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BERKELEY PUBLIC POLICY JOURNAL

RECOVERY & RESILIENCE

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EDITORS' NOTE

The year 2021 carries a special burden of hope and reform, as the world strives to recover from the COVID-19 pandemic as well as the trauma of the Trump years. The promise of the year is that vaccines are finally here and it is commendable that over 20 percent of adults in the United States have received a first dose of the vaccine, while the number of vaccinations administered worldwide has exceeded 400 million. President Biden's American Rescue Plan — a $1.9 trillion agenda — offers some degree of optimism as it aims to vaccinate 100 million Americans by mid April, send out $1,400 stimulus checks, and boost the country's family benefits by expanding the Child Tax Credit in a way that is predicted to significantly reduce child poverty in America.[1] Meanwhile, the United States has reentered the Paris Agreement on Climate Change and pledged to cut carbon emissions by 26 to 28 percent of its 2005 levels,[2] a long overdue measure as no other country in the world has emitted more carbon dioxide into the atmosphere since the industrial era began in the United States.

At the same time, we are at a juncture where we have inherited unprecedented liabilities that necessitate unprecedented policies. As we decry the shameful racist shootings in Atlanta that resulted in the death of eight people including six Asian women, we recognize the urgency of reforming gun policies and we condemn the President's avoidance of a conversation about gun reforms. While we appreciate the government's commitment to reverse many of Trump's regressive immigration reforms, we share the American Civil Liberties Union's concerns about its adequacy and believe that there is an immediate need to offer permanent legal status and restitution for all of the 5,500-plus families separated by the Trump administration.[3] Further, as we reimagine wealth inequality in the aftermath of the pandemic, it is important to address the role of housing policies in generating and perpetuating racial disparities historically — an issue this edition sheds light on. In this context, we acknowledge that the President's plan of turning the Housing Choice Voucher into an entitlement, while helpful to many rent-burdened families, is premised on inaccurate and overestimated values of Fair Market Rent, which could potentially lead to further economic and racial segregation.[4]

We introduce the Spring 2021 edition of the Berkeley Public Policy Journal with the hope to engage you in constructive analysis of critical policies at different levels of government, and propose a path towards a more equal society in the post-COVID era. We thank our authors and editors for their invaluable contributions to the journal, and we thank Professor Shelley Liu for sharing her insights on ethnic conflict and the fragility of democratic institutions.

Our journal begins with an analysis of food procurement and equitable community development in school lunches by Master of Public Health (MPH) student Roxana Rodriguez, Praxis Program Director Jenna Gaarde MPH, and Praxis Project Executive Director Xavier Morales PhD. Next, UC Berkeley MPH student Michael Abassian and Harvard MS student Lara Rostomian provide an overview of the primary healthcare system in Armenia and discuss the role of policy in strengthening the health system. Then, MPP student Hannah Phalen analyzes federal and California housing policies and argues how they sustain and exacerbate the racial and generational wealth gap. MPP-MS student Christina Ismailos discusses how California's green building regulations affect affordable housing development, followed by MPP student Randy Clopton who offers suggestions for effective data privacy management in local government. Finally, BPPJ editors Charlotte Aaron, Emily Clayton and Katherine Cohn interview Professor Shelley Liu on political violence and ethnic conflict. We are excited for you to read these articles and hope that the arguments and evidence presented can help inform your views about these crucial policy issues.

Lastly, this publication is the second and final edition from us as editors in chief. We are delighted to introduce you to Katherine Cohn and Laila Heid as the next editors in chief of the journal, who we are confident will do a wonderful job of leading it over the next year.

— **Reyna McKinnon & Sana Satpathy**

1. CNBC. 2021. https://www.cnbc.com/2021/01/23/how-bidens-covid-relief-plan-may-reduce-child-poverty.html

2. Washington Post. 2021. https://www.washingtonpost.com/climate-environment/2021/03/23/biden-paris-climate-pledge/

3. ACLU. https://action.aclu.org/petition/reunite-separated-families-and-provide-relief-now

4. People's Policy Project. 2020. https://www.peoplespolicyproject.org/2020/08/25/the-good-and-bad-of-joe-bidens-housing-plan/

BERKELEY PUBLIC POLICY JOURNAL

SPRING 2021

FOOD PROCUREMENT & EQUITABLE COMMUNITY DEVELOPMENT IN SCHOOL LUNCHES

by Roxana Rodriguez, Jenna Gaarde, & Xavier Morales

FOOD PROCUREMENT & EQUITABLE COMMUNITY DEVELOPMENT IN SCHOOL LUNCHES

ROXANA RODRIGUEZ, JENNA GAARDE & XAVIER MORALES

Edited by: Dylan Crary & Laila Heid

Nutritional and budget considerations drive many of the choices school districts make regarding what food is served in schools. School food is important because it advances student nutrition, but obtaining this food at a cheap cost comes at the expense of communities, food chain workers, and the environment. We argue that how food is produced, processed, and distributed matters in what counts as healthy food. The problem is that a majority of schools do not partner with food producers proximal to their communities in both location and values. Procurement policies, or the guidelines schools use to decide the products that fill cafeterias, offer an opportunity to advance equity in food sourcing practices. K-12 institutions can apply equitable food sourcing approaches to look upstream and put food at the center of community wellness. Providing access to nutritious food in K-12 institutions that is sourced in alignment with the values of food justice* and racial equity* can promote overall health and well-being for students and communities. In this article, we highlight how procurement policies in K-12 institutions can advance health, justice, sustainability, equity, and community power..

INTRODUCTION

Food served in schools is not only important to individual student health, but it also affects community health throughout the entire food system. Schools find it difficult to purchase from smaller, local farms because large farms offer lower prices and rebates due to economies of scale. Extensive research documents how institutional racism prevents Black, Indigenous, and people of color (BIPOC) from participating in large-scale agriculture business, in addition to the ways large-scale agriculture perpetuates racism.[3,4,5] This creates inequity in the food system where large corporate farms have a considerable advantage. A much broader consideration of nutrition

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*Food justice, as defined by is the HEAL Food Alliance is "achieved when all people and all communities should have the right and the means to produce, procure, prepare, share, and eat food that is nutritionally and culturally appropriate, free from exploitation of themselves and any other people, and to be in their full power in harmony with the rest of the natural world.[1]

*Racial equity, as defined by the Center for Social Inclusion is "...both an outcome and a process. As an outcome, we achieve racial equity when race no longer determines one's socioeconomic outcomes; when everyone has what they need to thrive, no matter where they live. As a process, we apply racial equity when those most impacted by structural racial inequity are meaningfully involved in the creation and implementation of the institutional policies and practices that impact their lives."[2]

and how it intersects with the health of individuals, communities, and the ecosystems that sustain us is needed to ensure equitable food system development throughout the entire supply chain (the sequence involved in the distribution of food goods).

In order to level the playing field, procurement policies could allow for equity focused-procurement to have an added value in the bidding process. The billions of dollars school districts spend on food purchases can lead the movement for food systems change by expressing their community's values. A school district can set the procurement (the process of sourcing and buying food) criteria to encompass a holistic range of quality metrics, such as geographic preference for local foods. Market-based mechanisms may be able to effectively reorganize school lunch food purchasing to promote social justice, equity, and sustainability. This paper discusses case studies of school food procurement policies that promote these values.

School food is important for all students, and especially for those affected by health disparities caused by structural inequities. The current structure of school food systems can perpetuate those disparities, as described in this article's section **The Role of the National School Lunch Program**. To eliminate the structural effects of favoring low-cost foods and labor, the **Environmental Nutrition Approach** section details how we need to address the systems within which food security and nutrition are addressed. Values-Based Procurement has the potential to change food and agriculture practices by leveraging the demand for foods that are produced according to a set of identified values. We see current examples of these in the Case Studies section

and collect a set of **Policy Change** recommendations to move the work forward.

THE ROLE OF THE NATIONAL SCHOOL LUNCH PROGRAM

The National School Lunch Program (NSLP) served an estimated 4.9 billion meals in 2019, the majority of which (74.1 percent) were provided free or at reduced cost in public and nonprofit schools across the United States.[6] Research shows that school breakfast and lunch programs are effective in alleviating food insecurity and poverty, supporting good nutrition, and improving health and learning.[7] School food availability has a positive influence on individual student health, school performance, and graduation rates, as well as on the broader communities that interact with those schools, foods, and students.[8]

Funding limitations impact the NSLP's ability to prioritize dietary guidelines and sourcing practices that center equity. These practices include goals to improve environmental sustainability, racial equity, and healthy eating. In addition to providing more funding for school lunches and cafeterias, the definition of healthy food needs to consider health disparities present throughout the entire food system, and opportunities for equitable processes.

SCHOOL FOOD PURCHASING POWER

School district meal programs buy more than $6 billion of food per year and receive more than an additional $1 billion in donated commodities from the federal government.[9] Public tax dollars spent on food leave the local region when NSLP contracts are centralized to large food service management companies. Through their

purchasing power, schools have a stake in shifting the food system towards health, justice, sustainability, equity, and community power. Schools have the potential to change food and agriculture practices by leveraging their demands for foods that are produced according to a set of values.

> "Through their purchasing power, schools have a stake in shifting the food system towards health, justice, sustainability, equity, and community power."

INEQUITABLE LABOR AND BUSINESS CONDITIONS UNADDRESSED BY NSLP

The NSLP pricing and budget has created an environment that favors low-cost food and labor sourcing.[10] Schools with limited budgets often cannot supplement the NSLP average reimbursement rate for each lunch (about $3.50), which may barely cover the cost of ingredients.[11] This compounds disparities in the school food environment.

- Kitchen Capacity: Schools located in neighborhoods with greater concentrations of poverty, which also correlate with greater populations of students of color,[12] may not have necessary funds to maintain the infrastructure required to cook whole foods on site. Meanwhile, schools in higher income neighborhoods often purchase the equipment needed for all aspects of food service, particularly for receiving, storing, and preparing fresh produce.[13] Data from the Pew Charitable Trust reveal that differences in the costs of needed kitchen equipment vary by school region and poverty category, with high-poverty and urban schools needing most equipment (see table below). As a result, poorer districts, especially those in rural areas, must resort to outsourcing to food service management giants and contracting with industries to provide meals and beverages to their students.[14] Majority- Black or majority-Latino schools have been less likely

Table 1. Estimated Cost of Equipment Needed Per School by School Food Authority Characteristics (Kitchen)

Poverty Category	Mean Cost Per School
Low (fewer than 40%)	$65,105
Intermediate (40-60%)	$61,638
High (more than 60%)	$65,470

Community Type	Mean Cost Per School
Urban	$87,743
Suburban	$64,358
Rural	$80,891

Source: Kitchen Infrastructure and Training for Schools Survey, 2012 © 2013 The Pew Charitable Trusts

to offer fresh fruit than predominantly white schools.[15]

- School Nutrition Labor: Preparing more nutritious food can also increase cafeteria staff workload.[16] School cafeteria workers are among the lowest paid public sector workers, with low incomes pushing over one third of them to participate in at least one public assistance program to alleviate their own food insecurity or poverty.[17] The increased staff workload that comes with preparing more nutritious food may disproportionately affect womxn cafeteria staff of color.[18] School cafeteria workers are 93 percent female compared to the workforce force as a whole. Thirty percent are in families with incomes below twice the federal poverty line.

"One third of [school food workers] participate in at least one public assistance program to alleviate their own food insecurity or poverty."

- Food Source Infrastructure: The time-consuming administrative work that comes with handling federal reimbursements and following nutritional requirements falls on individual school food authorities. One way to reduce the labor and food budget involved in this process is to partner with third party food service management companies. These companies take charge of food procurement, preparation, menu development, price negotiation with food suppliers, and even staffing. The influence of the industrial food system has increased the number of school contracts by partnering with these foodservice management companies.[19]

The foodservice company Aramark partnered with more than 380 school districts nationwide in 2015,[20] but was also one of the nation's lowest paying companies.[21] Contracts with these for-profit companies and large-scale agricultural corporations outcompete smaller, local, and more sustainable producers.[22]

School food must prioritize racial justice at all levels through ethical sourcing, just labor practices in alignment with migrant justice and equitable access to foods. Sourcing in alignment with the values of health, justice, sustainability, equity, and community power ensures that school nutrition programs do not perpetuate systems of inequity, but instead support healthy students and communities.

THE ENVIRONMENTAL NUTRITION APPROACH

In order to eliminate the effects of favoring low-cost foods and labor, it is necessary for the NSLP to employ an environmental approach that includes rethinking the sourcing practices of foods served in K-12 institutions with a broader approach to nutrition. While the NSLP cannot address the structural inequities that produce inequity in the first place, it can reshape the school food landscape to create broader impacts.

Environmental nutrition examines the public health impacts of social, economic, and environmental factors related to the entire food system.[23] While a traditional nutrition approach asks how much Vita-

min C and other nutrients are in an apple, environmental nutrition asks a broader set of questions, such as whether the apple was grown with toxic pesticides, whether the workers who grew it were treated justly, and which communities had access to purchasing it.[24]

The problem is that a majority of schools do not partner with food producers proximal to their communities in both location and values. Instead, they supply their food from the aforementioned third-party food suppliers and industrial agriculture. Overall, the effects of cost-cutting impacts health across the fields, factories, and warehouses that form the supply chain of the NSLP. Industrial large-scale agriculture has harmful human health impacts, from pesticide poisonings to instances of drinking water becoming contaminated from animal waste or pesticide runoff.[25] Many of the most severe health impacts of food systems trace back to core industrial food and farming practices.[26] The adverse health impacts associated with the industrialized food system are not evenly distributed. They disproportionately affect farm workers, rural communities, and low-income BIPOC.[27] Poor working conditions, below average wages, and discriminatory and abusive practices are all commonplace across the food chain including inability to access health insurance and quality healthcare.[28]

> "Environmental nutrition asks a broader set of questions, such as whether the apple was grown with toxic pesticides, whether the workers who grew it were treated justly, and which communities had access to purchasing it."

Grassroots organizers take a stand against these conditions to advance healthy food access through an environmental nutrition approach. They demonstrate that institutional racism, in its intersections with economic inequality, has removed BIPOC from local food sovereignty — preventing many from growing, eating, and accessing nutritious food even within the NSLP.[29] For example, discriminatory housing policies have pushed BIPOC to neighborhoods with weak retail climates and a surplus of low-wage labor, both of which can lead to the proliferation of fast food. Schools in these neighborhoods may also lack the infrastructure to prepare healthier foods.

There are a number of organizations challenging these circumstances to reshape environmental nutrition for their communities. For instance, the Detroit-based organization Black Community Food Security Network provides both food access and political education so members can "respond most specifically to the ways that the food system reflects powers of oppression that ultimately determines who can afford to be healthy." Similarly, the National Black Farmers Association also addresses systemic barriers by providing technical assistance, outreach, and network building opportunities to Black farmers.[30] A meat-processing facility owned by the Quapaw Tribe, the first of its kind to be USDA approved, supplies meat to local schools[31] and is also a source of income coming into the tribe during the COVID-19 pandemic.[32] These examples highlight how healthy food access is important for building community power, justice, and liberation. School nutrition can thus incorporate political meaning

beyond feeding hungry children through community input, control, and investment in foods closer to the community.

VALUES-BASED PURCHASING APPROACHES

Values-based procurement initiatives represent a growing movement to harness the purchasing power of institutions to re-embed food markets in a set of social and environmental values.[33]

The billions of dollars school districts spend on food purchases can lead the movement for food systems change by expressing their community's values. A school district can set the procurement criteria to encompass a holistic range of quality metrics, such as fair labor compensation in alignment with migrant justice. These market-based mechanisms may be able to effectively reorganize school lunch to promote social justice, equity, and sustainability.

Institutional food policies are guidelines that direct the internal foodservice and procurement practices of a school. Ranging from nutrition standards to values-based procurement criteria, internal food policies are often included in bid solicitations for foodservice agreements and commodity contracts. Specifically, procurement regulations can determine supply and the quality of that supply. These regulations can be altered to favor values-based procurement. Combined, the public and government regulations determine the quality and sustainability of the food available to schools.[34] Therefore, a school district's food policies can influence which contracts and agreements are made. The schools and hospitals that started this movement appear to

be successful at gradually expanding infrastructure in regional food systems.[35]

Schools have a tremendous influence in advocating for district, state, and national policies that can change their food environments to advance equitable procurement practices. Their scope of influence puts them in a unique position to be able to change the local food environment. Promising evidence indicates that equitable procurement guidelines can promote the following:

- Racial Justice: BIPOC farmers face higher rates of land foreclosure,[36] thus making their ability to sell into wholesale market channels a way to address this challenge. Securing BIPOC farms' ability to contract with schools would help aggregate their product to a dedicated institutional contract. The USDA has been called on to recognize and support alternative, cooperatively owned marketplaces that value micro-market farms in order to advance racial equity.[37] Providing incentives for contracting based on racial equity is one way to provide this support.

- Local Economies: Initial evidence has shown that local food purchasing supports the farmers and processors from which schools procure agricultural products.[38] Agriculture has contributed to the economic health and employment of rural communities, particularly when they are locally owned and managed or at least maintain production and sales operations in local trade centers.[39,40] School contracts can help these local farmers diversify their markets, increase off-season sales, gain an outlet for surplus, and increase their

business autonomy. There are also other socioeconomic benefits coming from local food economies, such as the formation of relationships that strengthen social networks.[41]

- Environmental Conservation: Food production is the largest cause of global environmental change, but a transition to sustainable food production can mitigate this problem.[42] Institutions are including local and sustainable food procurement to achieve carbon neutral goals. The long-term environmental effects have yet to be seen, but fewer food miles is directly correlated with less carbon emissions.

CASE STUDIES

School districts, food manufacturers, and suppliers across the country have been working to make more values-aligned products available to school cafeterias. Here, we highlight a few examples of these schools:

1. GOOD FOOD PURCHASING PROGRAM & CHICAGO PUBLIC SCHOOLS

One initiative enabling large school districts to use their purchasing power to promote equity is the Good Food Purchasing Program (GFPP). It is a national effort to transform public school food procurement to focus funds on creating a transparent and equitable food system. The program integrates the five core values of local economies, health, a valued workforce, animal welfare, and environmental sustainability. School districts are evaluated based on standards for each value, such as purchasing whole and unprocessed vegetables.[43] This

focus on health as a value rewards institutions that improve equity, affordability, accessibility, and consumption of high-quality, culturally relevant food. It has spurred new opportunities for advocacy organizations and coalitions to advocate not only for healthier school food, but also supply chain improvements such as fair working conditions for food chain workers.

Chicago Public Schools (CPS) enrolls 355,156 students, a majority of whom are Black and Latinx. CPS serves approximately 40 million lunch meals annually at free or reduced costs through the national school lunch program. The district partnered with a network of advocates from the Chicago Food Policy Action Council (CFPAC), The Chicago & Cook County Department of Public Health, and other government agents to advance a Good Food Purchasing Initiative for the Chicago Metro Area. The momentum built by this coalition of stakeholders set the stage for the adoption of the Good Food Purchasing Policy by Chicago Public Schools in 2017, and later by the City and County in 2018.

This win was facilitated by working across sector and district lines. Early on, CPS was engaged in conversation with some of the largest school districts across the Midwest to get higher quality foods in their schools. Concerns over student public health and wellness, along with input from a cohort of learners, helped them push the envelope in the role of school food procurement. This momentum spurred the creation of a good food purchasing coalition made up of over 40 organizations advocating for the adoption of the GFPP.

Recognizing that the $15.3 million spent on food and beverages in Cook County could

be adopted to help local economies, the county policy emphasizes the opportunity to build racial and social equity in the food system. The policy includes incentives for businesses located in and hiring from low-income communities; it similarly incentivizes hiring persons with prison or arrest records.[44] It also supports infrastructure to build land access for farmers and social entrepreneurs of color.

Good Food Purchasing Policy's adoption presents both challenges and opportunities for implementation and evaluation in CPS. The early stages of adoption involve collecting data on food purchasing to see what standards CPS is already meeting through their existing programs and best practices. Large outsourced contracts complicate this process, but present an opportunity to rethink the current structure of contracts to be smaller and more controllable. The bidding process, where vendors propose prices and volumes to the schools, can be difficult for small- and mid-size farmers that may not have the capacity to supply the demands of a large school district. CPS and their partners want to address this challenge by creating more opportunities for smaller companies (more products from small and local growers) by working to break down the scale of this demand and conducting a food hub viability study for Black and Brown farmers. They intend to engage students and cafeteria workers in the implementation process.

> "Chicago Public Schools creates more opportunities for smaller companies and Black and Brown farmers by breaking down the scale of their demand."

CPS is carving a path to provide more students with culturally relevant, nutritious, and healthy food that will have tremendous local impacts. Potential regional impacts include increased quality of food for CPS meals and new living-wage job creation. The process of creating a local, resilient, and equitable food system is a long-term goal that presents an opportunity for the involvement of public schools and public health nutrition experts.

2. FARM TO SCHOOL & OAKLAND UNIFIED SCHOOL DISTRICT

Farm to School programs help schools source produce and other foods from nearby farms. In 2010, Farm to School became embedded within federal policy through the enactment of the Healthy, Hunger-Free Kids Act (HHFKA). This set aside funding for programming to improve access to local foods in eligible schools through the USDA Farm to School Grant Program in 2012.[45] According to the National Farm to School Network, Farm to School programs positively impact and shape public health (through boosting child health and reducing health care costs associated with diet-related diseases); local economies (through school food dollars supporting local farmers and food systems); the environment (through the reduction of packaging and food transportation miles); and education (through experiential learning within school garden and nutrition education programs).[46] Tools also exist to help advance Farm to School programs commitments to racial and social equity.

Oakland Unified School District (OUSD) piloted the California Thursdays program through a farm to school grant in 2013. California Thursdays was developed in collaboration with the Center for Ecoliteracy (CEL), a nonprofit dedicated to sustainability education, with the aim to increase students' access to local, fresh, and healthy school meals procured entirely from California.[47] CEL guided districts through an implementation process made up of small, manageable tasks, that were the building blocks to serve freshly prepared meals from California. The creation and scaling of California Thursdays demonstrates ways that local schools and organizations can develop innovative solutions for promoting educational equity and social justice across various contexts. Although California Thursdays cannot address the structural inequities that produce inequity in the first place, it does reshape the school food landscape to create broader impacts."[48]

3. LOCAL EMERGENCY FOOD CONTRACTS

The COVID-19 pandemic shines a spotlight on the relationships between public health, the food system, and racial inequities. These inequities exist throughout the school food system, but there are innovative ways that supply chains are responding to meet community needs. School meals have supported recovery from COVID-19 when properly funded, showing how sourcing practices can be beneficial to schools and public health especially during this time of crisis.

Schools have become front-line providers of meals for communities disproportionately feeling the effects of rising food insecurity and unemployment.[49] Communities of color that were already facing food apartheid*, unsafe working conditions, and economic inequality are now disproportionately affected by COVID-19 deaths and infections along with exacerbated food insecurity. Many essential workers who continue to work outside the home are BIPOC. Rampant outbreaks in U.S. meat packing plants have resulted in thousands of sick workers, about half of whom are immigrants, and dozens of deaths.[50] In response, organizers are demanding companies like Tyson, which supply a majority of the nation's school meats, implement essential worker safety measures.[51]

Meanwhile, schools are facing disruptions in sourcing the foods they need from these large corporations to feed communities. This points to longstanding flaws with the current mode of food sourcing and distribution. Supply chains have been disrupted, meaning closed districts across the country are not able to connect to the same farmers that are being forced to waste most of their crops.[52] Innovative programs have shown

> "[During the pandemic] schools are facing disruptions in sourcing the foods they need from large corporations to feed communities."

*__Food Apartheid__, as defined by activist Karen Washington, results from political and economic decisions rooted in structural racism, which have inequitably led to long-term disinvestment in primarily low-income communities and communities of color

how to connect the increase in food insecure families to stable food sources.

The USDA's Coronavirus Farm Assistance Program has made it easier for farmers and distributors at local levels to connect with schools through temporary contracts. Federation of Southern Cooperatives, a non-profit cooperative of Black farmers and landowners, received a small contract as well as The Common Market, a Black-led food hub that centers racial equity in its mission. These farmers and distributors are making progress on getting regional, mission-aligned food to the schools that are facing the most need.[53,54] Fostering more partnerships like these can help a region remain healthy and resilient in times of crisis, and is also essential to ensure that school food programs receive adequate funding to sustain those contracts and labor. Reimbursement for these meals isn't nearly enough to make up for the additional costs they've incurred. A recovery process from COVID-19 would drastically reconsider our food and health policies to advance racial justice.

POLICY CHANGE

Through policy engagement, schools can create the conditions for a food system that integrates values and builds community power. They can do so by directly changing the procurement guidelines at their district or county, as was the case in Cook County. Policymakers, community organizations, and government agencies can also pass policies to expand opportunities for local procurement and ensure the sustainability of such efforts at the local, state, and national levels. Here are a few policies and programs that are moving the needle

toward more equitable school lunch sourcing practices.

1. EXPAND ACCESS TO SCHOOL MEALS

Advocates in school nutrition are advancing several policy platforms to grant more students in need access to school meals by making eligibility for them easier,[55] protecting the staff that prepare meals,[56] and ensuring school meal programs are financially stable.[57] Policymakers need to fully fund school nutrition programs to cover the costs of operating the program, buying needed equipment, disseminating nutrition education, prioritizing values-based procurement, and paying staff a living wage. Investments from the federal government will be especially important for school districts to maintain the financial stability of their school meal programs in the face of revenue loss and demand given the COVID-19 pandemic.

Example: A Universal School Meals Program would be able to reinvest back into the community by sourcing fresh and nutritious foods locally, as previously proposed legislation for Universal School Meals included incentives for local food procurement.[58] The USDA extended a pandemic response program allowing public schools to serve free meals to all children for the 2020-21 school year.[59] This temporary commitment should be made permanent for all children.

2. PROCUREMENT PRICE PREFERENCE PERCENTAGES

A state or local government may give preference to purchasing certain foods, such as those grown locally. These policies can tar-

get the source of the funds and restrictions tied to using those funds. Some federal funds are more restrictive on the conditions of bid preference. Even when using local funds, state and county procurement laws can have authority on the purchasing process. Currently, it is estimated that roughly half of school district policies include preferences for local sourcing of foods.

Policies must be further refined to better support local food purchasing. The decision-makers with the authority to set food procurement standards vary. At the school district level, school boards generally set the policy. At the city or county level, the governing body (such as a city or county council) could enact a binding policy (by ordinance, resolution, or motion).[60] These policies are best crafted in partnership with those who are directly experiencing the effect of an inequitable food system, Food Policy councils, or health departments.

