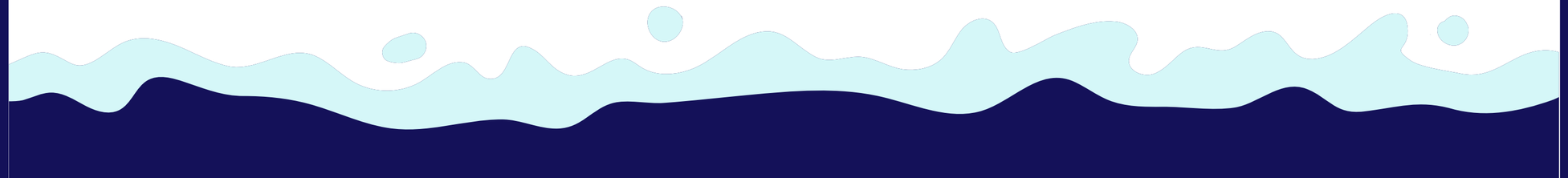
Disastrous Decision Making

How can we protect vulnerable populations during a disaster?

Climate Change and Storms

There is evidence that an in increase in the global mean temperature (climate change) will impact the frequency and severity of natural disasters, including flood-inducing rainfall.



100 year floods

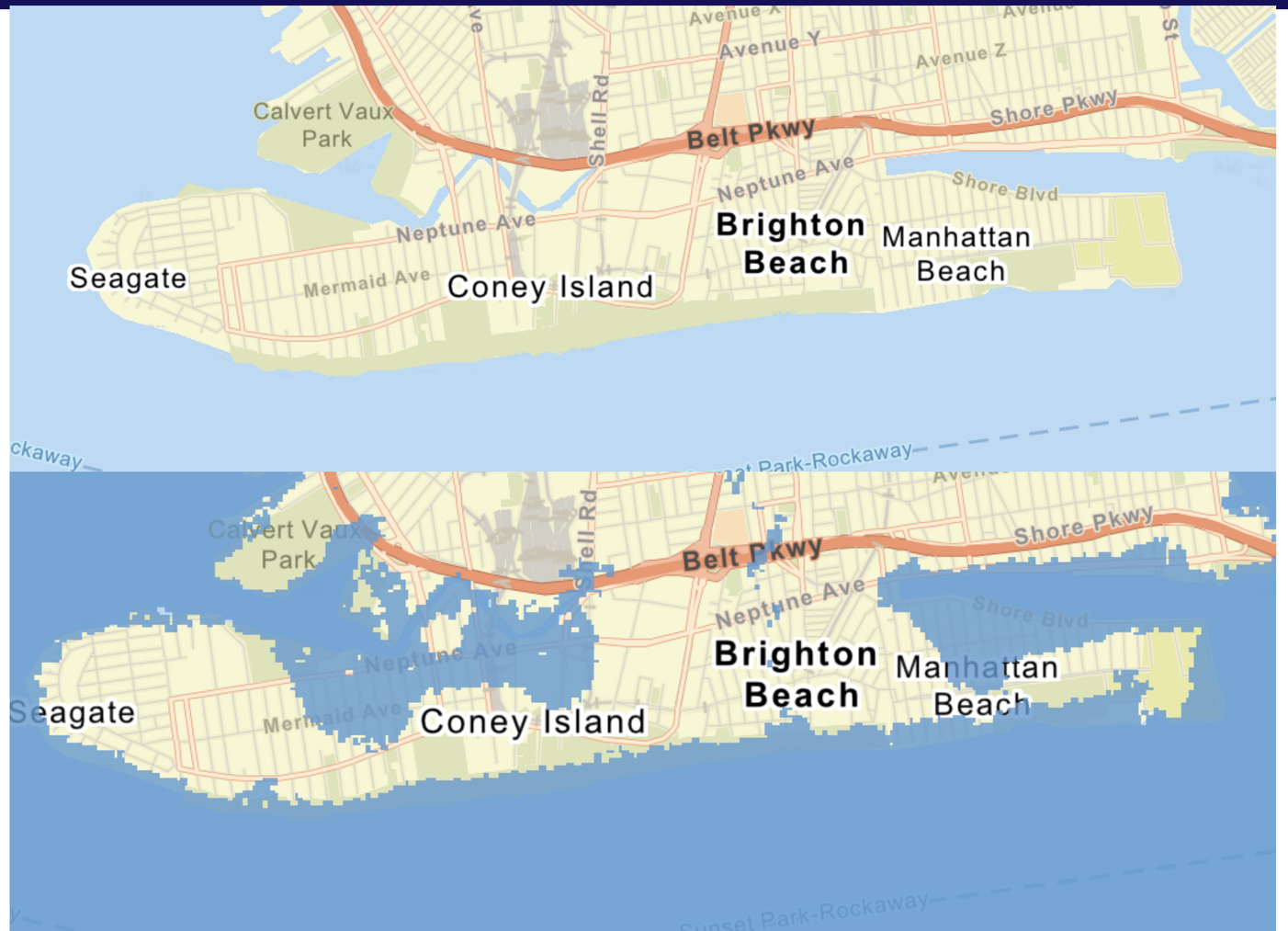
Don't happen every 100 years.

