Maryland Commission on LGBTQIA+ Affairs

A Decade of Data: Meta-Analysis of Data and Insights on the Experiences of LGBTQIA+ People in Maryland

This report presents a collection of seven projects commissioned by the Maryland Commission on LGBTQIA+ Affairs, conducted in partnership with the University of Maryland, College of Information, iConsultancy Program. The report examines a decade of available data, analyzing trends, challenges, and insights related to civil rights, employment, hate crimes, bullying, and community needs. The findings provide a foundational resource for understanding LGBTQIA+ experiences in Maryland and informing future policy, advocacy, and inclusion recommendations.

In Partnership with the:

University of Maryland 18 56 — College of Information

January 15, 2025

Maryland Commission on LGBTQIA+ Affairs
100 Community Place
Crownsville, MD 21032

A Decade of Data: Meta-Analysis of Data and Insights on the Experiences of LGBTQIA+ People in Maryland

Introduction:

The **Maryland Commission on LGBTQIA+ Affairs** partnered with the **University of Maryland, College of Information, iConsultancy Program** to conduct a series of seven projects aimed at assessing and addressing key challenges faced by LGBTQIA+ communities in Maryland. These projects were commissioned to generate data-driven insights to inform policy decisions, enhance public awareness, and improve resource allocation across the state. The collaboration involved comprehensive data analysis, review of community needs assessments, and the development of tools to strengthen the Commission's impact.

The findings from these seven projects have been compiled into this combined report to provide an overview of critical issues related to civil rights, workplace equity, hate crimes, public school bullying, community needs, and organizational representation. Each project delivers unique data and analysis to deepen the understanding of the current state of LGBTQIA+ affairs in Maryland.

The seven projects included in this report are:

1. **Civil Rights Meta-Analysis** (p. 4-15)

   This meta-analysis reviewed Maryland Commission on Civil Rights (MCCR) data from 2013 to 2023, focusing on complaints related to sexual orientation and gender identity (SOGI) in housing, public accommodations, and employment.

2. **Equal Employment Opportunity Meta-Analysis** (p. 16-27)

   This project analyzed Maryland's Equal Employment Opportunity (EEO) data to identify trends in workplace discrimination related to sexual orientation and gender identity from the past decade.

3. **Hate Bias Crime Meta-Analysis** (p. 28-39)

   This study reviewed hate bias crime reports from the Maryland Coordination and Analysis Center (MCAC) from 2013 to 2023, focusing specifically on crimes related to sexual orientation and gender identity.

4. **Information Gathering on LGBTQIA+ Needs** (p. 40-51)

   This project aims to support the Commission in designing a comprehensive statewide community needs assessment by analyzing regional data, trends, and providing recommendations for survey development.

5. **Public School Bullying Meta-Analysis** (p. 52-64)

   This meta-analysis reviewed bullying, harassment, and intimidation data collected from Maryland public schools over the past decade, with a focus on incidents linked to sexual orientation and gender identity.

6. **Youth Risk Behavior Survey Meta-Analysis** (p. 65-73)

   This project aimed to explore Youth Risk Behavior Survey/Youth Tobacco Survey (YRBS/YTS) data from 2013 to 2023 to examine how LGBTQIA+ youth in Maryland experience risk behaviors.

7. **Commission Design & Style Guide** (p.74-78)

   This design-focused project developed a comprehensive style guide for the Maryland Commission on LGBTQIA+ Affairs to create a cohesive and professional visual identity for all digital and print materials.

Conclusion:

The combined findings of these seven projects provide a multi-dimensional view of the challenges and disparities faced by LGBTQIA+ communities in Maryland. Readers are encouraged to explore each report for more detailed analysis, as they offer valuable insights that can inform policy, advocacy, and community engagement efforts in the State.

Acknowledgements:

The Maryland Commission on LGBTQIA+ Affairs extends its sincere gratitude to the University of Maryland, College of Information, iConsultancy Program for their invaluable partnership in conducting the research and analysis presented in this report. We especially acknowledge the contributions of **TJ Rainsford**, Lecturer and Director of iConsultancy, for his leadership and guidance throughout this collaboration.

We also wish to recognize and thank the **University of Maryland students** in the Fall 2024 INST 490: Integrated Capstone for Information Science class, whose hard work, dedication, and research were instrumental in completing these projects. Their efforts in data analysis, community research, and project design have provided critical insights that will support ongoing efforts to advance equity and inclusion for LGBTQIA+ communities across Maryland.

Civil Rights Meta-analysis - Sexual Orientation and Gender Identity

Meet Patel, Stephen Jacks, Nathan Wang, Jared Sherman, Vivian Grev, Rene Cadet, Jhemel Atkinson

College of Information, University of Maryland, College Park

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Abstract

The collaboration with the Maryland Commission on LGBTQIA+ Affairs and The University of Maryland resulted in a meta-analysis of civil rights data from the past decade from 2013 to 2023 to identify and analyze trends in violations related to sexual orientation and gender identity (SOGI). The main data source for this analysis was the annual reports from the Maryland Commission on Civil Rights (MCCR), which detail complaints filed across three categories: housing, public accommodations, and employment. Python based data scrapers were used to extract this data into suitable formats, while visualizations were developed using Google Sheets to find trends.

Findings from the analysis reveal that biological females reported more complaints than males over the decade, particularly in the housing and employment categories. Additionally, SOGI related employment complaints saw a decreasing trend from 2021 to 2023. These findings offer crucial insights into the evolving landscape of civil rights reporting and provide a framework for further advocacy and policy restructuring to address disparities and improve protections for Maryland's LGBTQIA+ communities regarding civil rights.

Introduction

This was a meta-analysis project conducted in collaboration with the Maryland Commission for LGBTQIA+ affairs, which aimed to examine civil rights data related to sexual orientation and gender identity (SOGI) across the state of Maryland over the past decade from 2013 to 2023. The results from uncovering and examining the trends found through the analysis will support the Commission's mission to assess the various

challenges faced by the LGBTQIA+ community and advocate for more effective practices and policies moving forward.

The State of Maryland has made great efforts to document and address SOGI related issues. But the variability in data sources and how the data was reported have created challenges in analyzing and identifying trends. For example, some of the SOGI data for housing complaints were not available or not reported. These complexities highlight the need for a robust and systematic meta-analysis to inform future decision-making and resource allocation.

This paper outlines the methodology used to conduct the meta-analysis, present key findings derived from the data, and discusses the implications for future policy efforts. The Maryland Commission on LGBTQIA+ Affairs will gain actionable insights to better address civil rights challenges and advance inclusivity across the state.

Process

To gather data, we used the MCCR website as our primary source. Within the website, we specifically searched for annual reports that provided detailed information relevant to Civil Rights. These reports offered insights into the Commission's activities, case trends, and policy initiatives over various years. After locating and downloading the reports, we organized the data by categorizing it into key themes such as complaint types, case outcomes, and demographic information. This structured approach ensured that the data was ready to be processed and analyzed efficiently.

We were able to gather our data from the 10 years of past reports. To take the data from these reports and move it into workable formats like CSV, we used a

Python-based scraper to move the data into CSV files. We then converted these CSV files into readable Google sheet files. In accordance with the client, we manually removed extraneous information and focused primarily on data regarding sexual orientation and gender identity. Working with the cleaned data, we provided an initial report about the trends we saw in the data. After this report, we then did a deeper dive into additional context surrounding the trends we saw and made some assumptions about events occurring around that timeline.

The visualizations created were made in Google Sheets, using the chart function to create column charts for each visualization. Some of the challenges we faced initially were dealing with incomplete data and undefined terms (e.g., gender identity and sexual orientation). We received definitions of these terms from the MCCR and learned that the incomplete data wasn't necessarily an issue, but told a story and opened up the opportunity for future research. We also spent some time deciding how to present the data, experimenting with other formats, such as line graphs and infographics. We chose column charts. Because they displayed the data in the clearest fashion, making it easy to understand.

Methodology

The methodology for this research was designed to ensure a thorough understanding of civil rights complaints reported by MCCR. We chose to focus on annual reports as our primary data source because they are reliable, and comprehensive, and provide verified statistics and qualitative insights directly from the governing body responsible for addressing discrimination in Maryland. The decision to

analyze both quantitative data and qualitative narratives was driven by the need to capture not only patterns and trends but also the lived experiences of individuals affected by discrimination.

Using the data and reports provided by the research team, processing the data was a challenge, but manageable. We expected to extract a large CSV file from the report, but when we reviewed it, we discovered that it only had visualizations and small tables embedded as images. To address this, we developed a web scraper using Python. A web scraper is a tool designed to extract data and content from websites or documents. With this tool, we gathered all the data visualizations and tables from the report. While these provided a useful foundation, they mainly restated the report's findings. To conduct a deeper analysis, we manually typed all the data collected from Web Scraper into Excel sheets. This allowed us to process the data more effectively and equip our visualization team with more options when creating detailed and impactful visualizations.

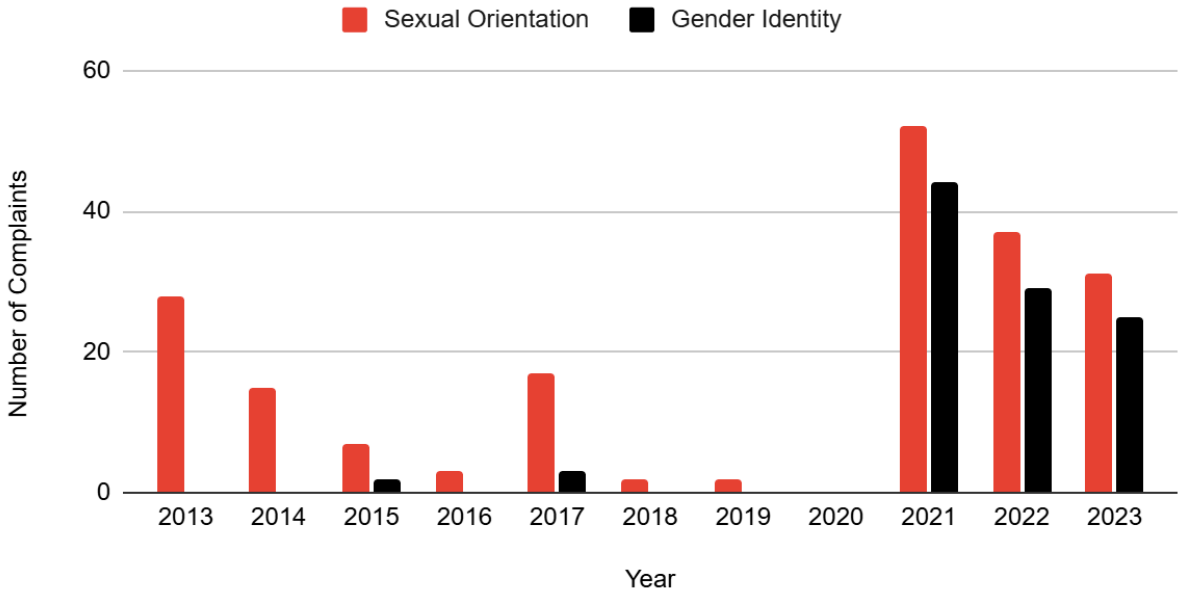
In order to create our visualizations, we used the data that had been collected from the MCCR and their annual reports from 2013 - 2023. The data was imported into Google Sheets, and from there we used the chart function on Google Sheets to create column charts displaying the data of complaints based on SOGI. This was done separately for housing, public accommodations, and employment, and the complaints based on sexual orientation and/or gender identity for each category were displayed side by side.

Findings

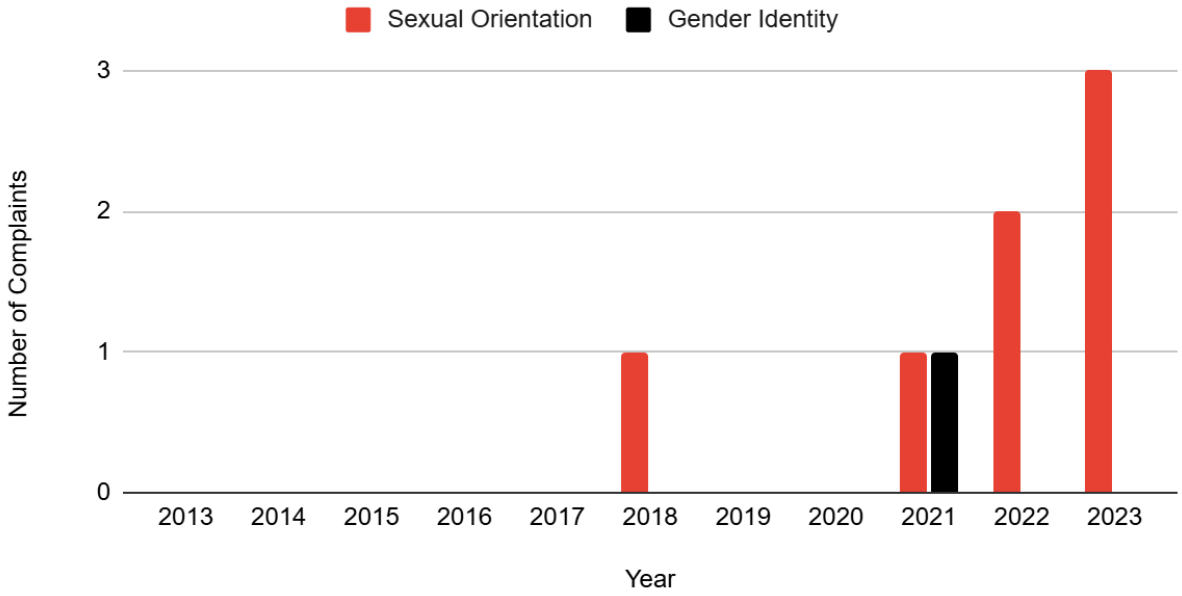
Our research focused on civil rights cases and complaints reported by MCCR. By analyzing data from annual reports, we identified trends in complaint types, demographic disparities, and resolution outcomes. Both qualitative and quantitative findings supported our project's goal of understanding systemic inequities and highlighting key areas for intervention.

The visualized findings revealed notable gaps in the data, particularly the absence of data from 2019 and 2020 in all categories except public accommodations. This is likely because of the COVID-19 pandemic, which significantly reduced public interactions during this period. Additionally, complaints related to gender identity were consistently low across all categories. Potential explanations for this include individuals feeling uncomfortable filing such complaints, a lack of reported incidents, or the possibility that gender identity was not formally recognized as a discriminatory factor until after 2020, when such complaints began to increase. Complaints based on sexual orientation generally exhibited an upward trend over time, with the exception of public accommodations, where they declined after 2015 but experienced a spike in 2019, coinciding with the onset of the COVID-19 pandemic.

