

The Climate Crisis and PSB

Is climate change a concern for schools?

Roger Grande
BHS Social Studies

Graduate Green petition: *where it began*

To: Brookline School Committee and school leaders

From: BHS Climate and Food Justice club

We can no more afford to ignore the climate emergency now than we could last month, or last year. It is here, now, and its impacts will only worsen the longer we go without taking collective action. As the Covid-19 pandemic reminds us, we ignore scientific expertise and the rising toll of a crisis at our own peril. Human driven climate change increasingly threatens our physical and mental health, our food system, our democracy, the status of immigrants in our community, our confidence in science and truth, and the gains we have made towards racial and gender justice...

BHS Student Sustainability Survey, March 2022

Background & Approach

BACKGROUND

The data presented in this deck is sourced from the Winter 2022 BHS Student Sustainability Survey. This study was undertaken to support sustainability efforts and climate change initiatives at BHS.

The survey explored a number of areas including:

- Students' global warming acumen and attitudes
- Global warming's impact on their lives both in and out of school
- Their political views and demographic information

APPROACH

Data were collected via a 21-question online survey, which ran from March 4 to March 9.

A total of 512 BHS students participated in the study and all grades were represented as detailed in the table below.

| | Sample size |
|------------------|-------------|
| 9th Freshman | 95 |
| 10th Sophomore | 124 |
| 11th Junior | 197 |
| 12th Senior | 98 |

Who we spoke to

The majority of survey participants are cisgendered and white, though 1-in-4 are AAPI and 1-in-5 identify as multi-racial.

DEMOGRAPHICS

Pronouns

He / him / his



She / her / hers



They / them / theirs / other



Race

White



Asian / Asian American / Pacific Islander



Latino / Latinx / Hispanic



Black / African American



Other

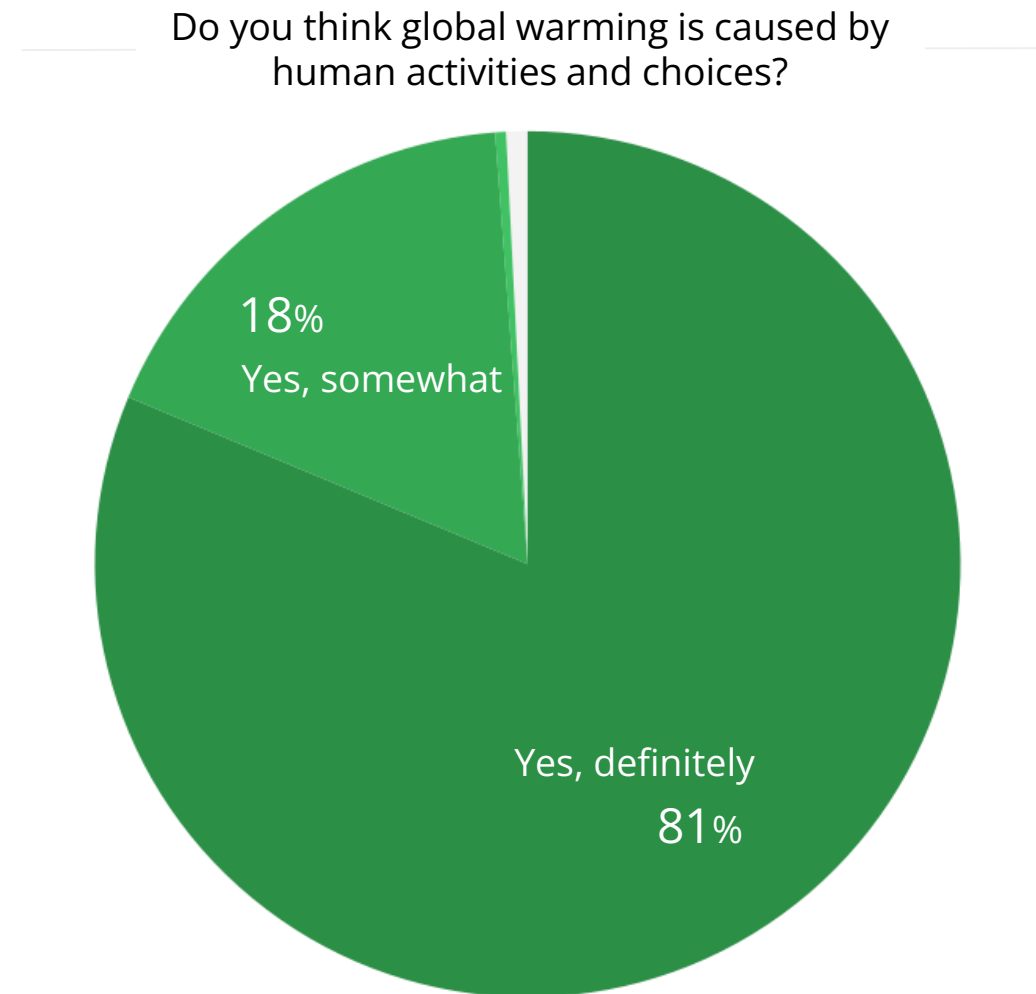
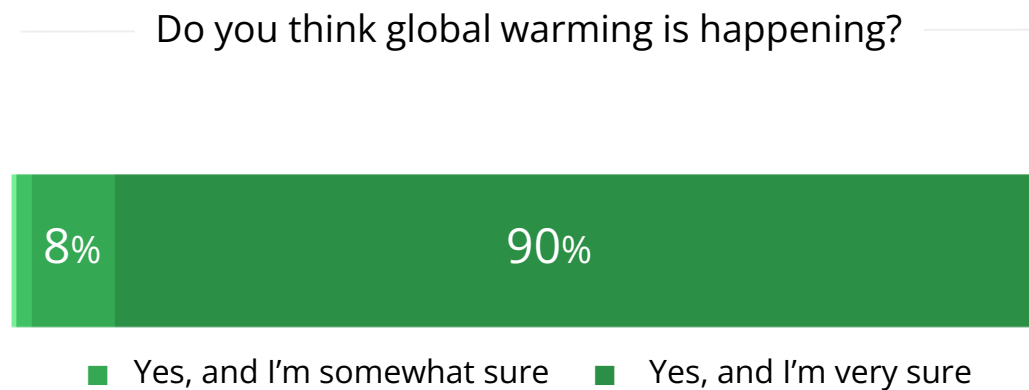


