



League of United Latin American Citizens
District 17
P. O. Box 369
Oxnard, CA 93061

July 19, 2019

County of Ventura
Board of Supervisors
800 So. Victoria Avenue
Ventura, CA 93012
Steve Bennett, Chair
Linda Parks
Robert Huber
Kelly Long, Vice Chair
John Zaragoza

Re: De Nova Hearing to Consider the Granting of a Modified Conditional Use Permit and Approval of a Mitigated Negative Declaration

Chair Bennett and Members of the Board,

This comes to you from the League of United Latin American Citizens, LULAC, District 17 in support of upholding the appeal, filed by CFROG and Food and Water Watch and to deny the project before you.

The League of United Latin American Citizens, LULAC, is the largest and oldest Latino civil rights organization in the country. Our mission is to advance the economic condition, educational attainment, political influence, housing, health, and civil rights of the Hispanic population of the United States. We have a long track record on environmental issues, initiating litigation, publishing reports and adopting state and national resolutions. (see attachments)

Our organization is opposed to the four (4) new wells, the open flare, and processing facility. In the report, **"Latino Communities at Risk: The Impact of Air Pollution from the Oil and Gas Industry"**, published by LULAC, the National Hispanic Medical Association (NHMA), and the Clean Air Task Force (CATF) (Attached) makes the case that the Latino population bears the burden of the negative consequences of the oil and gas industry. These impacts exacerbate the already high asthma rate of children Ventura County. Latino

children are two times more likely to die from asthma than non-Latino white children and in South Oxnard (93030) asthma related complications resulted in emergency room visits of 102.3 visits per 10,000 population.

LULAC District 17 stands with South Oxnard families who will be gravely impacted by this expansion. As the Board of Supervisors, you have a moral and legal obligation to protect our children and future generations from the adverse impacts of climate change as well as maintaining and strengthening strict limits on carbon and methane pollution that put our community in harm's way.

We provide our arguments based on health and environmental justice grounds supported by the County of Ventura's Public Health 2017 Health Assessment and Strategic Plan to ensure healthy communities. The additional wells are not compatible with the surrounding nearby schools and are detrimental to the health and welfare of the community.

Yours truly,



Cynthia Salas

Deputy District Director

LULAC District 17

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Health U



California League of United Latin American Citizens

RESOLUTION CHAMPIONING HEALTHY LATINO COMMUNITIES

WHEREAS, 90 years ago, the founders of the League of United Latin American Citizens (LULAC) joined together to establish an organization that would become the largest, oldest and most successful Hispanic civil rights and service organization in the United States;

WHEREAS, surveys of the peer-reviewed scientific literature and the opinions of experts consistently show a 97-98% consensus that humanity causes climate change;

WHEREAS, carbon pollution fuels climate change, the effects of which we are already experiencing by way of worsened air quality and more intense natural disasters. The former leads to more asthma attacks, respiratory disease and even premature death. The latter contributes to more frequent, destructive, costly and deadly extreme weather events including storms, floods and droughts;

WHEREAS, Latinos are over represented in certain types of occupations, such as agriculture, construction and landscaping, putting them at increased risk of exposure to dirty air and increased temperatures associated with uncontrolled carbon pollution;

WHEREAS, according to the Yale Program on Climate Change Communication's *Climate Change in the Latino Mind* 2017 survey, more than half of Latinos in the U.S. "strongly" support regulating greenhouse gas pollutants (compared to only 30% of non-Latinos), and a large majority of Latinos (68%) think the U.S. should reduce its greenhouse gas emissions "regardless of what other countries do;"

WHEREAS, The Clean Air Act is the fundamental federal law protecting those who live in the U.S. from interstate and intrastate air pollution and strong federal standards are needed to provide these protections because air pollution, including the pollution that is the cause of climate change, does not respect political boundaries;

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WHEREAS, power plants are responsible for 40 percent of the carbon pollution in the United States, the single largest contributor to dangerous climate change;

WHEREAS, as has been reported by the New York Times and others, the Trump Administration has put forth plans to roll back federal efforts to fight climate change and make it significantly easier for energy companies to release methane into the atmosphere; despite the administration's own climate change assessment, a 1,656 page report compiled by more than 300 researchers and 13 federal agencies that warned that the impacts of climate change are rapidly accelerating;

WHEREAS, on January 4, 2018, the Trump Administration published a first draft of their plan to open large swaths of America's oceans to offshore oil and gas leasing; putting the coastlines of many states where large proportions of Latino communities reside - including California, Texas, Washington, Oregon, Texas, Florida, Maryland, Virginia, New York, and Massachusetts - at even greater risk of environmental harm. The proposal would open waters in the Atlantic, Pacific, and Arctic oceans and new areas of the Gulf to drilling. The Trump administration has also proposed the removal of critical environmental and worker safety protections put in place after the Deepwater Horizon spill;

WHEREAS, we stand with our families in Puerto Rico and across our nation, gravely impacted by natural disasters and severe health disparities, recognizing that we have a moral obligation to protect our children and future generations from the impacts of climate change and we can do so by maintaining and strengthening strict limits on carbon and methane pollution; and

WHEREAS, the late Rev. Deacon Sal Alvarez, M.S.W., served as Chair of the National LULAC Health Commission and advanced LULAC's historic leadership in the passage of local, state and federal legislation protecting the health and well-being of our Latino communities, and whose legacy imparts upon us a broad understanding of healthcare policy to include, for example, the banning of the short-handled hoe and toxic pesticides, the preservation of non-profit hospitals and increased language and cultural competency in the medical field, the expansion of mental health services, as well as measures such as the herein to advance environmental justice for our families;