Example: Percentage price preference policies allow school districts to accept higher priced products from vendors who provide locally grown foods, even if non-locally sourced vendors provide lower bids. Maryland's 2010 percentage price preference policy allows schools to favor in-state purchasing so long as the higher price is within a ten percentage range of the lower priced item.[61]

3. INCREASE FUNDING FOR STAFFING AND TECHNICAL ASSISTANCE

Ongoing technical assistance can help schools as they expand their local procurement efforts. This can start with listening to the voices of school food-service workers to understand how to best support their concerns with the increased labor required

to prepare these foods. Cafeteria managers, for example, can ease the friction of changes for staff as they are rolled out through direct support of staff workflow processes and messaging strategies.

In addition to frontline staff, training and technical assistance can help food service directors overcome some initial barriers to values-based procurement. For school food professionals, the top cited deterrent for purchasing locally is related to the perceived extra amount of time and cost that it takes to buy directly from local producers. To directly address the barrier regarding time, external staff or experts can help.

Example: The Good Food Purchasing Program offers technical support to schools that are transitioning to values-based procurement. Supporting school staff at various levels of leadership made the shifts in food purchasing possible.[62]

4. PROMOTE INCLUSIVE CONTRACTING

In order to meet the demand that schools will have for equitably sourced food, policies can create more opportunities for smaller companies by working to break down the advantages large-scale agriculture has on the contracting process. As previously mentioned, institutional barriers in the food system make it difficult for all food businesses to have equitable access to contracting opportunities.

Inclusive contracting is the process of creating the environment for businesses owned by BIPOC and/or womxn to participate in a governmental procurement and contracting process. Inclusive business participation in local government procurement

and contracting is an important source of income and jobs in communities of color and helps to strengthen community and business partnerships. Policies that address past and present institutional barriers in business development and the governmental procurement process can make it easier to connect businesses of color to schools.[49] These policies are essential to allow for equitable development of the food businesses that contract with school districts.

Example: Cook County has implemented contracting preferences for Persons with Disabilities Owned Business Enterprise (PDBE). When soliciting bids, the county will make their best efforts to solicit bids from these businesses and can give a preference to contract with a PDBE business if their price is within five percent of the lowest bid.[63]

5. FACILITATE FUNDING FOR GRASSROOTS FOOD SYSTEMS DEVELOPMENT

Large agribusinesses have a considerable advantage when negotiating contracts with school districts. Small food businesses, especially those who are BIPOC, face challenges in accessing the capital, technical assistance, and resources required to scale their supply to meet the demand that larger school districts require.[64] The existing funding structures used by banks and community development do not provide enough support for developing equity-oriented food businesses. Policies could make funding more accessible for projects rooted in grassroots food systems development, such as BIPOC owned processing facilities or cooperatively owned food hubs.[65]

Grants and local funding from private entities can be allocated for specific projects that invest in scaling up the operations of grassroots food systems work. Funding projects led by and for a community's food system development can build a more equitable local food economy.[66] Local, state, and federal governments can financially support start-up and operating costs. Governments can tap into workforce development dollars, state bond initiatives, and funding opportunities offered by the U.S. Department of Agriculture (USDA), the U.S. Department of Housingand Urban Development (HUD), and the Environmental Protection Agency (EPA).[67]

Example: The Farm Bill at the Federal level should include a significant increase in funding opportunities for organizing and legal support needed to resist the structural barriers facing producers of color.[68] The USDA currently administers grants annually as a part of the Regional Food Food System Partnerships (RFSP). Grantees work in projects that support partnerships to plan and develop local or regional food systems, and the application process asks grantees to describe their plants for engagement with marginalized populations.[69]

CONCLUSION

K-12 institutions can apply different food sourcing approaches to look upstream and put food at the center of community wellness. School food is important because it advances student nutrition, but it should not do so at the expense of communities, food chain workers, and the environment. Instead, equitable and justice-oriented food procurement practices can have a beneficial impact on students' health, as well as on the broader community.

Together, workers, public health professionals, and activists can advance food procurement policies that protect the environment, provide meaningful employment, and promote the health of whole communities. A much broader consideration of nutrition and how it intersects with the health of individuals, communities, and the ecosystems that sustain us is needed to ensure equitable food system development throughout the entire supply chain. A food system that conserves and renews natural resources, advances social justice, builds community wealth and power, and fulfills food and nutrition needs can be the future that schools work towards.

ENDNOTES

1. HEAL Food Alliance, "Mission and Vision."

2. Center for Social Inclusion, "What Is Racial Equity?"

3. Center for Regional Food Systems, "An Annotated Bibliography on Structural Racism Present in the U.S. Food System, Seventh Edition."

4. Giancatarino and Noor, "Building The Case For Racial Equity In The Food System."

5. Alkon and Agyeman, Cultivating Food Justice.

6. "Child Nutrition Tables | USDA-FNS."

7. Food Research & Action Center, "School Meals Are Essential for Student Health and Learning."

8. Food Research & Action Center, "Take a Fresh Look at Community Eligibility for the 2020–2021 School Year."

9. "Child Nutrition Tables | USDA-FNS."

10. Gaddis, The Labor of Lunch.

11. "School Nutrition and Meal Cost Study | USDA-FNS."

12. Jordan, "Millions of Black Students Attend Public Schools That Are Highly Segregated by Race and by Income."

13. "Serving Healthy School Meals."

14. Jon M. Bailey, "Rural Grocery Stores."

15. Turner, "Improvements and Disparities in Types of Foods and Milk Beverages Offered in Elementary School Lunches, 2006–2007 to 2013–2014."

16. Rosenthal and Caruso, "Chapter 12 - Bringing School Foodservice Staff Back In," 2019.

17. Jacobs and Graham-Squire, "Labor Standards for School Cafeteria Workers, Turnover and Public Program Utilization."

18. Gaddis, The Labor of Lunch.

19. Apoliona-Brown et al., "Be-Trayed: How Kickbacks in the Cafeteria Industry Harm Our Communities -- And What To Do About It,."

20. Chris Collom, "Aramark Heads Back to School with 39 New Partners."

21. Frohlich, Sauter, and St, "The 10 Companies That Pay Americans The Least."

22. Waterman et al., "Community Coalition for Real Meals Wants to End 'Big Food.'"

23. Klein, Newbrey, and Sirois, "Chapter 11 - Sustainable Food Purchasing in the Health Care Sector."

24. Kendra, Sapna Thottathil, and Clinton, "Environmental Nutrition: Redefining Healthy Food in the Health Care Sector."

25. "How Our Food System Affects Public Health."

26. Anderson et al., "Unravelling the Food–Health Nexus: Addressing Practices, Political Economy, and Power Relations to Build Healthier Food Systems."

27. "People of Color Are at Greater Risk of COVID-19. Systemic Racism in the Food System Plays a Role."

28. Food Chain Workers Alliance and Solidarity Research Cooperative, "NO PIECE OF THE PIEU.S. FOOD WORKERS IN 2016."

29. Alkon and Agyeman, Cultivating Food Justice.

30. "NationalBlackFarmersAssociation.Org."

31. Carolyn Mcclellan, "Food Sovereignty."

32. Herrera, "Beef Supply Chain Breaking?"

33. Institutions as Conscious Food Consumers.

34. "Understanding Healthy Procurement | ChangeLab Solutions."

35. Colasanti, Matts, and Wojciak, "Chapter 7 - Making Local Sourcing Standard Practice."

36. Giancatarino and Noor, "Building The Case For Racial Equity In The Food System."

37. Cooper, "Reframing Food Hubs."

38. Pinchot, "The Economics of Local Food Systems."

39. Nesheim et al., Social and Economic Effects of the U.S. Food System.

40. Rosenthal and Caruso, "Chapter 12 - Bringing School Foodservice Staff Back In," 2019.

41. Illinois Public Health Institute and Crossroads Resource Center, "Exploring Economic and Health Impacts of Local Food Procurement."

42. Willett et al., "Food in the Anthropocene."

43. Bronsing-Lazalde, "Value Spotlight."

44. "Chicago Food Policy Action Council Applauds Cook County Adoption of Good Food Purchasing Program."

45. "Farm to School Grant Program | USDA-FNS."

46. "Benefits of Farm to School."

47. "What Is California Thursdays®?"

48. Serrano, "Scaling a 'Bite-Sized Implementation Strategy.'"

49. "People of Color Are at Greater Risk of COVID-19. Systemic Racism in the Food System Plays a Role."

50. "Coronavirus at Smithfield Pork Plant."

51. "Worker Action Center."

52. Yaffe-Bellany and Corkery, "Dumped Milk, Smashed Eggs, Plowed Vegetables."

53. "How Food Hubs and Co-Ops Are Overcoming the USDA Farm Box Program's Flaws."

54. Cooper, "Reframing Food Hubs."

55. Food Research and Action Center, "Take a Fresh Look at Community Eligibility for the 2020–2021 School Year."

56. "Tell Congress."

57. "Support School Food Service Workers."

58. Sanders and Omar, "Universal School Meals Program Act."

59. "The Universal Free School Meal Experiment."

60. "Understanding Healthy Procurement | ChangeLab Solutions."

61. "2018 Maryland Code."

62. Bronsing-Lazalde, "The Good Food Purchasing Program."

63. "Chapter 34 - FINANCE | Code of Ordinances | Cook County, IL | Municode Library."

64. Cooper, "Reframing Food Hubs."

65. EFOD Collaborative, "Equitable Food-Oriented Development."

66. EFOD Collaborative.

67. "Understanding Healthy Procurement | ChangeLab Solutions."

68. Cooper, "Reframing Food Hubs."

69. "Regional Food System Partnerships | Agricultural Marketing Service."

BIBLIOGRAPHY

Justia Law. "2018 Maryland Code :: State Finance and Procurement :: Division I - State Finance :: Title 10A - Public-Private Partnerships :: Subtitle 2 - Solicited Proposals. :: § 10A-201. Presolicitation Report." Accessed November 19, 2020. https://law.justia.com/codes/maryland/2018/state-finance-and-procurement/division-i/title-10a/subtitle-2/section-10a-201/.

Alkon, Alison Hope, and Julian Agyeman. Cultivating Food Justice: Race, Class, and Sustainability. The MIT Press, 2011. http://muse.jhu.edu/book/23088/.

Center for Regional Food Systems. "An Annotated Bibliography on Structural Racism Present in the U.S. Food System, Seventh Edition." Accessed November 18, 2020. https://www.canr.msu.edu/resources/structural_racism_in_us_food_system.

Anderson, Molly, Olivier De Schutter, Emile Frison, Corinna Hawkes, Desmond McNeill, Jessica Fanzo, Claire Fitch, et al. "Unravelling the Food–Health Nexus: Addressing Practices, Political Economy, and Power Relations to Build Healthier Food Systems." International Panel of Experts on Sustainable Food Systems-FOOD WORKING GROUP, October 2017.

Apoliona-Brown, Puanani, Emily Dunn-Wilder, Lindsay Guthrie, Patrick Robbins, Anim Steel, and Kristen Strader. "Be-Trayed: How Kickbacks in the Cafeteria Industry Harm Our

Communities -- And What To Do About It," May 13, 2020. https://www.realfoodgen.org/kickbacks-report-2020.

National Farm to School Network. "Benefits of Farm to School." Accessed June 28, 2020. http://www.farmtoschool.org/resources-main/the-benefits-of-farm-to-school.

Bronsing-Lazalde, Christina. "The Good Food Purchasing Program: Toward a Good Food Future | Impact Report 2012-2019." Center for Good Food Purchasing (blog). Accessed December 16, 2020. https://goodfoodpurchasing.org/gfppimpact2019/.

———. "Value Spotlight: Nutrition." Good Food Purchasing Program (blog). Accessed June 4, 2020. https://goodfoodcities.org/portfolio/value-spotlight-nutrition/.

Carolyn Mcclellan. "Food Sovereignty." National Museum of the American Indian Magazine, Summer 2018. https://www.americanindianmagazine.org/story/food-sovereignty.

"Chapter 34 - FINANCE | Code of Ordinances | Cook County, IL | Municode Library." Accessed November 19, 2020. https://library.municode.com/il/cook_county/codes/code_of_ordinances?nodeId=PTIGEOR_CH34FI_ARTIVPRCO_DIV8MIOMNEBUEN.

Chicago Food Policy Action Council. "Chicago Food Policy Action Council Applauds Cook County Adoption of Good Food Purchasing Program." Accessed December 17, 2020. https://www.chicagofoodpolicy.com/blog/2018/10/29/kedckwpklxh6lv16poylmtav35uy6f.

"Child Nutrition Tables | USDA-FNS." Accessed June 7, 2020. https://www.fns.usda.gov/pd/child-nutrition-tables.

Chris Collom. "Aramark Heads Back to School with 39 New Partners." Aramark. Accessed July 19, 2020. https://www.aramark.com/about-us/news/school-districts/aramark-back-to-school-39-new-districts.

Colasanti, Kathryn, Colleen Matts, and Kaitlin K. Wojciak. "Chapter 7 - Making Local Sourcing Standard Practice: Lessons From Michigan." In Institutions as Conscious Food Consumers, edited by Sapna E. Thottathil and Annelies M. Goger, 149–73. Academic Press, 2019. https://doi.org/10.1016/B978-0-12-813617-1.00007-1.

Cooper, Dara. "Reframing Food Hubs: Food Hubs, Racial Equity, and Self-Determination in the South." Accessed July 19, 2020. https://www.centerforsocialinclusion.org/publication/reframing-food-hubs/.

"Coronavirus at Smithfield Pork Plant: The Untold Story of America's Biggest Outbreak." BBC News, April 17, 2020, sec. US & Canada. https://www.bbc.com/news/world-us-canada-52311877.

EFOD Collaborative. "Equitable Food-Oriented Development," October 2019. https://www.efod.org/.

"Farm to School Grant Program | USDA-FNS." Accessed June 28, 2020. https://www.fns.usda.gov/cfs/farm-school-grant-program.

Food Chain Workers Alliance, and Solidarity Research Cooperative. "NO PIECE OF THE PIEU.S. FOOD WORKERS IN 2016," November 2016.

Food Research and Action Center. "Take a Fresh Look at Community Eligibility for the 2020–2021 School Year," May 2020. https://frac.org/wp-content/uploads/Take-a-Fresh-Look-at-Community-Eligibility.pdf.

Frohlich, Thomas C., Michael B. Sauter, and Sam Stebbins 24/7 Wall St. "The 10 Companies That Pay Americans The Least." HuffPost, 46:59 400AD. https://www.huffpost.com/entry/the-10-companies-that-pay-americans-the-least_n_55e9aa0de4b093be51bb378c.

Gaddis, Jennifer E. The Labor of Lunch. 1st ed. Vol. 70. University of California Press, 2019. www.jstor.org/stable/j.ctvr00xpk.

Giancatarino, Anthony, and Simran Noor. "Building The Case For Racial Equity In The Food System," July 17, 2014. https://www.centerforsocialinclusion.org/publication/building-the-case-for-racial-equity-in-the-food-system/.

HEAL Food Alliance. "Worker Action Center." Accessed July 10, 2020. https://healfoodalliance.org/worker-safety/.

Herrera, Allison. "Beef Supply Chain Breaking? Not Even Close At The Quapaw Nation's Beef Processing Plant." Accessed July 27, 2020. https://www.kosu.org/post/beef-supply-chain-breaking-not-even-close-quapaw-nations-beef-processing-plant.

Civil Eats. "How Food Hubs and Co-Ops Are Overcoming the USDA Farm Box Program's Flaws," June 11, 2020. https://civileats.

com/2020/06/11/how-food-hubs-and-co-ops-are-overcoming-the-usda-farm-box-programs-flaws/.

FoodPrint. "How Our Food System Affects Public Health." Accessed July 9, 2020. https://foodprint.org/issues/how-our-food-system-affects-public-health/.

Illinois Public Health Institute and Crossroads Resource Center. "Exploring Economic and Health Impacts of Local Food Procurement," April 22, 2015. http://www.farmtoschool.org/resources-main/exploring-economic-and-health-impacts-of-local-food-procurement.

Institutions as Conscious Food Consumers. Elsevier,2019.https://doi.org/10.1016/C2016-0-05105-7.

Jacobs, Ken, and Dave Graham-Squire. "Labor Standards for School Cafeteria Workers, Turnover and Public Program Utilization." Berkeley Journal of Employment and Labor Law 31, no. 2 (2010): 447–58.

Jon M. Bailey. "Rural Grocery Stores: Importance and Challenges." Center for Rural Affairs, 2010. https://www.cfra.org/node/4478.

Jordan, Reed. "Millions of Black Students Attend Public Schools That Are Highly Segregated by Race and by Income." UrbanWire: Education and Training (blog), October 30, 2014. https://www.urban.org/urban-wire/millions-black-students-attend-public-schools-are-highly-segregated-race-and-income.

Kendra, Klein, Sapna Thottathil, and Stacia Clinton. "Environmental Nutrition: Redefining Healthy Food in the Health Care Sector." Health Care Without Harm, Reston, VA, 2014.

Klein, Kendra, Jenna Newbrey, and Emma Sirois. "Chapter 11 - Sustainable Food Purchasing in the Health Care Sector: From Ideals to Institutionalization." In Institutions as Conscious Food Consumers, edited by Sapna E. Thottathil and Annelies M. Goger, 239–60. AcademicPress,2019.https://doi.org/10.1016/B978-0-12-813617-1.00011-3.

HEAL Food Alliance. "Mission and Vision." Accessed July 14, 2020. https://healfoodalliance.org/who-is-heal/.

nbfa. "NationalBlackFarmersAssociation.Org." Accessed November 18, 2020. https://www.nationalblackfarmersassociation.org/.

Nesheim, Malden C., Maria Oria, Peggy Tsai Yih, Environmental Committee on a Framework for Assessing the Health, Food and Nutrition Board, Board on Agriculture and Natural Resources, Institute of Medicine, and National Research Council. Social and Economic Effects of the U.S. Food System. A Framework for Assessing Effects of the Food System. National Academies Press (US), 2015. https://www.ncbi.nlm.nih.gov/books/NBK305168/.

Civil Eats. "People of Color Are at Greater Risk of COVID-19. Systemic Racism in the Food System Plays a Role.," May 5, 2020. https://civileats.com/2020/05/05/people-of-color-are-at-greater-risk-of-covid-19-systemic-racism-in-the-food-system-plays-a-role/.

Pinchot, Ariel. "The Economics of Local Food Systems: A Literature Review of the Production, Distribution, and Consumption of Local Food." Report. University of Minnesota. Extension. Extension Center for Community Vitality, September 2014. http://conservancy.umn.edu/handle/11299/171637.

"Regional Food System Partnerships | Agricultural Marketing Service." Accessed December 16, 2020. https://www.ams.usda.gov/services/grants/rfsp.

Rosenthal, Amy, and Christine C. Caruso. "Chapter 12 - Bringing School Foodservice Staff Back in: Accounting for Changes in Workloads and Mindsets in K-12 Values-Based Procurement." In Institutions as Conscious Food Consumers, edited by Sapna E. Thottathil and Annelies M. Goger, 261–83. Academic Press, 2019. https://doi.org/10.1016/B978-0-12-813617-1.00012-5.

———. "Chapter 12 - Bringing School Foodservice Staff Back in: Accounting for Changes in Workloads and Mindsets in K-12 Values-Based Procurement." In Institutions as Conscious Food Consumers, edited by Sapna E. Thottathil and Annelies M. Goger, 261–83. AcademicPress,2019.https://doi.org/10.1016/B978-0-12-813617-1.00012-5.

Sanders, Sen Bernie, and Rep Ilhan Omar. "Universal School Meals Program Act," n.d., 2.

Food Research & Action Center. "School Meals Are Essential for Student Health and Learning." Accessed June 7, 2020. https://frac.org/research/resource-library/school-meals-are-essential-for-student-health-and-learning.

"School Nutrition and Meal Cost Study | USDA-FNS." Accessed July 14, 2020. https://www.

fns.usda.gov/school-nutrition-and-meal-cost-study.

Serrano, Christyna. "Scaling a 'Bite-Sized Implementation Strategy': Promoting Educational Equity and Social Justice through a Farm to School Food Program," November 27, 2017. https://escholarship.org/uc/item/8q265969.

RWJF. "Serving Healthy School Meals," December 18, 2013. https://www.rwjf.org/en/library/research/2013/12/serving-healthy-school-meals.html.

"Support School Food Service Workers." Accessed July 20, 2020. https://action.cspinet.org/page/59133/action/1?locale=en-US.

FoodCorps. "Tell Congress: School Nutrition Professionals Are Essential." Accessed July 20, 2020. http://p2a.co/DOOGQu8.

The Rockefeller Foundation. "The Universal Free School Meal Experiment," November 9, 2020. https://www.rockefellerfoundation.org/blog/the-universal-free-school-meal-experiment/.

Turner, Lindsey. "Improvements and Disparities in Types of Foods and Milk Beverages Offered in Elementary School Lunches, 2006–2007 to 2013–2014." Preventing Chronic Disease 13 (2016).https://doi.org/10.5888/pcd13.150395.

"Understanding Healthy Procurement | ChangeLab Solutions." Accessed October 17, 2020.

https://www.changelabsolutions.org/product/understanding-healthy-procurement.

Waterman, Chloë, Angela Huffman, Aolani Peiper, and Emmaline Bigongiari. "Community Coalition for Real Meals Wants to End 'Big Food.'" Food Tank (blog), September 4, 2018. https://foodtank.com/news/2018/09/campaign-to-change-the-recipe-for-foodservice/.

ecoliteracy.org. "What Is California Thursdays®?" Accessed December 16, 2020. https://www.ecoliteracy.org/article/what-california-thursdays%C2%AE.

Center for Social Inclusion. "What Is Racial Equity?" Accessed July 14, 2020. https://www.centerforsocialinclusion.org/our-work/what-is-racial-equity/.

Willett, Walter, Johan Rockström, Brent Loken, Marco Springmann, Tim Lang, Sonja Vermeulen, Tara Garnett, et al. "Food in the Anthropocene: The EAT–Lancet Commission on Healthy Diets from Sustainable Food Systems." The Lancet 393, no. 10170 (February 2, 2019): 447–92. https://doi.org/10.1016/S0140-6736(18)31788-4.

Yaffe-Bellany, David, and Michael Corkery. "Dumped Milk, Smashed Eggs, Plowed Vegetables: Food Waste of the Pandemic." The New York Times, April 11, 2020, sec. Business. https://www.nytimes.com/2020/04/11/business/coronavirus-destroying-food.html.

PRIMARY CARE IN ARMENIA

by Michael Abassian & Lara Rostomian

PRIMARY CARE IN ARMENIA
OVERVIEW AND ROLE OF POLICY IN HEALTH SYSTEM STRENGTHENING

MICHAEL ABASSIAN & LARA ROSTOMIAN

Amid a global pandemic, Armenia found itself simultaneously affected by conflict with Azerbaijan in the nearby region of Nagorno-Karabakh. Investigating consequential health outcomes revealed a healthcare system under pressure. Within a month of fighting, over 75,000 Armenians from the contested region were displaced to Armenia, and weekly average COVID-19 cases went up seven-fold in the country. These catastrophic events have exacerbated existing population health challenges, including that every third person in Armenia dies prematurely before reaching the age of 65. There is great potential for policy reform to improve capacity and prevent death and disability in the country.

COVID-19, conflict with Azerbaijan, and the burden of chronic disease highlights that Armenia needs to strengthen its healthcare system. Government spending on health services in the country accounted for 1.4 percent of GDP in 2017, a number that is concerningly low relative to the region. In this review, we recommend increased interventions targeting vulnerable populations who are at an increased risk for many of the chronic health conditions primary care is meant to prevent and manage. To ensure long-term sustainable strengthening of the country's healthcare system, we recommend investing in the development of internal intellectual capacity including medical education reform, decreasing prevalence of harmful behaviors in the population through community-based interventions, and incorporating more innovative data-driven policy to develop robust electronic data records for cancer and non-communicable disease.

INTRODUCTION

Armenia is a country in the South Caucasus that is undergoing transformation, even 29 years after gaining independence from the Soviet Union in September of 1991. In 2018, former Prime Minister Serzh Sargsyan resigned due to a series of anti-government protests led by parliament member Nikol Pashinyan, the current Prime Minister. This nonviolent transition of power became known as the "Velvet Revolution" and has resulted in several economic and social reforms, including that of the healthcare system.[1]

Like many countries, Armenia has struggled with the COVID-19 pandemic. Unlike many countries, it has been simultaneously affected by a war in the nearby disputed region of Nagorno-Karabakh, an unrecognised sovereign state with an eth-

nic Armenian majority. In late June, Armenia was a world leader in total confirmed COVID-19 cases per million people as well as new daily cases per million people.[2] After this peak, conditions began to improve in early July due to shifts in policy like state of emergency orders that helped contain transmission by limiting group gatherings and encouraging mask wearing and hand washing.[3] Then, on September 27th, Azerbaijani military forces launched a military offensive on Nagorno-Karabakh with the support of Syrian jihadist fighters from Turkey.[4] Within a month, over 75,000 Armenians from Nagorno-Karabakh were displaced to Armenia, where government officials and residents turned their attention and resources to armed conflict, resulting in over a seven-fold increase in weekly average COVID-19 cases in the country.[5] The humanitarian crisis continues as residents rebuild infrastructure and experience the resulting trauma of the indiscriminate artillery shelling that lasted over a month.[6]

This article seeks to examine the strength and flexibility of Armenia's healthcare system amid armed conflict and the COVID-19 pandemic. In particular, how has primary care infrastructure and public health policy influenced outcomes in response to the pandemic in the context of growing chronic disease burden and the physical, mental and infrastructural harm caused by the recent Nagorno-Karabakh war? For a country with a population of about three million and tense geopolitical relations with its neighbors, population health is fragile. Land, identity, culture, and the right to existence are at stake. What

role health policy has not only for promoting population health but also for national security are important considerations. We examine key population health indicators and the nation's healthcare system to shed light on how well equipped the country is to minimize morbidity and mortality from preventable conditions, and propose some policies and

> "Every third person in Armenia dies before reaching the age of 65."

strategies that could help strengthen Armenia's healthcare system and build its capacity. In particular, national resources and philanthropic contributions should prioritize robust and sustainable electronic health data collection systems, reform of medical education and training, community and evidence-based health education programs, and increased taxation on harmful products to increase government- funded healthcare.