Multi-racial



Nearly all BHS students are confident global warming is happening and 8-in-10 believe humans are responsible

CLIMATE CHANGE KNOWLEDGE

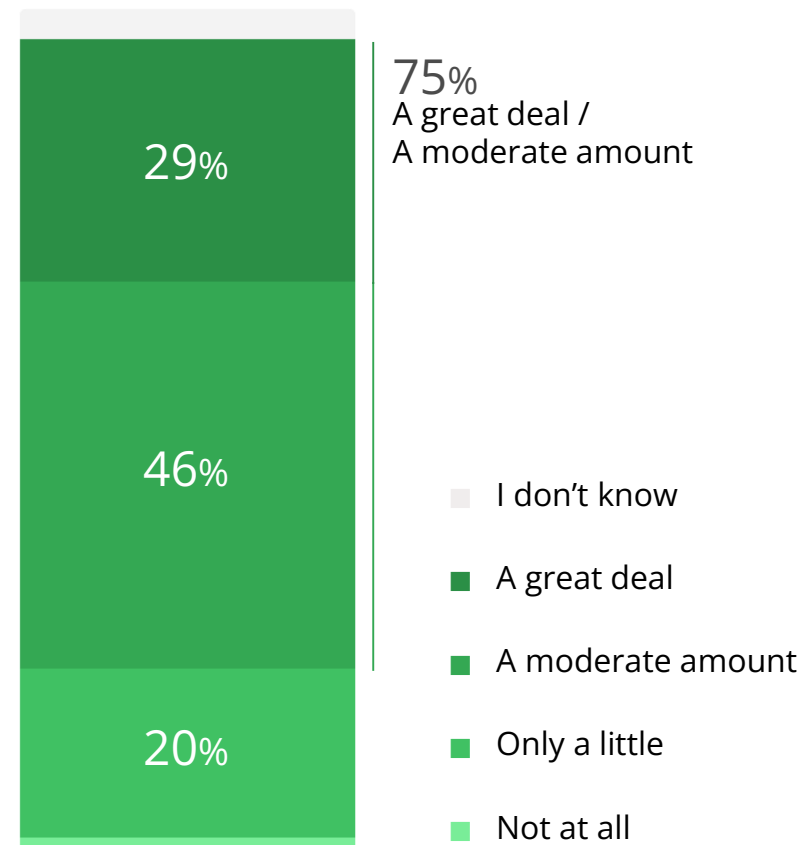


They also believe climate change's impact is global

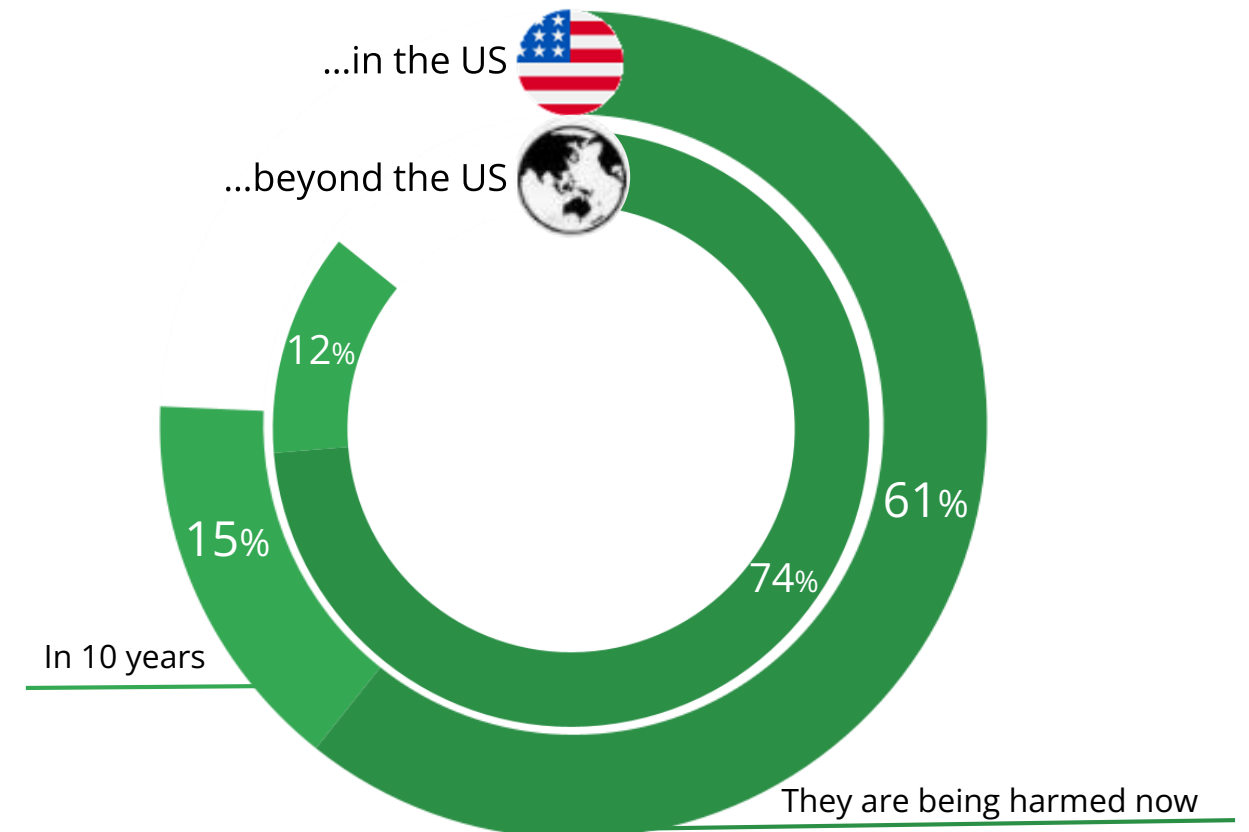
3-in-4 anticipate climate change will cause them at least moderate personal harm. 3-in-4 also believe Americans are already being harmed by climate change's impacts, or will be within 10 years. Even more (nearly 9-in-10) believe that's the case for people outside the US.

PERCEIVED CLIMATE CHANGE IMPACT

How much do you think climate change will harm you personally?

