

Public Interest Technology JMCL Final Narrative Report

PIT UN Network Challenge Grant - Year 2/ NOA-NVF PITU GA 015676_Williams
Brooke Williams, Associate Professor of Computational Journalism
Boston University
May 15, 2023

Project summary and Progress Toward Objectives

Spark!, The Faculty of Computing and Data Sciences, and the College of Communication expanded and scaled the Justice Media Computational Journalism co-Lab as a vibrant newsroom and product incubator at Boston University where diverse students work on interdisciplinary teams as part of a class and internship program to produce data-driven and justice-oriented investigative news stories and technology solutions for local, regional and national publications.

Expanding with new affiliated faculty

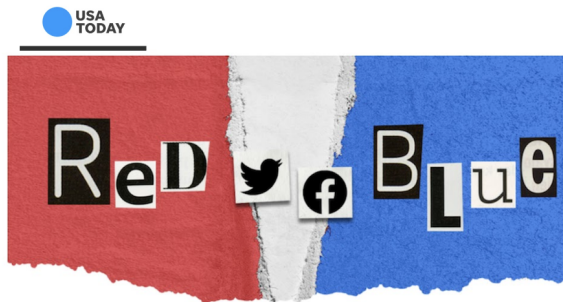
In our second year, we selected award-winning affiliated faculty from the Journalism Department including [Michelle Johnson](#), a professor emerita and innovation leader active with key journalism organizations such as the Online News Association and National Association of Black Journalists. Unfortunately due to unforeseen circumstances, we have not been able to engage deeply with two of the faculty affiliates we enlisted to join JMCL as part of the expanded vision presented for the JMCL. [Lei Guo](#) and [Derry Wijaya](#) are both BIPOC faculty we enlisted in at the beginning of the Year 2 grant, however Lei Guo unexpectedly left Boston University for a position at another university and Derry has had to return to Indonesia for a two-year sabbatical due to visa issues. We are also recruiting three additional Journalism faculty members including [Meghan Irons](#), a former Boston Globe reporter with expertise in media innovation and investigative journalism, [Shannon Dooling](#), a radio journalist from Boston's public radio station WBUR, and [Tina McDuffie](#), an in-depth broadcast expert who hosts the national documentary program Local, USA series on WORLD Channel Network. Our intention is for affiliated faculty to initially advise teams working on existing projects but soon engage as instructors in future practicum courses as well as start bringing their own investigations into the co-Lab and utilizing their professional connections to help the co-Lab increase its reach and impact.

In addition to partners from faculty from the Journalism Department, we have expanded the number of partners from the Faculty of Computing & Data Sciences engaged in the program. We have two faculty who now co-teach the course in different semesters, including [Langdon White](#), clinical assistant professor of the practice in the Faculty of Computing & Data Sciences and Spark! technical director, [Osama Al-Shaykh](#), assistant research professor and lecturer in the Department of Electrical and Computer Engineering. Both bring their deep knowledge in data science and engineering. The team of technologists supporting the co-lab has also

expanded to include two solutions engineers, Michelle Voong with expertise in data science and machine learning and Ian Saucy, with expertise in software engineering.

Expanding with new partnerships

The Justice Media co-Lab continued its deep partnership with founding collaboration partners including the Boston Globe, GBH/NPR News, CBS Boston, and the Bay State Banner, the oldest Black-owned newspaper in New England. We also launched many new partnerships in 2022. Ultimately, these collaborations yielded nine stories in the most recent grant period, such as pieces on divisive rhetoric for USA Today, an investigation into gender pay gaps among state employees for CBS Boston, and a story for GBH shedding light on problematic police overtime in one of the city’s most disadvantaged neighborhoods. We are also continuing to incubate innovative technology solutions for newsrooms to address issues of equity and bias across their operations.



FBI at Mar-a-Lago, Inflation Reduction Act are hot topics for congressional campaigns

This week’s edition of Red Words Blue Words reflects a pattern that’s held for the summer: Campaign rhetoric is churning as fast as the news cycle.