THEREFORE, BE IT RESOLVED, LULAC opposes all efforts to weaken or roll back regulations on methane and carbon pollution;

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Latino Communities at Risk

The Impact of Air Pollution from the Oil and Gas Industry

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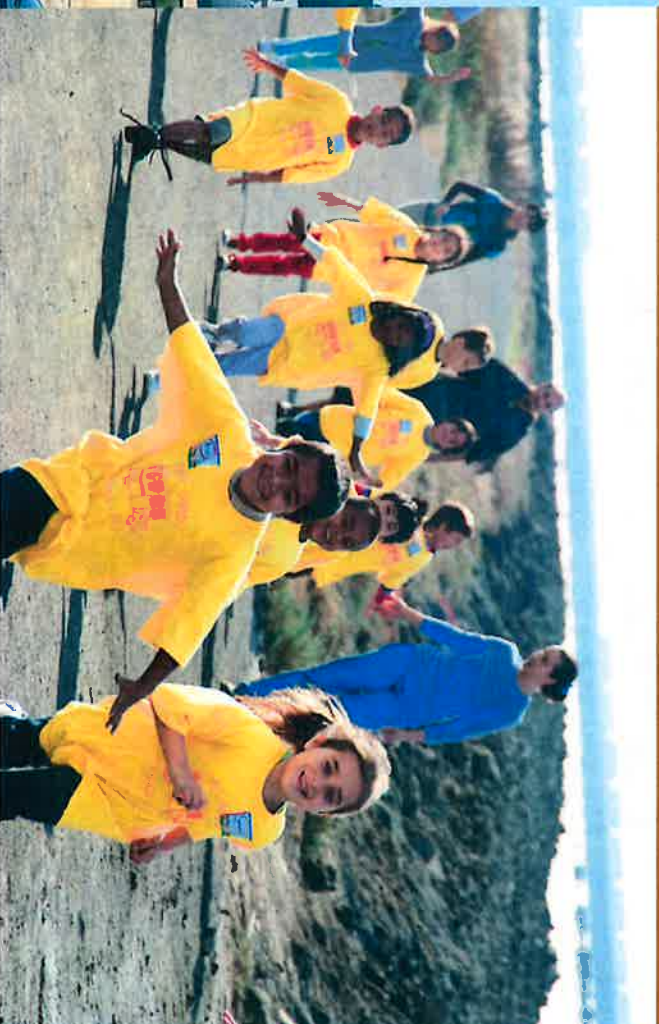


Photo: David Givetti/NorthernDesign.com

This report is available online at
http://www.catf.us/resources/publications/files/Latino_Communities_at_Risk.pdf

Latino Communities at Risk

The Impact of Air Pollution from the Oil and Gas Industry



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Latino Communities at Risk The Impact of Air Pollution from the Oil and Gas Industry

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 National Hispanic Medical Association (NHMA)

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EXECUTIVE SUMMARY

THE OIL AND GAS INDUSTRY dumps 9 million tons of methane and toxic pollutants like benzene into our air each year. Methane is a greenhouse gas 87 times more potent than carbon dioxide at driving climate change and the oil and gas industry is now the largest source of methane in the U.S. But methane is just one harmful air pollutant from the oil and gas industry. As we recently demonstrated in the “Fossil Fumes” report, many of these toxic pollutants are linked to increased risk of cancer and respiratory disorders in dozens of counties that exceed U.S. EPA’s level of concern. These pollutants from the oil and gas supply chain also contribute to the ozone smog pollution that blankets the U.S. in the warmer months. Our recent “Gasping for Breath” report found that ozone smog from oil and gas industry pollution is associated with 750,000 summertime asthma attacks in children and 500,000 missed school days. Among adults, this pollution results in 2,000 asthma related emergency room

visits and 600 hospital admissions and 1.5 million reduced activity days.

This report sheds light on the health impacts of air pollutants from the oil and gas industry that specifically threaten the health of Latino communities living near oil and gas facilities and in areas far from oil and gas production.

Many Latino communities face serious health risks caused by air pollution. What’s more, higher poverty levels and relatively lower rates of health insurance increase these health threats from air pollution translating into a bigger health burden on Latino communities. This report for the first time quantifies the elevated health risk that millions of Latinos face due to pollution from oil and gas facilities. Specifically, the report finds that:

- More than 1.81 million Latinos live within a half mile of existing oil and gas facilities and the number is growing every year.
- As a result, many Latino communities face an elevated risk of cancer due to air toxics emissions

in the methane mitigation industry are providing technologies and services to the oil and gas industry to help reduce methane and other air polluting emissions. These companies employ people at 531 locations in 46 states and are often well-paying and secure manufacturing jobs.¹² The companies that do this work can create jobs that should be targeted to local communities.

In the meantime, while companies work on reducing their emissions, they can provide immediate relief and help to communities through:

- Asthma and cancer education programs in impacted communities,
- Long-term research on the impacts of asthma and cancer on worker productivity, family burden, and other measures of upward mobility,
- Vouchers for the purchase of inhalers,
- Promotion of patient assistance programs for asthma and cancer, and
- Incentives to increase physician teams in affected communities about asthma and cancer impact from oil and gas, through quality measures, patient centered medical home participation, continuing medical education, and other programs to educate physicians (webinars, grand rounds, twitter chats, newsletters, conferences).

