



California Energy Policy & The Inland Empire

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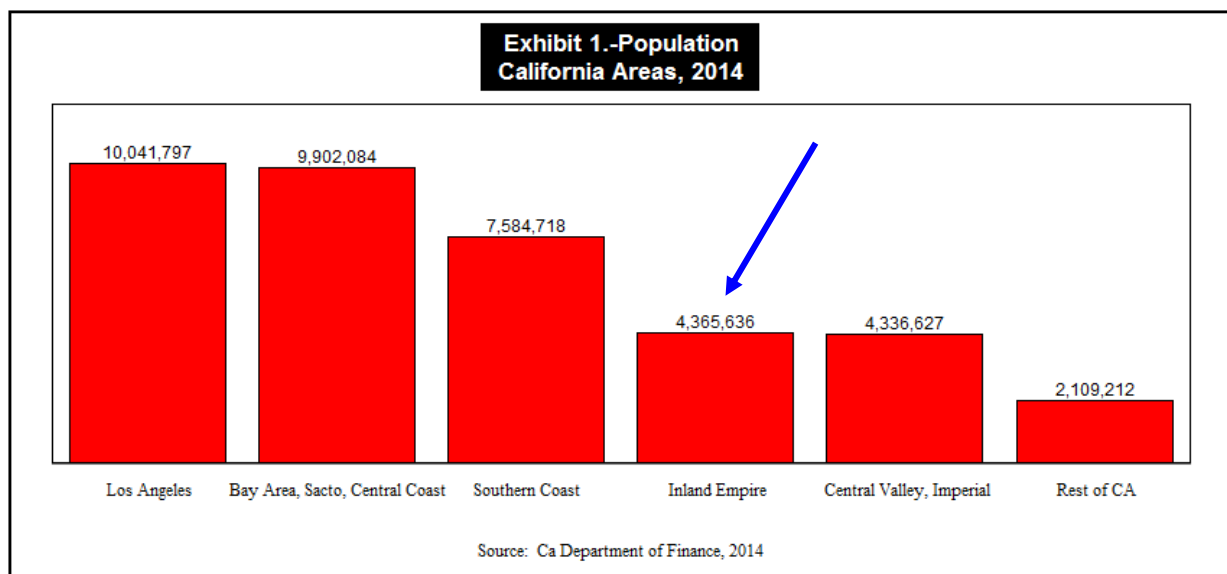
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It has become increasingly clear that economically, California is becoming increasingly divided between its prosperous coastal counties and its struggling inland counties. That split has made it important for the state's leaders to recognize that policies that appear to make sense to those representing the state's successful areas may be generating unintended negative consequences to the parts of the state outside of their frame of reference. Certainly, one of the regions experiencing difficulties is the Inland Empire of Riverside and San Bernardino counties.

Energy policy is one of the subjects where this conundrum arises. California has chosen to propagate a variety of measures aimed at making the state a leader in moving from carbon based to alternative fuels. Some are being undertaken as the next iteration in reducing air pollution. Others are for the purpose of reducing global warming. Much of the force behind these policies has come from the state's wealthier coastal counties. The unasked question is what the growing results of these policies have been for families of inland areas like the Inland Empire.

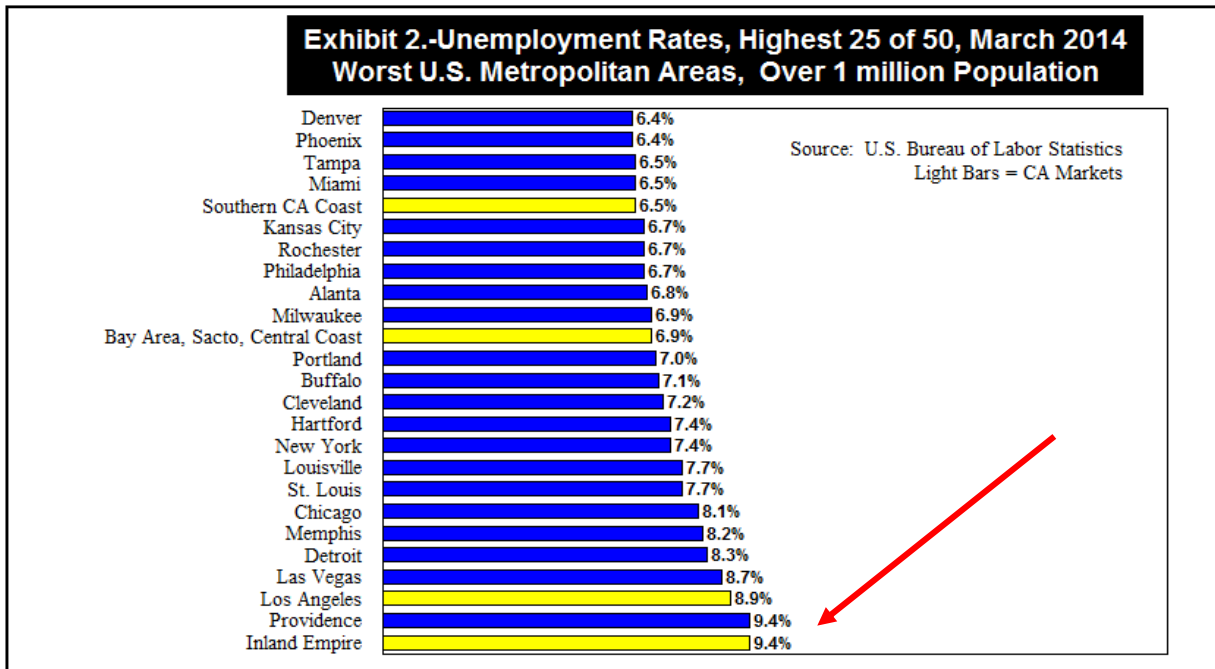
Inland Empire's Demographic & Economic Condition

To address this issue, it is first necessary to contrast the economic condition of the Inland Empire with the more prosperous areas of California that have dominated much of the policy thinking for the state. In 2013, the 4.37 million people living in the area made it the fourth largest market in the state. It also meant that it was larger than 24 U.S. states starting with Oregon (3.93 million) (*Exhibit 1*).

