⁴ *New State Ice Co. v. Liebman*, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting) ("It is one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country.")

¹⁵ The seminal work here is Richard L. Revesz, *Rehabilitating Interstate Competition:*

complicated relationship of "cooperative federalism" that exists between the states and the federal government typically define the term to include only those statutory regimes under which the states implement national standards.¹⁶

California's role in regulating mobile sources under the CAA suggests a different version of federalism. Here, the federal government establishes innovative relationships with one or several states, rather than relying on the standard cooperative federalism arrangement. In this case, Congress has set a baseline of environmental standards but has freed up one state (and by extension others, who are allowed to adopt California's mobile source standards as their own) to do more than the federal minimum.¹⁷ This regulatory scheme may produce its own dynamic: by singling out a state to set standards above federal levels, that state's behavior may be influenced not only by its own voter preferences, competition with other states, etc., but also by its special regulatory status.

There are several reasons to believe that by concentrating regulatory efforts in California, Congress may have enhanced environmental innovation. For example, California's special role under the CAA has likely increased California state bureaucratic expertise in mobile source technology and policy, allowing for innovative policy proposals. Its regulatory structure may also have concentrated innovation geographically by encouraging the location of mobile source firms in California, taking advantage of what economists call "agglomeration economies," economic benefits that result from geographic concentration.¹⁸ These firms may have in turn helped create a private

Rethinking the "Race to the Bottom" Rationale for Environmental Regulation, 67 N.Y.U. L. REV. 1210 (1992). For critiques and defenses of Revesz's article, see generally Henry N. Butler & Jonathan R. Macey, *Externalities and the Matching Principle: The Case for Reallocation Environmental Regulatory Authority*, 14 YALE L. & POL'Y REV. 23 (1996); Kirsten H. Engel & Scott R. Saleska, "Facts are Stubborn Things": An Empirical Reality Check in the Theoretical Debate Over the Race-to-the-Bottom in State Environmental Standard-Setting, 8 CORNELL J.L. & PUB. POL'Y 55 (1998); Kirsten H. Engel, *State Environmental Standard-Setting: Is There a "Race" and Is It "to the Bottom?"* 48 HASTINGS L.J. 271 (1997); Daniel C. Esty, *Revitalizing Environmental Federalism*, 95 MICH. L. REV. 570 (1996); Richard B. Stewart, *Environmental Regulation and International Competitiveness*, 102 YALE L.J. 2039 (1993).

¹⁶ See, e.g., John P. Dwyer, *The Role of State Law in an Era of Federal Preemption: Lessons from Environmental Regulation*, 60 LAW & CONTEMP. PROBS. 203, 216 (1997) (describing examples of cooperative federalism in environmental context); John P. Dwyer, *The Practice of Federalism Under the Clean Air Act*, 54 MD. L. REV. 1183, 1193-99 (1995) (describing cooperative federalism under Clean Air Act).

¹⁷ 42 U.S.C. § 7507 (2000).

¹⁸ Ronald J. Gilson, *The Legal Infrastructure of High Technology Industrial Districts: Silicon Valley, Route 128, and Covenants Not to Compete*, 74 N.Y.U. L. REV. 575, 581 (1999).

constituency — mobile source technology companies — for stronger public regulation. A.B. 1493 has the potential to achieve similar effects. Moreover, if California's special exemption status under the CAA in fact creates a dynamic different either from cooperative or dual federalism arrangements, it may provide a model for other creative means of environmental legislation.

I. A SHORT PRIMER ON GLOBAL WARMING

A.B. 1493 is a response to the fact that the 1990s was the warmest decade since we began keeping formal worldwide temperature records in the 1860s, and probably the warmest decade in a thousand years.¹⁹ The year 1998 was the warmest year in the warmest decade;²⁰ 2002 was the second warmest year, and the ten warmest years in the twentieth century occurred between 1985 and 2000.²¹ The scientific community, with increasing consensus, believes that much of this warming can be attributed to human activity, and more specifically to the use of fossil fuels.²² The burning of oil, natural gas, and coal releases various gases — among them carbon dioxide (the most prevalent greenhouse gas), methane, and nitrous oxide. Most scientists believe that these gases trap heat in the atmosphere of the planet, causing temperatures to rise.²³

The fact that greenhouse gases are accumulating in the atmosphere is not scientifically disputed.²⁴ Moreover, strong evidence shows that the

¹⁹ See CLIMATE CHANGE 2001, *supra* note 1, at 4.

²⁰ *Id.*

²¹ See U.S. Environmental Protection Agency, *Global Warming-Climate*, available at <http://yosemite.epa.gov/oar/globalwarming.nsf/content/climate.html> (last visited Feb. 27, 2003).

²² The scientific community is not without skeptics, however. For a recent article exploring a theory that changes in the sun's brightness over millions of years offers a better explanation for a large percentage of recent temperature increases, see Nic. J. Shavi & Jim Veizer, *Celestial Driver of Pharezoic Climate?* 13 GSA TODAY. 4 (JULY 2003); see also Richard S. Lindzen, *Global Warming: The Origin and Nature of the Alleged Scientific Consensus*, available at <http://www.cato.org/pubs/regulation/reg15n2g.html> ("there is no substantive basis for predictions of sizeable global warming due to observed increases in . . . greenhouse gases").

²³ See Lindzen, *supra* note 22. More specifically, greenhouse gases differ in their ability to absorb heat in the atmosphere, so that different gases have different "global warming potential." Thus greenhouse gases are estimated in "units of millions of metric tons of carbon equivalents" based on their global warming potential. Carbon dioxide is far and away the most prevalent greenhouse gas but is the least heat-absorbent. *Id.* Hydrofluorocarbons and perflorocarbons are the most heat-absorbent. *Id.*

²⁴ The current web page of the EPA states: "Scientists know for certain that human activities are changing the composition of Earth's atmosphere. Increasing levels of greenhouse gases, like carbon dioxide (CO₂) in the atmosphere since pre-industrial times

global mean air temperature has risen over the past century between 0.7 and 1.5 degrees Fahrenheit, while oceans have warmed by about 0.09 degrees Fahrenheit over the past fifty years.²⁵ Most scientists see a connection between the two. In its Third Assessment, released in 2001, the Intergovernmental Panel on Climate Change (IPCC) found that "the balance of evidence suggests a discernable human influence on global climate."²⁶ The Committee on the Science of Climate Change of the National Research Council, part of the National Academy of Science, recently issued a report at the request of the Bush White House and concluded that the accumulation of greenhouse gases is "causing surface air temperatures and subsurface ocean temperatures to rise."²⁷

Scientific questions about global temperature increases remain, of course, and the open questions are significant ones. For example, scientists do not know how long fossil-fuel carbon will remain in the atmosphere; how the climate system actually interacts with these carbon compounds and at what rate; how much natural climate variations are responsible for temperature shifts; how these natural climate variations interact with human-caused environmental changes; and how temperatures have shifted on a regional and local, as opposed to global, basis.²⁸ Nevertheless, even the most conservative estimates of temperature increases over the next century recognize the potential for significant, perhaps catastrophic harm to the earth and its people.²⁹

A. What Do We Do About Global Warming?

California's efforts are focused on one of the leading sources of carbon dioxide, vehicular emissions. About eighty-two percent of greenhouse gas emissions come from energy generation and gasoline use, and

have been well-documented. There is no doubt this atmospheric buildup of carbon dioxide is largely the result of human activities." U.S. Environmental Protection Agency, *Global Warming-Climate Uncertainties*, available at <http://yosemite.epa.gov/oar/globalwarming.nsf/content/climateuncertainties.html> (last visited Feb. 27, 2003).

One of the most compelling pieces of evidence in support of the scientific view that carbon dioxide accumulates in the atmosphere and has increased in concentration in the post-industrial era comes from ice cores in Greenland and Antarctica. These cores show that concentrations of carbon dioxide remained relatively steady until the Industrial Revolution but have escalated over the last fifty years. See COMMITTEE ON THE SCIENCE OF CLIMATE CHANGE, DIVISION ON EARTH AND LIFE STUDIES 2 (2001).

²⁵ See COMMITTEE ON THE SCIENCE OF CLIMATE CHANGE, *supra* note 24, at 3.

²⁶ CLIMATE CHANGE 2001, *supra* note 1, at 3.

²⁷ COMMITTEE ON THE SCIENCE OF CLIMATE CHANGE, *supra* note 24, at 3.

²⁸ See *id.* at 5.

²⁹ *Id.*

carbon dioxide makes up about eighty-five percent of total emissions.³⁰ Cleaning up electricity generation and reducing automobile emissions by reducing carbon dioxide emissions are, therefore, central targets for greenhouse gas reductions.

The United States leads the world in greenhouse gas emissions on both an absolute and per capita basis. We generate approximately 6.6 tons of emissions per person compared with, for example, Switzerland, which averages just two tons per capita.³¹ As of 1998, total United States' emissions represent about twenty-five percent of global emissions.³²

The difficulties involved in reducing greenhouse gas emissions are, however, immense. The largest producers of greenhouse gas emissions are not necessarily the countries that will suffer the most from global warming. The Intergovernmental Panel on Climate Change suggests that climate change is likely to harm lower-income populations disproportionately, particularly within tropical countries, because responses to climate change are likely to vary depending on public health infrastructure and other systems favoring wealthier countries.³³ Moreover, the sense of urgency accompanying the problem varies greatly among policymakers because of the scientific uncertainty surrounding the likelihood of projected temperature increases, regional variations, long-term economic growth, and technological breakthroughs. As a result, efforts to attack the global-warming problem have been mixed at best.

B. International and National Efforts

A.B. 1493, California's measure to reduce greenhouse gas emissions, was passed after the United States withdrew from international climate change efforts. Although the United States signed onto the 1992 Framework Convention on Climate Change, which committed signatories to reducing greenhouse gas emissions below 1990 levels, the U.S. Senate never ratified the follow-up Kyoto Accord.³⁴ In 2001,

³⁰ U.S. ENVIRONMENTAL PROTECTION AGENCY, GLOBAL WARMING — INDIVIDUAL EMISSIONS INVENTORY, *available at* <http://yosemite.epa.gov/oar/globalwarming.nsf/content/emissionsindividual.html> (last visited Sept. 8, 2003).

³¹ *Id.*

³² U.S. ENVIRONMENTAL PROTECTION AGENCY, GLOBAL WARMING — EMISSIONS INVENTORY, *available at* <http://yosemite.epa.gov/oar/globalwarming.nsf/content/emissionsInternationalInventory.html> (last visited Sept. 3, 2003).

³³ CLIMATE CHANGE 2001, *supra* note 1, at 9.

³⁴ Heather E. Lindsay, *Global Warming and the Kyoto Protocol*, CAMBRIDGE SCIENTIFIC ABSTRACTS (July 2001), *available at* <http://www.csa.com/hottopics/ern/01jul/overview>.

