Coloring Outside of the Lines: Sketch Mapping Fear, Safety, and Community for LGBTQ+ Students Amidst Anti-LGBTQ+ Legislation

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GEOG 100: Departmental Honors Candidacy: Essay

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May 17th, 2024

1. Introduction

During the 2023 legislative session, over 500 state-level bills were introduced in 47 states that negatively targeted members in the Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ+) community (HRC, 2023; ACLU, 2023). From the introduced bills, the American Civil Liberties Union (ACLU) tracked 84 laws being signed and passed into law. As of mid-February 2024, more than 400 anti-LGBTQ+ bills have been introduced in state legislatures, even as not all states have opened their legislative sessions yet (ACLU, 2024). Attempts to introduce anti-LGBTQ+ legislation have been on the rise since 2015, with 115 bills introduced in 2015 to over 500 bills introduced in 2023 (HRC, 2023). Moreover, bills have become increasingly more specific and restrictive in what they address. In 2020, bills started to target transgender people more specifically rather than the LGBTQ+ community as a whole. Bills focused on curriculum censorship, forcible outings of individuals, and pronoun use have also risen in numbers since 2021 (HRC, 2023).

With the introduction of restrictive legislation, there has been increased discussion amongst LGBTQ+ families and individuals about leaving their current states of residence for more accepting states. Parents and students alike have expressed concerns for LGBTQ+ students going to school in these increasingly restrictive states. Some students have outright changed their college plans amidst the passing and the introduction of anti-LGBTQ+ legislation (Horowitch, 2023). College admissions counselors have also spoken out on the topic, noting that LGBTQ+ students they work with have expressed concerns over considering schools in states with restrictive legislation and the effect on campus climate, leading some students to remove such schools from their lists (Horowitch, 2023). Considering these experiences, it is important to look deeper into the impact that anti-LGBTQ+ laws have on how people plan their futures concerning perceived fear

and safety in spaces. More specifically, how have young LGBTQ+ college students' choices about college location been impacted by the introduction and implementation of anti-LGBTQ+ laws? Furthermore, how has anti-LGBTQ+ legislation impacted how students think about building a future within the United States? In addition to student's physical location in relation to anti-LGBTQ+ legislation, how do fear, safety, and the sense of community factor into their plans for the future?

This thesis begins by providing a background of key terms related to LGBTQ+ people, anti-LGBTQ+ legislation, and LGBTQ+ youth-specific challenges. This will be followed by an introduction of relevant geographic approaches and methods that were factored into the research design. From there, it explains how sketch mapping is an appropriate method for the questions posed and how it was used within interviews. The paper concludes with a collection of themes participants identified during interviews and reflections on the use of sketch mapping on a large geographic scale.

2. Background

This section will define key terms, review the current environment of anti-LGBTQ+ legislation, and discuss relevant methodological approaches. "LGBTQ+" refers to those identifying as Lesbians, Gay, Bisexual, Transgender, and/or Queer, with the "+" referring to identities that lie outside of these identities, including Intersex, Asexual, Aromantic, and Pansexual, among others (Cherry, 2020; The Center, 2023). The labels "lesbian" and "gay" refer to individuals who have sexual and/or romantic attraction to those of the same sex or gender. "Lesbian" refers to self-identified women who have an attraction to women whereas "gay" refers to self-identified men who have an attraction to men (Forbes, 2014). "Bisexual" has previously referred to those who are attracted to men and women (Forbes, 2014) but has increasingly been used by researchers as an umbrella term to refer to those who have attraction for more than one gender (Flanders, 2017). This allows for the inclusion of "a wide range of sexual behaviors, attractions, and desires." (Flanders et al., 2016, p. 40). "Gay" refers to people who are attracted to members of the opposite sex or gender (Forbes, 2014). This identity usually refers to men who feel attraction to those identifying as women and women who feel attraction to those identifying as men.

"Queer" is a term that can be polarizing due to its history as a derogatory term. However, the term has been reclaimed among some LGBTQ+ folks to identify romantic or sexual orientation (Forbes, 2014) while being sexually inclusive and gender-neutral (Brontsema, 2004). Those who use "queer" may do so out of convenience to refer to LGBT-identifying folks as a whole, use it to contest the terms "gay" or "lesbian" for personal identification, or to perpetuate hate speech (Brontsema, 2004). The term has also been used to refer to gender identity, being included in the term "genderqueer". "Queer" in these usages tends to describe an identity that fluctuates or is hard to characterize (Forbes, 2014). As such, "queer" is used by individuals to express their own identity in addition to being used to refer to subfields that focus on LGBTQ+ people and LGBTQ+ issues.

To understand the label of transgender, the difference between gender and sex needs to be understood. What we understand as gender is "the concept of behaviors, interests, and socially constructed expectations that society has established for men and women" (Forbes, 2014). Alternatively, sex has a biological basis to differentiate males and females based on what chromosomes, hormones, and genitals an individual has (Muehlenhard & Peterson, 2011). While gender is directly referred to as a social construction, it is important to acknowledge that sex is also socially constructed to be binary categories of male and female (Muehlenhard & Peterson, 2011). Binary refers to being one or the other. This discretion means that gender categories for people that identify as both, somewhere between the two, or neither. In this case, it refers to sex being determined as either male or female and assigned based on previously discussed biological criteria. Individuals born with ambiguous biologically male and female characteristics and "do not fit typical definitions for male or female bodies" are identified as intersex (Monro et al., 2021, p. 433). The binary system of sex neglects to account for individuals born without a full set of chromosomes or those with a combination of chromosomes, hormones, and/or genitalia that is socially understood as being either male or female.

Gender binaries consist of those identifying as "men" and "women". Typically, male gender identity relates to masculine behaviors and interests which may include "ambition, dominance, athleticism, and self-reliance" (Forbes, 2014, Gender as a Construct section). Female gender identity typically relates to femininity which can include "compassion, sympathy, [and] loyalty." (Forbes, 2014, Gender as a Construct section). When one's identified gender matches the sex they identify with at birth (male-man, female-woman), they are considered cisgender (Forbes, 2014). Those who identify with a gender identity that differs from their assigned sex can be identified as transgender (LGBT Foundation, 2023). "Transgender", referred to as "trans" in passing, is an umbrella term used to identify individuals who are not cisgender and includes those who identify with a different binary gender and non-binary individuals (LGBT Foundation, 2023). Binary trans people include trans men and trans women. Non-binary individuals are those who identify outside of the gender binary of man or woman. Non-binary individuals "understand their gender in a way that goes beyond simply identifying as either a man or woman." (LGBT Foundation, 2023, second paragraph). There are a plethora of labels used to express non-binary identification (LGBT Foundation, 2023), some of which will be noted later on when discussing the research population.

2.1. Legislation overview

While many of the anti-LGBTQ+ bills introduced have included terms like "gay," "transgender," or broader terms like "LGBTQ," the identification of legislation (as identified by the American Civil Liberties Union [ACLU]) as being "anti-LGBTQ+" is based upon the actions they call for. Anti-LGBTQ+ legislation refers to bills and subsequent laws that either specifically or indirectly "aim directly to restrict the rights, safety, or liberty of LGBTQ people' (Branstetter, 2023, "Q: What makes a bill an "anti-LGBTQ" bill?" section). Generally, this kind of legislation primarily targets are "health care access", "public accommodations" like restroom access, "schools and education", "free speech and expression" through restrictions on drag performances and limiting access to books about LGBTQ+ experiences, "access to accurate IDs" through restriction gender and name changes on identification documents, and/or "weakening civil rights laws" through undermining nondiscrimination laws (Branstetter, 2023, "Q: How are anti-LGBTQ bills categorized?" section). There are also intersectional types of legislation that may impact some LGBTQ+ individuals but are not rooted in their LGBTQ+ identity. The largest of these are restrictions on abortion access, which can have an immense impact on LGBQ women and transgender people with the ability to be pregnant.