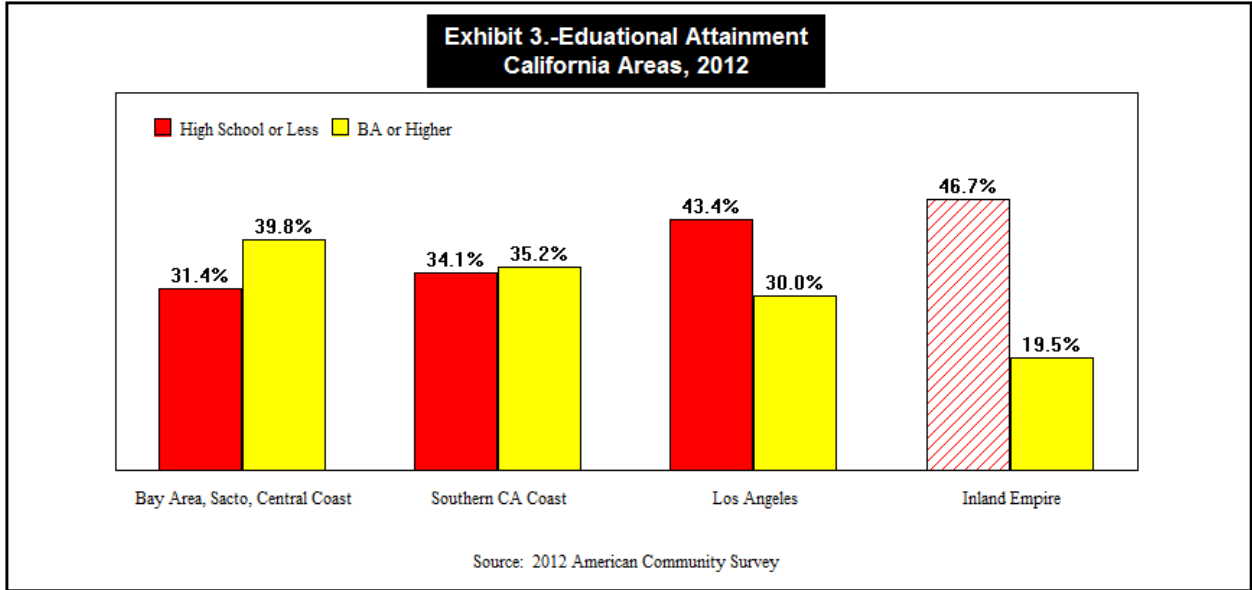


In March 2014, the differences in the economic success of California's various areas became readily apparent. The southern coastal counties (*Orange, San Diego, Santa Barbara, Ventura*) had an unemployment rate of just 6.5%. This was closely followed by the combined area of the

central coast (*Monterey, San Luis Obispo, Santa Cruz*), Bay Area and Sacramento at 6.9%. Los Angeles County is both a coastal and an inland county. Its unemployment rate was 8.7%. The Inland Empire was at 9.4%. Importantly, the Inland Empire’s unemployment rate was the highest in the U.S. for a metropolitan area of 1,000,000 or more people, tied with Providence, Rhode Island (*Exhibit 2*).

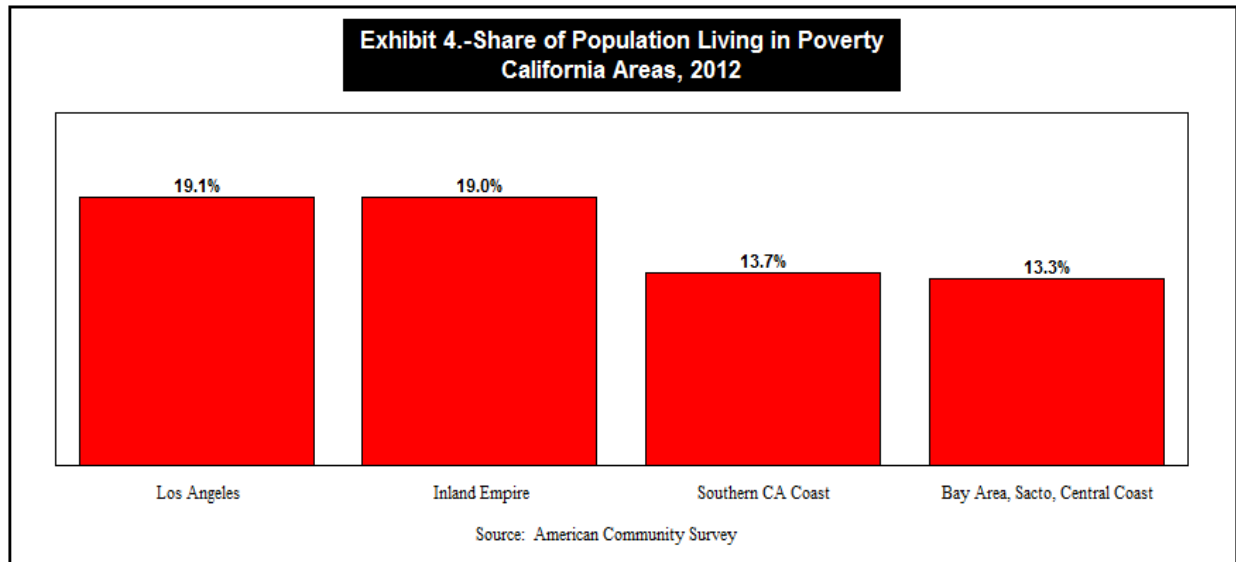


A key factor separating the Inland Empire from the coastal counties is the educational attainment level of those 25 and over. In 2013, 46.7% of the area’s adults had stopped their educations with high school or less schooling. That contrasted with 31.4% in the influential Bay Area, Sacramento and Central Coast area or the Southern California coastal counties (35.2%). It was also above Los Angeles County (43.4%). In the modern economy, this level of education almost guarantees economic problems for the associated families (*Exhibit 3*)



On the other hand, it is well established that areas with large numbers of college educated adults will prosper. Here, the Inland Empire share is just 19.5%. That contrasts with 30.0% in Los Angeles County, 35.2% in the Southern California coastal counties and 39.8% in the Bay Area, Sacramento and central coastal area. It is these well-educated communities that play a disproportionate role in setting California's policies.