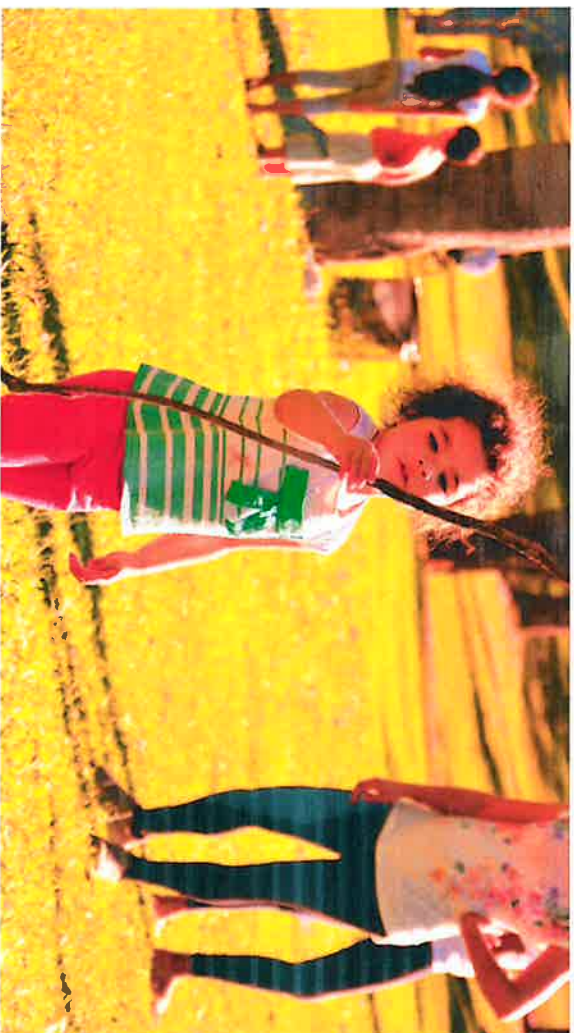
In addition to these on the ground public health programs, pushing for policies that aim to reduce pollution from the oil and gas industry will help protect the health of many Latino communities while addressing global climate change. In their *Waste Not* report, CAFE, NRDC, and the Sierra Club detail how EPA can cut methane emissions from the oil and gas industry. These methane standards could also significantly cut toxic and ozone smog-forming air pollution, which would have important benefits for air quality and public health in and downwind of oil and gas producing areas. In addition, many organizations are calling for stringent standards specifically for toxic air pollutants and ozone causing pollutants emitted throughout the oil and gas supply chain to ensure compliance with the Clean Air Act and protect public health.

In June 2016, the EPA finalized strong methane standards covering new and modified oil and gas facilities. The rule will cut 510,000 tons of methane pollution from new and modified oil and gas facilities—the equivalent of 11 coal-fired power plants, or taking 8.5 million cars off the road every year. In addition, the rule is also expected to reduce 210,000 tons of volatile organic compounds and 3,900 tons of air toxics annually by 2025.

From supporting technology that cuts air pollution, to urging local, state and national leaders to address the pollution from the oil and gas sector, the solutions exist. Latinos, and all Americans, need to come together to push for stronger action.

Although cutting methane from new oil and gas facilities is a step in the right direction, we must cut pollution from the 1.2 million existing facilities.¹³ Without a comprehensive standard, the vast majority, at least 75%, of all of the wells and oil and gas infrastructure in use today, will remain virtually unregulated and can continue to pollute methane without limit.¹⁴ Existing facilities spewed nearly 10 million metric tons of methane in 2014—equivalent to 200+ coal-fired power plants.¹⁵

The Obama administration has taken steps toward cutting methane pollution from the 1.2 million existing oil and gas facilities by issuing an Information Collection Request (ICR) that requires oil and gas companies to provide EPA with the information to develop tough standards for these facilities—standards that will increase protections for many heavily Latino communities. Now is the time for affected communities to weigh in and ensure that we secure strong standards for existing oil and gas sources. Now is the time to set up our families, communities, and future generations for the healthy and vibrant society we hope to build.



CHAPTER 3

CALL TO ACTION

AIR POLLUTION THAT AFFECTS many Latino communities is emitted from dozens of types of equipment and processes throughout the oil and gas sector, including wells, completion operations, storage tanks, compressors, and valves.

- More than 1.81 million Latinos live within a half mile of existing oil and gas facilities and the number is growing every year.
- Latinos are exposed to disproportionately high levels of air pollution.
- Rates of asthma are relatively high in Latino communities.
- Many Latinos are particularly burdened with health impacts from this air pollution due to high levels of poverty and relatively low rates of health insurance coverage.
- The air in many Latino communities violates air quality standards for ozone smog.
 - Due to ozone increases resulting from oil and gas emissions, Latino communities are burdened by 153,000 lost school days each year.
- 112,000 lost school days each year.

- Many Latino communities face an elevated risk of cancer due to air toxics emissions from oil and gas development.

– Nearly 1.78 million Latinos live in counties that face a cancer risk above EPA's level of concern from toxics emitted by oil and gas facilities.

More needs to be done to address the air pollution resulting from the oil and gas sector that harms the health of our families and our communities. Through coalitions like *Voices Verdes*, Latinos are raising their voices about pollution and climate change and pushing for sound environmental solutions and policies. From supporting technology that cuts air pollution, to urging local, state and national leaders to address the pollution from the oil and gas sector, the solutions exist. Latinos, and all Americans, need to come together to push for stronger action.

Many proven, low-cost technologies and practices are available to reduce these emissions, while also reducing emissions of methane, the main constituent of natural gas. In fact, dozens of companies

from oil and gas development. Nearly 1.78 million Latinos live in counties that face a cancer risk above EPA's level of concern from toxics emitted by oil and gas facilities.

- The air in many Latino communities violates air quality standards for ozone smog. As a result of ozone increases due to oil and gas emissions during the summer ozone season, Latino communities are burdened by 153,000 childhood asthma attacks and 112,000 lost school days each year.
- Rates of asthma are relatively high in Latino communities.
- Many Latinos are particularly burdened with health impacts from this air pollution due to high levels of poverty and relatively low rates of health insurance coverage.