President George W. Bush announced that the United States would not abide by the Kyoto limitations.³⁵ In July 2001, more than 170 countries agreed to proceed with the treaty, although with significantly reduced emissions targets and without the participation of the world's largest contributor to greenhouse gas emissions.³⁶

Rather than committing to the Kyoto levels, the Bush Administration has promoted "Climate VISION," which stands for "Voluntary Innovative Sector Initiatives: Opportunities Now." Climate VISION is a voluntary program that calls on the public and private sectors to reduce "emission intensity" by eighteen percent.³⁷ Rather than reducing emissions outright, Climate VISION focuses on reducing the ratio of total global warming pollution to total gross domestic product — making the economy more energy efficient.³⁸ Not surprisingly, the Bush proposal has met with skepticism from the environmental community. As the National Resource Defense Counsel (NRDC) points out, during the 1990s, we reduced our emissions intensity by forty percent yet greenhouse gas emissions *rose* fourteen percent.³⁹ The Bush Administration has also proposed increasing the average fuel economy of light trucks by 1.5 miles per gallon for model years 2005-07.⁴⁰ Again, critics note that such increases would likely occur with or without federal intervention.⁴¹ Moreover, fuel economy standards for regular

html (last visited July 19, 2003).

³⁵ *Id.*

³⁶ *Id.*

³⁷ See EPA Newsroom, *Bush Administration Launches "Climate VISION,"* available at http://www.epa.gov/newsroom/headline_021203a.htm (last visited Feb. 12, 2003).

³⁸ See "Meeting President Bush's Climate Change Challenge to Business and Industry," available at http://www.epa.gov/newsroom/factsheet_021203.htm (last visited June 10, 2003).

³⁹ See <http://www.nrdc.org/globalWarming/agwcon.asp> (last visited June 10, 2003).

⁴⁰ U.S. DEPARTMENT OF ENERGY, FUEL ECONOMY FOR LIGHT TRUCKS TO RISE MORE THAN 7 PERCENT BY 2007, available at http://www.eere.energy.gov/news/news_detail.cfm?news_id=555 (last visited Aug. 6, 2003).

⁴¹ See, e.g., Union of Concerned Scientists, Fuel Economy: Going Farther on a Gallon of Gas, available at http://www.ucsusa.org/clean_vehicles/cars_and_suvs/page.cfm?PageID=222 (last visited Aug. 6, 2003) (arguing that simplest, most cost-effective way to reduce United States' consumption of oil is to increase fuel economy of motor vehicles). The Bush Administration's stance on global warming has been extremely controversial in other respects. For example, the EPA recently issued a report assessing the state of key environmental problems. See Draft of Report on the Environment, available at <http://www.epa.gov/indicators/roe/html/roeTOC.htm> (last visited Sept. 3, 2003). The White House removed references in earlier drafts to evidence that smokestack and tailpipe emissions are linked to global warming, according to EPA officials. When White House officials then sought to insert references to a controversial study financed in part by the American Petroleum Institute, the EPA decided to delete references to scientific studies

passenger vehicles, currently 27.5 miles per gallon, have not changed since 1986.⁴²

Several members of Congress have proposed more sweeping climate change legislation. Senators John McCain and Joseph Lieberman have introduced a market-based scheme to cap emissions in high producing industries.⁴³ Senator Jim Jeffords has twice introduced a bill focused on electricity-plant emissions.⁴⁴ To date, these legislative efforts have not succeeded. Rather than waiting for national leadership, several states have moved to fill the policy void.

C. States and Global Warming

It is tempting to view global warming as an international problem solvable only through cooperation among national actors. But given the economic sophistication and size of a number of individual U.S. states, state efforts to reduce greenhouse gas emissions represent a real public policy opportunity. Moreover, states vary significantly in how they contribute to greenhouse gas emissions. Different policy choices will thus make more sense for different jurisdictions: states that generate a significant amount of energy from coal emit larger per capita amounts and will need to focus most heavily on electricity in order to reduce emissions. By contrast, states heavily dependent on private passenger automobiles contribute a larger share of their total emissions from the transportation sector.⁴⁵

California's economy, one of the largest in the world, contributes to global warming at a rate much lower than the national average. The state's per capita emissions rate is about three tons per year as opposed to the six-plus ton national average, making California look more like

altogether. See Andrew C. Revkin & Katharine Q. Seelye, *White House Guts Global Warming Section of Environment Report*, INT'L HERALD TRIB., June 20, 2003, available at http://www.ieta.org/Library_Links/IETAEnvNews/Jun20_White_House.htm (last visited Sept. 3, 2003).

⁴² Office of Automotive Affairs, "CAFE," <http://www.ita.doc.gov/td/auto/cale.html> (last updated Mar. 14, 2002).

⁴³ Press Release, Office of Senator John McCain, Lieberman, McCain Offer Plan Harnessing Market Forces to Counter Global Warming (Jan. 8, 2003), available at http://www.senate.gov/~mccain/index.cfm?fuseaction=Newscenter.ViewPressRelease&Content_id=730.

⁴⁴ See Press Release, Natural Resources Defense Council Press Release, Do the Math: Whitehouse Global Warming Plan Cooks the Books (Feb. 14, 2002), available at <http://www.nrdc.org/media/pressreleases/020214a.asp> (last visited July 19, 2003).

⁴⁵ See California Energy Commission Staff Report, *Executive Summary, in INVENTORY OF CALIFORNIA GREENHOUSE GAS EMISSIONS AND SINKS: 1990-1999* 2 (Nov. 2002).

Germany than the United States. Texas, by contrast, emits more than nine tons per year per capita.⁴⁶

Some of California's lower rate can be explained by geographic luck: the state's warmer climate means that per capita energy usage is lower than in colder states. California also imports a fair amount of electricity from energy producing states that are assigned the resultant greenhouse gas emissions (which helps explain why Texas is such a large emitter).⁴⁷ And a number of California's leading industries, including electronics, computers, trade, finance, and services are not particularly high-energy users.⁴⁸ Nevertheless, the state's policies deserve some credit for the state's relatively low emissions in the electricity-generating sector. The state has actively promoted energy efficiency, including subsidies for wind and solar energy, and mandates for energy-efficient building standards.⁴⁹ The state's stringent air pollution control regime has had the ancillary benefit of leading many industries to shift to cleaner burning fuels like natural gas.⁵⁰ California also generates a relatively large portion of its energy through hydroelectric and nuclear power, both significantly lower greenhouse gas emitters than coal.⁵¹

With the good news for California, however, comes the bad. The Golden State's drivers lead the country in vehicle miles driven.⁵² Fifty-eight percent of California's greenhouse gas emissions come from the transportation sector and thirty-seven percent come from motor fuel.⁵³ And over the 1990s greenhouse gas emissions from the transportation sector increased at a faster rate than from the energy sector.⁵⁴ Coming from a state the size of California, with its population of over thirty-four million people⁵⁵ and an economy larger than France's, the state

⁴⁶ *Id.*

⁴⁷ This assignment to the energy producer is consistent with international and national protocols. *See id.* at 8.

⁴⁸ *See id.* at 4.

⁴⁹ *See id.* at 11.

⁵⁰ *See id.* at 10; cf. Samuel J. Rasoff & Richard L. Revesz, *The Biases of Risk Tradeoff Analysis: Towards Parity in Environmental and Health and Safety Regulation*, 69 U. CHI. L. REV. 1763, 1766 (2002) (arguing that risk analysis should incorporate not only negative ancillary effects but also positive ones and using as example decline in accidents and suicides by carbon monoxide poisoning as ancillary benefit of limits on carbon monoxide emissions).

⁵¹ *See* INVENTORY OF CALIFORNIA GREENHOUSE GAS EMISSIONS AND SINKS, *supra* note 45, at 3.

⁵² *Id.* at 9.

⁵³ *Id.*

⁵⁴ *Id.* at 4. Part of the decline in energy usage is due to a slowdown in the state's economy.

⁵⁵ U.S. Census Bureau, State and County Quick Facts,

contributes a significant share of the world's transportation-related greenhouse gases.⁵⁶ Not surprisingly, the state's most aggressive response to the global warming problem focuses on automobiles.

II. THE LEGAL STATUS OF A.B. 1493

A. *The Bill's Terms*

Taking advantage of its unique status under the federal Clean Air Act, California enacted a simple but forceful piece of legislation in July 2002. A.B. 1493 requires the state's air pollution agency to "develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of greenhouse gas emissions from motor vehicles."⁵⁷ CARB must issue the regulations by January 1, 2005, for model years 2009 and beyond (using the 2000 model year as a baseline).⁵⁸ The regulations will not, however, take immediate effect. Instead, the legislature has a year to review the regulations before their January 1, 2006, effective date.⁵⁹ Though CARB has widespread latitude to craft the regulations, the legislature has prohibited the agency from reducing greenhouse gas emissions by imposing fees or taxes; banning any vehicle category ("specifically including, but not limited to, sport utility vehicles and light-duty trucks"); or reducing vehicle weights, speed limits or vehicle miles traveled.⁶⁰ Yet the state's ability to issue A.B. 1493 regulations will face serious legal obstacles.

B. *A.B. 1493 and the EPA*

California's enactment of A.B. 1493 would almost certainly violate the CAA if not for the state's special status under the Act. Although CAA section 209(b) prohibits states from adopting "any standard relating to the control of emissions from new motor vehicles," the EPA Administrator can waive preemption for states that controlled auto

<http://quickfacts.census.gov/qfd/states/06000.html> (last visited Sept. 4, 2003).

⁵⁶ INVENTORY OF CALIFORNIA GREENHOUSE GAS EMISSIONS AND SINKS, *supra* note 45, at 9.

⁵⁷ A.B. 1493, codified in CAL. HEALTH & SAFETY CODE § 43018.5(a) (West 2003); see Press Release, California Air Resources Board, Governor Davis Signs Historic Global Warming Bill (July 22, 2002), available at <http://www.arb.ca.gov/gcc/pressrel.htm>.

⁵⁸ CAL. HEALTH & SAFETY CODE § 43018.5(b) (West 2003).

⁵⁹ *Id.* § 43018.5(b)(1).

⁶⁰ *Id.* § 43018.5(d)(1)-(5).

emissions "prior to March 30, 1966."⁶¹ As of that date, only California controlled emissions and, thus, is the only state eligible to receive waivers from preemption.⁶²

Though California has directed its Air Resources Board to enact greenhouse gas emissions standards, the state will not apply for a waiver from the EPA as required under the CAA until it adopts regulations. The EPA has never denied California an emissions waiver in its entirety, although it has sometimes denied part of a waiver or delayed implementation of California emissions standards.⁶³ California has never sought to regulate emissions related to greenhouse gas emissions: all other Section 209(b) waiver requests have involved air pollution emissions controls aimed at smog. If the Bush Administration remains in office for another term, the EPA will almost certainly deny California's petition on the grounds that carbon dioxide is not an air pollutant. The argument is a complex and extremely controversial one that will undoubtedly wind up in court. Indeed, California may sue the EPA prior to submitting an A.B. 1493 waiver request in order to have carbon dioxide listed as an air pollutant under the CAA.⁶⁴

⁶¹ 42 U.S.C. §§ 7543(a), 7543(b)(1) (West 2000).