Legislation on schools and education is primarily concerned with limiting trans student participation in school activities, requiring teachers to disclose student identities to parents and higher-ups, and censoring school teaching of LGBTQ+ experiences within primary schools (Branstetter, 2023). While the focus of this grouping of legislation is on K-12 education, bills have been introduced and passed that aim to restrict practices aimed at supporting Diversity, Equity, and Inclusion (DEI) initiatives within higher education. This has included prohibiting mandated diversity training, diversity statements, identity-based preferences, or the use of state or federal funding to support DEI at public colleges (Lederman, 2023). Laws that limit medical access, access to public accommodations, and expression of identity are making some states increasingly more hostile for LGBTQ+ students to live in or even go to school in. One can see that a majority of the laws introduced were in the South, the Midwest, and the Great Plains states (see figure 1). The states that had the most anti-LGBTQ+ bills introduced in 2023 were Iowa, Montana, Tennessee, Oklahoma, Mississippi, and Texas, with Texas coming in first with a total of 55 introduced anti-LGBTQ+ bills, based on the ACLU's count. Of the 84 anti-LGBTQ+ bills that were passed, Texas, Utah, Arkansas, North Dakota, and Tennessee were at the top, with the latter two states passing 10 anti-LGBTQ+ laws in 2023 (see figure 2).

Figure 1.







2.2. LGBTQ+ youth-specific challenges

The collegiate space is a place where young people can explore who they are and explore different means of expression, potentially for the first time. This is no different for individuals identifying within the LGBTQ+ community. Especially for those students, college can be a place of refuge for those who have faced rejection and discrimination from family and peers (Neighmond, 2020). This rejection and discrimination can also come from policies enforced in the high school environment that limit the ability for students to express themselves freely, use restrooms that align with their identity, and partake in athletics depending on their gender

orientation. Being subject to discrimination can have harmful impacts, with a higher risk of disparate health outcomes being seen for minority groups that face discrimination (Pomeranz, 2018). There is an increased risk of anxiety, fear, hopelessness, certain cancers, suicidal ideation, and risk-taking behaviors looking at LGBTQ+ individuals. This risk becomes significantly increased when individuals live in states that do not have equal protection or actively deprive them of equal rights (Pomeranz, 2018).

Rejection and discrimination of LGBTQ+ youth is also linked to a higher risk of suicide among the population: compared to their non-LGBTQ+ identifying peers, LGBTQ+ youth "are more than four times as likely to attempt suicide" (The Trevor Project, 2021, "Top-Line Facts & Statistics" section). According to The Trevor Project's 2023 U.S. National Survey on Mental Health of LGBTQ Young People, "41% of LGBTQ young people seriously considered attempting suicide in the past year—and young people who are transgender, nonbinary, and/or people of color reported higher rates than their peers." (The Trevor Project, 2023, "Key Findings" sections). There were lower rates of attempted suicide for young transgender people who lived with people who affirmed their gender identity and had access to gender-affirming spaces, like schools (The Trevor Project, 2023).

Concerning general mental health, 56% of LGBTQ youth who wanted access to mental health care in the past year were not able to access it (The Trevor Project, 2023). Due to anti-LGBTQ+ legislation, "1 in 3 LGBTQ young people said their mental health was poor most of the time" and "2 in 3 LGBTQ young people said that hearing about potential state or local laws banning people from discussing LGBTQ people at school made their mental health a lot worse" ("Key Sections" section). Through these survey results from The Trevor Project, anti-LGBTQ+ legislation can be seen as a public health issue in and of itself. Proposed and realized anti-LGBTQ+

measures can bring potential mental health stress and increased suicidal ideation and attempts for LGBTQ+ youth (The Trevor Project, 2023).

The Human Rights Campaign is one of the biggest organizations that is consistently engaged in providing information on the rising anti-LGBTQ+ legislation in the United States, declaring a "State of Emergency" for LGBTQ+ Americans (HRC Staff, 2023). From talking to different stakeholders, they have noted that the collegiate space is beginning to take a hit from anti-LGBTQ+ legislation. Nadine Smith, CEO of Equity Florida, makes it clear that educators and students alike are seeking to leave the state in favor of places with academic freedom and safety for their identities (HRC Staff, 2023). Smith also notes the economic losses that can occur from this type of legislation, with Florida having lost over \$1 billion from businesses and conferences withdrawing their business from the state. As anti-LGBTQ+ legislation proposals spread across the country, it is important to consider the social and economic repercussions they may have on the development of states in the future.

2.3. Geographic background

The following sections will begin explaining relevant geographic and methodological terms for this research. The scope of this research was largely inspired by the work of Jack Jen Gieseking. The idea of focusing on the experiences and rationalization of LGBTQ+ identifying students came after I attended the Society & Space plenary lecture at the Denver AAG 2023 meeting in which Gieseking discussed the largely heterosexual and cis-gendered approach towards geography as a discipline, dubbed a "cis-ipline" (Gieseking, 2023a). He chronicled his points in an essay afterward (Gieseking, 2023b). Gieseking notes in the essay that "so much of geography is focused on dispossession, disappearance, and displacement" (Gieseking 2023b, "Part III"

section). Those identifying with gender minorities (including and not limited to trans-identities and gender fluidity), in addition to sexual minorities, have been purposely dispossessed, disappeared, and displaced because of "white, colonialist cis-heteropatriarchal able-bodied cultures," (Gieseking 2023b, p. 16). The exclusion of LGBTQ+ people and perspectives when academically looking at the construction of space has prompted the creation of the subdiscipline of queer geography which uses a similar understanding of queer discussed on page 5.

Research of queer geographies is not just about the experiences of LGBTQ+ people in space; queer geographies is rooted in questioning normative social structures explores the inconsistencies of them (Browne, 2006). Queer geography investigates the spaces that LGBTQ+ people occupy, and the way spaces are made and produced by them. Looking at geography through the lens of gender and sexuality helps contribute to the creation of new ways to understand the politics of identity and the vulnerability of individual bodies and ideas within space (Gieseking 2023b). As such, this research seeks to understand the greater power structures that contribute to the creation of perceived areas of fear, safety, and community. By focusing on young people in a collegiate environment, this research can better illustrate the connection between the potential limitations and liberation present in college spaces through an LGBTQ+-informed lens in addition to the connection to future planning.

A queer geography lens was used for this research to investigate perceived areas of safety, fear, and community. The process of a space being perceived by an individual as either safe or fearful can be thought of as a mutual interaction of identities with the spaces themselves (Hartal, 2017). "Safe spaces" are spaces that facilitate a sense of security, are developed from discussions on inclusion and diversity, and should be protected. This definition stands as a basis for an individual's ability "to be honest, take risks, share opinions, or reveal one's sexual identity."

(Hartal, p. 1056). A difference in existing rights and the establishment of rights helps shape the kind of public and regional spaces created and available to people. Considering the high number of pieces of legislation that have been proposed and passed that impede LGBTQ+ people's ability to express and live in ways that align with non-heterosexual and cisgender identities, safe spaces are likely to be spaces that provide LGBTQ+ people with a sense of physical safety in addition to psycho-socio-emotional safety.

Inversely, the geography of fear looks into areas or places that people understand and indicate as being fearful or dangerous (Modly, 2009). "Spaces of fear" are produced by factors that differ greatly from the realized danger the spaces hold (Tulumello, 2015). "Fear" is the range of responses caused by a sense of threat or perceived danger, usually coinciding with negative emotions like uneasiness or pain. Areas of fear can be seen as representative of power structures that exist within a space and show the everyday effect of power within a space (Modly, 2009). Regarding this point, Whitzman (2007) points to ideas of powerlessness and exclusion on an economic and social basis, whereas Smith (1984) refers to interpersonal communication and the media as influences on perceived subjects of fear. These understandings of spaces of safety and fear both serve as the initial narrative behind what a space of safety or fear looks like for an LGBTQ+ student. A mapping approach was created that used these understandings of space to construct an understanding of participant interactions with space and their perceptions of fear and safety across it.

2.4. Mapping approach

Maps allow for a strong understanding between people and space by creating a visual representation that can highlight the connection people have to a space. In the case of queer

geography, maps can be a powerful tool in understanding the connection of identity to physical space and claiming space that may be limited by legislation and restrictive surrounding communities. In this way, the act of mapping the perception of different spaces from a queer perspective can be seen as a form of counter-mapping, defined as a way to realize alternative social relations and realities by combining critical ideas and practices (Dalton and Stallman, 2018). Rather than surveilling the "oppressed", counter-mapping maps oppression and how it manifests in social and spatial systems. As such, the analysis of the maps created during interviews in this study needed to be done in such a way that it could highlight the oppression that anti-LGBTQ+ legislation instills while using the experiences and rationale provided by participants to construct the narrative.