Air pollution is emitted from dozens of types of equipment and processes throughout the oil and gas sector, such as wells, completion operations, storage tanks, compressors, and valves. Many proven, low-cost technologies and practices are available to reduce these emissions, while also reducing emissions of methane, the main constituent of natural gas.

Thus, policies that aim to reduce pollution from the oil and gas industry can help protect the health of local communities while addressing global climate change. In their *Waste Not* report, Clean Air Task Force (CATF), the Natural Resources Defense Council (NRDC), and the Sierra Club called for

EPA regulations to cut methane emissions from the oil and gas industry in half. These methane standards would also significantly cut toxic and ozone causing air pollution, which could have important benefits for air quality and public health in and downwind of oil and gas producing areas.

In addition, stringent standards specifically for toxic and ozone-causing pollutants emitted throughout the oil and gas supply chain are needed to ensure compliance with the Clean Air Act and to protect public health.

In June 2016, the EPA finalized strong methane standards covering new and modified oil and gas facilities. Although cutting methane from new oil and gas facilities is a step in the right direction, more important is cutting pollution from the 1.2 million existing oil and gas facilities. These standards will reduce the risk from the air toxics and ozone smog-forming pollutants from this industry, but without a comprehensive standard, the vast majority, at least 75%, of all of the wells and oil and gas infrastructure in use today, will remain virtually unregulated and can continue to pollute without limit. Existing facilities spread nearly 10 million metric tons of methane in 2014—equivalent to 200+ coal-fired power plants. To reduce the risk from air toxics and smog-forming pollution from this industry, EPA must require pollution reductions from all oil and gas facilities, not just new ones.



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CHAPTER 1

MANY LATINO COMMUNITIES ARE VULNERABLE TO HEALTH RISKS

MANY LATINO COMMUNITIES face serious health risks caused by air pollution.* As we discuss below, these health risks are caused by pollution from industrial facilities that are often located in the areas where Latino families live. This report sheds light on the health impacts many Latino communities face from oil and natural gas production, processing, and transmission facilities. These communities already face high levels of pollution from various sources,¹ and the added health threats from oil and gas development exacerbate their problems.

Many Latinos are exposed to high levels of pollution. The air in many Latino communities violates air quality standards intended to protect human health. While more than half of the U.S. population (51 percent) lives in areas with unhealthy levels of ozone,² Hispanics are 31 percent more likely to live in counties with unhealthy levels of ozone than are non-Hispanic whites.³ More than 1.78 million, or 3 percent of Latinos, live in areas where toxic air pollution from oil and gas facilities is so high that the cancer risk due to this industry alone exceeds EPA's level of concern.⁴ And 1.81 million Latino individuals (4 percent of

regions, like in New York, Chicago, and Washington, DC.

Many Latino communities face an elevated risk of cancer due to toxic air emissions from oil and gas development. In the EPA's National Air Toxics Assessment (NATA), the EPA identifies and prioritizes air toxics, emission source types, and locations that are of greatest potential concern when looking at health risk from air emissions in populations. NATA estimates cancer risk that can result from toxic air emissions. The metric for cancer risk is the number of cancer cases per million people exposed; areas with cancer risk above one-in-a-million are considered to be above EPA's level of concern. In CATF's *Poison Profits* report,⁵ 238 counties in 21 states faced a cancer risk above EPA's one-in-a-million level of concern due to toxic emissions from oil and gas operations. In 2014, over 9 million people lived in these counties, of whom 1.78 million were

Latino. Thus, while Latinos made up 17% of the total U.S. population in 2014, they make up 20% of the population in counties with high cancer risk due to oil and gas air pollution.

Of the Latinos living in counties above EPA's level of concern for cancer risk, almost all live in Texas, Colorado, and New Mexico.

While the cancer risk estimates are based on the EPA's most recent National Emissions Inventory (NEI) and projections, there is still a degree of uncertainty regarding emissions levels reported to the NEI. For example, in 2015, an expert review analysis in California identified the need to update emissions estimates, particularly in relation to understanding health threats for communities in the Los Angeles Basin. Thus, while no counties in California are above EPA's level of concern in the current analysis, this may be a result of underestimated emissions reported to EPA, not an actual indication of low risk levels.

TABLE 3
Top 10 States by Latino Population Living in Counties Above EPA's Level of Concern for Cancer Risk (2014 Population Data)

State	Number of Counties Above EPA's Level of Concern for Cancer Risk	Total Population in High Risk Counties	Total Latino Population in High Risk Counties	Percent of Population in High Risk Counties that is Latino
Texas	82	4,124,893	1,441,213	35%
Colorado	6	410,392	106,922	26%
New Mexico	3	250,179	89,322	36%
Oklahoma	40	794,736	64,489	8%
Louisiana	19	1,028,162	34,611	3%
North Carolina	1	166,675	12,192	7%
West Virginia	28	810,752	8,346	1%
Pennsylvania	8	626,584	7,833	1%
North Dakota	12	105,084	5,115	5%
Utah	2	57,247	4,601	8%
TOTAL	238	9,013,075	1,784,191	20%

Source: Fossil Fuels, U.S. Census.