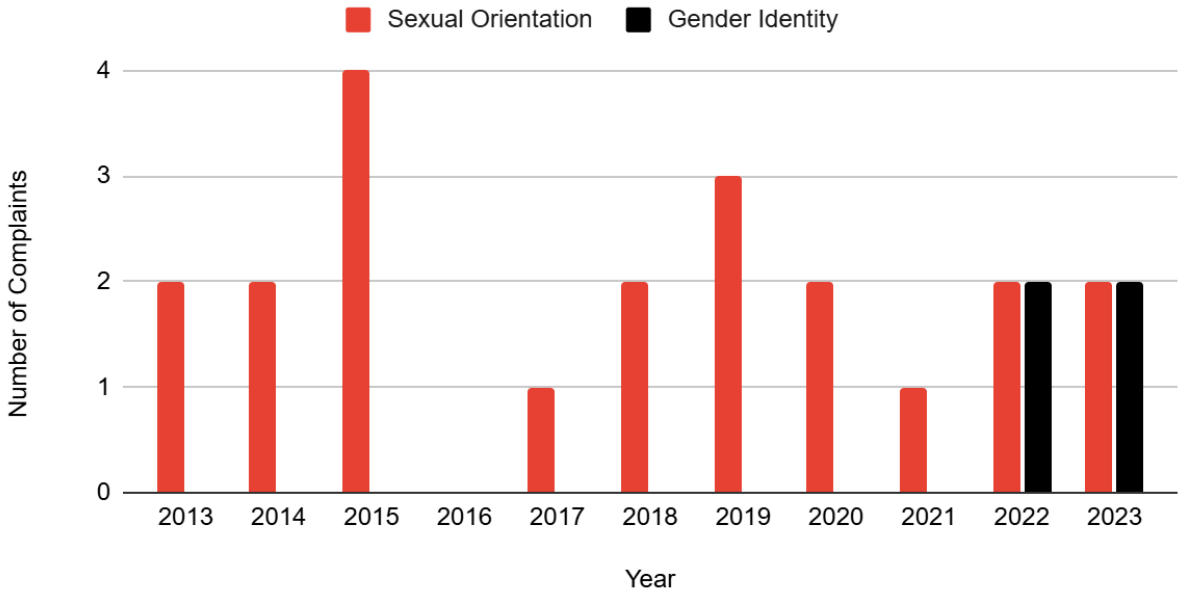
Employment Complaints Based on Sexual Orientation and Gender Identity (2013 - 2023)



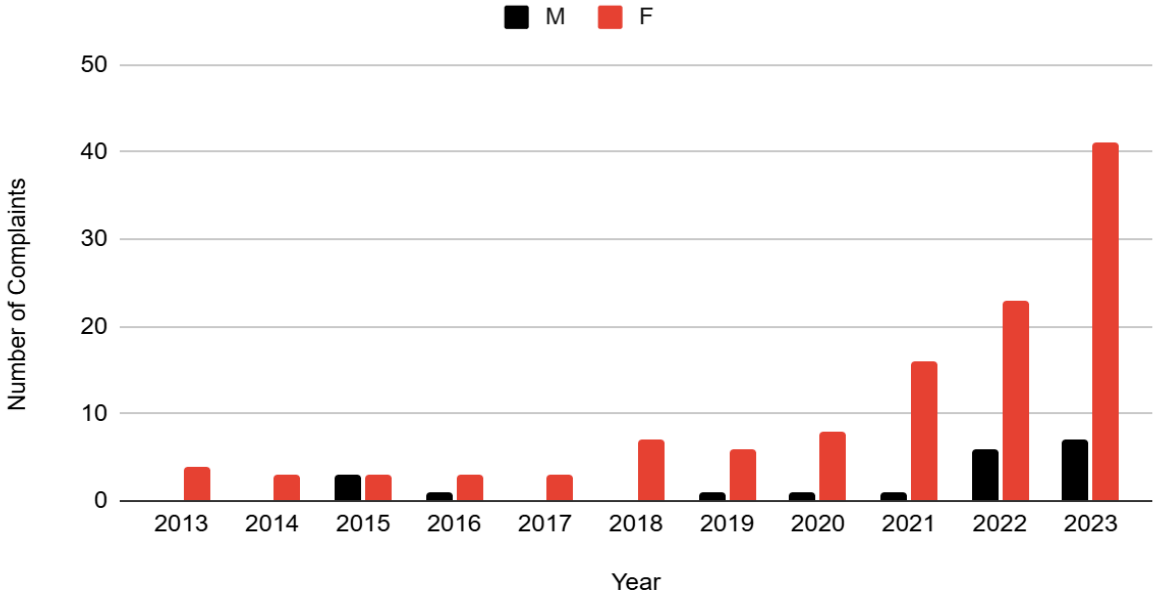
Housing Complaints Based on Sexual Orientation and Gender Identity (2013 - 2023)



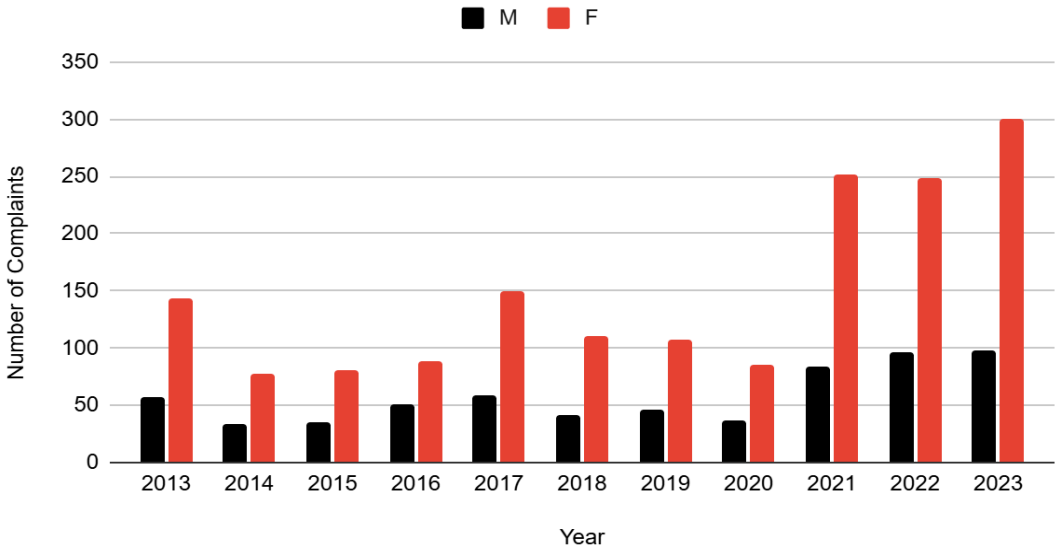
Public Accommodation Complaints Based on Sexual Orientation and Gender Identity (2013 - 2023)



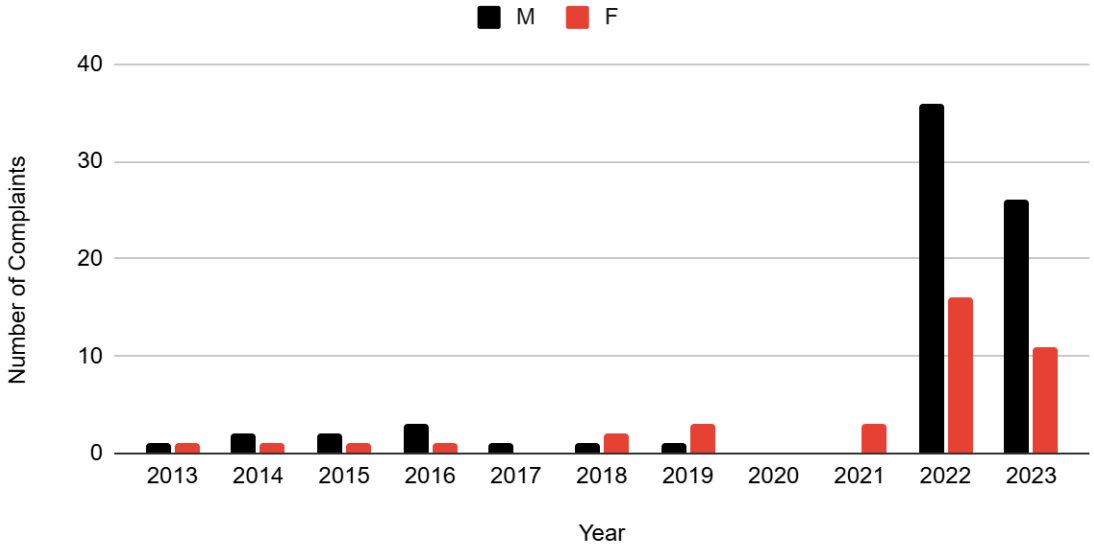
Housing Complaints Based on Sex (2013-2023)



Employment Complaints Based on Sex (2013-2023)



Public Accommodations Complaints Based on Sex (2013-2023)



Future Exploration

Based on the findings and trends that were found in the meta-analysis recommendations that are implementing a framework to effectively report complaints throughout the state. The gaps in the data, along with the sudden spikes and dips in the number of complaints across categories, present opportunities for further research. Apart from the impact of COVID-19 in 2020, there is no clear explanation for these fluctuations, prompting deeper investigation. Collaborating with MCCR could be a valuable approach for future research. Since the organization handles complaints, conducting interviews with individuals who have filed complaints could provide insightful data. Additionally, interviewing MCCR employees could offer a deeper understanding of their methods and the rationale behind their data collection practices.

Conclusion

This meta-analysis provides valuable insights into the patterns and trends of civil rights violations related to SOGI in Maryland over the past decade. Despite efforts in data collection and categorization, gaps remain, particularly in earlier years and in the consistent tracking of gender identity-specific complaints. These findings outline the importance of improving reporting techniques and integrating additional data sources to gain a more comprehensive understanding of civil rights violations across the state of Maryland.

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Equal Employment Opportunity Meta-analysis - Sexual Orientation and Gender Identity

Kenneth Ho, Joseph Kettish, Ben Deskin, Thomas Tran, Suhas Poturaju

College of Information, University of Maryland, College Park

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Abstract

This report presents a meta-analysis conducted for the Maryland Governor's Office of Community Initiatives (GOCI) focusing on equal employment opportunity (EEO) data related to sexual orientation and gender identity (SOGI) across the State of Maryland over the past decade. The goal of this analysis was to leverage data from the Annual Statewide EEO Reports to better assess how SOGI-related EEO violations have been identified and reported. This project provides visualizations and insights to support GOCI's initiatives while highlighting patterns of income disparities, discriminatory employment trends, and workforce composition.

Introduction

The Maryland Governor's Office of Community Initiatives (GOCI) is pivotal in connecting Maryland residents with economic and human service opportunities. As part of its mission, the Maryland Commission on LGBTQIA+ Affairs seeks to better understand the chronological trends of equal employment opportunities concerning sexual orientation and gender identity (SOGI) over the last decade. The report thoroughly addresses meta-analyzed, chronological trends, and the gap in comprehensive, actionable data related to SOGI employment and discrimination within the state of Maryland.

This project seeks to bridge the gap in SOGI EEO data, focusing on highlighted trends over the last decade. The primary objective is to transform the mass of data and provide contextualized consolidation in order to procure actionable information to better inform policy development and advocacy efforts. By aggregating data from annual EEO reports and reliable third-party sources, this analysis highlights disparities to aid in the influence of policy to create more inclusive workplaces within the state of Maryland.

Processes

The annual reports were utilized minimally throughout the scope of this project, as they were almost exclusively related to race; whereas the scope of this project was centered

around gender and sexual orientation. Instead, external government sources were used to provide statistical insights regarding socioeconomic statuses when finding raw empirical data on employment discrimination proved challenging. The data collected was organized in order of precedence, prioritizing the most relative and informative sources.

The collected data was initially provided in a PDF format. In an effort to organize the initial data more efficiently, a PDF scraper was used to analyze the collected data. However, the scraper was not as effective as intended, which required manual processes for all data migration. Data was manually from our sources to a shared Google sheet. This method proved most useful because it was a more efficient method to format the data even when our sources started to defer from formats other than PDF. After cleaning and organizing the data, a paragraph for each table was attached to show the context related to it. In addition, the team highlighted data points in various colors to show the most significant observations or differences found. Afterward, a link to the Google sheet was attached to be later processed into a visualization

Visualizations were used using Microsoft Excel. A challenge that arose was modifying styling requirements to align with the client's expectations while providing a clean, concise, and intuitively readable visual. A specific example of such was in changing styling aspects such as color in order to make the visualizations more neutral instead of prominent and bright. Another challenge in creating the graphs was being able to connect the analyzed findings with the requirements and requests of the client. For instance, when visualizing trends of complaints or differences of income between gender identities, the team had to highlight not only the effects of the trends but answer why these trends or differences were occurring. In order to overcome these challenges, the class increased meetings between all teams to address communication issues. By addressing these communication issues, I was able to better understand the context of data and where it was coming from and as a result, the quality of the visualizations became better.

Methodology

As stated earlier, finding raw data regarding employment discrimination is extremely difficult because the cases are extremely subjective and are often the employer's word against the employee. As a result, the team utilized the approach of using indicators such as socioeconomic status. This was conducted in an effort to be able to make inferences based on categories like employment, graduation rate, and income. It was also determined that statistics could be utilized from other parallel initiatives such as meta-analysis of hate crimes/bias since an area with a high rate for those would also discriminate in employment. Efforts were made to utilize government sources and unbiased survey results specific to Maryland to ensure data reliability.

Repeated rounds of research returned a list of potentially relative sources. Before fully putting data into a table, it needed to be analyzed to discern if there was relevance to the scope of the project. After it was deemed useful, it would be input into a shared repository for it to be organized. Initially, the focus included data on both gender and race. However, after client feedback indicated a need to realign with the project's core objectives, the focus was refined to examine sexual orientation and gender identity specifically. As a result, there was a shift to a focus on sexual orientation and gender identity. With that, research returned lots of information regarding the population group but couldn't show if there was discrimination occurring. In turn, client feedback returned that the best way to determine that was by looking for income disparities between different sexual orientations and gender identities.

The major program utilized for the creation of the visuals was Microsoft Excel. When using the data provided through analysis, visualizations would be created from pivot tables to better understand the variables and their specific context. Afterward, graphs would be created such as column charts, bar charts, line charts, and pie charts. Using bar, column, and line charts were the prominent visualizations because these charts gave the client an easy-to-read, direct, and accurate depiction of the data. Considerations were taken when creating visualizations such as proportional symbol

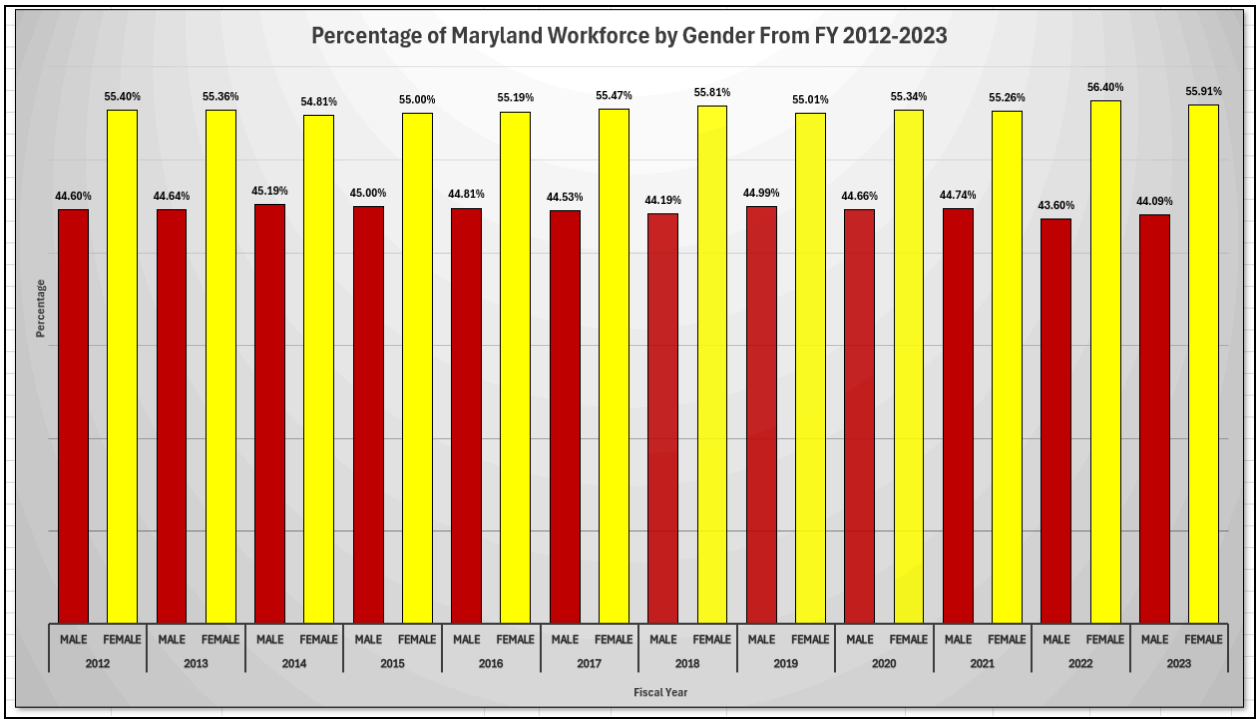
maps or filled maps through collaboration with other visualization teams in parallel projects. These formats were considered because they could potentially show the demographics of the LGBTQIA+ population through different regions. However, it was believed that this strayed off the original scope and objectives of the project.