Somewhat related to these educational differences are the shares of the population living below the poverty level in 2012. For the inland area, it was 19.0% essentially tied with Los Angeles County (19.1%). This contrasted with just 13.7% in the southern coastal counties and 13.3% in the highly influential Bay Area, Sacramento and central coastal area (*Exhibit 4*). Again, a sharp distinction with the most well educated and successful counties in California.

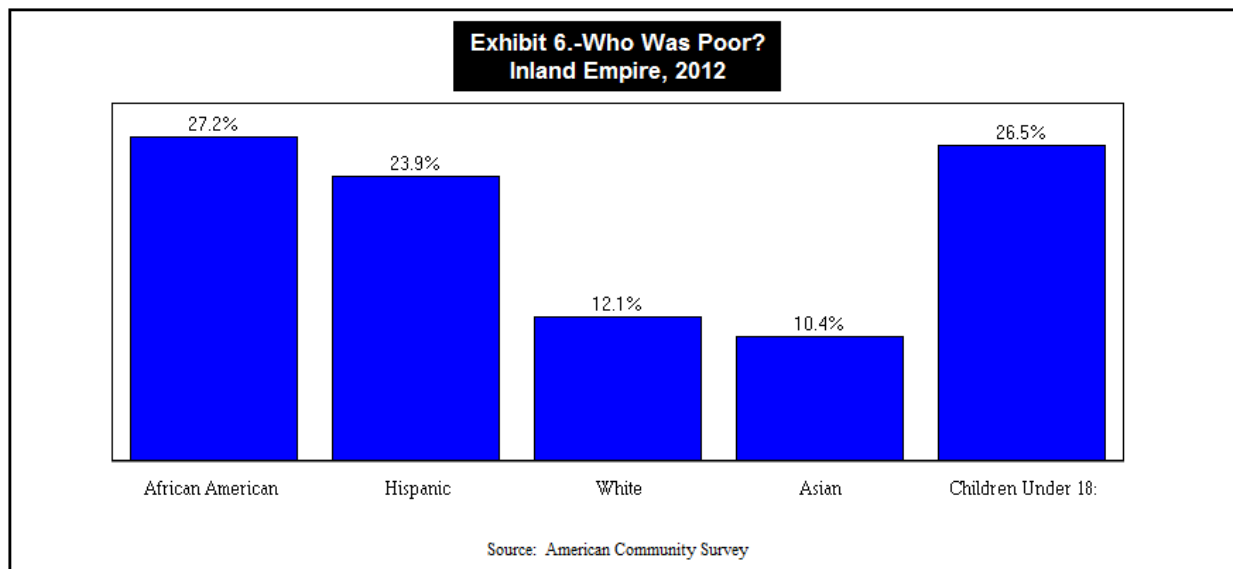


In the Inland Empire, the level of poverty is of great concern given that the number of people involved has soared by just over half a million people between 1990 and 2012. That was a 164.4% increase during a period when the population grew just 65.9%. As a result, the share living in poverty has exploded from 11.8% in 1990 to a 19.0% figure in 2012 (*Exhibit 5*).

Exhibit 5.-Share & Number of Inland Residents Below Poverty Level			
Inland Empire, 2012			
Census Year	People In Poverty	Share of Population in Poverty	Population
1990	306,417	11.8%	2,588,793
2000	477,496	14.7%	3,255,526
2012	809,234	19.0%	4,293,892
Change	502,817	7.2%	1,705,099
Percentage	164.4%		65.9%

Source: U.S. Census Bureau Reports

Of equal importance is the fact that in 2012, the Inland Empire’s poverty level was particularly extreme among African Americans (27.2%), Hispanics (23.9%) and children 18 and under (26.5%). This raises significant social justice considerations when thinking about economic policies and the situation affecting this inland area (*Exhibit 6*).



Put together, these data indicate that the Inland Empire is a place with unusually high unemployment, with a very high percentage of adults having marginal educations and a significant share of people, families and children living in poverty. These conditions have fallen particularly hard on the region’s African-American and Hispanic populations. This same situation is found in virtually all of California’s counties along its interior spine from San Joaquin in the north to Imperial in the south. The conditions in these areas require a serious look at the unintended consequences of California’s environmental and regulatory policies.

Environmental Policy & Blue Collar Job Creation

In California, the major rationale underpinning most energy and regulatory policies deals with the issue of public health. It is therefore important to understand the major determinants that drive the public’s well-being. Here, research by the University of Wisconsin School of Public Health, sponsored by the Robert Wood Johnson Foundation, is important as it is annually used to establish the public health rankings of each county to others in its state.

Significantly, these researchers indicate that 90% of public health issues are related to poverty. They rank socio-economic problems as directly causing 40% of such difficulties. Risky behaviors like smoking, drug use or gang activity are responsible for 30%. They tend to be more likely in poor communities. Lack of access to medical care due to poverty causes another 20%. On these criteria, the data described above show that California’s policies have largely failed inland areas like the Inland Empire (*Exhibit 7*).

Exhibit 7.-Cause of Public Health Issues	
Cause of Public Health Issues	Share
Socio-Economics	40%
Population’s Health Behaviors	30%
Access to Medical Care	20%
Environmental	10%
Total	100%