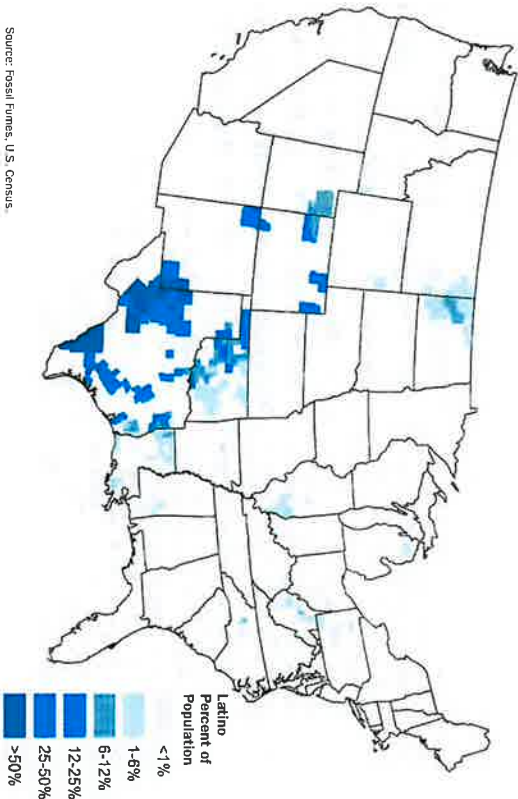
* Note: In this report, we use the term "Latino" to refer to people in the United States who identify as either Hispanic or Latino unless we are citing a scientific study that specifically uses the term "Hispanic." The U.S. Census Bureau is required to use Office of Management and Budget's definition of "Hispanic or Latino" as "A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race."

TABLE 2
Top 10 Metropolitan Areas by Latino Health Impacts Attributable to Ozone caused by Oil and Gas Pollution

Metropolitan Area	Asthma Attacks (per year)	Lost School Days (per year)
Dallas-Fort Worth, TX-OK	16,294	11,920
San Antonio-New Braunfels, TX	9,746	7,345
Houston-The Woodlands, TX	9,602	7,023
Denver-Aurora, CO	6,814	4,996
New York-Newark, NY-NJ-CT-PA	6,721	4,904
Chicago-Naperville, IL-IN-WI	5,460	3,981
Austin-Round Rock, TX	4,809	3,505
Los Angeles-Long Beach, CA	4,274	3,121
Washington Baltimore-Arlington, DC-MD-VA-WV-PA	3,764	2,748
Albuquerque-Santa Fe-Las Vegas, NM	3,286	2,405
National Latino Total	153,373	112,212

Source: Gasping for Breath, U.S. Census.

FIGURE 7
Percent of Latino Population in Counties above EPA's Level of Concern for Cancer Risk from Oil and Gas Emissions



Source: fossil fumes, U.S. Census.

the national Latino population) live within a half mile of an oil and gas facility—those within this half mile radius have cause for concern about potential health impacts from oil and gas toxic air pollution.

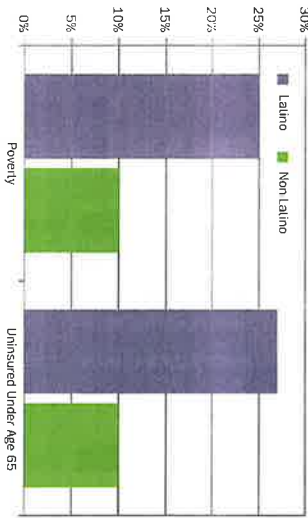
Asthma threatens the health of children in Latino communities. Approximately 8.5 percent of Hispanic children have asthma, but among some sub-groups, this rate is much higher: the asthma rate for Puerto Rican children is 23.5 percent, a rate that is more than 3 times higher than for non-Hispanic whites.⁵ Compared to non-Latino whites, Latinos with asthma are less likely to be prescribed appropriate asthma medications and less likely to have access to asthma specialists.⁶ And, those who have an asthma emergency that sends them to the emergency room or hospital are less likely to receive follow-up care or an asthma action plan.⁷ Moreover, Latino children are two times more likely to die from asthma than non-Latino white children.⁸

Many Latinos are particularly burdened with the health impacts from this air pollution due to high levels of poverty and relatively low rates of health insurance. Latinos living below the poverty level are particularly burdened by the effects of air pollution. High poverty rates restrict housing options for Latino families, and lack of health insurance limits access to quality health care. These economic factors exacerbate the impact air pollution has on low-income Latino families. For example, studies often find similar rates of asthma in Latino and non-Latino communities but a much higher percentage of Latino children end up in the emergency room as a result of asthma attacks. This discrepancy happens because poverty and lack of quality health insurance can make it hard to keep the asthma in control resulting in more severe attacks and visits to the hospital. Thus, for the same health risk, the health burden is greater.

In 2014, 25 percent of the Hispanic population (including 32 percent of Hispanic children) were living in poverty, compared to 10 percent for the non-Hispanic white population (and 12 percent of non-Hispanic white children).⁹

Even as overall levels of health insurance coverage are rising due to the Affordable Care Act (ACA), Latino populations are still uninsured at disproportionate rates. According to the Centers for Disease Control and Prevention (CDC), in 2014 about 36 percent of the Latino population under the age of 65 did not have insurance, compared to a 10 percent uninsured rate for the non-Latino white population.¹⁰ Overall Latinos accounted for

FIGURE 1
Poverty and Uninsured Status



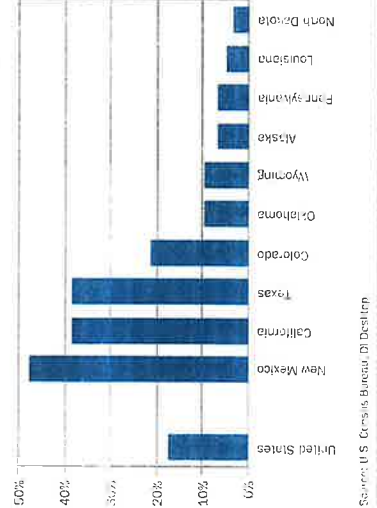
Source: U.S. Census Bureau, National Center for Health Statistics.