Findings

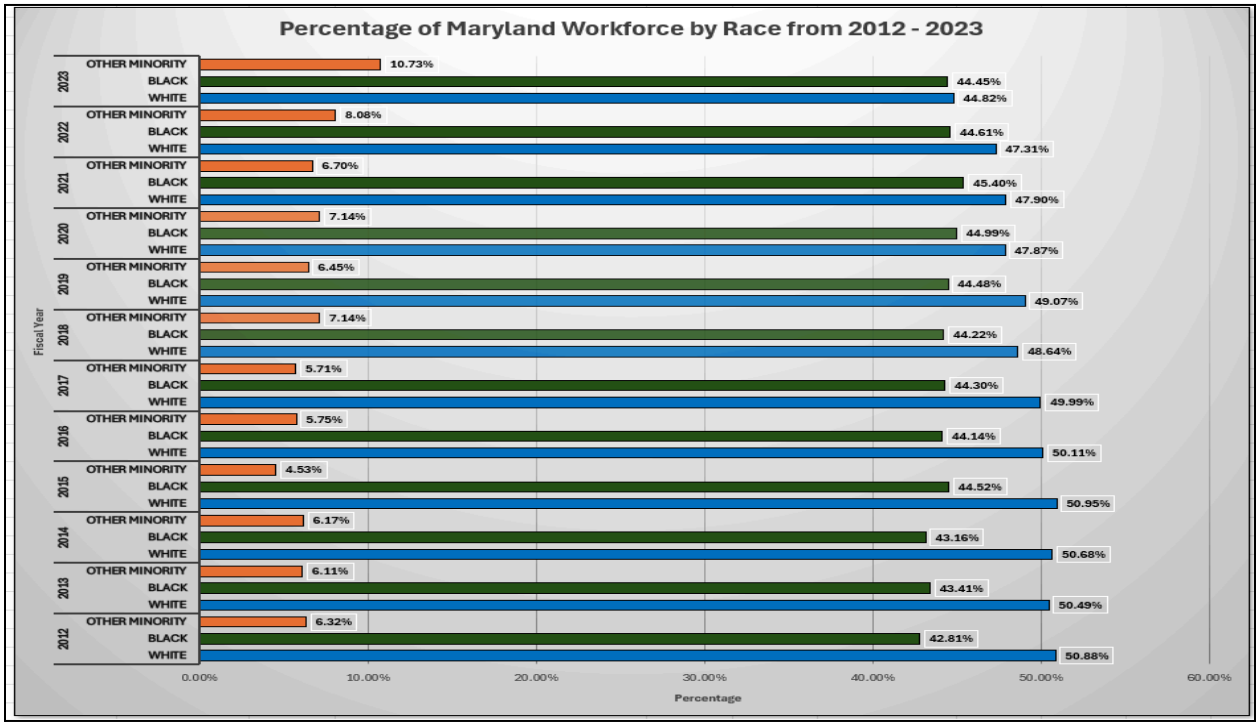
Analysis of the Maryland State Annual Reports returned no data regarding people who identified outside of male/female in state government job roles. However, those two parameters showed a consistent 10% difference over 11 years where females are dominant showing around 55% being in state roles while males are around 45%.

An overview of the racial statistics for state government roles found that there were three parameters: white, black, and other minorities. Whites were dominant in 2012, however as the years passed, the difference decreased. Looking at 2012, there was an 8% difference between whites and blacks while in 2023, there is less than a 1% difference between them. Examining other minorities, there has been an increase from 6% in 2012 to 11% in 2023.

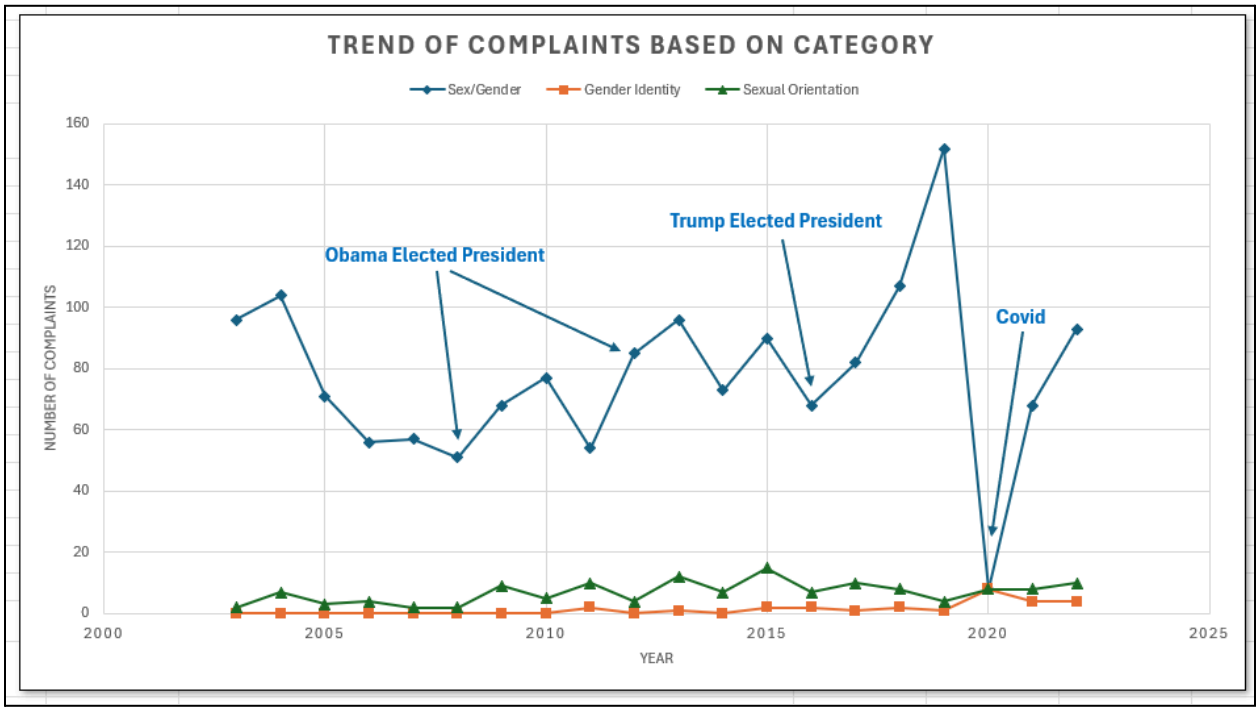
To determine discrimination in the workplace or equal employment opportunities, complaints were analyzed based on gender, sexual orientation, and gender identity. There was a relatively stagnant amount of complaints other than the two anomalies that can be affixed to COVID-19. Looking at self-reported data based on surveys, people who were transgender felt they were being treated unfairly (not promoted, not hired, fired) almost double that of people who were cisgender and nonbinary. To reiterate again, this was self-reported data which can be biased.
In addition, an analysis of income was conducted to see if there was unequal pay in the workplace, sorted by nonbinary, cisgender, and transgender persons. Nonbinary and transgender people were the dominant group earning less than $50,000 annually while cisgender people were the dominant group earning more than $50,000 annually.



Based on state employee data, this bar chart shows the changes in percentage between male and female employees from 2012 to 2023. It can be seen that the ratio between males and females has still stayed the same.

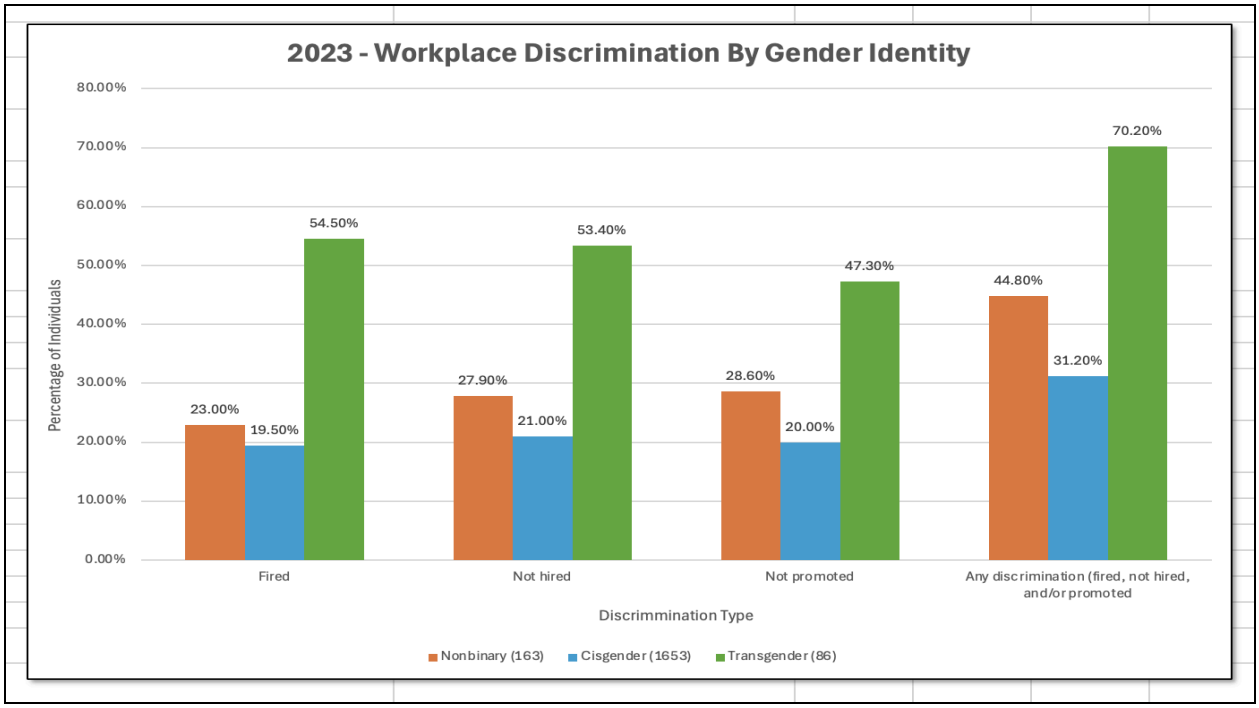


Based on state employee data, this bar chart shows how the racial demographics of the workforce has changed over the years from 2012 to 2023. It can be seen that the racial disparity was much higher in 2012.



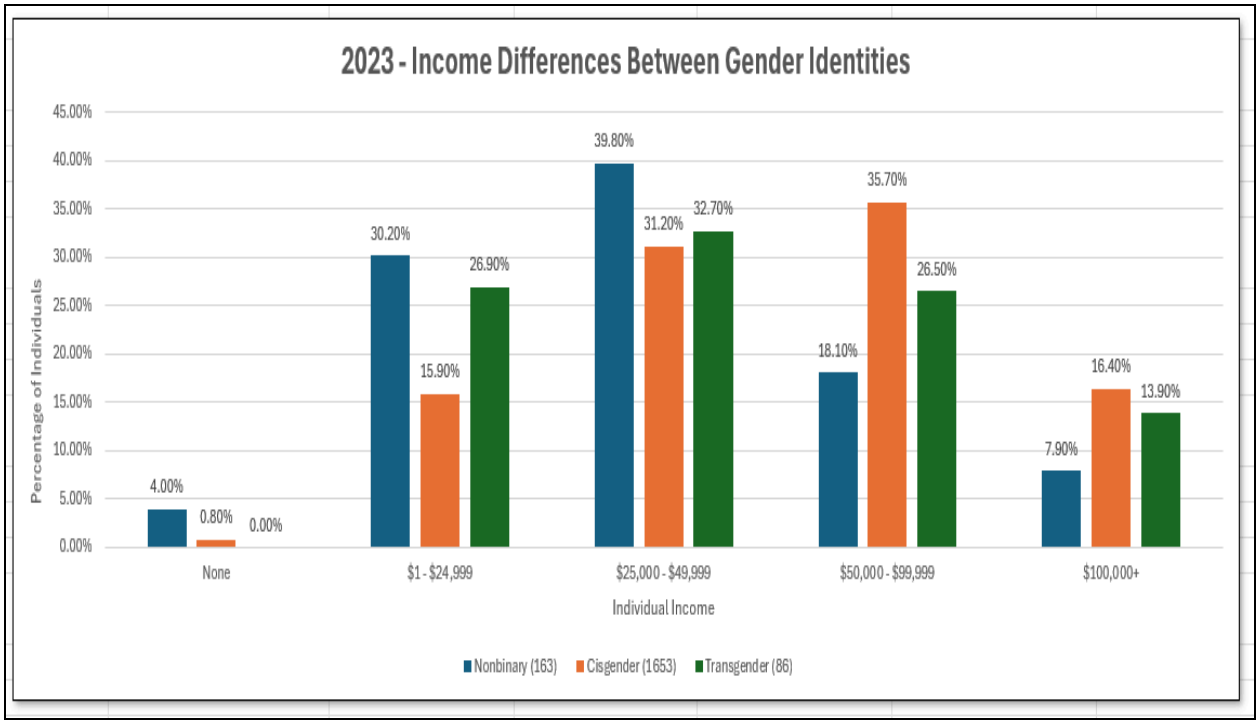
This line chart shows the trend of complaints based on sex, gender identity, and sexual orientation.

- The number of complaints could potentially indicate workplace hate and discrimination, meaning similar trends could be present in the employment process.
- Key political events could potentially explain the rise and dips.



Based on self-reported data, this visualization shows the percentages of workplace discrimination based on gender identity.

- It can be seen that transgender individuals face the most discrimination.
- **Note:** Percentages are relative to the people surveyed



This graph shows the income disparities between gender identities.

- There is a larger percentage of nonbinary individuals with no income
- Middle-income brackets have a larger percentage of LGBTQIA+
- In the middle-income bracket, there are more nonbinary individuals than the other gender identities
- In the upper-income brackets, there are significantly more cisgender individuals than nonbinary and transgender.
- **Note:** Even though transgender people are discriminated against the most, there are more transgender individuals than nonbinary in the upper-income brackets.

Looking at our data and how it connects to the needs of the community, it can be seen that there needs to be better data for gender inclusivity. There was an absence of data for people who identified outside of male/female. On the other hand, there was a shift in racial representation which can show the desire for change and equal employment for all persons. Looking at complaints, the fact that they are consistent through the years can show issues that are not being addressed. Lastly, the income disparity points to inequities in compensation. Overall, the meta-analysis for these sources creates a better understanding of SOGI issues in employment for the state of Maryland.

Future Exploration

Based on the analysis and findings of this project, several opportunities for Future research and initiatives could be presented. Firstly, future studies could aim to expand the scope of data collection to create a more comprehensive list of targeted data sets oriented to SOGI could provide stronger insights. With this in mind, collaborating with organizations that focus on LGBTQIA+ advocacy and workplace equality May return more targeted data and tangible case studies to better reinforce the context of discriminatory patterns over the last 10 years.

Future research could also begin to explore the overlapping or hidden variables impacting correlations that supported the findings presented. Some of these factors could include race, education level, and culture. Additionally, information could be certain from state or federal agencies with parallel initiatives that could have more granular, anonymized records or cases that may improve the accuracy and reliability of the datasets for future analysis.

Furthermore, engagement with more technologically driven data collection methods such as digital surveys or virtual meetings might return valuable insights. With more time and resources, future engagements could return first-hand sources or create a standardized framework for reporting SOGI-related EEO cases across the state, or even at a larger scale.

