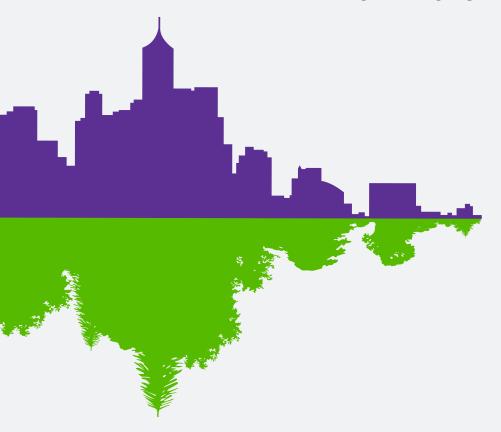


# CAPSTONE

2022-2023





# CAPSTONE

PROJECT SUMMARIES
2022-2023

# LEARNING IN ACTION

# PUBLIC SERVICE IS THE HIGHEST AND GOOD, WHEN HONORABLY AND WELL, THE MOST REWARDING.

ROBERT F. WAGNER, MAYOR OF NEW YORK CITY 1953-1965

#### **ABOUT CAPSTONE**

Capstone, in architecture, is the crowning piece of an arch, the center stone that holds the arch together, giving it shape and strength. Similarly, NYU Wagner's Capstone Program provides students with the centerpiece of their graduate education where they turn their classroom learning into practice. Capstone teams spend an academic year addressing challenges and identifying opportunities for clients, or conducting research on a pressing social question—in a complex and real-world environment. Students must quickly become familiar with an issue or content area; demonstrate process skills such as project management and teamwork; and effectively gather, analyze, and present data.

The summaries in this booklet represent the 75 Capstone projects from the 2022-2023 academic year, conducted by 293 Wagner graduate students.

The Capstone Program was originally funded with a generous grant from the Ford Foundation in 1995 and subsequently received financial support from FJC: A Foundation of Philanthropic Funds. Since the program's inception, more than 6,800 students have completed over 1,500 projects for more than 1,000 organizations.

#### **BECOME A CAPSTONE CLIENT**

Organizations—from the public, nonprofit, or private sector—interested in being a Capstone client should visit wagner.nyu.edu/capstone/clients for more information.

#### **ABOUT NYU WAGNER**

New York University's Robert F. Wagner Graduate School of Public Service prepares public service leaders to translate ideas into actions that have an effective and lasting impact on the public good. Our faculty's research changes the way people frame, understand, and act on important public issues. We provide our students with critical skills, access to all that New York City has to offer, and a deep understanding of the context surrounding public service challenges—which they use to improve cities and communities across the globe.

Ranked among the top public affairs schools, NYU Wagner has been educating the world's future public service leaders since 1938. We offer a Master of Public Administration in Public & Nonprofit Management & Policy, Master of Public Administration in Health Policy & Management, Master of Urban Planning, Online Master of Health Administration, Master of Science in Public Policy, Master of Science in Health Law and Strategy (joint with NYU Law School), Executive Master of Public Administration, and PhD in Public Administration.



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# **PROJECT**SUMMARIES



#### MANAGEMENT & LEADERSHIP

#### **BOARDSTRONG**

#### EXPANDING AN ONLINE MATCHING PLATFORM

#### **FACULTY:**

Sonia Balaram

#### TEAM:

Andy Berry Shirley Higerd-Rusli Alex Resnick Necholia Williams BoardStrong's mission is to help nonprofits achieve the highest standards of board leadership, governance, and oversight through board training, consultation, and the provision of educational resources. BoardStrong currently has an online matching platform that helps organizations find talented board candidates in New York. The organization enlisted a Capstone team to conduct research on how to expand this matching platform to new markets. Although BoardStrong has nonprofit connections across the country, it sought additional context on regional nonprofit environments. The Capstone team met with stakeholders across various nonprofit landscapes and crafted an expansion strategy, identifying regions for initial expansion and the important players within those regions. The team presented its final report to BoardStrong leadership, detailing its findings, recommendations, and best practices for scaling the technology platform.

#### **CALHOUN SCHOOL**

#### SYSTEMS-LEVEL SOLUTIONS FOR PARTNERSHIP WITH ALUMNI OF COLOR

#### **FACULTY:**

Sonia Balaram

#### TEAM:

Marcin Branowski Eilis Klein Guerline Semexant Aditi Varshneya The Calhoun School is a private K-12 school on NYC's Upper West Side, and its Alumni of Color Network (ACN) is an affinity group with the goals of providing a welcoming space for alumni and addressing DEI discrepancies in the school. The client engaged a Capstone team to provide recommendations for formalizing the ACN with an eye toward sustainable capacity building. Given that the ACN comprises a network of volunteers, the client specifically sought systems to make the school partnership with the ACN more efficient and impactful. The Capstone team conducted an internal scan, which included data from working group sessions with alumni of color and surveys administered to current students and alumni, and an external scan looking at similar efforts in comparable organizations. The team delivered a literature review on best practices for alumni networks and presented its findings and recommendations to stakeholders. Based on its research findings and feedback garnered from its presentation, the team produced a final report including guidance and tools salient for current use, and recommendations for building a sustainable partnership.

#### CENTER FOR SURVIVOR AGENCY AND JUSTICE

STRENGTHENING ORGANIZATIONAL CULTURE

#### **FACULTY:**

Veronica Manning

#### **TEAM:**

Liz Einig Rachel Genao Nicole Kofman The Center for Survivor Agency and Justice (CSAJ) is a national organization that seeks to advance economic equity for survivors of domestic violence. The organization is looking to answer this question: What policies and practices can be created, in alignment with the organization's values, to support staff in their roles and professional development? CSAJ engaged the Capstone team to strengthen and streamline processes for employee onboarding, performance management, professional development, and staff feedback. The team conducted a full audit of recruiting and onboarding materials, staff interviews, and market research in order to identify gaps and areas for improvement. Using findings from the collected data, the team created a comprehensive toolkit for CSAJ to leverage in its recruiting, staff development, and team building practices.

#### **EDUCATION REFORM NOW**

IMPROVING HUMAN RESOURCES PRACTICES IN SUPPORT OF STRATEGY

#### **FACULTY:**

Veronica Manning

#### TEAM:

Lola Akinola Lauren Clark Kathleen Kemp Julia Ohanyan Education Reform Now (ERN) is a non-partisan, nonprofit think tank and advocacy organization that promotes increased resources and innovative reforms in K-16 public education, particularly for students of color and students from low-income families. ERN's Human Resources (HR) department enlisted a Capstone team to assess the impact of its recently implemented strategic plan initiatives, identify organizational gaps within existing HR processes, and create strategies for the next phase of ERN's strategic plan. The team conducted a literature review and environmental scan on best practices for employee onboarding and retention, conducted interviews with eight senior leaders, and launched a survey to solicit feedback from ERN's 45 employees on implementation and future priorities. Using this data, the team produced a report outlining recommendations on how to improve HR processes around employee recruitment, onboarding, and retention, while incorporating principles of diversity, equity, and inclusion.

#### **HEWNOAKS ARTIST RESIDENCY**

BUILDING A BETTER FUNDRAISING STRATEGY

#### **FACULTY:**

Sonia Balaram

#### TEAM:

Lauren Bloom Jiaxin Chen Kevin Muehleman Chris Noland Hewnoaks Artist Residency is a small nonprofit located in Lovell, Maine that provides artists the gift of space and unstructured time to advance their work. Relying heavily on support from grants, Hewnoaks engaged the Capstone team to provide evidence-based guidance and recommendations on ways to diversify its funding resources and build a better fundraising apparatus. The team completed surveys and interviews of key stakeholders and researched fundraising strategies and peer organizations that completed similar expansions. Based on its findings, the Capstone team devised an overall fundraising strategy for Hewnoaks and developed key recommendations and tools, including a three-year implementation plan, strategies for augmenting volunteer and board member engagement, fundraising event best practices, and a detailed guide to enhance the donor engagement cycle of the organization.

#### **UPTOWN STORIES**

REACHING TARGET DEMOGRAPHICS AND BRINGING CREATIVE WRITING INTO THE DIGITAL AGE

#### **FACULTY:**

Veronica Manning

#### TEAM:

Maia Cattan Haoyue Ju Patrick Stein Uptown Stories is a nonprofit organization that brings creative writing workshops to children and young adults ranging in age from eight to eighteen. The client engaged the Capstone team to develop strategies to broaden its audience to include more communities of color and lower income students than are currently participating in its programming. The Capstone team analyzed demographic trends, conducted a parent survey, and did a comparative analysis of participant engagement at similar organizations. In its final report, the team devises a series of tools and recommendations for the client to allow for its increased reach into key demographic populations and offer more attractive programming for students and parents alike.



#### **BRICKS AND MORTALS**

RELIGIOUS SPACE RENTAL IN NYC: UNCOVERING A NEW MARKET

#### **FACULTY:**

Johnny Ceffalio

#### **TEAM:**

Sarah Benchimol Jie Dong Jane Lee Sabrina Rivers Yiqi Wang Zipeng Yang Bricks and Mortals is a membership-driven nonprofit organization that helps faith-based organizations (FBOs) maximize the use of their buildings and properties to serve their communities. In support of the launch of its new space-sharing platform, Venuely, the client enlisted a Capstone team to provide fair space pricing guidelines, event insurance research, and market analyses. The team conducted several forms of market and competitor analyses and developed a burn rate equation to assist with on-platform pricing. The team also conducted interviews, surveys, and market research on the costs of running, renting, and insuring venue spaces across NYC. The team's final report highlights its recommendations on Venuely's strategic deployment, which will empower FBOs to enter the rental market smoothly, coordinate space-sharing operations with local artists and other community groups, and generate additional revenue streams for their congregations.

#### **GUIDEHOUSE**

UNGUARANTEED LOAN SECURITIES: A COMPARATIVE MARKET ANALYSIS

#### **FACULTY:**

Michael Dardia

#### TEAM:

Jiayu Chen Yuying Li Elizabeth Maysonet Lamba Najib Alan Shabatay Chunyi Wang Guidehouse is a public-sector advisory firm that provides loan servicing, technology modernization, and financial services for US Small Business Administration (SBA) loan programs. Guidehouse tasked a Capstone team to explore the possibility of a secondary market for the unguaranteed portions of the SBA's 7(a) Loan Program. The team utilized a mixed-methods research approach that combined qualitative and quantitative methods, as well as primary and secondary sources. Its research involved four phases: literature review, semi-structured interviews, market analysis, and case studies. Based on its findings, the team focused on examining two structured finance products and their markets to determine which securitization would be better suited for the SBA's 7(a) Loan Program: credit card asset-backed securities or middle market collateralized loan obligations. The team's comprehensive report includes an infographic and recommendations for a product strategy for the unguaranteed portions of the SBA 7(a) Loan Program.