⁶² See *Motor Vehicle Mfrs. Ass'n v. New York Dep't Envtl. Conservation*, 17 F.3d 521, 525 (2d Cir. 1994); *Motor and Equipment Manufacturers Ass'n v. EPA*, 627 F.2d 1095, 1100-01 (D.C. Cir. 1979). The original Clean Air Act did not mention California specifically by name, instead allowing a waiver from preemption only for those states regulating emissions prior to March 1, 1966. See *Air Quality Act of 1967*, Pub. L. No. 90-148, § 208, 81 Stat. 485, 501 (1967) (codified at 42 U.S.C. § 7543 (2000)). The 1990 amendments preempting emissions controls on off-road vehicles specifically mentioned California as the only state eligible for a waiver. See *Clean Air Act Amendments of 1990* Pub. L. No. 101-549, Title II, Part A, § 222(b), 104 Stat. 2399, 2502 (1990).

⁶³ In 1975, the EPA delayed implementation of CARB evaporative hydrocarbon emissions. See *California State Motor Vehicle Pollution Control Standards: Waiver of Federal Pre-Emption*, 40 Fed. Reg. 30,311 (1975). In 1978 it delayed implementation of a waiver request for emissions standards developed in response to pending litigation. See *California State Motor Vehicle Pollution Control Standards: Waiver of Federal Pre-Emption*, 43 Fed. Reg. 998,999 (Jan. 5, 1978). In 1982, after years of litigation the EPA granted a waiver that was the result of a court order overturning the application of NOx standards to AMC. *Am. Motors Corp. v. Blum*, 603 F.2d 978, 980 (D.C. Cir. 1979); *California State Motor Vehicle Pollution Control Standards: Waiver of Federal Pre-Emption*, 47 Fed. Reg. 1,015 (Jan 8, 1982); and in 2002 the EPA granted CARB a waiver with several exceptions in its decision. See *California State Motor Vehicle Pollution Control Standards: Waiver of Federal Pre-Emption*, 67 Fed. Reg. 54,180 (Aug. 21, 2002); see also e-mail to Michael Kovaleski, Research Assistant, UCLA School of Law (Jan. 8, 2003) (copy on file with author) (confirming that EPA has not completely and formally denied waiver).

⁶⁴ Aaron Zitner et al., *EPA Won't Regulate 'Greenhouse Gases'*, L.A. TIMES, Aug. 29, 2003, at A19 (quoting CARB executive officer Catherine Witherspoon as saying that "her agency would sue the EPA to force it to identify carbon dioxide as an air pollutant.").

A Bush Administration denial of a California waiver request will likely rest on a recently issued general counsel memorandum, which found that carbon dioxide is not an air pollutant that can be regulated under the CAA.⁶⁵ Dated August 28, 2003, the general counsel memorandum formally withdraws a memorandum written by the EPA's general counsel in 1998. It concludes that that the 1998 memorandum "no longer represent[s] the views of EPA's General Counsel."⁶⁶ In addition to issuing the general counsel memorandum, the EPA on the same day denied a petition by various advocacy groups arguing that EPA has a mandatory duty under the CAA to issue motor vehicle emissions standards to regulate greenhouse gases.⁶⁷ The principle basis for the petition's denial was that the EPA lacks the statutory authority to regulate carbon dioxide and other greenhouse gas emissions.⁶⁸

In order to put the EPA position into context, it is necessary to set forth some background on the breadth of EPA's authority to regulate automobile emissions. The CAA prohibits all states except California from regulating auto emissions:

No State or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this part. No State shall require certification, inspection or any other approval relating to the control of emissions from any new motor vehicle or new motor vehicle engine as condition precedent to the initial retail sale, titling (if any), or registration of such motor vehicle, motor vehicle engine or equipment.⁶⁹

The term "emissions" is not defined in the CAA nor in its implementing regulations. Nevertheless, the EPA is given broad authority to "regulate emissions of air pollutants."⁷⁰ The term "air pollutants" is defined broadly in the Act as "any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or otherwise enters the ambient air."⁷¹ Furthermore, another section of the Act

⁶⁵ See Gen. Couns. Mem. on Mandatory Controls, *supra* note 8.

⁶⁶ *Id.* at 1. Two prior EPA general counsels had found that carbon dioxide can be regulated under the CAA as an air pollutant. *Id.* at 1, 3.

⁶⁷ See Notice of Denial *supra* note 8.

⁶⁸ *Id.*

⁶⁹ CAA § 209(a); 42 U.S.C. § 7543(a) (2000).

⁷⁰ CAA § 202; 42 U.S.C. § 7521(a) (2000).

⁷¹ CAA § 302(g); 42 U.S.C. § 7602(g) (2000).

includes carbon dioxide (one of the principal greenhouse gas emissions) as an "air pollutant."⁷² Despite the broad definition of air pollution and the reference in another section to carbon dioxide as an air pollutant, the recent general counsel letter argues that "the CAA is conspicuously missing a functional regulatory regime for addressing global climate change. . . ."⁷³ Without detailing all the complexities of EPA's argument, its bottom line is that Congress has not explicitly delegated to the agency the authority to regulate "on a fundamental policy issue," and therefore the agency should not "search[] for new authority in an existing statute that was not designed or enacted to deal with that issue."⁷⁴ The EPA rests its analysis in part on the U.S. Supreme Court decision in *Food and Drug Administration v. Brown & Williamson Tobacco Corp.*, holding that the FDA cannot regulate cigarettes despite broad statutory authority to regulate drugs.⁷⁵

Of course, the section preempting states from regulating mobile source emissions does not apply to California: "[t]he Administrator shall, after notice and opportunity for public hearing, waive application of this section to [California] if the State determines that the State standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards."⁷⁶ Nevertheless, the EPA may argue that since the general counsel has found that carbon dioxide and other greenhouse gas emissions are not air pollutants under the CAA, California may not regulate greenhouse gas emissions under the waiver provision. The argument would be that the waiver provision only allows California to regulate emissions as long as the emissions regulations are "at least as protective . . . as applicable Federal standards."⁷⁷ Because the federal government does not, and under the Bush Administration's analysis cannot, regulate greenhouse gas emissions (most significantly, carbon dioxide), the argument would conclude that California cannot regulate such emissions (because there are no applicable federal standards), and therefore that the California regulations are subject to the broad CAA preemption provision. The D.C. Circuit has held that California's power to regulate emissions is co-extensive with the EPA's power to regulate: power under Section 209(b), in other words, is identical to the EPA's power contained in section

⁷² CAA § 103(g); 42 U.S.C. § 7403(g) (2000).

⁷³ Gen. Couns. Mem. on Mandatory Controls, *supra* note 8, at 4.

⁷⁴ *Id.*

⁷⁵ 529 U.S. 120 (2000); see Notice of Denial, *supra* note 8, at 6.

⁷⁶ CAA § 209(b)(1); 42 U.S.C. § 7543(b)(1) (2000).

⁷⁷ CAA §§ 209(a), (b)(1); 42 U.S.C. § 7543(a)–(b)(1) (2000).

209(a).⁷⁸ If the D.C. Circuit is correct, the EPA could argue that as long as it lacks authority to regulate greenhouse gas emissions, so does California.

California could counter that if the EPA cannot regulate greenhouse gas emissions, then *no* state is prohibited from issuing motor vehicle greenhouse gas emissions standards, and that California need not apply for a Section 209(b) waiver. The effectiveness of that argument will turn on complex questions of statutory construction. The preemption provision prohibits states from regulating "emissions" from mobile sources without qualification, suggesting that states cannot regulate greenhouse gas emissions or any other emissions, a position the EPA is likely to take.⁷⁹ California, however, has a response. The term "emissions" is not defined in the CAA nor in its implementing regulations. The Bush EPA's general counsel memorandum states that carbon dioxide and other greenhouse gases "are not air pollutants under the CAA's regulatory provisions"⁸⁰ The resulting argument is: 1) the EPA is given authority to control "emissions of air pollutants," 2) the term "air pollutants" does not include greenhouse gas emissions, and 3) the preemption section therefore does not apply to greenhouse gas emissions. If California takes such a position, then it need not apply for a waiver under the CAA. Regardless of how the state proceeds procedurally, the issue will almost certainly be litigated.⁸¹

The EPA could deny a California waiver request on other grounds. The CAA sets forth the factors the EPA must consider in evaluating whether to grant California a Section 209(b) waiver request. The Administrator can deny the waiver under three circumstances: if she finds that the state's determination is arbitrary and capricious, if the state does not need such standards "to meet compelling and extraordinary conditions," or if state standards "and accompanying enforcement procedures are not consistent with section 7521(a)" of the Act.⁸²

Under typical waiver requests, California can easily demonstrate that special emissions standards are necessary to meet compelling and

⁷⁸ See *Motor Vehicle Mfrs. Ass'n v. EPA*, 627 F.2d 1095, 1110 (D.C. Cir. 1979) ("The plain meaning of the statute indicates that Congress intended to make the waiver provision coextensive with the preemption provision.").

⁷⁹ CAA § 209(a), 42 U.S.C. § 7543(a) (2000).

⁸⁰ Gen. Couns. Mem. on Mandatory Controls, *supra* note 8, at 10.

⁸¹ For additional arguments California is likely to make, see discussion *infra* notes 134-146.

⁸² CAA § 209(b)(1)(A)-(C); 42 U.S.C. § 7543(b)(1)(A)-(C) (2000). The section also sets forth additional procedural and substantive requirements.

extraordinary conditions in the state because of Southern California's air quality problems.⁸³ But can the state show that it faces compelling and extraordinary conditions that necessitate special greenhouse gas emission standards? The Bush administration has taken a very conservative position on global warming, one reiterated in the EPA's denial of the petition urging that the EPA must issue motor vehicle greenhouse gas emissions standards. Among other arguments, the EPA's notice of denial states that "establishing [greenhouse gas] emission standards for U.S. motor vehicles at this time would require EPA to make scientific technical judgments without the benefit of the studies being developed to reduce uncertainties and advance technologies."⁸⁴ Based on this reasoning, it is not hard to imagine the EPA arguing that California's efforts to establish greenhouse gas emission standards are not "necessary to meet compelling and extraordinary conditions." California will likely argue that if temperatures rise, it may face increased smog from warmer weather, reductions in the state's water supply from reduced snow pack, rising sea levels, and changes in agriculture.⁸⁵ Yet the EPA may counter that the hardships California could experience as a result of rising temperatures are not so different from those faced by other states. It could also assert that unrelated conditions like El Niño weather patterns are the cause of temperature increases in the state. Moreover, the agency may argue that insufficient evidence exists to suggest that California will experience rising temperatures. While scientists generally agree that the global warming phenomenon exists on a worldwide scale, they are much less certain about the regional effects of rising temperatures.⁸⁶

The EPA may make a third argument, one hinted at in its notice of denial. The agency may deny the petition on the grounds that California regulations interfere with U.S. foreign affairs (and hence are not "necessary to meet compelling and extraordinary conditions").⁸⁷ One of the difficulties in achieving international climate change agreements has

⁸³ The southern California region has long held the dubious distinction of having the most polluted air in the country, though Houston took over from Los Angeles briefly in 1999. See *Los Angeles Surpasses Houston With Ozone Violations*, DALLAS MORNING NEWS, Aug. 26, 2000, available at <http://www.climateark.org/articles/2000/3rd/lasurph1.htm>.

⁸⁴ See Notice of Denial, *supra* note 8, at 19.

⁸⁵ See AIR RESOURCES BOARD, FACT SHEET, ASSEMBLY BILL 1493 (Pavley) 2 (2002).