[Aleszu Bajaj](#) USA TODAY

Published 6:01 AM EDT Aug. 11, 2022

Rising phrases in 2022 congressional campaign messaging through July 26

| Rank | Republican phrases | Weekly change | Rank | Democratic phrases | Weekly change |
|------|--------------------|---------------|------|------------------------------|---------------|
| 1 | august 2nd | 0.94 | 1 | county democratic party | 1.15 |
| 2 | vote | 0.75 | 2 | contraception | 1.11 |
| 3 | August 23 | 0.73 | 3 | voted | 0.95 |
| 4 | lee zeldin | 0.70 | 4 | birth control | 0.92 |
| 5 | florida | 0.68 | 5 | marriage | 0.89 |
| 6 | campaign | 0.62 | 6 | trump | 0.89 |
| 7 | recession | 0.61 | 7 | climate change | 0.82 |
| 8 | elected officials | 0.52 | 8 | climate crisis | 0.73 |
| 9 | white house | 0.52 | 9 | sex marriage | 0.65 |
| 10 | happy birthday | 0.51 | 10 | secure.actblue.com donate | 0.64 |
| 11 | police department | 0.48 | 11 | marriage equality | 0.61 |
| 12 | agenda | 0.47 | 12 | donald trump | 0.53 |
| 13 | radical left | 0.46 | 13 | august 2nd | 0.48 |
| 14 | people | 0.45 | 14 | hate | 0.48 |
| 15 | lee | 0.44 | 15 | saturday july 30th | 0.46 |
| 16 | york | 0.44 | 16 | protecting marriage equality | 0.46 |
| 17 | china | 0.44 | 17 | republicans voted | 0.45 |
| 18 | border crisis | 0.42 | 18 | josh hawley | 0.41 |
| 19 | endorsement | 0.41 | 19 | american rescue plan | 0.41 |
| 20 | republican party | 0.41 | 20 | won't stop fighting | 0.41 |

The list shows phrases with the biggest percentage point gain in share of all phrases used by each party’s congressional campaign posts on social media in the period ending July 26 versus the week earlier.
SOURCE KnowWho, Twitter, Facebook
CREDIT Aleszu Bajaj/USA TODAY

Blue Side Phrases:

- “Health care”
- “Education”
- “Children”
- “Wonderful”
- “Voting rights”

Red Side Phrases:

- “Baby formula”
- “Southern border”
- “God bless”
- “Free speech”
- “Energy independence”

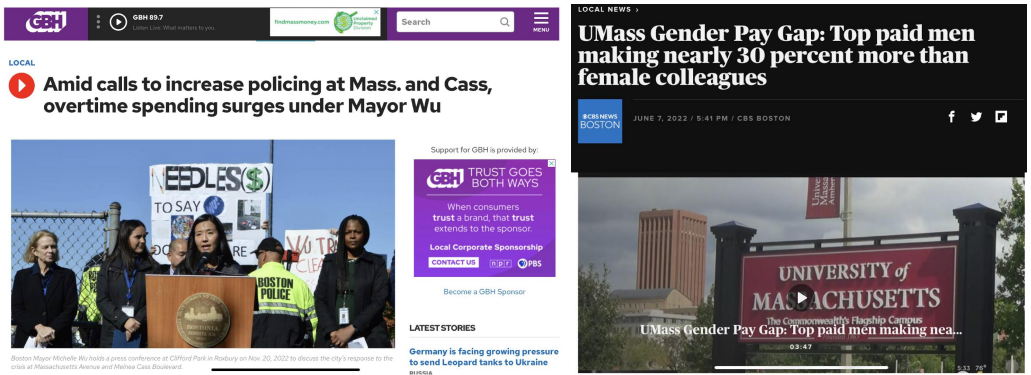
Blue Side Candidates:

- ALEXANDRIA OCASIO-CORTEZ (NEW YORK)
- DANIELLE HAWK (FLORIDA)
- MCKAYLA WILKES (MARYLAND)
- BARRETT HOLMAN LEAK (CALIFORNIA)
- JOSEPH ZAKARIA (NEBRASKA)

Red Side Candidates:

- MARJORIE TAYLOR GREENE (GEORGIA)
- JOE KENT (WASHINGTON)
- CAIT CORRIGAN (NEW YORK)
- LIZ JOY (NEW YORK)
- NOAH MALGERI (NEVADA)
- ANDREW MCCARTHY (NEW YORK)

In addition, the Justice Media co-Lab launched six new partnerships during this grant reporting period: the Emancipator, TheGrio, USA Today, WBUR, the Institute for Global Sustainability at BU, and DigBoston.



The Emancipator, a nonprofit newsroom housed within the Center for Antiracist Research at Boston University, focuses on “showcasing missing and underamplified voices — past and present — and demonstrating how they reveal the way forward” to “reframe the national conversation on racial equity and hasten a more racially just society.”