Or last for 100 years.

A 100 year flood has a 1 in 100 chance of hitting in a given year.

The term was created to help people assess risk. For example, houses that have been built in a place where a 100 year flood could happen (a floodplain) usually need to purchase extra insurance.

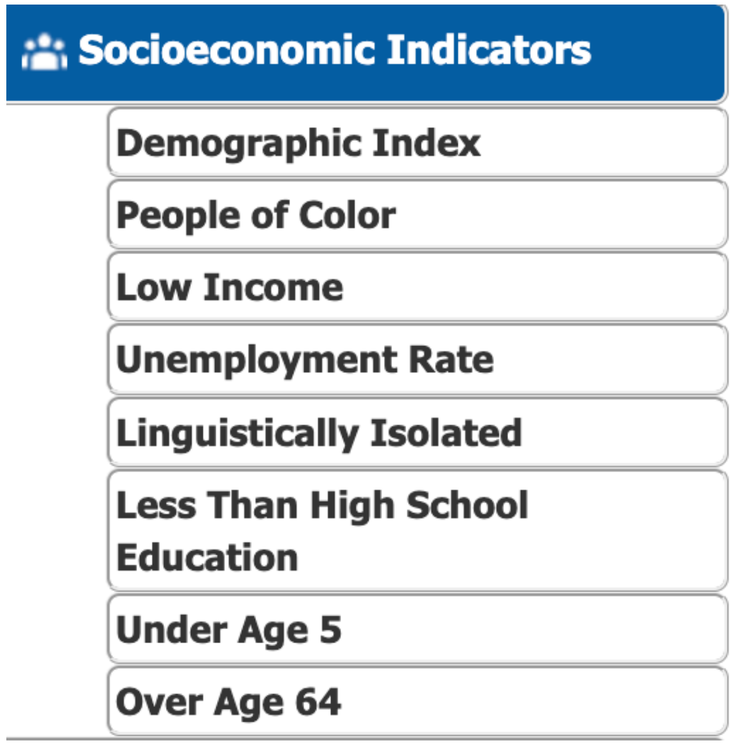
Impacts of a 100 year flood



Vulnerability

Certain regions will not be impacted the same from the same disaster.

There are many demographic variables that increase the risk of negative impacts from disasters.



Vulnerability

Linguistically isolated

Over 64

Vulnerability & Disaster

Linguistically isolated

Linguistically isolated and at risk of flood

The Game

There is a major flood-inducing storm coming to the coastal city of your choice.

In a group of 3, students will use data from a map to decide which area is the most vulnerable to the impacts, and how to protect it.

Mayor

The mayor is responsible for talking to both the science advisor and the social advisor to come to a decision.

In this activity, the mayor will listen to both advisors and work with them to pick the most vulnerable block group to protect in the event of a disaster.