#### **JERSEY CARES**

REDUCING FINANCIAL MANAGEMENT RISK AND IMPROVING OPERATIONAL FEFICIENCY

#### **FACULTY:**

John Ceffalio

#### TEAM:

Margot Besnard Alejandro Galindo Tarun George Daryl Ocampo Junyi Ouyang Shiyulan Wang Jersey Cares is a nonprofit organization that leads volunteerism in New Jersey by engaging volunteers in projects that address community-identified needs. Through its successful Corporate Service Program, the organization customizes projects for corporate partners to engage their employees in volunteer initiatives. Given rapid revenue growth from this program, Jersey Cares enlisted a Capstone team to address concerns about financial management systems that can be time-consuming and prone to human error. The team designed and executed a four-phase project that entailed: 1) mapping existing revenue and expense management systems using evidence from staff interviews and organizational documents, 2) researching best practices in nonprofit financial management related to staffing, processes, and technology, 3) identifying and evaluating recommendations to improve operational efficiency and reduce risk, and 4) developing an implementation timeline informed by the client's unique context and best practices in nonprofit change management.

## LEONA M. AND HARRY B. HELMSLEY CHARITABLE TRUST

AN AUDIT OF GRANT MODIFICATION PROCESSES

#### **FACULTY:**

Michael Dardia

#### TEAM:

Shuangyu Chen Guanqun Cong Silvia De La Cruz Claudia Frazer Keyi Qiu 7huli Xin The Leona M. and Harry B. Helmsley Charitable Trust (Helmsley Trust) is dedicated to improving people's lives and building healthier futures for individuals and communities worldwide. Helmsley Trust invests in innovative ideas and research in six key program areas in collaboration with a range of individuals and organizations. The client engaged a Capstone team to: 1) research the evolution of the philanthropic sector and current best practices, 2) analyze the grant modifications made to the client's funded grants during the past two fiscal years, and 3) make recommendations to improve and streamline Helmsley Trust's grant modification policy and process to ensure they align with industry best practices and meet the needs of internal and external stakeholders. The team conducted interviews with Helmsley Trust staff and leaders of peer foundations, surveyed grantees who participated in the modification process, analyzed internal data and processes, and conducted external research. The team incorporated its analysis and findings into a white paper and presented it to the Helmsley Trust.

#### PROVIDENT LOAN SOCIETY

ASSESSING THE FINANCIAL LANDSCAPE TO GUIDE ORGANIZATIONAL **DECISIONS** 

#### **FACULTY:**

John Ceffalio

#### TEAM:

Sean Gilfeather 7elan Li 7iao I in Shiqi Ma Yidan Wana Chauntenay Young For over a century, the Provident Loan Society has been providing access to cash to New Yorkers in need, with a special focus on immigrant and impoverished populations. The nonprofit client engaged a Capstone team to investigate the contributing factors to its decline in lending in recent years. The team conducted research on the changing wants and needs of the client's target population, potential customers who may not be aware of its services, and the broader financial landscape in which the client operates. The team reviewed Provident Loan Society's historical lending data and financial statements, explored entrance into buying and selling, and reviewed potential investment options. The team's final report will help guide Provident Loan Society in its decision making on how to move forward and continue to be a beacon of hope for New Yorkers experiencing financial hardship.



#### **PUBLIC POLICY**

#### **CENTER FOR JUST JOURNALISM**

#### QUANTIFYING SOURCES AND VIEWPOINTS IN CRIME REPORTING

#### **FACULTY:**

Erin Connell

#### TEAM:

Cat Blake Noah Brook Helena Wippick The Center for Just Journalism (CJJ) is a resource for journalists covering public safety issues that aims to support stories that are rooted in fact, lack sensationalism, and enhance public understanding of safety. CJJ engaged a Capstone team to investigate the diversity of sources and viewpoints that journalists include in written news pieces about crime and the legal system. The team conducted a content analysis to quantify the frequency at which law enforcement and non-law enforcement sources are quoted in stories, as well as the viewpoints expressed by different source types related to policing, adjudication, incarceration, and other strategies to address crime. The team used a random sample of 300 US-based crime stories to develop a codebook to analyze sources used and viewpoints expressed. The team's final deliverables to CJJ included a research report detailing the findings of the content analysis, recommendations for further research, and a guide for journalists to audit their own reporting.

#### CHILDREN'S RIGHTS

EFFECTIVE AND EQUITABLE MOBILE CRISIS RESPONSE FOR CHILDREN AND YOUTH

#### **FACULTY:**

Karin Sommer

#### TEAM:

Tess Edwards Hannah Gorman Emma Saltzberg Yuhan Zhang Children's Rights is a national advocacy organization that champions the legal rights of children impacted by government systems. In light of the implementation of the National Suicide and Crisis Lifeline, 988, the organization enlisted a Capstone team to understand the national landscape of existing mobile crisis response for children and youth. The team conducted a literature review on child and youth crisis care, completed an environmental scan of youth-targeted programs, and assembled a series of program case studies. Based on its analysis, the team produced a final report that includes data on the programs that were evaluated and identifies promising harm-reduction practices to provide police-free crisis care to children in the least restrictive environments possible. The report supports Children's Rights' provision of guidance to lawmakers who are working to effectively and equitably implement 988 legislation within their state.

#### CHURCH WORLD SERVICE

POLICY ANALYSIS AND COMMUNICATION STRATEGY FOR REFUGEE HOUSING SOLUTIONS

#### **FACULTY:**

Erin Connell

#### TEAM:

Carolina Herrera Agnes Kim Kevin Marque-Arguera Zoe Merriman Church World Service (CWS) is a nonprofit organization serving underprivileged communities across the world. Its Refugee Housing Solutions (RHS) initiative provides housing support for refugee resettlement in the US, in response to the challenge of accessing safe and affordable housing due to inadequate supply, resources, and policies. CWS enlisted a Capstone team to conduct a crosscomparative policy analysis of housing policies at local, state, and federal levels to identify policies and programs that would best serve the RHS mission. The team conducted stakeholder interviews with public and nonprofit resettlement and housing experts, and with refugees who have gone through the resettlement process in the US. The team performed a comprehensive policy analysis of potential programs to house a higher number of refugees, prepared a communication strategy to synthesize its findings for the general public, and delivered a set of recommendations for the client to consider for its continued resettlement work.

#### COMMUNITY SERVICE SOCIETY OF NEW YORK

STRATEGIES FOR ANALYZING COMPLEX SURVEY DATA AND CONDUCTING EFFECTIVE SURVEYS

#### **FACULTY:**

Alexander Shermansong

#### TEAM:

Bria Donohue Elizabeth Gellman Elines Marizan Antonio The Community Service Society of New York (CSS) is a nonprofit organization founded in 1843 to promote economic opportunity and equity through data-driven research, direct services, and peopledriven advocacy, CSS engaged a Capstone team to do a trend analysis of its long-running survey called the Unheard Third, which for twenty years has been capturing the experiences and hardships of low-income New Yorkers. The team conducted statistical analyses using STATA and Excel, reviewed academic literature on similar surveys to identify best practices, interviewed stakeholders and partner organizations, and created a data dashboard for internal and external visualization purposes. The team's final report includes a review of relevant policy and historical events affecting lowincome New Yorkers and provides recommendations on survey methodology, expansion opportunities, and ways to reduce bias to improve the survey tool. The team's input will improve CSS's ability to use survey data trends to better understand and advocate on behalf of its target population, and create sustainable systems for future analysis.

#### **HER JUSTICE**

#### ADVOCATING FOR TRANSPARENCY IN NEW YORK CITY FAMILY COURT DATA

#### **FACULTY:**

Karin Sommer

#### **TEAM:**

Bergen Bodensteiner Alexis Hidalgo Zi Lin Liang Elena Pereira Jahmair Stewart Her Justice supports women living in poverty in NYC by recruiting and mentoring lawyers to provide pro bono legal services that address individual and systemic legal barriers in the civil justice system. A challenge that Her Justice encounters in its policy work is the lack of transparency in court data, including litigant demographics, availability of language interpretation services for litigants, caseloads, lead times, and outcomes. Her Justice engaged the Capstone team to a) conduct an environmental scan of currently available mechanisms for data sharing in New York courts and in family courts in other states, b) submit a data request to the Office of Court Administration, and c) identify organizations that would benefit from the effort to increase court transparency. In its final report, the team summarizes its research and findings, offers recommendations for Her Justice, and includes a guide outlining how its research can be used as a base for further advocacy.

#### **NEW YORK PEACE INSTITUTE**

#### STRATEGIES TO IMPROVE DATA AND COMMUNICATIONS PRACTICES

#### **FACULTY:**

Erin Connell

#### TEAM:

Samantha Harpool Domny Hernandez Aashika Nagarajan New York Peace Institute (NYPI) is a community dispute and resolution center (CDRC) that provides mediation, conflict coaching, group facilitation, and restorative justice services to promote peace in Manhattan and Brooklyn communities. Research around effective methodologies for domestic conflict resolution is limited. As a result, there is insufficient access to research around measures of success in the field, and a lack of adequate guidance and standardization for CDRCs across the country. NYPI engaged the Capstone team to assist with developing strategies to improve the organization's data and communications practices in order to convey impact more effectively to funders and the public. To inform the strategy development, the team completed internal and external assessments of data and communications practices in the field. The internal assessment consisted of interviews of NYPI staff, a review of NYPI's existing data, and a communications SWOT analysis. The external assessment consisted of a literature review, peer scan, and interviews of peer organizations. The team synthesized its findings from these assessments in a final report to NYPI that includes a logic model and recommendations for strategic data and communications practices.

#### **NEW YORK CITY EMERGENCY MANAGEMENT**

COASTAL STORM PREPAREDNESS FOR HOMEBOUND INDIVIDUALS AND THE STORM SHELTER SYSTEM

#### **FACULTY:**

Alexander Shermansong

#### TEAM:

Hunter Blas Maggie Jean Knight Elizabeth Rilling Izzy Vieira New York City Emergency Management (NYCEM) is the emergency coordination agency responsible for coastal storm preparedness, evacuation, and shelter in NYC. NYCEM tasked the Capstone team to support the agency with two coastal storm preparatory challenges: 1) determining nationwide best practices for evacuating people who are homebound and 2) identifying commonalities among residents in need of emergency shelter in low-lying and flood-prone areas of the city. The team conducted a literature review, interviewed emergency management officials nationwide, and completed a needs-based census analysis. Based on its findings, the team recommended a heightened communications plan, additional exploration of modern resources, and renewed use of existing technology and data. The team's final report provides evidence-based recommendations for evacuating the homebound and emergency shelter preparedness.