Counter-mapping can be used with different methods to achieve the goal of challenging predominant power structures. Participatory mapping (PM) is a method that has been used to empower disadvantaged communities to overcome historical and newly emerging inequities regarding economic, social, and political power (Brown & Kyttä, 2018). PM is the creation of maps by local communities to communicate knowledge, experiences, and aspirations by combining "soft" (behavioral and experiential knowledge) with "hard" (structural and material) spatially based information (Brown & Kyttä, 2018, p.5). Thus, it is important for researchers to make strong attempts to understand behavior and lived experience alongside the combination of structures that exist on a state level. For this thesis, a PM approach allows for a more nuanced understanding of how anti-LGBTQ+ legislation impacts LGBTQ+ students by connecting their experiences and identities to how they think about space in terms of borders.

2.5. Sketch mapping and mental mapping

One form of PM that enables high participation in terms of data collection and that can be used to carry out the goals of counter-mapping is the use of sketch mapping and mental mapping. These terms tend to be used interchangeably (Boschmann and Cubbon, 2014) but have some key differences: Sketch mapping generally uses a map as a base for participants to draw on and is used to represent lived experiences in relation to accurate spatial elements. Mental mapping tends to be done as a free-form drawing using pencils and paper and is used to understand why people behave or think about space the way they do (Boschmann & Cubbon, 2014).

One of the most influential works in the sketch mapping/mental mapping space has been Kevin Lynch's 1960 book *The Image of the City*. Writing at a time when the concept of mental mapping was a new research method, Lynch approached the concept of how the image/visual manifestation of a city among the population is created. Through his research, a low correlation was found between individual interviews and their respective sketch maps when analyzed individually. A stronger correlation was found between the interviews and the sketch maps when the results were aggregated across the interviewed population. A "higher threshold" was found for the sketch maps and distinctive features (p. 144). This meant that smaller details could get lost when participants put things on a map, meaning the maps better and more often represented the most significant answers. Lynch also concluded that sketch maps aren't the best for showing how connections are organized, but rather the most important connections people have within spaces.

This thesis research will use elements from both mental mapping and sketch mapping. The methodology will be largely based on the traditional methods and goals of mental mapping and will incorporate the importance of spatial reference from the sketch-mapping tradition. A basemap with minimal detail was used to best accommodate the large scale of the geographic focus. The

sketch maps made for this research will be the basis for answering the questions about where students perceive fear and safety.

2.6. Applied approaches with sketch/mental mapping

In designing the research methods for this thesis project, three works directly influenced the design of the methods. Gieseking (2019) uses sketch mapping and interviews as the primary methods in his research of queer and trans spaces and experiences in New York City. Sketch mapping and interviews were conducted in both one-on-one and focus group settings. Gieseking was able to get very personal and detailed perspectives on the way individuals' queer experiences are distributed across space, such as places where people had kissed people of the same gender for the first time to the bars people frequented. The mixed methods approach of quantifying and aggregating these responses alongside the analysis of mainstream archival sources will be foundational in my research design.

AREA Chicago's (2011) art mapping project "Notes for a People's Atlas of Chicago" has also been influential on the research methodology for this project. Originally based in Chicago, the project has been replicated across the world to have locals map out "sites of significance" in their respective communities. The result was a collection of maps that show the larger patterns of life shared among Chicago residents that noted the landscape and included personal stories. AREA Chicago notes that mental mapping is a good way to have everyday people express their thoughts and emotions about a place with the caveat that one's mapped answers on the questioning day could be very different from one's answers the previous or next day (AREA Chicago, 2011). Thus, it is important to recognize the fact that the sketch-mapped answers are representative of that present moment in time and the contextual nature of the time. Brown and Knopp (2008) discussed the type of tensions that can occur regarding mapping queer experiences. These included questions about the need to have a predetermined narrative of the story before data collection occurs and what constitutes significance to be included on the map. They also note the power that mapping projects have in creating a stronger sense of community through claiming space, even if it is just ideological space.

3. Question statement

Using participatory mapping and counter-mapping, this thesis seeks to use sketch mapping to answer the question of where LGBTQ+ college students perceive safety, fear, and community amid the rise of anti-LGBTQ+ legislation across the United States. Answering this question will provide a greater understanding of how proposed and realized legislation is impacting young people's perceptions of space on a national scale. To answer this question, this research will look into areas of perceived safety and fear on a national level when participants were applying to college and when they are looking at life after college. This research seeks to look into the larger patterns of how LGBTQ+ students' experiences with people and legislation impact the students' perceptions of space.

4. Methodology

This research utilized qualitative data collection consisting of individual interviews that lasted between 25 to 70 minutes, with most interviews lasting around 45 minutes. Interviews were held in a closed-room environment for privacy. Interview spaces included an extra office in the Department of Global Studies and Geography and private study rooms in the Joan and Donald E. Axinn Library. Compensation was provided in the form of candy that was available on the interview desk for the duration of the interviews and stickers representing different LGBTQIA+ identities that were provided at the end of the questioning period during the debriefing period.

Interviews consisted of semi-structured questions that were used to guide the creation of sketch maps. For this research, participants were given a map of the United States that included the mainland United States along with Alaska and Hawaii. The map was created in ArcGIS Pro to include light gray state boundaries and state abbreviation labels as a guide for participants. An examination of students' markings on the map was used to determine larger patterns surrounding perceived places of safety, fear, and community. Pulling from the methods of Lynch (1960), standardized markings were created for each question which mirrored the us (see appendix for the key). Answers that would largely rely on point locations were assigned a pen to provide specific details. Answers that would consist of larger areas of space were assigned a marker for drawing. Each question was given a specific color to enable readers to differentiate between the answers when looking at the maps. Additional markers and pens were provided as requested to represent factors important in participants' representations of their experiences.

During the interviews, demographic data was collected and open-ended questions were asked. The questions were organized into 5 sections- geographic grounding in space, personal queer identity, community, college, and current view of safety and discomfort- that progressively got more specific to answer the research question.

4.1. Geographic Grounding in Space

This section consisted of asking participants to mark where they currently live and the previous places where they have lived and to mark down places they have traveled to on the map. Asking about places participants had traveled to in and out of the country was based on Lynch

(1960). The answers to this question provided a better understanding of how much firsthand experience participants had with places in the country on an individual and collective level outside of their respective hometowns and Hofstra. Travel could include passing through an area, visits as short as 30 minutes, and international visits. Travel sites were notated as either meaningful or casual. Meaningful travel referred to places that participants had traveled to that impacted how they view themselves, others, and/or the world around them. For casual travel, the minimum criterion for the travel site's being included on the map was that seeing and/or experiencing the place gave them an understanding of the area and/or people there. This criterion for casual travel was chosen to track places people had physical experiences in that may have influenced their perceptions of those places.

4.2. Personal LGBTQ+ Identity

This section consisted of asking participants about their experience discovering that they identified within the LGBTQ+ community and about how their identity has changed since then. This section also consisted of questions about what support participants had had access to and wished they had had access to when they were coming to terms with their LGBTQ+ identity. This section served to illustrate general attitudes participants held towards their LGBTQ+ identity throughout their lives and the relationship between previous environments and their identity. This section of questions also helped build rapport between the participants and the researcher about personal LGBTQ+ identity that helped get participants into the mindset of reflecting on their LGBTQ+ identity in the present day.

4.3. Community

For this section, participants were asked to mark down areas where they felt they currently had found community and where they felt they could find community. Community was defined as ranging from an individual to groups of people to spaces that in and of themselves felt grounding and supportive for the individual. This definition of community was chosen to allow a broad range of emotional connections to people and spaces. Participants were also able to note communities that had no physical grounding in space that may exist ideologically, through interest-based groups or online spaces. Expanding on the potential areas of community, individuals were asked about the factors that indicated community for them and the potential connection between the communities they imagined themselves finding and their LGBTQ+ identity. These questions were asked to establish an understanding of where participants already have connections across the United States and where they view themselves finding connections without them actively being asked to think about fear or safety within the United States.