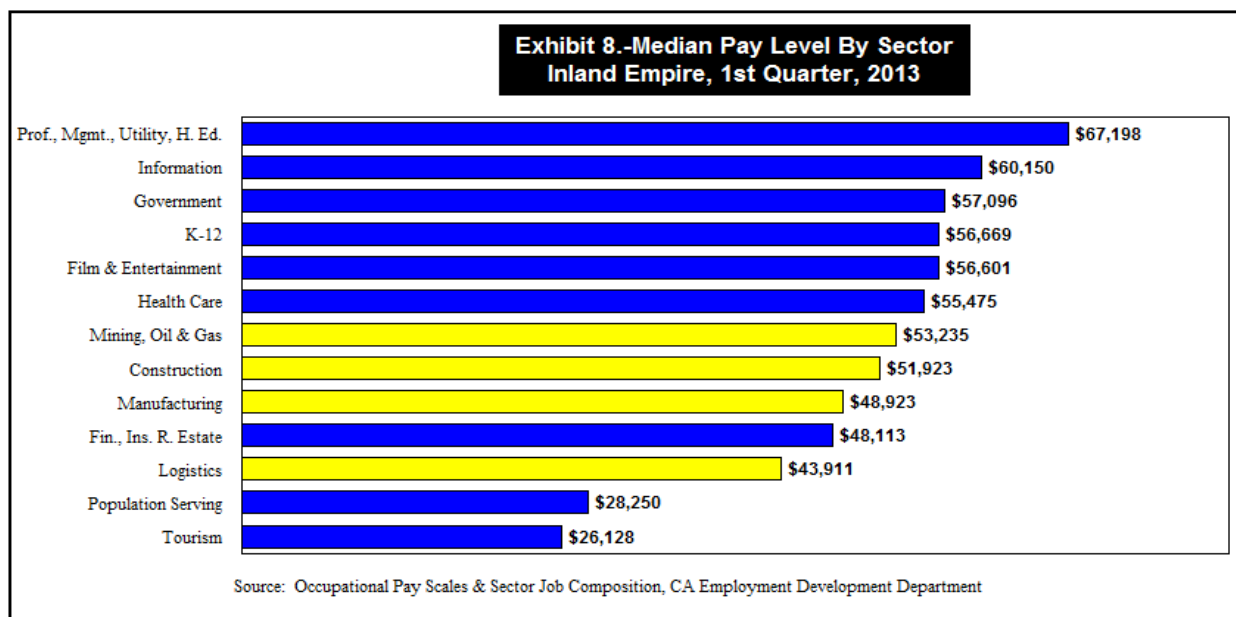
Source: Different Perspectives For Assigning Weights To Determinants of Health, University of Wisconsin, Public Health Institute, 2010

Meanwhile, researchers find that just 10% of public health issues come from environmental issues. For that small part of the issue, the state has done an excellent job. For instance, in the Inland Empire the level of PM_{2.5} pollution has fallen dramatically in the last decade. In the worst case, the CA Air Resources Board testing facility in Rubidoux-Riverside found the community was

120 days over the federal PM_{2.5} standard in 2001. That dropped to just 7 days in 2012, a decline of 94.2%. Similarly, the testing area next to the BNSF rail yard in San Bernardino was 89 days over the standard in 2002. It was 0 days in 2012.

Unfortunately, with the environment now the cleanest it has been in decades, the ability to further positively affect it is requiring regulatory and energy measures that are negatively impacting job creation in the very sectors that marginally educated workers need to see growing. This is the case since to get out of poverty, these people need jobs in sectors with four characteristics:

- Entry level jobs with minimal educational requirements to get started.
- Skill ladders up which workers can move to better paying jobs by on the job experience or short course training.
- Median incomes in the industry paying over \$40,000 for a primary wage earner. With a secondary wage earner in a low paying job, the family would reach over \$65,000.
- Job growth that is a long term possibility.



There are only four sectors that can potentially fill these requirements, all of which are heavily impacted by California's regulatory and energy policies. They each have minimal educational requirements to start work and skill ladders up which workers can move towards 2013 median pay of over \$40,000 in the Inland Empire (*Exhibit 8*):

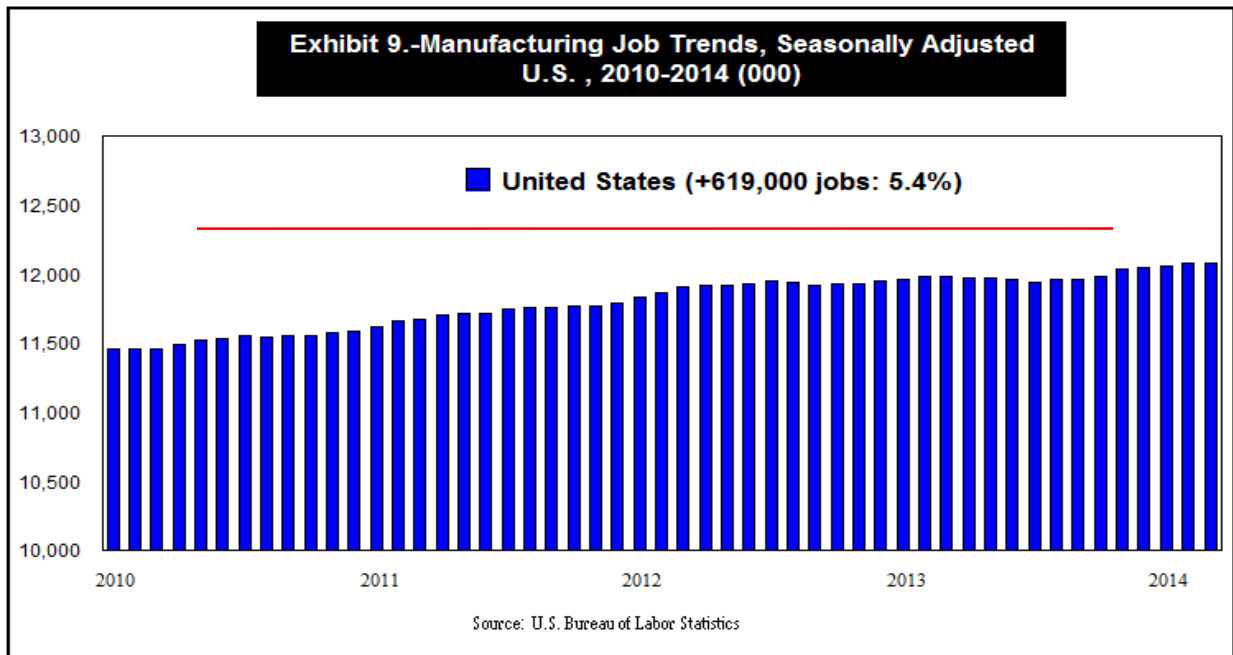
- **Mining, oil & gas** which paid a median of \$53,235
- **Construction** which paid a median of \$51,923
- **Manufacturing** which paid a median of \$48,923