⁸⁶ See discussion *supra* at notes 19-29 and accompanying text. For a thorough analysis of whether any regulations issued by CARB under A.B. 1493 meet the compelling and extraordinary standard of section 209(b), see Note, *California's Authority to Regulate Mobile Source Greenhouse Gas Emissions*, 58 N.Y.U. ANN. SURV. AM. L. 699 (2003).

⁸⁷ Notice of Denial, *supra* note 8 at 20.

been reaching consensus on whether developing countries should commit to reducing greenhouse gas emissions.⁸⁸ Although their contributions are much smaller than those of the industrialized world, critics of the Kyoto Accord contend that the percentage share of the developing world's contribution to greenhouse gas emissions is on the increase and that limits on their emissions are therefore necessary.⁸⁹ The EPA notice of denial argues that "[u]nilateral EPA regulation of motor vehicle GHG emissions could . . . weaken U.S. efforts to persuade key developing countries to reduce the GHG intensity of their economies. Unavoidably, climate change raises important foreign policy issues, and it is the President's prerogative to address them."⁹⁰ The EPA could use similar reasoning to deny a California waiver request.⁹¹

⁸⁸ See, e.g., CNN Interactive, *Global Warming Pact Fuels Debate*, (Dec. 14, 1997) (quoting Republican Senator Charles Hagel's criticism of Kyoto Accord because it "lets developing nations that will be the world's largest emitters of greenhouse gases . . . completely off the hook"), available at <http://www.cnn.com/EARTH/9712/14/climate.treaty/> (last visited Sept. 8, 2003).

⁸⁹ *Id.*

⁹⁰ Notice of Denial, *supra* note 8, at 20. Of course many would argue that U.S. inaction on climate change makes it more difficult to persuade developing countries to take steps of their own to reduce greenhouse gas emissions.

Moreover the legal basis for denying a California waiver request on the grounds that it interferes with foreign affairs, while complex, appears weak. The U.S. Supreme Court just invalidated a California statute requiring insurers doing business in the state to disclose information about Holocaust-era insurance policies as an unconstitutional interference with foreign affairs. *Am. Ins. Assn v. Garamendi*, 123 S. Ct. 2374 (2003). The decision was split 5-4 with an unusual array of dissenters (Justices Ginsberg, Stevens, Scalia and Thomas). *Id.* at 2394. Despite the close margin in the Court, the *Garamendi* case for preemption seems to be much stronger than an argument that state regulation of greenhouse gas emissions would interfere with foreign affairs. In *Garamendi*, the federal government had issued detailed executive agreements regarding Holocaust-era policies accompanied by joint statements signed by the United States, six European countries (including Germany and Israel) and the Conference on Jewish Material Claims Against Germany, Inc. The joint statements recognized that a foundation established by President Clinton and German Chancellor Schroeder to compensate victims of German companies during the Holocaust era should be "the exclusive remedy and forum" for all claims. *Id.* at 2381-82. By contrast, the federal government is currently not a party to the most recent treaties governing greenhouse gases and appears to be involved in no active negotiations with foreign governments about the issue.

⁹¹ Although the EPA and California have long worked together on California's waiver requests, recent events may suggest a new, more contentious relationship. The EPA, with support from the ethanol industry and corn growers, recently denied a California request to waive oxygenated fuel requirements applicable to gasoline (although the EPA decision was subsequently overturned by the Ninth Circuit). See *Davis v. EPA*, 336 F.3d 965 (9th Cir. 2003). The waiver involved special reformulated gasoline designed to reduce ozone. *Id.* at 969-70. California and a number of other states in high ozone areas are required under the CAA to mandate the use of specially formulated fuel with a specified oxygen content. *Id.* Since 1990 a number of fuel providers have added methyl tertiary butyl ether

C. CAA Preemption

Whether or not the EPA denies California's petition, A.B. 1493 regulations will almost certainly wind up in federal court.⁹² If the EPA grants the waiver, auto manufacturers will likely challenge the regulations. If the EPA denies the waiver, California will likely sue.⁹³ The suit will involve battles over whether the CAA includes carbon dioxide and other greenhouse gases as an air pollutant, and whether California is preempted under both the CAA and the federal Energy

(MTBE) to gasoline to meet the requirements. *Id.* at 969. However, MTBE has seeped into groundwater aquifers and drinking supplies, so California banned MTBE effective December 31, 2002. *Id.* at 969. The state then applied to the EPA for a waiver from the oxygenated fuel requirement on the ground that ethanol, the only fuel additive available to meet the requirement, would be less effective than eliminating the oxygen content requirement altogether. *Id.* at 969-70. After the EPA denied the waiver, California successfully sued to overturn the EPA decision. *Id.* at 980.

For an explanation of the position of the ethanol industry on the controversy, see Renewable Fuels Association, The Voice of the Ethanol Industry, *Denial of California Waiver Request a Victory for Consumers and Clean Air*, available at http://www.ethanolrfa.org/leg_position_waiver.shtml (last visited July 28, 2003).

⁹² As a preliminary matter, industry could challenge any waiver application approved by the EPA on the grounds that California has failed to demonstrate "compelling and extraordinary conditions" necessary to enact greenhouse gas emissions. The agency's decision is reviewed, however, under an arbitrary and capricious/abuse of discretion standard and at least in theory accorded a significant amount of deference. *Motor & Equip. Mfrs. Ass'n v. EPA*, 627 F.2d 1095, 1119 (D.C. Cir. 1979); *Davis v. EPA*, 336 F.3d 965, 972-73 (9th Cir. 2003). The EPA waiver decision in *Davis* was overturned under this standard. *See id.* at 1110.

⁹³ If the EPA were to deny a waiver to California on the grounds that A.B. 1493 regulations are preempted by the CAA, courts would face an interesting question about the appropriate standard of review to apply in evaluating the waiver denial. In *Chevron v. Natural Resources Defense Council*, 467 U.S. 837 (1984), the Supreme Court held that a court reviewing an agency's construction of a statute is subject to a two-part test. Where Congress has "directly spoken to the precise question," no deference is due to the agency's interpretation. *Id.* at 837-38. The court (and the agency) must "give effect to the unambiguously expressed intent of Congress." *Id.* at 842-43. Where the statute is either "silent or ambiguous with respect to the specific issue," courts should determine only whether the agency's construction of the statute is "reasonable." *Id.* at 843. A court evaluating an EPA denial of a California waiver on preemption grounds would, presumably, determine first whether Congress clearly answered the question. If the court found that Congress clearly answered whether California can regulate greenhouse gas emissions, then presumably the court would owe no deference to the EPA's denial of the waiver. But if a court found the evidence of Congressional intent ambiguous, under *Chevron* presumably it should defer to the EPA's denial if "reasonable."

The applicability of *Chevron* could also arise if the EPA approves a waiver for A.B. 1493 regulations. An approval at least implicitly means that the EPA has found that California possesses the authority under the CAA to regulate greenhouse gas emissions. Again the standard of review a court should apply in evaluating the EPA's finding that the state possesses the authority to regulate greenhouse gas emissions should turn on whether Congress has specifically answered the question.

Policy and Conservation Act (EPCA).⁹⁴ Given the EPA's argument in its notice of denial that unilateral regulation of mobile source greenhouse gas emissions can interfere with foreign policy, A.B. 1493 regulations could also face a challenge under the Foreign Affairs Clause of the U.S. Constitution.

The principal basis for a CAA preemption challenge would likely parallel the Bush Administration's position on whether the CAA authorizes the EPA to regulate greenhouse gas emissions. Those arguments are sketched out in detail in the agency's notice of decision and general counsel memorandum, and positions to the contrary are included in the extensive rule-making procedure that accompanied the petition for EPA standards on motor vehicle greenhouse gas emissions.⁹⁵

In addition to those arguments, those challenging A.B. 1493 regulations (assuming EPA approval) may argue that California's exemption status under the Act is granted to control emissions that cause air pollution, not global warming, even if the EPA possesses the authority to regulate greenhouse gas emissions under the CAA.

Generally speaking, preemption arguments can be grouped into three categories: express, implied, and conflict preemption. All three arguments are based on the Supremacy Clause of the U.S. Constitution, which makes laws of the federal government "the supreme Law of the land"⁹⁶ Express preemption is as it sounds: if Congress expressly preempts a field, states cannot regulate.⁹⁷ Implied preemption exists when Congress "intended federal law to occupy a field exclusively."⁹⁸ Conflict preemption results when there is an actual conflict between state and federal law.⁹⁹ One other general principle of preemption doctrine may affect the legal status of A.B. 1493. Absent clear evidence to the contrary, there is a general presumption against preemption in areas traditionally regulated by the states.¹⁰⁰ Presumably, challenges to A.B. 1493 will rely most heavily on express or implied preemption arguments.

Recall that California's special exemption from the preemption provision requires the EPA to waive the preemption section as applied to California if "the State determines that the State standards will be . . . [a]t

⁹⁴ 49 U.S.C. § 32919(a) (2000).

⁹⁵ See Gen. Couns. Mem. on Mandatory Controls, *supra* note 8, at 1-3; Notice of Denial, *supra* note 8, at 2-7 (summarizing debate).

⁹⁶ U.S. CONST., art. VI, § 2.

⁹⁷ *Oxygenated Fuels Ass'n, Inc. v. Pataki*, 158 F. Supp. 2d at 252.

⁹⁸ *Sprietsma v. Mercury Marine*, 537 U.S. 51, 64 (2002).

⁹⁹ *Id.*

¹⁰⁰ See *Oxygenated Fuels*, 158 F. Supp. 2d at 253.

least as protective of public health and welfare as applicable federal standards.” Although the D.C. Circuit has held that California’s authority under this section is co-extensive with the EPA’s authority, any challenge to A.B. 1493 on CAA preemption grounds will likely argue that the California waiver provision is not co-extensive. Because the federal government does not currently regulate greenhouse gas emissions (most significantly, carbon dioxide), the EPA may argue that California cannot regulate such emissions (because there are no applicable federal standards), and that California’s regulations are subject to the broad CAA preemption provision. The task for a court considering a preemption challenge is to “focus on the plain wording of the clause, which necessarily contains the best evidence of Congress’ preemptive intent.”¹⁰¹

At best, the plain language of the waiver seems ambiguous. On the one hand, the State needs to make a finding that the standards will be at least as protective as applicable federal standards. One could argue that California may enact regulations that cover the same matter as the federal standards, so long as California’s version is as strong or stronger.¹⁰² On the other hand, the “as protective as federal standards” language seems aimed not at limiting California’s ability to regulate any particular emission, but at ensuring that California regulates at least as aggressively, if not more so, than the federal government.

In attempting to determine whether Congress intended to preempt California from regulating greenhouse gas emissions, a court is likely to examine the overarching statutory scheme contained within the CAA, to see if it can resolve the ambiguity. Whether the overarching statutory scheme provides the necessary guidance is itself an open question. The CAA’s goal is plainly to combat air pollution: its findings and declaration of purpose emphasize the goal.¹⁰³ Additionally, the statute in several places makes clear that California is to play a special and unique role in the control of air pollution from mobile sources. Not only is the state exempt from the provision preempting motor vehicle emissions controls, but it is also exempt from a provision that prohibits states from regulating “any characteristic or component of [motor vehicle] fuel.”¹⁰⁴ In addition, California is exempt from a preemption provision that

¹⁰¹ *CSX Transp. v. Easterwood*, 507 U.S. 658, 664 (1993).