4.4. College

In this section, participants were asked questions about their college application process, including what factors were important to them in a school and in what regions they felt safe, fearful, and uncertain about applying and why. The perceptions of safety, fear, and uncertainty were marked on the map. Participants were also asked about the role college has played in the development of their LGBTQ+ identity. This section helped in delineating the role of the collegiate space within LGBTQ+ development and helped to gauge students' previous thoughts on areas of fear and safety within the context of college relocation.

4.5. Current View of Fear and Safety

This section was present and future focused, asking participants to mark areas where they currently felt uncomfortable/fearful and supported/safe traveling or living. The category of "uncertainty" was not included formally here in order to push participants to think more rigidly about the country. To further encourage this rigid thought process, the terms were also referred to as "uncomfortable" and "supportive" as opposed to "fear" and "safety", respectively, to provide students less intense options to think about the country. During the interview process, some participants noted the desire to mark some areas as being uncertain. At those times, a marker was provided to participants to represent areas as such.

5.1. Recruitment

Participants were recruited through passive flyers and word of mouth. Passive flyers were made with two designs, one that had a clearer graphic of the sketch mapping component and one that had a more colorful design that emphasized the interview component of the study. Both designs included a scannable QR code that directed students to an interview sign-up link that had a brief description of the research in addition to an email to contact for further information. Flyers were placed around Roosevelt Hall, a building housing a variety of departments and the site of many distribution classes. A flier was also placed by the Little LGBTQ+ Studies Lending Library in Mason Hall. Word-of-mouth recruitment consisted of direct outreach to peers to encourage them or their friends to participate in interviews. Academic departments and clubs were also enlisted to help recruit by sharing the recruitment flier via email. These included the Department of Global Studies and Geography, the Department of Geology, Environment, and Sustainability, the Rabinowitz Honors College, and the LGBTQ Studies Minor, alongside university organizations that included OUTmed, The Pride Network, the Student Government Association, and the Office of Intercultural Engagement and Inclusion. The last 3 organizations listed also actively recruited students by discussing the research during related events and tabling in the Student Center. Both options of the flier were sent to departments and organizations so that the most fitting design for each entity's audience could be shared.

The call for participants required students to (a) identify as a part of the LGBTQIA+ community in some way, (b) be a Hofstra student at any level, and (c) be 18-25 years of age. Not putting any restrictions on what identities students needed to identify as regarding sexual orientation and/or gender identity allowed for a diverse representation of identities. The use of "LGBTQIA+" for recruitment allowed for the direct inclusion of intersex individuals and asexual/aromantic individuals who may have felt feelings of unsafety or fear related to anti-LGBTQ legislation. The research population was restricted to the Hofstra student body for ease of contact and to have a common geographic tie between participants. This common geographic tie refers to the choice to attend the University that was made by students at the University and students' common understanding of the college environment through the perspective of attending Hofstra. Hofstra's standing as a private university that openly supports LGBTQ+ students through scholarships, accessibility for opting for chosen names and pronouns, gender-inclusive housing and restrooms, and the opportunity to engage in an LGBTQIA+ studies minor in addition to a 5/5 Campus Pride Index score makes Hofstra a queer-friendly campus for students. The intentionality of choosing to attend Hofstra is reflected in the private school standing and the consequent pricing, where there are no financial benefits for in-state students attending Hofstra, as there would be at a state school.

5.1. Demographics

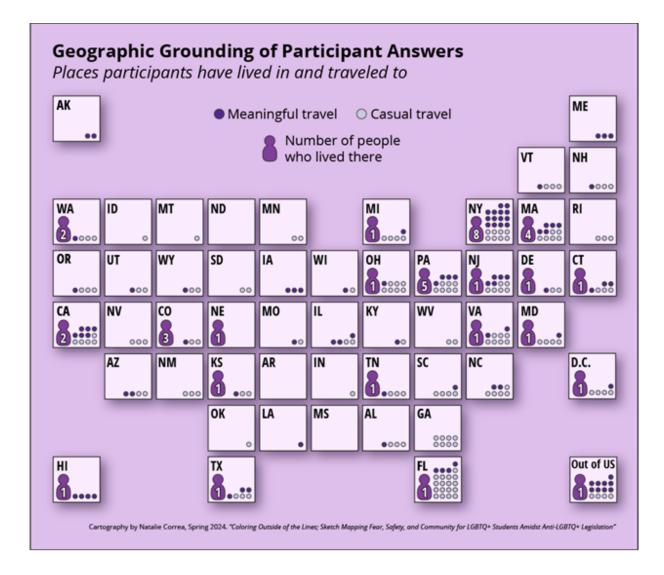
29 participants were interviewed. Participants were aged between 18 to 23 years of age, with 5 (17%) being 18 years old, 10 (34%) being 19 years old, 9 (31%) being 20 years old, 3 (10%) being 21 years old, 1 (3%) being 22 years old, and 1 (3%) being 23 years old. In regard to time spent towards undergraduate degrees, 5 (17%) participants had just begun their first year, 11 (38%) were in their second year, 10 (34%) were in their third year, and 1 (3%) was in their fourth year. This differs from class standing, where 6 (21%) participants were classified as freshmen or first-years, 10 (34%) were classified as sophomores, 5 (17%) were classified as juniors, 6 (21%) were classified as seniors, and 2 (7%) were Master's level students (see Table 1). 26 majors were represented across the 29 participants. These majors spanned multiple schools in the university, including the Peter S. Kalikow School of Government; Public Policy and International Affairs; the School of Natural Sciences and Mathematics; the School of Humanities; Fine and Performing Arts; the Frank G. Zarb School of Business; The Lawrence Herbert School of Communication; and the Fred DeMatteis School of Engineering and Applied Science.

Participants were asked for personal identifiers, including race/ethnicity, sexual orientation, and gender identification. Participants were not given any options to identify with to ensure participants did not feel limited in their identifications. Examples were given as needed, and answers were discussed during times of confusion. In terms of identified race/ethnicity, 22 (76%) participants identified as white, 2 (7%) identified as Black/African American, 1 (3%) identified as Latinx, 3 (10%) identified as Mixed (White and Latinx), and 1 (3%) identified as Mixed (White and Asian). 28 of the participants were natural-born citizens of the United States, with 1 participant being an international student. Regarding sexual orientation, 3 (10%) participants identified as Lesbian, 3 (10%) identified as Gay, 10 (34%) identified as Bisexual, 7

(24%) identified as Pansexual, 4 (14%) identified as Queer, 3 (10%) identified as Asexual, and 1 (3%) identified as Aromantic. For sexual orientation, some participants identified with multiple orientations. Thus, the numbers here toal slightly more than 100%. Regarding gender identification, 12 (41%) participants identified as cis-female, 4 (14%) identified as cis-male, and 13 (45%) identified as transgender. Of the participants who identified under the trans umbrella, 2 (15%) identified with binary identities like trans-femme and trans-masc. The other 11 (84%) participants who identified as transgender identified with non-binary identities. These identities included non-binary, genderqueer, agender, gender fluid, gender non-conforming, and none (see Table 2).

Participants identified themselves as previously or currently living in 20 states across the United States, with one participant being an international student from Spain. These states included California, Colorado, Connecticut, Delaware, Florida, Hawaii, Kansas, Maryland, Massachusetts, Michigan, Nebraska, New Jersey, New York, Ohio, Pennsylvania, Tennessee, Texas, Virginia, Washington, and Washington, D.C. In terms of firsthand experience with areas outside of participants' hometowns, participants were able to collectively recall traveling to 47 states for 148 casual travels and 85 meaningful travels (see figure 3). 13 (49%) participants indicated having traveled internationally.

Figure 3.



6. Analysis methods

The analysis of the responses was done using a mixed-methods approach that looked at the spatial answers included on the sketch maps and the contextual and emotional responses from the interviews. To analyze the sketch maps that were created, the answers to key questions were digitized. These key questions were the present-day areas of fear and safety and areas of potential community. The areas of present-day fear, safety, and community were used to show the direct relationship between participant answers and anti-LGBTQ+ legislation. Contextual information about why participants perceived fear, safety, and community in the places they did came from

analysis of the interviews themselves.