#### NEW YORK CITY MAYOR'S OFFICE TO END DOMESTIC AND GENDER-BASED VIOLENCE

CONDUCTING A PROCESS EVALUATION OF THE HOME+ PROGRAM

#### **FACULTY:**

Karin Sommer

#### TEAM:

Megan Noelle Cantor Symantha Clough Joe Lenczewski Saunders Ruffin Sigi Wang The NYC Mayor's Office to End Domestic and Gender-Based Violence (ENDGBV) is an executive office that ensures inclusive services for survivors of domestic and gender-based violence. Home+ is a signature ENDGBV program grounded in client self-determination that provides survivors and their families with an alternative-to-shelter model. Home+ partners with communitybased organizations (CBOs) in each borough to provide clients with free safety and security tools, including personal emergency response systems, locksmith services, and safety planning resources. ENDGBV enlisted a capstone team to conduct a process evaluation of Home+ comparing the program's theory of change with its complex implementation. The team conducted a literature review, examined program documents, interviewed key stakeholders, and surveyed clients to identify best practices and determine if Home+ services are being delivered as intended. Finding implementation discrepancies across the CBOs and resource vendors, the team's final report offers recommendations to improve communication and cooperation between ENDGBV and its partners.

#### TRENTON POLICE DEPARTMENT

A COMMUNITY-BASED APPROACH TO INTERRUPTING CYCLES OF VIOLENCE AND INCARCERATION

#### **FACULTY:**

Alexander Shermansong

#### TEAM:

Hanna Johnson Nyell Lopez Nathan Naimark Michelle Smoler The Trenton Police Department (TPD) has partnered with local organizations to launch Trenton Community Street Teams (TCST), a community-based violence intervention and prevention initiative designed to eliminate the cycle of violence in Trenton, New Jersey. TCST is modeled after the Newark Community Street Teams program, which led to a 60 percent reduction in homicides in Newark. The program relies on trusted messengers from the community to interrupt cycles of violence by cultivating and leveraging relationships and providing wraparound support to people in crisis. TPD enlisted the Capstone team to investigate and document the rollout of the TCST program. The team conducted a literature review of violence interruption programs around the country to develop a set of best practices and learnings. The team then interviewed program stakeholders, staff, and participants and reviewed key documents to develop a final report that examines the rollout and makes recommendations based on key findings.

### UNITED NATIONS DEVELOPMENT PROGRAMME

ENCOURAGING INCLUSIVE GROWTH AND SOCIAL PROTECTION IN NIGERIA'S INFORMAL SECTOR

#### **FACULTY:**

Alexander Shermansona

#### TEAM:

Jeremy Bohmstein Sahril Kasim Ped Thanapoom Thongsamoot Jing Zhang The United Nations Development Programme (UNDP) has been in Nigeria since the country became independent in 1960, providing capacity building and policy development support to the federal government of Nigeria in areas of governance and peace building, inclusive growth, and sustainable development. To help pinpoint areas and policies of interest, the Capstone team completed a literature review and time-series quantitative analysis around what factors motivate Nigerians to find work in the informal sector. The team then selected policy recommendations, addressing the most impactful motivators, in order to improve informal labor's social and economic growth in the long-term by providing incentives for workers to formalize their businesses and opportunities for employees to receive government benefits and support.

#### VILLAGE OF ARDSLEY

#### CREATING AN ACTIONABLE PLAN TO LOWER MUNICIPAL EMISSIONS

#### **FACULTY:**

Frin Connell

#### TEAM:

Paulina Dawidowska Pieter Fildes Lia Hansen Manva Johnston-Ramirez

The Village of Ardsley is a small municipality in Westchester County serving a population of just over 5,000 people. The Village seeks to reduce its environmental impact by lowering the emissions produced by its municipal transportation fleet without negatively impacting its services. The Village's goal is to reduce vehicle emissions from its municipal fleet through policy changes that lower its reliance on fossil fuels. To understand the problem and identify feasible solutions, the team a) conducted a literature review, industry research, and interviews with village representatives, b) surveyed comparable municipalities on the benefits and challenges of electric vehicle adoption, and c) prepared a vehicle inventory report. The team provided the Village with a final report containing recommendations for decreasing its municipality's vehicle emissions—ensuring its current fleet is performing efficiently, establishing infrastructure that supports emerging vehicle technologies, implementing a plan for future vehicle purchases, and providing recommendations for alternative policies that can reduce emissions.



#### **ADVOCACY & POLITICAL ACTION**

#### THE ARTHUR PROJECT

#### ADVOCACY PLAN FOR DISMANTLING THE SCHOOL-TO-PRISON PIPELINE

#### **FACULTY:**

Kalima Johnson

#### TEAM:

Todd Baker Deborah Denis Charmaine Gentles Haley Qualls The Arthur Project (TAP) is a nonprofit organization that pairs middle schoolers in the Bronx with Master of Social Work cliniciansin-training for professional mentorship. Through individual-, group-, and family-based work, TAP aims to "foster a profound sense of mattering" in their students in order to build cognitive, emotional. and academic skills for success. TAP engaged a Capstone team to formalize its understanding of the school-to-prison pipeline and identify opportunities to adapt its organizational model to include student advocacy toward its abolition. The team conducted a literature review of academic research and held interviews with peer organizations focused on youth advocacy and organizing against the school-to-prison pipeline, particularly within New York State. Based on its findings, the team produced an advocacy plan recommending best practices in programming, organizational structure, and evaluation metrics for dismantling the school-toprison pipeline, and strategies for how these practices can be implemented at TAP.

#### BROADWAY FOR ARTS EDUCATION

CREATING A SOCIAL JUSTICE EDUCATOR'S HANDBOOK

#### **FACULTY:**

Susan Misra

#### TEAM:

Megan Blair Briana Cole Amada Hassan Maura Rvan Broadway for Arts Education (BAE) is a NYC-based youth development nonprofit that provides arts education to students in underserved communities. BAE's programming includes dance, music, and theater. BAE and its Teaching Artists (TA) serve roughly 2.000 high school students at schools in Brooklyn, the Bronx, and Manhattan that are eligible for Title I funding. A key component of BAE's mission is to incorporate social justice and advocacy into its learning experiences, but many TAs feel unequipped to achieve this goal. The organization engaged a Capstone team to create a cohesive handbook to help TAs incorporate social justice into their programs. The team conducted background research, including a literature review and environmental scan, surveyed TAs, observed classroom sessions, and conducted focus groups with students. With its findings, the team produced a final report detailing its recommendations, and a Social Justice Educator's Handbook that provides TAs with best practices, sample activities, and thematic designs for teaching advocacy through the arts.

#### **CENTER FOR SURVIVOR AGENCY AND JUSTICE**

ROADMAP TO AN INCLUSIVE AND PARTICIPATORY NATIONAL POLICY AGENDA

#### **FACULTY:**

Elizabeth Angeles

#### TEAM:

Rachel Bhalla Guillermo Castillo Kartika Fuentes Julia Spector The Center for Survivor Agency and Justice (CSAJ) is a national nonprofit organization advancing consumer rights and economic and racial equity for survivors of domestic, sexual, and gender-based violence, Since 2006, CSAJ has served thousands of survivors. collaborating with advocates, attorneys, organizations, programs, and coalitions to promote advocacy approaches that work to remove systemic barriers, enhance organizational responses, and improve professional practices. The organization enlisted a Capstone team to research and recommend strategies for creating an equitable and participatory national policy platform. The team conducted an in-depth literature review, environmental scan, and interviews with leaders in political advocacy to provide insight into coalition building and the policymaking process. Based on its findings, the team designed a guide detailing a set of recommendations for CSAJ that will serve as a roadmap for the organization to develop and implement a national policy platform through survivor-centered and participatory processes.

#### **ELDERS CLIMATE ACTION MASSACHUSETTS**

EFFECTIVE STRATEGIES FOR ENVIRONMENTAL LEGISLATIVE ADVOCACY

#### **FACULTY:**

Elizabeth Angeles

#### TEAM:

Anna Bessendorf Naima Dahir Niya Ray Alex Son The Massachusetts Chapter of the national Elders Climate Action (ECA) organization is the first state chapter of a national advocacy organization that draws on the skills and experience of its members to organize and lobby around legislation that combats climate change. ECA engaged a Capstone team to reassess the strategy around its legislative advocacy work to ensure that the investment of volunteer time and expertise yields a tangible impact in advancing Massachusetts towards its goal of net zero greenhouse gas emissions by the year 2050. ECA also sought to improve its coordination with other environmental organizations to increase the effectiveness of its advocacy work. The Capstone team conducted interviews with key Massachusetts state legislators and leaders of similar environmental organizations. Based on its research, the team developed a report for the client with its findings and recommendations, tools for organizational relationship building, and a power map analysis.

#### **HIP HOP CAUCUS**

STRATEGIC OUTREACH PLAN TO PROMOTE A VOTING TOOL FOR RETURNING CITIZENS

#### **FACULTY:**

Kalima Johnson

#### TEAM:

Ashley Pria Persaud Sreya Subramanyan Allison Vitkauskas Hip Hop Caucus (HHC) is a national, nonprofit, and non-partisan organization that connects the hip hop community to the civic process to build power and create positive change. HHC's Respect My Vote! Campaign empowers first time voters to cast their ballots, educates people with felony records on their voting rights, fights back against voter suppression, and advocates for the voting rights of various communities. To expand its efforts, HHC launched the Respect My Vote! Tool to help returning citizens—people with a felony or misdemeanor conviction—determine if they are eligible to vote. As part of its Respect My Vote! Campaign, HHC engaged a Capstone team to inform updates for the tool in three target states: Kentucky, Louisiana, and Virginia. The team researched legislation on voter eligibility requirements, gathered data on areas with the most returning citizens, and identified potential partners to help promote the Respect My Vote! Tool in the target states. Building on its findings, the team delivered a strategic outreach plan that incorporates recommendations to promote HHC's Respect My Vote! Tool.