Asthma attacks lead to increased spending on health care, medications, and medical devices (inhalers, nebulizers) which is a burden on low-income households, and leaves less money and resources available for other needs.

an alarming 36 percent of the nation's 35 million uninsured people, a highly disproportionate number when compared with the total percentage of the Latino population—17 percent. And, even with increased health insurance coverage under the ACA, there are barriers for many Latinos in accessing quality healthcare, including language and a shortage of Latino health care professionals.¹¹ As noted above, Latinos are more likely to end up in the emergency room for asthma than non-Latinos. In addition, asthma attacks lead to increased spending on health care, medications, and medical devices (inhalers, nebulizers) which is a burden on low-income households, and leaves less money and resources available for other needs.

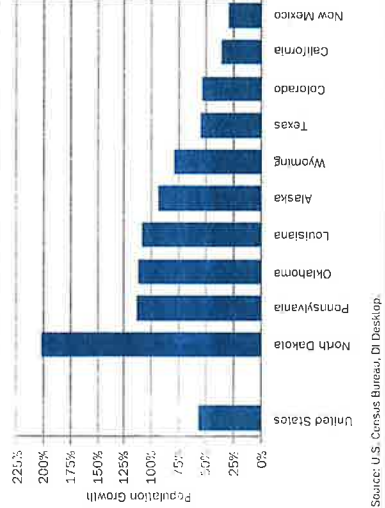
The growth of oil and gas production in the US—by more than 30 percent since 2005—affects many Latino communities, whether located in urban or rural regions of the country.¹² Nearly half of Hispanic individuals during that period lived in urban areas, compared to 36 percent living in suburban and exurban areas and 12 percent living in rural areas and small towns.¹³ While Latinos only

FIGURE 2
Percent of Population that is Latino in Top 10 Oil and Gas States



Source: U.S. Census Bureau, DT Desktop.

FIGURE 3
Latino Population Growth (2000–2014)
in Top 10 Oil and Gas States



Source: U.S. Census Bureau, DT Desktop.

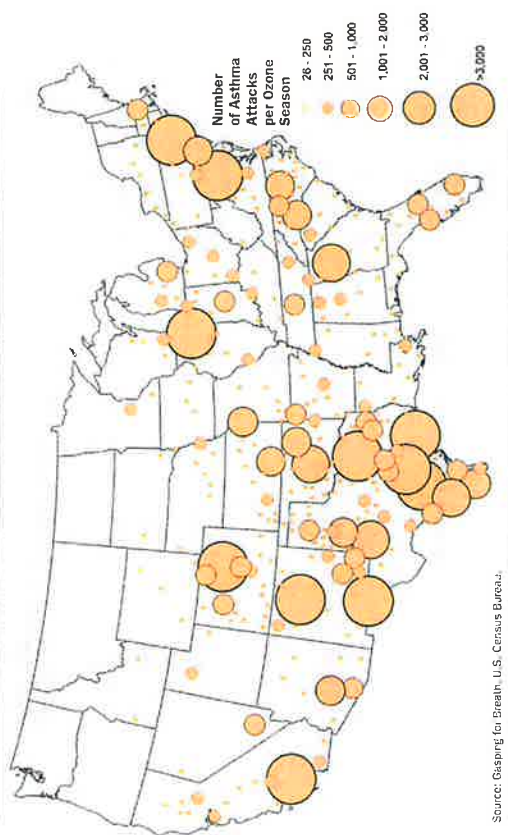
A large and growing number of Latinos live in states with large numbers of polluting oil and gas facilities. Many of the states with the highest amount of oil and gas development also have large Latino populations. In the top four oil and gas production states of 2014—New Mexico, California, Texas, and Colorado—Latinos made up more than 20% of the population. And, in four of the other top oil and gas states—North Dakota, Pennsylvania, Oklahoma, and Louisiana—the Latino population has more than doubled since 2000, a time when oil and gas production in these states has also grown.

made up a small percentage of the total rural population (9 percent).¹⁴ The number of Latinos living in rural areas has grown significantly—16 percent—just between 2000 and 2010, accounting for more than half of rural population growth over this time period.¹⁵ This distinction is important, because different types of communities face different levels of air pollution and experience differing health impacts. In urban areas, where most Latinos live, air pollution concerns are already elevated, so emissions from oil and gas facilities may exacerbate smog pollution and its associated health impacts. This may be true both when the oil and gas facilities are located in urban centers, such as Los Angeles or Fort Worth, and when urban centers are located further from oil and gas development—snagging smog pollution can travel great distances. In rural areas, where the Latino population is small but growing, overall air pollution from all industrial sources may be lower, but health risks faced by these communities can still be severe in areas with high amounts of oil and gas development, such as in parts of Texas, Oklahoma, and New Mexico.

In June 2016, Earthworks released the “Oil and Gas Threat Map”, an interactive map of the 1.2 million active oil and gas wells, compressors and processors in the U.S.¹⁶ The map shows how many Latinos live within a half mile of oil and gas facilities, and it indicates that those within this radius have cause for concern about potential health impacts from oil and gas pollution. It is not a declaration that those within it will have negative health impacts, nor does it quantify the threat posed by this pollution.

- More than 1.81 million Latinos nationally (4 percent of the total Latino population) live within this half-mile radius (see Table 1, p. 8).
- Texas has by far the most Latinos living within the half-mile radius of any state: over 800,000 people.
- In California and Colorado, Latinos disproportionately live within the half-mile radius; the Latino population percent within the radius is higher than the Latino population percent in the state as a whole.
- And, in Kansas and Ohio, more than one in three and one in five Latinos in the states live within the half-mile radius, respectively.