Conclusion

This meta-analysis of equal employment opportunity (EEO) data related to sexual orientation and gender identity (SOGI) in Maryland provides critical insights into the landscape of workplace discrimination over recent years. By synthesizing data from annual reports and trusted third-party sources, this project was able to highlight trends of income disparity, workplace discrimination, and potential workforce composition

biases. In doing so, it also highlights the lack of data recording pertaining to SOGI-related cases in regard to EEO. The conducted analysis provides insights drawn from socioeconomic indicators to highlight potential discriminatory practices within the workforce.

These findings offer insights into necessary topics that play into informed decision-making by the Maryland Governor's Office of Community Initiatives. In an effort to support and promote workplace equity, these visuals and strategic recommendations aim to guide policy and support the development of advocacy initiatives. Moreover, continued research and expanded data collection will be integral for furthering this initiative and grasping a stronger understanding of the complexities related to SOGI EEO discrimination in the state of Maryland.

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Hate Bias Crime Meta-analysis - Sexual Orientation and Gender Identity

Ariunbolor Davaadorj, David Tu, Matthew Manik, Yash Gupta, Elise Manglicmot, Tyrese Hooper

College of Information, University of Maryland, College Park

INST 490: Integrated Capstone for Information Science

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Abstract

After reviewing the various scopes of the project, our team began by gathering the necessary data from the Maryland Coordination and Analysis Center (MCAC) and conducting a thorough analysis. We then created initial drafts of visualizations to represent key trends and patterns related to hate bias incidents, specifically focusing on sexual orientation and gender identity. These drafts were presented to the client for review, and we carefully noted their feedback, highlighting areas that needed clarification, additional context, or changes in presentation.

Based on this feedback, we revised our visualizations to better align with the client's objectives, ensuring the data was accurate and effectively communicated. We adjusted the layout, labeling, and color schemes to enhance clarity and ease of interpretation. We also refined the visual representations to focus on the most relevant insights for the client, emphasizing the most pressing trends and regional differences in hate bias incidents. Throughout the process, the client's input was instrumental in shaping the final product, ensuring that the visualizations were not only data-driven but also tailored to inform potential policy decisions to address and reduce Íhate crimes related to LGBTQ+ communities in Maryland.

Introduction

Beginning in recent years, hate bias crimes have become a more prevalent issue in Maryland. The Governor's Office of Community Initiatives (GOCI) provided the team with detailed annual reports, which we used to create visualization (to display insights). The visualizations aim to show data from 2013 (when available) to 2023 while emphasizing sexual orientation and gender identity as the main categories of interest. The visualizations serve as an analysis of the data by looking at yearly trends. By exploring variables such as verified and unverified reports, arrests, and bias motivations, we hope to provide the State of Maryland with insightful visualizations and analysis, which could pave the way to leverage policymaking. This report focuses on the

processes, methodology, and data visualized in our analysis, while also focusing on the implications of such data in Maryland.

Process

Going into this Statement of Work, we've developed three research questions to help guide us through the research process and analysis:

1. **What counties in Maryland showed the highest number of hate bias crimes related to sexual orientation and gender identity?**
2. **What types of crimes were most prevalent?**
3. **What groups within the LGBTQ+ community were most affected by hate bias crimes?**

To get things started, we first needed to find data we could analyze and contextualize. Initially, this was a change since we were looking for raw data sets that could be easily manipulated with analysis tools. We realized quickly that things weren't going to be that easy, as there were few to no raw datasets online for us to use. As we continued researching, we found out that the Maryland Coordination and Analysis Center (MCAC) released annual hate bias reports starting in 2013. All the following analyses and visualizations created are from the MCAC annual hate bias reports from 2013.

Methodology

Using the data provided by the Maryland Coordination and Analysis Center (MCAC), we analyzed reports of hate bias data from 2013 to 2023. In alignment with the objectives of the Governor's Office of Community Initiatives, our primary focus was on sections of the report pertaining to Sexual Orientation and Gender Identity. This analysis included statewide and county-wide data and examined subsections of hate-bias motivations and arrests, with examples such as rates of Anti-Gay (Male), Anti-Lesbian (Female), and Anti-Transgender (Mixed Gender).

The main platform used for holding, analyzing, and graphing the data was Google Sheets, later supplemented by Microsoft Excel for more specific calculations and advanced statistical analysis. To streamline the raw data collection process, our team's Analysis representative created a PDF data scraper. However, due to technical difficulties, the data was ultimately input manually into the Excel spreadsheet. Preliminary statistical analysis included calculations of the average, median, mode, maximum, and minimum values of the dataset.

To aid understanding, the analysis team created a data dictionary to define key terms used in the Statement of Work. While the dictionary clarified the terms "verified" and "reported" incidents in the hate bias data, it was not extensively used beyond this purpose.

In our second sprint, we performed a one-tailed T-Test to determine the significance of differences between reported and verified cases of hate bias related to Sexual Orientation and Gender Identity. This analysis revealed a significant difference between the two datasets, emphasizing the importance of including both sets of data in our analysis and visualizations.

To display county-wide counts of hate-bias crimes within Maryland, we determined that heatmaps were the most effective visualization method. The data was organized to ensure compatibility with Tableau, and cleaning processes were applied before importing it into Microsoft Excel. Tableau was then connected to the Excel file, enabling dynamic visualization creation. Specific columns and rows were configured, and the color palette was adjusted based on team feedback to enhance clarity in showing counties with high or low counts of hate crimes. Titles, legends, and other textual information were added to ensure the visualizations effectively communicated the data to viewers.

Findings

For the visualizations, we successfully created graphics to represent the data related to hate bias crimes based on gender identity and sexual orientation. One of the main challenges we encountered was determining the most effective and efficient way to display this data. Throughout the process, client feedback played a crucial role in guiding our decisions and refining the visual approach. Another challenge was selecting the appropriate software to create the visualizations.

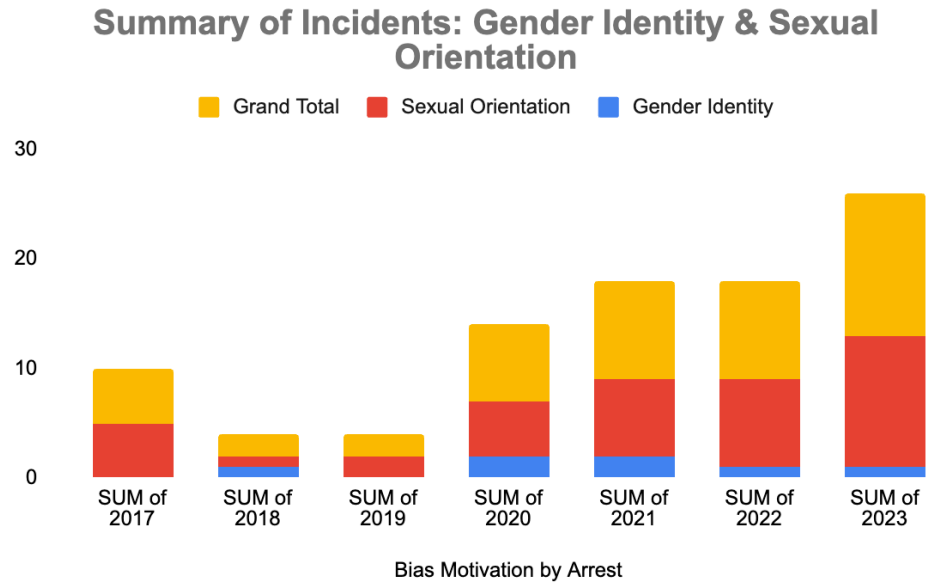
The client also provided the team with many sources of data, which the data gathering team used to make tables with quantitative data. After this was done, parts of the team strategically made graphs and visualizations to display the data's key points. For example, one of the visualizations shows that there isn't an exponential growth of gender identity cases every year, as the number of cases increases/decreases from 2017-2023. In addition, we were able to show that from 2017-2023, the number of sexual orientation cases first dropped (from 2017-2019), and then rose (2020-2023). For gender identity, the number of cases varied for the years 2017-2023. The visualizations also showed that incidents based on sexual orientation and gender identity spiked from 2021-2023, and bias motivation by arrests due to gender identity was the top "type of incident". In 2022, anti-gay male incidents were very high, compared to the other types of incidents (the top 3 being anti-gay male incidents, anti-LGBT mixed group incidents, and anti-transgender incidents). Lastly, our visualizations were able to show that 2017 had the highest number of incidents, and Montgomery County had the largest number of sexual orientation and gender identity cases (for the year 2023).

Despite Montgomery County having the highest number of hate-bias incidents based on sexual orientation, we don't believe this is a cause for alarm. Montgomery County is the most populous county in Maryland and has one of the largest LGBTQ+ communities within the state. We believe it is a good thing that Montgomery County has a high reporting of cases because it shows they have the proper resources and mechanisms in

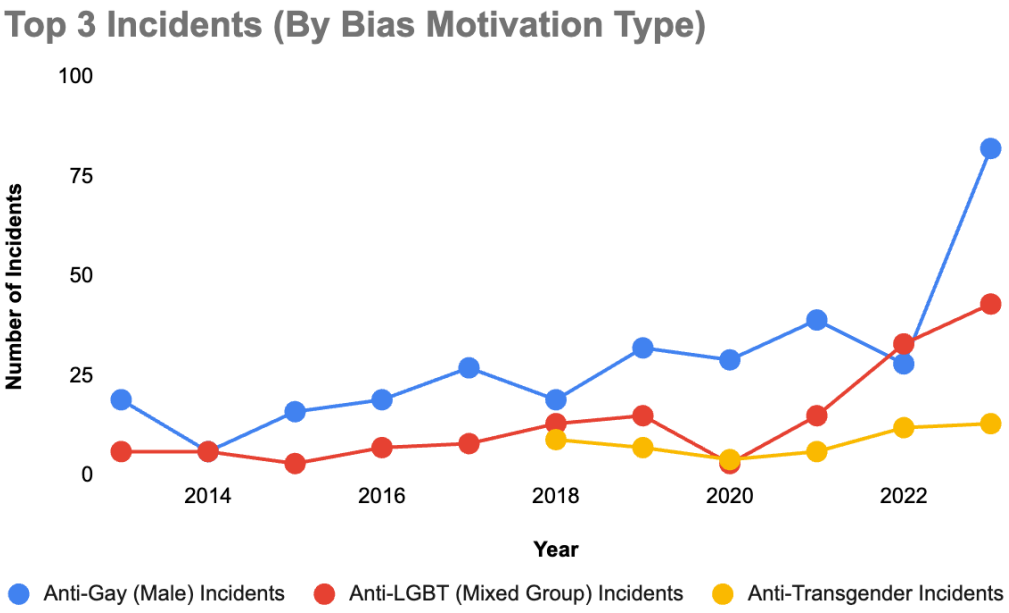
place for LGBTQ+ populations. This shows that Montgomery County houses a very safe community for the LGBTQ+ populations, leading them to be more comfortable in reporting without the risk of putting themselves in danger as opposed to a less populous county like Frederick County. We believe that it may be beneficial for the committee to look in the counties that have little to no reporting of hate bias crimes against the LGBTQ+ and search for a root cause. Is it actually because the rate of incidents is low or is it a case of underreporting?

As for the analysis portion of the findings, here were some things to note when we were doing work on the dataset from the MCAC hate bias reports:

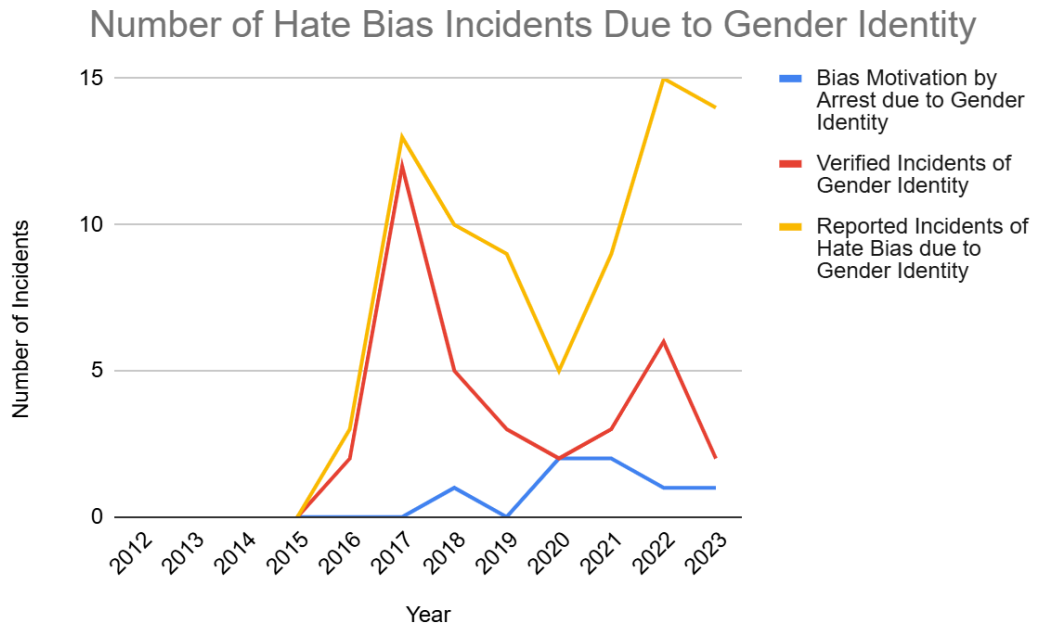
1. Bias Motivations Chart
    a. Bias Motivation Subcategories Reports from 2014 and earlier do not provide verified incidents; they are only reported incidents.
2. Hate Bias Motivations Chart:
    a. Anti-transgender and Non-conforming incident categories were not recorded as part of the data until 2018.
3. Statewide Reporting Data Chart:
    a. The subgroup of Gender Identity was not included in the reports until 2015

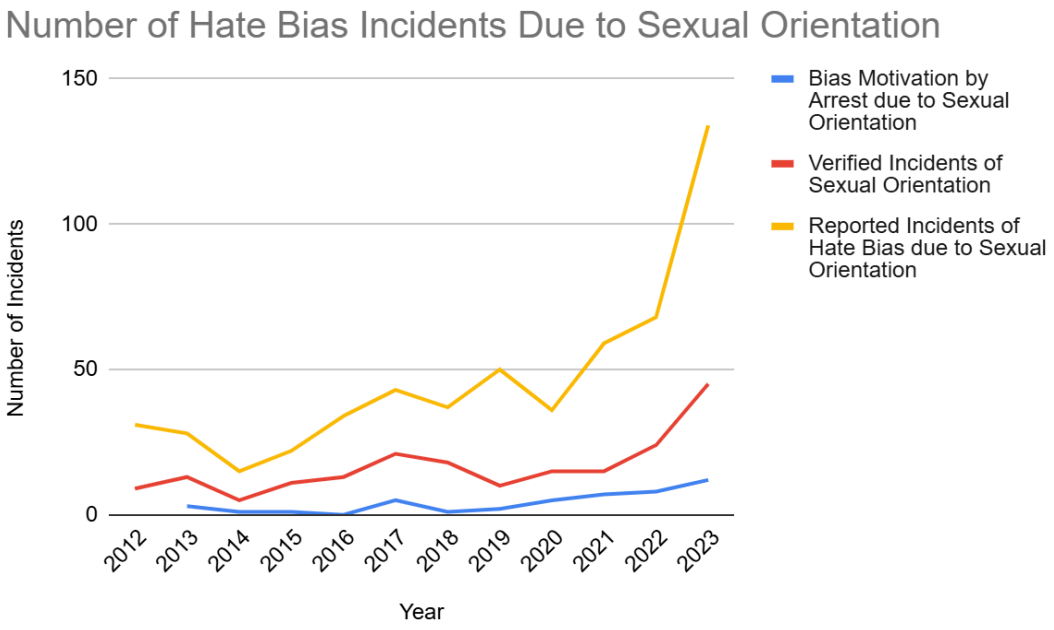


This visualization shows a total count of incidents (for gender identity & sexual orientation). There is continuous growth from 2020-2023.