#### OHIO DOMESTIC VIOLENCE NETWORK

EMPOWERING SERVICE PROVIDERS THROUGH COALITION ORGANIZING AND ADVOCACY

#### **FACULTY:**

Susan Misra

#### TEAM:

Zahnav Gates Justin Lee Crvs Letona Andrea Rathbone Ramos

The Ohio Domestic Violence Network (ODVN) is a collection of over 50 nonprofit service providers supporting victims of domestic violence (DV) with comprehensive services like shelter, legal aid, and mental health services. ODVN members advocate together at the state level to provide testimony on DV issues and to acquire funding through the state's budget process. As ODVN works to broaden its advocacy efforts, it enlisted a Capstone team to evaluate opportunities for strengthening its advocacy processes and the advocacy capacity of its member organizations. Through a combination of in-depth interviews and surveys, the team designed an advocacy toolkit, tailor-made to activate and inspire ODVN's diverse service provider membership to take on advocacy roles in their community and network. The team produced a final report offering recommendations on how to use the advocacy toolkit and further develop the client's coalition organizing strategy.

#### OPEN PRIMARIES

DEVELOPING ARGUMENTS AND STRATEGIC MESSAGING TO KEEP PRIMARY ELECTIONS OPEN

#### **FACULTY:**

Kalima Johnson

#### TEAM:

Leah Kraft Blake Lapin Brandon Warrick Open Primaries is a nonprofit organization with a mission to advocate for open and nonpartisan primary election systems. educate voters, counter efforts to impose closed primaries, and build local, state, and national coalitions. The organization engaged a Capstone team to examine the efforts to close primaries in the Republican-controlled states of Idaho, Tennessee, Alabama, and Arkansas. The team conducted background research on the types of primary elections in the US and three key reasons for keeping primaries open: protecting the voice of independent voters, avoiding electoral polarization, and preventing expensive logistics for taxpayers. The team also explored Idaho's successful effort to close its primary election in 2012, subsequent changes, and public responses thereto. The team's final paper details its findings, reviews current campaigns to close primaries in Tennessee, Alabama, and Arkansas, and proposes recommendations for strategic messaging to keep primaries open.

#### RIDERS ALLIANCE

IDENTIFYING CAMPAIGNS TO MITIGATE CAPITAL COSTS IN THE WAKE OF THE COVID-19 PANDEMIC

#### **FACULTY:**

Susan Misra

#### TEAM:

Edouard Alcindor Bradley Freericks Tony Hemphill Geneva Troyato Riders Alliance is a grassroots organization founded in 2012, dedicated to providing New Yorkers with a more affordable and reliable public transit system. It organizes subway and bus riders to support policy goals and campaigns that will improve train and bus services run by the Metropolitan Transportation Authority (MTA). Riders Alliance engaged a Capstone team to explore winnable campaigns that lower the MTA's construction costs, recruit more riders, and expand the MTA's operating revenue. The team researched and analyzed the capital allocations and fiscal limitations of the MTA, as well as the political dynamics within the city and state. The team conducted a review of relevant literature and a sensitivity analysis of the MTA's East Side Access and Second Avenue Subway expansion projects—which revealed that uncertainty costs and utility relocation are largely responsible for the MTA's high construction costs—and held interviews with experts to better understand the MTA's budget and construction as it relates to public transportation. The team's final report helps the client identify initiatives and campaigns with the greatest potential impact for New Yorkers

#### UNITED WAY OF CENTRAL MARYLAND

DEVELOPING A LEGISLATIVE STRATEGY IN SUPPORT OF ALICE RESIDENTS

#### **FACULTY:**

Elizabeth Angeles

#### TEAM:

Garrett deGraffenreid Maria Allyn Dolojan Daisy Fleming Justice Jenkins United Way of Central Maryland (UWCM) is a nonprofit organization committed to promoting equity and creating opportunity by increasing access to education, employment, health, and housing for people designated as ALICE (Asset Limited, Income Constrained, Employed), whose earnings are not enough to support a "survival budget" for life's essentials. Seeking to advocate and create change for ALICE individuals and families in Maryland through targeted legislation, impactful advocacy, and effective service delivery, UWCM enlisted a Capstone team to develop a legislative strategy to inform and educate newly elected officials and support greater outcomes for ALICE residents. The team conducted interviews with relevant stakeholders and used that data to produce an environmental scan and power map, a legislative analysis, and a legislative roadmap for UWCM for the upcoming 2024 Maryland legislative session. The team's final report contains a comprehensive analysis of its findings and outlines legislative recommendations for how UWCM can best serve the ALICE population of Maryland.



# SOCIAL IMPACT, INNOVATION & INVESTMENT

#### **CLIENT-BASED PROJECTS**

#### **ACCION VENTURE LAB**

EMPOWERING WOMEN IN ENTREPRENEURSHIP AND ADVANCING GENDER LENS INVESTING

#### **FACULTY:**

Becky Duane

#### TEAM:

Alia Alayyaf Malaak AlOmar Youyi Li Quinn Mao Felipe Ramirez Accion Venture Lab (AVL) is a global early-stage investor in inclusive fintech startups. Over the last two years, AVL has held venture capital fundraising workshops and investor networking sessions with over 80 women fintech founders in 15 countries. The organization engaged a Capstone team to identify the needs of women founders in emerging markets, outline existing resources, and provide recommendations for future steps. Building on its desktop research and interviews with AVL's regional directors, the team conducted comparative analyses to identify strengths and weaknesses within each regional market. The team's final report provides recommendations to AVL concerning the pipeline development process, the accessibility of funding, and expanding gender lens investing through partnership development. Specifically, the team recommended that AVL structure programs to: 1) promote mentorship, 2) build collaborative networks. 3) conduct workshops and training, 4) strengthen pipeline development, and 5) advocate for policy change.

#### **ISLAMIC RELIEF USA**

SEEKING SUSTAINABLE ECONOMIC LIVELIHOOD IMPROVEMENTS FOR FEMALE SMALLHOLDER FARMERS IN MALI AND NIGER

#### **FACULTY:**

Mo Coffey

#### TEAM:

Essma Bengabsia Ben Goodwin Tyler Rice Sarah Young

Islamic Relief USA (IRUSA) is the US-based entity of the global Islamic Relief (IR) organization, a faith-based humanitarian and development agency that serves over ten million people annually across 45 countries through relief and development projects in vulnerable communities. In 2019, IR launched its Qurbani Plus program, which focuses on creating financial self-sufficiency for low-income, female-headed farming households in Mali and Niger through an Islamic microfinance livelihood program. IRUSA tasked a Capstone team to review its program model and provide recommendations on improving its scalability and the long-term sustainability of beneficiary income streams. The team reviewed the academic literature on smallholder farmer value chain programs in West Africa, conducted a landscape analysis consisting of six peer humanitarian and development institutions, and interviewed key internal IR stakeholders. The team produced recommendations centered on conducting a livestock value chain assessment in Niger in order to maximize sustained income generation for IR's beneficiaries.

#### **PRO MUJER**

CREATING A FUND FOR THE "MISSING MIDDLE" OF SMALL AND MEDIUM SOCIAL ENTERPRISES IN LATIN AMERICA

#### **FACULTY:**

Mo Coffev

#### TEAM:

Serena Desai Dor Malul Allison Ranshous Pro Mujer is a nonprofit organization that provides access to finance and entrepreneurship support to empower low-income women in Latin America. The organization enlisted a Capstone team to research the creation of a fund that would target the "missing middle" of small and medium social enterprises in Latin America. The team conducted a landscape analysis of research on the core issues of gender equality, impact investing, gender lens investing, and the "missing middle." The team gathered data on the financial climate of the Latin American social impact sphere through interviews with three experienced impact investing experts from Peru, Europe, and the US. The team also conducted a benchmark assessment to provide updated information on funds with a similar lens and size. The team produced a final report that will contribute to Pro Mujer's objectives and help create a stable and strong fund for the "missing middle" of small and medium social enterprises.

#### RACIAL EQUITY INVESTING COLLABORATIVE

UNDERSTANDING RACIAL EQUITY WITHIN SOCIAL IMPACT INVESTING

#### **FACULTY:**

Mo Coffey

#### TEAM:

Madison Friedman Eva Kim Michael Low Carol Ourivio The Racial Equity Investing Collaborative (Collaborative) is a group of six organizations—Toniic, Confluence Philanthropy, The ImPact, Intentional Endowments Network, Impact Capital Managers, and American Sustainable Business Network—that aim to understand and support clients seeking to increase the positive racial equity impact of their social impact investments. The Collaborative enlisted a Capstone team to help them understand the field of impact investment using a racial equity lens. The team interviewed representatives from eight of the Collaborative's clients to better understand their journeys, challenges, and general investment practices. The team aggregated and analyzed the data in order to highlight trends, insights, and recommendations for the Collaborative. The team also conducted a review of available literature on racial equity within impact investment. The team's final report synthesizes data from its interviews and literature review to identify key findings, and recommends metrics for the Collaborative to measure its growth.

#### REFUGEE INTEGRATION INSIGHTS

REFUGEE ECONOMIC INTEGRATION AND CORPORATE SOCIAL RESPONSIBILITY

#### **FACULTY:**

**Becky Duane** 

#### TFAM:

Danielle Bernos Jagger Huang Alexandra Kotis Elizabeth Maguire Jordan van Althuis Refugee Integration Insights (RII) is a specialized provider of private sector refugee data and insights. RII examines corporate social responsibility (CSR) reports and other proprietary data for environmental, social, and governance (ESG) investors to provide a methodology for tracking and assessing corporate refugee action across quantitative and qualitative metrics. The Capstone team conducted a landscape analysis for RII on the topics of CSR and the integration of refugees into the workplace. It analyzed the boundaries and opportunities for CSR as a response to the refugee crisis, including an overview of how the private sector has addressed past refugee crises. The team also completed a trend analysis of RII's proprietary dataset, uncovering trends in the integration of refugees into the workplace. Drawing on its findings, the team produced a policy memo and final report that examines the ESG investing space and makes recommendations for RII's position within and contributions to ESG investing, including communication considerations to bring its ideas to the mainstream.

#### TEAM-GENERATED PROJECTS

#### **ASQ ASH**

CREATING A DIGITAL RESOURCE HUB TO SUPPORT EDUCATORS IN ACCESSING SEX EDUCATION RESOURCES

#### **FACULTY:**

Andy Moss

#### TEAM:

Maggie Coughlin Ariana Gevov Asq Ash is a digital resource hub for sex education that enables high school educators to easily search for and utilize comprehensive, medically accurate, and inclusive resources on sexual health and wellness topics. The Capstone team designed Asq Ash to address the need shared by high school educators to have easy access to comprehensive, medically accurate, and culturally responsive sexual health and education resources. The team's product is an online database of sourced sex education materials for educators to easily search by topic (e.g., pronouns, healthy relationships, or reproductive anatomy) and resource type (e.g., supplemental, curriculum, or educator training). The team's solution provides a one-stop shop for educators to easily search, find, access, and use sex education materials that will better support their students.