- **Logistics** which paid a median of \$43,911

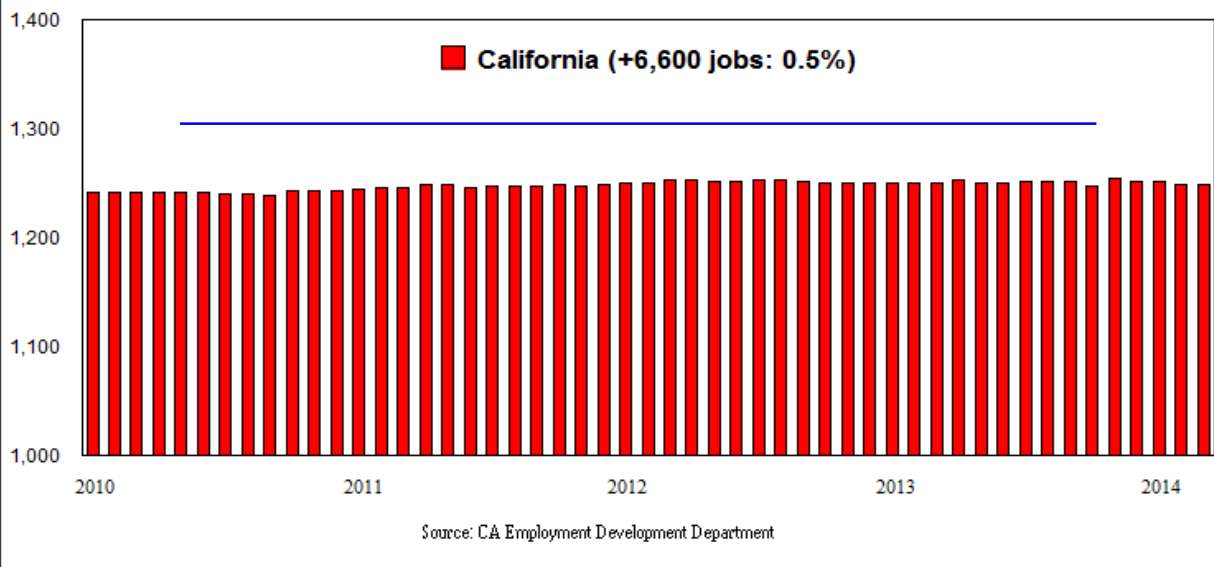
If the Inland Empire’s marginally educated workers are to find jobs that will give them the opportunity to move out of poverty, it will likely have to be in one of these four sectors. Historically, each of them has represented a traditional route towards upper mobility.

In each case, these industries require workers with technical or mechanical skills and are often referred to as blue collar sectors. Because each involves the physical creation or movement of goods, they tend to use more energy and have greater environmental impacts than office-based sectors. Each is therefore inordinately impacted by state energy and regulatory policies. Here, the consequences for workers in inland areas like the Inland Empire have been severe.

Manufacturing. The manufacturing sector is where the impact of the state’s energy and regulatory policies appears to be the most prominent (*Exhibits 9-10*).



**Exhibit 10.-Manufacturing Job Trends, Seasonally Adjusted
California, 2010-2014 (000)**



Between January 2010 and March 2014, the U.S. has added 619,000 seasonally adjusted manufacturing jobs. This represented growth of 5.4%. It has occurred as the efficiency of the sector has improved while costs of production have increased in competitor countries. In addition, some firms have been repatriating operations because they found that the off-shoring of their production led to a loss of quality control.

In this same period, California's performance has been dismal. The state has added just 6,600 seasonally adjusted manufacturing jobs, representing growth of just 0.5%. The share of the U.S. expansion that occurred in California was only 1.1%. Where the state was once a manufacturing powerhouse, it has managed to create an environment in which the sector remains flat, despite employment growing strongly in the U.S. This difficulty has impacted the Inland Empire where the sector added just 172 jobs from 2012 to 2013 (*see Exhibit 16 below*). This occurred despite the area having significant competitive advantages for manufacturing such as space costs that were 51.3% to 88.7% less than nearby coastal counties (*Exhibit 11*):

Exhibit 11.-Industrial Space Cost Advantage Inland Empire, December 2013		
Market	Cost Per Sq./Month	Inland Cost Savings
San Diego	\$0.74	88.7%
Orange	\$0.66	69.2%
Los Angeles	\$0.61	56.4%
Ventura	\$0.59	51.3%
Inland Empire	\$0.39	

Source: CB Richard Ellis

This minimal manufacturing growth also occurred despite the Inland Empire having favorable labor cost savings of 6.5% to 8.5% for the sector compared to nearby counties (*Exhibit 12*).

Exhibit 12.-Manufacturing Labor Cost Inland Empire Advantage, 1st Qtr. 2013			
Market	Median Pay	Difference	Inland Cost Savings
Inland Empire	\$48,923		
Ventura	\$52,090	\$3,166	6.5%
Los Angeles	\$52,091	\$3,169	6.5%
Orange	\$53,076	\$4,152	8.5%

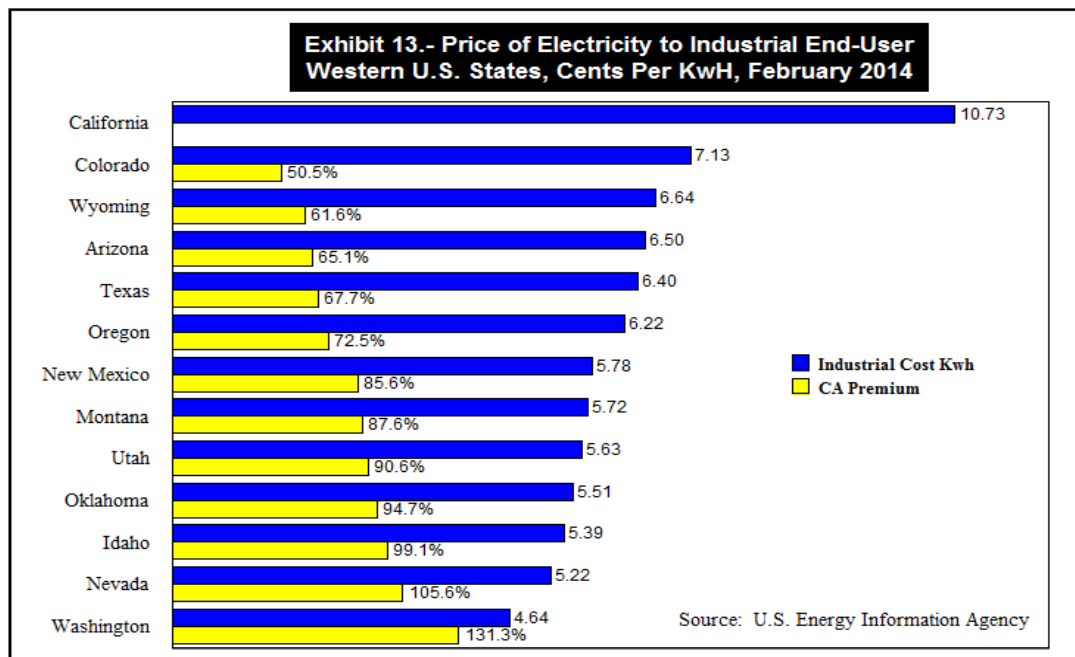
Source: CA Employment Development Department

Extensive interviews with manufacturing firms in the Inland Empire indicate that there are three reasons for the reluctance of producers to invest and grow in the region:

- One is the instability and inefficiency of the state's regulatory processes which make it impossible for firms to know from year to year what requirements will be imposed on them by the agencies setting rules that impact their air and water quality or their labor forces. Adding to this difficulty is the length of time it takes for them to gain approvals from these same agencies for their efforts to meet their changing regulations.