In fall 2022, student teams in the co-Lab launched two data-driven investigations for the Emancipator. In one project, which we will continue over the summer internship program, students went to courthouses around Boston to obtain hundreds of pages of warrants, digitized them and then mined the text to evaluate their credibility and accountability. In a second project for the Emancipator, which is slated to be published in June, students in the co-Lab collected dozens of datasets to examine how historical and current racism has helped built a system where people who live in historically redlined, low income, Black and Latino neighborhoods, already are suffering disproportionately from extreme heat due to climate change. The co-Lab students built dozens of maps showing minority communities in Boston have far less tree canopy, significantly higher ground temperatures, more heat-induced asthma rates and emergency room visits due to heat, and more complaints to the city about soaring indoor temperatures in the summer.

The Justice Media co-Lab also launched a new partnership with TheGrio, a Black-owned, free publication focusing on news with a “pronounced impact on a Black global audience.” Student teams launched three ambitious, impactful and multi-semester projects for TheGrio.



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The raids that led to Taylor’s death and a total of 12 years of lost freedom for Chancellor and Jeffery all started with police officers falsifying warrants. Across the country, cops regularly lie on search warrants, arrest warrants and warrant affidavits, defense attorneys, experts and law enforcement officials say. They have firsthand knowledge. The Black community has some, too. For decades, Black people [shared anecdotes](#) about police lies and planted evidence. TheGrio sought facts.

To gather data, theGrio partnered with Boston University’s Justice Media Computational Journalism co-Lab, a collaboration between the College of Communication and Spark!, an experiential learning lab and technology incubator that uses data-driven projects to empower student innovation and applied research endeavors. Justice Media co-Lab students evaluated a database of 3,285 cases in which a judge exonerated a convicted person between 1989 and 2022. The database is part of the National Registry of Exonerations, a project involving the University of California Irvine, University of Michigan and Michigan State University. Of those cases, 384 of them mentioned the word “warrant.”

One team is building the first-ever, nationwide database containing details of all known criminal convictions judges have reversed due to police misconduct such as falsifying warrants, using

uncredible witnesses, hiding evidence, improper use of confidential informants, and more. This team also is working with reporter Josiah Bates on shorter-term investigations as they build the database to publish stories along the way — and get clips, the currency of jobs in journalism. For instance, the team spent several weeks examining exonerations data to provide important context for a story about falsified warrants published on the anniversary of the killing of Breonna Taylor. The Justice Media co-Lab will ultimately publish in partnership with TheGrio an investigation shedding light on the most common types of police misconduct leading up to a conviction, as well as identifying potentially problematic police departments around the country and any officers who have had repeated convictions reversed due in part or fully due to their misconduct. We will continue to make all data available to the public free of charge.



The JMCL Team for the Grio presenting at the end-of-semester Demo Day/ project showcase

A second team for TheGrio is examining how the news media reports on police killing people. They have gathered a corpus of news clips chronicling how publications reported on these incidents from the beginning, if at all. They are mining the text for trends and examining police reports and other public documents to determine if what was originally reported is, in fact, what happened. They are also mining the text for words and phrases to explore how often and when the stories rely on the police narrative. Ultimately, the data gathered for this project could be the beginning of a newsroom tool to help editors identify stories relying too heavily on any one source. We have identified this “source tracking” tool as the next feature we hope to add to the GBH/NAACP Media Bias Tracker tool.

The co-Lab’s third team working with TheGrio is investigating police brutality that sends people to the hospital but doesn’t kill them. They’re requesting public records such as Emergency

Room visit data, police reports and other documents to shed light on the injuries and circumstances surrounding them.

In a new partnership with WBUR and the Boston University Institute for Global Sustainability, student teams examined equity in access to electric vehicle charging stations. The city of Boston pledged to ensure equal access to chargers, saying every residence needs to be within a 10-minute walk of a station. Their reporting, analysis and data visualizations were published and showed the city was far behind its goals around EV stations to ensure environmental justice.

The image is a screenshot of a news article from WBUR. The article title is "For EVs to take off, Boston needs more equitable placement of chargers", dated February 02, 2023, by Paula Moura. It features a photo of an elderly woman in a green jacket charging a red car at a station. To the right is a map of Boston titled "EV chargers and equity" showing the distribution of public, private, and unclear charging stations across various neighborhoods like Allston, South Boston, and Downtown Crossing. A legend indicates Public (blue), Private (orange), and Unclear (red) stations. Source text at the bottom credits the U.S. Department of Energy, WBUR, and the Visualizing Energy project at Boston University.