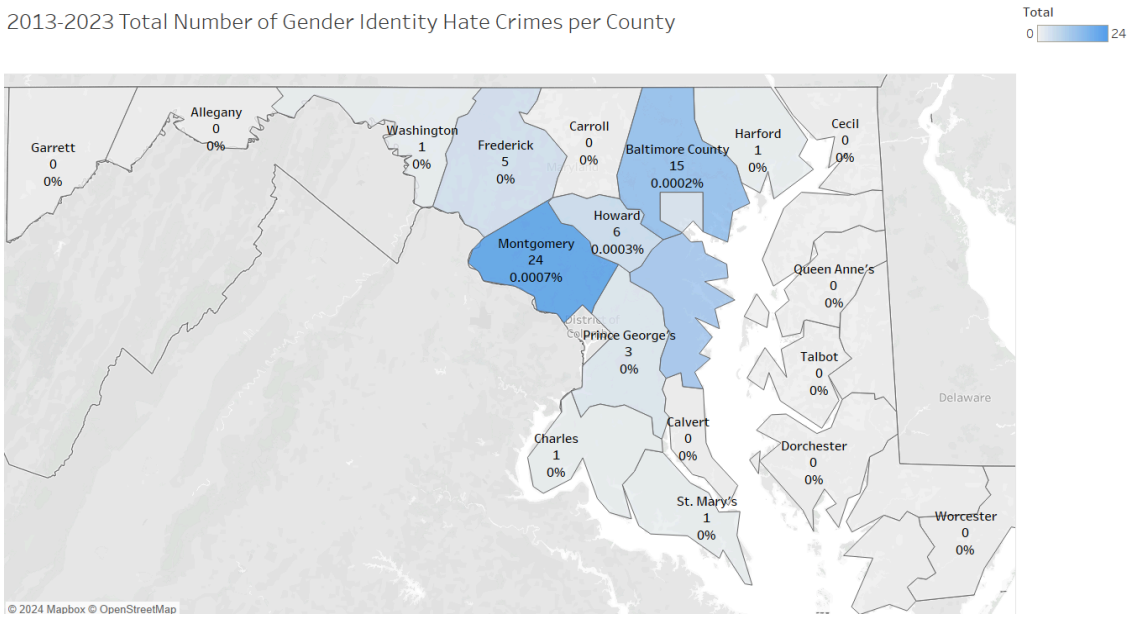


This graph shows the top 3 incidents from 2014-2022, which are anti-gay (male) incidents, anti-LGBT (Mixed Group) incidents, and anti-transgender incidents. The visualization shows that anti-gay (male) incidents are higher than the rest.

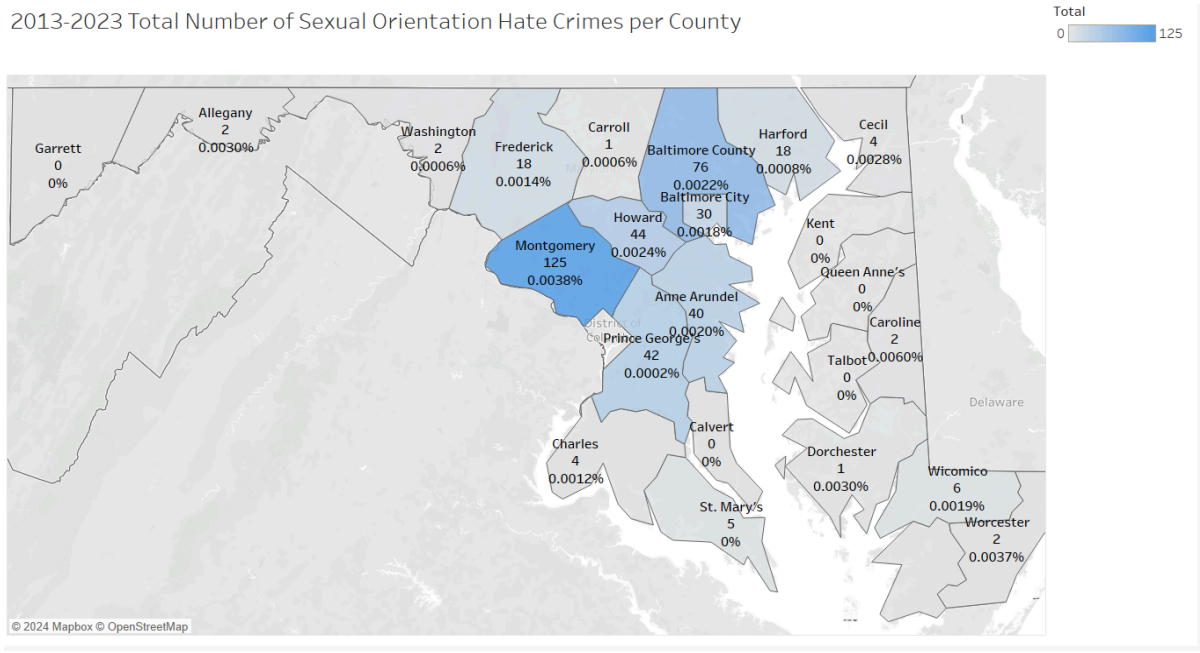




The first line graph depicts the annual number of hate bias incidents reported due to gender identity from 2013 to 2023, showing trends over the 11-year period. The second line graph illustrates the number of hate bias incidents reported due to sexual orientation during the same time frame. Together, these graphs provide a comparative view of how hate bias incidents targeting these two categories have evolved over the years.



This heat map illustrates the total number of gender identity hate crimes reported by county. Montgomery County reports the highest number of such crimes. The majority of these reported incidents are concentrated in Central Maryland.



This heat map illustrates the total number of sexual orientation hate crimes reported by county. Montgomery County reports the highest number of such crimes. The majority of these reported incidents are concentrated in Central Maryland

Future Exploration:

If the issue of hate bias in Maryland were to be explored in a future project, we can use the research we've conducted in this Statement of Work as a starting point. Research on hate bias in the future can build upon ours and can be evaluated for future sessions on effectiveness. Here is what we would like to see specifically:

1. Expand research to have a deeper meta-analysis on the counties that have very few reports to gain a nuanced understanding of why reporting is so low.
2. Focus on increasing resources for areas with the lowest incident rates (this will be a big project since there are a LOT of counties). Resources can be as small as relief funds to as large as expanded community programs/partnerships since these rural areas tend to not have a community support base.
3. Leverage insights to draft targeted policies aimed at reducing hate-bias incidents on LGBTQIA+ populations, and establish data-driven monitoring systems to track the impact of policy changes on hate-bias crime rates, utilizing our research as a baseline to measure the effectiveness of future interventions.
4. Adjust our strategies based on our and future research. Foster inclusive environments through education, advocacy, and public awareness campaigns, especially in the areas of low support.

Conclusion

Overall, this project provided valuable insights into hate bias incidents related to Sexual Orientation and Gender Identity in Maryland from 2013 to 2023. Some challenges caused discrepancies within the data reporting, such as missing data for some years. However, the team was still able to create insightful visualizations. Most of the data visualizations show notable increases from the years 2020-2023 and showed that Montgomery County had the highest number of incidents in 2023. Using the client's feedback, we were able to constantly update our graphs to make the results more insightful. As a result, we were able to highlight the key categories, types of incidents, and areas of concern within hate-bias-related crimes in Maryland. The Governor's

Office can use such insights to influence policy making, to reduce/eliminate LGBT-related hate and crimes.

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Information Gathering and Research on LGBTQIA+ Statewide Survey Design

Chimaobi Okere, Bemenet Berhanu, Murtaaz Malik, Steve Tanekeu

College of Information, University of Maryland, College Park

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Abstract

This Information Gathering and Research project on LGBTQIA+ aims to support the Maryland Commission on LGBTQIA+ Affairs in designing a comprehensive statewide survey. The survey seeks to identify demographic trends, evaluate health and social needs, and assess service access for LGBTQIA+ communities in Maryland. Utilizing methodologies from similar surveys, the project analyzed regional data, identified gaps, and recommended strategies for inclusive and impactful survey development. By fostering collaboration with advocacy groups and stakeholders, the project provides actionable insights to inform policy creation, resource allocation, and community support programs, advancing equity and inclusion across the state.

Introduction

The Statement of Work (SOW) for the GOCI project, developed by the University of Maryland iConsultancy, outlines a collaborative effort with the Maryland Governor's Office of Community Initiatives (GOCI) to aid the Maryland Commission on LGBTQIA+ Affairs. The primary aim is to assist the Commission in designing a statewide survey to better understand the demographic trends, economic impacts, and specific needs of LGBTQIA+ communities in Maryland. This initiative tackles the challenge of developing an effective, comprehensive survey by utilizing research and analyses from similar projects in other regions.

The project encompasses a series of strategic activities aimed at achieving its goals. The iConsultancy team started with client briefings to comprehend the organization's needs, stakeholders, and current challenges. Bi-weekly meetings were held to ensure continuous alignment. The team conducts interviews with Commission representatives to define the survey's objectives and gather detailed data from LGBTQIA+ surveys conducted in other states, cities, and countries. This data includes survey questionnaires, anonymized datasets, contextual information, and reports. The final

phase involves creating actionable recommendations, detailed documentation, and presenting the findings.

This initiative is crucial as it supports the Maryland Commission on LGBTQIA+ Affairs in bridging gaps in understanding the needs and economic contributions of LGBTQIA+ populations. By identifying best practices and insights from other surveys, the project ensures the Commission can design a tailored, impactful survey. The outcomes of this project will empower the Commission to formulate targeted, evidence-based policies and initiatives, ultimately enhancing the quality of life for LGBTQIA+ individuals across Maryland.

The SOW offers significant value by providing clear, well-researched insights into effective survey methodologies. The analysis equips the Commission with data-driven recommendations, enhancing their decision-making capabilities. Moreover, the collaboration fosters stronger engagement between the Commission, LGBTQIA+ communities, and other stakeholders, ensuring the survey addresses real-world needs. The project also delivers an educational benefit by involving University of Maryland students, who work under professional and faculty supervision, contributing practical solutions while gaining valuable experience.

In summary, this SOW exemplifies a comprehensive and tailored approach to addressing social challenges through innovative research, collaboration, and stakeholder engagement. It serves as a vital tool for empowering the Maryland Commission on LGBTQIA+ Affairs to achieve its mission of understanding and supporting LGBTQIA+ populations across the state.

Processes

The data for this was collected through extensive online research, primarily utilizing annual reports and publicly available documents published by state governments. These reports provided insights into methodologies and findings from needs assessment surveys conducted on the LGBTQ population. The collected information

was systematically organized first via Excel, and later on, the information repository was transferred over to Google Docs, separated by State and Year. The collected data was used to develop recommended goals for the GOCI to pursue via their survey.

Our research team did a great job in finding ample amounts of surveys from various years and states to help conduct meta-analysis and comparative analysis. In terms of actually analyzing and organizing data, we used excel to store data from those surveys in tables to allow the data we found in PDF format to be easily understandable. Our data analysis team also came up with a web scraping tool to aid with inputting data into spreadsheets.

With the research that was compiled and organized by our research and analysis teams, we created nearly all of the visualizations using Google Sheets. However, for the first sprint, We created an infographic using Canva. The visualizations were mostly in the format of column charts, with one being a pie chart.

To deliver the outcomes of the report, our analysis team delivered neatly organized data in tables that can be visualized. One challenge that we faced was creating visualizations that are inclusive to all. Another challenge that we had was trying to determine which surveys would be visualized better. We ended with pretty strong visualizations that both acknowledge the process Maryland has been making, while also shedding light on counties that may be overlooked.

Methodology

The research aimed to establish a comprehensive understanding of how different states and organizations conducted needs assessment surveys on the LGBTQ population, providing a foundation for the GOCI to design an effective and informed survey. The rationale behind using an information repository in Google Docs was to create a centralized, easily accessible platform where data could be organized by state and year. This approach allowed for streamlined comparisons of survey methodologies and outcomes over time, highlighting trends, innovations, and gaps in the data. By

structuring the repository in this way, the team ensured that information was both methodically categorized and readily available for collaborative analysis and decision-making.

We went through the resources that the research team gathered and analyzed surveys conducted in the past years to see what types of questions are being asked and common responses to those questions. We noticed that most of the surveys had questions asking about LGBTQ youth experiences in school in terms of how they get treated and are perceived by their peers. Due to a large amount of questions being asked about this, it made sense to dive deeper into it and come up with possible solutions to why LGBTQ people feel this type of way in certain settings.

The visualizations created were all column charts with the exception of one pie chart. They were all created on Google Sheets from the tables created by the analysis team. From the last sprint, the main thing that changed was adding data labels to the column charts to ensure that the values were clear. We altered different things depending on the graph such as: the chart and axis titles, the colors used in the charts, font and font size, as well as the axis scales.

Findings

Figure 1 displays the survey results from the Delmarva LGBTQIA+ Climate Survey from 2023. 71.9% of respondents said that school is **not** a safe place for LGBTQIA+ youth in this region. This question was isolated to just transgender participants. When they included all responses, 57.1% of respondents still said school is **not** a safe place. Both percentages are well above 50%, meaning a majority of respondents, regardless of group, perceive schools as unsafe. The higher unsafe rating (71.9%) among transgender participants suggests that their experiences are even more severe compared to the overall LGBTQIA+ population. This points to systemic issues like inadequate protections, policies, or education around inclusivity. The consistent perception of schools being unsafe, even among the broader LGBTQIA+ group indicates

Figure 1

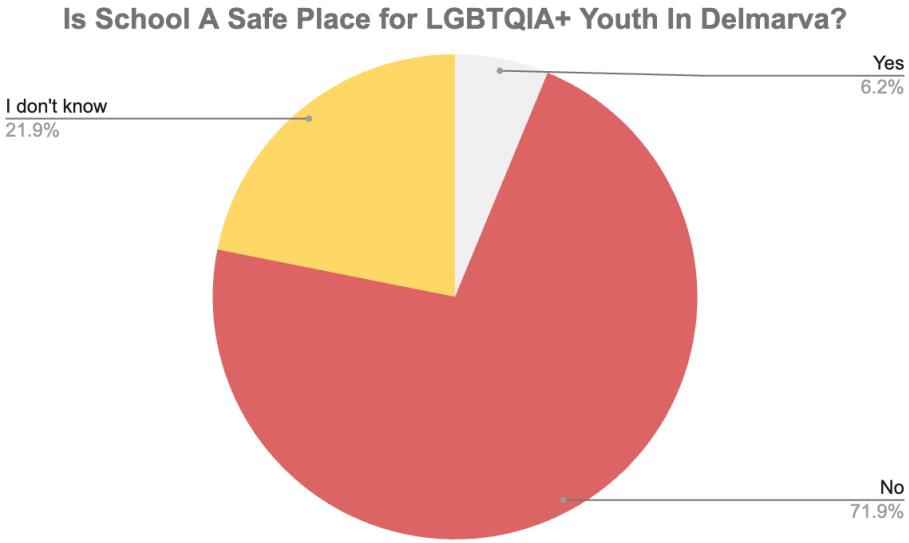
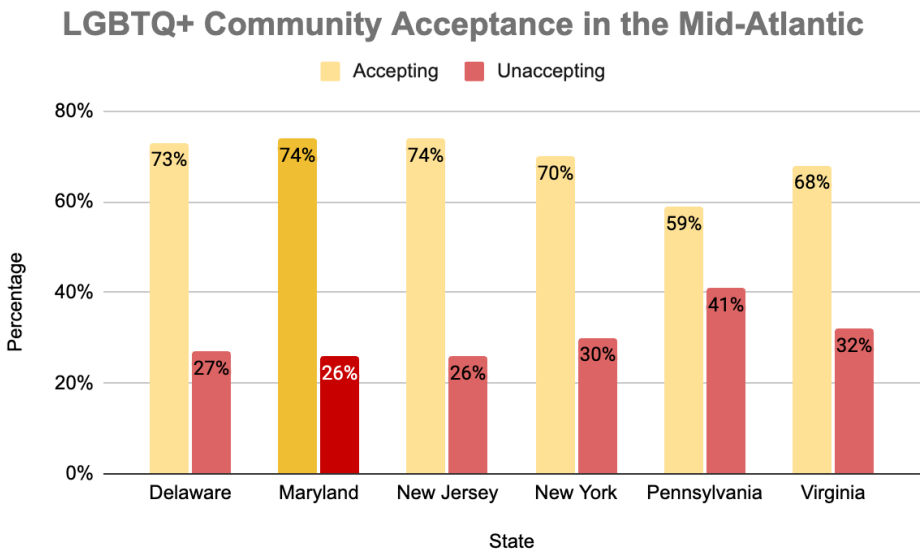


Figure 2 below displays the LGBTQ+ Community Acceptance rates in the Mid-Atlantic region. States like Maryland, New Jersey, and Delaware show higher acceptance, which may reflect more progressive policies or urban demographics. Conversely, Pennsylvania's relatively higher unacceptance suggests regional or cultural differences within the state. Although acceptance is generally high, the persistent levels of unacceptance (ranging from 26% to 41%) indicate challenges still faced by LGBTQ+ individuals, including discrimination or stigma in certain areas.

