

## Low-Income Residents and People of Color in Massachusetts 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. **Massachusetts scored on the failing end and was one of just two states with an “F” grade.**

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

### Key Findings

- Massachusetts has made great strides in reducing the amount of toxic chemicals used at industrial facilities throughout the state. However, nearly 500,000 Bay Staters (one in 13) still 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.
- **Children of color under age 12 are two-and-a-half times more likely to live in the shadow of a hazardous chemical facility compared to white children in Massachusetts.**
- **Poor Latino children are almost four times more likely to live near facilities than white children not in poverty.**

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

Massachusetts’ 70 high-risk facilities are scattered across the state, but most plants are concentrated near Springfield, Lynn, and several towns just over the state border from Providence, Rhode Island. They include everything from chemical manufacturing plants and food production facilities in cities, to plastics manufacturing and water treatment plants in the suburbs, to rural metal production and fabricating plants.

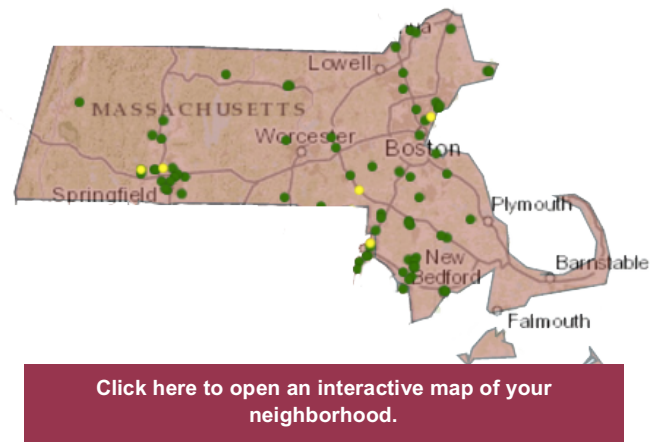
These facilities use and store a variety of chemicals, including **anhydrous ammonia**, which is used in commercial refrigeration. Water treatment plants and other industrial facilities store **chlorine gas**, a deadly substance that can be used as a chemical weapon. A leak from one of these plants could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

Two food-related facilities in the state have had incidents since 2010. The New England Confectionary Company, located northeast of Boston, leaked 8,000 pounds of toxic anhydrous ammonia in 2012. Two years later, Preferred Freezer Services, northeast of Providence, leaked more than 2,000 pounds of the same chemical. Thankfully, these leaks did not cause any injuries.

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 Massachusetts safe from chemical hazards?

More than 19 percent of Latinos live in fenceline communities, compared to only six percent of white residents – meaning



they are more than three times more likely to live near chemical hazards. **Nearly 14 percent of kids of color under age 12 live near potentially dangerous facilities, compared to only about five percent of white kids in this age group.** More than 12 percent of children of color attend public schools close to a risky industrial facility, but only 5.5 percent of white students do. 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; **they are two-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.

### Inequities in Likelihood of Living in a Fenceline Community

Racial Inequities	Score	Grade	Income (Poverty) Inequities	Score	Grade
Percentage of People of Color Who Live in Fenceline	13.2%	D	Percentage of Poor People Who Live in Fenceline	13.9%	D
Likelihood of People of Color to Live in Fenceline (compared to whites)	2.2 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	13.8%	D	Percentage of Poor Children Under 12 Who Live in Fenceline	17.1%	F
Likelihood of Children of Color Under 12 to Live in Fenceline (compared to white children under 12)	2.5 times more likely	F	Likelihood of Poor Children Under 12 to Live in Fenceline (compared to children under 12 not in poverty)	2.5 times more likely	F
Percentage of Children of Color Who Attend Public Schools in Fenceline	12.5%	D	Percentage of Children Receiving Free Lunch Who Attend Schools in Fenceline	14.3%	D
Likelihood of Children of Color to Attend Public Schools in Fenceline (compared to white children)	2.3 times more likely	F	Likelihood of Children Receiving Free Lunch to Attend Schools in Fenceline (compared to children not receiving free lunch)	2.4 times more likely	F
Percentage of Elderly of Color Who Live in Fenceline	12%	D	Percentage of Elderly Poor People Who Live in Fenceline	11.8%	F
Likelihood of Elderly of Color to Live in Fenceline (compared to elderly whites)	1.9 times more likely	D	Likelihood of Elderly Poor People to Live in Fenceline (compared to elderly people not in poverty)	1.8 times more likely	F
<b>People of Color Grade</b>		<b>F</b>	<b>Poverty Grade</b>		<b>F</b>
<b>Overall Grade: F</b>					

