

Low-Income Residents and People of Color in Rhode Island 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. **Rhode Island scored an above-average “B” grade but still has room for improvement.**

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

Key Findings

- More than 68,000 Rhode Islanders (6.8 percent of the total population) live within one mile of a facility storing large amounts of extremely hazardous chemicals. These “fenceline communities” face potential chemical leaks and explosions on a daily basis.
- **Asian/Pacific Islander children are one-and-a-half times more likely to live in fenceline communities than white children.** They are 1.6 times more likely to attend public schools near hazardous facilities.
- Sixteen Rhode Island public schools are located within one mile of a hazardous facility, putting 7,700 students in danger.

Chemical dangers are real, and incidents are happening in Rhode Island.

In 2011, an incident at the Technic, Inc. plant in Woonsocket released 150 pounds of liquid ammonia. Four people were injured, including two employees. The plant contains 41,000 pounds of ammonia, and it is located downtown. The closest residences and the closest body of water are only a tenth of a mile from the site

The Technic plant manufactures metal particulates. Other risky facilities in the state include oil and gas distribution terminals, chemical manufacturing facilities, and water treatment plants.

Water treatment plants that use **chlorine gas** for purification (rather than safer alternatives) pose a particular threat to communities. Like anhydrous ammonia, chlorine can be deadly and spreads quickly when released – making it a chemical weapon of choice in World War I. Many residents are not aware that the facility that provides them with clean water is capable of causing a catastrophic disaster.

Rhode Island’s 13 high-risk facilities are located in the northern part of the state, with a higher concentration in suburbs than in cities or rural areas. Companies ship chemicals to these facilities, often by train or truck, and incidents during transit can also lead to fatal releases.



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

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

The percentage of Rhode Islanders living in fenceline communities (6.8 percent) is slightly less than the national average. As a whole, people of color are not significantly more likely to live in fenceline communities than the rest of the population. This helped contribute to Rhode Island’s B-grade in the people of color category.

However, when you look at individual racial categories, you see some glaring disparities. For example, **Asian and Pacific Islander children are one-and-a-half times more likely to live in fenceline zones than white children.** Living near hazardous facilities puts these children in danger of chemical disasters and may also expose them to daily toxic emissions.

Rhode Island scored a B in the poverty grade for similar reasons. It does not have a large percentage of poor populations living in fenceline communities, and as a group, poor residents are not more likely to live near chemical hazards compared to those above the poverty line. However, **poor Asian and Pacific Islander children are 1.6 times more likely to live near chemical hazards than white children above the poverty line.** Living near chemical facilities can decrease home values, making it more difficult for these families to move to safer neighborhoods.

Compared to many states, Rhode Island is doing relatively well in protecting its communities from chemical hazards, but it still has some racial and income disparities to address.

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	6.5%	B	Percentage of Poor People Who Live in Fenceline	6%	B
Likelihood of People of Color to Live in Fenceline (compared to whites)	1.1 times less likely	A	Likelihood of Poor People to Live in Fenceline (compared to those not in poverty)	1.2 times less likely	A
Percentage of Children of Color Under 12 Who Live in Fenceline	6.3%	B	Percentage of Poor Children Under 12 Who Live in Fenceline	5.8%	B
Likelihood of Children of Color Under 12 to Live in Fenceline (compared to white children under 12)	1.1 times less likely	A	Likelihood of Poor Children Under 12 to Live in Fenceline (compared to children under 12 not in poverty)	1.2 times less likely	A
Percentage of Children of Color Who Attend Public Schools in Fenceline	5.4%	B	Percentage of Children Receiving Free Lunch Who Attend Schools in Fenceline	6.1%	B
Likelihood of Children of Color to Attend Public Schools in Fenceline (compared to white children)	Just as likely	B	Likelihood of Children Receiving Free Lunch to Attend Schools in Fenceline (compared to children not receiving free lunch)	1.4 times less likely	A
Percentage of Elderly of Color Who Live in Fenceline	7.8%	C	Percentage of Elderly Poor People Who Live in Fenceline	6.5%	C
Likelihood of Elderly of Color to Live in Fenceline (compared to elderly whites)	1.1 times more likely	B	Likelihood of Elderly Poor People to Live in Fenceline (compared to elderly people not in poverty)	1.1 times less likely	A
People of Color Grade		B	Poverty Grade		B
Overall Grade: B					

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

Rhode Islanders 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** Rhode Islanders 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 Rhode Island Department of Environmental Management and federal OSHA to conduct more thorough and frequent inspections to spot problems before they cause disasters. And Rhode Islanders 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	5.7%	5.5%	1.7%	10.1%	6.9%	6.8%
0-17	5.1%	5.7%	2.1%	10.4%	6.8%	6.6%
18-64	5.8%	5.3%	1.5%	9.8%	6.9%	6.8%
65+	8.4%	5.6%	1.7%	12.2%	7.0%	7.1%
Total # in fenceline	3,599	7,201	75	3,095	52,943	68,795
Likelihood of living in fenceline, compared to whites	1.2 times less likely	1.3 times less likely	4.1 times less likely	1.5	---	---

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	4.3%	4.2%	1.7%	8.4%	7.2%	6.0%
0-17	4.6%	4.3%	0.8%	10.6%	8.0%	5.8%
18-64	3.8%	4.0%	2.4%	7.7%	7.1%	6.0%
65+	7.3%	5.3%	0.0%	10.1%	6.7%	6.5%
Total # in fenceline	785	1,791	24	23	4,987	8,236
Likelihood of living in fenceline, compared to whites in poverty	1.7 times less likely	1.7 times less likely	4.4 times less likely	1.2	---	---
Likelihood of living in fenceline, compared to same race not in poverty	1.5 times less likely	1.5 times less likely	Just as likely	1.2 times less likely	1.1	1.2 times less likely
Likelihood of living in fenceline, compared to whites not in poverty	1.6 times less likely	1.7 times less likely	4.2 times less likely	1.2	1.1	---

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	4.9%	4.9%	3.7%	8.9%	5.6%	5.5%
Pre-K - 2	5.7%	5.3%	1.4%	8.6%	5.2%	5.4%
3-7	4.8%	4.3%	4.5%	9.1%	6.0%	5.6%
8-12	4.7%	5.2%	4.2%	8.8%	5.4%	5.4%
Total # in fenceline	570	1,547	33	386	4,918	7,736
Likelihood of attending schools in fenceline, compared to white children	1.1 times less likely	1.1 times less likely	1.5 times less likely	1.6	---	---

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