TOP PREVENTABLE CAUSES OF MORTALITY AND MORBIDITY

Every third person in Armenia dies before reaching the age of 65. The probability of dying prematurely (before the age of 70) was 22 percent in 2016, and 37.1 percent in 2019, and is twice as high for men than women.[7,8,9] According to the World Health Organization (WHO), the probability of dying between the ages of 30 and 70 from the four main noncommunicable diseases (NCDs) including cardiovascular disease, cancer, diabetes and chronic respiratory disease is 30 percent.[10] This probability is 22 percent in Georgia, 23 percent in Azerbaijan, 17 percent in Iran, and 26 percent in Belarus, all countries nearby or also formerly part of the Soviet Union.[11] Large variations in these numbers from year to

year are likely due to low sample sizes and different methodology and cutoffs for arriving at estimates. However, close attention should be paid to trends, and the role of NCDs on COVID-19 hospitalization and mortality rates when the data become available. The rate of total premature death in Armenia among men is 494 per 100,000, and among women is 226.4 per 100,000.[12] An aging demographic further burdens population health. As of early 2018, 12 percent of the Armenian population is 65 and older and NCDs like diabetes mellitus, dementia, and cancer account for an estimated 93 percent of all deaths in Armenia.[13,14] The World Health Organization estimates that NCDs cost the Armenian economy 362.7 billion dram (approximately $750 million) annually (6.5 percent of Gross Domestic Product in 2017).[15] Studying the leading causes of death and disability and their risk factors can help guide health policy to improve preventative care and reduce premature death.

Leading causes of mortality and disability in Armenia in 2019 include ischemic heart disease, stroke, lung cancer, diabetes, and chronic obstructive pulmonary disease (COPD).[16] These rates are higher than the global burden of disease regional average and are disproportionately felt across the different regions in Armenia.[17]

A 2019 report from WHO reveals similar trends, finding that the four major NCDs in Armenia are cancer, cardiovascular disease, diabetes, and chronic respiratory diseases.[18] Many of these conditions have been shown to increase hospitalization rates and risk of severe illness in patients diagnosed with COVID-19.[19] However, significant progress has been made in certain health indicators, including the under-five mor-
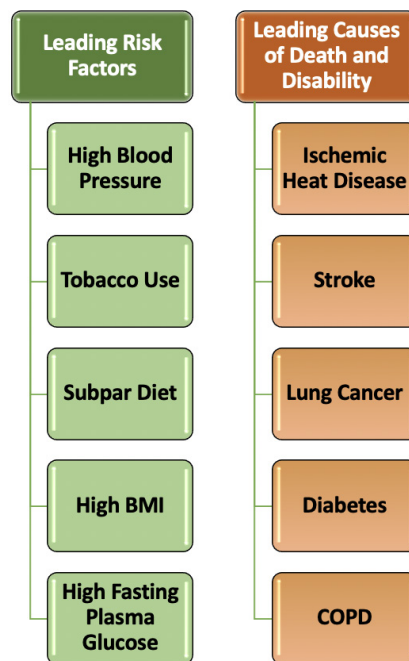

Figure 1. Leading risk factors and causes of death and disability combined in Armenia, 2019. Source: Institute for Health Metrics and Evaluation.

tality rate which has dropped from 49 to 12.4 deaths per 1,000 live births from 1990 to 2018 largely due to the introduction of obstetrics and a state children's insurance system.[20,21]

LEADING RISK FACTORS

Behavioral risk factors, including daily smoking and alcohol consumption in men, overuse of salt, sedentary lifestyle, and being overweight are on the rise among the Armenian population.[22] Associated with these trends has been a rise in biological risk factors, including high blood pressure, high body mass index (BMI), and high fasting plasma glucose, responsible for the most death and disability combined in Armenia.[23] Not all of these risk factors are entirely modifiable but modifications can be made to prevent premature mortality on a population level. For example, reducing rates of tobacco use and improving diet can reduce incidence of lung cancer, hypertension and diabetes. Roughly 50 percent of men drink alcohol and use tobacco, and roughly 50 percent of the adult population is overweight or obese, a level that is concerningly high relative to Europe.[24] Former Minister of Health, Arsen Torosyan, has indicated that over one thousand men in the country lose their lives to lung cancer every year, a loss largely attributable to smoking.[25] Thus, there is great opportunity to substantially reduce these avoidable outcomes if policies are successful in not only reducing behavior harmful to health, but increasing behavior that delays the onset of chronic disease.

HEALTHCARE EXPENDITURES, UTILIZATION, AND CAPACITY

The aforementioned health risks are compounded by the maldistribution of healthcare workers, increasing demand for high-quality medical education and practice, and physical contraction in terms of acute care hospital beds. These aspects of capacity should be considered in the context of how minimal funding for healthcare services is from the government, which in turn should be considered in the context of Armenia's history as an independent republic and its geopolitical challenges, which continue and are especially relevant in 2020.

HEALTHCARE EXPENDITURE AND OUT-OF-POCKET SPENDING

Total healthcare spending in Armenia comprises approximately 10 percent of Gross Domestic Product (GDP). However, Armenian government spending on health services accounted for 1.4 percent of GDP in 2017, a low number in comparison to the region.[26,27] Government spending on healthcare accounts for only 12.3 percent of all healthcare spending in Armenia, 39.5 percent in Georgia, 26.5 percent in Azerbaijan, 45.9 percent in Iran and 70.4 percent in Belarus. Despite a publicly funded Basic Benefits Package (BBP) which encompasses a list of services determined by the Ministry of Health (MoH) that are either fully or partially covered depending on whether you are in a socially vulnerable group, 84.3 percent of current health expenditures are out-of-pocket. This puts many Armenians at risk of economic disaster should they get sick or require care that is not covered under BBP. Voluntary health insurance plays a very minor role in health-

care expenditure (0.3 percent of total health expenditure in 2011).[28] Total health expenditure as a percentage of GDP was 7.11 percent in Georgia, 3.51 percent in Azerbaijan, 8.66 percent in Iran and 5.64 percent in Belarus in 2018.[29] The WHO has historically cited at least 5 percent of GDP as an optimal level of government spending on healthcare, but it is difficult to come up with a benchmark number for all countries as each country has unique epidemiological and public health challenges.[30] Additionally, healthcare spending does not always correlate with health outcomes as other factors need to be taken into account. An important distinction also needs to be made between government spending on healthcare and total spending on healthcare. Nevertheless, it is clear that government spending on healthcare in Armenia is concerningly low. We discuss some strategies to increase healthcare financing towards the end.

Changes to government expenditures in healthcare and other sectors have been underway since 2018. For example, healthcare spending has increased by 21 percent from 2019 to 2020 from 91.7 to 111 billion drams, and Armenia's MoH has proposed a 6 percent tax on every working Armenian to finance half of a comprehensive universal health insurance program that would cost $525 million per year.[31,32] Unfortunately, polling has shown that such initiatives are unpopular among residents. In an online survey, 64 percent of respondents opposed the tax to increase healthcare financing,[33] citing that the new government had promised to reduce taxes. However, as just discussed, over 80 percent of healthcare spending is out of pocket, and total healthcare spending is $1,246 per capita in Armenia (approximately 640,000 AMD).[34]

The average monthly nominal wage in Armenia is 181,768 AMD (350.38 USD), or about 4,200 USD annually.[35] Thus, the overall burden of out of pocket spending on healthcare likely exceeds what would be felt by increased taxes.

UTILIZATION AND ACCESS OF PRIMARY CARE SERVICES

Levels of primary care visits in Armenia are concerningly low, half that of the European average.[36] Armenia's HSPA shows that 62 percent of the population visits primary health clinics when they believe medical care is required.[37] Factors that contribute to this could be high out of pocket costs (17.2 percent of the population may not seek care because it is not financially affordable), distrust or perception of inadequate medical practice, or the perception that medical problems can be solved at home.[38] Screenings, prenatal care, breastfeeding and immunization programs are some examples of services and behaviors that are integral to long-term health. Capacity of these services should continue to be developed and increased. For example, the five-year survival rate following diagnosis of breast cancer from 2010 to 2015 was 59 percent.[39] The proportion of expectant mothers receiving early prenatal care was 68 percent in 2015 and 73 percent of Armenian infants 0-6 months old were breastfed.[40]

DISTRIBUTION OF HEALTHCARE RESOURCES

While only about 36.2 percent of Armenia's population resides in the capital city of Yerevan, the majority of health facilities including specialized care clinics are located in the capital.[41] This has resulted in a surplus of physicians and nurses in Yere-

van and a shortage of healthcare workers in rural areas.[42] There are about 45 physicians for every 10,000 people in Armenia and about 54 nurses and midwives for every 10,000 people.[43] The rate of primary healthcare doctors and nurses is 17 and 26 per 10,000 people, respectively.[44] Therefore, one of the challenges of the healthcare system and of primary care is not so much that Armenia faces a shortage of doctors and care providers, but that these providers are not equally and efficiently distributed across villages and marzes to provide essential health services across the country. The World Health Organization recommends a minimum of 23 doctors, nurses and midwives per 10,000 population to properly deliver maternal and child health services.[45] There is no universal guideline to the number of general physicians recommended per capita, as this number varies by country.

MEDICAL EDUCATION, TRAINING AND PRACTICE

Another challenge is improving the quality of medical knowledge and practice among medical graduates and healthcare workers. A recent survey conducted in 2018 of 51 medical graduates in Yerevan suggests that many are aware of gaps in their medical training and education, and 84.3 percent believe they would benefit from additional training and education to enhance their leadership and administrative skills.[46] Changes to medical education seem welcome by students, and provides international and diasporan healthcare professionals with an opportunity to contribute to educational reform efforts.

HEALTHCARE INFRASTRUCTURE

Since the collapse of the Soviet Union, the healthcare system has been contracting to become more efficient. Acute care hospital beds per capita have decreased from 772 beds per 100,000 population in 1991 to 341 per 100,000 population in 2014.[47] This is a trend seen across many post-Soviet countries. The average number of acute care hospital beds per 100,000 people in the Commonwealth of Independent States (CIS) has decreased from 979 to 564.[48] Although more investment in primary care infrastructure is needed, contractions like this may also signal ongoing healthcare reform and potentially increase efficiency. While considering efficiency, health policy should also ensure effective crisis management and emergency preparedness in order to rapidly mobilize resources when needed.

EFFECTS OF CRISIS ON HEALTHCARE CAPACITY POLICY INTERVENTION

Armenia's healthcare system reached capacity by June of 2020, even after transitioning some hotels into health facilities to provide additional beds for confirmed patients with mild or minimal symptoms.[49] The number of COVID-19 cases was declining until late September, right around when Azerbaijani forces attacked Nagorno-Karabakh. This decline was due to key policy interventions, including declaring a state of emergency in mid-March, after which transparent and daily communication from the MoH kept people informed on how to best minimize COVID-19 transmission and risk.[50] Although this is not inherently unique and is expected, the use of social media through Facebook Live and Twitter by government officials and the MoH was particularly effective at commu-

nicating updates, battling misinformation and conspiracy theories, and giving sound guidance to the population. Since late May, residents have been required to have masks when walking outside or entering businesses or to face a 10,000 AMD (approximately 20 USD) fine.[51] However, residents don't always adhere to these rules and level of enforcement is unclear.[52] Additionally, on June 18th, around the peak of the first wave, the Prime Minister's office and 1,500 Armenian Red Cross volunteers began a countrywide public awareness campaign to promote social distancing, mask wearing, and to combat misinformation.[53]

As of this writing, a peace agreement has been signed between the leaders of Armenia, Azerbaijan and Russia that cedes large portions of Armenian controlled Nagorno-Karabakh to Azerbaijan.[54] As of mid November, over 100,000 Armenians in Nagorno-Karabakh have been displaced,[55] including 40,000 children who are deprived of their right to education. Azerbaijani forces targeted peaceful settlements, including civilian residences, educational institutions, and hospitals.[56] With the targeted destruction of these infrastructures, communities are losing access to healthcare, safe shelter, and education.[57] Seventy one schools and 12 kindergartens have been damaged, and current conditions have jeopardized access to clean water and sanitation, increasing COVID-19 transmission.[58] Since the conflict began, the seven-day rolling average of daily new COVID-19 cases has increased nearly seven fold in Armenia.[59] This current spike is likely due in part to constant shelling forcing civilians to stay grouped together in underground bomb shelters, allowing no
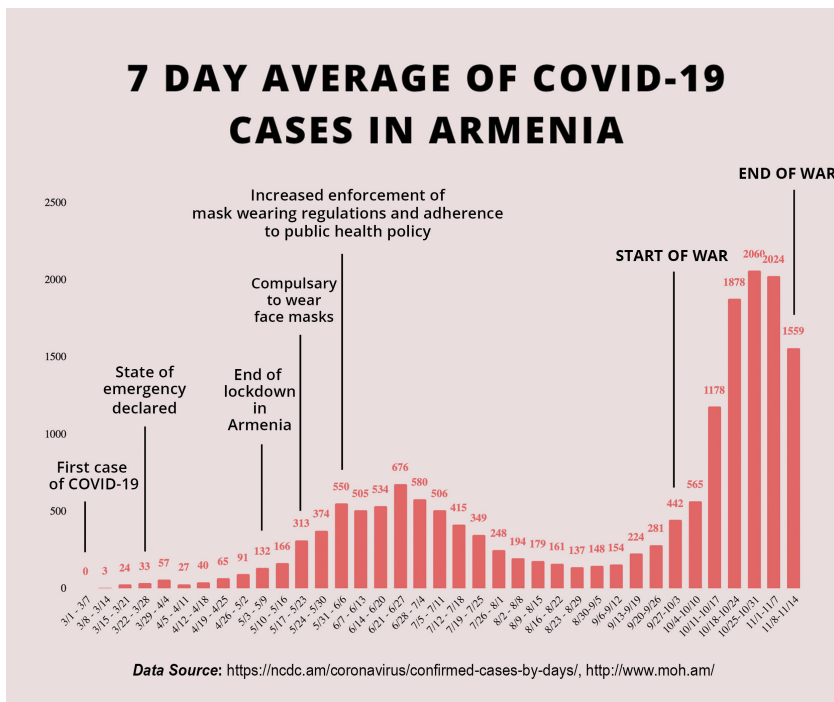

Figure 2. COVID-19 7-Day Average between March and November of 2020 in Armenia with key policy interventions and events highlighted.

opportunity for those infected to self-isolate. Due to these conditions, many doctors and nurses in Nagorno-Karabakh have also been infected, yet continue treating patients because of the immediate need to care for wounded soldiers.[60]

The conflict presents additional challenges to fighting COVID-19 on multiple fronts. First, COVID-19 has become a secondary issue as the preservation and defense of identity, land, and culture takes precedence for residents in Armenia and Nagorno-Karabakh.[61] The MoH and other key stakeholders have adapted mask promotion to include the need to wear masks to save resources for wounded soldiers and vulnerable healthcare workers.[62] Second, intensive care resources are back under pressure as COVID-19 surges along with the need to care for those wounded in battle.[63] As of November 18th, capacity for COVID-19 beds is full, and 375 patients are awaiting hospital admission, including 25 who are in critical condition.[64] COVID-19 testing and reporting continues as before, but the shortage of emergency care and resources is felt across the country. Hotels are again likely to transition into medical facilities to care for patients and to reach capacity. The Armenian government has called for a mobilization of all Armenian people both in Armenia and in the diaspora, resulting in many Armenians living abroad with medical experience traveling back to assist with the crisis.[65,66] It is no surprise that the priorities of both the government and the people of Armenia have shifted in response to this war. Many feel that with an existential threat to national security, protective measures and policies regarding COVID-19 are secondary.

"This current spike is likely due in part to constant shelling forcing civilians to stay grouped together in underground bomb shelters, allowing no opportunity for those infected to self-isolate. Due to these conditions, many doctors and nurses in Nagorno-Karabakh have also been infected, yet continue treating patients because of the immediate need to care for wounded soldiers."

RECOMMENDATIONS

One cannot expect a system that has experienced years of underfunding in a country dealing with a variety of pressing crises to become robust overnight. Yet, COVID-19 and conflict with Azerbaijan highlights that Armenia needs to strengthen national security on many fronts, including the often forgotten healthcare system and its capacity to prevent death and disability.

Increased government healthcare expenditure and continued health policy reform is integral to improving Armenia's population health, and the current administration has the potential to catalyze such change. Additional public health interventions targeted at women, those in midlife, residents living in villages, those without secondary education, and households with severe economic challenges are especially important as these vulnerable populations are at increased risk for many of the chronic health conditions primary care is meant to prevent and manage. This now also includes mental health and financial support for families impacted by war.

Although investment in physical infrastructure and medical supplies are essential, especially in the context of COVID-19 and rebuilding Nagorno-Karabakh, long-term sustainable strengthening of the country's healthcare system depends more on developing internal intellectual capacity, decreasing prevalence of harmful behaviors and incorporating more innovative data-driven policy.

structure is underdeveloped. A centralized system for funneling aid backed by the Armenian government in a transparent and coordinated way will help donors see how and where their funds are spent, and amid these efforts, policymakers, healthcare leaders, physician groups and institutions need to advocate for robust epidemiological surveillance systems to guide evidence-based health policy.

DATA INFRASTRUCTURE IMPROVEMENTS

Sound health policy must be based on sound epidemiological health data. Investment in comprehensive and robust registries for cancer and non-communicable disease, and electronic health infrastructure (i.e. electronic health records and widespread secure integration of healthcare and the internet) will enable comprehensive observational, longitudinal and experimental studies to be conducted as well as assist in the provision of needed medical care. While such a system is vital to coordinating nationwide medical progress, implementing and maintaining such a system is enormously expensive. During a crisis, it is unlikely that the MoH and other policymakers will prioritize such an initiative when it is easier to justify more urgent, downstream healthcare needs, a prioritization also reflected in diasporan aid. While prioritizing the provision of immediate aid like food, clothing and medical supplies is understandable, it is important to recognize that such aid will always be needed in greater amounts as long as the underlying healthcare infra-

"Many feel that with an existential threat to national security, protective measures and policies regarding COVID-19 are secondary."

INCREASING INTERNAL INTELLECTUAL MEDICAL CAPACITY

As established previously, Armenia's healthcare system is in dire need of intellectual capacity building, improved medical education and practice, and additional leadership training (with a focus on crisis leadership training given the geopolitical nature of Armenia). Fortunately, there is an opportunity to drastically improve medical practice in Armenia in collaboration with international practitioners, institutions and members of the Armenian diaspora. While some studies have begun examining educational and professional gaps, we recommend that medical education and training institutions undertake further investigation and that they collaborate with the Armenian diaspora community and international practitioners to pilot didactic and clinical interventions to improve medical education and practice.[67,68] These interventions should focus on mentorship, guidance, curriculum development, rotational training, opportunities for independent practice and must undergo evaluation to determine their effectiveness.

Pilot programs that are successful must be implemented as long-term interventions with the logistical and financial support of the MoH to ensure benefits are integrated into medical schools and clinical programs across the country. For instance, continuing medical education (CME) and continuing professional development (CPD) programs are known to improve patient health outcomes.[69] Although Armenia became a member of the European Union of Medical Specialists (EUMS) which oversees the European Accreditation Council for CME (EACCME) in 2009, there is currently a lack of standards monitoring educational curricula or residency programs for specialty-based practice. As recently as May of 2020, amendments have been made to national law that require physicians and dentists to earn 220 credits every five years in order to recertify.[70] Such amendments and policies are helpful but must be enforced, applied to all specialties and must be digitized and modernized.

Potential unintended consequences of such pilot programs to consider include introduction of medical practices and knowledge that may not be appropriate to Armenia's population health, clinical capacity, or geopolitical context. For instance, certain surgical procedures or treatment regimens may require equipment or resources that is difficult to obtain in Armenia, especially on a long-term basis. Complex medical procedures often require long-term follow-up in care, and healthcare professionals outside of Armenia should carefully consider this. Another consideration to policies similar to the amendment passed in May of 2020 is ensuring that healthcare workers are not overburdened with unrealistic expectations. Healthcare workers including physicians and nurses are typically stretched thin, especially in light of the ongoing pandemic. Ensuring policies have appropriate incentives for healthcare workers in place for furthering their professional and educational development and participation in proposed pilot programs may be required.

HARMFUL BEHAVIOUR REDUCTION

As discussed previously, a large share of the burden on Armenian healthcare is due to preventable diseases resulting from a variety of harmful behaviours. Community-based health education interventions can help reduce tobacco use, cut sugar and salt consumption, and increase physical activity, medication adherence and utilization of preventative care services, ultimately decreasing the prevalence of NCDs in Armenia. Interventions targeting the outlined risk factors could help mitigate their negative effects. For instance, the government should provide direct support (financial or otherwise) to various NGOs and community organizations such as Women's Resource Center in Armenia (an NGO founded in 2003) to collaborate with community partners, local hospitals and universities to host educational series around reproductive health, diet quality, and promote a number of behavioral factors that not only contribute to women's health but also to women's rights.

"With the targeted destruction of these infrastructures, communities are losing access to healthcare, safe shelter, and education."

These educational programs should be partnered with increased taxation on tobacco, alcohol and other unhealthy products to discourage their overconsumption. Similar policies have been effective in the United States,[71] although the difficulty in achieving good health outcomes should not be underestimated. For example, a systematic review of food and beverage taxes estimates that taxes on sugary drinks that raise prices by 20 percent can reduce consumption by about 20 percent.[72] Educational outreach and risk communication strategies utilizing well-liked figures in the community to promote healthy behaviors and discourage unhealthy ones can reverse negative attitudes towards such policies. While there is ample reason to believe such taxes would generate revenue to fund increased preventative healthcare services, there is some risk that such taxes would disproportionately affect lower income families and individuals, a result that will likely result in opposition to such policies. However, based on the estimates from the MoH of Armenia and WHO, the benefits of such taxes would far outweigh the costs. In a report released in 2019, the Ministry and the WHO found that a tobacco control package would cost 2.8 billion dram ($5.43 million) and over a 15 year period would save 7,000 lives, return 14.5 billion dram ($28.13 million) in saved healthcare costs, and provide 40.4 billion dram ($78.37 million) in productivity benefits.[73] A national salt reduction program would save 14,000 lives over 15 years and provide similar economic benefits. Local and national governments

> "As a people who have experienced an abundance of trauma (from the Armenian Genocide of 1915 to the current conflict over Nagorno-Karabakh), there is ample reason to believe [mental health services] are needed."

will have to coordinate to best balance benefits and unintended consequences.

Finally, while such a measure is not central to the overhaul of the national healthcare system, Armenian mental health services should be greatly expanded. As a people who have experienced an abundance of trauma (from the Armenian Genocide of 1915 to the current conflict over Nagorno-Karabakh), there is ample reason to believe such services are needed.. Investment in population mental health resources should be prioritized, particularly due to the vulnerability of the Armenian population attributed to the transgenerational trauma they universally experience.[74]

This article has merely scratched the surface of opportunities and challenges that lay ahead for the healthcare system in the Republic of Armenia. As Armenia recovers from war and COVID-19, proposals that focus on increasing funding for health systems should be prioritized, and philanthropists and outside funders should consider health systems strengthening in addition to building physical infrastructure. The risk of poor health outcomes and financial disaster among families is reduced when the burden of financing health services is spread across the population. Working towards an efficient and well-funded healthcare system prepares Armenia to mobilize its resources in order to mitigate long-term population health and economic impacts

when faced with catastrophic events such as war, pandemics, and natural disasters.

ENDNOTES

1. Foster, Kendrick. "Armenia's Velvet Revolution: Lessons from the Caucasus." Harvard International Review. Harvard International Review, September 20, 2019. https://hir.harvard.edu/armenias-velvet-revolution/.

2. Mejlumyan, Ani. "Armenian Officials Rule out New Lockdown Even as COVID Worsens." Eurasianet, June 30, 2020. https://eurasianet.org/armenian-officials-rule-out-new-lockdown-even-as-covid-worsens.

3. Hovhannisyan, Nvard. "Armenia Extends State of Emergency over Coronavirus until Sept. 11." Edited by Alison Williams. Reuters. Thomson Reuters, August 12, 2020. https://www.reuters.com/article/uk-health-coronavirus-armenia/armenia-extends-state-of-emergency-over-coronavirus-until-sept-11-idUKKCN25810N.

4. Kim, Lucian. "Nagorno-Karabakh: Turkey's Support For Azerbaijan Challenges Russian Leverage." NPR. NPR, October 2, 2020. https://www.npr.org/2020/10/02/919467165/nagorno-karabakh-turkeys-support-for-azerbaijan-challenges-russian-leverage.

5. "Հաստատված Դեպքերն Ըստ Օրերի (COVID-19 Cases to Date) ." NCDC Armenia, 2020. https://ncdc.am/coronavirus/confirmed-cases-by-days/.

6. "Half of Nagorno-Karabakh Population Displaced by Armenia and Azerbaijan Clashes." The Guardian. Guardian News and Media, October 8, 2020. https://www.theguardian.com/world/2020/oct/08/half-of-nagorno-karabakh-population-displaced-by-armenia-and-azerbaijan-clashes.

7. Andreasyan, Diana, Al Bazarchyan, S Manukyan, G Muradyan, A Torosyan, A Chamanyan, L Bidzyan, and P Zelveyan. "Armenia Health System Performance Assessment (2016)." National Institute of Health Armenia, 2016. https://nih.am/assets/pdf/atvk/hspa_eng_2016.pdf.

8. Farrington, Jill, Anna Kontsevaya, Denis Fediaev, Daniel Grafton, Henrik Khachatryan, Amélie Schmitt, Chiara Rinaldi, and Alexey Kulikov. "Prevention and Control of Noncommunicable Diseases in Armenia: The Case for Investment." World Health Organization: Regional Office for Europe , 2019. https://www.euro.who.int/__data/assets/pdf_file/0017/401273/BizzCase-ARM-web.pdf?ua=1.

9. Andreasyan, Diana, A. Bazarchyan, M. Matevosyan, and S. Simonyan. "Statistical Yearbook: Health and Health Care." National Institute of Health of the Republic of Armenia, 2020. https://nih.am/assets/pdf/atvk/236dba153f263792d973908d46eaef2b.pdf.

10. Riley, Leanne, and Melanie Cowan. "Noncommunicable Diseases: Country Profiles 2014." World Health Organization , 2014.

11. Ibid.

12. Andreasyan et al., "Statistical Yearbook: Health and Health Care."

13. Armenia Demographics Profile, November 27, 2020. http://www.indexmundi.com/armenia/demographics_profile.html.

14. Farrington et al., "Prevention and Control of Noncommunicable Diseases."

15. Ibid.

16. Ibid.

17. Andreasyan, et al., Diana, "Armenia Health System Performance Assessment (2016)."

18. Farrington et al., "Prevention and Control of Noncommunicable Diseases."

19. "Certain Medical Conditions and Risk for Severe COVID-19 Illness." Centers for Disease Control and Prevention. Centers for Disease Control and Prevention, December 1, 2020. https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html.