¹⁰² CAA § 209(b).

¹⁰³ *Id.* § 101(b)(1) (“The purposes of this title are . . . to protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population . . .”).

¹⁰⁴ *Id.* § 211(c)(4)(A) (containing preemption); *id.* § 211(c)(4)(B) (waiving California).

restricts states from regulating non-road vehicles (including locomotives, construction and farm equipment).¹⁰⁵ The state's regulatory privileges carry weight beyond the state's borders: any state with an approved state implementation plan for a non-attainment area may adopt California motor vehicle standards. The statutory provision makes clear that no state can create a so-called "third car,"¹⁰⁶ thus limiting the country to "California cars" and "federal cars."¹⁰⁷

California can use these broad legislative purposes to argue that greenhouse gas emissions regulations are consistent with the Act's purposes. One ancillary effect of climate change is likely to be increased smog caused by hotter weather.¹⁰⁸ Reductions in greenhouse gas emissions, then, may produce reductions in smog. Furthermore, there is nothing inconsistent with the Act's purposes in having California regulate greenhouse gas emissions. Indeed, California's privileged status under the Act, which allows the state to create its own set of regulated motor vehicles, makes clear that Congress is quite comfortable with the state's separate regulation of motor vehicle emissions and its creation of a separate "California car." This Congressional comfort has been reiterated both times the Act has undergone significant amendments, in 1977 and 1990.¹⁰⁹

Challengers to A.B. 1493 may argue, on the other hand, that the waiver granted to California is really meant to cover only those emissions that contribute directly to air pollution. Greenhouse gas emissions regulations are aimed at a different environmental problem altogether. Given the magnitude of the global warming problem and the controversy surrounding efforts to attack carbon dioxide emissions, opponents will argue that a court should construe the CAA conservatively to disallow any California regulations.¹¹⁰ The sweeping preemption language prohibiting states from regulating emissions bolsters this view.

California has at least one more argument in favor of its regulatory authority to enact greenhouse gas emissions standards. In its committee

¹⁰⁵ *Id.* § 209 (e)(1) (preempting states); *id.* § 209 (e)(2) (waiving California).

¹⁰⁶ *Id.* § 177, 42 U.S.C. § 7507 (2000).

¹⁰⁷ *Id.*

¹⁰⁸ See AIR RESOURCES BOARD FACT SHEET, *supra* note 85, at 2.

¹⁰⁹ Clean Air Act Amendments of 1977, Pub. L. No. 95-95, § 177, 91 Stat. 685, 750 (1977) (codified at 42 U.S.C. § 7507 (2000)) (allowing other states to adopt California standards); Clean Air Act Amendments, Pub. L. No. 101-549, § 222(b), 104 Stat. 2399, 2502 (1990) (allowing California, and no other states, to regulate emissions from non-road vehicles).

¹¹⁰ For an extensive discussion of this point, see Gen. Couns. Mem. on Mandatory Controls, *supra* note 8, at 9-10.

report accompanying the enactment of the 1967 Clean Air Act, the House Committee on Interstate and Foreign Commerce evaluated the waiver provision contained in the Senate version of the bill. The committee report states that the waiver provision allows California to, among other things, establish “standards applicable to *emissions not covered by Federal standards*.”¹¹¹ Legislative history, then, may support California’s position that it can regulate greenhouse gas emissions whether or not such emissions are regulated by the federal government.¹¹²

D. Energy Policy and Conservation Act Preemption

Depending on the content of CARB’s A.B. 1493 regulations, California may also face preemption problems under a separate federal statute, the Energy Policy and Conservation Act (EPCA). The EPCA sets Corporate Average Fuel Economy Standards (known as the CAFE standards, currently 27.5 miles per gallon for passenger cars) and preempts states from issuing any regulations that “relate to fuel economy standards.”¹¹³ EPCA may raise problems for California because the most direct way to regulate greenhouse gas emissions from motor vehicles is to improve fuel economy: the less fuel efficient a car is, the more carbon dioxide it emits.¹¹⁴ Moreover CARB has already faced a successful district court challenge to another one of its regulatory programs — involving zero and very low emissions vehicles (called “LEVs” and “ZEVs”) — under the EPCA.¹¹⁵ As a result, at best, the EPCA, combined with the district court holding in the zero emissions vehicle case, restricts California’s

¹¹¹ H.R. REP. NO. 90-728 (1967), *reprinted in* 1967 U.S.C.C.A.N. 1938, 1958 (emphasis supplied).

¹¹² The question of whether a court should rely on legislative history in interpreting statutes is, of course, a thorny one, subject to vigorous debate among scholars and among current members of the U.S. Supreme Court. Both Justices Breyer and Scalia have written articles setting forth their views. Justice Breyer endorses the use of committee reports as reliable sources of Congressional intent. See Stephen Breyer, *On the Uses of Legislative History in Interpreting Statutes*, 65 S. CAL. L. REV. 845 (1992). Justice Scalia is disdainful of legislative history and favors relying only on the text of a statute. See ANTONIN SCALIA, *A MATTER OF INTERPRETATION: FEDERAL COURTS AND LAW: AN ESSAY* (Amy Gutman ed., 1997). For an informed discussion of the ascendancy of Justice Breyer’s approach in the Supreme Court since the 1995 term, see Charles Tiefer, *The Reconceptualization of Legislative History in the Supreme Court*, 2000 WIS. L. REV. 205 (2000).

¹¹³ 49 U.S.C. § 32919(a) (2000).

¹¹⁴ See U.S. Dept. of Energy, *Greenhouse Gas Emissions*, available at <http://www.fueleconomy.gov/feg/best/GHGemissions.shtml> (noting that “[t]he more fuel your vehicle burns the more greenhouse gases it emits.”) (last visited July 17, 2003).

¹¹⁵ *Central Valley Chrysler-Plymouth v. Witherspoon*, CIV F-02-05017 REC SMS (E.D. Cal 2003).

A.B. 1493 regulatory options. At worst, a court could find that any CARB regulations issued under A.B. 1493 that are designed to improve fuel economy in order to reduce carbon dioxide emissions — even if not directly regulating fuel economy — “relate to fuel economy standards” and therefore are preempted by the EPCA.

Central Valley Chrysler-Plymouth v. Witherspoon, the ZEV case, will play a central role in any challenge to California’s greenhouse gas emissions regulations. For years California has struggled to create a viable very low- or zero-emission vehicle program.¹¹⁶ The aim of the program is to require that a certain percentage of California vehicles emit zero pollutants by a specified date. The program has been amended numerous times since its inception because manufacturers have lacked the technology to meet the regulatory requirements.¹¹⁷ In 2001, CARB adopted a new set of amendments that relaxed previous requirements by providing manufacturers alternative means of compliance.¹¹⁸ One alternative allows manufacturers to count certain cars with very high fuel efficiency toward the ZEV/LEV requirements; another allows certain cars to qualify under a “CO₂ Reduction Method,” under which a vehicle’s carbon dioxide production, calculated as a function of its fuel economy rating, must be significantly lower than that of comparable car models.¹¹⁹

Auto manufacturers sued CARB in federal district court to invalidate the new, more relaxed ZEV regulations on the grounds that the federal EPCA preempts any regulations “related to fuel economy standards.”¹²⁰ In particular, the alternatives allowing particularly fuel efficient vehicles to be counted toward the ZEV/LEV requirements drew fire. The district court held that EPCA preempts the ZEV regulations and enjoined California from implementing them. The *Witherspoon* case recently settled, thereby mooting CARB’s pending appeal to the Ninth Circuit.¹²¹

¹¹⁶ California Air Resources Board Fact Sheet, *Zero Emission Vehicle Program Changes*, (Dec. 10, 2001), available at <http://www.arb.ca.gov/msprog/zevprog/factsheets/zevchanges.pdf> (last visited Aug. 6, 2003).

¹¹⁷ *Id.*

¹¹⁸ See California Air Resources Board, Proposed 2003 Amendments to the California Zero Emission Vehicle Program, available at <http://www.arb.ca.gov/msprog/zevprog/zevlitigation/zevlitigation.pdf> (last visited Sept. 2, 2003).

¹¹⁹ For a clear explanation of this provision of the 2001 ZEV regulations, see Brief for the United States as Amicus Curiae In Support of Affirmance, *Central Valley Chrysler-Plymouth v. Witherspoon*, at 6 (9th Cir. 2003) (No. 99-56880).

¹²⁰ See *id.* at 12.

¹²¹ See *Agreement of Counsel Concerning the 2001 ZEV Litigation*, available at <http://www.arb.ca.gov/msprog/zevprog/zevlitigation/zevlitigation.pdf> (last visited

Notably, the Bush Administration filed an amicus brief in favor of the auto manufacturers on the grounds that the regulations are preempted by federal law.¹²²

Whether California will face an EPCA challenge against A.B. 1493 regulations will depend upon the content of those regulations. The state will likely steer clear of direct references to increased fuel economy, but many of the alternatives it offers manufacturers — some of which CARB has already listed in a staff report on its website — involve tweaking auto technology in order to reduce CO₂ emissions by improving fuel economy, without saying so directly.¹²³ CARB may, for example, mandate that manufacturers adopt existing technology like variable valve timing (already available on certain BMW and Honda models) and hybrid electric drives (already available on the Toyota Prius).¹²⁴ The open legal question is whether such technology “relates to fuel economy” and is therefore preempted by the EPCA.

E. Preemption and the U.S. Supreme Court

Should the case go so far, the A.B. 1493 challengers may find a sympathetic ear in the U.S. Supreme Court. The 1990s and 2000s have seen intense preemption activity in the Court across a wide number of subject areas. Since 1991, the Court has heard at least forty-two preemption cases.¹²⁵ The Court is, of course, known for its pro-states’

Sept. 2, 2003).

¹²² See Brief for the United States, *supra* note 119.

¹²³ CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY, AIR RESOURCES BOARD, ASSESSMENT OF THE IMPACTS OF TRANSPORTED POLLUTANTS ON OZONE CONCENTRATIONS IN CALIFORNIA 11 (APR. 26, 2001).