Figure 2



**Note: The original survey had four response choices that were a) Very Accepting, b) Somewhat Accepting, c) Very Unaccepting, d) Somewhat Unaccepting. We combined these responses to get more of a defined result.*

Figure 3 below displays the same survey as above, in Figure 2, but this is with the original survey responses. The leading answer was “somewhat accepting” for all of the states. New York and Maryland have the highest rates in “very accepting”, while Pennsylvania and Virginia have the lowest. Pennsylvania, Virginia, and Delaware unfortunately have the most responses for “very unaccepting”.

Figure 3

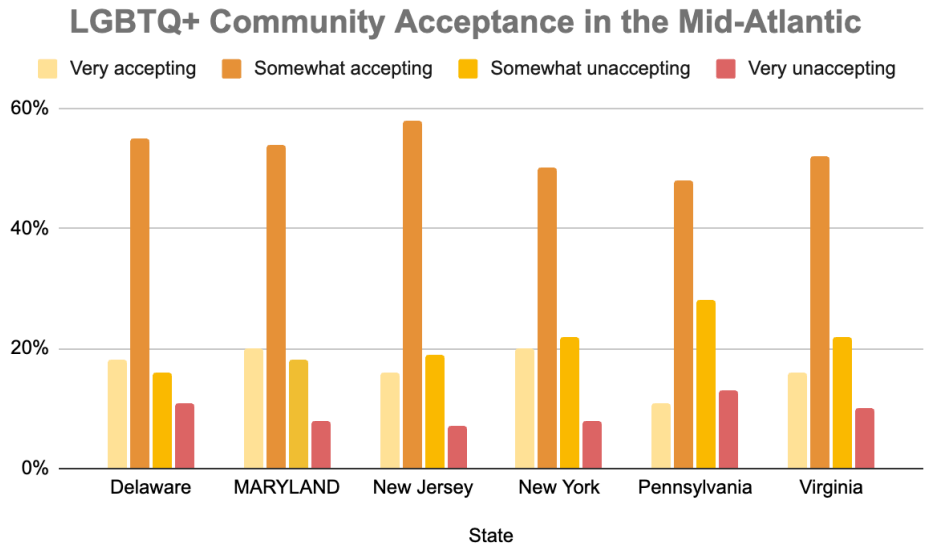
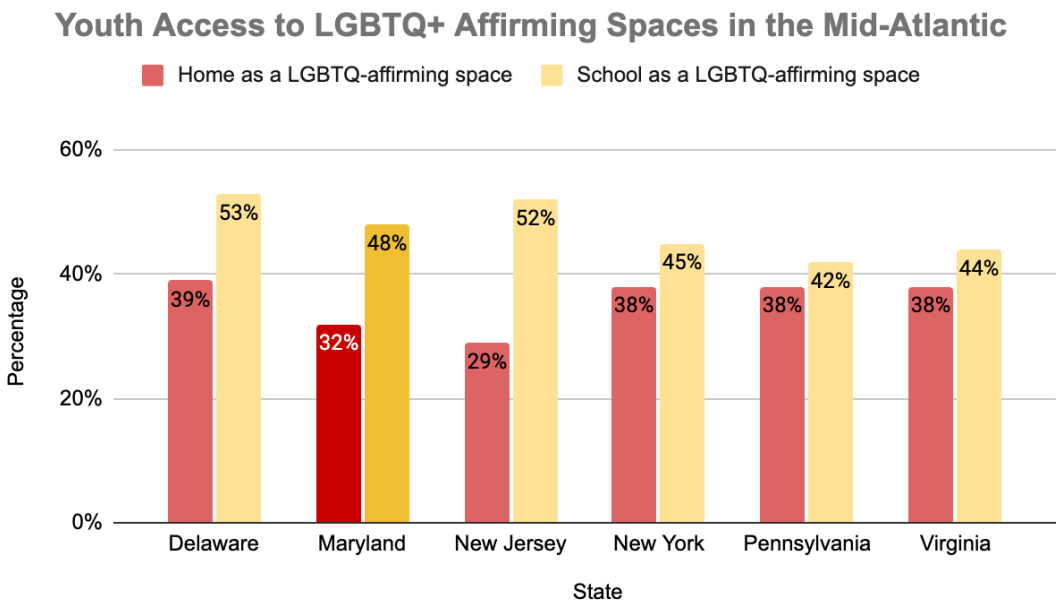


Figure 4 below displays youth access to LGBTQ+ affirming spaces in the Mid-Atlantic region, with Delaware having the highest rates of affirming spaces, both school and home. Since schools are more affirming than homes, they serve as vital spaces for LGBTQ+ youth to feel supported. However, the percentages still indicate that less than half to slightly more than half of schools provide affirming environments, leaving significant room for improvement. The low percentages for homes across all states highlight a pressing need to address familial acceptance and educate parents and guardians about supporting LGBTQ+ youth. States like Delaware and New Jersey show relatively better affirming spaces in schools, while states like Pennsylvania and Virginia lag behind.

Figure 4



Future Exploration

The focus points for the next phase of Information gathering and Research lies on developing a robust framework for assessing the needs of LGBTQIA+ individuals and creating actionable strategies to promote inclusivity and equity.

Our primary recommendation is to conduct a statewide needs assessment and climate survey to better understand the needs and experiences of LGBTQIA+ individuals. This involves gathering diverse demographic data—including age, gender identity, sexual orientation, race, ethnicity, socioeconomic status, and geographic location—to gain a comprehensive view of community diversity and emerging generational trends in identity and expression. Engaging LGBTQIA+ advocacy groups, students, and stakeholders ensures inclusivity in survey design while addressing underrepresented perspectives. Incentivizing participation and partnering with schools and local organizations can further enhance outreach.

The primary aim of the survey will be to evaluate health and social needs by identifying the prevalence of chronic conditions, mental health challenges, and barriers to accessing culturally competent services, such as healthcare, housing, and legal assistance. A particular focus on disparities across racial, socioeconomic, and gender identity lines would guide the creation of targeted interventions. Furthermore, assessing the quality of life for LGBTQIA+ individuals, including experiences of discrimination, social support, and inclusion, will highlight areas for community development and social support.

Additional exploration will focus on the unique needs of LGBTQ youth and emerging adults, particularly in education and family support systems. Examining stressors like minority stress and its impact on mental health can inform strategies to improve well-being. The survey will also consider the effects of current events, such as the COVID-19 pandemic, on access to services and overall community health.

To achieve these objectives, collaboration with the State Department of Education is critical for developing statewide LGBTQIA+ education programs. These efforts would not only expand inclusivity in schools but also establish a stronger foundation for LGBTQIA+ safety and support measures. The data collected from these initiatives will drive strategic planning, resource allocation, and policy development, addressing service gaps and reducing health disparities. Ultimately, this approach supports advocacy and structural improvements that foster equity and inclusion for LGBTQIA+ populations in Maryland.

Conclusion

This project successfully developed a foundation for a robust statewide assessment addressing the unique needs of Maryland's LGBTQIA+ population. Through comprehensive research and analysis of past surveys, we identified critical trends, such as disparities in health outcomes, barriers to service access, and the lack of affirming

spaces in schools and homes. These findings emphasize the importance of targeted interventions to improve inclusivity and equity.

Key recommendations include conducting a statewide climate survey, partnering with local organizations, and collaborating with the State Department of Education to establish LGBTQIA+ education programs. By collecting diverse demographic data and addressing systemic challenges, the survey can guide policy formulation and allocate resources effectively. This project highlights the transformative potential of informed, community-centered strategies in improving quality of life and fostering advocacy for LGBTQIA+ populations. Moving forward, the Commission is well-positioned to implement these recommendations, ensuring a more inclusive Maryland for all.

References

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Recommended Goals of the GOCI Survey:
Proposed(Recommended) Goals of GOCI Survey
Data Repository: IGA Data

Public School Bully, Harassment, and Intimidation Meta-analysis – Sexual Orientation and Gender Identity

Maria Gomes Master, Shana Laine, Ryan Wang, Kevin Nguyen, Kobe Simpson, Amaar Mir

College of Information, University of Maryland, College Park

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Abstract

This meta-analysis, conducted in collaboration with the Maryland Commission on LGBTQIA+ Affairs, synthesizes a decade of public school bullying data to examine trends and challenges in identifying and reporting incidents related to sexual orientation and gender identity. While Maryland schools have made strides in tracking bullying, the gradual introduction of LGBTQIA+-related categories, regional disparities, and external influences like the COVID-19 pandemic have created gaps in the historical data. This study leverages visualizations created with Excel and Tableau to analyze these trends, emphasizing clarity and accessibility for public interpretation.

Findings reveal significant regional differences, with the Eastern Shore reporting disproportionately high bullying rates, while Central Maryland, despite its larger population, exhibits unique reporting dynamics. The rise in cyberbullying during the pandemic and the steady increase in bullying related to sexual orientation highlight the evolving nature of these issues. The inclusion of gender identity in 2023 marks progress but underscores the need for targeted interventions and alignment of historical data to current categories. This study provides actionable insights for policymakers and educators to enhance inclusion and reduce bullying in Maryland schools by addressing these gaps.

Introduction

Bullying, harassment, and intimidation remain significant challenges within Maryland's public school system. These challenges specifically affect vulnerable populations such as LGBTQIA+ youth and related demographics. Establishing an understanding as to why these populations have consistently dealt with the same issues throughout recent decades is crucial in fostering inclusive counties and states in their entirety. This meta-analysis project, conducted in

collaboration with the Maryland Commission on LGBTQIA+ Affairs, aims to address this gap through a meta-analysis of public school reporting data spanning the last decade. By synthesizing data from multiple reports and years, this study provides a comprehensive view of how bullying incidents related to SOGI have been identified and reported across Maryland. The findings will support the Commission's mandate to assess challenges facing LGBTQIA+ communities and establish best practices for inclusion.

Over the past decade, Maryland schools have made strides in collecting and categorizing data on bullying, harassment, and intimidation. While these efforts have improved our understanding of these issues, challenges remain. The gradual introduction of specific categories, such as those related to sexual orientation and gender identity, has created gaps in historical data, making it difficult to track long-term trends. Additionally, regional disparities and external factors like the COVID-19 pandemic further complicate the analysis. These complexities underscore the need for a comprehensive approach to understanding and addressing bullying across the state.

This paper outlines the methodology used for the meta-analysis, presents key findings from the collected data, and discusses the implications of these trends for educational policy and practice. The insights gained from this analysis are intended to help policymakers, educators, and stakeholders better understand the dynamics of SOGI-related bullying and develop targeted strategies to reduce its occurrence and impact within Maryland schools.

Processes

During preliminary research, data was pulled from publicly accessible Bullying, Harassment, and Intimidation reports published annually by Maryland.gov. These reports contained vast amounts of bullying data directly relevant to visualizations and analyses. While

most reports were easily accessible, the research team did encounter one issue. Data from the 2014-2017 annual report was temporarily inaccessible due to server issues out of our control. Our research team quickly found a workaround for accessing that information via the Wayback Machine, allowing access to older snapshots of specific web pages. This allowed the research team to download the necessary report to complete our analyses.

Visualizations were created using Excel and Tableau, which consist of line graphs and a heat map for visualizing the counties and regions in Maryland. Key aspects we wanted to focus on in the visualizations were easy interpretation since our visuals would be available for public view and color scheming for professionalism. We experimented with different kinds of visualizations, such as bar graphs, scatter plots, and 3D graphs. Still, we ultimately decided that using a line graph and a heatmap would be the most effective visualizations for getting our findings across and reducing the amount of clutter due to having many data points being graphed. We faced challenges when creating our visualizations in regards to how to display the data and missing data due to certain topics not having an official report, such as collection on incidents of bullying relating to gender and sexual identity. This led to discrepancies, such as in visualizations relating to yearly trends, which would have an awkward gap in some years.

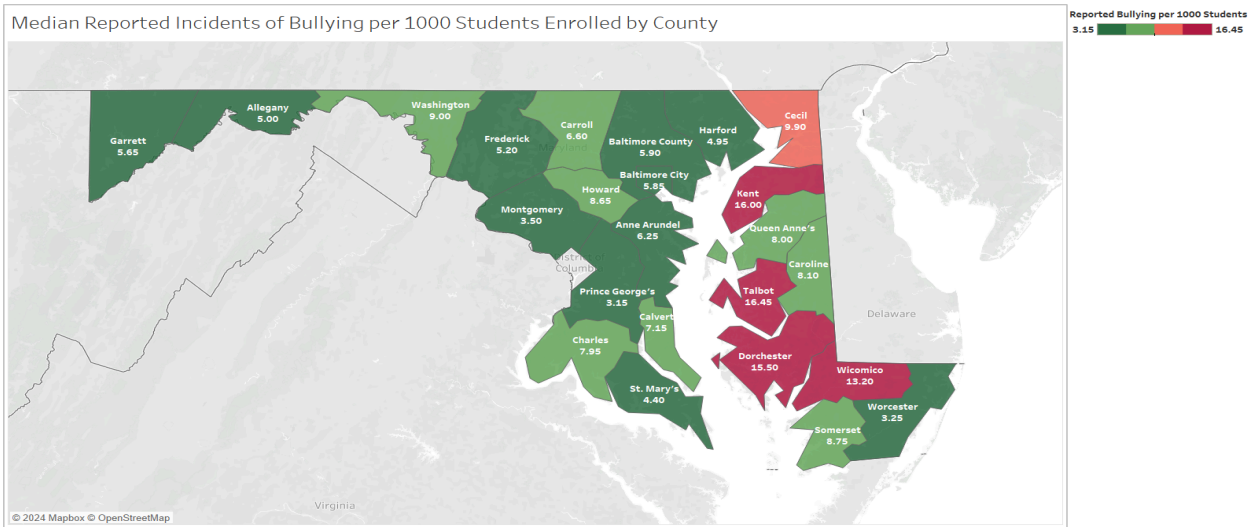
Methodology

The systematic collection of bullying data in schools has evolved significantly over the years, with targeted categories of incidents introduced gradually. For instance, data collection on bullying related to disabilities, perceived sexual orientation, and cyberbullying did not begin until 2013. More specific categories, such as bullying tied to sexual orientation, were not formally tracked until 2018, and gender identity-related bullying only became a distinct category in 2023. The delayed introduction of these categories highlights a gap in the historical understanding of

bullying trends related to sexual orientation and gender identity, as earlier incidents may have been broadly categorized under sexual harassment or other general terms.