It is thus not surprising that CEO Magazine continues to rank California as 50th and the least friendly place in the U.S. to do business or that the Small Business Friendliness Survey gave the state an “F” rating on its approach to regulation.

- Of growing importance are the cost burdens being forced upon manufacturers by California’s policies that are causing energy costs to skyrocket. These come in two forms:
 - One is the cost of electricity that is being driven to very uncompetitive levels by the most stringent source rules in the U.S. (*Exhibit 13*). Thus, in February 2014, California’s electrical cost per kilowatt hour (*kwh*) was 10.73¢. That was 50.5% higher than Colorado (7.13¢), the next most costly western state. Among adjacent states, it was 65.1% higher than Arizona (6.50¢), 72.5% above Oregon (6.22¢) and 105.6% over Nevada (4.64¢). It 67.7% was higher than Texas (6.40¢).

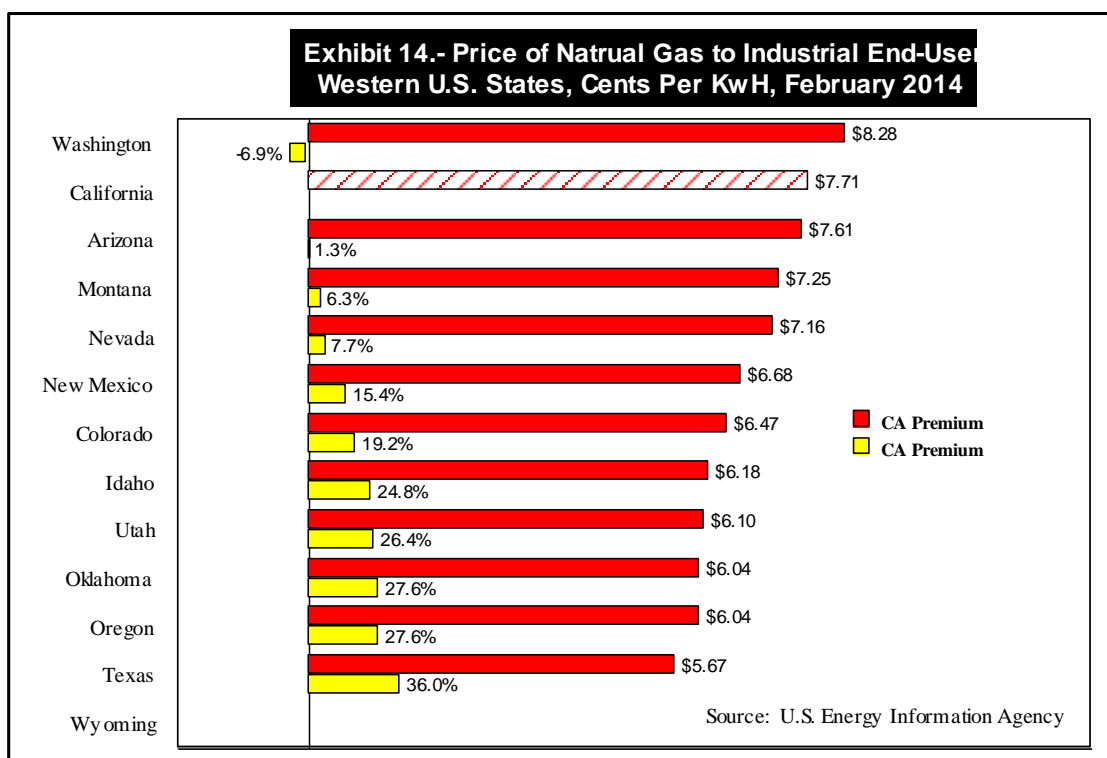


For manufacturers who must use extensive amounts of electricity, these costs are a major issue. California’s policies are essentially telling them to either locate or put their growth elsewhere or never come to the state.

- The other difficulty is the stated goal of the South Coast Air Quality Management District to “electrify” Southern California. The rationale is that even natural gas is insufficiently clean for their long term air quality goals. That target would deny Southern California’s manufacturers access to a less expensive energy source, which is cleaner than most other fuels. The state’s cost disadvantages from this source are also much smaller (*Exhibit 14*).

Looking at the data, in February 2014, California’s natural gas cost per 1,000 cubic feet was \$7.71. That was -6.9% lower than Washington (\$8.28). It was 1.3% higher

than Arizona (\$7.61), the next most costly western state. Among other adjacent states, it was 7.7% higher than Nevada (\$7.16) and 27.6% above Oregon (\$6.04). It was 36.0% higher than Texas (5.67¢).



For manufacturers who want to replace electricity with natural gas both because it is cleaner and less costly to use, the declared goal of the South Coast Air Quality Management District is essentially telling them that over time, they should again either locate or put their growth elsewhere or never consider the state.

Logistics. For the Inland Empire’s logistics industry, the state’s energy taxes are impacting the cost of operating the sector. Its regulatory policies are threatening to reduce its growth.

For the logistics sector, a major cost is for diesel fuel. Here, firms operating in California are paying \$4.082 per gallon on May 2, 2014. That was 0.2% higher than Idaho (\$4,075) the next most costly western market. For states adjacent to California, the range was 1.7% higher in Nevada (\$4.013), 5.2% above Arizona (\$3.881) and 12.6% higher than Oregon (\$3.265). The cost of diesel in California was 7.5% above Texas (\$3.797) (*Exhibit 15*).