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

Bay Staters 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** Bay Staters 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 Massachusetts Department of Environmental Protection and federal OSHA to conduct more thorough and frequent inspections to spot problems before they cause disasters. And Bay Staters 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
<b>All Ages</b>	<b>10.9%</b>	<b>19.1%</b>	<b>10.9%</b>	<b>6.7%</b>	<b>6.0%</b>	<b>7.8%</b>
0-17	11.0%	19.4%	13.5%	6.0%	5.4%	8.2%
18-64	10.9%	19.1%	10.4%	6.7%	6.2%	7.8%
65+	10.3%	17.0%	7.7%	8.6%	6.3%	6.9%
<b>Total # in fenceline</b>	<b>47,144</b>	<b>121,243</b>	<b>1,357</b>	<b>23,568</b>	<b>291,749</b>	<b>495,695</b>
<b>Likelihood of living in fenceline, compared to whites</b>	<b>1.8</b>	<b>3.2</b>	<b>1.8</b>	<b>1.1</b>	<b>---</b>	<b>---</b>

**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
<b>All Ages</b>	<b>14.3%</b>	<b>22.0%</b>	<b>11.1%</b>	<b>11.8%</b>	<b>9.7%</b>	<b>13.9%</b>
0-17	14.2%	22.6%	14.1%	12.6%	11.2%	16.5%
18-64	14.2%	21.5%	9.0%	10.9%	9.3%	13.0%
65+	16.3%	20.9%	13.4%	15.3%	9.3%	11.8%
<b>Total # in fenceline</b>	<b>13,931</b>	<b>42,281</b>	<b>356</b>	<b>5,947</b>	<b>36,043</b>	<b>100,622</b>
<b>Likelihood of living in fenceline, compared to whites in poverty</b>	<b>1.5</b>	<b>2.3</b>	<b>1.1</b>	<b>1.2</b>	<b>---</b>	<b>---</b>
<b>Likelihood of living in fenceline, compared to same race not in poverty</b>	<b>1.5</b>	<b>1.2</b>	<b>Just as likely</b>	<b>2.0</b>	<b>1.7</b>	<b>2.0</b>
<b>Likelihood of living in fenceline, compared to whites not in poverty</b>	<b>2.5</b>	<b>3.8</b>	<b>1.9</b>	<b>2.1</b>	<b>1.7</b>	<b>---</b>

**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
<b>All Grades</b>	<b>9.9%</b>	<b>17.3%</b>	<b>8.9%</b>	<b>5.5%</b>	<b>5.5%</b>	<b>7.9%</b>
Pre-K - 2	10.5%	16.3%	8.3%	5.5%	4.8%	7.6%
3-7	10.1%	16.6%	10.6%	5.2%	4.8%	7.3%
8-12	9.3%	18.8%	7.7%	5.8%	6.7%	8.7%
<b>Total # in fenceline</b>	<b>8,080</b>	<b>27,094</b>	<b>205</b>	<b>3,158</b>	<b>34,902</b>	<b>75,459</b>
<b>Likelihood of attending schools in fenceline, compared to white students</b>	<b>1.8</b>	<b>3.1</b>	<b>1.6</b>	<b>1 times less likely</b>	<b>---</b>	<b>---</b>

**Find the Full Report at [ForEffectiveGov.org](http://ForEffectiveGov.org)**