

Low-Income Residents and People of Color in Tennessee 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. **Tennessee scored poorly with a “D” grade.**

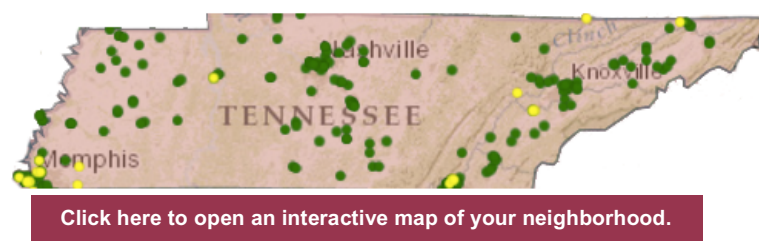
Nationally, 7.5 percent of the population lives within one mile of a hazardous facility.

Key Findings

- More than 340,000 Tennesseans (one in 18) live within one mile of a facility storing large amounts of extremely hazardous chemicals. **Almost half of Tennessee residents living within these “fenceline communities” are people of color.**
- **Children of color under age 12 are almost three times more likely to live in the shadow of a hazardous chemical facility compared to white children.**
- **Poor black children are over five-and-a-half times more likely to live near hazardous facilities than white children who are not in poverty.**

Chemical dangers are real, and Tennessee has experienced recent industrial incidents.

In recent years, a number of significant incidents have occurred in Tennessee. The Tate & Lyle plant in Loudon had at least nine incidents in 2013. One of these incidents released 208 pounds of sulfur dioxide into the air. While no one was hurt, the incident could have exposed workers and others to toxic fumes. The plant contains as much as 144,000 pounds of sulfur dioxide and 65,000 pounds of ammonia, which it uses to process food. The plant is less than one-and-a-half miles from Loudon Elementary School and Ft. Loudon Middle School, which together have more than 800 students.



Tennessee’s 195 high-risk facilities are dotted across the state, with a high concentration in and around Memphis, Nashville, and Chattanooga. They include everything from food distribution and processing plants, chemical manufacturing facilities, and water treatment plants in cities and suburbs to rural fertilizer distribution facilities.

These facilities use and store a variety of chemicals, including **anhydrous ammonia**, which is sold as a fertilizer and is also used in commercial refrigeration. Water treatment plants and other industrial facilities store **chlorine gas**, a deadly substance that can be used as a chemical weapon. A leak from one of these plants could sicken and kill surrounding neighbors before they have time to evacuate.

But the plants themselves aren't the only risk. **Companies ship these dangerous chemicals** to the facilities, often by train or by truck, and accidents in transit can also lead to fatal releases.

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

Nearly half the people living in fenceline communities are people of color. Black residents are over three times more likely to live near hazardous facilities than white residents. **Nearly 10 percent of kids of color under age 12 live near potentially dangerous facilities, compared to only 3.5 percent of white kids in this age group, making them almost three times more likely to live in these areas.** Additionally, children of color are almost two-and-a-half times more likely to attend schools near hazardous facilities compared to white children. These children face acute dangers and daily

exposures to toxic chemicals that put them at a distinct disadvantage because young children are much more susceptible to chemical hazards than adults.

Poor children under age 12 also face unequal chemical dangers; **over nine percent of poor children in Tennessee live in fenceline communities, compared to just four percent of 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.

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	10.5%	C	Percentage of Poor People Who Live in Fenceline	9.3%	C
Likelihood of People of Color to Live in Fenceline (compared to whites)	2.6 times more likely	F	Likelihood of Poor People to Live in Fenceline (compared to those not in poverty)	2 times more likely	F
Percentage of Children of Color Under 12 Who Live in Fenceline	9.9%	C	Percentage of Poor Children Under 12 Who Live in Fenceline	9.5%	C
Likelihood of Children of Color Under 12 to Live in Fenceline (compared to white children under 12)	2.8 times more likely	F	Likelihood of Poor Children Under 12 to Live in Fenceline (compared to children under 12 not in poverty)	2.3 times more likely	F
Percentage of Children of Color Who Attend Public Schools in Fenceline	9.5%	C	Percentage of Children Receiving Free Lunch Who Attend Schools in Fenceline	7.1%	B
Likelihood of Children of Color to Attend Public Schools in Fenceline (compared to white children)	2.4 times more likely	F	Likelihood of Children Receiving Free Lunch to Attend Schools in Fenceline (compared to children not receiving free lunch)	1.3 times more likely	C
Percentage of Elderly of Color Who Live in Fenceline	13.7%	D	Percentage of Elderly Poor People Who Live in Fenceline	7.6%	C
Likelihood of Elderly of Color to Live in Fenceline (compared to elderly whites)	3.5 times more likely	F	Likelihood of Elderly Poor People to Live in Fenceline (compared to elderly people not in poverty)	1.6 times more likely	D
People of Color Grade		F	Poverty Grade		D
Overall Grade: D					

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

Tennesseans 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** Tennesseans 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 Tennessee Department of Environment and Conservation and the state-level OSHA to conduct more thorough and frequent inspections to spot problems before they cause disasters. And Tennesseans 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	12.5%	7%	5.1%	4.5%	4%	5.6%
0-17	12.4%	6.5%	5.4%	3.9%	3.3%	5.5%
18-64	12.1%	7.4%	5.1%	4.7%	4.2%	5.7%
65+	15.8%	5.7%	4.5%	3.9%	3.9%	5.1%
Total # in fenceline	128,739	20,648	823	4,305	187,182	347,107
Likelihood of living in fenceline, compared to whites	3.2	1.8	1.3	1.1	---	---

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	17.8%	8.6%	5.9%	7.9%	5.6%	9.3%
0-17	17.3%	8.3%	5.4%	7.8%	4.6%	9.5%
18-64	17.9%	8.8%	5.9%	8.5%	6.2%	9.4%
65+	20.4%	15.0%	7.9%	1.5%	4.6%	7.6%
Total # in fenceline	53,291	8,523	227	1,016	37,164	102,394
Likelihood of living in fenceline, compared to whites in poverty	3.2	1.5	Just as likely	1.4	---	---
Likelihood of living in fenceline, compared to same race not in poverty	1.7	1.4	1.2	2	1.5	2
Likelihood of living in fenceline, compared to whites not in poverty	4.8	2.3	1.6	2.1	1.5	---

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	11.0%	6.3%	5.6%	6.1%	4%	5.9%
Pre-K - 2	12.2%	6.7%	7.1%	4.4%	3.8%	6.1%
3-7	11.2%	6.0%	3.5%	5.1%	3.0%	5.1%
8-12	10.1%	6.1%	6.8%	8.7%	5.3%	6.6%
Total # in fenceline	25,198	4,524	105	1,099	26,570	58,350
Likelihood of attending schools in fenceline, compared to white children	2.7	1.6	1.4	1.5	---	---

Find the Full Report at ForEffectiveGov.org