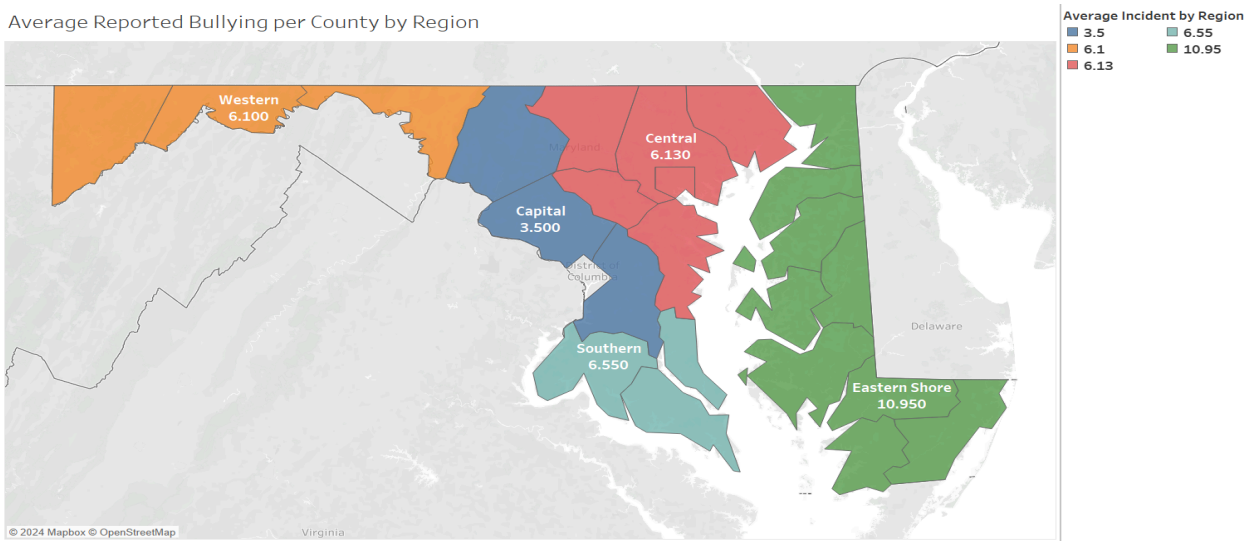
In the early stages of creating data visuals, we started by using Microsoft Excel and using the chart tool. We created bar charts and line graphs from the data we had at the time. After Sprint 1, we received feedback on our visuals, and a few suggestions were made on how we can improve the visuals we created. We decided to use another data visualization tool called Tableau. We used this tool because we wanted to create heat maps of the different regions in the data so we could analyze the data better.

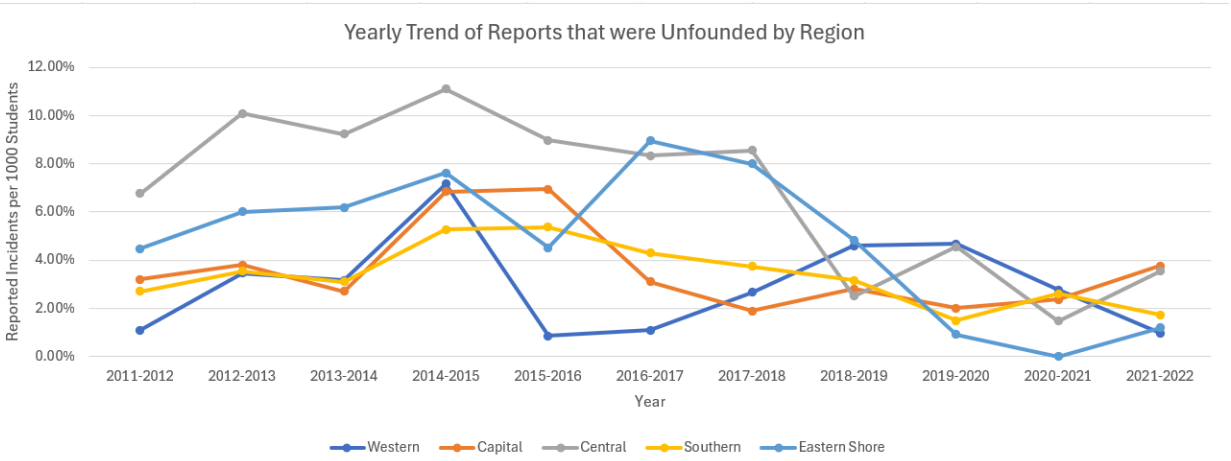
Findings

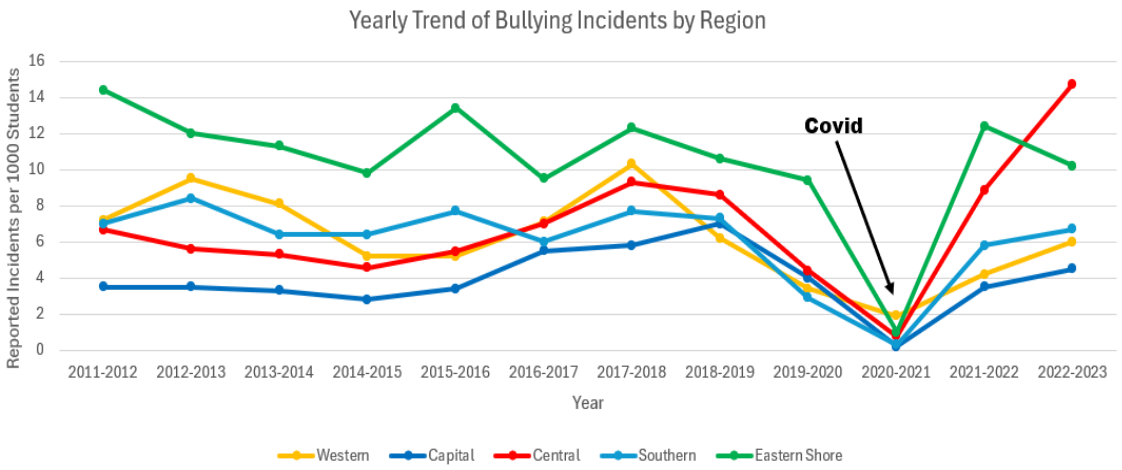


One major challenge in analyzing bullying data is the lack of granular detail at the county level. The data collected is reported statewide, obscuring variations in bullying trends across Maryland's diverse regions. Additionally, changes in the categorization and format of incident descriptions in the 2023 report complicate longitudinal comparisons. This limits the ability to draw consistent conclusions about the progression of specific bullying types, particularly for recently introduced categories like gender identity. However, inferences can be made by

examining trends in sexual harassment-related bullying, which may have historically encompassed issues of sexual orientation and gender identity.





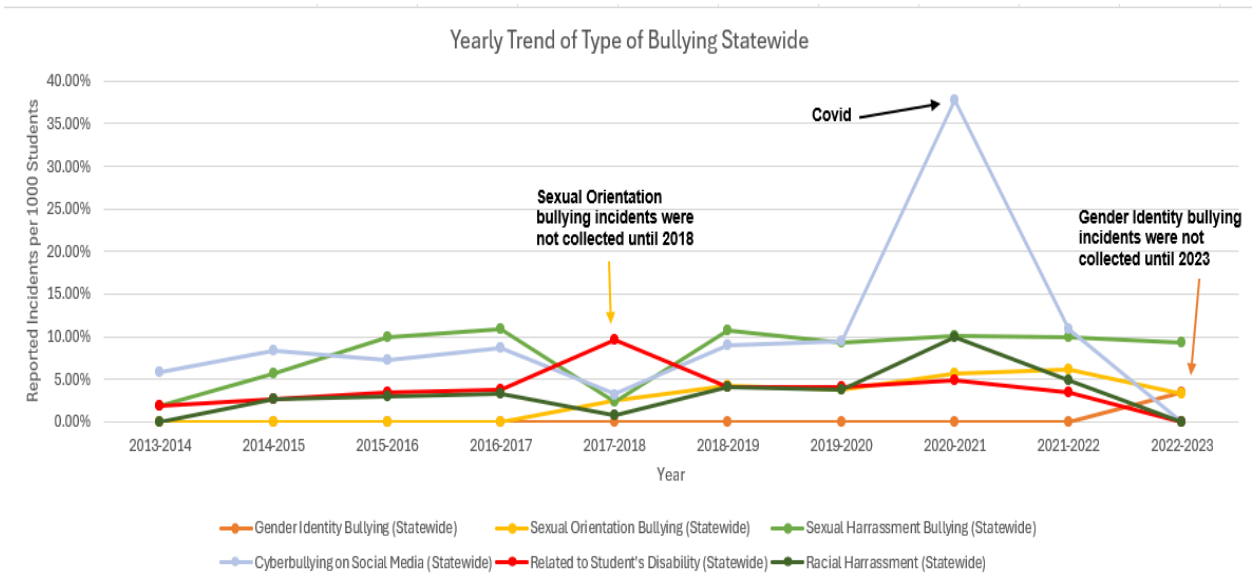


Regional differences in bullying rates are stark, with Maryland's Eastern Shore consistently reporting the highest rates of school bullying despite comprising only 7.4% of the state's population. This region, consisting of nine counties, records bullying rates per 1,000 students that are roughly double or more than Central Maryland. Central Maryland, housing 45.2% of the state's population, ranks second in bullying rates and also reports higher rates of false bullying accusations due to its larger population share. Interestingly, certain locations in Maryland with lower student-to-teacher ratios show a slight correlation with increased reported cases of sexual harassment. Smaller staff-to-student ratios may facilitate closer student oversight and stronger incident reporting mechanisms, contributing to higher rates of detection and documentation. Conversely, larger school districts tend to report lower rates of bullying, potentially due to challenges in centralized reporting or underreporting at scale.

Eastern Shore counties tend to lean more conservative, and these political environments could indirectly impact cultural norms. A more traditional point of view in these counties might result in less tolerance for behaviors perceived as deviant, leading to a higher bullying reporting rate. Additionally, organizations like the 1776 Project PAC and Moms for Liberty have chapters in Eastern Shore counties that play a role in influencing school board elections and education policy. Their advocacy for parental control and resistance to progressive changes in school

curriculums could impact how bullying is managed and reported. This might also mean stricter definitions of bullying in some districts, potentially contributing to higher reporting rates. Socioeconomic factors appear to play a role in bullying rates. Individuals from lower socioeconomic backgrounds are more likely to experience bullying, while those from the opposite are less likely. Furthermore, the Eastern Shore's higher poverty rate (11.3% compared to the statewide rate of 9.3%) may contribute to its elevated bullying rates. With seven Eastern Shore counties meeting or exceeding this benchmark, these economic disparities could further influence the region's elevated bullying rates.

These findings underscore the importance of considering localized factors, such as resource allocation, staffing levels, district size, and political affiliations, in understanding and addressing bullying dynamics.



The COVID-19 pandemic had a noticeable impact on bullying dynamics, with a sharp decline in in-person bullying during lockdown periods. However, this decrease coincided with a rise in cyberbullying, illustrating how the virtual environment became a new battleground for student conflicts. Cyberbullying that involves sexual orientation and gender identity may have

also been obscured or generalized under cyberbullying and cause underreporting of these incidents. These shifts demonstrate how bullying adapts to societal and technological changes, necessitating continuous updates in data collection and intervention strategies.

Bullying described as sexual harassment has shown a sharp increase, nearly quadrupling since data collection began in 2013-2014. Bullying related to sexual orientation has also steadily risen, peaking at 3.3% in the most recent data compared to 2.5% in 2017-2018. This rise underscores the growing prevalence—or awareness—of these issues within schools. Interestingly, while reported bullying incidents have slightly increased overall, the rate of false reports has only minimally decreased, reflecting improved reporting processes or heightened scrutiny.

Future Exploration

As the collection and categorization of bullying data expand, the inclusion of gender identity in 2023 represents progress in better data collection for LGBTQIA+ individuals. However, the discrepancies in regional data and the evolving nature of reporting highlight the need for localized analysis to develop targeted interventions. By focusing on high-risk areas like the Eastern Shore and Central Maryland, educators and policymakers can prioritize resources to address the unique challenges faced by these regions. To support this, we propose implementing a system for standardized SOGI (Sexual Orientation and Gender Identity) data collection in all public schools, incorporating SOGI questions into surveys and reports, paired with staff training on sensitive data handling. Additionally, developing programs tailored to high-risk areas like the Eastern Shore will focus resources where they are needed most. Refining reporting categories to distinguish between types of LGBTQIA+-related bullying will provide more precise insights into trends. There could be a correlation between high student-to-teacher ratios and bullying, but other factors, such as the political leaning of different

counties, could also play a role that requires additional research and analysis. Establishing a system for regular evaluation of these policies, including annual reviews of data collection and feedback sessions, will ensure their effectiveness and refine future data gathering. It would also be beneficial to examine and study other states that have implemented similar tracking for LGBTQIA+ bullying regarding sexual orientation and gender identity for comparison and to build off more mature programs. It can also provide insight into possible trends that may not be available due to Maryland's limited data collection length for sexual orientation and especially for gender identity. Furthermore, aligning historical data categories with current definitions could help identify long-standing trends and offer more effective solutions to mitigate bullying across Maryland schools.

Conclusion

The *Public School Bully, Harassment, and Intimidation Meta-analysis on Sexual Orientation and Gender Identity* sheds light on the evolving trends and challenges in Maryland's public school bullying data, with a focus on incidents related to sexual orientation and gender identity. While progress has been made in data collection and classification, gaps in historical data, geographical discrepancies, and the long-term influence of external variables such as the COVID-19 epidemic demonstrate the challenges of holistically addressing bullying.

The inclusion of gender identity in 2023 data is a step forward, but regional differences, especially in areas like the Eastern Shore, highlight the need for localized interventions. We advocate standardizing Sexual Orientation and Gender Identity (SOGI) collection across all schools, including SOGI questions on surveys and training staff on the handling of information. Targeted intervention initiatives should concentrate on high-risk locations such as the Eastern Shore, and improving reporting categories to distinguish between different forms of LGBTQIA+ bullying would help provide more actionable insights.

To combat bullying in Maryland's public schools, we must continue to improve data-collecting techniques, standardize reporting standards, and ensure that all stakeholders—educators, legislators, and community leaders—are prepared to assist LGBTQIA+ youth. While there is no single answer, a multifaceted strategy that includes both local and statewide initiatives will be critical in creating more inclusive environments. By identifying and addressing the issues, Maryland can establish schools in which every student, regardless of sexual orientation or gender identity, feels secure and supported.

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Youth Risk Behavior Survey Meta-Analysis: Sexual Orientation and Gender Identity

David Mariona, Emma Pellergino, Angela Zhang, Larissa Warthen, Matt Andrasik

College of Information, University of Maryland, College Park

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Abstract

In recent years the concern for the LGBTQIA+ community's safety has grown, especially among the youth who identify within the community. Current research is focused on how young people experience and interact with risk behaviors with little focus on LGBTQAI+ individuals, as well as very poor representation of this data over time. We conducted a meta-analysis on the data from the Youth Risk Behavior Survey/Youth Tobacco Survey from 2013-2023 to understand how young LGBTQIA+ individuals experience risk behaviors, such as unintentional violence, alcohol/drug/tobacco use, sexual behaviors, dietary behaviors, and physical activity, (a) over time and (b) between each category.. The analysis shows that for all categories, other than physical activity, the experience of risk behaviors has been decreasing over time for all respondents, as well as the disparity between heterosexual and LGBTQIA+ youths decreasing over time.

Introduction

This report is a meta-analysis of the YRBS/YTS data collected from 2013-2023, which aimed to see how young LGBTQIA+ individuals have been experiencing risk behaviors over time. The surveys have divided risk behaviors into six main categories: unintentional violence, alcohol and other drug use, tobacco use, sexual behaviors, dietary behaviors, and physical activity. With understanding how Maryland youths are impacted by these behaviors previously and presently, future aid can be well informed in how and where resources should be utilized.