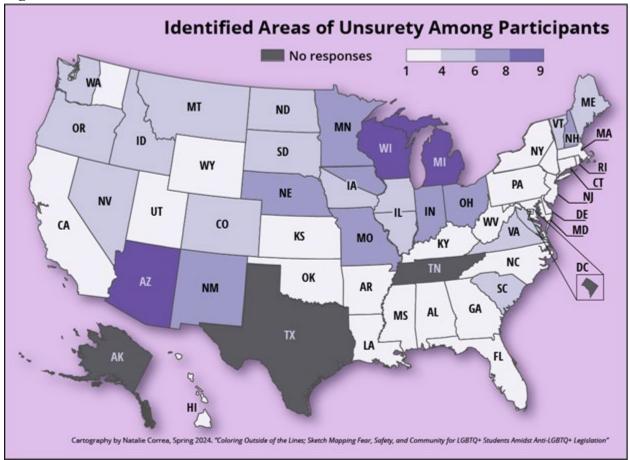
Digitization¹ for the present-day areas of fear and safety was done in ArcGIS Pro. The United States state boundaries were used as a basis for analysis. Using Select by Attribute queries,² areas were selected using their state abbreviations. Selections were made to include all of a participant's answers for fear and then made into individual layers by exporting the selection. Some participants drew answers that did not include the entire state. If the drawings on the maps referred to a specific city, they were selected based on the most prevalent feature defined. This meant that if a state was identified as being an area of fear with a specific city highlighted as being safe, the state was noted as being fearful. If drawings on the map drew around a certain part of a state, such as the Northern region or a coastal area, that area was digitized by drawing the feature on the map. This process has resulted in seemingly random lines within some states. These selections were then aggregated using the Count Overlapping Features tool to show the number of overlapping responses from participants. The process was repeated for the areas of safety and areas participants were notably uncertain about.

Areas shown in the uncertainty map were not collected from all participants; if a participant said that they wanted to express areas that they were uncertain about, a marker was provided at that time. Accordingly, the data of areas participants are uncertain about come from 16 out of the 29 interviews (55%) (see figure 4). On individual maps, some areas can be seen as being more shaded than others for the same question to emphasize the additional weight of fear or safety perceived in a given area. The aggregated data does not consider any additional weight participants added in their answers via additional shading or written comments and instead represents areas mentioned in participant maps. The resulting maps show the areas participants marked as currently

¹ Digitization is the process of tracing features on a map to create a digital version of the geographic data.

² "Select By Attribute" queries are a way to highlight different areas based on a certain characteristic.

being fearful, safe, and uncertain within the country.





7. Results

In the following section, the results will be presented in the following order: areas of perceived fear, areas of perceived safety, areas of perceived community, personal LGBTQ+ identity, and the impact of the collegiate environment.

7.1. Areas of Perceived Fear

Areas of present-day perceived fear in the country were concentrated in the regional South (see figure 5). Some participants pointed to the use of the Mason-Dixon line to identify the South

and subsequent areas of fear. States that were mentioned in over 60% of the responses were Oklahoma, Arkansas, Louisiana, Mississippi, and Georgia. The key states that popped up in over 80% of the responses were Texas, Florida, Alabama, and Tennessee. These states aligned with participant responses about legislation. Participants who identified these four states as being an area of fear cited legislation that was proposed or passed in the state (like the "Parental Rights in Education Act"³ in Florida and the "Tennessee Adult Entertainment Act"⁴ in Tennessee) and mentioned those states earlier within the interviews when discussing areas of fear surrounding the college-search process. During the sketch mapping process for the fearful measure, participants who marked down Texas or Florida marked those states down first. Texas and Florida were also more often shaded or drawn in ways that emphasized that they were feared more over other areas of fear, with one map showing the two states as being hotspots for "negative" legislation in their eyes. This point holds validity, especially when looking at how Florida's "Parental Rights in Education Act" bill inspired similar proposals in Alabama, Arizona, Georgia, Iowa, Louisiana, Missouri, Oklahoma, Ohio, and Tennessee (Jones & Franklin, 2022).

Areas of present-day fear were defined by participants as areas where they had either heard stories on the news or through word of mouth about violent incidents or where they had a perception that they would likely be the victim of a hate crime or harassment there. Less restrictive gun legislation, news about lynchings, and violent reactions towards people in areas were some examples of a potentially violent climate in an area. Treatment of minorities was noted as a measure of potential harassment or violence in an area, particularly referring to minority identities that differed from a participant's identity. This included the use of slurs, a lack of legal protections within the local government, racism, and tangible hostility against minorities. Minorities in this

³ Florida House Bill 1557

⁴ Tennessee Senate Bill 3

context included non-white people, women, and transgender people.



Figure 5.

Regarding connections to the present-day areas of fear and legislation, participants cited legislation as being a major factor in their perception of fearful areas. One participant acknowledged the parallels their areas of fear had to maps of Republican voting states. Connections to legislation included mentions of specific types of restrictive legislation, political views of the area, and political officials in power. Mentions of restrictive legislation included the "Parental Rights in Education Act" (consistently referred to as the "Don't Say Gay Bill" among participants), the "Tennessee Adult Entertainment Act" (consistently referred to as the "anti-drag

bill" or "the drag ban" by participants), restrictions on medical access (referring to access to abortion services and gender-affirming treatment), education and book bans, and directly anti-LGBTQ+ laws. Participants attributed their perceptions of political views of the areas to word of mouth from friends and family, personal travel, the majority party in an area (as demonstrated by election voting patterns), and elected officials. Conservative and Republican-leaning views in areas were noted as being political signifiers of areas of fear. This connected to elected officials in the areas, as the presence of firmly conservative and Republican officials in political offices contributed to fear. Larger state institutions were discussed as being indicative of the political culture of the state and in some cases, made politically "blue" or democratic cities less reliable compared to blue cities in democratic-leaning states. Connected to political restrictions, participants mentioned that change towards being more openly accepting culturally and legislatively seemed like an unlikely or longer-term change.

Regarding the environment of the areas marked down as areas of fear, participants said they perceived the areas as rural, empty, remote areas, small towns, or suburbs that had nothing interesting to do. These factors were more often associated with the South, Midwest, and Great Plains states. Discussions of the environment in present-day areas of fear included the cultural environment. This included mentions of a perceived or experienced rude or shady attitude from people in the area, increased judgment from people, a sense of social disconnection from others, and a lack of visible queer representation or support. Explicit homophobia, transphobia, and racism were also associated with the cultural environment.

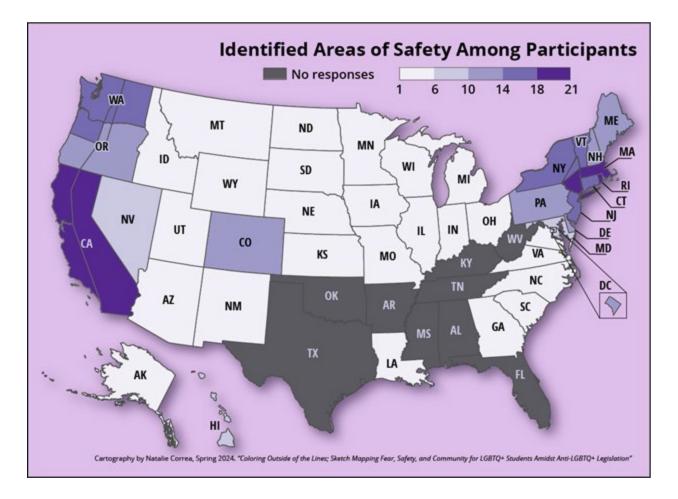
7.2. Areas of Perceived Safety

Areas of present-day perceived safety in the country were concentrated along the West

Coast and in the Northeast (see figure 6). In the most concentrated areas, over 60% of respondents identified California, Massachusetts, Rhode Island, and New York (specifically, the Hudson Valley, New York City, and Long Island areas) as being safe areas. Considering the location of Hofstra, the southern region of New York may have more responses due to lived experience in this region, resulting in the whole state not having the strongest support possible. For participants who excluded upstate New York, they noted cultural differences surrounding open acceptance compared to areas south of the Hudson Valley.

Areas of safety were identified based on word of mouth from friends and family, positive experiences traveling there before, higher visibility of other LGBTQ+ individuals, an environment of open acceptance, and greater legislative support. Higher visibility of other LGBTQ+ individuals was identified based on larger LGBTQ+ communities in areas and the presence of more openly expressive individuals in those areas, along with hearing about safe areas for LGBTQ+ people from friends and through the media. Participants identified open acceptance as being an unquestioned form of acceptance. This meant that support was upfront, conversations about LGBTQ+ existence weren't hushed, people did not openly discriminate, and participants would not feel treated differently or unwelcome.