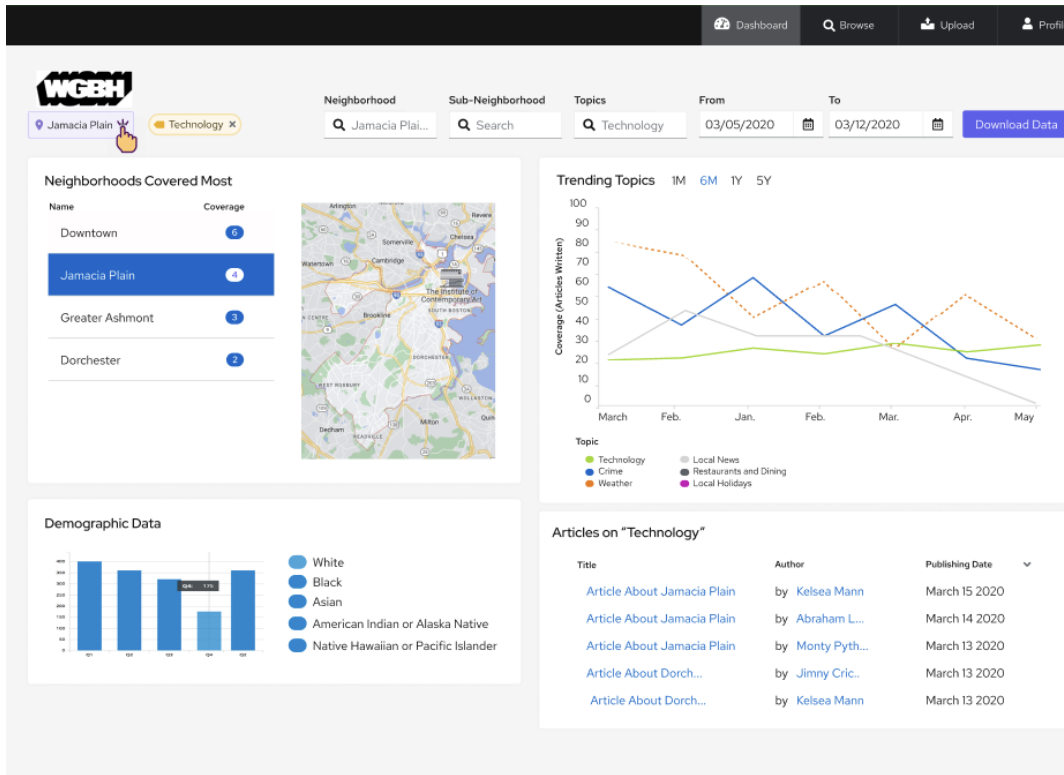
We also formed a new partnership and worked on a project with the alt-weekly DigBoston requesting, digitizing and analyzing police use-of-force reports from police districts around the state. The student team focused on one town in Massachusetts where multiple officers were repeatedly found to have committed the same type of misconduct and other trends.

Finally, the most recent partnership we will be launching will expand our network of local partners to include rural communities. The Granite State News Collaborative, a nonprofit, statewide journalism news organization in New Hampshire reached out to us seeking to increase their capacity to do the precise, computational investigations we specialize in that are simply not possible for most news organizations to sustain because they are so expensive and time consuming.

Innovative Prototypes and Open Source Solutions for Newsrooms

In addition to the investigations and stories published by students affiliated with the JMCL, the innovation side of co-Lab continued to make progress on a technology solution under development for the NAACP Boston Chapter and GBH/NPR Boston that would enable media organizations to track their coverage of diverse racial and ethnic communities, specifically which

topics are being covered and the demographics of individuals providing background and quotes for news reports for different topics and geographies. We plan to launch the beta version of this tool at the national NAACP convention which will be held in Boston in July 2023.



Screenshot of the interface for the NAACP/GBH NPR News media bias tracker tool

Publish Datasets and Open Source Solutions to advance journalism

We have built a robust repository of the data co-Lab students have collected, cleaned and linked with key supplementary datasets to examine disparity and inequity. Currently we publish this repository on GitHub, where journalists, academics and others can easily download it. We will also offer these datasets along with detailed explanations and data dictionaries on our Justice Media co-Lab website. In the future, these will be incorporated into the *Data.Spark.io* site, currently under development, an open source, interactive data management site where over 100 additional data sets curated by the Spark! program will also be housed for access by journalists.