#### **SEGGS LIBRARY APP**

ADDRESSING THE SEXUAL AND REPRODUCTIVE HEALTH EDUCATION GAP IN THE US

#### **FACULTY:**

Andy Moss

#### TEAM:

Hanrong Huang Lori Lam Chloe Lesieur The goal of the Seggs Library App is to tackle the sexual and reproductive health education gap in the US. Only 29 states require any form of sex education and the gap in education is growing due to the recent overturning of Roe v. Wade, a lack of consensus on the issues, and the absence of federal guidelines. The Capstone team interviewed undergraduate students across the country and sexual health professionals. The team found that many students feel that their education provided them with a good understanding of anatomy and biological changes-however, their education often fell short on topics such as relationships and intimacy, and failed to provide access to helpful resources. The team also found that many students only sought out sexual health information when prompted by their personal lives. To address this issue, the team designed the Seggs Library App as a sexual health platform for students to access information and resources that are inclusive, age appropriate, and medically accurate. This solution can help students become more confident, informed, and heard as they enter new relationships.

#### TANDEM: A CELLULAR BIKE ALARM SYSTEM

BIKE THEFT MITIGATION FOR NYC DELIVERY WORKERS

#### **FACULTY:**

Andy Moss

#### TEAM:

Ellie Kiernan Jacqueline Ramales Annie Schonberger The Capstone team identified a problem within the NYC delivery worker community: current motion sensor on-bike alarms fail to notify workers of security breaches to bikes locked on the street while workers are making in-building deliveries (which typically last one to ten minutes). It is estimated that fifty percent of delivery workers in NYC fall victim to e-bike theft, yet delivery work is subject to minimal regulation and workers have almost no workplace protections. The Capstone team created a solution called Tandem, with the goal of providing delivery workers protection from theft. Tandem's 4G LTE-enabled motion-sensor alarm helps NYC food delivery workers avoid the cost of e-bike replacement by: 1) providing motion-sensor phone alerts so that workers have a sufficient window of time to return to their bikes during theft attempts, and 2) streamlining communications within the delivery worker community through GPS sharing of bike locations to social networks in case of attempted thefts.

#### THINK FOOD

SHAPING A CIRCULAR ECONOMY IN NEW YORK CITY'S FOOD SYSTEM

#### **FACULTY:**

Andy Moss

#### TEAM:

Yinchi Dai Katherina Wang Think Food is a social enterprise that aims to create a circular economy in the food system of NYC by providing an affordable and convenient waste collection service for small and mid-sized Chinese restaurant owners. The Capstone team identified three barriers for Chinese restaurants to perform the sorting practices that help divert food waste from landfill: 1) knowledge gap and language barriers, 2) lack of economic incentives, and 3) lack of time to set up sorting processes. To tackle these issues, the Capstone team created Think Food to provide waste collection services with a focus on sorting process education and enhancement, including food waste sorting training and recycling equipment setup, food waste hauling and pick-up, and a mobile app with language options in English and Chinese for clients to track the updated policies, impact, and waste operations. Through these interventions, Think Food hopes to build a resilient food ecosystem that involves every Chinese restaurant's participation in the circular economy.



#### **HEALTH MANAGEMENT & POLICY**

#### **BJC HEALTHCARE**

#### IMPROVING COMMUNITY HEALTH NEEDS ASSESSMENT PROCESSES

#### **FACULTY:**

Rona Affoumado

#### TEAM:

Nareesa Dhalla Andrew Spencer Danny Tsoi Aiden Wynia BJC HealthCare (BJC) is one of the largest nonprofit healthcare organizations in the US, with 15 hospitals located across Missouri and Illinois. As per the Patient Protection and Affordable Care Act of 2010, each BJC hospital is required to complete a Community Health Needs Assessment (CHNA) at least every 3 years. BJC engaged a Capstone team to provide recommendations to increase alignment in CHNA execution across the network and improve processes to better reflect the health needs of communities served by the organization. The team conducted an extensive landscape analysis of CHNA activities at healthcare organizations across the country and drew upon best practices regarding health needs data collection, community and patient engagement, participatory action research, and public health planning. In addition to making recommendations that were immediately implemented in the 2023 CHNA at one of the BJC hospitals, the team created an updated CHNA guidebook, along with a roadmap outlining steps for BJC to implement a system-wide approach for future CHNA cycles.

#### **BRONX COMMUNITY HEALTH NETWORK**

EVALUATING AND IMPROVING A BLOOD PRESSURE SCREENING PROGRAM

#### **FACULTY:**

Rona Affoumado

#### TEAM:

Boris Ingberg Yuhang Liu Nikita Lotwala Yiru Pan Jessica Sharkey Bronx Community Health Network (BCHN) is a nonprofit, community-based organization and federally qualified health center (FQHC) with a mission to improve the health of individuals and families in the Bronx. BCHN has implemented evidence-based blood pressure control programs to improve its patients' hypertension control and encourage self-management and healthy lifestyle goals. BCHN engaged a Capstone team to compile four years of data into a comprehensive report on the effectiveness of its blood pressure program at Bay Eden Senior Center. The team analyzed the data, conducted a literature review, and interviewed BCHN and Bay Eden staff members. Based on its findings, the team compiled a final report that includes comprehensive data analysis, outlines areas for improvement, and provides evidence-based recommendations to improve the existing screening program.

#### NYU LANGONE BROOKLYN EMERGENCY **DEPARTMENT**

SCREENING FOR SOCIAL DETERMINANTS OF HEALTH

#### **FACULTY:**

Rain Henderson

#### TEAM:

Brooke Cascella Jamie Fridman Ashraf Hussain Poonam Thakur The NYU Langone Brooklyn Emergency Department (ED) seeks to mitigate the social determinants of health for at-risk populations by connecting patients with appropriate social resources at a Federally Qualified Health Center (FQHC). The client enlisted a Capstone team to help 1) develop a social determinant of health screener for physicians to administer during patient visits, and 2) evaluate the efficacy of a pilot screening of over 50 patients in the ED. Patients participating in the pilot who screen positive are connected to a variety of interventions via a referral system to the FQHC. The team observed the range of referrals—from food pantry bag distribution to health information pamphlet dissemination, from social work interventions to financial counseling consults-and collected data from follow-up tracking conducted by the ED and FQHC on patients who received referrals. In its final report, the team analyzes and visualizes relevant data and makes recommendations for full implementation of the triage screening and referral system.

#### NYU LANGONE ORTHOPEDIC HOSPITAL

SHIFTING PROCEDURES FROM INPATIENT TO OUTPATIENT SITES

#### **FACULTY:**

Rain Henderson

#### TEAM:

Zaina Chaudhry Tamara Kahan Jennifer Oh Kelsev Pendleton-Moreno Astrid Pineda

The Department of Orthopedic Surgery at the NYU Langone Orthopedic Hospital conducts thousands of procedures annually, ranging from adult reconstructive surgery to surgical oncology. The Department enlisted a Capstone team to assist in its aim to provide outstanding patient care and maximize financial performance, while adjusting to changes to the Centers for Medicare and Medicaid Services inpatient-only list. The team conducted on-site visits of various NYU Langone campuses and analyzed operating room utilization data and financial data. Using evidence-based guidelines and practices, the team identified procedures that can be moved from inpatient sites to ambulatory care sites to increase revenue and operating room utilization. In its final report, the team identifies high volume procedures that can be safely performed in outpatient settings where patients are discharged the same day as the procedure. In addition, the team considers the financial ramifications of moving procedures to outpatient settings, and the impact on quality and patient safety.



# SIMULATION IN HEALTHCARE MANAGEMENT AND FINANCE

#### PRIMARY CARE PHYSICIAN SHORTAGE

PRIMARY CARE AND ITS IMPACT ON POPULATION HEALTH

#### **FACULTY:**

Brian David

#### TEAM:

Kirsten Schardt Theresa Sheen Kalliope Vourakis There has been a consistent decline in the number of physicians pursuing the field of primary care. Because a wide variety of research highlights the importance of early intervention for health outcomes, a Capstone team investigated the relationship between primary care physicians (PCPs) and their effect on population health. The team conducted a comprehensive literature review analyzing the root causes of the declining number of PCPs, considering the involvement of social determinants of health, and examining anecdotal case studies. Based on its findings, the team assessed the degree to which over-utilization of specialists and emergency rooms interrelates with poorer patient health outcomes. The team's recommendations included expanding access to telehealth, incentivizing PCPs to form quality relationships with patients, and implementing measures that allow various health institutions to track population health outcomes.

#### NURSING SHORTAGE IN THE UNITED STATES

EXAMINING THE US NURSING SHORTAGE: CAUSES, IMPLICATIONS, AND POSSIBLE SOLUTIONS

#### **FACULTY:**

Brian David

#### TEAM:

Selene Castrucci Rebecca Gevertz Nneka Moneme Joe Wilhelm

The US continues to face a nursing shortage that was first recognized in 1998, and widely exacerbated by the Covid-19 pandemic, which has driven nursing school graduates to shift careers and active nurses to retire earlier than expected. The team conducted a literature review outlining the factors that are most responsible for the current nursing shortage and reviewing the repercussions of the shortage. The team found that burnout, low pay, a lack of educational programs, an aging nursing population, and a growing advanced practice provider workforce all contribute to the low supply of nurses, and that an aging population, more chronic illness, and a need for more highly-trained nurses all contribute to the increased demand for nurses. Based on its findings, the team recommends the following measures: 1) addressing the shortage during the recruitment phase, 2) expanding access to, and advisement provided by, Bachelor of Nursing programs, and 3) offering financial incentives for entering the nursing profession. The team further recommends that efforts to retain existing nurses should include increasing the number of nurse residency and mentorship programs, improving nurse leadership, addressing burnout, and providing financial incentives to practicing nurses.