Figure 6.



Other aspects of the cultural environment that were mentioned included greater diversity, the presence of young people, cultural outlets through art and locale-specific culture, treatment of the community internally and by the government, and greater chances to find community (which will be expanded in the next section). Intersecting with the cultural environment, tangible ideas of physical safety were noted, mainly that of trans safety (relating to lower chances of trans-based violence) and physical safety walking around. Both of these go towards a larger point participants made that safety from an LGBTQ+-informed perspective meant not being a victim of a hate crime.

When thinking about the physical environment, participants were inclined to identify areas with major cities and urban settings as safer areas. Urban settings were discussed as being places with things to do, the opposite of places identified as areas of fear. Participants also identified urban settings as places where they perceived the ability to build a place for themselves. Areas of safety, on a more general note, included areas that were familiar to participants based on experiences from traveling there and based on proximity to places they had experienced being comfortable in.

The types of legislation participants pointed to when identifying areas as being safe were measures like historical support for gay marriage, specified protections for marginalized identities (including LGBTQ+ people, women, and people of color), prohibiting discrimination, genderaffirming care, protections for abortion, and weed legalization. While some of these legislative measures directly impact LGBTQ+ identifying people, legislation that prohibits discrimination against Black, Indigenous, and People of Color (BIPOC), and the legalization of weed were mentioned because they illustrated an overall progressively-minded government. Recognition and work to address women's issues also emerged from the idea of progressively-minded governments. Addressing the political connection of their present-day areas of fear, participants said they viewed areas with liberal and/or democratic governments and communities as legislatively safer areas, using the same measurement techniques discussed for gauging the political leanings for areas of fear.

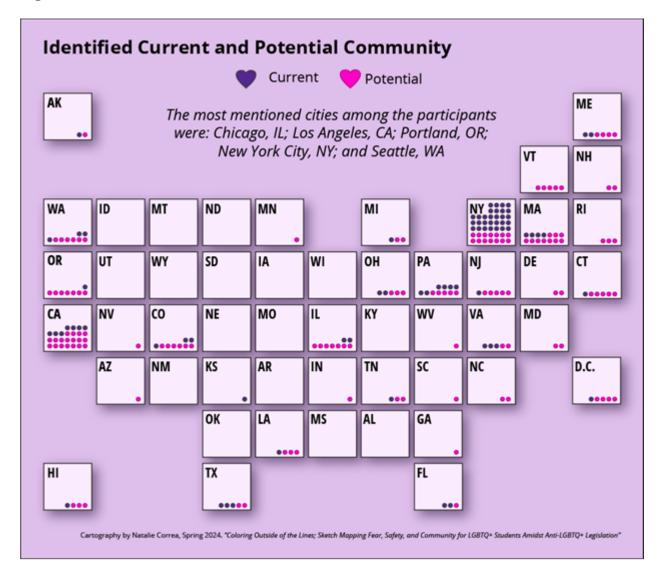
7.3. Areas with Potential Community

Participants collectively identified currently having community in 37 states and identified 35 states as being places where they could potentially find community. Areas of potential community were concentrated along the coasts and within cities (see figure 7). The most mentioned cities among the participants were: Chicago, IL; Los Angeles, CA; Portland, OR; New York City, NY; and Seattle, WA. When asked why they identified the areas they did for potential community, participants cited the makeup of the areas as having like-minded and similar people with common interests, opportunities for them as people, and things to engage with through interest-based communities and present culture. Word-of-mouth was mentioned as informing participants of the "vibe" of the community within areas, information that was used to affirm that the communities in those areas aligned with what participants were looking for. Additional factors included the political environment, preferring more openly liberal and progressive areas, diversity, and visible, open acceptance. When asked if the potential communities identified were connected in some way to their queer identity, 26 of the 29 (90%) participants agreed with strong maybes, probablys, and definitive yesses. Intersecting factors included culture, common interests, LGBTQ+ rights in the area, perceived friendliness for LGBTQ+ people, and perceived safety.

7.4. Personal LGBTQ+ Identity

Related to personal LGBTQ+ identity, participants were asked about what kinds of support they had access to when coming to terms with their LGBTQ+ identity and what kinds of support they wished they had had growing up. For available support, 17 (59%) participants cited friends; 14 (48%) cited family including siblings, parents, and cousins; 9 (31%) cited the internet, social media, and TV shows; and 3 (10%) cited older LGBTQ+ people. 6 (21%) participants cited having access to a Gay-Straight Alliance (GSA) club of some sort in high school, with 2 of the participants noting that the club was not effective because of a lack of support from the high school. In terms of support participants wish they had had access to, the main support participants identified was having family members that were more openly supportive and accepting of LGBTQ+ identities and being able to trust them with information about their identity. 10 (34%) participants cited this as a desired support. This included those with openly unsupportive parents and those with supportive parents who were not upfront with their support. This desired support was followed by wanting access to more education, representation, and visibility of LGBTQ+ people. 6 (21%) of participants identified this, with it referring to a desire for support they wished they had had in the past before coming to college.

Figure 7.



7.5. Impact of the College Environment

Education, representation, and visibility are themes present within participants' answers about how the college environment impacted their LGBTQ+ identity and understanding. One of the biggest supports within the college environment at Hofstra mentioned by participants was the inclusion of LGBTQ+ topics within focused events, lectures on campus, and in academics through the LGBTQ+ Studies minor. Coming Out Day was the only event named explicitly, with other participants referring to a vague existence of LGBTQ+-focused events on campus. These factors were a part of what participants identified as making Hofstra a queer and inclusive campus. Connecting to previous themes of community, participants identified a few themes surrounding community within the collegiate space as LGBTQ+-identifying students. Participants identified the existence of a large group of support within the people at Hofstra, noting few perceived judgments or limits on being able to express their LGBTQ+ identity and people being willing to use different pronouns and acknowledge differing identities.

In terms of being able to build community, participants discussed the ability to connect with other LGBTQ+-identifying people through events and clubs on campus, like the Pride Network. The accessibility to other people who identify as LGBTQ+ was also discussed concerning the development of participants' own LGBTQ+ identity. More specifically, participants found peer education of different LGBTQ+ identities through other peoples' experiences to be useful in understanding their own identities or the greater LGBTQ+ community as a whole. Interactions with other LGBTQ+-identifying people along with being in a generally accepting environment allowed participants to explore their identity more and be more expressive of their identity. This expressiveness most often meant being open with their LGBTQ+ identity on and off campus (to varying degrees, depending on perceived safety). Other related themes were feeling a decreased need to "perform" their identity by being highly visible with their LGBTQ+ identity and present according to stereotypes, the ability to make choices for themselves, and the feeling of starting a new life because of the ability to be open and express their identity however they desire.

8. Discussion

This research sought to understand where LGBTQ+ college students perceive fear, safety, and community amid rising anti-LGBTQ+ legislation in the United States through sketch mapping. The findings of this research clearly show perceptions of fear to be heavily concentrated in the regional South with some perceptions of fear in the Midwest and Great Plains states, perceptions of safety being concentrated in the West Coast and Northeast, and perceptions of uncertainty concentrated in the Midwest. Perceptions of safety closely aligned with areas where participants thought they could potentially find community, alongside a preference for communities along the Northeast and West Coast. Potential communities were also identified as being near major cities. For some participants, the presence of cities prompted them to identify potential communities in states otherwise thought of as fearful, such as Texas, Tennessee, and Louisiana, in favor of specific cities like Austin, Nashville, and New Orleans respectively. A majority of participants identified that their perceptions of potential communities were connected to their LGBTQ+ identity, highlighting that they had heard of sizeable LGBTQ+ communities in the places they had marked as having potential community.

Word-of-mouth proved to be important for shaping the perceptions of space participants had. Through friends and family, participants were able to be informed about aspects of communities in different states and cities based on others' lived experiences or knowledge of places through a trusted source. More directly mentioned was the role of media sources, like the news, in shaping perceptions of fear and safety, especially the latter. Areas with more news coverage of violence inflicted on LGBTQ+ people and hostility towards LGBTQ+ people tended to be more quickly identified as fearful by participants. Increased coverage of the most intense or extreme threats to LGBTQ+ people may result in decreased awareness of potential hostility present elsewhere in the country. Social media can also be seen as a form of word of mouth that allows people to be exposed to the experiences of others in different places and circumstances. While social media was not mentioned much in terms of shaping perceptions of space as fearful or safe, understandings of the general existence of LGBTQ+ communities may have come from a mixture of social media and news coverage, in addition to conversations with other people. Further research could be done to understand how social media influences perceptions of communities and different areas.