Firmly institutionalizing Justice Media at BU

The Justice Media co-Lab has established itself as the place to go at Boston University for public interest technology in the journalism landscape. We are rapidly growing and becoming well known among faculty and students campus wide for our experiential learning program. University leadership have taken notice, and Justice Media faculty have been invited to present at campus-wide talks on public interest technology and experiential learning.

In the past year we succeeded in formally establishing the Justice Media co-Lab practicum course as a regular offering by the BU Hub's XCC program which enables collaborations across different departments. It will be listed in the Spring of 2024 with an official course number in the university bulletin, officially exiting the pilot stage for this course. This course also now counts toward as an elective for the computer science and data science majors as well as a professional experience requirement for the journalism major.

As part of a larger College of Communication initiative to develop a robust and multi-faceted partnership with WBUR, the public radio station on campus, the COM dean is planning to create at least one designated Justice Media intern for WBUR. We could replicate this method with other news partners, which ideally would lead to additional funding for the positions.

After another successful summer internship in Year 2, the College of Communication dean committed to paying Brooke Williams' salary over the summer of 2023 to continue the internship program and also focus on developing long-term strategy and additional funding opportunities. With support of the associate provost of the Faculty of Computing and Data Sciences, Spark! is providing the funding for two journalism interns and two data science interns to work on investigative journalism projects for 10 weeks this summer.

We are in the final stages of launching a new Justice Media Computational Journalism co-Lab website, which will be housed under Spark!, CDS, and COM, further establishing collaboration among the programs. We hope this link will be active by the time this report is read at www.bu.edu/justic-media. We have an [initial web presence](#) that is currently hosted on the website of the Faculty of Computing & Data Sciences, but the new site will be standalone to reflect the equal partnership of the College of Communication and the Faculty of Computing & Data Sciences and BU Spark!

We are seeking additional funding and recently applied for a grant meant to provide opportunities and pathways for minority and marginalized journalism students to learn investigative reporting and ultimately get jobs, increasing diversity in newsrooms,

Challenges or lessons learned

There are several challenges to overcome to ensure meaningful collaborations between news media partners and academia. The first, and perhaps most important, is how to address the differing timelines and deadlines. Academia operates on a semester-calendar while news media is about the news cycle which often requires student-journalists and their supporting faculty to move more quickly than a course structure may have envisioned or it requires thorough investigations which may last longer than one semester. Moreover, it's difficult in any setting to accurately predict how long a data-driven investigation will take — one of the reasons newsrooms lack the capacity to do it. We've had to adjust by clarifying expectations on the part of both faculty and students that part of a real-world journalism experience is being flexible and outcome driven. We've reached an understanding with both students and our journalism partners that students from all semesters who worked on a story would be included in the bylines, contribution lines or attributions associated with the published articles. In addition, we've realized we need an "on demand" team to supplement student teams or backfill when

needed to ensure the stories are delivered to media partners when a deadline is accelerated as a result of the news cycles.

Other learnings have been the length of time it takes to build trust and formalized partnerships with news media partners. We've had successful and continuous informal partnerships with all of our newsroom partners, but the process of establishing a formal MOU, involving lawyers on both sides, representing large institutions has proven a barrier. Direct engagement with individual editors and newsrooms has proven an effective path to achieving a stable source of stories and partnership, but formal institutional MOUs have stalled. As such, we have decided to wait until we have a greater volume of successful story collaborations before pursuing this further.

A final challenge is the lack of administrative capacity to ensure that the story is told and learnings shared with other institutions. We have been approached by several other institutions to help them set up similar labs, but we do not currently have the capacity to stretch beyond the direct implementation of our own program. It would be very helpful to have additional resources or support for communications and project management to capture the activities, tools, and successes of the program itself.

Equity, diversity, and inclusion

Diversity in computational, investigative reporting is dismal. A recent Neiman Report [opinion piece](#) stated “the overall number of journalists of color in investigative reporting in management or on investigative teams remains abysmally low. The reasons for this are many. In numerous cases, journalists of color aren't looked at as potential candidates for investigative reporters and aren't given the opportunity to pursue stories that would give them the chance to show that they can do investigative work.”

The Justice Media co-Lab is preparing students from diverse backgrounds for a career in data-driven, investigative reporting and giving them the experience and clips they need to pursue a meaningful career in the field. Students work with editors and report in communities, facing obstacles such as government officials refusing to provide records or sources hesitant to talk. But unlike a typical newsroom internship, Justice Media interns have experienced faculty advising them closely and helping them learn how to navigate working with the public and editors.