#### **URBAN PLANNING**

#### **BROOKLYN COMMUNITY BOARD 17**

ANTI-DISPLACEMENT AND COMMUNITY OWNERSHIP STRATEGIES FOR FAST FLATBUSH

#### **FACULTY:**

Jennifer Gravel

#### TEAM:

Jordyn Battle Madelaine Britt Sarah Internicola Luke Walsh Brooklyn Community Board 17 (CB17) is working with Brooklyn Level Up (BKLVLUP), a community development corporation and community land trust, to preserve homeownership and prevent displacement in East Flatbush. The client engaged the Capstone team to analyze existing conditions in the neighborhood, including demographics, land use and zoning, existing housing stock, and recent development. The team also researched potential engagement strategies and reviewed case studies of strategies used to prevent displacement and maintain housing affordability in neighborhoods facing similar issues. Based on its findings, the team provided recommendations, including both zoning and nonzoning strategies, to improve access to stable homeownership and affordable rental housing, as well as specific engagement strategies for CB17 and BKLVLUP to utilize as they continue working toward a neighborhood rezoning and a more stable, equitable East Flatbush.

#### **CITY OF JERSEY CITY**

GREENWAY CONNECTIVITY PLAN

#### **FACULTY:**

Sarah Kaufman

#### TEAM:

Kyle Beyer Benjamin Listman Gav Mazurek Dominic Sonkowsky Jesika Tixi

The Jersey City Department of Infrastructure, Division of Transportation Planning (DTP) oversees the planning and development of a well-functioning and safe transportation system. Jersey City's 2019 Let's Ride JC Bicycle Master Plan called for more than 20 miles of shared-use bike and pedestrian paths ("greenways") but did not consider how those greenways would connect to each other and to Jersey City sidewalks, bike lanes, and parks. To close the gap, DTP engaged the Capstone team to evaluate and recommend potential greenway connections. The team gained a thorough understanding of the context of Jersey City's planned and existing greenways through a scan of existing conditions and prior greenway plans, and through public engagement that included key stakeholder interviews, a community survey, and two public workshops. The team also gleaned greenway planning best practices through a comprehensive literature review and greenway case study analysis. These research efforts allowed the team to create a scoring tool to evaluate proposed connections and recommend priority projects, informing the Jersey City Greenway Connectivity Plan.

#### CITY OF PASCO, WASHINGTON

PREVENTING DISPLACEMENT AND ADDRESSING RACIALLY DISPARATE IMPACTS IN PASCO

#### **FACULTY:**

Michael Keane

#### TEAM:

Lucia Marquez-Reagan Douglas Pardella Daniel Russo Alexander Yamron Karen Yao

Pasco is a small city in eastern Washington with a majority Hispanic population where housing production has lagged behind rapid population growth. Lower-income households in Pasco have been disproportionately affected by displacement, overcrowding, and lack of housing options. Rents have risen to unaffordable levels while new large-lot single-family home construction does not meet the existing housing need. In response to this crisis, Pasco's Community and Economic Development Department engaged a Capstone team to develop strategies to prevent, minimize, and mitigate displacement, determine how to remediate policies with racially disparate impacts, and identify additional housing funding or financing strategies to leverage existing funding. The team conducted extensive research on nationwide and global approaches and interviewed key stakeholders to inform its policy recommendations, which will be incorporated into Pasco's Housing Action Plan and 2026 Comprehensive Plan to guide the future of Pasco's housing policy.

## **GROUNDED SOLUTIONS NETWORK**

STREAMLINING SHARED EQUITY FEASIBILITY ASSESSMENTS

#### **FACULTY:**

Jennifer Gravel

#### TEAM:

Jackie Bein Sivan Bentt-Bruce Winnie Shen Grounded Solutions Network is a nonprofit that works to cultivate equitable communities by advancing long-term affordable housing solutions, and it supports a national membership base of organizations actively engaged in furthering shared equity homeownership. Grounded Solutions provides technical assistance services to a range of clients—such as community-based organizations, foundations, and municipalities—to facilitate the development of new shared equity projects such as community land trusts. Given that Grounded Solution's membership is national in scope, members face differing political and financial challenges in their shared equity work. The Capstone team collaborated with Grounded Solutions to streamline the organization's approach to conducting feasibility assessments. Through workshopping sessions with Grounded Solutions, the team identified key challenge areas that its members encounter and refined those categories based on findings from shared equity literature and feedback received from stakeholder interviews. In culmination, the team produced a toolkit consisting of a guidebook and an interactive data explorer tool.

## **MANHATTAN COMMUNITY BOARD 4**

PROMOTING ACCESS AND CONNECTIVITY ALONG THE FAR WEST SIDE

#### **FACULTY:**

Michael Keane

#### TEAM:

Christina Curry Michelle Geck Shuangtu Jia Camille MacLean Manhattan Community Board 4 (MCB4) commissioned a Capstone Team to explore strategies for improving connectivity and accessibility to the Far West Side (defined as 14th Street to 59th Street, West of 11th Avenue, Manhattan). The team joined MCB4 stakeholders on four site visits comprising the study area, led five focus groups composed of residents, real estate professionals, and government and community-based organization (CBO) leaders, and conducted landscape analyses using publicly available qualitative and quantitative data. The team identified three key focus areas on the Far West Side with either a unique challenge or unrealized potential to better promote access and connection. In addition, the team provided study area-wide recommendations to help MCB4 shape its future policy agenda and guide subsequent planning initiatives to increase inclusivity, safety, and accessibility along the Far West Side.

# NEW YORK CITY DEPARTMENT OF TRANSPORTATION

IMPROVING PAVEMENT MARKING REFURBISHMENT IN BROOKLYN

#### **FACULTY:**

Sarah Kaufman

#### TEAM:

Alex Bernabe D'Shandi Coombs Jed Higdon Tubagus Ghifari Al Chusaeri Wardana The New York City Department of Transportation (NYC DOT) is responsible for installing and maintaining over 200 million linear feet of pavement markings, which are used on paved roadways to direct and inform drivers and pedestrians, and ensuring that the pavement markings are in a state of good repair in order to maintain the safe. efficient, and environmentally responsible transportation of people and goods. NYC DOT utilizes a predictive model to identify, inspect, and refurbish worn markings on a subset of city streets. Currently, only 70 percent of locations predicted to be worn are ready for refurbishment, and 14 percent of the agency's refurbishment work is done on locations not predicted to be worn. NYC DOT tasked the Capstone team with improving the predictive model with refined criteria to increase its accuracy and efficiency in Brooklyn. The Capstone team recommended refining current factors, such as using the paint application month, instead of year, of previous markings, and adding potential new factors including snow plow use, street flooding, concentrations of construction sites, and environmental factors.

# NEW YORK CITY MANUFACTURING AND INDUSTRIAL INNOVATION COUNCIL

SUPPORTING THE WORKFORCE IN THE TRANSITION TO ELECTRIC VEHICLE FLEETS

#### **FACULTY:**

Jennifer Gravel

#### TEAM:

Mira Atherton Renata Hegyi-Hoeger Maisie Jarrell Eliza Perkins Jacqueline Sharry The NYC Manufacturing and Industrial Innovation Council (MaiiC) is a mayoral industry partnership that supports local manufacturing and industrial sectors. As federal, state, and local policies increasingly focus on mandating and incentivizing the conversion of public and private vehicle fleets to zero-emission vehicles, more than 300,000 New Yorkers who work on vehicle infrastructure installation, integration, operation, and maintenance stand to be profoundly impacted by these changes. In an effort to preempt workforce-related barriers to meeting these ambitious goals, MaiiC engaged the Capstone team to report on electric medium- and heavy-duty vehicle trends and potential disruptions, and to recommend how to prepare the workforce for an electric future. Based on current literature, site visits, and stakeholder interviews and surveys, the team recommended that MaiiC focus on the following measures: growing recruitment and training efforts, strengthening existing workforce development programs, developing partnerships and resources for businesses, and advocating for industry regulations and standards.

## OONEE

## CREATING A NETWORK DEVELOPMENT FRAMEWORK FOR EXPANSION PLANNING

#### **FACULTY:**

Sarah Kaufman

#### TEAM:

Jerrell Gray Evan Mancini J.R. Reed Patrick Spauster Oonee is a New York-based company that provides cities with a turnkey solution to the problem of bike theft by designing, financing, deploying, and managing modular bike parking facilities. To aid in its mission to build secure, affordable public bike parking networks at scale, Oonee engaged a Capstone team to 1) learn more about its users and the communities in which it operates and 2) research best practices around building a bike parking network. To tackle these questions, the team studied the existing conditions around Oonee's existing pods and researched other bike parking models. The team conducted user- and community-level outreach—interviewing Oonee users and potential users, stakeholders such as community board members and advocacy organizations, and businesses located near current and past pod locations. The team developed a network siting recommendation tool that will fill crucial information gaps for Oonee, serve as a template for expansion planning, and ultimately allow the organization to advance its mission.

## WELLS FARGO FOUNDATION

LEVERAGING PHILANTHROPY TO ADVANCE ANTI-DISCRIMINATION EFFORTS IN RENTAL HOUSING

#### **FACULTY:**

Michael Keane

#### TEAM:

Aisha Balogun Sunny Velez Viviana Vizcaino Jessa Wang It has been 55 years since the passage of the Fair Housing Act, yet housing discrimination continues to impact people of color disproportionately. The Wells Fargo Foundation tasked the Capstone team with designing a grantmaking strategy to advance anti-discrimination efforts in the rental market. To do this, the team interviewed professionals working on fair housing issues—including fair housing testers, sociologists, economists, housing litigators, and advocates—to understand the current state of the field. Concurrently, the team undertook a literature review to understand the specific mechanisms through which housing discrimination can occur. The results of these efforts led to an evaluation of the different ways discrimination takes place throughout six phases of the housing procurement process. Ultimately, the team crafted an informed and targeted grantmaking strategy with recommendations that focus on increasing equity and access to information about available housing units, proactively addressing tenant screening systems that perpetuate disparate impact, and enhancing housing discrimination enforcement.



## INTERNATIONAL DEVELOPMENT

## BAN KI-MOON CENTRE FOR GLOBAL CITIZENS

INCREASING IMPACT BY IDENTIFYING FUNDING OPPORTUNITIES FOR KEY INTERNATIONAL ISSUES

#### **FACULTY:**

Anna Levy

#### **TEAM:**

Francis Cáceres Sueun Hong Liana Schmidt Camille Veneracion The Ban Ki-moon Centre for Global Citizens (BKMC) is committed to promoting human dignity and protecting the planet. With support from corporate funding, BKMC highlights international issues in the areas of climate and sustainability, public health, and gender equity. through the lens of social entrepreneurship and youth development. BKMC enlisted a Capstone team to conduct a literature review, research potential funders, and interview key experts, including a climate change nonprofit representative and a corporate social responsibility expert. Preliminary findings presented key funding opportunities as well as challenges within particular issue areas. The team's final report highlights the programmatic and funding landscape within the Americas, assesses how BKMC can respond to these challenges using intersectional approaches, and includes recommendations on potential funding partnerships with corporate and nonprofit organizations that operate within intersectional areas of interest.