Legislation impacted perceptions of fear, safety, and community both when anti-LGBTQ+ legislation was only proposed and when it was materialized into law. Anti-LGBTQ+ legislation was cited as impeding the ability for some participants to exist openly with their identity in certain states in addition to showing that that kind of thinking is prevalent within those communities. Fear of states was mirrored by the number of anti-LGBTQ+ bills proposed. Media coverage was a variable not covered in this study but is interesting to consider in terms of the overall coverage of anti-LGBTQ+ legislation in the country. Of the over 500 bills proposed, 84 were passed into law (ACLU, 2023, "Status: Passed Into Law") but only a few popped up consistently among participant answers, regardless of home state. The media's selective coverage of anti-LGBTQ+ legislation results in certain states being perceived as being more fearful while others that have passed the same number of, or more, bills are not viewed as fearful. However, these are not fair comparisons to make since states are not built equally in terms of interest. While Florida may have only passed 4 anti-LGBTQ+ bills in 2023 compared to North Dakota's 10, Florida is of a higher interest considering that it has 28 times the population of North Dakota, has multiple cities that draw people to the state, and historically mixed politics that are settling into Republican views.

States that have openly stated support for the LGBTQ+ community and have taken legislative action to protect people identifying as LGBTQ+ were viewed as being safer and as having more potential communities. Pro-LGBTQ+ legislation seems to be connected to a higher number of potential communities in an area. This is likely due to legislation's being indicative of the prevalent thinking within the area. Overall, these findings suggest a preference among LGBTQ+ students to plan futures and pursue careers in cities and states that do not make persistent efforts to negatively target LGBTQ+ individuals. Due to higher perceptions of fear in the South and some perceived fear in the Midwest and the Great Plains, there is a chance that those states will begin seeing a decline in LGBTQ+ individuals in the workforce.

This decline can result in brain drain. Brain drain refers to a phenomenon where educated and qualified individuals leave their home countries, usually in the Global South, in favor of working in countries in the Global North, like the United States (Webber, n.d.). In this case, there is the potential to see brain drain occur on a national level. Alongside rural-to-urban migration patterns where people tend to move to cities because of the access to economic opportunities, anti-LGBTQ+ legislation may become another push factor for LGBTQ+ students to leave rural and suburban communities where they grew up, or completely avoid them, in favor of more accepting and safe places for their LGBTQ+ identity. As represented by the colleges within Hofstra participants were a part of, the loss of LGBTQ+ people in the workforce would not be concentrated in one field but could impact arts and STEM-based fields alike. There are also economic burdens that LGBTQ+ people who stay in states with anti-LGBTQ+ legislation may face. For LGBTQ+ students, a lack of protection or support within academic institutions can result in students performing poorly because of stressors related to their safety. This poor performance can impact earnings in future careers. A lack of protection from discrimination can result in LGBTQ+ people being denied work and housing opportunities, being fired based on their identity, and having higher healthcare costs due to denied procedures because of their identity (MAP, n.d.). These economic burdens may add to a potential migration of LGBTQ+ people from states with anti-LGBTQ+ legislation.

The impacts of brain drain impacts the economy in an area by decreasing the workforce and can have rippling political and cultural impacts. Richard Florida explains in an article for Bloomberg:

By increasing social segregation, it limits opportunities for disparate groups to connect. And by siphoning a source of economic innovation from emptying communities, brain drain can also lead to crumbling institutions of civil society. As those natives who have more resources leave, those left behind may struggle to support churches, police athletic leagues, parent-teacher associations, and local businesses. (paragraph 10)

Anti-LGBTQ+ legislation has already caused people to consider-and go through withmoving to different states. In a 2024 published survey of more than 92,000 transgender and nonbinary people from the National Center for Transgender Equality (NCTE), nearly 50% of polled participants said they had considered moving within the past year and 5%, about 4,500 people, said they had moved because of legislation (Migdon, 2024). The migration of LGBTQ+ people from increasingly hostile states is a reality that is becoming more prevalent as more anti-LGBTQ+ laws are introduced.

Moreover, migration from states with anti-LGBTQ+ legislation could result in those areas being perceived as unsafe by an increasing number of LGBTQ+ people outside of the state because of decreased LGBTQ+ communities in the area. A reduced LGBTQ+ presence may decrease feelings of belonging and safety for remaining LGBTQ+ people in the area, creating a more isolating and hostile environment for them. Additionally, there is the potential for those areas to foster stronger political views that are in line with anti-LGBTQ+ rhetoric. Referring to some participants identifying safety and potential community in certain cities that are in otherwise generally anti-LGBTQ+ states, it is clear that anti-LGBTQ+ legislation is not the final determining factor in terms of pushing LGBTQ+ people out of certain states. The presence of an accepting overall community, visible LGBTQ+ communities, and other cultural features that are interesting to people outside of their LGBTQ+ identities are among other factors that are considered by people when determining areas of fear for planning a future. While some people are still open to considering futures in cities located in states with higher amounts of proposed anti-LGBTQ+ legislation, there is still a considerable amount of hesitation that may be present among younger LGBTQ+ people.

Regardless of whether or not LGBTQ+ people leave a state en masse because of anti-LGBTQ+ legislation, there are still economic losses for states due to projected losses of money coming in from LGBTQ+ individuals. This is due in part to the previously-mentioned economic burdens LGBTQ+ people may face with within a discriminatory workforce, namely reduced job opportunities and the potential to be fired based on their sexuality. These economic burdens can lessen the disposable income that LGBTQ+ people have available to put into the economy.

States and cities are also faced with economic losses due to companies and musicians canceling shows or setting up business opportunities within states with anti-LGBTQ+ legislation.

After North Carolina passed HB2⁵ into law in 2016, multiple artists- including Pearl Jam and Bruce Springsteen to name a few- canceled shows in the state (Guardian Music, 2016). In response to Florida's "Don't Say Gay" bill, Disney said they would pause all political donations which previously totaled roughly \$4.8 million for candidates from both parties (Kelleher, 2022). Florida convention centers are also seeing a decrease in the number of bookings for upcoming years in addition to cancellations of events meant to happen within the next year (Wallace, 2023).

Colleges and universities may find themselves also impacted by brain drain related to anti-LGBTQ+ legislation. With threats against the ability to access healthcare, access bathrooms and public spaces that align with one's gender identity, and express oneself freely, LGBTQ+ students will look at collegiate spaces based on the support they can provide LGBTQ+- identifying students in addition to their academic offerings. Having access to specialized support can help increase a sense of belonging among LGBTQ+ students, which can aid in enrollment, retention, and the graduation of LGBTQ+ students (Parker III, 2021). For participants in this research, having access to events, clubs, and academic programs centered on LGBTQ+ issues and identity allowed for them to build a sense of community surrounding their identity and solidified their sense of belonging on campus. For some participants, having access to those supports was a major deciding factor in choosing any college. Hence, colleges and universities that seek to maintain look into ways to create and maintain spaces that can support LGBTQ+ students. In doing so, there is a potential that collegiate spaces in states with lots of proposed anti-LGBTQ+ legislation may be able to maintain and enroll new LGBTQ+ students by investing in campus support and visibility for the LGBTQ+ community. However, the ability to do this is complicated by legislation targeting Diversity, Equity, and Inclusivity (DEI) measures and departments. With the onset of this kind of

⁵ HB2 was a bathroom ban preventing transgender people from using public restrooms that align with their gender identity

legislation, state-funded schools that have DEI measures or departments in place may lose government funding.

Looking at the specific methods used, this research contributes to the current body of literature on sketch mapping by providing a beginning framework for using the approach to understand people's perceptions of space on large scales, like countries. Most sketch-mapping projects focus on smaller-scale areas in order to understand people's connections to smaller details within an area. This research sought to take advantage of the important connections people have to spaces (Lynch, 1960) over understanding connections to highly detailed representations of space. The focus on understanding emotional connections to and perceptions of space compensated for the lack of detail within the base maps.