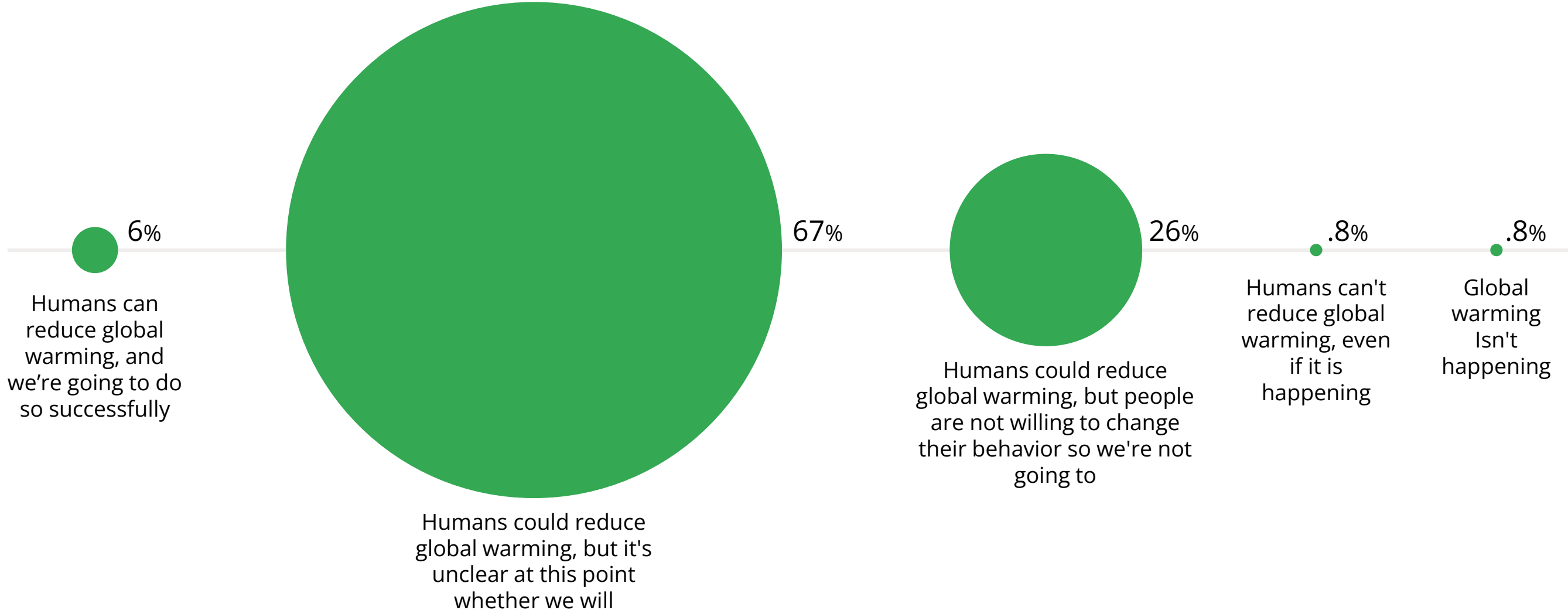


When do you think climate change will start to harm people...?



Nearly all BHS students are not confident global warming will be stopped

VIEWS ON CLIMATE CHANGE

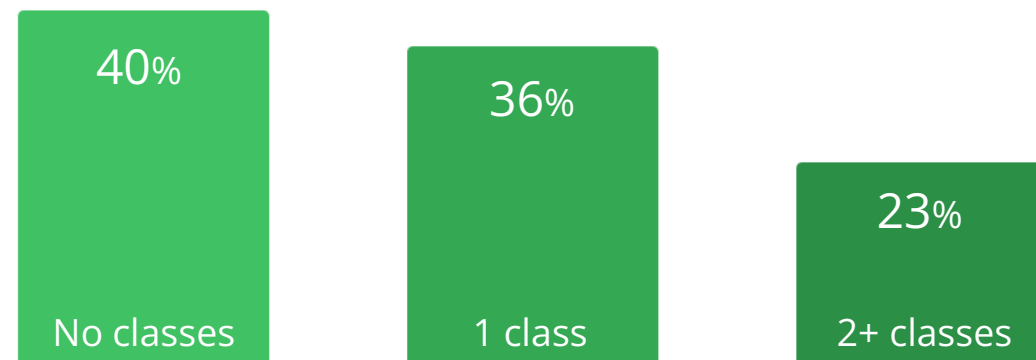


Demand for climate change education exceeds offerings

Just under a quarter of BHS students report learning about climate change in 2 or more classes, while twice as many would like BHS to require students take climate change classes all four years.

EXPERIENCE WITH + OPINIONS TOWARD CLIMATE CHANGE EDUCATION

Since you began as a student at BHS, in how many classes have you already learned about climate change at BHS?



Should BHS require that students learn...?

...about climate change in all four years of high school



...skills that prepare them to address & work against climate change & its impacts?