¹²⁴ *Id.*

¹²⁵ Richard Fallon documented the 35 cases the Court heard between 1991 and 2001; since that time the Court has decided at least 7 more cases. Richard H. Fallon, *The “Conservative” Paths of the Rehnquist Court’s Federalism Decisions*, 69 U. CHI. L. REV. 429, 462-63 (2002). Although Fallon found a strong trend in favor of finding state laws preempted, since the Fallon article’s publication, the Court has more frequently decided preemption cases in favor of the states. During the 2002 and 2003 terms, the Court heard at least seven preemption cases and found in favor of the states in six of those cases. See *Entergy Louisiana v. Louisiana Pub. Serv. Comm’n*, 123 S. Ct. 2050, 2057 (2003) (finding Louisiana Public Service Commission order preempted by Federal Energy Regulatory Commission order issued under Federal Power Act); *Kentucky Ass’n of Health Plans, Inc. v. Miller*, 123 S. Ct. 1471, 1479 (2003) (upholding Kentucky statute prohibiting discrimination against providers willing to meet HMO terms against ERISA preemption challenge); *Sprietsma v. Mercury Marine*, 123 S. Ct. 518, 530 (2002) (upholding state wrongful death claim against Federal Boat Safety Act preemption challenge); *City of Columbus v. Ours Garage & Wrecker Serv.*, 536 U.S. 424, 442 (2002) (upholding city towing ordinance against preemption challenge under federal statute regulating motor carriers); *Rush Prudential*

rights agenda — a reputation earned largely through its decisions on state sovereign immunity,¹²⁶ Congressional power to regulate under the Commerce Clause,¹²⁷ and Congressional efforts to “commandeer” state regulatory officials.¹²⁸ Yet the Rehnquist Court’s position on preemption has been a different story. The Court has frequently sided with parties seeking federal preemption of state statutes and regulations, parties typically advocating what Richard Fallon terms a “substantively conservative” position.¹²⁹ Thus the Court has found that Massachusetts regulations governing cigarette advertising were preempted by federal law;¹³⁰ that a state-law tort claim was preempted as contrary to the purposes of the Motor Vehicle Safety Act;¹³¹ and that federal law preempted a state-law claim against a manufacturer of medical screws who committed fraud against the Food and Drug Administration.¹³²

Not surprisingly, environmental regulation — in which both the states and the federal government play an active role — frequently raises preemption questions. The Supreme Court sometimes, although not often, weighs in.¹³³ It has taken one important CAA case during the

HMO v. Moran, 536 U.S. 355, 403 (2002) (upholding Illinois law requiring individual review of HMO disputes against ERISA preemption challenge); Wisconsin Dep’t of Health & Family Servs. v. Blumer, 534 U.S. 473, 498 (2002) (upholding Wisconsin income rule against Medicare Catastrophic Coverage Act preemption challenge). The Court ruled on preemption grounds against a California statute concerning Holocaust-era insurance policies in an eighth case, *American Ins. Ass’n v. Garamendi*, 123 S. Ct. 2374 (2003). The basis for the *Garamendi* ruling, however, was that the California statute conflicted with the Foreign Affairs clause of the U.S. Constitution. See *supra* note 90 for a discussion of the *Garamendi* case.

¹²⁶ See, e.g., *Alden v. Maine*, 527 U.S. 706, 712 (1999) (invalidating application of Fair Labor Standards Act to private suits in state courts).

¹²⁷ See, e.g., *United States v. Lopez*, 514 U.S. 549, 551 (1995) (invalidating Gun Free zones Act on Commerce Clause grounds).

¹²⁸ See, e.g., *Printz v. United States*, 521 U.S. 898, 935 (1997) (invalidating portions of Brady Act requiring state and local officials to carry out its provisions).

¹²⁹ See Fallon, *supra* note 114, at 471 (explaining pro-preemption decisions as substantively conservative because decisions tend to “eliminate[] state regulatory burdens . . .”).

¹³⁰ *Lorillard Tobacco Co. v. Reilly*, 533 U.S. 525, 551 (2001).

¹³¹ *Geier v. American Honda Motor Co.*, 529 U.S. 861, 886 (2000).

¹³² *Buckman Co. v. Plaintiffs’ Legal Comm.*, 531 U.S. 341, 353 (2001).

¹³³ In one of its most recent environmental preemption cases, *United States v. Locke*, 529 U.S. 89 (2000), the Court struck down Washington state laws regulating oil spill prevention. The significance of the case for future environmental preemption cases is complicated by the fact that 13 foreign governments weighed in against the regulations by filing a diplomatic note and the United States intervened on the grounds that the district court decision upholding the regulations failed to give sufficient weight to “substantial foreign affairs’ interests.” *Id.* at 97-98. For an analysis of the *Locke* decision, see Paul S. Weiland, *Preemption of Environmental Law: Is the U.S. Supreme Court Heading in the Wrong Direction?*,

2003-04 term. *Engine Manufacturers Ass'n v. South Coast Air Quality Management District*¹³⁴ involves the very same CAA preemption provision under which A.B. 1493 regulations will likely be challenged.

F. California, Preemption, and the Clean Air Act

The *Engine Manufacturers* case is one of four important preemption/waiver CAA cases handed down in the past two years by various federal courts. Prior to 2001, California's regulations were rarely challenged on preemption grounds. At a time when the state's air quality is declining after years of extraordinary improvement, these cases threaten to weaken California's ability to bring the state into compliance with national ambient air quality standards. If A.B. 1493 regulations also face a successful preemption challenge, the state's ability to exert environmental leadership will also face serious limitations.

At stake in the pending Supreme Court case are "fleet" rules developed by the South Coast Air Quality Management District (SCAQMD). The SCAQMD is Southern California's air quality agency, responsible for developing and implementing a plan to bring the nation's most polluted air basin into compliance with the Clean Air Act.¹³⁵ While the local air district does not regulate mobile sources directly, the SCAQMD is authorized under state law to develop "fleet" rules for local companies that operate large numbers of motor vehicles (including cab companies, airport transportation, light duty trucks, public transit authorities, etc.)¹³⁶ The rules mandate that local operators purchase certain types and percentages of low-emission or alternative-fueled vehicles when replacing older vehicles.¹³⁷

Engine manufacturers have sued to invalidate the fleet rules on the grounds that they are preempted by CAA section 209(a), the waiver

30 ENVTL. L. REP. 10579 (2000). For additional environmental preemption cases in the Supreme Court in recent years see *Int'l Paper Co. v. Ouellette*, 479 U.S. 481 (1987) (stating that private nuisance actions under laws of state in which water polluter discharges pollution are not preempted by Clean Water Act, but actions under laws of neighboring state affected by pollution are preempted); *California Coastal Comm'n v. Granite Rock*, 480 U.S. 572 (1987) (stating that federal mining laws do not preempt California's permitting system under state's Coastal Act when applied to national forest land on which mine is proposed).

¹³⁴ 158 F. Supp. 2d 1107, 1109 (C.D. Cal. 2001), *cert. granted*, 123 S. Ct. 2274 (2003).

¹³⁵ South Coast Air Quality Management District, *Introducing AQMD*, at <http://www.aqmd.gov/aqmd/intraqmd.html> (last visited Aug. 6, 2003).

¹³⁶ CAL. HEALTH & SAFETY CODE § 40447.5 (West 2003).

¹³⁷ For more background about the fleet rules, see *Engine Mfrs. Ass'n*, 158 F. Supp. 2d at 1113-16.

section that preempts states "or any political subdivision thereof" from adopting new motor vehicles standards relating to emissions controls. The preemption provision also prohibits states from requiring any certification or approval that engines meet emissions controls prior to the sale of new motor vehicles.¹³⁸ The lower courts have held that the SCAQMD is simply telling fleet operators what types of vehicles they can purchase or lease, not what types of automobiles a manufacturer can sell to the general public. Additionally, the lower courts have held that the fleet rules establish no new standards. Instead, fleet operators can choose to purchase or lease vehicles from an already approved group of vehicles certified by the state of California under its independent authority under the CAA to regulate mobile source emissions.¹³⁹ The Bush Administration has filed an amicus brief in support of the engine manufacturers and in favor of preemption, as it did in the challenge to CARB's ZEV and LEV regulations.

The second case challenging California's special CAA status is *Central Valley Chrysler-Plymouth v. Witherspoon*, in which the lower court enjoined California's ZEV and LEV regulations.¹⁴⁰ The case is now moot because the state and the plaintiffs have entered into a settlement agreement.¹⁴¹ The lower court ruling will, however, undoubtedly bolster any challenge to greenhouse gas emissions regulations.

In a third CAA preemption case, California banned the gasoline additive MTBE, effective December 31, 2003, because of problems with groundwater contamination.¹⁴² Industry groups contended that the state's ban on MTBE is preempted by Section 211 of the CAA, which prohibits states from imposing fuel additives for the purpose of motor vehicle emission control.¹⁴³ California argued that it is exempt from the fuel additive preemption section and that it could ban MTBE. The Ninth Circuit held that the CAA does not explicitly or implicitly ban states from outlawing MTBE in order to prevent groundwater contamination; the Act only prohibits states from regulating fuel additives "for the purposes of motor vehicle emission control."¹⁴⁴

¹³⁸ *Id.* at 1117.

¹³⁹ *Id.* at 1117-18; for a discussion of California's independent authority to regulate mobile source emissions see *supra* text accompanying notes 7-8.

¹⁴⁰ See *supra* notes 115-22 and accompanying text.

¹⁴¹ See discussion *supra* notes 121-22.

¹⁴² See *Oxygenated Fuels Ass'n v. Davis*, 331 F.3d 665, 666-67 (9th Cir. 2003). The gasoline preemption provision is codified at 42 U.S.C. § 7545(c)(4)(A) (2000).

¹⁴³ *Oxygenated Fuels Ass'n*, 331 F.3d, at 666-67.

¹⁴⁴ *Id.* The Ninth Circuit decision is only one of several challenging state bans on

The fourth CAA case, while not a preemption case, is important for two reasons. In *Davis v. Environmental Protection Agency*, California challenged the EPA's denial of the state's ban on MTBE and prevailed.¹⁴⁵ The case is important both because it involves California's special status to regulate under the CAA, and also because it marks a rare denial by the EPA of a California waiver request under the Act. The EPA denial appears to be part of a larger picture in which the Bush Administration is taking a tough, pro-federal government line on environmental issues. In addition to the amicus briefs filed in the *Engine Manufacturers* and *Kenny* cases, the Administration has taken strong, pro-preemption positions in at least two other pending environmental cases.¹⁴⁶ From an administration publicly committed to states' rights, the federal government's position on these preemption cases seems parallel to the Rehnquist Court preemption record, where in preemption cases the substantively conservative positions often trump principles of federalism.

How the Supreme Court and federal government positions on preemption will affect A.B. 1493 is, of course, an open question. Until CARB actually issues A.B. 1493 regulations, it is difficult to know how strong the preemption arguments are likely to be. Additionally, preemption cases are peculiarly fact specific because the central question involved is typically whether Congress intended, either explicitly or implicitly, to preempt the specific state provision at issue.¹⁴⁷ California appears to have the stronger doctrinal arguments against preemption, but the trend in the Supreme Court and within the Bush Administration may well tip the balance to the challengers.

MTBE. See, e.g., *Oxygenated Fuels v. Pataki*, 158 F. Supp. 2d 248 (N.D.N.Y. 2001); *In re MTBE Prod. Liab. Litig.*, 175 F. Supp. 2d 593 (S.D.N.Y. 2001).

¹⁴⁵ 336 F.3d 965 (9th Cir. 2003).

¹⁴⁶ See United States of America, Memorandum of Points and Authorities in Support of Motion to Intervene in *Cemex, Inc. v. County of Los Angeles* (C.D., Cal. CV-02-00747) at 7, 16 (arguing that Los Angeles County's denial of sand and gravel mine permit is preempted by Federal Land Policy and Management Act and Materials Act of 1947) (on file with author); Amicus Brief of United States in *Oil-Dri v. Washoe Co.* (D. Nev., CV-N-020186) (on file with author). The U.S. position in both mining cases appears to be quite aggressive and counter to U.S. Supreme Court precedent establishing state and local government authority over federal lands. See *California Coastal Comm'n v. Granite Rock*, 480 U.S. 572, 583 (1987); Defendant Intervenors' Response to United States' Amicus Brief in *Oil-Dri v. Washoe Co.*, at 1 (D. Nev., CV-N-020186) (on file with author).

