

Low-Income Residents and People of Color in Arizona Are Living Near Chemical Dangers

The Center for Effective Government graded states based on the dangers faced by people of color and residents with incomes below the poverty line living within one mile of dangerous facilities, compared to white and non-poor people in these areas. **Arizona scored poorly with a “D” grade.**

Nationally, 7.5 percent of the population lives within one mile of a hazardous facility.

Key Findings

- More than 380,000 Arizona residents (six percent of the total population) live within one mile of a hazardous facility. **More than half of Arizona residents living within these “fenceline communities” are people of color.**
- **Children of color under 12 are twice as likely to live in fenceline communities as white children.**
- **Poor black children are 3.4 times more likely to live near chemical hazards than white children who are not in poverty.**

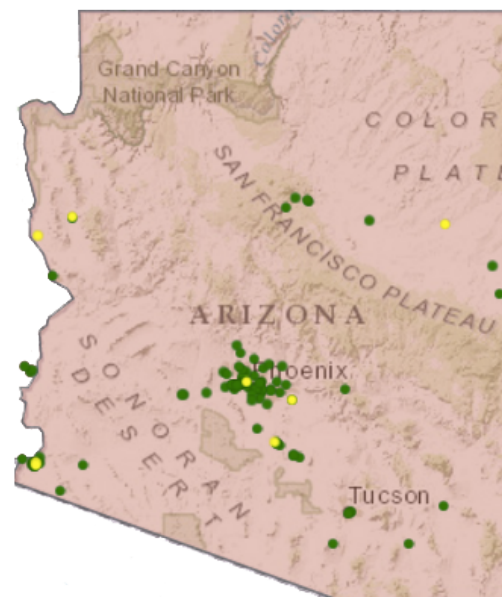
Chemical dangers are real, and incidents are happening all across Arizona.

In 2015, an anhydrous ammonia leak at True Leaf Farms in Yuma sent four nearby residents to the hospital. **Anhydrous ammonia** is a toxic gas that can be fatal at certain levels of exposure. It can also travel several miles from its source. This incident leaked 100 pounds of the toxic gas, although the facility stores up to 25,000 pounds of it at a time.

True Leaf Farms is a food storage facility that uses anhydrous ammonia in its refrigeration systems. Several other food storage and manufacturing facilities in Arizona also use this toxic gas, even though safer alternatives exist. Arizona also has chemical manufacturing and distribution facilities that store significant quantities of extremely toxic and flammable chemicals.

Some facilities, like municipal water treatment plants, use **chlorine gas** – a deadly substance that can be used as a chemical weapon. If leaked, chlorine can travel several miles from its source and endanger entire neighborhoods. Many residents are not aware that the facility that provides them with clean water may also store thousands of pounds of this dangerous chemical.

The majority of the state’s 112 high-risk facilities are clustered around the Phoenix area and its suburbs. These facilities receive shipments of chemicals that travel by train or truck, putting additional communities in harm’s way.



[Click here to open an interactive map of your neighborhood.](#)

Are people of color and low-income residents of Arizona safe from chemical hazards?

In Arizona, **nearly nine percent of children of color under 12 live in fenceline communities, compared to around four percent of white children** – meaning they are twice as likely to live near chemical hazards. Elderly people of color are also twice as likely to live in fenceline communities as white elderly residents. Both groups are more susceptible to chemical hazards than healthy adults and would also have a more difficult time evacuating efficiently during a chemical catastrophe.

Poor residents also face an increased likelihood of danger. **Poor children under 12 are one and a half times more likely to live in fenceline communities than non-poor children.** Living in the shadow of an industrial facility increases stress on poor communities as they worry about the potential for a catastrophic disaster and daily exposures to toxic emissions.

Living near these facilities can also decrease home values, meaning many poor families can't afford to move to safer neighborhoods if they want to do so.

Poor children of color, however, face the highest likelihoods of danger. **Poor black children are more than three times more likely to live near chemical hazards than white children who are not in poverty**; Latino children are more than two and a half times more likely.

Additionally, 142 Arizona public schools are located within one mile of a hazardous facility, putting more than 77,000 school children in danger. Children of color are 1.8 times more likely to attend these schools.