■ Yes ■ No ■ Don't know



OPINION

“Why is the Environmental Justice Movement So White?” by Azavia Barsky-Elnour

March 29, 2022 — 0 Comments



CLASSROOM

“How We Compost at School” by Lincoln 7th Graders

March 29, 2022 — 0 Comments



METHANE

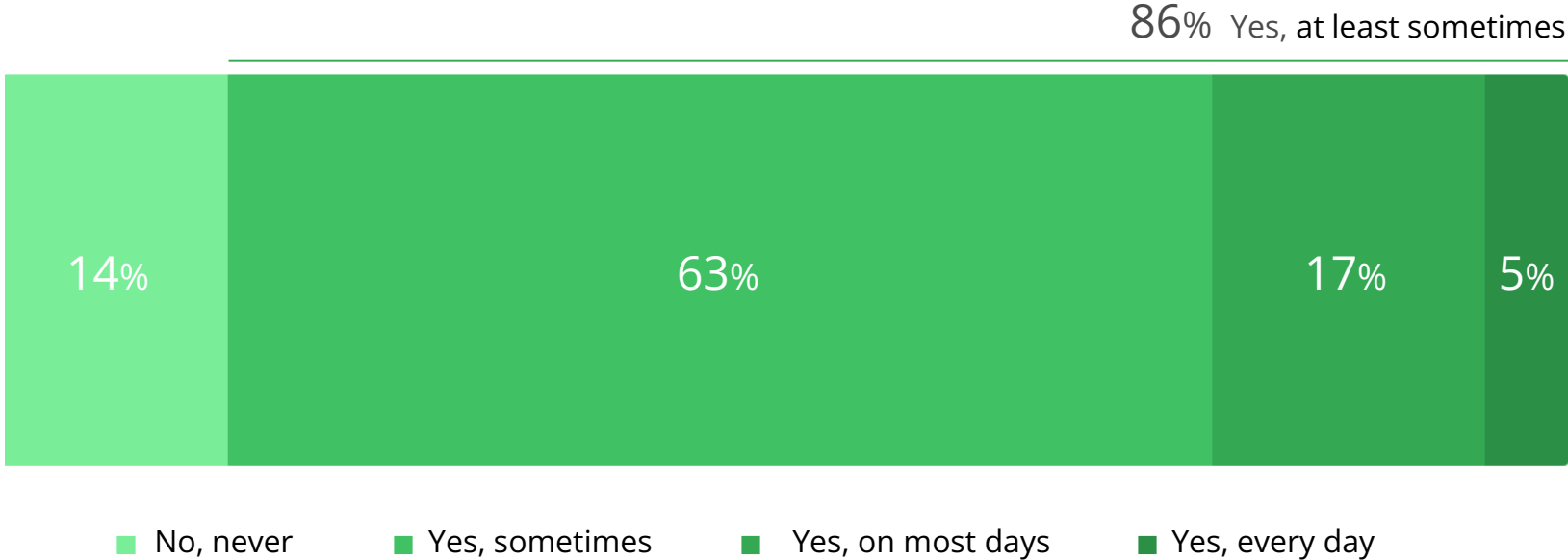
METHANE



Nearly 9-in-10 BHS students have thought about climate change and for 1-in-5, it's on their minds "most days"...