Science Advisor

The science advisor is responsible for talking to the mayor about the scientific evidence they find.

In this activity, the science advisor will look at the flood map, and recommend where to protect based on the data.

Social Advisor

The social advisor is responsible for talking to the mayor about the socioeconomic data they find.

In this activity, the social advisor will look at a map that has socioeconomic data - data that describes the age, ethnicity, race, and income of the people living in an area.

Based on this map, this advisor will pick one location to protect from a disaster.

Examples of Aid

Building Storm Walls

or building flood barriers with sandbags

Distributing Supplies

like food, baby formula, and clean water

Evacuation

Setting aside money to help people leave

Deploying the National Guard

to prepare for rescue operations

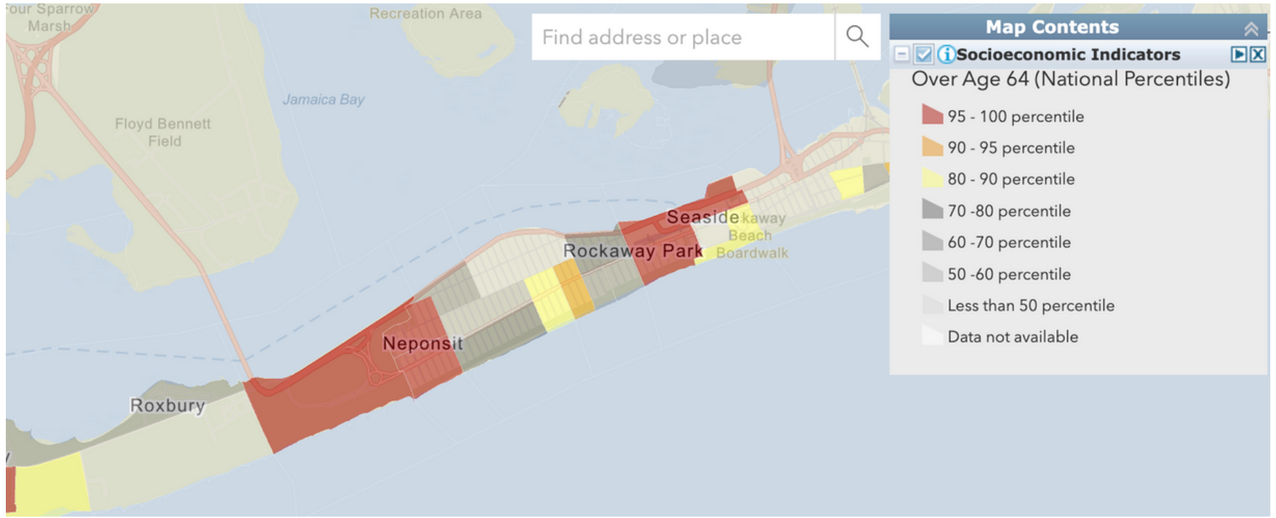
Playing the Game:

Go to

https://ejscreen.epa.gov/mapper/

1. The social advisor will look at the socioeconomic indicators
2. The science advisor will look at the climate change data (specifically 100 year floodplain)

Block Groups:



Block groups may not look the same, but they represent about the same amount of people

Playing the Game:

Each advisor will choose **two (2) block groups** that they would like to protect from the flood, and present their recommendations to the mayor.

Compromise

Sometimes the social and science advisors will have different recommendations. That's okay! The goal of the game is to have conversations and come to a conclusion together.

Recommendations

Which two block groups does the science advisor recommend to protect? Why?

Which two block groups does the social advisor recommend to protect? Why?

Decision Time!

Which one area will you send resources to? Why?

What resources will you deploy? Why?

Discussion Questions

- What area did your group decide to protect?
- Why did you choose one demographic variable over another? What influenced this decision?
- How would you use your to help the people in the area? (There is no one right answer, get crazy with it!).
- How did you feel only having to pick one area? Frustrated, angry, sad, etc.?

Thank you!

For more information, please contact
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