20. "Country Profiles: Armenia Demographics, Health & Infant Mortality." UNICEF DATA. UNICEF, February 6, 2020. https://data.unicef.org/country/arm/.

21. "Certain Medical Conditions and Risk for Severe COVID-19 Illness."

22. Andreasyan, et al., Diana, "Armenia Health System Performance Assessment (2016)."

23. "Armenia." Institute for Health Metrics and Evaluation. The Institute for Health Metrics and Evaluation , September 15, 2017. http://www.healthdata.org/armenia.

24. Andreasyan, et al., Diana, "Armenia Health System Performance Assessment (2016)."

25. Arsen Torosyan, "USC Innovate Armenia⬚ Arsen Torosyan," May 30, 2019, video, 31:20, https://www.youtube.com/watch?v=IzbYgl7eu_4

26. Ibid.

27. "Health Expenditure Profile: Armenia." Global Health Expenditure Database. World Health Organization. Accessed November 1, 2020. https://apps.who.int/nha/database/country_profile/Index/en.

28. Richardson, Erica. "Armenia: Health Systems Review 2013." European Observatory on Health Systems and Policies , 2013. https://www.euro.who.int/__data/assets/pdf_file/0008/234935/HiT-Armenia.pdf?ua=1.

29. "Health Expenditure Profile: Armenia."

30. Savedoff, William D. "What Should A Country Spend On Health Care." Health Affairs 26, no. 4 (2007). https://doi.org/962–970; 10.1377/hlthaff.26.4.962.

31. Mejlumyan, Ani. "Armenia Drafts Big, 'Revolutionary' Budget." Eurasianet, December 9, 2019. https://eurasianet.org/armenia-drafts-big-revolutionary-budget.

32. Mejlumyan, Ani. "Armenia Proposes Universal Health Insurance – and a Hefty Tax Increase." Eurasianet, December 2, 2019. https://eurasianet.org/armenia-proposes-universal-health-insurance-and-a-hefty-tax-increase.

33. Mkrtchyan, Gayane. "Proposed Armenian Health Tax Proves Unpopular." Institute for War and Peace Reporting, February 12, 2020. https://iwpr.net/global-voices/proposed-armenian-health-tax-proves-unpopular.

34. "Health Expenditure Profile: Armenia."

35. "Statistical Data." Statistical Committee of the Republic of Armenia. Accessed December 1, 2020. https://www.armstat.am/en/.

36. Arsen Torosyan, "USC Innovate Armenia."

37. Andreasyan, et al., Diana, "Armenia Health System Performance Assessment (2016)."

38. Ibid.

39. Ibid.

40. Ibid.

41. Andreasyan et al., "Statistical Yearbook: Health and Health Care."

42. Richardson, "Armenia: Health Systems Review 2013."

43. Andreasyan et al., "Statistical Yearbook: Health and Health Care."

44. Andreasyan, Diana, Al. Bazarchyan, S. Manukyan, G. Muradyan, Sh. Sargsyan, and A. Torosyan. "Armenia Health System Performance Assessment 2018." National Institute of Health of the Republic of Armenia, 2018. https://www.moh.am/uploads/ahgg-eng.pdf.

45. "Achieving the Health-Related MDGs. It Takes a Workforce!" World Health Organization. World Health Organization, November 6, 2018. https://www.who.int/hrh/workforce_mdgs/en/.

46. Markosian, Christopher, Shant Shekherdimian, Samuel S. Badalian, Lorky Libaridian, Ani Jilozian, and Aline Baghdassarian. "Medical Education in the Former Soviet Union: Opportunities in Armenia." Annals of Global Health 86, no. 1 (2020). https://doi.org/10.5334/aogh.2960.

47. "Acute Care Hospital Beds per 100,000." European Health Information Gateway. World Health Organization. Accessed December 8, 2020. https://gateway.euro.who.int/en/indicators/hfa_478-5060-acute-care-hospital-beds-per-100-000/visualizations/?fbclid=IwAR0cv7RLFGiiKc_6ILAjljS-MP_PTC86_r68Jc7b0Dg637gV7Hzf_RJqfMo.

48. Ibid.

49. "Policy Responses for Armenia: Ensuring Sufficient Physical Infrastructure and Workforce Capacity." Armenia. WHO Regional Office for Europe, 2020. https://www.covid19healthsystem.org/countries/armenia/livinghit.aspx?Section=2.1+Physical+infrastructure.

50. "Policy Responses for Armenia: Preventing transmission."

51. "Policy Responses for Armenia: Physical distancing."

52. Ibid.

53. "Policy Responses for Armenia: Preventing transmission."

54. Kottasová, Ivana. "Azerbaijan, Armenia and Russia Sign Peace Deal over Nagorno-Karabakh." CNN. Cable News Network, November 10, 2020. http://www.cnn.com/2020/11/09/europe/nagorno-karabakh-shusha-armenia-azerbaijan-russia-intl/index.html.

55. Hauer, Neil. "Nagorno-Karabakh Conflict Creates a New Generation of Displaced Armenians." The National. The National, November 10, 2020. http://www.thenationalnews.com/world/europe/

nagorno-karabakh-conflict-creates-a-new-generation-of-displaced-armenians-1.1108600.

56. Hauser, Jennifer. "Leaders Spar over Missile Attack Claims in Armenia-Azerbaijan Conflict." CNN, Cable News Network, October 4, 2020. www.cnn.com/2020/10/04/europe/azerbaijan-armenia-missile-attacks-intl/index.html.

57. "UNICEF Statement on the Nagorno-Karabakh Conflict." UNICEF, December 1, 2020. www.unicef.org/press-releases/unicef-statement-nagorno-karabakh-conflict.

58. Human Rights Ombudsman of the Republic of Artsakh. "AD HOC REPORT ON THE CHILDREN RIGHTS AFFECTED BY THE AZERBAIJANI ATTACKS AGAINST THE REPUBLIC OF ARTSAKH (NAGORNO-KARABAKH)." November 9, 2020. artsakhombuds.am/en/document/766.

59. COVID-19 Cases to Date. NCDC Armenia.

60. The Associated Press. "Coronavirus Spreads in Nagorno-Karabakh amid Heavy Fighting." ABC News. ABC News Network, October 21, 2020. https://abcnews.go.com/Health/wireStory/fighting-rages-nagorno-karabakh-coronavirus-spreads-73732948.

61. Hovhannisyan, Nvard, and Maria Tsvetkova. "Armenia Fights War with COVID-19 Complicated by Nagorno-Karabakh Conflict." Reuters, Thomson Reuters, November 10, 2020. www.reuters.com/article/uk-armenia-azerbaijan-coronavirus/armenia-fights-war-with-covid-19-complicated-by-nagorno-karabakh-conflict-idUKKBN27Q1YT.

62. Ministry of Health. Twitter Post. October 25, 2020, 12:35 AM. https://twitter.com/MinHealth_Arm/status/1320267633082597376?s=20.

63. The Associated Press. "Coronavirus Spreads in Nagorno-Karabakh."

64. "Policy Responses for Armenia: Physical Infrastructure."

65. Reuters Staff. "Armenia declares martial law and mobilization over Nagorno-Karabakh." Reuters. September 17, 2020. https://www.reuters.com/

article/us-armenia-azerbaijan-martial/armenia-declares-martial-law-and-mobilization-over-nagorno-karabakh-idUSKBN26I0AG.

66. Birthright Armenia. "Support the Long-Term Recovery of Armenia and Artsakh: Become a Volunteer" November 24, 2020. https://www.birthrightarmenia.org/en/news/support-the-long-term-recovery-of-armenia-and-artsakh-become-a-volunteer.

67. Markosian, Christopher, et al. "Medical Education in the Former Soviet Union: Opportunities in Armenia."

68. Chekijian, Sharon, Knarik Yedigaryan, Alexander Bazarchyan, Gevorg Yaghjyan, and Sona Sargsyan. "Continuing Medical Education and Continuing Professional Development in the Republic of Armenia: The Evolution of Legislative and Regulatory Frameworks Post Transition." Journal of European CME 10, no. 1 (2020): 1853338. https://doi.org/10.1080/21614083.2020.1853338.

69. Ibid.

70. Ibid.

71. Marr, Chuck, and Chye-Ching Huang. "Higher Tobacco Taxes Can Improve Health and Raise Revenue." Center on Budget and Policy Priorities, October 11, 2017. www.cbpp.org/research/higher-tobacco-taxes-can-improve-health-and-raise-revenue.

72. "Taxes on Sugary Drinks: Why Do It?" Together Let's Beat NCDs. World Health Organization, 2017. https://apps.who.int/iris/bitstream/handle/10665/260253/WHO-NMH-PND-16.5Rev.1-eng.pdf?sequence=1.

73. Farrington, et al., "Prevention and Control of Noncommunicable Diseases."

74. DeAngelis, Tori. "The Legacy of Trauma." Monitor on Psychology, American Psychological Association, February 2019, www.apa.org/monitor/2019/02/legacy-trauma.

HAVE FEDERAL AND STATE HOUSING POLICIES LOST THEIR WAY?

by Hannah Phalen

HAVE FEDERAL AND STATE HOUSING POLICIES LOST THEIR WAY?

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Edited by: Ethan Adelman-Sil, Ethan Azad, Katherine Cohn & Stephen Dunwoody

Have federal and California state housing policies upheld their intent to provide affordable homeownership opportunities and rentals for all, including people of color and low-income populations? Most homeowner-related benefits and opportunities are heavily skewed towards White and higher-income people, as well as those who already own a home. Even with rental subsidies — especially in California — it is increasingly difficult for people of color, millennials, and students to find affordable housing. Low-income families and people of color can receive help with rentals, but that has proven insufficient in the current economic climate. Overall, these policies are sustaining and exacerbating the racial and generational wealth gap. Since homeownership is the primary avenue of wealth creation in the United States, current policies keep these groups at an economic disadvantage. Limiting mortgage interest tax deductions for high-income earners and/or eliminating deductions for any property beyond a family's first owner-occupied home would allow for redirecting those funds to first time buyers through funding more down payment assistance, subsidies, and additional tax credits during the first five years of ownership.

INTRODUCTION

Since the 1930s, both federal and state programs have supported constructing and providing affordable housing options or otherwise making them available for low-income families. But the federal government has shifted away from overseeing the majority of these programs, instead giving state and local governments more control. As a result of this and job growth that has outpaced housing development, housing has become increasingly unaffordable and homeownership rates for low-income families and people of color have fallen behind.

The Great Recession of 2007–2009 hit families of color particularly hard. It resulted in less aid aimed at increasing homeownership rates. More direct aid now goes to renters to alleviate low-income families' cost of living. But the majority of overall federal housing-related expenditures still goes to current homeowners in the form of deductions for real estate tax and mortgage interest, and capital gains exclusions. In fact, homeowners receive over 70 percent of federal housing subsidies, despite making up less than 40 percent of those with severe housing cost burdens.[1]

These trends are exacerbated in California. Rapid job and population growth in the state has inflated the cost of homes, and housing construction has not kept up.[2] California lacks affordable housing, so families throughout the state struggle to make ends meet. This is especially the case for low-income families, people of color, millennials, and students.

Limiting tax deductions for high-income earners and/or eliminating deductions for any property beyond a family's first owner-occupied home would allow for redirecting those funds to first time buyers through funding more down payment assistance, subsidies, and additional tax credits in the first five years of ownership. As California attempts to meet Governor Newsom's goal of 3.5 million new housing units by 2025[3] to address the supply crisis, additional funding and programs that specifically assist low-income families with down payments and monthly mortgage bills are the best ways to invest in California's low-income residents and help them build equity.

Programs that were initially created to benefit those in need have primarily benefited White, more affluent homeowners. This article begins with a synopsis of key findings, a comparison of the benefits of homeownership over renting, and background on the policies in question. The next two sections provide a detailed look at how homeownership rates fall across racial and income lines, both nationally and in California, and how currently funded California programs fit into the nexus. The article ends with a discussion of what these findings mean for people of color, millennials, and students. The conclusion includes recommendations as to how federal and state funding allocations could be distributed in order to help alleviate the current wealth gap.

WHAT HOMEOWNERSHIP DOES THAT RENTALS CANNOT

Rental units are a crucial part of our society and provide shelter to those who cannot own a home. But for renters, their home is an expense, not an investment. Owning a home, however, is an investment for both families and the community. Affordable rentals can provide safe, healthy, and comfortable shelter for those unable to buy. But homeownership creates a possible avenue for wealth accumulation and a stronger financial foundation. Homeowners have control over their environments. They can make improvements on their homes and invest money into them, which often yields an investment return.

Homeownership is the primary way for families to build wealth in the United States. It helped create the great middle class that emerged in the middle of the 20th century.[4] Conventional wisdom and many researchers have found that higher homeownership rates correlate with increased political and community participation, higher life satisfaction and self esteem, increased school performance among children, and better life outcomes. Homeownership improves the social and economic status of the family by acting as a savings account, building equity and capital for family investments like education, business, and retirement.[5]

However, we also know that homeownership is historically not experienced the same by all home buyers; indeed, the United States has a dark history of racist prac-

tices like excluding people of color from wealthier neighborhoods, refusing to grant loans to families in low-income neighborhoods (redlining), giving subprime mortgages and charging higher interest rates, and "steering" into segregated neighborhoods.[6] We now have strict regulations and enforcement mechanisms like the Fair Housing Act and the Federal Housing Finance Agency to prevent this going forward, but the legacy of these practices persists intensely to this day. This article will present arguments to support using homeownership as a tool for those who have been left out systematically, in so many ways, since the beginning.

Beyond questions of equity, there are economic arguments for increasing homeownership rates. In the same way that owning property benefits the families and individuals who are able to invest in it, home building generates local economic activity—including additional income and jobs—and more revenue for local governments. The numbers tell the story. According to a study by the National Association of Homebuilders, building 100 single-family homes in a typical state brings in $30.4 million in income for residents, $6.1 million in taxes and other revenue for the state and local government, and 419 jobs within one year. By contrast, construction of 100 multifamily rental units generates $12.4 million in income, $3.3 million in taxes, and 170 jobs.[7]

Despite the clear economic benefits of increasing homeownership rates, state government programs have not prioritized it. More funding goes towards current homeowners through tax credits than to current renters who could potentially become homeowners themselves. Further,

the funding spent on renters is primarily through rental credits or programs that provide temporary shelter, which—while important—do not increase one's ability to own a home.

But how did this inequity come to pass? Wasn't the federal housing assistance program originally designed to help everyone in the quest for homeownership? To provide some insights, the next section briefly reviews critical historical aspects of government housing assistance.

U.S. HOUSING ASSISTANCE PROGRAMS: A LOOK BACK

The United States government used to support homeownership for poor families and first time homeowners, although the programs were never equally distributed and have a dark history of explicitly excluding groups by race. Now, government programs have shifted away from supporting homeownership for poor or first-time homeowners, instead focusing on incentivizing homeownership through tax deductions but not providing support in accessing homeownership in the first place.

The United States federal government has provided housing assistance to low-income families since President Franklin D. Roosevelt's response to the Great Depression in the 1930s. It began primarily by making mortgages more accessible through the establishment of the Federal Housing Administration (FHA) and constructing low-rent public housing through public housing authorities (PHAs). Fifteen- and thirty-year mortgages became the standard package. A loan would be paid off at the end of its term and the borrower would become the owner. The FHA insured lenders

for full repayment in case the borrowers defaulted. This FHA-backed method of government support for homeowners does exist today, and is the most common mortgage loan in the United States.

Even so, people of color and low-income families were denied the kind of loan access that White families with higher incomes enjoyed for most of the 20th Century. As a result, they have fallen far behind White families in homeownership rates, and therefore in wealth and equity. In the past, several federal agencies were concerned with the lack of homeownership rates of low-income and people of color communities. But the 2007-09 foreclosure crisis virtually put an end to this type of assistance for these groups.

Housing assistance now falls into three primary categories: rental housing assistance, federal assistance to state and local governments, and housing finance and homeownership assistance. These are not necessarily mutually exclusive—many programs use a combination. Today, the federal government has shifted towards more rental subsidies than construction subsidies or mortgage assistance programs.

This shift began in the 1980s, when federal priorities were to lower taxes and increase defense and military spending during the last phase of the Cold War. It effectively reduced federal spending on social programs. State and local governments—in addition to NGOs—picked up the effort.

"Historically, [homeownership assistance has] primarily been awarded to Whites and higher income groups... this trend has created and perpetuated an enormous racial and income disparity in homeownership rates."

Congress agreed with the notion that local control was more efficient and valuable. So it granted more authority and incentives by way of block grants and tax credits. And this pattern continues today.

In contrast, rental assistance now happens primarily through rent vouchers for the private market and below-market rental units via contracts with landlords. Tenant-based rental assistance is the most prevalent form of federal housing assistance. It began in the 1970s with Section 8 certificate and voucher programs, replaced in 1988 by the Housing Choice Voucher program. Both of these programs function through the private market. Local public housing agencies (PHAs) and some state agencies form contractual agreements with the U.S. Department of Housing and Urban Development (HUD) and private landlords. All covered housing must meet safety and quality standards. Subsidies and vouchers supplement low-income tenant's monthly rent payments.[8]

Homeownership assistance includes subsidies, tax incentives, and incentivizing mortgage insurance programs for the private market to meet the needs of underserved communities.[9]

As the next section will demonstrate, historically, these benefits have primarily been awarded to Whites and higher income groups. In turn, this trend has created and perpetuated an enormous racial and income disparity in homeownership

rates. This change demonstrates a defense for government intervention as a crucial system for equitable housing and economic mobility.

HOMEOWNERSHIP: RACIAL AND INCOME DIVIDE

The homeownership rates for households of color are significantly lower than those for White households, nationwide and in California. The non–Hispanic White homeownership rate is 62.7 percent in California and 73.2 percent in the United States. Only 44 percent of households of color in California own their own homes, and that number is 46 percent nationwide.

The United States Census Bureau conducted the first census on homeownership rates in 1940, however they have only collected consistent data by race since 1994 (Figures 1 and 2). Figure 1 shows the categories of race the Census has consistently accounted for. Figure 2 shows the average of all non-White groups. It demonstrates homeownership opportunities were only accessible to White families, while being denied to people of color. This is also demonstrated by the fact that less than two percent of the $120 billion worth of new housing subsidized by the government between 1934 and 1962 went to non–White families.[10]
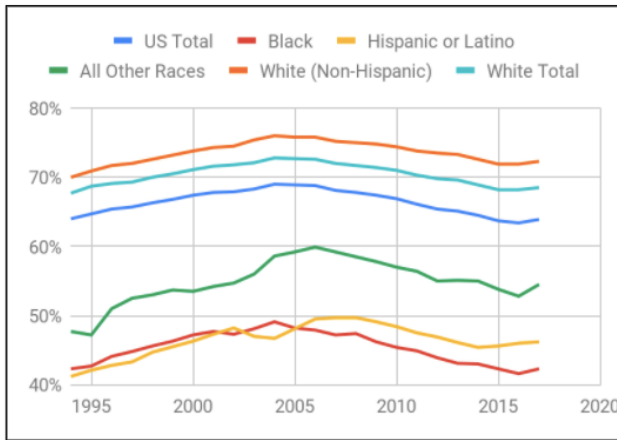

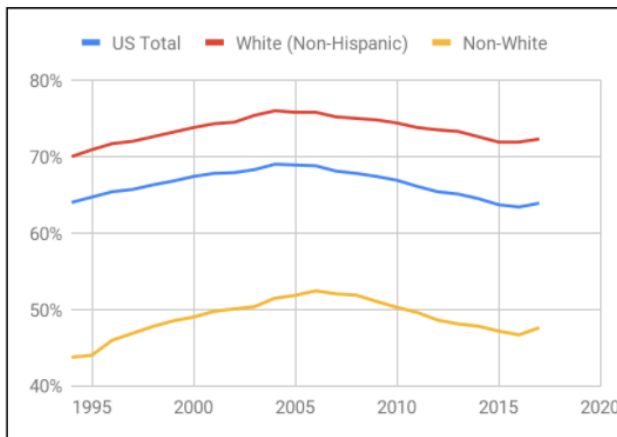**Figure 1: Homeownership Rates by Race**

**Figure 2: Non-White Groups Averaged**

There is a huge racial disparity in home-ownership. The following charts by CityLab calculate the difference between the percentage of homeowners (in red) and renters (in green). They reveal that Black and Hispanic households are much more likely than White households to live in a house that is rented far later into their lives,

and that Black households are more likely to live in rental units regardless of income.[11] This means that everyone in the rental units cannot count on stable monthly payments, and is missing out on the wealth-building opportunities of homeownership as well as the associations of better life outcomes.
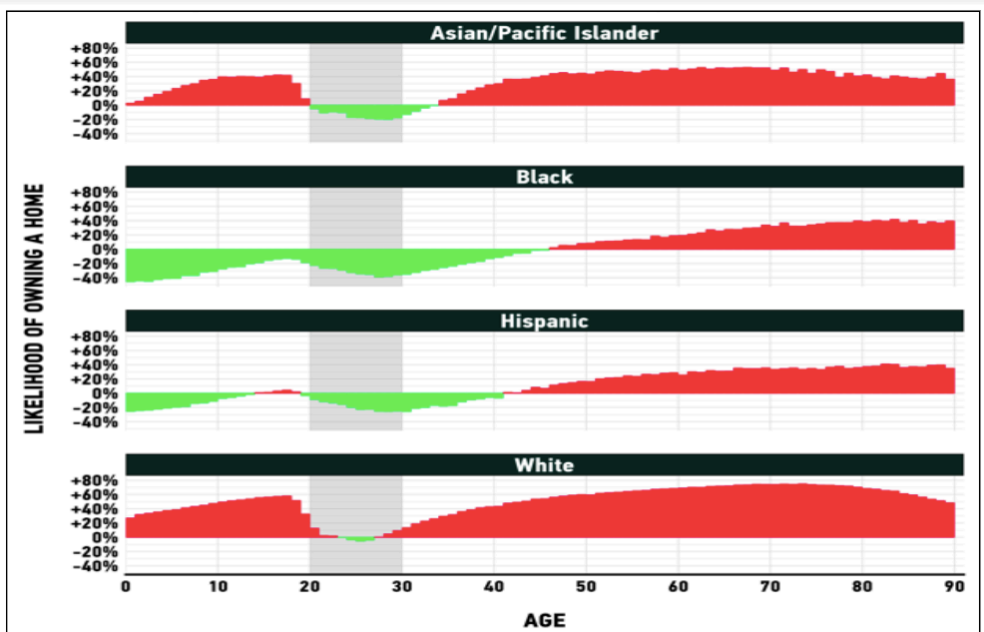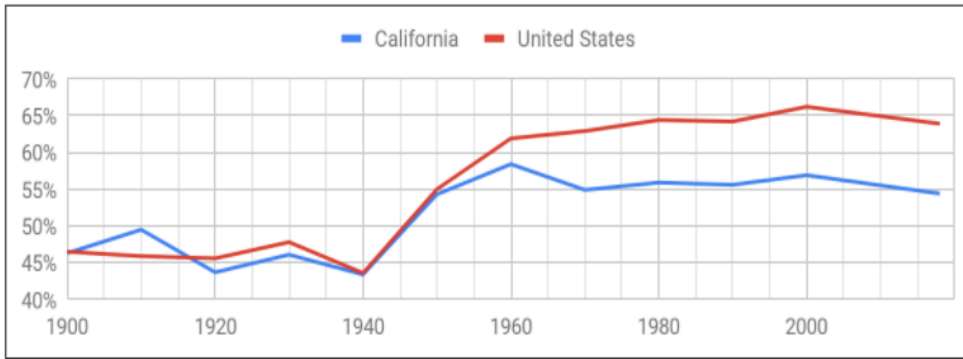

IPUMS-USA, University of Minnesota (CityLab)

Figure 3: Black, Hispanic Americans More Likely to Rent
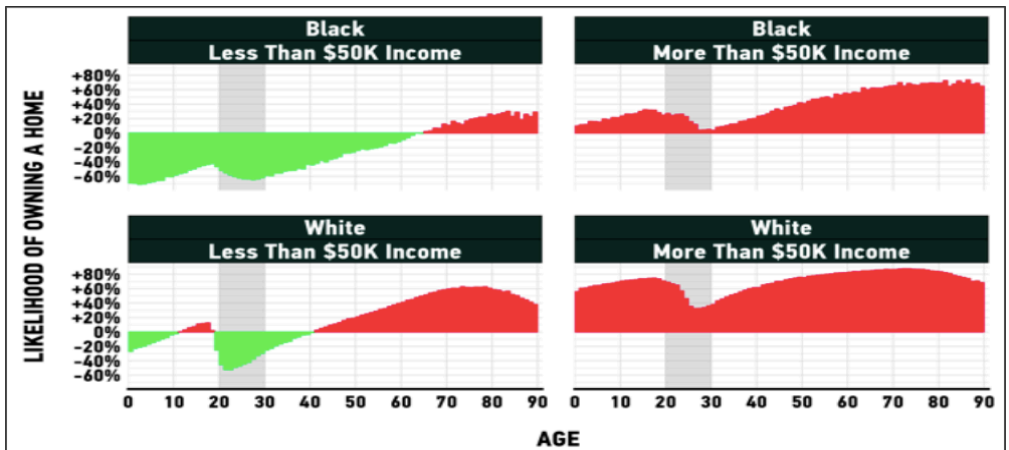
IPUMS-USA, University of Minnesota (CityLab)

Figure 4: How Race, Income, and Homeownership Intersect

Data from U.S. Census reports

Figure 5: California vs U.S. Homeownership Rates

California has shown similar racial trends. For example, in 2018, the homeownership rate among White households was 63.5 percent, with households of color at 34.4 percent.[12] However, since the 1960s, the state has consistently fallen about 10 percent behind the national rate in all racial categories (Figure 5). This shortfall is partially due to the state's generally more mobile population. But it occurs primarily because there is a severe lack of residential construction to match the exponentially increasing job and population growth in California since World War II.[13] The lack of supply for the growing population forces homeownership out of reach for potential homebuyers and drives up the cost of all types of housing exorbitantly.[14]

Nationwide, more Americans own their homes than rent. 2017 estimates showed that 56 percent of housing units are occupied by owners and 31.75 percent by renters.[15] But the majority of households with housing cost burdens—who pay more than 30 percent of their income on housing—are renters. Low-income renters are much more likely than homeowners or high-income renters to pay a higher percentage of their income for housing. They are also more likely to experience overcrowding or

become housing insecure, or even homeless.[16]

Households earning less than $50,000 per year have a homeownership rate of 45 percent. For those making more than $50,000 it leaps to nearly 80 percent.[17] In most categories of income, renting rates are the highest between ages 20 and 30, as highlighted in Figures 3 and 4 through the grey column. But wealthier households are more likely to own than rent at all ages. The majority of lower-income Americans don't become homeowners until nearly age 50.