CLIMATE CHANGE'S PRIMACY

In the past month, have you thought about climate change?

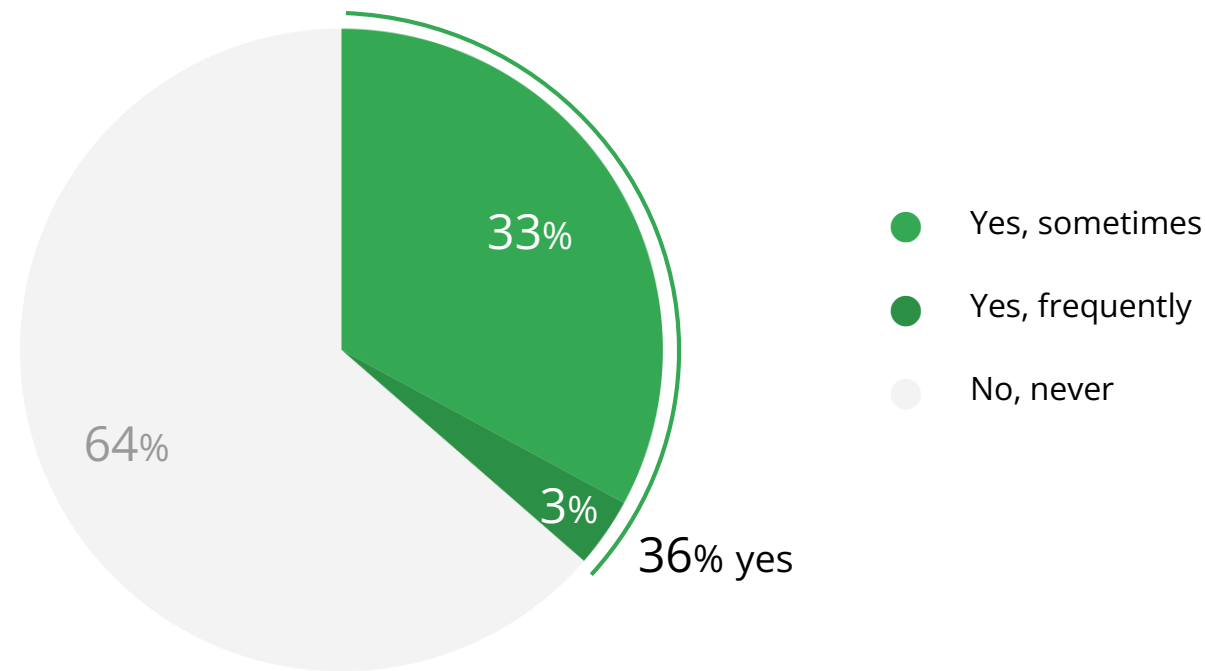


...and it's taking a toll

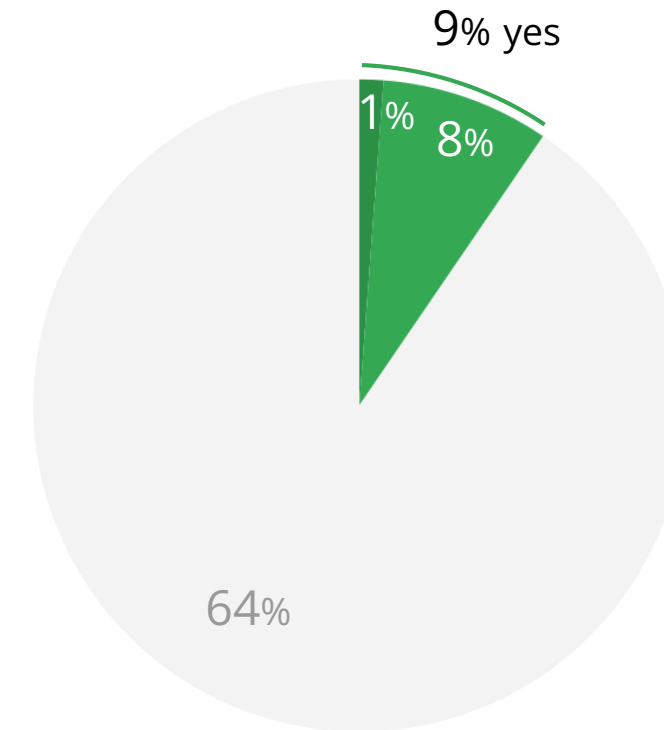
Over 1-in-3 BHS students say climate change negatively impacts their mental health at least sometimes and 1-in-10 report it inhibits their ability to performance normally in school.