Journalism students and computer science students eager to work in PIT newsroom jobs need published clips to show editors they know how to successfully execute this challenging work that requires a specialized set of skills and practical experience. But the process of securing a position to use these skills in the real world and earn professionally published clips is competitive and difficult to navigate. Now established among students as the place to go for this practical experience, Justice Media is successfully providing an inclusive solution and paving the way for diverse students to publish their work and gain access to the computational journalism job market.

The Justice Media co-Lab also has successfully ensured diversity among its partners to foster inclusivity and equity in data-driven investigative reporting and creation of journalistic tools. Students in the co-Lab currently are working on two investigations for The Emancipator, an online newsroom focusing on topics of racial justice in partnership with the Boston University Center for Antiracist Research. Both slated to publish soon, the data-driven investigations explore environmental justice and hyper-local police misconduct leading up to arrests. Student teams in Justice Media also are currently working on three long-term, data-driven, investigative projects on police misconduct for TheGrio, an international, digital media network focused on Black communities. We also serve the oldest Black-owned publication in Boston, the Bay State Banner, and students recently published a story in the small paper examining voting patterns among young adults in the city. As described above, in partnership with the NAACP and GBH, the Justice Media co-Lab is building a tool for newsrooms to flag potential racism in their coverage.

Based on information self declared to Boston University, Justice Media students and interns who chose to provide racial information self-identified as follows: five students identified as two-plus races, seven students identified as Black, 21 identified as Latino or Hispanic, 44 identified as Asian, and 39 as white. At least four of our Justice Media co-Lab students — one of whom is now a paid project manager — have identified as non-gender conforming.

The journalism Expert in Residence we brought on for Year 2 is a Black woman who is part of the LGBTQ community, and two of the affiliated journalism faculty recruits are also Black women. Kevin Hatchoua, a senior UX designer from Red Hat and Expert in Residence at Spark! has been a key source of support on the NAACP/ GBH/NPR Media Bias Tracker innovation project. Our new faculty affiliates, both of women are Black women and bring diverse expertise in broadcast and impact journalism, strengthening the breadth and depth of the co-Lab's capabilities while also providing an inclusive and diverse experiential classroom for students to thrive.

Institutionalization of PIT and Network Impact

The Justice Media co-Lab is a replicable model for interdisciplinary data-driven journalism at universities and colleges, and we're attracting other academic institutions where faculty are seeking to utilize our methods and processes to create something similar. For example, Journalism professors at Smith College approached us eager to create a satellite Justice Media co-Lab, and we are discussing opportunities now and see an opportunity to bring the Justice Media co-Lab to the PIT Regional Experiential Learning Summer Institute collaboration being discussed by regional PIT leaders. Brooke Williams, who co-teaches Justice Media, was invited to the all-women college in central Massachusetts to give a campus wide talk and in-class lecture on the co-Lab and what's possible when interdisciplinary student teams dive into data-driven investigative reporting. These requests are not coming through the PIT University Network, however, and an opportunity to expand this conversation will depend upon other schools engaging their journalism departments. We would happily participate in an informational webinar about the program to share with other schools but it would require targeted outreach to departments. We believe our greatest opportunity will be to integrate the JMCL into the regional efforts in Massachusetts.

Appendix I: Demographic Data

Based on information self declared to Boston University, Justice Media students and interns who chose to provide racial information self-identified as follows: five students identified as two-plus races, seven students identified as Black, 21 identified as Latino or Hispanic, 44 identified as Asian, and 39 as white. At least four of our Justice Media co-Lab students — one of whom is now a paid project manager — have identified as non-gender conforming. We do not have college specific data, but these data show participation rates from BIPOC students that surpass the university's overall enrollment rates.

Number of project participants that identify as:

- American Indian or Alaskan Native: 0
- Asian: 44
- Black or African American: 7
- Hispanic or Latino or LatinX: 21
- Native Hawaiian or other Pacific Islander: 0
- White: 39
- Two or more races: 5
- Prefer to Self-describe: 0
- Prefer not to answer or where that information is not available: 14

Appendix II: Financial Reporting

Financial report detailing final accounting of budgeted vs. actual expenditures of all grant funding, including the entire project budget and all sources of revenue and expenditures (including grassroots and direct lobbying expenditures, if applicable), in addition to this Grant.