¹⁴⁷ See *City of Burbank v. Lockheed Air Terminal*, 411 U.S. 624, 638 (1973) ("[E]ach case turns on the peculiarities and special features of the federal regulatory scheme in question.").

G. Should California Regulate On Its Own?

Assuming that California can overcome what may be serious legal challenges to A.B. 1493 and its implementing regulations, as a normative matter, does it make sense for the state to regulate greenhouse gas emissions on its own? Although federal environmental regulation is often held up as a paragon of progressive regulation — bolstered by the timing of the passage of many significant environmental statutes, including the CAA and the Clean Water Act, around the time of the first Earth Day in 1970¹⁴⁸ — several scholars have noted that environmental issues often become “federalized” in part at the behest of industry.¹⁴⁹ Industry representatives want national standards not only when they fear they will face multiple standards from the fifty states, but also, scholars contend, when they fear more progressive state legislation.¹⁵⁰ Indeed, despite one of the standard rationales for federal legislation — that states “race to the bottom” by allowing lax environmental standards in order to compete for industry¹⁵¹ — Richard Revesz makes a strong case that certain states often take the lead in regulating more stringently than the federal government.¹⁵²

¹⁴⁸ See ZYGMUNT J.B. PLATER ET AL., ENVIRONMENTAL LAW AND POLICY: NATURE, LAW, AND SOCIETY 316, n.22 (West Group, 2d ed. 1998). The following statutes were enacted between 1968 and 1974: “The Wild and Scenic Rivers Act (1968); the National Environmental Policy Act and Noise Pollution and Abatement Act (1969); the Clean Air Act, the Occupational Safety and Health Act and the Environmental Protection Agency Act (1970); the Fish and Wildlife Coordination Act, Noise Control Act, and Lead-Based Paint Poisoning Prevention Act (1971); Clean Water Act, Consumer Product Safety Act, Marine Mammal Protection Act, Noise Control Act, Coastal Zone Management Act, and Marine Protection, Research and Sanctuaries Act (1972); the Endangered Species Act and Oil Pollution Act (1973); Archeological and Historic Preservation Act, Environmental Education Act, Safe Drinking Water Act (1974); and at least a dozen more.”

¹⁴⁹ The classic work making this point is E. Donald Elliott et al., *Toward a Theory of Statutory Evolution: The Federalization of Environmental Law*, 1 J.L. ECON. & ORG. 313, 327 (1985); see also Richard L. Revesz, *Federalism and Environmental Regulation: A Public Choice Analysis*, 115 HARV. L. REV. 553, 585-86 (2001).

¹⁵⁰ Auto manufacturers led the charge to preempt state motor vehicle emissions standards in 1967 when the CAA preemption provision was adopted. Manufacturers threw their weight behind a House version of the bill, sponsored by Michigan representative John Dingell, that would have preempted California along with the remaining 49 states from establishing independent auto standards. The so-called Dingell amendment led to an outpouring of concern from California citizens, who inundated Congress with letters and phone calls in opposition to the Dingell amendment. The state had bipartisan congressional support for maintaining its independence and leadership on automobile emissions. For an excellent account of the battle, see JAMES KRIER & EDMUND URSIN, POLLUTION AND POLICY 181-82 (1977).

¹⁵¹ See Revesz, *supra* note 149, at 556.

¹⁵² See Revesz, *supra* note 149, at 574-76.

The fear that a lack of federal preemption will lead to multiple emissions standards among the fifty states is not, of course, possible with respect to greenhouse gas emissions. The CAA preempts forty-nine states from developing their own standards; only California has any possibility of developing standards different from the federal government. And the CAA has already bestowed upon the country a two-car standard with respect to emissions controls. A.B. 1493 has the advantage of simply piggybacking on a system that is well established. By exempting the state from preemption, the CAA has also bolstered California's longstanding leadership in regulating mobile source emissions; the state is probably unique in the country in the amount of expertise and sophistication it has developed in the regulation of auto emissions. The global warming problem is fraught with uncertainty concerning the degree of its severity and the amount of economic sacrifice needed today to stave off future disaster.¹⁵³ Policy experimentation by one of fifty states in the absence of federal regulation seems an ideal way to experiment with new technology. California has long led the country in developing technology-forcing regulations to reduce air pollution (witness the development of the catalytic converter and the hybrid engine). The state is well positioned to play a similar role in technology-forcing regulation designed to reduce greenhouse gas emissions, particularly given inaction at the federal level.

III. LESSONS FOR OTHER AREAS OF ENVIRONMENTAL LAW

There is another substantive reason why California's unique status under the Clean Air Act deserves legal protection from preemption and waiver challenges. A.B. 1493 and its relationship to the CAA highlight a unique regulatory relationship, one that is often overlooked in vigorous debates about the proper allocation of responsibility between the federal government and the fifty states in regulating environmental problems.

Federalism is a hot topic these days, in no small measure because of the centrality of the topic to the Rehnquist Supreme Court. One standard critique of the Rehnquist federalism revival is that it rests on a notion of "dual federalism," in which the states and the federal government operate in separate and distinct spheres.¹⁵⁴ The notion is an

¹⁵³ See Robert L. Lempert et al., *The Impacts of Climate Variability on Near-Term Policy Choices and the Value of Information*, 45 CLIMATIC CHANGE 129 (2000) (developing analytic framework for decision making under conditions of extreme uncertainty and arguing in favor of policies to develop new technologies).

¹⁵⁴ See, e.g., Hills, *supra* note 13, at 815; Weiser, *supra* note 13, at 665.

outdated one, critics contend, because for decades Congress has relied on "cooperative federalism," a term more than fifty years old that describes commonplace federal approaches to national legislation — including environmental legislation — under which the federal government delegates to the states the responsibility for implementing federal laws.¹⁵⁵

Federalism is also an important topic within environmental legal scholarship. Since the publication of Richard Revesz's article arguing that the race to the bottom justification for federal regulation of environmental problems is theoretically unsupported, scholars have vigorously debated the proper role of state and federal governments in environmental regulation.¹⁵⁶ The debate is a complex one, but its main focus is on whether there are theoretical and empirical reasons to believe that states will systematically produce lower than socially optimal levels of environmental regulation. Revesz took on this debate because federal environmental regulation has often been justified on the grounds that states will compete for business by failing to regulate environmental harms sufficiently rigorously.¹⁵⁷ His contention is that the leading economic model of interjurisdictional competition shows not that states race to the bottom but that such competition leads to a maximization of social welfare.¹⁵⁸ His critics contend, among other things, that more traditional economic models suggest the opposite and that empirical evidence shows that some states do, in fact, relax environmental standards in order to compete for new business.¹⁵⁹ Revesz has responded in part by providing his own empirical evidence that some states frequently produce more stringent environmental regulation than the federal government.¹⁶⁰

My aim here is not to side with proponents of one point of view or another. Instead, I want to shift the debate away from its "dual federalism" focus, in which the different sides view environmental regulation as an either/or proposition about which level of government will most effectively regulate. Indeed, even within environmental

¹⁵⁵ Cooperative federalism was the topic of a 1938 law review symposium. See *Symposium on Cooperative Federalism*, 23 IOWA L. REV. 455 (1938). The term remains common today. See, e.g., Michael S. Greve, *Against Cooperative Federalism*, 70 MISS. L.J. 554, 554 (2000); Hills, *supra* note 11, at 815; Philip J. Weiser, *Federal Common Law, Cooperative Federalism, and the Enforcement of the Telecom Act*, 76 N.Y.U. L. REV. 1692, 1695-99 (2001).

¹⁵⁶ See Revesz, *supra* note 15.

¹⁵⁷ See Revesz, *supra* note 15, at 1210.

¹⁵⁸ See *id.*; Richard L. Revesz, *The Race to the Bottom and Federal Environmental Regulation: A Response to Critics*, 82 MINN. L. REV. 535, 538 (1997).

¹⁵⁹ See Engel & Saleska, *supra* note 15, at 271.

¹⁶⁰ See Revesz, *supra* note 149, at 574-76 (chronicling state environmental programs).

scholarship that focuses not on state vs. federal regulation, but instead on cooperative federalism regimes within federal environmental statutes, the term is used to describe only the standard federal environmental statutory scheme, under which the federal government sets minimum uniform national standards and delegates to the states the authority to implement programs to achieve and enforce the standards.¹⁶¹

California's authority to regulate mobile source emissions under the CAA represents a third way of thinking about state-federal environmental regulation, what I call "modified federalism." Under modified federalism schemes, Congress deviates from traditional notions of cooperative federalism in creative ways. In the case of California, for example, Congress attempted to take advantage of the particular comparative advantages that the state has in managing an environmental problem, while maintaining a strong national role.¹⁶² In

¹⁶¹ See, e.g., John P. Dwyer, *The Practice of Federalism Under the Clean Air Act*, 54 MD. L. REV. 1183, 1193-1199 (1995) (describing cooperative federalism under Clean Air Act); John P. Dwyer, *The Role of State Law in an Era of Federal Preemption: Lessons from Environmental Regulation*, 60 LAW & CONTEMP. PROBS. 203, 216 (1997) (describing examples of cooperative federalism in environmental context). For examples of federal statutes containing standard cooperative federalism schemes, see Clean Air Act, § 109, setting national primary and secondary ambient air quality standards and § 110, establishing a process for states to implement national standards (codified as 42 U.S.C. §§ 7409, 7410 (2000)); and Clean Water Act, 33 U.S.C. § 1342 (2000), establishing the National Pollutant Discharge Elimination System and providing for state implementation of the program.

¹⁶² Other examples that deserve additional scholarly attention include the Coastal Zone Management Act, which, in addition to establishing a system of cooperative federalism, gives coastal states explicit authority to review federal agency actions to ensure consistency with state coastal plans, and the market-based assessment program established by the Ozone Transport Commission (OTC). See Coastal Zone Management Act, 16 U.S.C. §§ 1453, 1454 (2000) (establishing state standards and administration); 16 U.S.C. § 1456(c)(1)(A) (2000); 15 C.F.R. §§ 930.36 (2003) (providing for state consistency review of federal agency actions) (2003). Congress authorized the establishment of the OTC in the 1990 Amendments to the Clean Air Act. 42 U.S.C. § 7511c (2000) (CAA § 184). The OTC developed a market-based emissions trading program with nine participating states and the District of Columbia in order to reduce nitrogen oxides, a principle component of ozone. The OTC and the EPA recently issued a report showing a significant reduction in ozone levels in each of the participating states. See Press Advisory, E.P.A. Report Verified Deep Reductions in Emissions of Nitrogen Oxide Due to Northeastern Program, available at 2003 WL 21480737. Congress has engaged in interesting environmental regulation to tackle other regional environmental problems as well. The Tahoe Regional Planning Compact, for example, was established by Congress and sets up an interstate agency between California and Nevada to regulate development in the Tahoe basin. Congress has amended the compact to require the enactment of a plan to limit development in order to protect various important environmental amenities, but the parameters of the plan are left to the agency's discretion. See Tahoe Regional Planning Compact, Pub. L. No. 96-551, Arts. I(b), V(6), V(g), 94 Stat. 3232, 3239-3241. The legislative scheme to require states to respond to the disposal of low level radioactive waste, struck down by the U.S. Supreme Court in *New York v. United States*, 505 U.S. 144 (1992), is yet another interesting, though

the case of mobile source emissions, uniform regulation seems obviously desirable. The prospect of fifty separate standards for automobiles is untenable. But California has unique air pollution problems and an economy large enough to support separate standards. Congress quite creatively attempted to capitalize on California's comparative advantages by privileging its status under the Act. The result is that California can experiment and lead the way in forcing clean air technology while otherwise ensuring uniform national standards.