The next two sections will examine how housing subsidies are shared among populations, first at the federal level and second at the state level as it pertains to California.

FEDERAL HOUSING SUBSIDY DISTRIBUTION

Since 2003, the federal government has been providing around $50 billion per year to assist low-income households with housing-related costs. This amount has remained relatively stable, with the exception of temporary increases after the recession. Unlike other forms of government
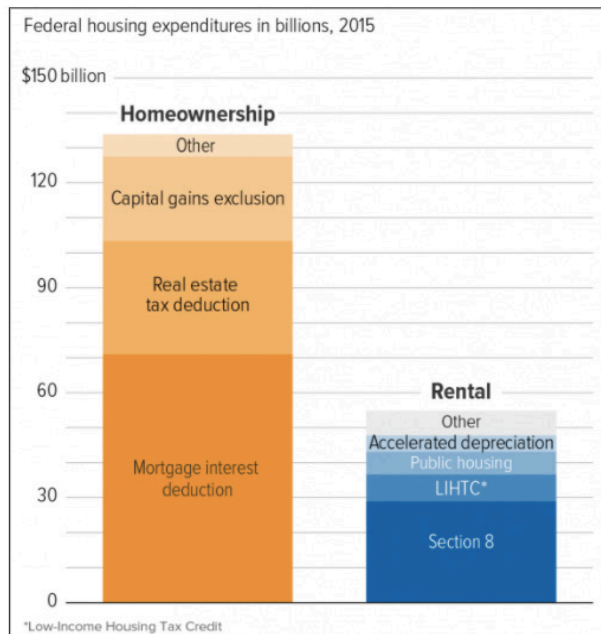
assistance, direct housing assistance (not provided by the tax code) is not available for all eligible households due to a lack of available funding and long waiting lists.[18] For example, Section 8 vouchers subsidize renting for low-income families and the elderly in the private market, but the waiting lists are huge compared to available housing, and depending on the county, eligible households wait between three and seven years to receive the subsidy.[19] Over 450,000 families are on waiting lists for public housing and rental subsidies in 20 local jurisdictions including the City and County of Los Angeles, San Francisco, Oakland, and Fresno.[20]

But how is this support being distributed? In 2014, only one fourth of eligible low-income households received housing assistance through federal spending programs. $18 billion of federal funds went towards vouchers to help individuals pay for rental units in the private market, $12 billion to federally contracted and subsidized rent in designated privately-owned and operated buildings, and $7 billion for public housing which includes subsidized rent. The remaining $8 billion was spread among other categories, but mostly in the form of grants to state or local governments.[21]

Although the majority of assistance aimed at alleviating low-income families' housing cost burden goes to renters, most overall

> "This system provides the majority of government aid to those who have already purchased a home, and could likely afford to without any subsidies, while failing to provide programs which may help renters become homeowners."

Federal housing expenditures in billions, 2015

*Low-Income Housing Tax Credit

Center on Budget and Policy Priorities (CBPP.org)

Figure 6: Most Federal Housing Expenditures Benefit Existing Homeowners

federal housing-related expenditures go to current homeowners in the form of real estate tax and mortgage interest deductions and capital gains exclusions (Figure 6). To be clear, the homeowners that these tax incentives benefit pre-existing homeowners. The federal government spends over three times more on tax subsidies for homeownership—most of which benefit households with incomes over $100,000—than on rental assistance.[22]

This system provides the majority of government aid to those who have already purchased a home, and could likely afford to without any subsidies, while failing to provide programs which may help renters become homeowners. Notice in the graph that all of the homeownership programs are tax incentives that go to all homeowners, and do not differentiate or help first time homebuyers any more than existing homeowners, and that the rental programs are direct aid programs. Homeowners, most of which are not first time homebuyers, received over 70 percent of federal housing subsidies, despite making up less than 40 percent of those with severe housing cost burdens. In 2015, households with incomes

over $200,000 received an average housing benefit of $6,076— around four times the average for those with incomes below $20,000.[23] By tying tax deductions to the value of a home and not providing enough first time homebuyer support, this perpetuates the cycle which makes those who previously bought or inherited homes better off, while making it more difficult for those who haven't to break in. This is especially true in high cost states like California.

So how does California measure up? Is the state's distribution equitable? Does it foster homeownership for lower-income families and people of color? The next section will answer these questions.

CALIFORNIA HOUSING SUBSIDY DISTRIBUTION

Californians spend disproportionate shares of their income on housing compared to the rest of the United States. This is one of the largest contributors to the state having the highest poverty rate in the United States according to the Supplemental Poverty Measure (SPM), which includes data from government programs designed
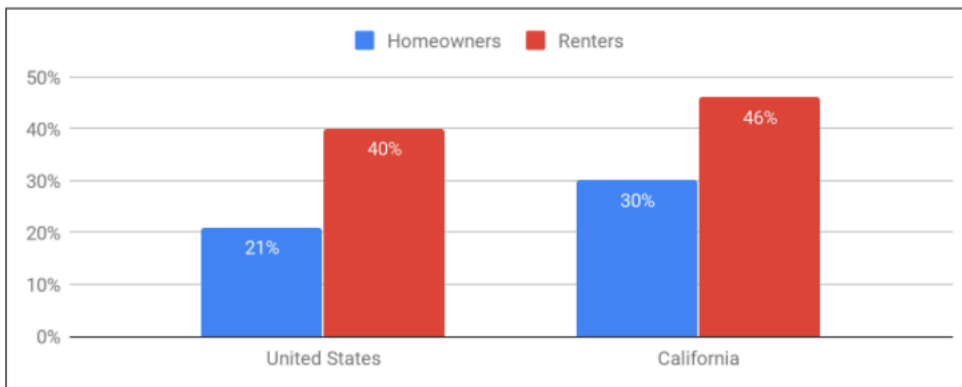
Data from Public Policy Institute of California

Figure 7: Households Spend Over 35 percent of Total Income on Housing
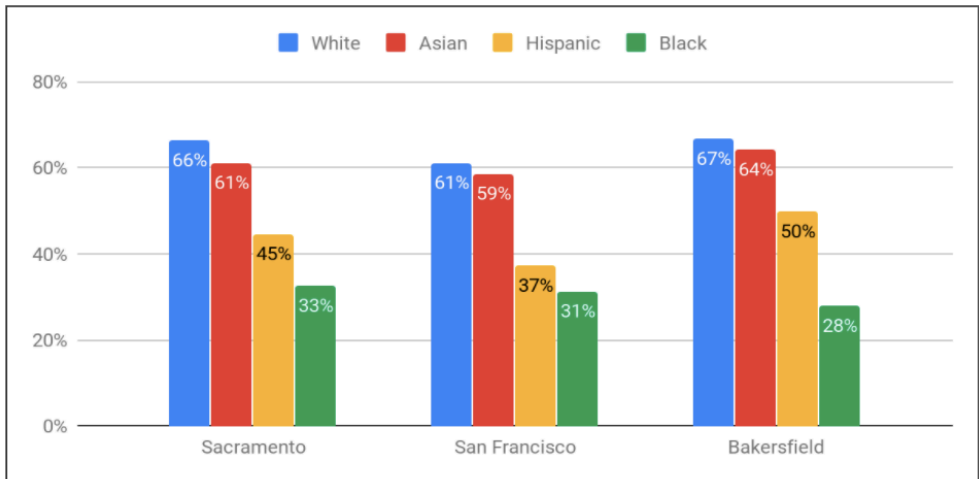
Data from Zillow, Inc.

Figure 8: Homeownership Rates by Race in California Cities

to assist low-income families and individuals that are not included in the official poverty measure.[24] Among homeowners with mortgages, median monthly housing costs are 47 percent higher in California than nationwide. California renters pay 40 percent above the nationwide median, yet California's median household income is only 18 percent higher.

This means that the share of Californians with excessive housing costs is quite high: 30 percent of mortgaged homeowners and 46 percent of renters spend more than 35 percent of their total household income on housing, compared with 21 and 40 percent nationwide, respectively (Figure 7). In addition, more than 1 in 5 households in California faced severe housing cost burdens, spending more than half of their income toward housing expenses.[25]

California and national homeownership rates are currently the lowest in more than a dozen years. California's rates—already much lower than in the rest of the nation—have declined even more sharply over the last decade. Between 2004 and 2016, the homeownership rate in California fell 5 percent, from 58.6 percent of occupied units to 53.6 percent. This is compared with 64.3 percent in the rest of the country as of 2016. Owner-occupied units fell by about 133,500 even as the state's population grew by almost 5 million[26] and rental units increased by more than 877,000.[27]

There is a vast disparity in how California supports its low-income renters as compared with current homeowners. For example, the state-funded California Housing Partnership Corporation spends a whopping $929 per owner household versus just $71 per renter household. In 2018, the state spent 14 times more on current homeowners than on renters, even as rental demand has dramatically outpaced supply. California would need 1.5 million more homes to meet the current demand. Moreover, renters need to earn 3.5 times the state minimum wage to afford the average monthly asking rent of $2,004.[28] If we continue to support current homeowners the most, it leaves less public funding

to provide assistance to current renters such that they can start saving money to become homeowners themselves.

This inequity also persists between White households and households of color. If we take a look at cities in California like Sacramento, San Francisco, and Bakersfield, we see that as of 2016, White households have a higher homeownership rate than Asian, Hispanic, or black households (Figure 8).[29,30]

Most California housing programs primarily assist renters with direct aid. There is a lack of assistance that would help first time homebuyers. For example, the 2014-2015 report from the California Department of Housing and Community Development (CDHCD) shows that many counties received more direct financial assistance for multifamily housing (rentals) than for homeownership. California counties have local funds for housing assistance, but also receive a lot of money from the state. The CDHCD is currently supporting a variety of programs (see: Appendix). Of these nineteen programs, only two are focused on increasing homeownership rates; instead the rest are focused on rental assistance.[31]

> "CalHOME and HOME programs … [in 2016] were only able to directly assist about 121 homebuyers … that barely makes a dent in the homeownership rate."

- Below is a sample of California counties, and how their funds are distributed between rental and homeownership assistance programs.

- San Diego County received over $16 million for affordable rental housing,

and $3 million for mortgage assistance programs.

- San Francisco received $15 million for affordable rental housing projects and less than $1 million for mortgage assistance.

- Santa Clara received $4 million for affordable rental housing and no funding towards homeownership.

- Yolo County received more than $6 million for affordable rental housing and a little over $5 million for first-time home buyer programs.

Some programs allocate small portions of their total CDH and community grants to homeownership projects, but only two stand out as prioritizing first-time homeowners or homeowners in need of rehabilitation projects, CalHome and The Home Investment Partnership Program (HOME). Laudibly, CalHome's purpose is to enable low — and very low-income households to become and remain homeowners by providing grants to local public agencies and nonprofits to assist individual first-time homebuyers through programs like deferred-payment loans for down payment assistance, homebuyer counseling, or technical assistance for self-help homeownership. The program received $7,200,000 from the CDHCD. But since 2016 they have focused specifically on families affected by natural disasters.[32]

HOME did allocate a majority of its total 2016 grants of $14,505,343 to their First-Time Homebuyer Programs and Owner-Occupied Rehabilitation Programs in twenty-one California counties, while also running some Tenant-Based Rental Assistance Programs.[33]

Of the nineteen, these programs are the only two that may directly improve the homeownership rate for low-income families and people of color. However, they are only receiving a total of $22,900,000—a mere 4.75 percent of the $460 million that the CDHCD granted between 2016 and 2017.

Because large amounts of those grants went towards rentals, disaster relief, and program operations, CalHOME and HOME programs and projects were only able to directly assist about 121 homebuyers or homeowners in need of rehabilitation projects statewide. Unfortunately, that barely makes a dent in the homeownership rate.[34]

It is essential that these diverse housing programs exist, and they are providing valuable support to those in need. But too few of them allocate money towards building affordable, purchasable homes or lending programs to assist families of color and families who are not otherwise able to buy homes at California's exorbitant market rates.

Our final section will show how these dynamics are affecting an important, intersecting population, now and in the foreseeable future if policies and practices do not change radically.

PEOPLE OF COLOR, MILLENNIALS, AND STUDENTS FACE A DIFFICULT FUTURE

Homeownership has been out of reach for most people of color throughout the history of the United States. Yet in recent decades, millennials and generation Z have begun to face a similar future, stuck in the cycle of lower wages, higher cost of living, and increasing debt. This cycle has contributed to lower homeownership rates today. Left unchecked, it appears it will continue to do so in the future.

People of color, millennials, and generation Z share an intersectionality of identities that overlap and connect with each other. This is especially so given that millennials are the most ethnically and racially diverse generation in U.S. history. Millennials are also the most educated. As a result, they are weighed down by student debt. And at the same time, wages have stagnated and education has come at a very high price. In addition to this, millennials lived through the subprime mortgage crisis, so there's no baseline for trusting what homeownership can do. Families of color and millennials also faced a particularly rough recession in 2008-2009, when their unemployment rate was higher than the average.

Moreover, the face of higher education is changing. There are more students who work full time, students of color, first-generation students, students that come from low-income families, and students who balance studies with parenting.[35] Since the 2007-2008 school year, California has been one of the second leading states in rising tuition—up to a whopping 70 percent at four-year public institutions.[36] Students

from low-income backgrounds are the most impacted by these rising tuition costs.

Although many view college as a path to a better life, low-income students can be forced to make choices that limit their ability to succeed in school. Students of color, first-generation students, students with children, and former foster children are among those most likely to become homeless. Those who do are more likely to fail a course, or withdraw from school altogether. These students are also more likely to suffer from stress and mental health challenges.

Due to the decreased likelihood of homeownership, higher taxes and the costs of living, and with the lack of affordable housing, more California millennials are finding themselves forced to leave the state. Every year, California falls about 100,000 units short of keeping up with the demand of the population and job growth. Low-income Californians who cannot compete with the rising price of housing are moving in larger numbers to states such as Texas, Arizona, Nevada, Oregon, and Washington.

It is also common now for millennials and students to live with roommates or their parents. However, 70 percent of millennials want to be married, 74 percent want children, and 93 percent of 18-34 year-old renters would like to own a home someday.[37] Although this remains a part of their "American Dream", many in these groups don't find these goals to be realistic or accessible in the same way to previous generations. All of these factors mean that many have delayed the decision to live on their own.

California must work to narrow this growing wealth gap and to avoid becoming a state where only wealthy families can afford to live. It is critical to make policy and systemic changes that focus on helping people of color and millennials gain access to sustainable homeownership opportunities earlier in life and to maintain them.

CONCLUSION

Homeowners receive significantly more benefits than renters. At the same time, most government programs for low-income families are targeted towards more affordable rentals, not homeownership opportunities. Although affordable rentals give necessary shelter, they are the minimum the state could provide. They should not be the long-term solution for most families who could become homeowners with some assistance. Families who never have the opportunity to own a home will forgo the wealth created through owning a home.

Homeowners have control over their environments and can make improvements and invest money into their homes with the likelihood of positive returns. Incentives to buy homes through tax credits is a great advantage for those who are fortunate enough to have the money for a down payment and mortgage. But real change would occur by creating avenues so those who do not can get on that path. That would go far to close the racial and generational wealth gap.

Although this is a problem throughout the United States, California has fallen particularly behind, especially for a state with such a large and powerful economy. Through tax credits, California and federal funds

allocate more money for homeownership than for rentals. But on the local level, municipal governments spend a disproportionate amount on rentals compared to homeownership.

The tax credits do not necessarily help families become new owners, but instead primarily give advantages to people who have already purchased a home. Granted, there is a great need for rentals. About 45 percent of Californians currently rent and 1.5 million more multifamily housing needs to be built to fill the need. But wealth cannot be accumulated through renting. More must be done to help families get on that track.

This could occur in California through limiting or eliminating deductions on second homes (or any residential or commercial property beyond a family's first owner-occupied home) and redirecting those funds to first time buyers through funding more down payment assistance, subsidies and additional tax credits in the first five years of ownership. Both state and federal policies should reallocate the money budgeted for homeownership assistance to incentivize new owners rather than existing ones, especially those with multiple properties.

Local governments, especially in California where supply is severely lacking, need to invest more in building homes that current renters can own. Since 2010, less than 100,000 new homes have been built per year, at a significantly slower rate than most other states, which a basic economic model can tell you will push supply down and demand and prices up. Governor Newsom's goal of 3.5 million new housing units by 2025 (500,000 per year) is a step in the right direction. As more homes are built, more funding and programs that specifically assist families with down payments and monthly mortgage bills is one of the best ways to invest in California's low-income residents. Programs like this provide more permanent shelter, are better for the local economy, increase political participation and community involvement, and prioritize closing the racial and generational wealth gap by allowing these families to build capital.

Communities of color have fallen behind in owning homes for centuries, and this is not by coincidence. Now, millennials and younger generations are losing the opportunity as well. Local governments should invest in their people of color and young residents, so their homeownership rates can grow in the same way as White families who have been provided this opportunity since The Great Depression. The wealth gap continues to widen, and although owning a home is not the only answer, it is a step in the right direction.

> "State and federal policies should reallocate the money budgeted for homeownership assistance to incentivize new owners rather than existing ones, especially those with multiple properties."

ENDNOTES

1.   Fischer, Will, Barbara Sard, "Chart Book: Federal Housing Spending Is Poorly Matched to Need," Center on Budget and Policy Priorities, last modified March 8, 2017, https://www.cbpp.org/research/housing/chart-book-federal-housing-spending-is-poorly-matched-to-need.

2.   First Tuesday Journal. "California's Low Homeownership Rate to Continue," First Tuesday Journal, last modified March 16, 2020, https://journal.firsttuesday.us/californias-rate-of-homeownership-2/30161/.

3.   Newsom, Gavin, "The California Dream Starts at Home," Medium, last modified October 20, 2017, https://medium.com/@GavinNewsom/the-california-dream-starts-at-home-9dbb38c51cae.

4.   Meghan Kuebler, "Closing the Wealth Gap: A Review of Racial and Ethnic Inequalities in Homeownership," Sociology Compass 7, no. 8 (2013): 670-685.

5.   William M. Rohe, Shannon Van Zandt, and George McCarthy, "Social Benefits and Costs of Homeownership," in Low-Income Homeownership: Examining the Unexamined Goal, ed. Nicolas P. Retsinas, Eric S. Belsky (Massachusetts: Joint Center for Housing Studies; Washington, D.C.: Brookings Institution Press, 2002): 381-406.

6.   Keeanga-Yamahtta Taylor, Race for Profit: How Banks and the Real Estate Industry Undermined Black Homeownership (North Carolina: UNC Press Books, 2019).

7.   National Association of Homebuilders."The Economic Impact of Home Building in a Typical State," last modified April 2015, https://www.nahbclassic.org/fileUpload_details.aspx?contentID=274596&fromGSA=1.

8.   Office of Policy Development and Research. "Picture of Subsidized Households" Assisted Housing: National and Local, accessed 2018, www.huduser.gov/portal/datasets/assthsg.html.

9.   Maggie McCarty, Libby Perl, and Katie Jones, Overview of Federal Housing Assistance Programs and Policy (Washington D. C.: Congressional Research Service, Library of Congress, 2008), 1-2.

10.   PBS. "Go Deeper: Where Race Lives," RACE - The Power of an Illusion, last modified 2003, http://www.pbs.org/race/000_About/002_06_a-godeeper.htm.

11.   David Montgomery. "Who Owns a Home in America, in 12 Charts," The Atlantic: City Lab, last modified August 8, 2018, citylab.com/life/2018/08/who-rents-their-home-heres-what-the-data-says/566933/.

12.   Prosperity Now Scorecard. "2018 Prosperity Now Scorecard: Homeownership by Race," last modified 2018. Accessed July 20, 2019. https://scorecard.prosperitynow.org/data-by-location#state/ca.

13.   First Tuesday Journal. 2013. "California's low homeownership rate to continue." March. Accessed July 15, 2019. https://journal.firsttuesday.us/californias-rate-of-homeownership-2/30161/.

14.   First Tuesday Journal. 2018. California's Low Homeownership Rate to Continue. journal.firsttuesday.us/californias-rate-of-homeownership-2/30161/.

15.   US Census Bureau, "American Community Survey Tables 2013-2017 (5-Year Estimates)", Social Explorer, 2018, Tables SE:A10045, accessed July 17, 2019, https://www.socialexplorer.com/data/ACS2015_5yr/metadata/?ds=SE&table=A10045

16.   Will Fischer, Barbara Sard, "Chart Book: Federal Housing Spending Is Poorly Matched to Need," Center on Budget and Policy Priorities, last modified March 8, 2017, https://www.cbpp.org/research/housing/chart-book-federal-housing-spending-is-poorly-matched-to-need.

17.   US Census Bureau, "American Community Survey Tables 2013-2017 (5-Year Estimates)", Social Explorer, 2018, Tables SE:A10045, accessed July 17, 2019, https://www.socialexplorer.com/data/ACS2015_5yr/metadata/?ds=SE&table=A10045

18.   Congressional Budget Office. "Federal Housing Assistance for Low-Income Households," September 2015, https://www.cbo.gov/publication/50782.

19.   Ibid.

20.   A. Kevin Williams, "The Long Wait: The Critical Shortage of Housing in California," Corporation for Supportive Housing and Housing California, June, 2000, https://www.novoco.com/sites/default/files/atoms/files/housingcareport.pdf

21.   Congressional Budget Office. "Federal Housing Assistance for Low-Income Households," September 2015, https://www.cbo.gov/publication/50782.

22.   Center of Budget and Policy Priorities. "Policy Basics: Federal Rental Assistance," last modified November 17, 2017, www.cbpp.org/research/housing/policy-basics-federal-rental-assistance.

23.   Will Fischer, Barbara Sard, "Chart Book: Federal Housing Spending Is Poorly Matched to Need," Center on Budget and Policy Priorities, last modified March 8, 2017, https://www.cbpp.org/research/housing/chart-book-federal-housing-spending-is-poorly-matched-to-need.

24.   Lianna Fox, "The Supplemental Poverty Measure: 2018", P60-268 (RV), Current Population

Reports, US Census Bureau, last modified October 2019, https://www.census.gov/content/dam/Census/library/publications/2019/demo/p60-268.pdf

25. Sara Kimberlin, "Californians in All Parts of the State Pay More Than They Can Afford for Housing," California Budget and Policy Center, last modified September 2017, https://calbudgetcenter.org/resources/californians-parts-state-pay-can-afford-housing/.

26. MacroTrends. 2020."California Population 1900-2019," www.macrotrends.net/states/california/population.

27. Public Policy Institute of California. 2018. "California's Housing Challenges Continue." ccessed July 10, 2019, https://www.ppic.org/wp-content/uploads/r-118hjr.pdf

28. California Housing Partnership Corporation, "California's Housing Emergency: State Leaders Must Immediately Reinvest in Affordable Homes," 2018, accessed July 20, 2019, https://ahcd.assembly.ca.gov/sites/ahcd.assembly.ca.gov/files/CHPC-State-Housing-Need-Report-2018-Web percent20Graig percent20Castellanet.pdf

29. Skylar Olsen, "Black and White Homeownership Rate Gap Has Widened Since 1900," Zillow, Inc., accessed July 25, 2019, https://www.zillow.com/research/homeownership-gap-widens-19384/.

30. Government agencies aggregate data for Asians without distinguishing between origins such as Korea and S.E. Asia.

31. "Home Investment Partnerships Program (HOME)," California Department of Housing and Community Development, accessed July 25, 2019, http://www.hcd.ca.gov/grants-funding/active-funding/home.shtml#awarded

32. Ibid.

33. Ibid.

34. Ibid.

35. Bill and Melinda Gates Foundation, "The Changing Face of U.S. Higher Education," The Washington Post, accessed July 2019, https://www.washingtonpost.com/sf/brand-connect/gates/the-changing-face-of-us-higher-edu

36. Phil Oliff, Vincent Palacios, Ingrid Johnson, and Michael Leachman, "Recent Deep State Higher Education Cuts May Harm Students and the Economy for Years to Come," Center on Budget and Policy Priorities, last modified March 19, 2013,

https://www.cbpp.org/research/recent-deep-state-higher-education-cuts-may-harm-students-and-the-economy-for-years-to-come

37. Jed Kolko, "'Renter Nation' Just A Myth: 93 percent of Millennial Renters Plan to Buy A Home Someday," Trulia, last modified December 12, 2012, https://www.trulia.com/research/trulia-american-dream-survey-winter-2012/.

INTERSECTING CLIMATE AND HOUSING

by Christina Ismailos

INTERSECTING CLIMATE AND HOUSING
HOW CALIFORNIA GREEN BUILDING REGULATIONS AFFECT AFFORDABLE HOUSING DEVELOPMENT

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Edited by: Jack Duffy & Eli Kahn

California regulators are charged with both overcoming the housing affordability crisis and mitigating the worst impacts of climate change. While these priorities are often discussed in tension, making progress on one issue at the expense of the other is counterproductive; they can and must be addressed together through intentional, efficient governance across jurisdictional boundaries. This paper reviews the role of California's building energy regulations in climate change mitigation, assesses the impacts that these regulations have on housing costs and residents' utility bills, and explores the sustainability–affordability compromise pertinent to the residential energy sector conversation. A combined approach of furthering current energy efficiency policies while shifting to low–carbon energy sources is presented as vital to keeping tenant energy bills low while shifting to a greener housing stock. Furthermore, six recommendations are presented as a staring point in this broad conversation on a just transition toward sustainable housing: 1) align state and local energy requirements to streamline construction; 2) establish a state–level residential sector decarbonization plan; 3) leverage existing training programs by utilities to support innovative construction techniques; 4) center workforce development on the anticipated needs of building decarbonization while prioritizing underserved communities; 5) engage with communities to develop existing housing retrofit policies; and 6) for all of these, prioritize equity when developing policy to ensure that all communities benefit from safe, affordable, and sustainable housing.