CLIMATE CHANGE'S IMPACT ON MENTAL HEALTH & WELL BEING

In the past month, have you had thoughts or feelings about climate change that negatively impact your mental health or emotional well being, or cause you anxiety or depression?



In the past month, have you had thoughts or feelings about climate change that interfere with your ability to function normally in school?



Climate change and mental health

MAKING THE CONNECTION:

Climate Changes Mental Health



The burning of fossil fuels causes the release of carbon dioxide, which causes the temperature to rise—this is climate change. Upstream byproducts are released into the air, harming our health downstream. This is not just in the last century, with recent years being the warmest on record. It's in our weather patterns, not just temperature increases. Some of these include droughts, wildfires, intense storms, heat waves, and rising sea levels. These have social, agricultural, and economic effects and are ultimately harmful to our health. Climate change affects our physical health but can also harm our mental health.

FAST FACTS

- More than 40 million adults in the U.S. suffer from a mental illness.
- Victims of natural disasters are at an increased risk of anxiety, depression, PTSD, and suicide.
- 25-50% of people exposed to an extreme weather disaster are at risk of adverse mental health effects.
- Up to 54% of adults and 45% of children suffer from mental health issues.

BACKGROUND

Mental health encompasses a wide range of being. It determines how we think, feel, and act within our communities. Climate change is affecting mental health. It can lead to depression, anxiety, and PTSD. It is affecting equally. The impacts of climate change are disproportionately affecting disadvantaged groups, including those living in low-income areas and in the land, including...

CASE STUDY: T

Curr Psychiatry Rep. 2018 Apr 11;20(5):35. doi: 10.1007/s11920-018-0896-9.

The Psychological Effects of Climate Change on Children.

Burke SEL¹, Sanson AV², Van Hoorn J³.

Author information

Abstract

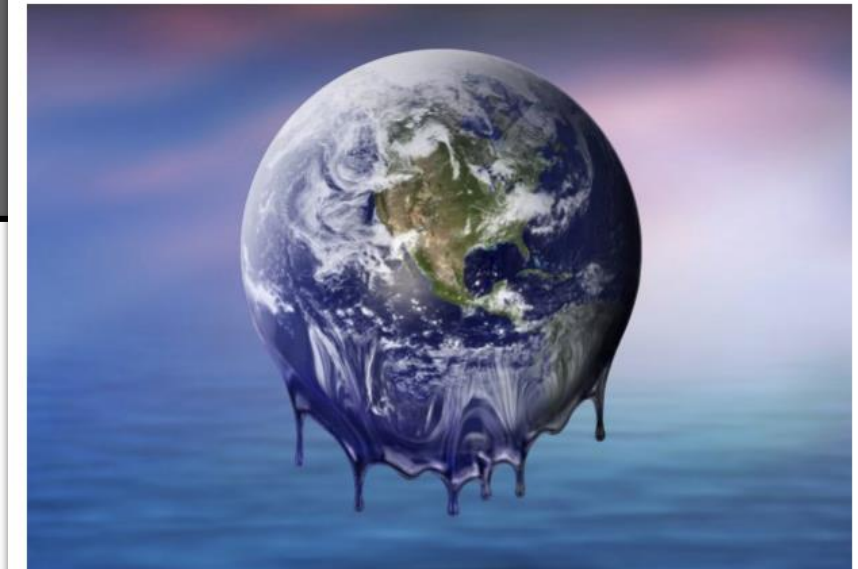
PURPOSE OF REVIEW: We review recent evidence on the psychological effects of climate change on children, including direct and indirect impacts, and discuss children's psychological adaptation to climate change.

RECENT FINDINGS: Both the direct and flow-on effects of climate change place children at risk for PTSD, depression, anxiety, phobias, sleep disorders, attachment disorders, and substance abuse. Climate change also impacts emotion regulation, cognition, learning, behavior, language development, and academic performance. Climate change promotes well-being and environmental engagement. Both direct and indirect climate change impacts affect children's well-being. Children in the developing world will suffer the worst impacts. Mental health professionals should research and implement approaches to helping children cope with climate change, and researching and implementing approaches to helping children cope with climate change.