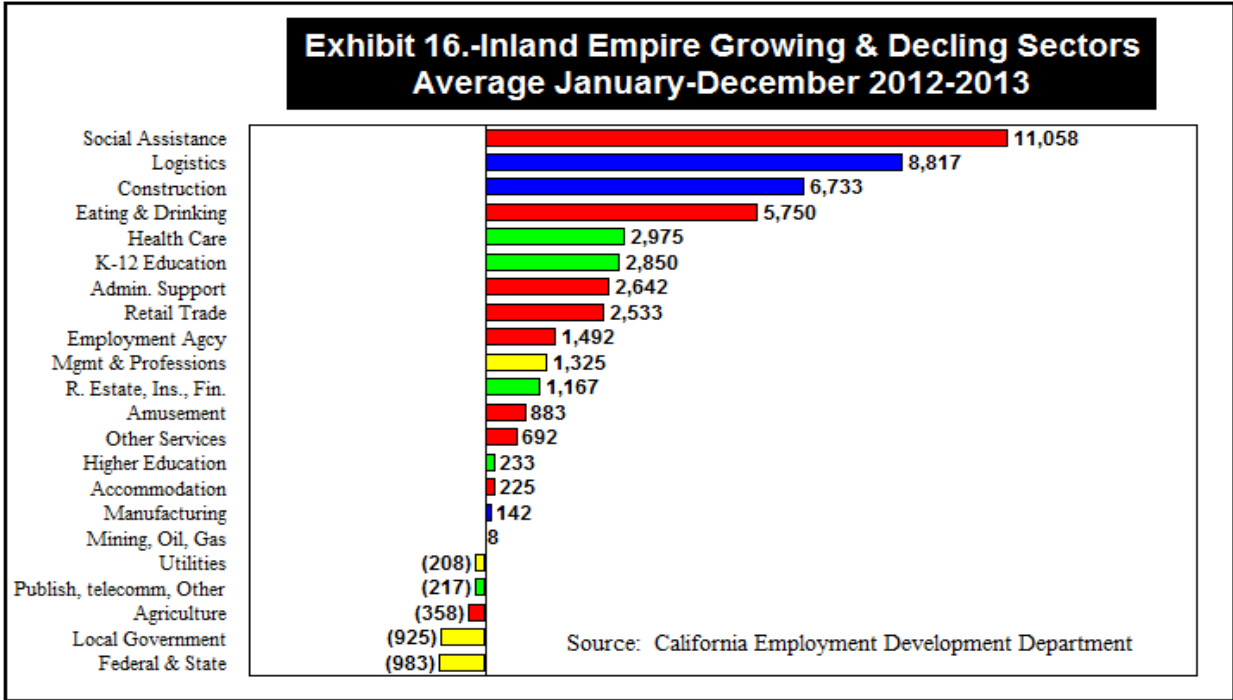
California’s cost premiums are not the result of the higher cost of the fuel itself (\$3.629). In that case, the state ranges from a cost advantage of -5.4% below Idaho (\$3.825) to a slight disadvantage of 0.9% to Texas (\$3.597). The state’s diesel costs are higher because of the very high level of fuel taxes (\$0.453 per gallon). That was 20.8% above Washington (\$0.375), the next highest taxing state. Among adjacent states, it was 67.8% above Nevada (\$0.270), 74.2% above Arizona (\$0.260). Oregon has no tax.

Exhibit 15.-Fuel Price Averages For Friday, May 2, 2014

State	Fuel Prices	CA Premium	Tax Rate	CA Premium	Ex-Tax Fuel Price	CA Advantage/Premium
California	\$4.082		\$0.453		\$3.629	
Idaho	\$4.075	0.2%	\$0.250	81.2%	\$3.825	-5.4%
Washington	\$4.009	1.8%	\$0.375	20.8%	\$3.634	-0.1%
Nevada	\$4.013	1.7%	\$0.270	67.8%	\$3.743	-3.1%
Utah	\$4.000	2.0%	\$0.245	84.9%	\$3.755	-3.4%
Wyoming	\$3.983	2.5%	\$0.240	88.8%	\$3.743	-3.0%
Colorado	\$3.896	4.8%	\$0.205	121.0%	\$3.691	-1.7%
New Mexico	\$3.879	5.2%	\$0.210	115.7%	\$3.669	-1.1%
Arizona	\$3.881	5.2%	\$0.260	74.2%	\$3.621	0.2%
Texas	\$3.797	7.5%	\$0.200	126.5%	\$3.597	0.9%
Oklahoma	\$3.758	8.6%	\$0.130	248.5%	\$3.628	0.0%
Oregon	\$3.625	12.6%	\$0.000	NA	\$3.625	0.1%

Source: ProMiles at www.promiles.com

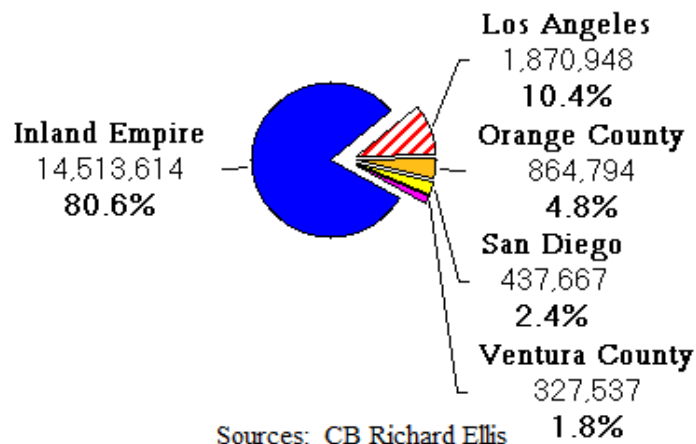
These costs are important to the Inland Empire's economy because the logistics sector has been the fastest growing of the sectors that form its economic base, bringing money to it from the outside world. It is also the major sector providing upward mobility towards the middle class for its marginally educated workers (*median pay: \$43,911*). In 2013, the 8,817 jobs added in logistics represented 18.8% of all job growth in the inland economy (*Exhibit 16*). High fuel costs hurt the area's economy as it lies roughly 60 miles from the ports of Los Angeles and Long Beach as well as the population center of Southern California. The more expensive fuel cost, the greater the pressure on businesses to not serve their clientele from facilities located in the region. This then exerts downward pressure on logistics job creation within it.