FIGURE 6
Number of Asthma Attacks Experienced by Latino Children Attributable to Oil and Gas by Metropolitan Area



Source: Based on Breathin, U.S. Census Bureau.

Using the same studies and methodology as the EPA used in its recent Ozone NAAQS rulemaking process, CATF’s ozone modeling estimates the impact on public health that can be directly attributable to ozone caused by emissions from the oil and gas sector. This increased impact on health is the difference between the number of incidents in the baseline case and the number of incidents in the Zero Oil and Gas case. Nationally, using this metric, CATF estimates that over 750,000 asthma attacks for children and over 500,000 lost school days during the summer ozone season are due to ozone increases resulting from oil and gas emissions.¹⁷ After adjusting these total incidence rates based on the county level Latino population, the Latino population is burdened by 153,000 asthma attacks and 112,000 lost school days attributable to oil and gas air pollution each year. The burden of these health impacts falls more heavily on populations that already have high levels of asthma or who are already vulnerable in some other way. Figure 6 shows the number of asthma attacks due to oil and gas air pollution among Latino children in metropolitan areas across the country each year.¹⁸

[T]he Latino population is burdened by 153,000 asthma attacks and 112,000 lost school days attributable to oil and gas air pollution each year. The burden of these health impacts falls more heavily on populations that already have high levels of asthma or who are already vulnerable in some other way.

Four of the ten metropolitan areas with the most asthma attacks attributable to oil and gas ozone pollution are located in Texas: the areas in and around Dallas, San Antonio, Houston, and Austin. Other highly-affected metropolitan areas, such as Los Angeles, Denver, and Albuquerque, are located in or near oil and gas production regions. In addition, the air pollution from oil and gas facilities has a large impact on some metropolitan areas that are located far from oil and gas producing



CHAPTER 2

HEALTH IMPACTS ON LATINO COMMUNITIES

OIL AND GAS FACILITIES EMIT toxic air pollution and pollution that forms ozone smog. In two previous reports, “Fossil Furnaces” and “Gaspings for Breath”, CATF presented the public health impact of toxic air pollution and ozone smog, respectively, from the oil and gas industry. Here, we break out and discuss the public health impacts of these pollutants specifically for Latino communities.

The air in many Latino communities violates air quality standards for ozone. More than one in four people in the U.S. live in areas that violate the federal air pollution standard for ozone. This includes over 23 million Latinos—more than one in three Latinos in the U.S.²⁶

These high ozone levels are caused by emissions from a variety of industries, but it is possible to separate out the increase in ozone that can be directly attributed to emissions from oil and gas facilities and its associated health impact. CATF’s “Gaspings for Breath” describes an ozone modeling analysis that compares ozone levels in a 2025 “Baseline” case and a 2025 “Zero Oil and Gas Emissions” case. The difference in ozone levels between these two cases is the ozone that can be directly attributable to oil and gas.²⁷

This increased level of ozone can be correlated with an increase in a variety of health impacts. The EPA uses peer-reviewed literature to estimate how these changes in ozone will affect public health.²⁸

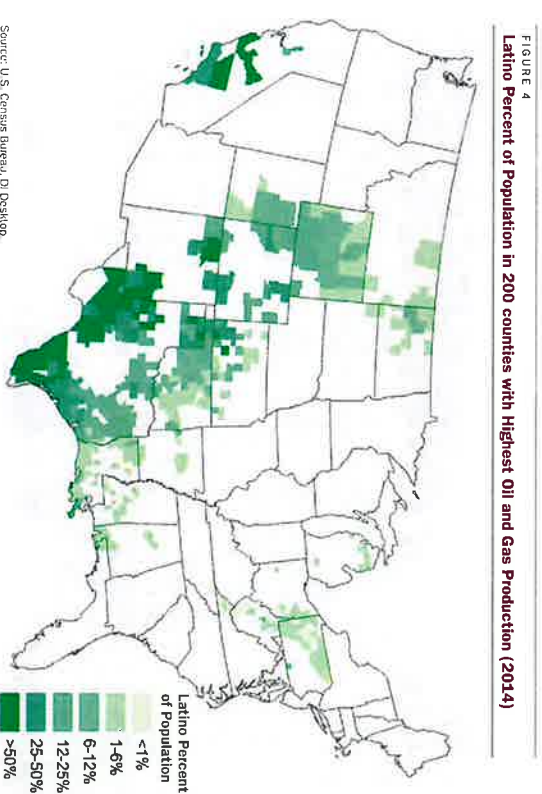


FIGURE 5
Threat Radius—The Area within a Half Mile of Active Oil and Gas Wells, Compressors, and Processing Plants



The oil and gas well data was downloaded directly from state government agencies, and it includes all active conventional and unconventional wells in 2014 and 2015. Gas compressor and processing plant data were primarily taken from a variety of state and federal databases. State and federal agencies do not monitor compressors and processing plants as closely as they do wells, so this data is not comprehensive in all states.

TABLE 1
Top 10 States by Latino Population Living with a Half Mile Radius (2010 Census)

State	Latino Population within a Half-Mile Radius	Percent of Latino Population in State within a Half-Mile Radius	Latino Population within a Half-Mile Radius as a Percent of Total Population	Total Latino Population	Latino Population as a Percent of Total State Population
Texas	832,387	9%	36%	9,460,924	38%
California	538,014	4%	41%	14,013,719	11%
Kansas	111,591	37%	10%	300,042	3%
Ohio	71,182	22%	2%	354,674	21%
Colorado	71,332	7%	28%	1,036,687	46%
New Mexico	46,592	5%	32%	953,403	6%
Pennsylvania	21,877	3%	1%	719,660	4%
Michigan	20,239	5%	5%	436,358	5%
Tennessee	18,708	6%	5%	290,059	9%
Nebraska	14,250	9%	17%	167,405	16%
TOTAL	1,813,375	4%	15%	50,477,460	

Source: <http://bkgndg@theatlmap.com>.