KEYWORDS: Adolescents; Children; Climate change; Coping; Environmental engagement; Mental health

PMID: 29637319 DOI: [10.1007/s11920-018-0896-9](https://doi.org/10.1007/s11920-018-0896-9)

[Indexed for MEDLINE]



Global Warming and Violent Behavior

Courtney Plante and Craig A. Anderson

TAGS: AGGRESSION|BEHAVIORAL SCIENCE|ENVIRONMENT|INTERGROUP RELATIONS|SOCIOCULTURAL FACTORS|VIOLENCE

Environmental scientists from multiple disciplines have overwhelmingly acknowledged human-driven climate change as fact. Similarly indisputable is the fact that the effects of rising temperatures will be global in scope and resoundingly negative: droughts, coastal city flooding, decreased food production, and extreme weather, to name just a few. What you may not have considered, however, are some of the subtler psychological and social consequences of rapid climate change — including aggression and violent conflict. A growing body of evidence shows that rapid global warming can (and is) increasing violent behavior in three different ways.

Immediate Effect of Heat Stress on Aggression and Violence

When people get uncomfortably hot, their tempers, irritability, and likelihood of physical aggression and violence increase. This is perhaps best demonstrated in a series of laboratory studies conducted by APS Fellow Craig A. Anderson and his colleagues (Anderson 1989, 2001; Anderson & Anderson 1984, 1996, 1998;

AUTHENTIC
EDUCATION
REAL WORLD ENGAGEMENT

EMPOWERMENT AND
LEADERSHIP
BUILD A COMMON MISSION

INTERDISCIPLINARY
DESIGN
AUTHENTIC CHALLENGES

**EDUCATIONAL OPPORTUNITIES THAT CLIMATE CHANGE
PRESENTS: CULTIVATING SKILLS AND RESILIENCE**



EQUITY / INCLUSION
CLIMATE JUSTICE=RACIAL
JUSTICE

PROJECT-BASED
LEARNING
COLLABORATE TO SURVIVE

OUTDOOR EDUCATION
CULTIVATE STEWARDSHIP,
ENHANCE S.E.L.

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Graduate Green: an opportunity for PSB

“It’s a magnificent thing to be alive in a moment that matters as much as this one.”

—Katherine Wilkinson, Project Drawdown



Ayana Johnson

Marine biologist, policy expert, podcast host

June 3, 2020

A screenshot of a Washington Post article. The top navigation bar is black with a search icon, a 'Sections' menu, and the Washington Post logo with the tagline 'Democracy Dies in Darkness'. Below the navigation bar, the article is categorized as 'PostEverything • Perspective'. The main headline reads 'I'm a black climate expert. Racism derails our efforts to save the planet.' Below the headline is a sub-headline: 'Stopping climate change is hard enough, but racism only makes it harder'. On the left side of the article, there is a vertical sidebar with three icons: a home icon labeled 'Home', a share icon labeled 'Share', and a comment icon labeled '544'.

Graduate Green petition: *where it began*

To: Brookline School Committee and school leaders

From: BHS Climate and Food Justice club

...We demand that our school leaders:

- Recognize that the core mission of schools is to prepare young people to thrive, as adults, intellectually, emotionally and financially, and that climate change threatens the prospects of young people to achieve those aims;
- Address the demands of students to better understand climate change, cultivate skills to be resilient for a climate-disrupted future, and integrate climate justice with our school system's work to address race and gender equity;
- Declare that climate change is an emergency, and that our School Committee and School Leadership shall take meaningful action by December 31, 2021 to embark upon a system-wide plan for making climate sustainability a core value and practice of our school system at all grade levels. That plan must form a committee that includes educators, students and many other stakeholders and who are charged with preparing a comprehensive set of recommendations and steps forward, including but not limited to curriculum revision, by September 15, 2022.

We want all students and PSB staff, every year, to encounter curriculum and authentic school-wide practices that foster a common purpose so that each student shall 'graduate green.' Our future depends on this.