Processes

The data collection process involved reviewing publicly available Youth Risk Behavior Survey/Youth Tobacco Survey (YRBS/YTS) data. Further external research was done on U.S. youth risk behaviors, but ultimately the YRBS/YTS was found to be the most accurate and relevant source of data for our analysis. The YRBS/YTS combines the "CDC's Youth Risk

Behavior Survey and Youth Tobacco Survey every even year during the fall semester" (Maryland Department of Health, n.d.). The goal is to measure youth risk behaviors, particularly those that contribute to the leading causes of death and disability, such as alcohol, drug, and tobacco use. Surveys from 2012 to 2023 were pulled from the Maryland Department of Health website and then organized in a spreadsheet for easier access by the data analysis team.

After going through the data from the Maryland Department of Health, we decided it was best to move forward only using the high school identity report, as this contained data that was more closely related to our goal. Since each report was in a pdf format, we used a program that would be able to scrape the data from the pdf. Unfortunately, due to some errors with the output, we decided to manually input this data into an Excel sheet. This process involved creating separate tables for the various years that are available, with each category having its own Excel sheet to make the data-cleaning process seamless.

Data from the YRBS/YTS reports was reformatted in Google Sheets and Excel for clarity, with separate sheets created for each risk behavior category (e.g., Tobacco Use, Alcohol/Other Drug Use, Physical Activity) and organized by year. The visualizations were then created to show trends in youth risk behaviors by self-reported identity (heterosexual, gay/lesbian/bisexual, and other/questioning). For each risk behavior, line graphs and bar graphs were created to display the percentage of youths who were negatively impacted by the specified risk behavior over the years. There was missing data for some years, as well as the absence of the "Other/Questioning" identity data before 2021, but this was shown using a footnote for the visualizations.

Methodology

In addition to the YRBS/YTS, data collection involved thorough external reviews of multiple publicly available datasets, reports, and academic literature with a focus on Maryland and U.S. youth risk behaviors. The goal of this research was to create a comprehensive

background for youth risk behaviors regardless of state or sexuality and search for strong supporting sources for the YRBS/YTS. This research helped our team better understand the context and significance of this analysis. However, the YRBS/YTS was ultimately chosen as our only source of data for analysis, due to its comprehensive coverage of Maryland LGBTQIA+ youth behaviors, relevance, and accuracy.

After pulling all publicly available YRBS/YTS data from the Maryland Department of Health, our group identified that the 2016-2017 YRBS/YTS was missing the *Risk Behaviors and Sexual Identity* information section. This section is present in all other surveys from 2012-2023 and is a main pillar of our analysis. Additionally, we noticed there is no survey for 2020, and while we assumed this was due to the pandemic, it was important for the consistency of data that this was confirmed. We reached out to the Maryland Department of Health YRBS/YTS contact email regarding both of these issues and received confirmation that the 2020 survey was pushed to 2021 as a result of the pandemic. We received no information directly regarding the gap in the 2016-2017 data but were informed all data is published publicly on the website where we retrieved our information. This ultimately means there is no *Risk Behaviors and Sexual Identity* section for the 2016-2017 survey.

From the available reports, we decided to remove any data that did not contribute to the final report. Questions in the year 2023 contained a few sets of data that were about mental health, which is not enough to make a report out of. These questions contained data about students, especially in the LGBTQIA+ community, that were asked about their mental health. Since this category of questions was not asked in the earlier reports, such as in 2012, it was omitted.

The raw data taken from the available reports was formatted for clarity before visualizations were created. As not all questions were mandatory, there were many questions that respondents did not answer, so it was not reliable to create visualizations using the number of respondents that answered. This was converted to percentages instead, which indicated the

percentage who were impacted by the risk behavior out of all the respondents for that category of questions. Percentages were then used in all visualizations to account for that variability in response rates across questions.

The colors of the visualizations were customized to reflect Maryland's state colors, ensuring alignment with the context of the analysis, which is youth risk behaviors in the state of Maryland. A final graph was also created that compared all risk behaviors with each other across all years of surveys.

Findings

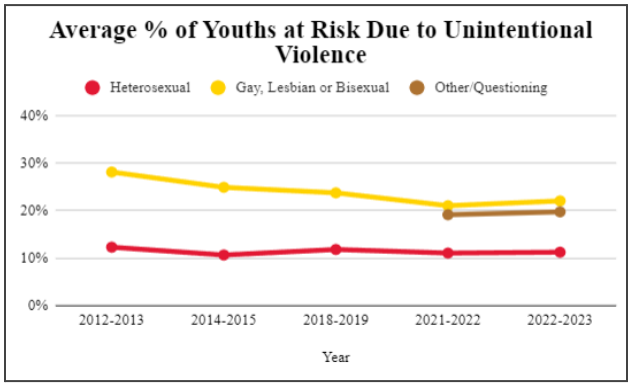
The research process revealed significant challenges and gaps within datasets. The YRBS/YTS were selected as primary sources due to their relevant data on youth risk behaviors in Maryland. However, inconsistencies such as missing sections in the 2016-2017 survey and the absence of a survey in 2020 disrupted data continuity, necessitating additional efforts to validate and confirm these gaps with the Maryland Department of Health.

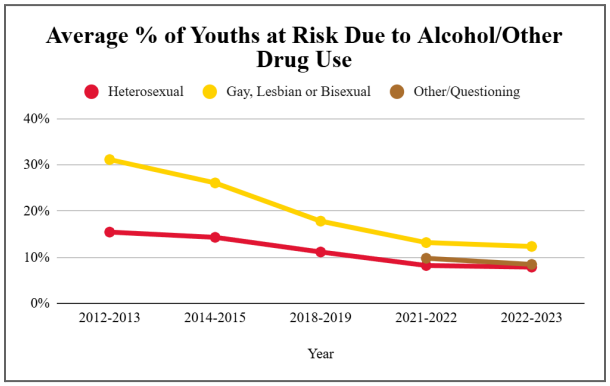
The need for consistency was further highlighted by the absence of "Other/Questioning" identity data before 2021, which limited the ability to track trends across all identity groups over time. This absence also highlights the need for more options for both gender and sexual identity, particularly the inclusion of non-binary individuals.

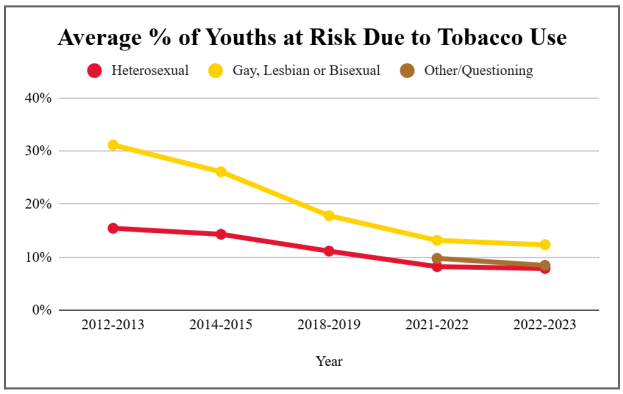
After analyzing the reports, it was evident that some of the questions had a low number of responses compared to other categories, especially in the dietary behavior category. This category in one of its questions, question 62 of 2021, had a total of 1,030 identified as gay, lesbian, or bisexual. In this same question, only 358 of the respondents who were Other/Questioning responded to this question. After further analysis, this was one of the most underperforming questions in terms of the quantity of respondents. This same question was asked in previous years and had a better response rate. It seems that there is a small improvement from 2021, as the report from 2022 shows a small improvement but not as much

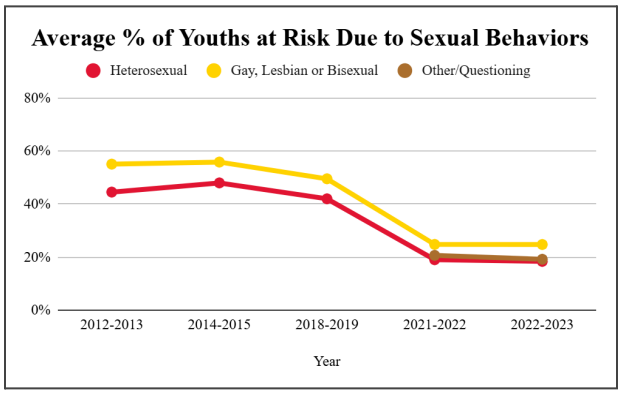
as in previous years. This can be the result of the COVID-19 pandemic and the beginning of recovery as a society.

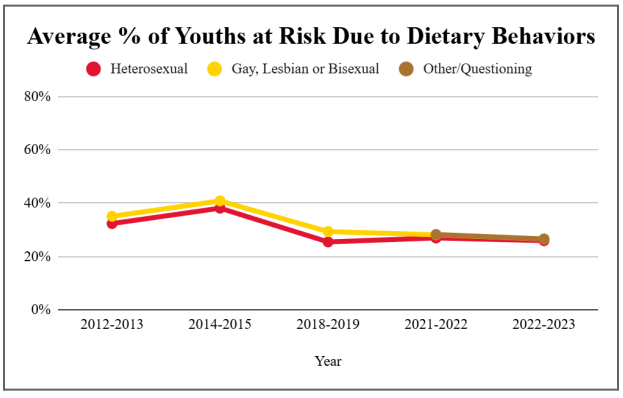
The visualizations created illustrate many notable trends. One very noteworthy conclusion that can be drawn is that the average percentage of youths at risk of all behaviors (excluding physical activity) has decreased since this survey data became available in 2012:







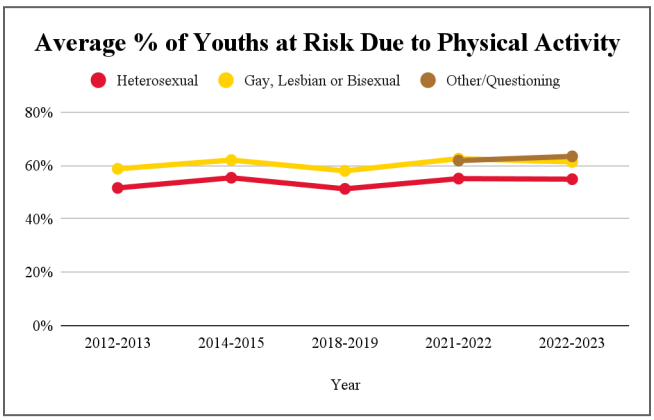


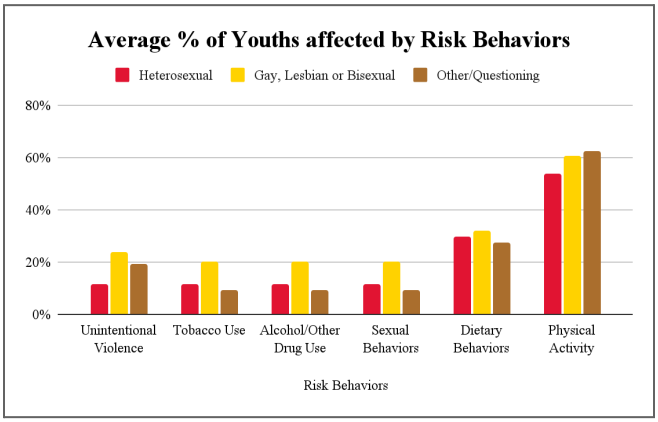


This conclusion can be drawn even despite the absence of survey data in specific years, assuming that if it did exist, the average percentages for those years would show no anomalous

deviations. It is also important to note the decrease in the disparities of the survey responses. Several indications can be made from this. It may suggest that specific risk behaviors are no longer affecting a specific identity group as severely as in the past. Some indications go beyond risk behaviors, as the converging identity groups may suggest an increased social acceptance as time has advanced.

For the case of youths at risk due to physical activity, the visualization shows that no matter the identity group, the average percentage has not significantly decreased in recent years. Physical activity has also yielded the largest average percentages of youths at risk per identity group.





For all risk behaviors, the visualizations show that the average percent of youths at risk has been higher for gay, lesbian, or bisexual individuals in each survey interval (except physical activity). There may perhaps not be enough data for surveyees who identify with Other/Questioning yet to determine any notable trends right now; However, it appears as if this identity group will follow the trends of the others.

Future Exploration

The findings of this report leave questions that are unanswered and room for future explorations to build off of this or similar data. Adding questions to the surveys asking whether

or not students use school resources in relation to risk behaviors they are experiencing could be beneficial for future analyses to discover other trends and observe how these resources are helping youths. It could also be beneficial to conduct similar surveys for college students to see what trends continue or alter for individuals transitioning into adulthood. Since this report only looked at how young LGBTQIA+ individuals experience risk behaviors over time, it would be beneficial for further analysis to focus on other research queries or observational trends present in the same data. Tying this data geographically across the state would add a layer of depth and show how different social environments are affecting their experience of risk behaviors. Following the threads that were unraveled throughout the report would only lead to more valuable information for the state to make well-informed decisions for its youth.

Conclusion

The above report demonstrates a glimpse into the complexities of being a young LGBTQIA+ individual in the state of Maryland and the challenges of experiencing risky behaviors in their lives. With a better understanding of the realities of what these youths are facing, we can better understand how our community can help young people across the state. Continued innovation and depth of surveys can shed light on unknown issues. Continued focus and dedication to analyzing data at the state and county level will help all young people across Maryland.

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Maryland Commission on LGBTQIA+ Affairs - Design & Style Guide

Ndode Palle, Anjali Verma, William Le, Michelle Medina, Anjali Papali

College of Information, University of Maryland, College Park

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Abstract

As one of the newest state commissions, the Commission on LGBTQIA+ Affairs seeks to develop a design and style guide for its print and digital products and marketing. The style guide sets out to enhance communication and representation. The guide, developed through iterative feedback and stakeholder engagement, simplifies branding with the modern font, Poppins, inclusive color palette, and accessible design principles. Utilizing Figma as the main design tool, the style guide reflects the Commission's mission of inclusivity, enabling more consistent, professional, and impactful communication with its diverse audiences.

Introduction

This project was crucial to support the Maryland Commission on LGBTQIA+ Affairs. They do not have an established brand identity since they are a new commission. This lack of an identity detracts from their recognizability. Creating a design and style guide for their print and digital communications was needed and aimed to establish a cohesive, professional, and inclusive visual identity that aligns with the Commission's mission to connect and engage Marylanders from all identities and backgrounds. Throughout the project, we kept accessibility, representation, and professionalism at the forefront of our minds to frame the Commission's branding.

Processes

To create the design style guide, we prioritized communication with the Commission to ensure there was a mutual understanding of the desired vision. We first began our branding colors by using the original client document. After receiving client feedback from several Sprint meetings, we simplified the Maryland colors and included colors from the intersex progress flag for the final deliverable (Figma).

Methodology

To create the updated style guide, we followed Apple's Human Interface Guidelines to focus on clear and accessible design. We chose the Poppins font because it has a clean and modern look that works well for a variety of text sizes, making it easy to read and visually appealing. For the color scheme, we simplified the Maryland palette to four main colors (red, gold, black, and white) based on feedback, keeping it simple and consistent. We also added colors from the intersex progress flag to ensure better representation. We used Figma as the primary design software, as it allowed for easy collaboration, precise adjustments, and consistent application of the style guide elements. These decisions were made to create a design that is both easy to use and inclusive.

Findings

Stakeholders emphasized the need for Maryland state colors in official documents, subtle rainbow accents in infographics, and the use of clear and straightforward designs to ensure inclusivity and readability. By narrowing the palette from seven to four Maryland colors and incorporating hues from the intersex progress flag, in the end, the guide proved to be simple yet representative.

Future Exploration

In the future, we would love to evaluate the effectiveness of our style guide. With how much ease is the Commission able to use this guide for its designs? In what areas is there still friction that we could iterate on and improve? We would also love to see examples of the brand style guide in action, from simple social media posts to very professional documents.

Conclusion

This project focused on creating a design and style guide for the Maryland Commission on LGBTQIA+ Affairs to establish a cohesive and inclusive visual identity. The project addressed challenges in balancing accessibility, professionalism, and representation by

simplifying the Maryland color palette, incorporating intersex progress flag hues, and ensuring designs meet stakeholder needs. The guide equips the Commission with tools to communicate effectively and authentically across diverse audiences going forward.

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