On the regulatory front, the threat to logistics comes from the South Coast Air Quality Management District (AQMD). It has proposed an indirect source rule aimed at increasing permitting costs for new warehouses in the Inland Empire. The rule would charge new facilities based upon the volume of truck traffic they are anticipated to draw. The aim is to make them less affordable in order to slowdown the sector’s growth in the region. AQMD’s rationale is that to achieve the next iteration of air quality, the agency must suppress the growth of trucks hauling merchandise between the ports and the inland region, and from the region to households or companies located throughout Southern California.

The Inland Empire is being targeted because it is the only part of the Southland with the large undeveloped industrial spaces needed to accommodate the large new facilities required to handle the growth of port related cargo or the e-commerce related fulfillment centers now being built for retailers. In December 2013, 80.6% of industrial construction was in the region. Ordinarily, policy makers would cheer the migration of a major job base to an area where population has been forced to move for affordable housing as it provides them with jobs and reduces the need for long distance commuting. However in this case, the policies have the opposite effect.

**Exhibit 17.-Industrial Space Under Construction
Southern California Market, December 2013**



As a result, California’s energy and environmental policies work against the interests of the Inland Empire. To the extent that they slowdown or stop the growth of logistics, the result will be to harm the sector most responsible for the Inland Empire’s nascent recovery from the Great Recession. It will also deny the large share of marginally educated workers living in the area with their best chance to enter a growing sector that has skill ladders up which they can move to the middle class.

Construction. State policies on energy costs and regulation also tend to suppress the growth of construction, a third key sector in the Inland Empire’s economy. As with logistics, transportation costs are an important element for the construction sector because of the need to transport materials to building sites. The higher the costs, the more expensive the costs of construction.

From a regulatory standpoint, construction is impacted negatively in two ways. To the extent that AQMD succeeds in blunting the building of new warehousing facilities, the impact will be to reduce or stop the growth of the one portion of the construction sector that has been consistently supplying jobs to workers. In addition, California’s Environmental Quality Act (*CEQA*) has become so abused that it is even stopping construction projects wanted by the environmental community. The poster child in the Inland Empire was a lawsuit that halted expansion of the Perris extension of Metrolink until a multimillion settlement was arranged with a local NIMBY group. Problems like this are occurring because the act is increasingly used by NIMBYs to stop any project they do not like, by lawyers who use the threat of suits as a cash cow, by companies wanting to slowdown the ability of their competitors to expand, and by unions wishing to force builders to sign agreements with them.

For the Inland Empire, the construction sector (*median income: \$51,923*) has been the missing element in the recovery from the Great Recession. It finally turned positive in 2013, adding 6,733

jobs. It is thus starting to return to its historic role as a major part of the area’s economic base and supplier of jobs that could provide workers with access to skill ladders to the middle class. To the extent state energy cost or regulatory policies slow the sector’s growth, it hurts both the interest of the Inland Empire as a whole and its most vulnerable families.

Mining, Oil & Gas. In the Inland Empire, the mining, oil and gas sectors are the highest paying of the blue collar sectors (*median income: \$53,235*). However, the sector is quite small and largely involves aggregate and cement mining.

For the inland area, the major impact of the natural resource sector would be indirect through the potential of the oil & gas component to lower the cost of energy for California’s economy. This is seen in reviewing the price of natural gas to industrial firms in major states where there has been significant fracking activity (*Exhibit 18*):

Exhibit 18.-Industrial Natural Gas Price Per 1,000 Cubic Feet		
CA vs. States With Major Natural Gas Delivery From Fracking, February 2014		
State	Industrial Price	CA Premium
Pennsylvania	\$9.07	-15.0%
California	\$7.71	
Colorado	\$6.47	19.2%
Arkansas	\$6.38	20.8%
Oklahoma	\$6.04	27.6%
Texas	\$6.04	27.6%
Louisiana	\$5.97	29.1%
North Dakota	\$5.07	52.1%

Source: U.S. Energy Information Agency

With the exception of Pennsylvania (*\$9.07 per 1,000 cu. Ft.*), the major sources of natural gas from fracking have significantly lower industrial natural gas prices than California (*\$7.71*). All of the other states are west of the Mississippi River. Colorado (*\$6.47*) is the next most expensive but 19.2% cheaper than California. Industrial firms in all but one of the other states in this group pay 20% to 30% less. The extreme case was North Dakota where industrial natural gas is 52.1% less expensive. These data underscore the potential for firms in California and the Inland Empire of seeing fracking become successful in the largely Kern County based Monterey Shale.

State Policy Considerations

California's leaders can simply ignore the extraordinary levels of poverty that have arisen in places like the Inland Empire, or they can decide to make some very tough decisions in order to tackle the issue. Assuming the political will can be found, the ultimate need is to rebalance the impact of the state's policies so that solving the issue of poverty and related public health issues is put on an equal footing with energy and environmental concerns. In doing so, it must be remembered that when companies decide to leave California, put their expansion outside the state or never come, it is the workers who bear the consequences.

To accomplish this goal, the aim must be to enhance job creation in sectors with few educational barriers to entry and skill ladders up which workers can migrate to middle class incomes. There are several steps that could be taken by lawmakers:

- In judging the efficacy of energy policies, the legislature could mandate that an analysis of the impact of increased fuel costs on job creation in manufacturing, logistics and construction be determined and criteria established setting levels of job losses beyond which policies must be modified due to their impact on the state's marginally educated workers.
- Given its potential to increase the competitiveness of sectors like manufacturing in California, the development of the Monterey Shale for oil and gas should be a high priority, subject to appropriate environmental and safety concern. This is potentially an asset to the kind of blue collar job creation needed by marginally educated workers throughout the state, and specifically in the Central Valley where unemployment is currently 16.5%.
- The non-partisan Legislative Analyst's Office could be funded by the legislature specifically to document the extent to which the state's energy and regulatory policies are cutting off job growth that could otherwise lower the levels of poverty in the state and the associated public health difficulties. The goal would be to determine policy and procedural changes to stop this from happening.
- An appeals framework outside the control of the state's regulatory agencies could be set-up by the legislature that would allow firms or their workers to challenge what they see as onerous policies and rules. This would overcome the difficulty found in that the same organizations promulgating regulations are currently the ones hearing any appeals to their actions.