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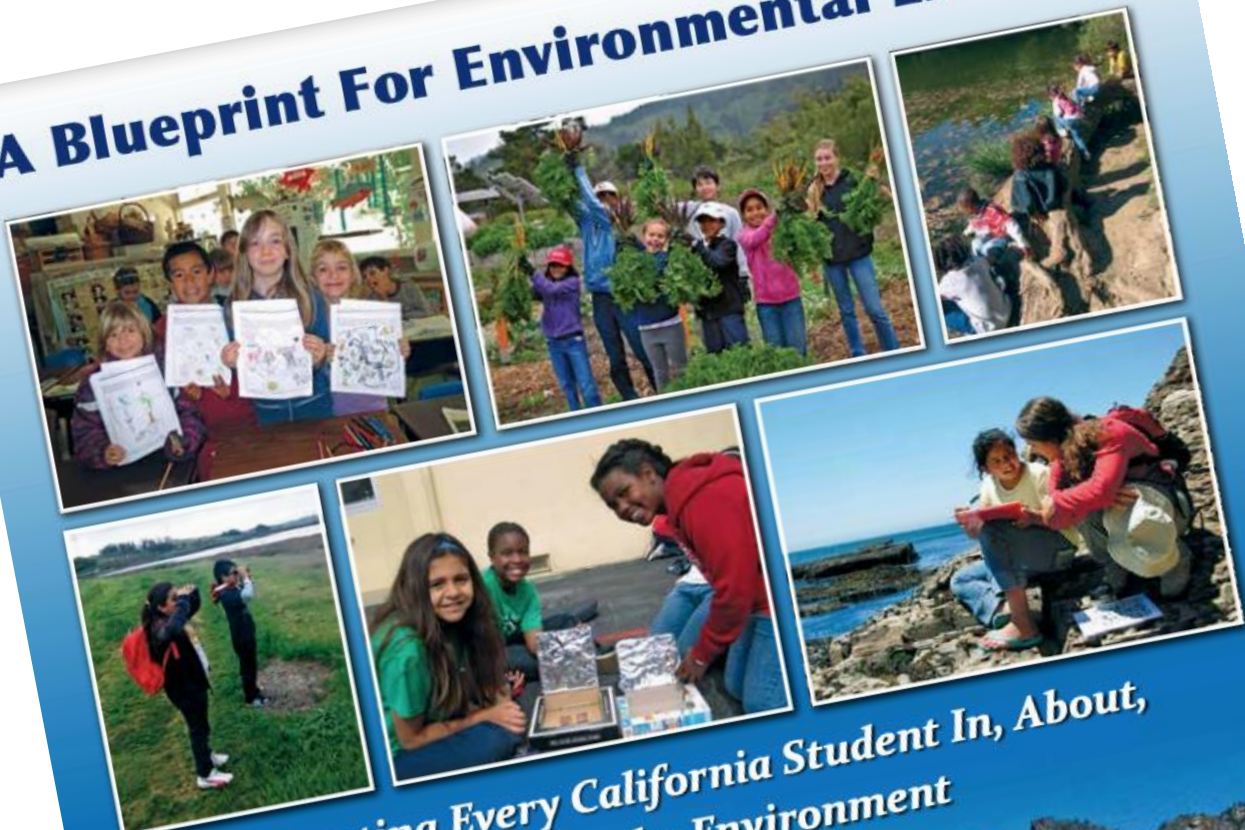
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Draft proposal for core PSB value

Graduate Green: We aim to strengthen our sustainability practices and curriculum, and to engage students, staff and families towards that end. All students will engage in a K-12 learning sequence that includes yearly outdoor experiences to understand how human activity and decisions impact our natural systems, cause climate change and exacerbate inequity. Student learning will cultivate skills to resolve social, political and personal impacts of climate change and examine the inequities and opportunities for justice in a rapidly transforming world. The Public Schools of Brookline will support opportunities for civic engagement and student leadership within our schools to address climate change and its intersection with race, gender, geography, nutrition, economy and wellbeing.

A Blueprint For Environmental Literacy



Educating Every California Student In, About, and For the Environment

A Report by State Superintendent of Public Instruction Tom Torlakson
Environmental Literacy Task Force – 2015

Strategies and Sub-Strategies

1 Integrate Environmental Literacy Into Existing and Future Education Initiatives.

- Integrate Environmental Literacy into Curricula and Instructional Materials.
- Make Improved, Integrated, Relevant Professional Learning More Accessible to Educators.
- Integrate Environmental Literacy in California's Existing and Future Accountability and Assessment Systems.

2 Strengthen Partnership and Collaboration Amongst Key Stakeholders.

- Strengthen the California Regional Environmental Education Community (CREEC) Network.
- Build Internal Collaboration at the California Department of Education (CDE).
- Build Collaboration and Partnerships.

3 Mobilize the Public and Leverage the State Superintendent of Public Instruction's Influence.

- Mobilize Public Will and Create Awareness of Strategies for Advancing Environmental Literacy.

4 Implement Select Changes to Relevant State Law and Policy.

5 Ensure Implementation through Capacity Building and Continuous Improvement.

- Ensure Implementation of Environmental Literacy Task Force Recommendations.
- Evaluate Progress Towards Environmental Literacy.

6 Develop a Sustainable Funding Strategy.

- Organize and Plan Funding Efforts.
- Organize a Funding Network and Partnerships.
- Develop Funding Sources to Support Development of Green Schools and Schoolyards.
- Encourage Funding through Local Control Funding Formula and Local Control Accountability Plans.
- Draw on New and Existing Funding Streams.
- Support Funding for Professional Development for the California Next Generation Science Standards.

Figure 2: A Blueprint for Environmental Literacy: At a Glance

Next steps

1. Adopt a new core value: Graduate Green
2. Advisory committee to review K-12 curriculum: What do we do already? Where are the opportunities? What benchmark skills and experiences should students have?
3. Identify key points for climate justice and environmental education (interdisciplinary, project-based, etc.)
4. Support summer, other, professional development, to develop grade-level, project-based curriculum.
5. Support garden coordinators. Build the BHS garden! [key beneficiaries]
6. Enact universal composting [gateway habit to stewardship; reinforce mission]
7. Support Farm to School
8. Ask job candidates about their vision for climate justice / sustainability