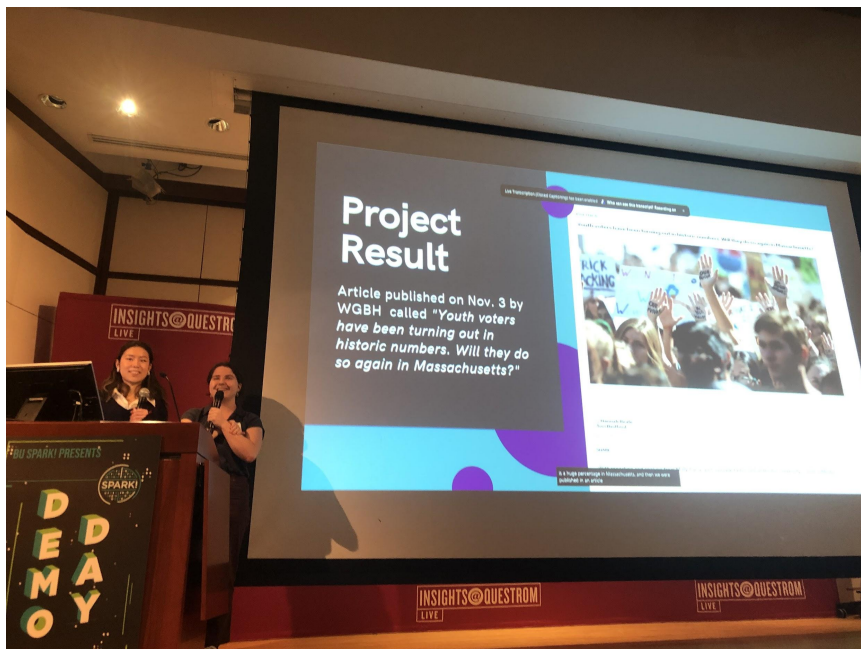
| TITLE: Justice Media Partnership Year 2 | | | Actual | |
|--|--|------------------------|---------------------|---------------|
| Award Dates: 01/01/2022-4/30/2023 | | Original Budget | Expenditures | +/- |
| PERSONNEL | | | | |
| | Principle Investigator - Brooke Williams | 10,000 | 10,000 | 0 |
| | Technical Lead - Michelle Voong | 20,000 | 17,500 | 2,500 |
| | Faculty stipends | 20,000 | 0 | 20,000 |
| | Hourly students | 11,550 | 40,103 | (28,553) |
| | Total Salaries | 61,550 | 67,602 | -6,052 |
| | Professional Salary Fringe Benefits 26.9% | 13,450 | 7,397 | 6,053 |
| | Total Fringe | 13,450 | 7,397 | 6,053 |
| | TOTAL PERSONNEL COSTS | 75,000 | 75,000 | 0 |
| INDIRECT COSTS | | | | |
| | TOTAL INDIRECT COSTS @ 20% | 15,000 | 15,000 | 0 |
| | TOTAL DIRECT & INDIRECT PROJECT COSTS | 90,000 | 90,000 | 0 |

Appendix III: Publications from the Justice Media co-lab

The full list of publications and links to the articles from students participated in the Justice Media co-Lab can be found in the link below:

<https://docs.google.com/spreadsheets/d/11hMB9nwaJ-MeNnhs07-2LiUAqD5JvQ9V0HFmoalybk/edit>