The California exemption example raises interesting theoretical and empirical questions that discussions of the race to the bottom theory and comparative federalism overlook. For example, does the state's special status spur greater and more creative environmental experimentation than would exist either if states and/or the federal government were left to go it alone? Does the state behave differently than if it were just one of fifty states responsible for implementing the CAA but free to regulate more aggressively than minimum federal standards? Can Congress extend the California example to other areas of federal policy?

There are at least some reasons to believe that singling California out for special treatment may produce more environmental innovation than might otherwise occur. Privileging one state over the other forty-nine may have the advantage of concentrating regulatory innovation in only one state and the federal government as opposed to fifty. For over a century economists have developed theoretical and empirical evidence that the concentration of firms in one location produces "economies of scale external to the firm" known as agglomeration economies.¹⁶³ Geographic proximity, in other words, produces benefits that would not exist if firms were scattered geographically. AnnaLee Saxenian has developed a powerful account, for example, of how and why Silicon Valley emerged and why innovation exploded.¹⁶⁴ Her account is based in part on the tremendous transfer of knowledge from one firm to another from frequent job changes, and professional and personal relationships among technology entrepreneurs, all facilitated by geographic proximity.¹⁶⁵

unconstitutional, example.

¹⁶³ Gilson, *supra* note 18, at 580. Gilson's work on the locational advantages of Silicon Valley is based in part on work done in 1890 by Alfred Marshall. See *id.*, (citing ALFRED MARSHALL, PRINCIPLES OF ECONOMICS 222-30 (8th ed., 16th prtg. 1964) (1890)).

¹⁶⁴ ANNA LEE SAXENIAN, REGIONAL ADVANTAGE: CULTURE AND COMPETITION IN SILICON VALLEY AND ROUTE 128 (1994).

¹⁶⁵ *Id.* at 34. Ronald Gilson argues that California's refusal to enforce covenants not to compete has greatly added to the exchange of knowledge through job turnover in Silicon Valley. See Gilson, *supra* note 18, at 607-09.

One can imagine that a similar geographic nexus could and may have already occurred by concentrating regulatory authority to regulate mobile source emissions more aggressively in California alone. Geographic concentration is not, of course, a forgone conclusion in regulating national products such as automobiles, nor does a business involved in automotive emissions technology need to locate in the state doing the regulating. But in Southern California alone, there are seventy-five advanced automobile technology centers that focus on improving automobile efficiency and design.¹⁶⁶ Some of this concentration may have happened because of the state's well known love affair with automobiles. But some of it may well be due to California's regulatory leadership in forcing the development of clean vehicles through its privileged CAA status — the state may become something of a magnet for the clean-vehicle community. In addition to the seventy-five southern California automotive technology companies, California is also home to a number of companies devoted to the development of a hydrogen-powered vehicle.¹⁶⁷ If the geographic concentration of fuel efficiency technology produces the sorts of external benefits that occurred in Silicon Valley, California's regulatory activity may be accelerating technological innovation even beyond what would occur if California adopted the same regulations but other states could regulate as well. In other words if the seventy-five companies were scattered across the country, there would be no external benefits as the result of geographic concentration.

Geographic concentration of mobile source technology development may be aided by the fact that California finances a significant amount of research by private contractors, including universities and research labs.¹⁶⁸ By bestowing leadership responsibilities on California alone, Congress may facilitate the centralization and coordination of research on mobile sources in one state in contrast to the more scattershot approach that would likely occur if numerous jurisdictions could regulate. This research can, in turn, be used by mobile source technology firms, and again, knowledge transfer may be facilitated by geographic

¹⁶⁶ See Allan C. Lloyd, Chairman, Air Resources Board, "Economic Benefits of ZEV Program," Slide 2 (June 13, 2002) (Power Point presentation to World Hydrogen Energy Conference) (on file with author).

¹⁶⁷ *Id.*

¹⁶⁸ For a list of research projects CARB has solicited over the past two decades, see <http://www.arb.ca.gov/research/apr/past/mobile.htm#Zero%20Emission%20Vehicle> s. Topics include diesel emissions, emission monitoring, zero emissions vehicles, and off-road vehicles. *Id.*

proximity through professional and personal relationships, and job turnover.

An ancillary effect of geographic concentration may also lead to more ambitious environmental regulation. If innovative automotive firms spring up in California in order to respond to regulatory mandates requiring, for example, tougher emissions standards, those firms become a political constituency for ongoing environmental regulation. Richard Revesz has noted similar effects by hazardous waste clean-up firms, which developed in response to federal superfund legislation, and by the ethanol and high-sulfur coal industries.¹⁶⁹ These firms may help counter the influence of opponents of strong regulation, such as auto manufacturers.

Concentrating regulatory power in California may also spur the creation of bureaucratic expertise and innovation. California's air quality agencies have over time developed impressive staffing capabilities with expertise and a commitment to environmental leadership. This skill and commitment can in turn be used to design regulatory schemes to push industry to meet tougher standards.¹⁷⁰ Though the agency staff and expertise might develop absent the special exemption status, the special Congressional mandate ensures that California will play such a role.

Furthermore, environmental interest groups can use California's special status as a mechanism to provoke the state legislature and the CARB to take strong leadership on air quality issues. A.B. 1493 provides a nice illustration. If California were only one of fifty states to possess the power to regulate greenhouse gas emissions, the state might decide to regulate greenhouse gas emissions without the special status. But the argument in favor of greenhouse gas emissions regulation becomes much stronger when the state is the *only* state to possess such authority — if California does not act, no one else will (particularly in the face of federal inaction). A.B. 1493 passed the state Assembly and Senate with only a very thin margin and with fierce opposition from auto manufacturers.¹⁷¹ One can imagine that without the pressing sense that only California could act, the bill might have failed.

¹⁶⁹ See Revesz, *supra* note 149, at 574-76.

¹⁷⁰ See Dwyer, *supra* note 161, at 1224 (noting "[F]ederal funding and federal environmental legislation have promoted the development and growth of state environmental bureaucracies and expertise. As they grow in size and sophistication, the state agencies in turn become centers of environmental policy-making, which set their own goals and priorities.").

¹⁷¹ See Note, *supra* note 86 at 706 (detailing vote margins, opposition to A.B. 1493).

California's special status may also be a particularly compelling example of what Michael Dorf and Charles Sabel call "democratic experimentalism."¹⁷² Dorf and Sabel suggest that government institutions that draw on successful private firm organizational innovations, including the establishment of benchmarking and the open and free exchange of information, can produce the same sorts of successes private firms have achieved in moving away from cumbersome vertically integrated hierarchies.¹⁷³ Dorf and Sabel are particularly sanguine about federal efforts that establish broad standards (e.g., "emissions standards at least as protective of public health as federal standards"), but leave to states the authority to implement and enforce those standards. The CAA is a prime example.¹⁷⁴ Among other reasons for their optimism are that states can take advantage of local conditions by relying on local knowledge and individual circumstances, while exporting their knowledge-base regionally or nationally to others facing similar problems.¹⁷⁵ The CAA by definition incorporates such regional and national information-sharing by explicitly authorizing other states to opt into California's regulatory regime at their choosing.

California's special exemption status also illustrates the ways in which federal regulatory power can be utilized to build on the comparative strengths of different levels of government. Traditional arguments in favor of centralized federal regulation include: that the federal government can provide economies of scale in developing and administering regulations; that industry benefits from a uniform set of standards rather than fifty separate ones; that states race to the bottom in setting environmental standards; and that federal regulation can reduce or eliminate the problem of interstate externalities.¹⁷⁶ Arguments in favor of decentralization include: the fact that residents of different states have different preferences for environmental benefits; that environmental benefits vary across regions; and that the costs of producing those benefits vary across regions.¹⁷⁷ Proponents of decentralization argue that state regulation is better able to satisfy local preferences and to assess the various costs and benefits associated with environmental regulation.

¹⁷² Michael C. Dorf & Charles F. Sabel, *A Constitution of Democratic Experimentalism*, 98 COLUM. L. REV. 267 (1998).

¹⁷³ See *id.* at 292-305.

¹⁷⁴ *Id.* at 433.

¹⁷⁵ *Id.* at 267-68.

¹⁷⁶ See Dwyer, *supra* note 161, at 222-23; Daniel Farber, *Environmental Federalism in a Global Economy*, 83 VA. L. REV. 1283, 1301-05 (1997); Revesz, *supra* note 158, at 537-38.

¹⁷⁷ Revesz, *supra* note 158, at 536-38.

They also argue that little evidence, theoretical or empirical, exists in favor of the race to the bottom rationale for federal regulation.¹⁷⁸

California's special exemption status takes advantage of the strengths and weaknesses of each side in the debate between proponents and opponents of decentralization. The uniform federal standard satisfies industry concerns about competing state standards and at least sets a floor for those states that may try to engage in the race to the bottom. Such uniform regulation also allows for the centralization of some expertise and scientific know-how to be shared among the separate state jurisdictions. By privileging California, the CAA also allows the state to regulate on an issue of particular local concern in a way that can take advantage of voter preferences for stronger environmental regulation.

One further lesson might be drawn from the California experience in regulating mobile sources. The debates about federalism tend to view each of the fifty states as identical — either all fifty states are regulating on their own, or they are enlisted as a group to assist the federal government in implementing federal law. Yet the fifty states obviously differ in significant respects. Only a few possess the economic size, population, and regulatory sophistication of California, and only a few, therefore, have the capacity to participate in modified federalism. Recognizing the differences among states, rather than treating them as a monolith, may advance our understanding of, and thinking about, the role of federalism in environmental regulation.

CONCLUSION

California's ability to exercise creative and independent leadership under the Clean Air Act in regulating mobile source emissions — both those that cause traditional air pollution and those that many believe contribute to global warming — is facing serious stress. The state faces four separate preemption/waiver lawsuits challenging its ability to regulate. In addition, any regulations the state issues under A.B. 1493 will surely face similar attacks. The Bush Administration, while publicly committed to states' rights, will play a key role in determining whether California can regulate greenhouse gas emissions if it remains in office when the regulations are issued. All indications are that California will not find a friend at the EPA. Yet the special arrangement under which California regulates under the CAA very likely produces environmental

¹⁷⁸ Revesz, *supra* note 15. Revesz's response to his critics is contained in Revesz, *supra* note 158, and in Revesz, *supra* note 149.

benefits that may never occur absent the state's unique statutory status. The arrangement also demonstrates that contemporary debates about federalism may be too narrow and dualistic. Thinking about different regulatory arrangements that recognize the unique attributes of particular states may open up possibilities we have not previously imagined.