INTRODUCTION: THE INTERSECTION OF CLIMATE CHANGE AND HOUSING IN CALIFORNIA

Regulators face the challenge of acting effectively to curtail the worst impacts of climate change while also confronting California's housing affordability crisis. At a glance, these two objectives may seem at odds with one another; greater environmental regulations placed on housing can introduce greater costs for builders and residents. In the absence of intentional, efficient governance across jurisdictional boundaries, progress toward one crisis could mean compromising the other. However, both priorities share a central objective: ensuring all Californians have access to safe, resilient, and affordable homes for generations to come. If policymakers can coordinate their efforts, both

crises can be addressed concurrently – in fact, they must be.

Housing affordability is a chief concern for many Californians – with rent-burdened populations on the rise. In California, more than half of renters and a third of homeowners are cost-burdened, and two out of three Californians with unaffordable housing costs are people of color.[1] Many experience energy-poverty, having to make tradeoffs between paying utility bills and other essentials like food and rent. Meanwhile, the cost of constructing housing is rising across the state, posing further barriers for new homeowners and renters who carry the cost.[2] Understanding the major drivers of this trend is essential to supporting the construction industry and providing sufficient, accessible new development.

Buildings will play a key role in mitigating the climate crisis and bringing California into a sustainable future. The effects of climate change have already resulted in devastating damage to both ecological systems and private property across California. These damages are projected to increase to tens of billions of dollars by 2050.[3] To avoid the worst damage to the built and natural environments, it is clear that greenhouse gas (GHG) emissions must be significantly and immediately reduced across the building sector, which presently produces a quarter of emissions in the state.[4] This is only achievable if state and local regulators significantly advance their energy performance requirements through the building code and other standards.

Policymakers must address affordability and sustainability in cooperation, not competition. Expanding building regulations can contribute to the already high price pressures on the housing market. However, if policymakers don't take effective climate action, California residents and building owners will continue to suffer from property damage, energy unreliability, and exposure to weather extremes. While there exists a tension between these priorities, the goals of environmental regulation and housing development are ultimately aligned from a holistic perspective. This article explores the existing landscape of energy regulations that are used to reduce residential building sector emissions and the potential impacts these regulations may have on the housing market. It concludes with several key recommendations on how these two regulatory pathways can better coincide to achieve both goals concurrently. Note that these observations were current at the time of writing in Summer 2020; a rapidly shifting policy landscape may mean newer developments are not mentioned in this article.

WHY REGULATE ENERGY IN HOUSING?

California has committed to sweeping GHG reduction over the next thirty years. Current law mandates that statewide emis-

> "To avoid the worst damage to the built and natural environments, it is clear that greenhouse gas (GHG) emissions must be significantly and immediately reduced across the building sector."

sions be reduced to 80 percent below 1990 levels by 2050. To achieve this goal, GHG emissions must be reduced across each of the major polluting sectors, particularly industry, transportation, and buildings.[5] While the building sector contributes a major portion of total GHGs, it also provides many cost-efficient opportunities to reduce emissions.

The environmental impact of the building sector can be examined from many directions. Urban planning, housing density, waste disposal and water usage all play an important role in the sustainability of the built environment. However, in this high-level discussion, only building energy policies will be reviewed. The integration of other environmental policies can and should be brought into the discussion in the future.[6]

Building sector GHG emissions are the result of the carbon intensity (GHG emissions per unit of energy used) and overall rate of energy consumption. In California, homes are powered with a combination of electricity and on-site fuel consumption, predominantly natural gas.[7] The majority of lifetime emissions stems from daily energy consumption used for heating, hot water, appliances, and lighting. Therefore, major emissions reductions can be achieved by both:

- Improving the efficiency of energy use; and

- Reducing the carbon intensity of the energy used (called decarbonization).

"The majority of residential building emissions result from burning natural gas, particularly for water and space heating."

Policies that prioritize energy efficiency seek to reduce the total annual energy consumed by buildings, for example through more efficient appliances and better insulation. Decarbonization policies seek specifically to reduce the carbon intensity of energy consumed by the building sector. This means switching to low-carbon fuel sources, which in the California context essentially requires a shift from natural gas–fired equipment to all electric systems.

Combining these principles of energy efficiency and decarbonization, tomorrow's sustainable housing will be highly efficient in order to minimize energy used by occupants and all-electric to capitalize on a carbon-neutral electricity grid.[8] The result will be a dramatic reduction in overall GHG emissions produced by the building sector, leaping closer to California's climate mandate. In the following sections, we will examine more closely how state and local regulators have attempted to propel the building sector toward this sustainable future.

STATE REGULATIONS ARE ADVANCING ENERGY EFFICIENCY

Across California, minimum building energy performance and GHG emissions are primarily regulated through the California Code of Regulations Title 24, part of the California Building Standards Code. Title 24 is maintained by the California Building Commission but is regulated and updated triennially by the California Energy Commission (CEC).

Most code requirements target energy efficiency as opposed to carbon intensity directly. By reducing the total energy consumed in a year, this strategy reduces GHG emissions and monthly utility bills, making it attractive for consumers. Greater efficiency is achieved through more stringent requirements for appliances and HVAC,[9] while also improving the building enclosure with better insulation, high-performance windows, and other passive measures that reduce energy demand. While these standards continue to improve energy efficiency, progress has been far too slow to achieve California's climate goals by 2050.

"Due to the relatively clean electric grid, fully electric single-family homes can currently reduce CO2eq by roughly 30 to 60 percent below their traditional counterpoints"

Natural gas based emissions are still a major obstacle for GHG reduction. The majority of residential building emissions result from burning natural gas, particularly for water and space heating.[10] This makes decarbonization critical to any feasible GHG reduction strategy. So far, state regulators have not published a plan to eliminate natural gas from buildings, but have identified the need to establish building decarbonization pathways in future building programs.[11] In the meantime, local governments are taking on the task through all-electric or electric-preferred reach codes, and even outright bans on natural gas. The next section will explore how local ordinances have assumed a critical role in residential GHG reduction in the state, and the challenges associated with local level oversight.

LOCAL CODES ARE LEADING DECARBONIZATION

A growing list of local authorities are phasing out and banning natural gas in buildings. In July 2019, the City of Berkeley adopted an ordinance adding a new chapter of the Berkeley Municipal Code (BMC) prohibiting natural gas infrastructure in new buildings. The ordinance came into effect January 1, 2020 as the first of its kind. Since then, over 40 jurisdictions across California have adopted their own natural gas bans or some version of an electric reach code.[12]

The GHG benefits of this carbon-centric strategy are significant. Due to the relatively clean electric grid, fully electric single-family homes can currently reduce CO2eq by roughly 30 to 60 percent below their traditional counterpoints.[13] As the grid further decarbonizes in the coming years, CO2eq reductions are estimated to be 80 to 90 percent per home by 2050.[14] This level of reduction aligns with the magnitude required statewide to achieve California's 2050 emissions target.

Predictably, these decarbonization mandates are met with opposition. They are more restrictive than traditional efficiency-based codes, essentially forcing builders to install all-electric systems. Evolving changes to building requirements across jurisdiction lines may contribute further learning costs and uncertainty to an already complicated construction industry. Developers have also expressed concerns about the cost implications for building

all-electric housing, and homeowners and consumer advocacy groups have reservations about the cost premium of electricity bills in comparison to natural gas.[15] However, early evidence suggests that switching to all-electric buildings may actually save construction costs. What is clear is that the rapid progress in codes for new housing brings the energy and carbon performance gaps with the existing housing stock into stark contrast.

Existing buildings are being left behind, despite having the greatest need. Roughly two-thirds of building area that exists today will still exist in 2040.[16] Energy regulations for new housing construction are advancing across the state, but for California to feasibly meet its climate commitments, there needs to be a unified, aggressive strategy to address the existing housing stock. This extends beyond GHG savings – there are severe equity implications for major development in new homes while existing structures remain dependent on aging energy infrastructure and are more vulnerable to the elements. Older homes not only lose the benefits of greater efficiency and energy independence but also shoulder the costs and risks associated with reliance on natural gas infrastructure shared across fewer customers. This inequity, particularly when combined with the prevalence of energy poverty, will be central to addressing the housing crisis.

IMPACTS ON HOUSING MARKET AND RESIDENT COSTS

California is home to some of the most expensive housing markets in the world. In 2017, a study by Turner and Townsend found that of 43 global markets, San Francisco had the second most expensive construction market, costing an average of $330 per square foot to build.[17] High construction costs play a major role in San Francisco's affordability crisis and make this and similar markets sensitive to additional sources of cost.

Not all construction costs can be controlled by local authorities: macroeconomic conditions, labor cycles, and lack of skilled subcontractors and trades all affect the cost of building. Local authorities can directly influence city permitting processes, building codes, workforce regulations and ordinances, and procurement requirements. These environmental and development regulations all have a role in the mounting cost to build in California.[18] While these and other process obstacles do pose challenges to development, they are not the central focus of this article.

New attention on energy performance in recent years complicates a challenging housing market. Anecdotally, industry professionals acknowledge the important role that environmental regulations have in creating a sustainable future while arguing that these requirements introduce additional cost.[19] A more rigorous examination of cost trade-offs between the layers of multiple environmental regulations could illustrate the effect these policies have on GHG reduction commensurate to their impact on the housing market.

The following section will begin to highlight some of the ways that the building code and construction practices can impact housing development and what might be done to mitigate negative effects.

COMPLEX SOURCES OF CONSTRUCTION COSTS

Housing construction costs are rising in California, but the causes are complicated. Between 2008 and 2018, the construction costs for building multifamily housing rose by 25 percent in California when adjusting for inflation.[20] Rising costs are attributable to many factors including land, capital costs, hard costs (materials and labor), and regulations. A recent study of hard construction costs showed that on average, affordable housing projects cost more to build than mixed and market-rate projects. This difference is less significant when accounting for project size, suggesting that perhaps large market-rate projects are more likely to realize efficiencies of scale. However, considering that the cost of development is a frequently cited obstacle to building housing, these rising costs jeopardize progress toward mitigating the housing shortage particularly for low- and mid-income residents.[21]

Advanced requirements for more efficient mechanical equipment, more insulation, and better materials do add to construction costs. Likewise, there may be more labor hours required for the design and construction of energy efficient housing, including solar PV installation. Still, when considering the macro-trends, these factors are unlikely to be major contributors. A recent study of multifamily housing construction costs showed that on average, hard costs account for approximately 60 percent of total project costs, soft costs account for an-

other 20 percent, and the remaining costs are split between conversion and acquisition fees.[22] So while energy regulations do add marginal costs, they are but one piece of the much more complex puzzle of high construction costs in California. However, it is worth pursuing any opportunities to reduce cost. Furthermore, understanding where construction costs originate can help policymakers and builders design energy reduction strategies that create higher quality housing at low or no premium.

"Innovations in the construction industry, such as prefabricated and modular construction, could improve productivity while standardizing more energy efficient construction."

From 2008 to 2018, the hard costs that have seen the greatest increases are line-item categories for finishes, wood, plastics and composites.[23] Further, Type I construction, mainly composed of concrete and steel, is significantly more expensive than other construction types. Flexible, performance-based energy codes could help developers avoid high cost materials by not confining them to a prescriptive solution.

Increasing productivity can help curb rising costs for affordable housing. Between 2011 and 2016, construction costs rose by 12.6 percent in San Francisco, 13.6 percent in Los Angeles, and 11.8 percent nationwide.[24] Importantly, during the same period, the construction industry experienced a decline in productivity, despite growth in other sectors of the economy. According to McKinsey Global Institute, increasing productivity will be crucial to achieving adequate levels of affordable housing.[25] Innovations in the construction industry, such as prefabricated and modular construction, could improve productiv-

ity while standardizing more energy efficient construction. Mass timber structures could also address a market niche for tall multi-family housing currently dominated by more costly Type I construction. Considering these structures can accommodate superior environmental performance, be built quickly with modular construction, and can satisfy the need for more infill development, they offer a promising solution for both cost and energy efficiency.[26]

Sponsored training programs can stimulate innovative construction techniques, reducing costs until new practices become more efficient. Infrastructure for such support programs already exists; PG&E Energy Centers provide professional training and access to industry experts that can help designers and contractors learn new skills and technologies.[27] If applied to the construction innovation challenges faced by the housing sector, this could be a powerful opportunity to mitigate learning costs and advance the housing industry.

INTERSECTING WORKFORCE NEEDS AND EQUITY

Housing sector decarbonization will require significant workforce development. One chief concern for housing developers is overcoming a current shortage of workers, particularly those with experience in multifamily construction and specific trades.[28] Employment data from the U.S. Bureau of Labor Statistics suggests that hiring of certain trades, including carpenters, cement masons, and concrete finishers, has lagged during the past decade.[29] This coincides with survey responses from California general contractors, who consistently responded that it was harder to hire trades in 2019 than in the previous year, particu-

larly plumbers, pipelayers, roofers, equipment operators, drywall installers, sheet metal workers, and cement masons.[30]

If California follows through with its sweeping building electrification targets, it will have tremendous impacts on employment in the state. The residential decarbonization retrofits sector is projected to require upwards of 40,000 new jobs between 2020 and 2045.[31] Notably, this includes specifically construction-related jobs; additional employment will be required in the renewable energy industry, manufacturing and electric grid operations.

Expanding support for workforce development can mitigate costs and provide needed opportunities for underserved communities. New efficiency and decarbonization requirements are likely to shift labor needs and require new skills in the workforce. This is an opportunity to address equity and cost concerns simultaneously. Workforce development should be integrated into sustainability programs, particularly building electrification. Training and professional development opportunities should support creating more labor in the trades that are currently in demand, as well as anticipate future demand.

Regulators should engage with affected unions to attract skilled workers and retain new workers.[32] Communication with building trade unions is important to ensure construction professionals are receiving training and apprenticeships that align with decarbonization needs. By engaging with local unions and communities, these opportunities should also be intentionally designed to prioritize communities that are underemployed and more likely to experi-

ence energy poverty or other environmental burdens.

BALANCING THE ENERGY-AFFORDABILITY COMPROMISE

Many Californians cannot afford to be left behind on the pathway to decarbonization. Almost half of Californians are renters, 25 percent of whom live on low incomes.[33] In 2016, between 19 to 25 percent of California families were energy insecure, meaning many face disconnection or trade-offs with other basic needs to make utility payments. For these and many others, increases in utilities or rent costs are unbearable. A central debate around housing decarbonization is whether it will cost homeowners and tenants more or actually save them money. For single-family housing construction, going fully electric likely yields modest monthly cost savings resulting from major gains in energy efficiency, as well as from eliminating gas lines and other related fees.[34]

The CEC estimates that the 2019 building standards upgrades will increase the cost of home construction by approximately $9,500 but that improvements will save $19,000 in energy and maintenance costs over 30 years. Over a 30-year mortgage, this will add about $40 per month to the average cost of owning a home. Improved energy efficiency is estimated to save consumers on average $80 per month in heating, cooling and lighting bills, yielding a net benefit. This is in addition to the major social benefits of increased resilience, less pollution, and a more stable climate.

While this may be favorable over the long term, each additional $1000 on the cost of a new home prices out thousands of households from the market.[35] The conversation is also more complicated for existing buildings, particularly tenant occupied housing. Tenants have little or no control over the renovations to their home but carry the cost of decisions made by their landlords.

There also exists a cost-efficiency issue for the many existing residential buildings that will transition to all-electric systems slowly rather than do a full outfitting at once as in new construction. A piecemeal approach to upgrading natural gas appliances for electric may not yield the cost savings experienced by the new construction sector. While switching to modern electric space and water heaters will likely yield annual household energy savings, upgrading exclusively electric stoves or dryers are more likely to be a net loss due to smaller efficiency gains.[36] Depending on how building owners decide to pursue decarbonization programs, it could negatively impact tenants who are responsible for paying for utilities.

One way the state is shielding residents from costs is through incentive funding. The California Public Utilities Commission recently issued a proposed decision on $200 million in funding over four years for two residential building decarbonization programs[37]:

- $80 million for the Building Initiative for Low Emissions Development (BUILD) pilot program – funding for new construction, specifically for buildings that do not include a gas hookup

- $120 million for the Technology and Equipment for Clean Heating (TECH) pilot program – funding for existing

buildings to replace gas-powered hot water heaters and space heaters.

One third of funds are reserved for low-income customers in an effort to support an equitable transition to a decarbonized building sector. While these and similar voluntary incentive programs help to stimulate the low-carbon industry and grow capacity to efficiently build and convert sustainable housing, they are temporary.

Environmental incentives are also historically underutilized by communities of color, and disparities in income and homeownership do not fully explain discrepancies. One notable example is in rooftop solar installations. A recent study shows Black and Hispanic majority census tracts have significantly lower rates of rooftop solar installation than majority White tracts.[38] This pattern holds true even after adjusting for differences in median household income and home ownership. Possible explanations for distributional injustices include low diversity in the renewable energy workforce (notably, 80 percent of management and senior executive roles in solar firms are held by white people), procedural injustices, and lack of community inclusion in decision-making for accessing energy solutions.[39]

> " To have significant, lasting grassroots buy-in, regulators need to engage authentically with the communities most affected by environmental decisions."

A just transition of the housing market requires long-term strategies backed by community support. To have significant, lasting grassroots buy-in, regulators need to engage authentically with the communities most affected by environmental decisions. Policymakers should apply lessons from the rooftop solar industry to voluntary programs during the shift to housing decarbonization to ensure that historically-excluded communities access the benefits of healthier, more efficient homes. Achieving this means putting equity at the center of decarbonization solutions, particularly government interventions. Failing to do so will result in uneven distribution of investments, leaving behind disadvantaged and energy-insecure communities.

Regulators must engage authentically with frontline communities, providing opportunities for citizen participation and decision-making power. Including trusted community partners in planning will not only improve the reach of these policies but will be critical in demystifying the connection between household energy bills, human health, jobs, and a resilient future.[40]

Building electrification, and climate change action more broadly, has been highly politicized. It is important to garner public understanding and support of approaching changes, particularly within the context of how household costs may be affected. Eliminating fossil fuels will lead to safer, healthier, and more sustainable homes. Distributing these benefits justly will require broad public appreciation that carbon-neutral housing is not a luxury but rather a necessity that can improve the lives of all.

CONCLUSION: CONNECTING SUSTAINABILITY AND AFFORDABILITY

Environmental and housing needs are two sides of the same coin – they must be solved collaboratively. Ultimately, policymakers are driven to address the environmental crisis and housing crisis for the same reason: to create a better future for all Californians. One where everyone has access to a safe, affordable home and where future generations can enjoy the same quality of life. Making progress on one issue at the expense of the other is counterproductive; they can and must be addressed together. California's residential sector will be transformed in the coming decades. It is crucial that this transformation occurs efficiently, collaboratively, and equitably.

State regulators and local governments are currently addressing the building stock through greater energy efficiency requirements and by mandating a shift to a low-carbon energy supply. With rising energy and construction costs, it will be crucial to combine these strategies to keep monthly energy bills low while supporting efficient housing production. The following Six Key Recommendations come from the research presented in this article and are a starting point in this broader conversation on a just transition to more sustainable housing.

SIX KEY RECOMMENDATIONS:

- *Coordination*: Align building energy requirements between state and local jurisdictions. Better certainty, transparency, and streamlined requirements are central to efficient construction across jurisdiction lines. Public long-term policy plans will help developers prepare for what will be asked of them in the future.

- *State Decarb Leadership:* State regulators should publish a multi-staged decarbonization strategy tailored for the residential sector, including when leaps in performance will be required and how they will support efforts over the next crucial decades. A version of this policy should be made available in plain English to clearly describe expectations for the construction market. Managing this responsibility at the state-level will allow local jurisdictions to shift focus to training and workforce needs that may be contributing to regional construction cost pressures.

- *Innovation*: Leverage existing training programs provided by utilities to support innovative construction techniques including modular and prefabricated construction, as well as promising alternative materials that have seen lower cost increases, such as mass timber. Help professionals specifically connect these techniques to environmental challenges in the housing sector. A greater portfolio of practiced techniques will assist builders and designers in optimizing construction at lower cost.

- *Workforce Development:* Center local workforce development on the demands of building decarbonization programs and policies. These opportunities should prioritize underserved communities, particularly for trades likely to be involved in housing retrofits

- *Existing Housing Strategy:* An immediate and equitable transition plan is required to bring existing housing to future climate and health standards. Presently, this housing stock does not reap the same cost–saving benefits of improved energy efficiency, has lower returns on energy investments due to an incremental approach, and is much more costly to upgrade. These homes and their tenants will also bear the burden of aging infrastructure shared across fewer buildings as new buildings decarbonize. State regulators should engage communities in the development of a comprehensive retrofit policy, which should be developed alongside local resilience strategies.

- *Center Equity:* Center policies on equity. For all of these recommendations, this involves fostering authentic partnerships with community leaders to better understand how to reach vulnerable populations when developing policies.

ACKNOWLEDGMENT

ENDNOTES

1.   Kimberlin, Sarah, "Californians in All Parts of the State Pay More Than They Can Afford for Housing," California Budget & Policy Center, Sacramento, 2017.

2.   Raetz, H., Forscher, T., Kneebone, E, and Carolina Reid (2020). "The Hard Costs of Construction: Recent Trends in Labor and Materials Costs for Apartment Buildings in California." Terner Center for Housing Innovation at UC Berkeley.

3.   State of California Governor's Office of Planning and Research, "California's Fourth Climate Change Assessment," Sacramento, 2018.

4.   Energy and Environmental Economics Inc. (E3), "Residential Building Electrification in California," San Francisco, 2019.

5.   California Air Resources Board, "The Governor's Climate Change Pillars: 2030 Greenhouse Gas Reduction Goals," 20 September 2016. [Online]. Available: https://ww3.arb.ca.gov/cc/pillars/pillars.htm

6.   Terner Center recently published a paper on sustainable and affordable development following California's SB 375. See "California's SB 375 and the Pursuit of Sustainable and Affordable Development".

7.   E3, Residential, 2019.

8.   California committed to achieving a carbon-neutral electricity grid by 2045 [SB No. 100, 2018]

9.   Note that while not explicitly banning fossil fuel powered HVAC, such as natural gas furnaces, this strategy could eventually lead to the same outcome. There is a technical maximum efficiency that can be achieved by gas-fired building systems that can be far outstripped by electrical alternatives. As efficiency requirements continue to mount, developers will be forced toward electric solutions – but the timing of this tipping point is uncertain.

10.   E3, Residential, 2019.

11.   California Energy Commission, "2019 California Energy Efficiency Action Plan," 2019. [Online]. Available: https://ww2.energy.ca.gov/business_meetings/2019_packets/2019-12-11/Item_06_2019%20California%20Energy%20Efficiency%20Action%20Plan%20(19-IEPR-06).pdf

12.   A comparison matrix for the different decarbonization ordinances and electric reach codes across California is available from the Building Decarbonization Coalition, "Active Local Government Efforts," Available: http://www.buildingdecarb.org/active-code-efforts.html.

13.   CO2eq stands for "carbon dioxide equivalent"; a metric that represents the estimated global warming impact of mixed GHG emissions using the equivalent mass of carbon dioxide as a reference. GHG savings estimated from E3, Residential, 2019.

14.   E3, Residential, 2019.

15.   LA Times, "Should California Ban Gas in New Homes? A Climate Battle Heats Up," 2020. [Online]. Available: https://www.latimes.com/business/story/2020-12-07/should-california-ban-gas-in-new-homes-a-climate-battle-heats-up

16.   Architecture 2030 (2019). "Why the Building Sector," Retrieved from: https://architecture2030.org/buildings_problem_why/

17.   Turner and Townsend (2017). "International Construction Market Survey 2017," Turner and Townsend, http://www.turnerandtownsend.com/en/insights/international-construction-market-survey-2017/.

18.   Raetz, Hard Costs, 2020.

19.   Reid, Carolina and Hayley Raetz (2018). "Perspectives: Practitioners Weigh in on Drivers of Rising Housing Construction Costs in San Francisco," Retrieved from: https://ternercenter.berkeley.edu/wp-content/uploads/pdfs/San_Francisco_Construction_Cost_Brief_-_Terner_Center_January_2018.pdf

20.   Raetz, Hard Costs, 2020.

21.   Garcia, D. (2019). "Making It Pencil: The Math Behind Housing Development." Terner Center for Housing Innovation at UC Berkeley.

22.   Raetz, Hard Costs, 2020.

23.   Raetz, Hard Costs, 2020.

24.   Andrea Cross, and Taylor Jacoby. "Why are Construction Costs Rising?" CBRE. June 2016. Retrieved from: http://www.cbre.us/configuration/global/content/globalresearch/3/5/0/

25.   Jonathan Woetzel et al., "A Blueprint for Addressing the Global Affordable Housing Challenge" Mckinsey Global Institute. October 2014. Retrieved from: http://www.mckinsey.com/global-themes/urbanization/tackling-the-worlds-affordable-housing-challenge.

26.   Central City Association of Los Angeles (2019). "Mass Timber: A Faster, More Affordable, and More Sustainable Way to Build Housing". Retrieved from: https://www.ccala.org/clientuploads/directory/whitepapers/CCA__Mass_Timber_White_Paper_final.pdf

27.   Pacific Gas and Electric Company (2020). PG&E Energy Centers. Retrieved from: https://www.pge.com/en_US/small-medium-business/business-resource-center/training-and-education/energy-centers.page

28.   Raetz, Hard Costs, 2020.

29.   Terner Center analysis of U.S. Bureau of Labor Statistics data: U.S. Bureau of Labor Statistics. Occupational Employment Statistics Data. Retrieved from: https://www.bls.gov/oes/tables.htm.

30.   Associated General Contractors of America and Autodesk. (2019). 2019 Workforce Survey Results: California Results. Retrieved from: https://www.agc.org/sites/default/files/WorkforceDevelopment_2019_California_o.pdf.

31.   UCLA Luskin Center for Innovation (2019). California Building Decarbonization Workforce Needs and Recommendation. Retrieved from: https://innovation.luskin.ucla.edu/california-building-decarbonization/

32.   UCLA, California Building, 2019.

33.   2017 American Community Survey (2017). "Total Household Income by Ownership of Dwelling (tenure)," Retrieved from: https://www.census.gov/programssurveys/acs/.

34.   E3, Residential, 2019.

35.   NAHB Economics and Housing Policy Group (2019). NAHB Priced-Out Estimates for 2019. Retrieved from: https://www.nahbclassic.org/generic.aspx?genericContentID=265844

36.   E3, Residential, 2019.

37.   California Public Utilities Commission (2020). "Building Decarbonization: Background", Retrieved form: https://www.cpuc.ca.gov/BuildingDecarb/

38.   Sunter, D.A. et al. "Disparities in rooftop photovoltaics deployment in the United States by race and ethnicity". Nature Sustainability, Vol 2, 71-76 (2019)

39.   Sunter, Disparities, 2019.

40.   Greenlining (2019). "Equitable Building Electrification," Oakland.

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Data privacy has become highly important in our everyday lives. Amidst the COVID-19 pandemic and the rise of calls for more scrutiny of police surveillance practices, local governments now have a stronger call than ever to elevate their data privacy practices. One nascent trend could be an excellent solution for city and county governments: privacy principles. Privacy principles are a set of broad guiding principles that inform the data practices across departments. Resolutions establishing privacy principles usually comprise six to eight principles addressing concepts like transparency, accountability, and limiting collection of information.