### **CDP**

#### **DEFORESTATION DATA VISUALIZATION**

#### **FACULTY:**

Anna Levv

#### TEAM:

Boshan Chen Jemma Giberson Hannah Larson Catherine Lopez CDP, formerly known as the Carbon Disclosure Project, is a nonprofit organization that manages the global disclosure system that companies and cities use to manage their environmental impacts. CDP tasked a Capstone team with transforming data from its deforestation disclosure questionnaire supplied by public and private sector actors into a dynamic data visualization tool. The team explored climate initiatives at various companies to determine if those activities constitute landscape and jurisdictional approaches-defined as collaborative efforts by stakeholders with a common goal of sustainability to optimize resource use, in order to ensure an equitable distribution of benefits and the preservation of natural resources. The team produced a data visualization tool for the client that will be housed on the CDP website. This tool will serve as a resource for various stakeholders with aligned interests in sustainability, and will help identify partners for similar initiatives.

## **EK KADAM AUR**

SCALING THE ARUNODAYA ("SUNSHINE FOR THE BLIND") PROGRAM

#### **FACULTY:**

Anna Levy

#### **TEAM:**

Devynn Barnes Angelica Gualpa Fatema Husain Ahram Hwang Ek Kadam Aur (EKA) is a nonprofit organization that works with blind children and their families and schools in the states of Chandigarh and Uttar Pradesh, India to remove barriers to their attainment of quality education. In 2020, the Government of India required public schools to adapt their curricula and delivery methods to be inclusive of all children with disabilities, which poses significant challenges to resource-constrained systems, EKA engaged a Capstone team with the goal of reaching more blind students who are in need of education programming. During its 10-day fieldwork in Auraiya, Uttar Pradesh, the team observed EKA's Arunodaya (or "Sunshine for the Blind") program and the contextual dynamics affecting its participants. The team described its findings in a SWOT analysis, which drew on its observations, stakeholder interviews—with students, trainers, teachers, parents, and EKA staff members-literature review, and comparative analysis of similar programs. The team's final report provided recommendations for strengthening and scaling the Arunodaya program, and offers tools for future impact evaluations.

## **INSTITUT PASTEUR**

CAPITAL CAMPAIGN STRATEGY FOR PANDEMIC PREPAREDNESS

#### **FACULTY:**

Anna Levv

#### TEAM:

Yeseul Lim Jan Osea Eshrat Oyeshee The Institut Pasteur is a private, nonprofit foundation and internationally renowned center for biomedical research with a worldwide member network and 135-year history dedicated to studying infectious diseases. The client launched its "Pandemic Preparedness" capital campaign in 2022, with the main goal of building a new Center for Infectious Emerging Disease Research and a global surveillance system. In order to access this new market effectively, the Institut Pasteur enlisted a Capstone team to assist in its plans to expand the regional scope of its fundraising for this campaign to the United States. The team analyzed the characteristics of the fundraising landscape for emerging infectious diseases in the US and produced a final report identifying the strengths and weaknesses of the new center, along with environmental opportunities, threats, and strategies.

## INTER-AMERICAN DEVELOPMENT BANK

ANALYZING OPPORTUNITIES TO LEVERAGE UNDERUTILIZED PUBLIC ASSETS FOR LOCAL ECONOMIC DEVELOPMENT IN THE DOMINICAN REPUBLIC

#### **FACULTY:**

Paul Smoke

#### **TEAM:**

Lenny Cabral Juan Junca Neira Andrew Paraiso The Inter-American Development Bank (IDB) is an international financial institution serving as the largest source of development financing for Latin America and the Caribbean. The government of the Dominican Republic approached the IDB to explore strategies to monetize existing public assets while attracting private investments and supporting local job creation. To support this work, the IDB tasked a Capstone team to develop a standardized analysis framework to evaluate potential opportunities for leveraging public real estate assets in order to deliver economic impact and financial returns for the public sector. Through a case study methodology, the team conducted a "highest and best use" real estate analysis for selected property and determined opportunities for asset repurposing that delivers both financial returns and economic impact through urban regeneration. The team's final deliverables comprise a business case with a financial model, procurement alternatives, and potential financing structures.

## LOCAL PUBLIC SECTOR ALLIANCE

ASSESSING THE STATE OF SUBNATIONAL GOVERNANCE INSTITUTIONS IN ASIA

#### **FACULTY:**

Paul Smoke

#### TEAM:

Sandon Mims Angelica Zundel The Local Public Sector Alliance (LPSA) is a nonprofit organization seeking to promote inclusive, equitable societies by enriching the understanding of decentralization and localization as complex, cross-cutting, and multi-stakeholder reforms. To advance this work, LPSA engaged a Capstone team to perform a regional analysis on the empowerment of subnational governance institutions in South and East Asia. The team utilized the Local Governance Institutions Comparative Assessment (LoGICA) framework—an assessment tool that analyzes a country's multilevel governance structure, subnational institutions, and intergovernmental systems contributing to inclusive governance, effective public service delivery, and sustainable localized development. The team conducted fieldwork in Bangladesh to compare the country's de facto versus de jure multi-level governance system, and worked with local counterparts to prepare an in-depth assessment of the country's subnational governance institutions. The team's final report includes a regional analysis that draws upon desk research and interviews with country experts, to be distributed among LPSA's professional network.

## LOCAL PUBLIC SECTOR ALLIANCE

ASSESSING THE EMPOWERMENT OF SUBNATIONAL GOVERNANCE INSTITUTIONS IN ASIA

#### **FACULTY:**

Paul Smoke

#### TEAM:

Michael Carrady Nicole Eason Alondra Payan Mejia The Local Public Sector Alliance (LPSA) is a nonprofit organization seeking to promote inclusive, equitable societies by enriching the understanding of decentralization and localization as complex, cross-cutting, and multi-stakeholder reforms. LPSA elevates the debate on public sector decentralization and localization by maintaining a global platform for policymakers and researchers interested in decentralization. LPSA engaged a Capstone team to perform a regional analysis on the empowerment of subnational governance institutions in South and East Asia, in order to advance the global state of knowledge on subnational governance in the region. The team utilized the Local Governance Institutions Comparative Assessment (LoGICA) framework and conducted fieldwork in India, working with local counterparts to assess the status of urban and rural governance institutions within three Indian states: Kerala, Jharkhand, and Maharastra. Based on its inter-country research, the team produced a detailed case study of the status of decentralization in India, highlighting variance between states. The final report incorporates the team's research and interviews with country experts and includes a regional analysis to be distributed among LPSA's professional network.

### ODI

#### ENHANCING URBAN WATER FINANCING AND DELIVERY IN ACCRA, GHANA

### FACULTY:

Paul Smoke

#### TEAM:

Clara Ceravolo Aditi Sharma ODI, formerly known as the Overseas Development Institute, is Britain's leading independent think tank on international development and humanitarian issues. The ODI Development and Public Finance program covers research on public finance and financial management, with an increasing focus on how best to support delivery of public services. ODI commissioned a Capstone team to explore urban water provision and financing in Accra, Ghana. The team conducted field interviews with key stakeholders, including ministries, the Ghana Water Company, civil society organizations, informal actors, and private agencies. Building on its literature review and field findings, the team prepared a set of deliverables exploring the interplay of private and public sectors in closing the demand gap for water supply—including a blog post, presentation, and policy brief—and provided recommendations to improve the financing and management of water service delivery.

## UNITED NATIONS DEVELOPMENT PROGRAMME

INCORPORATING A SOCIAL COMPENSATION MODEL IN ENVIRONMENTAL ADAPTATION PROJECTS

#### **FACULTY:**

Paul Smoke

#### TEAM:

Melody Feo Sverko Lauren Green Jack Greenwood Cristina Mejia Cancelado The United Nations Development Programme (UNDP) is supporting the construction of a coastal protection border in the District of Cartagena, Colombia. The project aims to increase coastal protection by building maritime hydraulic infrastructure that will adapt to rising sea levels by decreasing the risk of flooding. UNDP engaged a Capstone team to assist with executing the project's social impact compensation model, one of the first developed as part of an environmental adaptation project, for beach vendors and fishermen who have been impacted by project construction. The team conducted interviews with beneficiaries of the program, UNDP staff, and Cartagena public officials to evaluate the project's successes and opportunities for improvement. The team found that including a social scope in climate adaptation projects is beneficial for overall project success and can generate spillover effects in the community. As part of its final report, the team generated a methodological guide for implementing compensation models in future environmental adaptation projects.

## UNITED NATIONS CAPITAL DEVELOPMENT FUND

MUNICIPAL FINANCE STRATEGIES FOR INDONESIA'S WASTE MANAGEMENT SECTOR

#### **FACULTY:**

Paul Smoke

#### TEAM:

Mark Gentile Spandana Suddapalli Sai Vichare The United Nations Capital Development Fund (UNCDF) acts as a hybrid development organization and finance institution that works to invest in and catalyze capital for projects in developing countries. As part of its efforts to incorporate municipal finance strategies that promote public and private funding to deliver sustainable public services, UNCDF enlisted a Capstone team to develop a municipal finance strategy to fund green city solutions for a waste management system in the Indonesian regency of Banyuwangi. The team conducted a literature review on global best practices for municipal financing, current Indonesian regulations, and fiscal systems related to project financing and waste management practices. The team also conducted interviews with private sector representatives and national and local government agencies to identify gaps and opportunities for locally financing waste management projects. Using this information, the team designed a financial strategy and created a presentation to be used at UNCDF donor meetings and conferences.

# UNITED NATIONS CAPITAL DEVELOPMENT FUND

IDENTIFYING INNOVATIVE FINANCE SOLUTIONS FOR SERVICE DELIVERY IN MOROCCO

#### **FACULTY:**

Paul Smoke

#### TEAM:

Bethelehem Araya Alejandra Gonzalez-Ariza Sophia Klein The United Nations Capital Development Fund (UNCDF) innovates financial solutions to empower local governments in the leastdeveloped countries to increase dedicated budgetary space and resources for programs that improve lives. UNCDF's West Africa team engaged a Capstone team to identify ways to better finance service delivery within Morocco's public finance architecture. The team focused on public lighting infrastructure—an expensive budget item for municipalities—and identified an initiative to cut expenses in half. The Capstone team traveled to Morocco to interview stakeholders at the regional and national levels to refine its analysis. The team proposed the introduction of a revolving loan fund to finance upfront investment in energy-efficient public light systems, with repayment being made through cost savings realized from energy savings. The team recommended application of this approach in Morocco's Oriental Region as a scalable model to implement a revolving fund for infrastructure development, furthering the client's mission to find local solutions to local service delivery gaps.