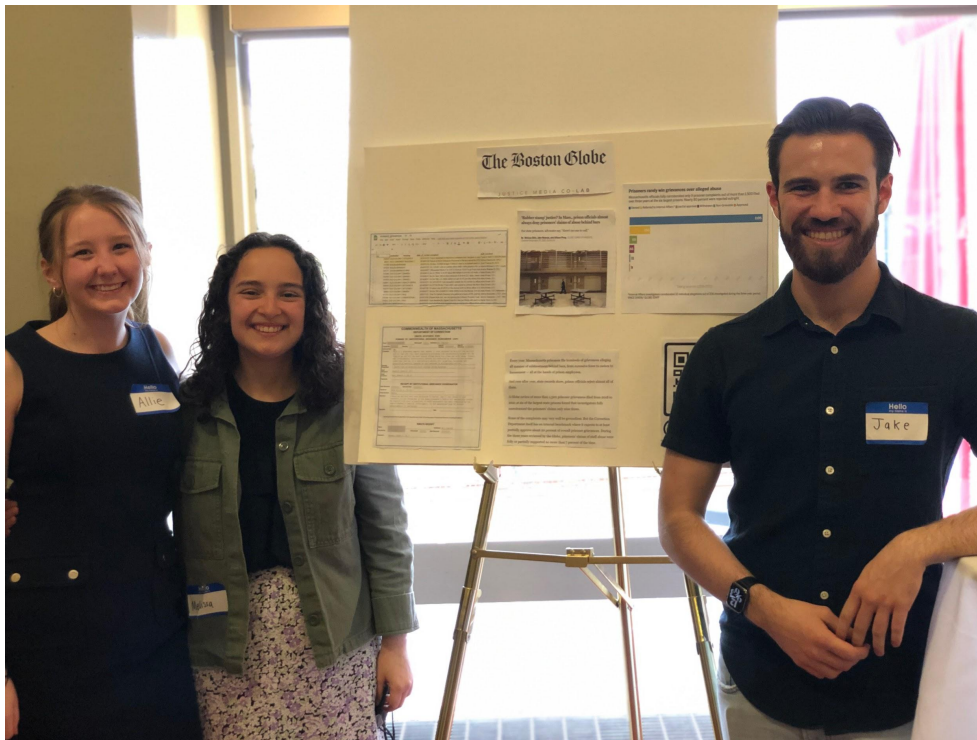
Appendix IV: Assorted Images from JMCL



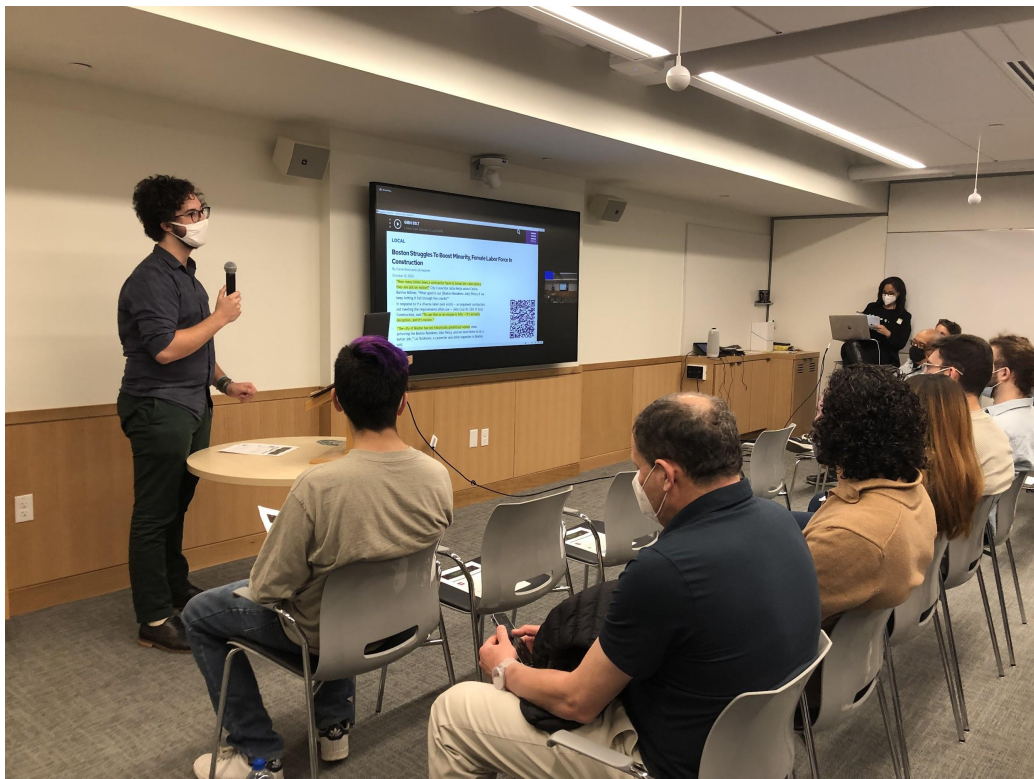
Jasmine Fanchu and Molly Farrar, student JMCL team for the GBH/NPR youth voting trend story



BU Spark! end of Semester Demo Day including JMCL students



Melissa Ellin, Jake Neenan, Allie Pirog, students from the JMCL Boston Globe team investigation on grievances from incarcerated people in the Mass Dept of Corrections.



Daniel Kool presenting an investigation on disparities into the number of minority contracts awarded to MBEs in Massachusetts



From left: Michael Walsh and Emily Stevenson with the Emancipator investigation into historical racism and extreme heat, and Lindsay Schachnow and Arya Patel with the Emancipator police warrants project.