Cities that have implemented privacy principles, including Seattle, Portland, and Oakland, have seen several benefits to their implementation. First and foremost, city employees were much more aware of privacy issues and were able to develop concrete practices that improved upon existing privacy practices. Local governments can also use privacy principles to engage their citizenry and allow for citizen input into their own data privacy. Finally, privacy principles can serve as a strong signal of a government's commitment to its citizens.

When developing privacy principles, local governments should gather knowledge and input from all relevant stakeholders, including citizens, experts, and city officials. Next, governments should create a formal oversight department and a network of "privacy champions." The oversight body should also be responsible for reinforcing practices through trainings and workshops. Finally, local governments can gain insights from other local governments with privacy principles. These practices can help establish a strong culture of privacy within a local government.

INTRODUCTION

As the world continues to transition into the digital realm, issues of privacy and security continue to take center stage. The International Association of Privacy Professionals (IAPP) describes information privacy as "the right to have some control over how your personal information is collected and used." However, as the way we use technology evolves, the nuances surrounding the IAPP definition must also change. The rapid pace of technological progress has made it difficult to settle on a universal definition of privacy that captures the nuance needed to navigate the modern technological landscape.

The United States has passed several federal data protection laws to protect the private

and personal information of specific groups of individuals and institutions. However, a comprehensive federal privacy law does not yet exist. Therefore, privacy as a concept, legal right, and law is dependent on the type of regulation and personal information that is at hand. For instance, the Federal Trade Commission (FTC) defines privacy in very specific terms, such as considering data and information that can be linked or reasonably linkable to a person as personal data. Unauthorized access, usage, or sharing of this personal data, which includes device identifiers and Internet Protocol (IP) addresses, would constitute a violation of privacy.[1] On the other hand, the constitutional "right to privacy" is much broader, protecting Americans against government intrusions[2] but providing limited guidance and protection from private actors on the internet.

Data privacy in the context of local government has faced new challenges in recent years. The COVID-19 pandemic and the excessive police surveillance associated with the resurgence of the Black Lives Matter movement highlight two major local data privacy issues. Regarding COVID-19, local governments serve as major health care providers, and combatting the pandemic requires extensive data collection and sharing throughout a region. All of these data are currently protected by the federal Health Insurance Portability and Accountability Act, but nevertheless carries a large degree of privacy risk due to the sensitivity of public health information. In addition, in many jurisdictions, concerns about data collection, surveillance, police brutality, and the structural racism which has facilitated these practices have led to constraints on the excessive use of surveillance by law enforcement. Examples include San Fran-

cisco's ban on facial recognition and Oakland's and Santa Clara County's surveillance ordinances.

PRIVACY PRINCIPLES: A SOLUTION FOR LOCAL GOVERNMENTS

Privacy principles have begun to proliferate in local governments over the past five years as a tool to address the issues presented above. Privacy principles are a set of non-binding standards or guidelines intended to act as an overall aspirational philosophy for the protection of the personal information of individuals collected, held, and used by government authorities and their partners. The basis for modern privacy principles stems from the FTC, which developed its Fair Information Practice Principles (FIPPs) in 1973.[3] The FIPPs were among the first sources of privacy guidelines for both the public and private sectors. Since then, these principles have evolved and have been infused into the privacy framework of several national and state governments around the world and are beginning to find their way into local governments.

Most local governments necessarily collect a large amount of personal information in order to operate programs and protect residents. These data come from the day to day provision of government services such as vehicle licensing and registration, tax assessment and collection, delivery of health care and social services, and countless other programs.

Governments have a responsibility to protect the personal information of their constituents. Privacy principles can serve to inform any decision made by a local government, such as which new information

technology system should be acquired, what data should be included in public-facing reports, and how the government should work with third-party vendors. For example, a privacy principle may state that the collection of personal information should be limited to that required to provide the specific service requested and collect no additional information on individuals.

> "Governments have a responsibility to protect the personal information of their constituents."

Privacy principles are intended to be aspirational in nature rather than serve a compliance or legal function. They complement—but do not replace or supersede—existing ordinances, rules, and other binding policies. While ordinances and rules come with explicit means to enforce them, privacy principles do not, and are more concerned with establishing a broader philosophy rather than direct governing. According to other jurisdictions that have adopted privacy principles, creating an aspirational set of principles allows for a shared vision of how information privacy can be implemented. For example, in some jurisdictions, privacy principles coexist with surveillance ordinances that are very explicit in their governance of data privacy and surveillance. In these cases, the role of privacy principles is to guide privacy management at a broader level, particularly covering situations where specificity is impractical, and inform the creation of new rules, ordinances, and policies.

For many local governments, privacy principles have reinforced privacy practices throughout various government operations. The remainder of this paper consists of a synthesis of current practices in pioneering localities, a discussion of the benefits seen in select localities, and a set of recommendations for local governments that may be looking to update their privacy practices. The bulk of this work comes from original research conducted by the author working with the City of Oakland and the County of Santa Clara at various stages of privacy principle development and implementation over the past year, and most information is sourced directly from interviews with city officials and privacy experts.

BENEFITS OF PRIVACY PRINCIPLES

Cities that have implemented privacy principles have seen several notable benefits, stemming both from the development process and from the final implementation. The first and most direct benefit is improved privacy practices. Post implementation, many local governments have reported a heightened awareness of data privacy and improved privacy practices. The principle development process also assists with developing a "culture of privacy" where government employees consider privacy as a part of their daily practice. One government official relayed a story in which the county government sent a batch of information to the city that contained far too many data fields for its intended purpose, and department employees immediately contacted the privacy office to inform them of the county's poor practices. Overall, individual departments within local governments felt the principles provided them with concrete and proactive meth-

ods to better handle data and information within their departments.

The second benefit involves community engagement during the development process. Privacy principles are necessarily developed for the protection of individual citizens from misuse of their personal information. Several cities have actively engaged the public directly through workshops and public hearings to comment on the development of privacy principles, giving constituents a voice in how their personal information is collected, maintained, used, and shared. In many cases, citizens have no direct influence over the policies that affect their daily lives and can only express their voice through referenda and elections. The emerging field of citizen-focused privacy practices allows citizens to instead directly engage with governments on how they feel policies should be shaped. The case studies on Seattle and Portland expand on the specifics of public engagement.

Privacy principles serve as proof of a government's continued actions to protect the privacy of its constituents. These principles help to provide an easily understandable conceptual framework that ties together existing privacy commitments found in various binding frameworks, such as ordinances or formal policies. Privacy principles can help both government employees and members of the public as they exercise their duties and access government services, respectively.

"Before a local government begins to craft a set of privacy principles, it is crucial to examine existing implementations found in other local and state government contexts."

At the moment, the small number of cities with privacy principles and the relative nacency of their implementation does not allow for robust examination of outcomes for the public. However, the benefits can be surmised by examining the effects of other major privacy principle implementations, the most salient of which are the FIPPs. Over the years, the FIPPs have served as the guiding document for major privacy legislation, practices, and other privacy principles around the world. The FTC has listed several benefits to individuals stemming from the FIPPs, including providing citizens with more information to make informed decisions about their data and facilitating correction of inaccurate data.[4]

OVERVIEW OF PRIVACY PRINCIPLES IN LOCAL AND STATE GOVERNMENTS

Before a local government begins to craft a set of privacy principles, it is crucial to examine existing implementations found in other local and state government contexts (though this analysis will focus on local governments). At least seven local governments have adopted privacy principles in the past five years, beginning with Seattle in 2015 and followed by Kansas City later that same year. Since then, several jurisdictions have adopted privacy principles, including Portland (2019); San Jose (2019); Oakland (2020); Mesa, AZ (date uncertain); Alameda County (2019); and Santa Clara County (ongoing). For comparison, this analysis also includes in-

formation on West Virginia's privacy principles.

While working to advance principles in Santa Clara County and Oakland, the author spoke to representatives from four of these eight jurisdictions (Oakland, Portland, San Jose, and Seattle) as well as representatives from the think tank Future of Privacy Forum, to understand the benefits, challenges, and lessons learned in developing privacy principles. Many of these governments took cues from Seattle's privacy principles as well as subsequent principles adopted by other cities. However, many municipalities have also introduced new ideas that are tailored to their specific needs and circumstances and go on to inform subsequent efforts. For instance, Portland's inclusion of an equity principle was later reflected in principles developed in Oakland, Alameda County, and Santa Clara County.

PRIVACY CONCEPTS COMMONLY ADDRESSED IN PRINCIPLES

There are a number of common factors that appear across most sets of privacy principles. Within a set, each principle is based on a central theme, such as limiting data collection, working with third parties, transparency of data collection, storage, and use practices, and accountability to residents of a given jurisdiction. Often, cities will tie together two similar concepts under one principle due to their similarity or synergy, particularly within a jurisdiction's lo-

cal context. Governments tend to keep the number of principles small and their scope broad, opting for between six to eight principles in order to cover a wide array of unique departmental contexts while keeping a consistent core ideation of privacy.

The analysis below sets out an original framework breaking down the contents of privacy principles. There are eleven distinct concepts that are represented in some form across the eight jurisdictions surveyed for this analysis. These include accountability, accuracy, equity, ethics, informed consent, limiting the collection and retention of information, managing information, responses to public records requests, reviewing new and existing systems, collaboration with third parties, and transparency of practices.

These practices represent a mix of concepts that are common across the public, private, and non-profit sectors as well as concepts that are unique to the context of government. For example, the major technology companies Google,[5] Facebook,[6] and Amazon[7] — all of which collect very large amounts of user data — have privacy principles addressing accountability, informed consent, data management, third party access, and transparency but also have principles honoring data deletion requests and direct control over privacy,[8] both of which are impractical for governments that require data for tasks like vehicle licensing or tax collection. Concepts like limiting collection and retention, public records

> "Concepts like limiting collection and retention, public records disclosure, and system reviews make little sense in the private sector ... but are central to effective privacy management in the public sector."

Table 1.

Privacy Concept	Definition	Frequency
Accountability	The responsibility to protect the personal information of individuals and be held accountable for breaches of responsibility and trust	8
Limiting Collection/Retention	The practice of collecting only the specific information needed to provide a service and storing it only as long as it is needed	8
Transparency	The directive to make the public aware of what information is collected, how it is used, and who may have access	8
Informed Consent	The responsibility to inform individuals of how their information will be used and to provide the option for individuals to refuse data collection	7
Third Party Access	The imperative to extend privacy practices to interactions with third parties, including limiting access to information where possible and requiring third parties to comply with privacy principles	7
Managing Data/Stewardship	The responsibility to protect and store information in a manner that prevents unauthorized access	6
Public Record Disclosures	The responsibility to maintain individual privacy as much as possible when responding to requests for public records while still complying with regulations governing requests	6
Ethics	The directive to evaluate the risks to individual privacy of any practice that collects and uses information	5
Accuracy	A promise to maintain the most accurate information possible	4
Review of Systems	The task of reviewing current and future information systems and evaluating their potential impact on the privacy of individuals	4
Equity	The directive to treat information collected from vulnerable populations with the same care as all others and to not use such information to exploit or harm vulnerable populations	3

disclosure, and system reviews make little sense in the private sector — where data collection is a central business model and there are no public records or systems — but are central to effective privacy management in the public sector. The table below provides definitions for each concept and the frequency with which it appears in the privacy principles of the eight jurisdictions listed above.

All eight of the state and local governments surveyed included language around Accountability, Transparency, and Limiting Collection/Retention in their privacy principles. While the number of state and local governments that have implemented privacy principles is still relatively small, it is noteworthy that those surveyed all chose to include these three concepts, suggesting

that these concepts are pertinent to include in privacy principles.

The remaining concepts are the product of customization of principles to suit a city's unique environment. Much like the public/private comparison described above, a locality may have a particular structure, demographic makeup, historical context, or truly any other reason to add additional principles to the core group above. For example, Oakland and Alameda County followed Portland's lead in including a principle addressing Equity. Alameda County as a whole (including Oakland) has a high share of people of color, and including an Equity principle explicitly addresses the history of tension between local government and the underprivileged segments of the population. On the other hand, Santa Clara County already has an established framework and process for reviewing systems, and as a result, may not include Review of Systems in their privacy principles (currently under development). In a third example, governments that have historically kept comparatively inaccurate records would greatly benefit from an Accuracy principle, while a data-savvy city may decide against its explicit inclusion and build the Accuracy concept into a Data Management/Stewardship principle instead. Furthermore, local governments need not artificially restrict themselves to the privacy concepts displayed above. A locality that has an outsize issue with data theft may choose to further break down the Data Management/Stewardship concept

"Seattle used a community-based process in the development of its privacy principles ... the city engaged three key groups: privacy professionals in academia, Seattle city employees, and the general public."

into more specific components and include a principle regarding improved data security.

The concept of Informed Consent merits additional discussion. In general, a significant amount of information collection practices occur as a necessary prerequisite to providing services. As a result, the concept of "consent"—as typically defined in the context of private sector information collection—is simply not a relevant factor for many kinds of information collection by governments. This raises questions about the utility of a privacy principle dedicated to the concept of Informed Consent. However, one government leader indicated that a principle calling for informed consent—which was not included in that jurisdiction's principles—would be useful to address the use of surveillance by local governments.

DEVELOPMENT AND IMPLEMENTATION OF PRIVACY PRINCIPLES IN SEATTLE AND PORTLAND

Among the state and local governments surveyed, two in particular serve as models for the development of privacy principles: Seattle and Portland. The following section examines the implementation of privacy principles within these two cities at a more granular level to inform recommendations for other local governments seeking to implement privacy principles.

Seattle

Seattle adopted its privacy principles by resolution in 2015, making the city one of the first local governments to adopt formal privacy principles. Much as in other cities and counties including Oakland and Santa Clara County, Seattle originally passed an ordinance regulating the use of surveillance technology by their agencies and departments. However, members of the Seattle City Council and the general public felt that the ordinance was too narrow in scope, given that it only focused on surveillance technologies. Privacy principles, on the other hand, would address broader goals, and thus the city council subsequently tasked the Chief Technology Officer (CTO) with developing a set of aspirational privacy principles.

Seattle used a community-based process in the development of its privacy principles. Led by the Chief Privacy Officer (CPO), the city engaged three key groups: privacy professionals in academia, Seattle city employees, and the general public. Academics from the University of Washington initially provided key input on the concept of developing privacy principles, and based on their input, the CPO created a commission of academics, members of the public, concerned advocacy groups such as the ACLU, and representatives of private industry.

The commission met three times over the course of several months to workshop privacy principles. The CPO felt that these workshops with stakeholders were vital to the process of developing principles. She stressed that in order for this process to be inclusive of all stakeholders, the workshops should allow principles to develop organically instead of requesting edits on a pre-prepared document. In addition, confirming that the principles were aspirational rather than a strict legal framework helped promote an environment of collaboration toward shared goals. The CPO also interacted with representatives from all of Seattle's 38 city departments, both with high-level executives and staff employees. The CPO noted that it was particularly important to engage high-level executives in the discussion to legitimize the effort, stating that the principles would have never been passed without the support of the city council, the mayor, and the CTO.

Seattle provided organizational support to facilitate the departments' implementation of the privacy principles. First amongst these was the Privacy Office, created in 2015 within the Information Technology department to support city departments in implementing and managing compliance with the privacy principles. After convening a group of representatives from 15 departments to create policies and practices, the Privacy Office designed a citywide Privacy Program to provide guidance and tools to city employees working with personally identifiable information. The Privacy Office provides annual privacy training for city employees, conducts privacy reviews on technologies used in new and existing city programs across all departments, and carries out advocacy work.[9] Since September 2017, the Privacy Office has completed more than 2,000 privacy reviews and in 2019, it provided annual privacy training to around 12,000 city employees.[10]

Seattle also decided to implement a departmental Privacy Champion program, where Privacy Champions provide department support for incorporating the Privacy Program objectives into systems and processes,

such as handling basic inquiries, carrying out risk reviews, and building awareness about privacy. Privacy Champions also serve to provide a network of focal points on the department level to promote the Privacy Program.[11]

Seattle also created processes and a toolkit to help departments implement the city's privacy principles. The toolkit contains an online collection of resources that includes process documents, review forms, training and awareness links and contract language that department employees can make use of to incorporate privacy principles into daily operations.[12] According to the city's Privacy Program, owners of projects carry out a three-step privacy review process to determine the project's level of privacy risk and identify steps to mitigate those risks. The initial step is completing an assessment questionnaire; if the answers indicate a low privacy risk, project owners are tasked with using the resources provided in toolkits to handle the risks themselves. For projects determined to have a higher privacy risk, the project owners respond to a Privacy Threshold Analysis where the departmental Privacy Champion reviews the answers to determine whether the project owners can use the toolkit resources to handle the risk or whether an in-depth privacy review is required. For projects determined to represent a significant privacy risk, project owners complete a Privacy Impact Assessment which takes a more detailed look at projects to determine all potential impacts and options for mitigation. [13]

> "Creating an effective and comprehensive system of privacy practices requires an understanding of how various stakeholders view and define privacy."

Portland

Portland's motivations to develop privacy principles stemmed from the Smart City PDX team, the group responsible for the city's larger plan to reshape its data management practices. The Smart City team first spent a significant amount of time building support and obtaining feedback on the development of principles from top level officials in the city council and commissioners' offices (the offices of the heads of city bureaus), as well as from the city attorney's office. With this support, Portland then sought simultaneous feedback from the public and the various bureaus within the city. Ultimately, the Portland City Council adopted the privacy principles by resolution in 2019.

Much like Seattle, Portland hosted a series of public workshops to engage the public. The Smart City team engaged multiple public networks and reached out to other city bureaus such as the Equity and Human Rights Office, organizations such as the Digital Inclusion Network and the Portland Business Alliance, and advocacy groups such as the Coalition of Communities of Color to draw in several relevant stakeholders. The workshops employed an "unconference" format, effectively an open discussion among equals with no moderators, to mitigate tensions that some organizations may have with the city. This structure was particularly important to encourage participation from minority communities that were often at odds with law enforcement or other bureaus and to

include a diverse set of voices. The Smart City team also reached out to other organizations whose missions may not be typically associated with advocating for greater privacy protections but nevertheless would provide important perspectives.

Within the city, the Smart City team pursued a similar strategy to those used in Seattle. Early on, the Smart City team identified key high-level champions of privacy principle development, including the police chief, whose high visibility and authority could be used to demonstrate and encourage support for the development of the principles. In general, Portland found that many departments were in favor of developing such aspirational principles, especially those who felt they had little direction on privacy for the large amount of information they collected.

Although Portland's principles have only been in place for one year, the Smart City team feels the principles have been a valuable investment. In addition, the team has gained insight into the changes they would have made to the process. Most notably, the Smart City team's Open Data Coordinator (ODC) suggested that principles regarding consent and the right to know what information the city collects should be considered, mainly due to the risks of government surveillance being deployed in an unfair and discriminatory manner. The Smart City team stressed the need to keep elected officials in the loop at all times during the process, as well as the need to keep language simple and easy to understand, recommending a software application to help achieve this.

A Discussion on Police Surveillance

In Seattle, Oakland, and Santa Clara County, the discussion of privacy principles was preceded by an explicit surveillance ordinance. In Oakland and Santa Clara County in particular, the council or board of supervisors passed these ordinances in response to public outcry over new surveillance programs. In Oakland, the public took issue with the police department's use of a Domain Awareness Center (DAC) installed in Oakland by the local port authority in 2013. A DAC operates similarly to a typical network of traffic cameras but is augmented by additional equipment that monitors everything from emergency calls to social media posts in order to track events in real time.[14,15] The public response was decidedly negative, and one of the major concerns was how the Oakland police might use this system to unfairly target people of color. The Oakland Police Department has a tumultuous history of over-surveilling the city's black population, dating back to the rise of the Black Panthers in the 1960s, and many people of color felt the DAC would perpetuate an unfair system. This led Oakland to pass a surveillance ordinance governing how police could use surveillance technology, which eventually led to the development of privacy principles.

RECOMMENDATIONS

Based on a review of existing privacy principles and input from privacy professionals and key stakeholders in several cities, local governments seeking to develop and implement a set of privacy principles should follow the general guidelines described below.

Gather knowledge, input, and backing from relevant stakeholders

Creating an effective and comprehensive system of privacy practices requires an understanding of how various stakeholders view and define privacy as well as an understanding of how privacy principles can be incorporated into existing paradigms and frameworks. Engaging stakeholders must take place at each stage of development and involves a number of key activities. During the development stage this includes:

- Engaging academics and students at local universities

- Gathering input on existing privacy practices from government officials (both staff employees and management)

- Engaging community members, organizations, companies, and networks dedicated to maintaining equity (local ACLU chapters, neighborhood organizations, private companies, watchdog organizations)

- Securing a champion for citizen data privacy within the government to legitimize the practice (possibly the city manager, mayor, or a member of the city council or county board of supervisors)

Once these stakeholders have been identified and engaged, the author strongly suggests convening a multi-day workshop to begin crafting the first drafts of privacy principles. These should be open invitation, with key stakeholders explicitly invited. In addition, most local privacy professionals recommend taking a fairly hands-off approach. Portland's workshop series, for example, used the "unconference" format, where there were no designated discussion leaders and input from all participants was treated as equally valid.

During the implementation stage, networks need to remain engaged, particularly the managers of government departments and the employees responsible for maintaining the ideals of the privacy principles. This is crucial to gaining an understanding of how each of the principles will operate within specific departments. Representatives of the Future of Privacy Forum suggest allowing individual departments a degree of autonomy in order to be more effective in implementing privacy practices. This should be done in collaboration with experts at the city level in order to ensure departmental practices remain harmonious with practices implemented citywide.

Formalize institutional structures to manage privacy throughout the city

The continued engagement with individual departments must also carry with it two key organizational structures: a privacy oversight body and a network of privacy champions. Both organizational structures have appeared in some form among the local governments surveyed above.

The primary job of the oversight body is to review actions taken by local governments that may have a privacy impact. This includes anything from the purchase of new data maintenance software to the use of surveillance technology by the police. Most municipalities require the use of a privacy impact assessment (essentially a breakdown of the privacy implications of a

technology or practice at hand), submitted to the oversight body prior to the purchase or implementation of a new practice. The oversight body should also be responsible for retroactively assessing existing practices. In addition, a privacy office should provide trainings and resources to departments to help enshrine privacy principles within departmental practices. The privacy oversight body takes many forms throughout local governments, including a Privacy Office such as those found in Seattle and Santa Clara County, a Smart City team as found in Portland, and an independent, citizen-lead Privacy Commission as found in Oakland. Representatives from every city surveyed recommended housing the oversight body in a central location, often as part of a central Information Technology office, a central administrative office, or the office of the mayor, city manager, or county executive.

The privacy champions network consists of a group of employees from across a local government's various departments who have an interest in privacy within their specific departmental context. This is not a responsibility that requires a dedicated position; rather, it is a responsibility that should be taken on by an employee within the department in addition to their existing tasks. The privacy champions network is the key link between the privacy oversight body and the different departments within a local government. The relationship is intended to be bilateral, with privacy champions providing input on oversight practices and the oversight body provid-

> "Setting up a meeting with a chief privacy officer, privacy commissioner, or other privacy professional can both illuminate new opportunities and strategies."

ing training and resources that the privacy champions can utilize in their departments. The privacy champions should also communicate within the network to share best practices and additional expertise.

It should also be noted that an oversight body should engage a network of department heads. As mentioned by representatives from each city and the Future of Privacy Forum, no paradigm can be sustained without support from the top as well as the bottom, and department heads should be brought on board to ensure successful deployment.

Reinforce privacy practices through training, resource provision, regular auditing, and continued visibility

In addition to conducting privacy reviews, the oversight body should also be a primary source of expertise on protecting citizen data privacy within a local government. As a result, cities like Seattle and Portland have developed a comprehensive set of resources designed to ease implementation, including trainings and toolkits designed to facilitate implementation into a department's unique context. This should also be built into the engagement of stakeholders throughout the implementation process. In addition to these practices, local privacy practitioners recommend keeping employees aware of the existence and importance of privacy principles. Both Seattle's CPO and Portland's ODC recommended some form of "privacy day" event, co-sponsored by a key stakeholder like a councilperson or mayor, where the city's employees gath-

er for mass awareness events, trainings, and updates.

In addition, an oversight body should conduct regular audits of existing practices independent of the privacy impact assessments already conducted. As technology is constantly evolving and more and more datasets are made public, information and data that previously could not lead to personal identification may be used to identify individuals in the future. For example, more powerful reidentification techniques may be developed or information may be linked across old and new datasets to increase the possibility of reidentification. Moreover, the public may have changing perceptions of privacy or different attitudes towards government holding data as time passes. As such, it is important to undertake periodic auditing of data and processes to ensure privacy principles are upheld and updated as needed.

Engage other local governments

If any issues or questions arise, it is likely that one of the governments surveyed in this report has encountered a similar situation and can serve as a resource for suggestions and advice. In the author's experience, setting up a meeting with a chief privacy officer, privacy commissioner, or other privacy professional can both illuminate new opportunities and strategies as well as build the network of local privacy professionals beginning to form throughout the country.

CONCLUSION

Local government privacy is a novel concept. While the federal government has been operating in this space for nearly 50 years, the oldest formalized local privacy regimes are no more than five years old. Nevertheless, the need for local government data privacy practices has been elevated to critical levels in the past several years, even more so with the advent of the COVID-19 pandemic and the increased racial tensions as a result of police brutality. Police surveillance, equity issues, and the necessary collection of vast amounts of public health surveillance data have cast a spotlight on the clear necessity for local data privacy. More American cities should consider enhancing their local data privacy and security regimes through the implementation of privacy principles (and complementary surveillance ordinances) in order to ensure that their constituents' data stay in safe hands.

ENDNOTES

1. "Definitions in the United States." Data Protection Laws Of The World. DLA Piper, January 27, 2020. https://www.dlapiperdataprotection.com/index.html?t=definitions&c=US.

2. Mulligan, Stephen P., Chris D. Linebaugh, and Wilson C. Freeman. "Data Protection Law: An Overview." Congressional Research Service, March 25, 2019. https://fas.org/sgp/crs/misc/R45631.pdf.