Due to the large scale used, this application of sketch mapping allowed for a greater understanding of perceptions of space as abstract ideas of space since participants most likely didn't have direct, personal experiences in those spaces. Through the travel question, it could be seen if perceptions across the US were shaped by personal experience or by word of mouth and the media. Participant answers regarding perceptions of space related to legislation could be connected to legislation passed on the state level because of the use of larger political boundaries, such as state lines and names. Future research looking to use sketch mapping on a large scale should define what details are important within the space and how that connects to the qualitative information desired from participants. That should be used as a basis for creating a base map. When doing sketch mapping on a large scale, it is important to be selective with the information included on the base map to prevent overcrowding of details once participants begin sketching on the map. Due to the focus on participant perceptions to states in a political context in this research, details outside of state boundaries were not necessary for effective basemaps. The use of a limited range of predetermined symbols made it easy to compare the perceptions and lived experiences of participants against each other and helped narrow the scope of what was covered within individual base maps.

This research also contributes to the growing body of queer geography research. Within queer geography, this research focuses on creating spatial linkages to a threat that has not been covered much within the subdiscipline. Not only does this research present the need to conduct further research on how anti-LGBTQ+ legislation has impacted and will impact the socio-political landscape, but it also presents the need to look into how those changes will impact how LGBTQ+ people use and view space on a national level in the future. The findings presented here also suggest a need to look into how socialization among LGBTQ+ people influences how they perceive space. This research also provides a framework for a participatory method using large-scale mapping of showing personal connections to space from an LGBTQ+ lens. By using sketch mapping on a national scale, this research can push for future researchers to consider a similar approach in looking at how national or statewide policies impact interactions with space on a national level, despite where a person may be situated.

8.1. Limitations

This research is limited in its ability to generalize results for LGBTQ+ college students across the country. Due to the size and the sample used for this study, the results are not applicable to the larger population. As a result, this research is also limited in perspective from binary transgender people and from cis-men who identify as Gay, Bisexual, or Queer. This research was also limited in the racial and ethnic diversity of participants. The low number of Queer and Trans People of Color (QTPOC) meant not being able to explore the intersection of race and LGBTQ+

identity. The results are also limited by not collecting data on how many participants would have left their hometowns/states for economic or cultural reasons. While anti-LGBTQ+ legislation may play a factor in creating economic or cultural push factors, this research did not account for pre-existing factors that may have contributed to a participant's desire to leave their hometown/state.

This research was also limited by time. During interviews, some themes could not be further explored because of tight interview schedules that limited the amount of discussion of certain topics that came up. One theme of interest that was not explored because of time was that of the intersection of disability, physical and neurodivergence, and LGBTQ+ identity. A few participants mentioned having overlaps between their LGBTQ+ identity and their disability through the community they find and increased support from others who were intersectional in similar ways. A different theme that came up often within interviews was the concept of "passing as straight." This term was often used to refer to the participant themself, acknowledging that they fit within the socially understood image of heterosexuality. This also applied to those with gender identities that differed from their assigned gender, using "straight" to refer to their gender's appearing cisgender. With the limit of time, further exploration of what "passing as straight" meant in addition to how participants may change their appearance depending on where they are in space could not be done.

9. Conclusion

The results presented in this research begin setting up an understanding of anti-LGBTQ+ legislation as having the potential impact of decreasing the number of qualified and highly educated people in local workforces across the country. This potential decrease in workers who happen to identify as LGBTQ+ will most likely impact rural areas and suburban areas that are further away from major cities because of perceived fear around those areas. As a result, major cities and states with little to no anti-LGBTQ+ proposed legislation may see an increase in the number of LGBTQ+ young people attempting to move there. Maintaining open acceptance of LGBTQ+ people may help areas retain and gain new LBGTQ+ people in addition to maintaining diversity in the area. Potential communities among LGBTQ+ young people were usually connected to their LGBTQ+ identity by thinking about the safety of their being able to express their LGBTQ+ identity, access to other LGBTQ+ people, and overall acceptance of the area. Potential communities were mostly concentrated around the coasts and in major cities, some of which were in states that were otherwise deemed fearful. Those cities were also marked as being perceived as safe.

Areas that participants identified as being perceived as fearful, safe, and having potential community were shaped by what they had heard from friends and family, personal travel and lived experience in those spaces, and what they had seen in the media. Tangible experiences participants had from living or traveling to certain places in addition to the lived experiences of their friends and family weighed more than what participants had seen in the media. However, it should be noted that the media's impact on perceptions of space was not directly questioned during this research. Legislation also impacted perceptions of space; Anti-LGBTQ+ legislation's being proposed in a state helped create perceptions of fear and hostility from the local communities. The lack of proposed anti-LGBTQ+ legislation or the proposal of pro-LGBTQ+ legislation aided in creating perceptions of safety and tolerance from the local community. Perceptions of fear and safety were also influenced by legislation relating to abortion access, protections for other minorities, and weed legalization as ways to measure the overall political climate of the state.

This research helps to establish that anti-LGBTQ+ legislation has an impact on how young

LGBTQ+ people perceive space and their place within it. As a result of these perceptions, these young people are filtering where they would consider existing in space concerning legislation that has been proposed and enacted in addition to experiences they have heard from others. For a majority of participants, the college environment has been impactful on how they view and present their LGBTQ+ identity. Furthermore, the environment has given them the ability to learn more about the spectrum of LGBTQ+ experiences and identities because of access to other LGBTQ+ people and university-sponsored academic and social programming. Thus, this research demonstrates the importance of the collegiate environment in fostering a community of learning of different lived experiences through academic and social means, the latter of which must come from a diverse student body. To maintain diversity and learning through socialization, colleges and universities must actively seek to protect DEI departments within their institutions and create protections for students of different backgrounds. In doing so, collegiate spaces can help create a space of safety in otherwise hostile states.

Future research should look into interviewing people in different regions of the US that are further from major cities, rural areas, and states that have more anti-queer legislation. Future research should also look to interview students at schools that are not openly supportive of LGBTQ+ students in addition to schools that are openly supportive. While this research was able to set up a basis for using sketch mapping for understanding perceptions of space on a large scale, future uses of large-scale sketch mapping should consider using a deductive approach to shape questions in addition to a trial period of interviews before solidifying the questions and symbols being used for the sketch maps. Including a trial period in this research would have helped streamline the questions to any inductive themes that became apparent among participants while creating a consistent visual dataset. Future research should also look deeper into the experiences of Queer and Trans People of Color (QTPOC) to better understand the intersectional influences of sexuality, gender, and race on perceived safety, fear, and community. Additional research on the intersection of disability and LGBTQ+ identity would also be interesting in terms of challenges faced based on physical and cognitive differences in addition to a minoritized identity.

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Appendix A

This appendix contains tables of participant demographics.

Category	Sub-Category	Frequency (N)	Percent (%)
Age	18	5	17
	19	10	34
	20	9	31
	21	3	10
	22	1	3
	23	1	3
Time spent towards degree (undergraduate)	>1 year	5	17
	2 years	11	38
	3 years	10	34
	4 years	1	3
Class	Freshman/first-year	6	21
	Sophomore	10	34
	Junior	5	17
	Senior	6	21
	Masters	2	7

 Table 1. Participant student demographic information

Category	Sub-Category	Frequency (N)	Percent (%)
Race/Ethnicity	White	22	76
	Black/African American	2	7
	Latinx	1	3
	Mixed (White and Latinx)	3	10
	Mixed (White and Asian)	1	3
Sexual Orientation*	Lesbian	3	10
	Gay	3	10
	Bisexual	10	34
	Pansexual	7	24
	Queer	4	14
	Asexual	3	10
	Aromantic	1	3
Gender Identification	Cis-Female	12	41
	Cis-Male	4	14
	Transgender**	13	45

Table 2. Participant identifiers

Note. *Some participants identified with multiple sexual orientations, resulting in a total that will be higher than the total number of participants.

**Transgender includes identities under the trans umbrella including trans-femme, trans-masc, non-binary, gender queer, agender, gender fluid, gender non-conforming, and none.

Appendix **B**

This appendix contains the key used and the sketch maps created during interviews in the form of a linked PDF file. The file also contains personal bias maps created from before/during the interview process and after the analysis process.