## **WORLD BANK**

#### ANALYZING CLIMATE CHANGE GOVERNANCE AND POLICY IN CAMBODIA

#### **FACULTY:**

Paul Smoke

#### TEAM:

Katherine Dunn Phil Kehoe Lars van de Boer The World Bank's Governance Global Practice supports client countries by helping them build capable, efficient, transparent, inclusive, and accountable institutions with the aim of eradicating extreme poverty and boosting shared prosperity. Cambodia is both a client country and a party to the United Nations Framework Convention on Climate Change that requires signatory countries to develop a plan outlining their climate change mitigation and adaptation policies. The World Bank enlisted a Capstone team to apply its Climate Change Institutional Assessment diagnostic framework to assess Cambodia's center-of-government agencies responsible for policy, planning, and finance, and inter-ministerial climate change bodies. The team conducted a literature review and interviewed key stakeholders in Phnom Penh across government, civil society, and multilateral organizations. The team produced a final report detailing current climate policy instruments and recommendations for more effective institutions, which will inform the World Bank's Country Climate and Development Report.

### WORLD BANK

#### CLIMATE CHANGE ACTION IN MOMBASA, KENYA

#### **FACULTY:**

Paul Smoke

#### TFAM:

Caroline Lawton Laura Macready Shelby Sparks

The World Bank's Social, Urban, Rural, and Resilience Global Practice works with partner countries to develop urbanization strategies that aim to reduce poverty while responding to climate change and promoting sustainable development. The Kenya Urban Support Program assists the government in implementing its Kenya Vision 2030 agenda with a particular focus on urban areas. The World Bank engaged the Capstone team to support the coastal city of Mombasa with its climate adaptation plan, specifically in improving its insufficiently developed and underperforming solid waste management system. The team conducted an analysis of existing national- and local-level legal frameworks pertaining to sustainability and climate change adaptation and mitigation strategies, identifying gaps in current solid waste management policies and their implementation. The team also interviewed key stakeholders, including government officials, industry experts, private sector actors, and community-based organizations. The team's final report documents the status of Mombasa's solid waste management system, assesses how it relates to national and local climate adaptation goals and frameworks, and outlines possible avenues for improvement.

## WORLD BANK

#### SUPPORTING ASSESSMENT OF THE TANZANIA COUNTRY PROGRAM

#### **FACULTY:**

Paul Smoke

#### TEAM:

Andrea Guerrero Kevin Irvina Cassidy McIntyre The World Bank's Independent Evaluation Group (IEG) provides objective assessments on the Bank's development projects and objectives. IEG enlisted a Capstone team to assess the impact of the Bank's development projects on resilient spatial transformation and land use in Tanzania. IEG and the team selected physical and social indicators—including road connectivity, transportation network enhancements, and building development in addition to available data on poverty levels, household income, GDP, malaria rates, and household roofs-and used these indicators to analyze the impacts of World Bank projects in Tanzania from 2012 to 2022. To understand the extent of the Bank's contribution to these indicators, the team pulled a list of projects and funding from 2012 to 2022 and compared it to current Landsat imagery and relevant socioeconomic factors. In addition, the team conducted interviews with Bank staff, government officials, and local individuals to gain an understanding of the reception of the Bank's programs over the ten-year study period. The team's final deliverable is a collection of reviews and analyses based on its research to inform the client's forthcoming evaluation report.



# RESEARCH IN QUANTITATIVE ANALYSIS

# EVICTION RATES AND RIGHT-TO-WORK STATUTES

EXPLORING MIDWESTERN LABOR LAWS AND HOUSING POLICY DURING THE GREAT RECOVERY

#### **FACULTY:**

Erilia Wu Eric Zhou

#### TEAM:

Sita Goetschius Monica Millay Joe Speer Jingyi Yuan Six states passed Right-to-Work (RTW) statutes between 2001 and 2017 that made it illegal for employers to require their workers to pay union dues. The team theorized that the loss of union benefits such as regular wage increases, health insurance, and job protection may have impacted workers' ability to pay rent. Since rent nonpayment is the leading cause of eviction filings, the passage of RTW statutes would be associated with an increased rate of filings. The team developed a difference-in-difference statistical model to determine if eviction filing rates changed after the passage of 21st century RTW laws. The model uses two-way fixed effects to control for location stability and time variation. The team found that RTW implementation does not have a significant impact on eviction rates in four of the states that implemented RTW in the 21st century, concluding that RTW statutes do not impact unionization rates enough to significantly alter eviction filing rates.

## IMMIGRANT DETENTION AND COURT OUTCOMES

ANALYZING THE IMPACT OF DETENTION ON DEPORTATION IN THE AMERICAN IMMIGRATION SYSTEM

#### **FACULTY:**

Frilia Wu Fric 7hou

#### TEAM:

Justin Campos Mu Chen Weiiian Pena Lvdia Ruddick-Schulman

The immigration detention system in the United States has continued to expand and evolve over the course of various administrations. The existing literature shows a consistent positive correlation between immigrant detention and deportation rates. The Capstone Team theorized that since detention makes it difficult to obtain representation and participate in the legal process, detention status affects legal outcomes. The Capstone Team explored whether an immigrant's detention status, in conjunction with their immigration bond amount, affects the outcome of an immigrant's removal case, even when controlling for representation. Using a public individual-level case library provided by the Executive Office of Immigration Review (EOIR), the team used immigration judge leniency as an instrumental variable for detention as measured by the differences in bonds granted by judges. After creating the instrument and conducting regression analysis, the team's preliminary findings support their hypothesis that detention may make immigrants more likely to be deported.

## NEW YORK CITY DEPARTMENT OF EDUCATION

AN ANALYSIS OF THE IMPACT OF A PHYSICAL EDUCATION PROGRAM ON SCHOOL CLIMATE

#### **FACULTY:**

Frilia Wu Fric 7hou

#### TEAM:

**Emily Finkelstein** Zivi Gu Michelle Henderson Tara Merigan

Physical Education (PE) Works was a New York City Department of Education (NYC DOE) initiative active from 2015 to 2019. The program sought to help all K-12 schools in Districts 1-32 meet NYS Physical Education requirements. This included operational and instructional support, as well as updated guidelines for PE best practices and benchmarks. The Capstone Team hypothesized that increasing the quality and quantity of PE instruction in schools has a positive impact on student achievement and school climate. The Team analyzed the impacts of the PE Works Initiative, filling a gap in the research literature by drawing a connection between PE, student behavior, and overall school climate. Due to the staggered, randomized rollout of the initiative, the team first utilized data from NYC Open Data and NYC DOE's archives to estimate causal impacts, and then analyzed data in a two-way fixed effects regression model to identify the overall treatment effect of the PE Works Initiative. The final report presents findings and conclusions, describing an initial examination of the causal impact of improved PE on student achievement and school climate, and offers suggestions for future research directions.

## **OPPORTUNITY ZONES**

OPPORTUNITY ZONES AND CRIME IN NYC

#### **FACULTY:**

Erilia Wu Eric Zhou

#### TEAM:

Adelaide Currin Jennah Gosciak Haowei Wang Yiping Zuo The Capstone Team used geographic regression discontinuity to understand the causal relationship between Opportunity Zone (OZ) designation and crime in New York City. The Team restricted its study to the effect of OZ designation on arrests and complaints for property and violent crime. In its final report, the Team reported its initial findings that suggest OZ designation has a limited effect on property and violent crime. In every quarter for two years after the policy change, a small and statistically insignificant difference occurs in property and violent crime arrests and complaints between census blocks in OZs and adjacent census blocks just outside OZs. However, when adjusted for seasonality, including fixed effects for the quarter when the crime incident occurred, the team observed a statistically significant pattern of increasing violent crime arrests and decreasing violent crime complaints inside OZs. However, the effect of OZ designation on violent crime complaints loses statistical significance in the second year and using the polynomial model. There is no such observable pattern for property crime arrests or complaints.

## SCHOOL REOPENINGS AND FINANCIAL DISTRESS

IMPACT OF SCHOOL REOPENINGS ON WORKING MOTHERS' FINANCIAL DISTRESS

#### **FACULTY:**

Erilia Wu Eric Zhou

#### TEAM:

Peijin Jiang Ronggo Kahar Yeji Lee Natalie Lewis-Vass School closures during the Covid-19 pandemic worsened employment outcomes for working mothers. Many working mothers decreased their total working hours in order to accommodate needed care, and childcare costs also increased. The Capstone team sought to investigate whether school reopenings-and the return of accessible childcare infrastructure—made a meaningful difference in the financial distress of working mothers. Using the Household Pulse Surveys from August 2020 to April 2021, the team used a difference-in-differences model and found that school reopenings did not have a statistically significant impact on the financial distress of working mothers. However, race, education, and income levels of working mothers were found to be statistically significantly correlated with the financial distress of working mothers during the Covid-19 pandemic. This has deep policy implications as it shows that an absence of childcare infrastructure can have a lasting impact on the financial distress of working mothers and that the impact may be worse for those with a lower socioeconomic status or those within racially marginalized communities.

## SUBWAY STATION RENOVATIONS AND HOUSEHOLD INCOME

THE EFFECT OF POST-SANDY NYC SUBWAY RENOVATIONS ON HOUSEHOLD INCOME

#### **FACULTY:**

Erilia Wu Eric Zhou

#### TEAM:

Yue Huang Elizabeth Miller Maggie Paruta Manuela Perez On October 29, 2012, Hurricane Sandy struck New York City for 48 hours straight. The storm caused an estimated \$19 billion in damage and negatively impacted economic activity in the city. The MTA suffered extensive damage, estimated at \$5 billion, forcing it to set aside approximately \$7.6 billion for Sandy-related projects. The Capstone team investigated whether the post-Sandy renovations in the New York City Subway System influenced median household income levels within a 0.25-mile radius of the renovated station. Based on existing research on the impact of public transportation, the team hypothesized that income levels in neighboring communities increased after the renovations were completed. Using two-way fixed effects to implement a difference-in-differences model that accounts for differences in treatment time, the preliminary findings confirmed the hypothesis.



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