BOX 1

AIR POLLUTANTS FROM OIL AND GAS & ASSOCIATED HEALTH CONCERNS

Methane, the primary component of natural gas, is over 80 times more potent than carbon pollution when it comes to disrupting our climate over the coming decades. Methane also contributes to ozone smog formation.

Toxic and Hazardous Air Pollutants include a wide range of chemicals that are known or probable carcinogens and/or cause other serious health impacts. Among other chemicals of concern, oil and natural gas facilities are responsible for the following air pollutants, either emitted as a component of raw natural gas or a by-product of natural gas combustion that occurs at these sites. Exposure studies based on air measurements have identified levels of benzene, hydrogen sulfide, and formaldehyde near oil and gas sites that exceed health-based thresholds.

- **Benzene** has been linked to cancer, anemia, brain damage, and birth defects, and it is associated with respiratory tract irritation.¹⁷ Over time, benzene exposure can also lead to reproductive, developmental, blood, and neurological disorders. A 2012 study estimated a 10 in a million cancer risk—well over EPA’s level of concern—for residents near a well pad, attributable primarily to benzene levels measured in the air near the well site.¹⁸ The EPA’s National Emissions Inventory (NEI) estimates that over 20,000 tons of benzene was emitted by oil and gas sources in 2011.¹⁹ Benzene is a constituent of raw natural gas, so leaks and vents are the primary source of benzene pollution from the oil and gas industry.

- **Ethylbenzene** has been associated with respiratory and eye irritation, as well as blood and neurological disorders.²⁰ The NEI estimates that over 2,000 tons of ethylbenzene was emitted by oil and gas sources in 2011.²¹ Like benzene, ethylbenzene is a constituent of raw natural gas and leaks and vents of gas are the primary sources of ethylbenzene.
- **Hydrogen sulfide** gas is primarily found near wells producing “sour gas.” At high concentrations, it can cause severe respiratory irritation and death. At lower levels, it can lead to eye, nose, and throat irritation; asthma attacks; headaches, dizziness, nausea, and difficulty breathing.²²
- **Formaldehyde** has been linked to certain types of cancer, and chronic exposure is known to cause respiratory symptoms.²³ The NEI estimates that nearly 22,000 tons of formaldehyde was emitted by oil and gas sources in 2011.²⁴ Formaldehyde is primarily emitted from combustion sources such as flares and compressor engines.

Volatile Organic Compounds (VOCs) are precursors to ground level ozone smog. Ozone smog can impair lung function, trigger asthma attacks, and aggravate conditions of people with bronchitis and emphysema.²⁵ Children, the elderly, and people with existing respiratory conditions are the most at risk from ozone pollution.

BOX 2

AIR POLLUTION SOURCES IN THE OIL AND GAS INDUSTRY

The oil and gas industry includes a large number of industrial sites across the country. These include hundreds of thousands of wellpads where oil and gas are produced, thousands of compressor stations which move natural gas from wells to markets, and hundreds of processing plants which prepare gas for high-pressure pipelines that take it to markets.

Raw natural gas (i.e., gas as it is produced from underground formations, before significant processing is done) usually contains significant amounts of ozone-forming volatile organic compounds (VOCs) and often contains significant amounts of toxic hazardous air pollutants (HAPs), though gas varies in composition from source to source. The HAPs in raw gas include hexane, benzene, and other aromatic chemicals; poisonous gases like hydrogen sulfide can also be present. As such, natural gas wellpads and the natural gas gathering pipeline and compression systems that move gas from wells emit substantial amounts of VOCs and HAPs, as do the processing plants that separate natural gas liquids (NGL) species that are valuable components of raw natural gas from the natural gas that is sent through pipelines to customers. Some of those pollutants remain in the gas even after processing. As such, emissions from facilities further downstream in the natural gas supply chain, like transmission compressor stations and local distribution equipment, still include some of these pollutants.

Crude oil production operations also emit substantial amounts of VOCs and HAPs. Methane, as the main constituent of natural gas, is emitted from all types of oil and natural gas facilities, from wellpads to the natural gas distribution systems in urban areas.

- **Oil and Gas Production:** The oil and gas production segment includes many diverse activities, such as production of hydrocarbons from underground geologic formations; separation of natural gas, oil, and water; and collection of gas from multiple wells through natural gas gathering pipeline and compressor systems. These activities in turn involve processes such as well drilling, hydraulic fracturing or other well stimulation, and well workovers; and they require equipment such as tanks, piping, valves, meters, separators, dehydrators, pipelines, and gathering compressors.
- **Natural Gas Processing:** Gas processing plants separate raw natural gas into natural gas liquids and processed natural gas that meets specifications for transport in high-pressure pipelines and consumption in turbines and power plants. Natural gas liquids are hydrocarbons such as propane and butane. The processing removes most of the toxic components from the gas, but some toxins still remain.
- **Transmission and Storage:** Natural gas transmission pipelines carry gas from production regions to markets. This segment also includes facilities where gas is stored, either underground or in tanks. Compressor stations along pipelines maintain pressure and provide the energy to move the gas.
- **Natural Gas Distribution:** Finally, natural gas is delivered to customers (residential, commercial, and light industrial) via low-pressure underground distribution pipelines.