3. US Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, and Willis W Ware, "Records, Computers, and the Rights of Citizens" (1973).

4. Pitofsky, Robert, Sheila F. Anthony, Mozelle W. Williams, Orson Swindle, and Thomas B. Leary, "PRIVACY ONLINE: FAIR INFORMATION PRACTICES IN THE ELECTRONIC MARKETPLACE". Federal Trade Commission (2000).

5. Google. Privacy & Security Principles - Google Safety Center. Accessed December 22, 2020. https://safety.google/principles/.

6. Facebook. "Facebook Privacy Basics." Facebook. Accessed December 22, 2020. https://www.facebook.com/about/basics/privacy-principles.

7. Amazon. "Compliance - Data Privacy FAQ." Amazon. CNSC, 2001. https://aws.amazon.com/compliance/data-privacy-faq/.

8. The recent passage of the California Consumer Privacy Act has forced many companies to adopt these practices explicitly rather than simply include them in privacy principles, which may explain why these companies make them central components of their principles.

9. "City of Seattle Privacy Program 2019 Annual Report: Transforming Privacy." City of Seattle. City of Seattle Privacy Office. Accessed May 10, 2020. http://www.seattle.gov/Documents/Departments/Tech/Privacy/2019 Privacy Program Annual Report.pdf.

10. Ibid.

11. "City of Seattle Privacy Program." Community Technology Advisory Board. City of Seattle Information Technology, October 2015. http://ctab.seattle.gov/wp-content/uploads/2015/10/COS-Privacy-Program.pdf.

12. Ibid.

13. Ibid.

14. "Domain Awareness Center (DAC) Draft Privacy Policy and Public Comments." City of Oakland. Accessed December 22, 2020. https://www.oaklandca.gov/resources/dac-draft-privacy-policy-public-comments.

15. Wheeler, Brian. "Police Surveillance: The US City That Beat Big Brother." BBC, September 29, 2016.
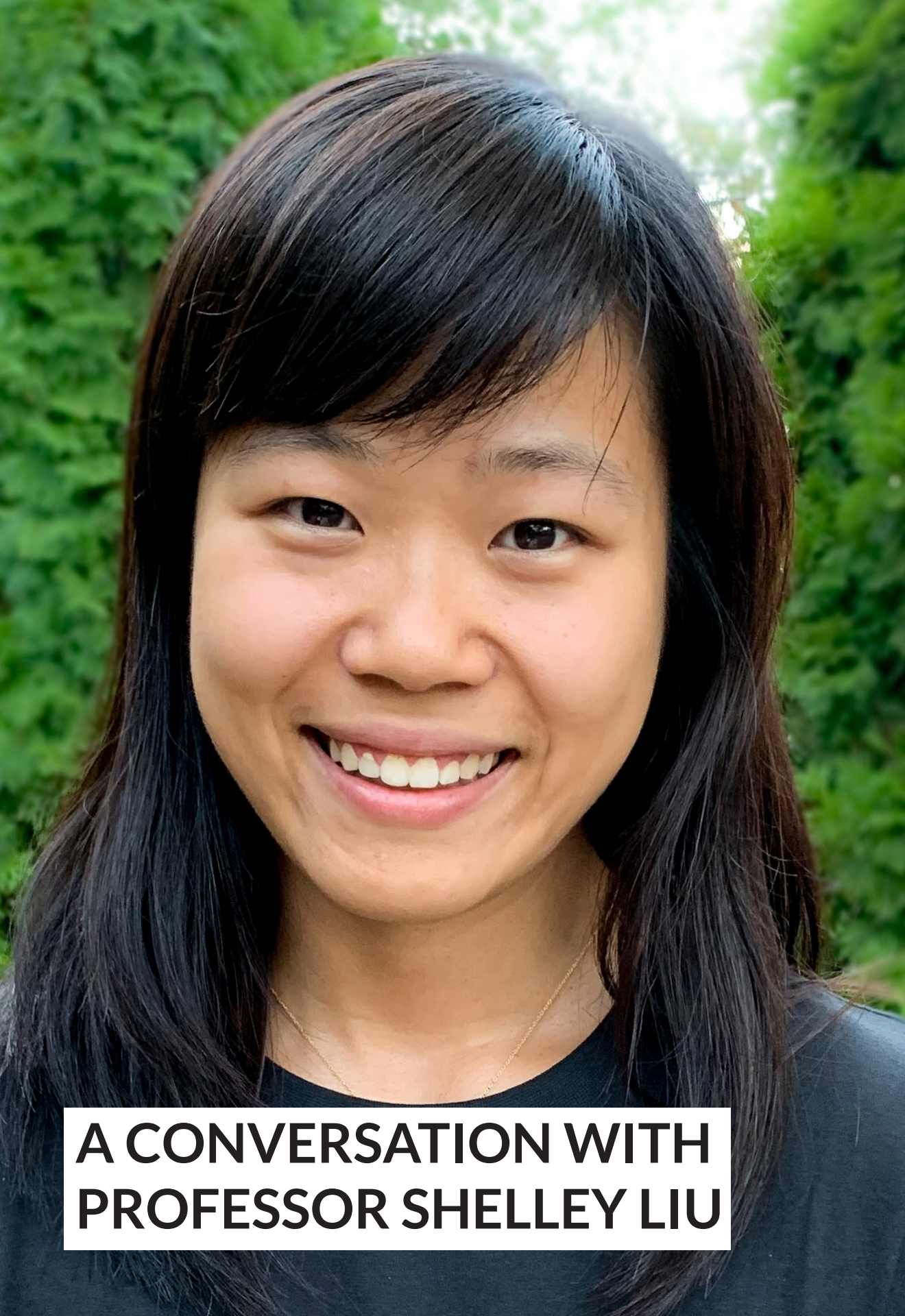
A CONVERSATION WITH PROFESSOR SHELLEY LIU

A CONVERSATION WITH PROFESSOR SHELLEY LIU

Edited by: Charlotte Aaron, Emily Clayton & Katherine Cohn

Shelley Liu is an assistant professor in the Goldman School of Public Policy at UC Berkeley. She studies political violence and development in sub-Saharan Africa, focusing particularly on the relationship between citizens and the state during times of conflict and state fragility. Her current projects examine how governments develop the state after conflict, how citizens respond to development policies, and how access to education and information mediates the relationship between citizens and their government.

Dr. Liu received her PhD in government from Harvard University and holds a BA in political science from Columbia University. At the Goldman School, she teaches courses on the politics of civil war and development in the Global South.

Editor's Note: This interview took place 17 December 2020. While many of these topics may seem familiar, it is important to keep in mind that the U.S. Capitol had not yet been stormed by a white supremacist mob (which erupted 6 January 2021.) As we reviewed the interview only a few weeks later, Liu's warnings were strikingly spot-on. Current events that have since unfurled only further demonstrate the fragility of democratic institutions. As Liu reflects, ethnic conflict and distrust of the democratic process are not new themes, but they are crucial problems to continue to address.

Content Warning: This conversation discusses conflict zones, and as such, includes descriptions of war crimes, psychological processing of trauma, and sexual violence.

BPPJ: In your research on authoritarian governments during COVID, you investigate how to get social media sources and trusted local sources of information to distribute accurate information cheaply. Can you talk about your findings? Do you think any of these findings could be useful for some of the misinformation issues we are facing in the United States?

Shelley Liu: A lot of misinformation research has been done in the United States. There has not been a lot done in developing countries, and they face a different set of challenges. One thing about a lot of the governments in developing countries is they are authoritarian, so a lot of citizens don't trust their governments. I guess that's something that's happening in the

US now, as well. You might imagine in an authoritarian government, a lot of people inherently don't believe anything that their government is saying. In addition, it's very expensive to get data in developing countries. [Instead of paying to directly access news], people get news on WhatsApp forwarded to them. People will get a lot of these terrible misinformation pieces and don't [have] the money to actually go on Google to fact check it, whereas WhatsApp is often free.

[As for your question about my research,] we partnered with a local civil society organization in Zimbabwe that [has a news aggregation project which] sends out newsletters to its followers. We were working with them on something else at the time COVID hit. Obviously, everyone was concerned. In the United States, we were not really sure what was going on, and we didn't know what was true or false. It was so much worse in some of these developing countries where people can't go online. Their governments are saying things but people thought "we don't believe you because we don't believe anything that you say." [We facilitated an intervention meant] to push out some of the early information about COVID and correct some of the things that people had been reading and sharing on WhatsApp about the lockdown that was being implemented.

We did find that there was knowledge and behavioral change. It was good for us to see that people would now know that you can't just drink orange juice, or inhale garlic and ginger, to cure COVID: these were viral posts that went out throughout Sub-Saharan Africa. There were a lot of people who believed [this] and decided that if they did those things, they would still be able to go out to the informal markets, a huge problem during the COVID pandemic. So, we did find that people were more willing to stay home and less willing to go out. That was an encouraging experiment.

This intervention was about COVID, but we are [now] trying to see if we can get similar results on other forms of misinformation, about politics and partisanship. We're [currently] rolling out these same interventions in South Africa and Zimbabwe, and we're going to do a slightly different project in Turkey to see if we can reduce partisanship and increase trust in real information that's being provided by civil society organizations.

I think that [these themes] are especially applicable to the United States. Our trust in our government is a little bit low these days, but everyone has trust in their own civil society organizations. Unfortunately, if you trust an organization that is not necessarily telling you the truth, that's a problem that we have to contend with. That's for future research.

BPPJ: You mentioned that COVID has prevented your work in the field, so you've been conducting a lot of interviews or questions through WhatsApp instead of in person. How does this affect the results you collect?

Shelley Liu: Oh, it affects it so much. That's the problem with this type of research. It affects the questions you can ask and the responses you get. If anyone is answering questions through Qualtrics, they're going to be very wealthy and slightly older. WhatsApp is a platform that [most] everyone uses, so it's the most egalitarian in that way, but you are not going to get re-

sponses from the older generations who are not super into smartphones, and you're not going to necessarily get people from rural areas. Doing this sort of WhatsApp survey would not be possible in Liberia for example, as the rural areas are just not connected. So, in that sense, I'm just not doing any [research] in Liberia right now, and a lot of my focus is on Zimbabwe, because it's quite connected.

In terms of answer quality, I think we do have to worry. When it comes to WhatsApp as opposed to a face-to-face interview, people aren't necessarily going to lie to you, but [they will] just try to get to the end of the survey so they can collect their $2 for taking the survey. I think a lot of people are moving to online surveys because of COVID and this is going to be something we have to contend with for years down the line when all of these results are published and [we have to think critically about the sample responses]. This could go several ways. Maybe someone will come up with a really cool method of detecting bad data, and that will be a push for the field.

BPPJ: We know that we, Americans, can sometimes have an egocentric perspective about our government and elections, and we can think that we live in an uncorrupted democracy even though, as you mentioned, there is less trust these days. Based on your work researching authoritarian governments, at what point do civilians learn not to trust their government?

Shelley Liu: That's such a tough question. When you look more broadly at the politics of the world, it's a slippery slope. It doesn't happen overnight, [unless] there's a coup and then someone takes over and everyone is screwed. But, most of the time, it is a slippery slope. What's holding up democracy is a bunch of institutions that we trust and that we believe in and that we as citizens continue to agree to uphold. What happens when these institutions fall? There's nothing holding them there. Law is manmade. If the people who uphold the law decide not to uphold the law, that becomes a huge problem.

> "What's holding up democracy is a bunch of institutions that we trust and that we believe in and that we as citizens continue to agree to uphold. What happens when these institutions fall?"

This is something that we see today in the United States. [Recent events] shook a lot of people because we do think that we have these institutions, that they're deep rooted, and that we are a consolidated democracy. What happens when a bunch of people in the government decide that they're not going to uphold these [and are] going to contest the elections? When people start distrusting their institutions, that is when the slippery slope begins.

I don't know if I want to get into this, but the United States has a presidential system and comparative politics has long found that presidential systems are much more likely to backslide from democracy. Having one person have so much power as opposed to a parliamentary system where people can vote for their representatives is different.

BPPJ: A lot of our questions for you earlier were comparative in nature. It seems tricky to apply a comparative lens to issues and individual countries, whether between two different African countries or across continents. What is an example where you've had to navigate an uncomfortable comparison?

Shelley Liu: I compared Zimbabwe and Liberia for my dissertation, and that is a terrible comparison on multiple avenues. My argument was that they were comparable in [certain] avenues and the fact that we saw some very similar results in these two countries says something about the way rebels think. I finished Liberia first, and I went to Zimbabwe, and the people asked me what my research was about before they were willing to talk to me. They [asked], "what's your research about?" I told them, and [they responded], "how dare you compare us to Liberia," which is fair in a lot of ways.

"One thing that we have to keep in mind is that a lot of rebel fighters are just ordinary people who were thrown into some terrible situations."

I think that you can draw comparisons, but you have to draw comparisons on relevant dimensions. I don't think America should feel slighted by being compared to countries that they feel are not democratic or developing in any way. If you look at the same dimensions that matter at a specific moment and see how certain parts of history have developed, then you can draw conclusions.

BPPJ: In an interview earlier in the fall, you mentioned that in trying to understand why people go to war, the answer is partly about the social contract offered by rebel groups and not the state. From your research, do you find that there's a tipping point where people tend to take to the streets and decide to commit to a rebel group?

Shelley Liu: It's not that easy. When we're talking about this social contract, it's about a certain group of people who decide to form a rebel group as opposed to fighting or working within the system. It's this trade off between guns and ballots. Maybe you're thinking about a group of people who feel that they have no place in the political system. I don't want to characterize [motivations to fight as purely political], because I think that there's a lot of research that shows that there are wide motivations for why people fight. One way to think about this may be that people fight because they are repressed, poor, there's high inequality, and they are just angry at the government, and they realize that there's nothing they can do besides fight.

When we're thinking about ordinary citizens, people don't want to go to war. People are not interested in death and destruction. A lot of people end up fighting because they have to. If a rebel group storms your part of town or storms your village, you either go with them, or you don't. So, people fight because they're tired of the political system, because they've been politicized, because they're poor, or because the rebels offered to pay them. And then people fight because they're afraid. These are really the motivations writ large for why people fight.

BPPJ: Based on your experience working with members from rebel groups, what can we understand about their mindset?

Shelley Liu: The people that I've worked with are rebels, rebel commanders, and rank and file soldiers. I can't speak for [the] core set of fighters who started the war because these are people that are either in the Hague, like Charles Taylor, or they're president of Zimbabwe. The people that I worked with are lower down the chain, and I have to emphasize, a lot of people were fighting because they had to. Once they joined the rebel organization, they realized they were good at it, or maybe some higher up commander took a liking to them, and they went up in the ranks. [The people I worked with] have been politicized to some degree, or to a huge degree in some cases. They said they all believed they were doing the right thing and were [fighting] for the good of the nation, but so much of it just [stemmed from the fact that] they were poor. They felt repressed and then someone came and gave them a gun and said "If you join us, we won't kill you."

It's like that -- people can be politicized, not because they're inherently violent or because they inherently want to fight. Someone offered them a lifeline, and they decided to take it.

BPPJ: So many people have preconceived notions about rebel fighters. In your experience, what are some of the biggest misconceptions out there?

Shelley Liu: That they're violent, or that they were born to be violent. That they're bad people.

You talk to [some former combatants] and they don't repent it [while] other people talk about how they just had to do it [for their own survival]. Then you talk to civilians, and some of them talk about how rebels saved their lives because they hid them or recognized them and decided to save them and their kids and send them to refugee camps by hiding and smuggling them across borders.

One thing that we have to keep in mind is that a lot of [rebel fighters] are just ordinary people who were thrown into some terrible situations. Their entire family was killed, [or] everyone in their family was raped in some way, and then they just had to do what they had to do.

BPPJ: Leading up to the 2020 U.S. election, many believed we were at heightened risk for political violence in the U.S. Given what you know, or what you've seen in other countries, in what ways do you think this concern is legitimate? What similarities or differences exist between the U.S. and other countries leading up to political violence?

"Democratic countries tend not to go to civil war because people believe that they can vote and that their vote will change things."

Shelley Liu: The U.S. is still a democracy. Democratic countries tend not to go to civil war because people believe that they can vote and that their vote will change things. I think that's something that we have seen in this past election. We voted, and the people who voted for Biden believed that

they could change things. Now, the question is whether the people who voted for Trump think that their vote didn't matter because it was all fraud. That's the question. But for war to start, you need people who are dedicated and are willing to form a rebel group. They need to have funding. They need to be able to find the guns. And then, you can't just have a bunch of people who are mad. They need political organization. They need to be able to convince other people to join them, and they need to do this through a lot of social networks. That's what you need for rebellion to begin. I think the thing about rebellion is a lot of it happens behind the scenes before it even starts. We're talking years and years of people recruiting and years and years of people training themselves to fight guerrilla warfare. That's the kind of thing that doesn't really happen in democracies anymore.

What does happen in democracies is terrorism, domestic terrorism, particularly in middle income democracies. Although, not necessarily [in] the U.S., because we're not a middle income democracy. In middle income democracies, where the state is strong and has a strong coercive apparatus [through the] police and the military, what we are more likely to see is urban terrorism, bombing buildings, etc. I think if the U.S. is worried about violence, it should be more worried about that type of violence. We have seen that type of violence bear out in the U.S. more recently, but in terms of returning to civil war, I don't think that it's going to happen.

BPPJ: Can you speak about the ethics of gathering data or doing research with people who have experienced trauma and been

involved in civil wars? What have you found helpful to keep in mind?

Shelley Liu: There are ethical considerations from [several] points of view. There's obviously psychological trauma that you have to take into account. [There are also considerations about] what the government is okay with you saying. [This is] especially [true] in Zimbabwe, because the government did win the war. You should try not to talk to people who might be harmed by the government. You should just use archival work and use existing data. Another good way to go about [research] is that there is often a diaspora who are no longer controlled by, or fearful of, the government, and you can definitely talk to those people as well.

Psychological trauma is significantly harder to deal with. You should focus on asking questions that are not about them. One way that scholars have tried to help people step away from the situation is to ask them about their community or their thoughts about what was happening during that time, but not necessarily what happened to them. If they're willing to talk about their experiences, that's great, but if your research doesn't necessarily have to do with their trauma or their violence, you don't have to bring it up.

My research was about how rebels formed a social contract with citizens. A lot of my interview [questions] just [asked], "Did they provide you rice? How did you pass messages from one group to the other? Did they have checkpoints or gates?" A lot of people talked about the violence that was going on, but you don't have to bring it up, they can bring it up. A lot of the studies that [look at] individual experiences abso-

lutely have to have psychologists on call or on the research team. There are studies that did lead to psychological trauma, and that's obviously very troubling. You cannot ask people about their trauma unless that's really the core of your research. There's an unfortunate tradeoff here if we want to understand human experiences during conflict and think about social healing — just like researchers [do] who study difficult issues such as domestic violence, PTSD, and other forms of traumatic experiences. I think the key is to be sure that you have appropriate support available.

BPPJ: In some fields, like medicine and the law, professionals receive training for interacting with clients/patients. However, even with this training, it can be difficult to navigate. Has that been something you've struggled with?

Shelley Liu: Yeah, it's quite unfortunate but, for grad students, we did not get training for that. They always teach you quantitative methods in class. But, there's no in depth training [on] how you should approach people. I know that a lot of grad students and researchers do want that training. They do call for it. Unfortunately, when you are only allowed to take four or five classes, you're going to take the one that teaches you more stats rather than the one that teaches you how to talk to people. Those classes are seen as... learn as you go kind of work. I don't know if this is true in other fields, but at least in political science, the view is that you just land on the ground, get off the airplane, then figure it out. Just talk to people, and that's that. That was the advice that I was given. When it was my first time in fieldwork, people said, "just go forth and discuss." So, I went forth, I looked for people, and I discussed. I wish

that I had had training, but the problem is that it doesn't exist. It didn't exist in my program, and it doesn't exist in a lot of programs.

BPPJ: Do you think research can be used as a tool for healing in post conflict contexts? What might that look like?

Shelley Liu: That's tough. My honest fear is that research does a lot of bad in some of these contexts. For example, I went to Liberia twice, and the first time it was [pretty straight forward.] In 2018, the situation changed a little bit because then [everyone] was talking about the war crimes [trial.] I went back and did my research, completely unrelated to this war crimes [trial], but then everyone thought that this foreigner was in the country asking about the war and [that] she was trying to get information for this war crimes court. Suddenly, I got all of these requests like, "Please tell the war crimes court this or that."

But, that wasn't in my power. I wasn't affiliated with the war crimes court people in any sort of way. They got this idea in their head that I could help them and I just, I couldn't. As a researcher, that's a really terrible feeling. It feels like people are trading their stories for help that they think you can bring in -- something you just can't provide. They think that you can make their lives better. They [think you can provide] this truth and reconciliation, and [that they will] be able to see the people who killed their families.

[They think] that you can bring economic development. As a researcher, you can't. I can go back and run economic RCTs, but those will only do so much. People that you see and help you with your research, you

know that in two years time, [when] you see them again, you won't have brought anything back and that's... that's a really terrible feeling.

I think in terms of [research] being a tool for healing, I have [also] seen that when people tell you their entire life stories, it is cathartic in a way. It differs from person to person. The people who are not interested won't talk to you, obviously. Sometimes, the people who are interested in telling their stories feel better: they cry, they give you a hug, and it feels like they've been able to say something that they kept repressed for 10-15 years. I guess that's one way to think of it.

Conflict research that deals with wartime events is (quite necessarily) focused on learning from some cases and then using that [acquired] knowledge to help solve problems in other contexts. The primary beneficiaries of our research, therefore, are not the people we are working with, [and it is through that dynamic that] a lot of my unease comes [to bear.] The types of research that aim to solve issues in the post-conflict arena are quite different. In those cases, research will hopefully directly benefit the people with whom we are working.

BPPJ: Do you think there are lessons that can be applied from post-conflict societies to the U.S.? For example, do you think a tool like truth and reconciliation commissions could be useful in societal healing?

Shelley Liu: There have been truth and reconciliation commissions (TRCs) in the West, in the United States. And the question now is whether it would be helpful to do it again.

So, TRCs were [originally] set up after some of the dictatorships in Latin America, where a segment of the population was victimized by the dictator, and then [the same model] was used after civil wars. The most famous [example] is the South Africa TRC: after apartheid, the new government came in and there was a TRC. TRCs are set up in different ways but basically the perpetrators of the violence get [asked] certain questions, admit to things that [they've] done wrong, and apologize to the victims. The victims accept [their] apology. The victims go on the stand. They talk about what happened to them. It's supposed to be a cathartic experience for them. [The] idea is that by getting this truth out there, the country can begin healing. This usually happens after conflict, [when] the entire country has this fissure and then they want to get things back together.

"[To respond to an issue like] police brutality, truth and reconciliation is often done after the violence has ended. And so the question is, [given that] the violence has not ended, what are we truthing and reconciling?"

There are a lot of problems that come out of truth and reconciliation [commissions] including that the perpetrators are not always willing to repent. Just because the war is over doesn't mean your problems are gone. [The] South Africa [TRC] is considered to be one of the best ones, [and] although they did find that there was truth said, [there was not necessarily] reconciliation. [Sometimes] people accepted the

truth, but they did not necessarily want to reconcile. That's one of the things that truth and reconciliation commissions have to deal with.

When it comes to the U.S. context, if the perpetrators don't think they did anything wrong, what are they going to say on the stand? [To respond to an issue like] police brutality, truth and reconciliation is often done after the violence has ended. And so the question is, [given that] the violence has not ended, what are we truthing and reconciling?

BPPJ: Our last question: based on your work with ethnic-based conflict, what have been some forms of conflict resolution that have been impressive to you? Similarly, what forms of post conflict reconstruction have you seen that appear to have positive results?

Shelley Liu: I guess maybe truth and reconciliation commissions (TRCs) might be an example of the post [conflict reconstruction that has positive results].

Unfortunately, a lot of ethnic conflicts don't get resolved. They seep into politics, peaceful politics, in other ways. I do think that the research on this is almost all bad news, which is that you have to find another common enemy to bond against. That's not exactly the best news, but that's one way to go about it.

I think that [there have been successes from] TRCs, although the success is moderated by whether you know people are willing to forgive what has been terrible

> "Unfortunately, a lot of ethnic conflicts don't get resolved. They seep into peaceful politics in other ways."

atrocities against them. Weirdly enough in Liberia, there is much less ethnic tension than before the war, and much of it has to deal with putting in an entirely new government that is not associated with the war at all. That's not something that you can implement in most other countries, [Liberia is] a specific case in which things got incredibly terrible. In most cases where there's ethnic war, it just simmers in other ways. I don't really know what [more] to say about that.

In terms of reconstruction there's good work [out there]. A lot has to do with economic [rebuilding], because that's the kind of thing that we can change. We can reduce inequality, we can reduce corruption in some ways, we can offer jobs programs, and we can give people cash to spend, to pay rent. We can provide food. All of that reduces people's anger, and reduces people looking around [thinking,] "Hey, everyone else has this except me."

The thing about ethnic conflict is that so much of it is politicized. It's not something [where] you just go around [thinking] "I hate everyone around me." It's more [along the lines of], "I'm very poor, and that group seems not poor at all because they're affiliated with the government in some way." That type of anger festers.

BPPJ: How do you think about the future of your career? And does that differ from how you thought about it five years ago?

Shelley Liu: I think that one thing I did not know about academia, or did not re-

alize, is how much your research changes based on so many factors. I started my PhD with the very strong idea that I was going to be a fully conflict scholar, with a certain set of scholars that I [was going to be] conversing with, and I did eventually write my dissertation with that literature in mind. But, given the advisors [and cohort mates] that I had at Harvard, I started [becoming interested in] a lot of development [topics]. By the time I was on the job market, I was suddenly a conflict and development scholar [thinking], "How did this happen?"

Since then, because of COVID, a lot of the organizations that I have been working with, that my co-authors have been working with, have been so focused on COVID and misinformation. When you're doing research, you want to [work on] what interests the organizations. So, we started working on [COVID and misinformation], and now my work has shifted towards misinformation.

With these bans on actually doing field work, a lot of our surveys and experiments have started being done online through WhatsApp, through chatbots. I do imagine that, just because of what we've had to start working on, my research will take a turn [again]. I don't know where we'll end up, but I can imagine that, over the next three years, all of a sudden I'll be working on a lot of misinformation stuff and development through online channels. I would have never expected that I would [work on] that but, you know, whatever helps the organizations who want to work with us... I guess it's how it goes.

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