Inequities in Likelihood of Living in a Fenceline Community

Racial Inequities			Income (Poverty) Inequities		
	Score	Grade		Score	Grade
Percentage of People of Color Who Live in Fenceline	8.2%	C	Percentage of Poor People Who Live in Fenceline	8.3%	C
Likelihood of People of Color to Live in Fenceline (compared to whites)	1.8 times more likely	D	Likelihood of Poor People to Live in Fenceline (compared to those not in poverty)	1.5 times more likely	D
Percentage of Children of Color Under 12 Who Live in Fenceline	8.7%	C	Percentage of Poor Children Under 12 Who Live in Fenceline	9.1%	C
Likelihood of Children of Color Under 12 to Live in Fenceline (compared to white children under 12)	2 times more likely	D	Likelihood of Poor Children Under 12 to Live in Fenceline (compared to children under 12 not in poverty)	1.5 times more likely	C
Percentage of Children of Color Who Attend Public Schools in Fenceline	8.8%	C	Percentage of Children Receiving Free Lunch Who Attend Schools in Fenceline	9.9%	C
Likelihood of Children of Color to Attend Public Schools in Fenceline (compared to white children)	1.8 times more likely	D	Likelihood of Children Receiving Free Lunch to Attend Schools in Fenceline (compared to children not receiving free lunch)	1.2 times more likely	C
Percentage of Elderly of Color Who Live in Fenceline	6.3%	B	Percentage of Elderly Poor People Who Live in Fenceline	5.3%	B
Likelihood of Elderly of Color to Live in Fenceline (compared to elderly whites)	2.1 times more likely	D	Likelihood of Elderly Poor People to Live in Fenceline (compared to elderly people not in poverty)	1.5 times more likely	D
People of Color Grade		D	Poverty Grade		D
Overall Grade: D					

What you can do to protect your community from dangerous chemicals.

Arizona residents like you can help. You can organize people in your community and educate others about these dangers. You can learn about your local zoning process (if your state gives local governments zoning authority) and whether it protects community members from nearby industrial plants that use hazardous chemicals – and share what you learn with your friends and neighbors. You can attend public meetings and planning hearings and urge decision makers to think carefully about the sites chosen for new industrial facilities, and you can write, call, and meet with other state, county, and city officials to send the message that *all* Arizona residents deserve to be protected from chemical dangers.

You can also demand that the federal government require facilities to switch to safer chemicals and alternatives whenever feasible and urge the Arizona Department of Environmental Quality and the state-level OSHA to conduct more thorough and frequent inspections to spot problems before they cause disasters. And Arizona residents can push local governments to require buffer zones around new and expanded chemical facilities to ensure homes and schools are not built nearby.

Table 1: Percentage of Population Who Live in Fenceline Communities, by Age and Race

	Black	Latino	American Indian/ Alaskan Native	Asian/Pacific Islander/ Native Hawaiian	White Not Hispanic	All Races
All Ages	9.9%	9.0%	3.4%	6.0%	4.4%	6.0%
0-17	10.1%	9.2%	3.8%	6.6%	4.4%	6.8%
18-64	9.9%	9.1%	3.5%	5.9%	5.0%	6.3%
65+	8.6%	7.1%	1.9%	5.2%	3.0%	3.6%
Total # in fenceline	25,230	169,731	9,638	11,418	162,203	382,016
Likelihood of living in fenceline, compared to whites	2.2	2	1.3 times less likely	1.3	---	---

Table 2: Percentage of Poor Population Who Live in Fenceline Communities, by Age and Race

	Black	Latino	American Indian/ Alaskan Native	Asian/Pacific Islander/ Native Hawaiian	White Not Hispanic	All Races
All Ages	13.3%	11.2%	2.9%	7.7%	5.1%	8.3%
0-17	15%	11.4%	2.7%	9.8%	4.2%	9.1%
18-64	12.2%	11.3%	3.1%	7.0%	5.5%	8.1%
65+	13.2%	7.7%	1.2%	8.1%	4.4%	5.3%
Total # in fenceline	8,335	59,053	3,074	2,034	20,559	93,613
Likelihood of living in fenceline, compared to whites in poverty	2.6	2.2	1.8 times less likely	1.5	---	---
Likelihood of living in fenceline, compared to same race not in poverty	1.5	1.4	1.3 times less likely	1.3	1.2	1.5
Likelihood of living in fenceline, compared to whites not in poverty	3.1	2.6	1.5 times less likely	1.8	1.2	---

Table 3: Percentage of Children Who Attend Public School in Fenceline Communities, by Grade and Race

	Black	Latino	American Indian/ Alaskan Native	Asian/Pacific Islander/ Native Hawaiian	White Not Hispanic	All Races
All Grades	10.4%	9.3%	3.8%	6.6%	4.8%	7.1%
Pre-K - 2	12.8%	9.8%	4.0%	7.1%	4.7%	7.6%
3-7	10.5%	9.4%	4.2%	6.5%	5.0%	7.3%
8-12	9.0%	8.8%	3.4%	6.3%	4.5%	6.6%
Total # fenceline	5,959	43,714	2,045	2,198	21,601	77,347
Likelihood of attending schools in fenceline, compared to white children	2.2	1.9	1.2 times less likely	1.4	---	---

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