Framework for Residential Displacement Research at MAPC: Definitions and Approaches
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I.   **Background**

Growing demand for housing in Greater Boston's urban communities over recent years has prompted fears of the deleterious effects of neighborhood change and its connection to residential displacement. Residential displacement is a complex phenomenon that impacts different communities and municipalities in an assortment of ways and at different rates. Therefore, a nuanced understanding of displacement and vulnerability to displacement at both the local and regional level is necessary to recognize how displacement pressures may differentially affect the range of community types in Greater Boston.

This white paper describes various frameworks and tools used in the residential displacement literature to define and measure displacement and displacement vulnerability and proposes a series of operational definitions for residential displacement, displacement vulnerability, and other concepts that may guide MAPC's planning and analysis going forward. The paper then reviews examples of displacement reports and analyses and suggests approaches that MAPC can use to assess displacement vulnerability, elucidate displacement impacts, estimate residential mobility in the context of neighborhood change, and examine the impact of housing development on surrounding housing prices. An appendix includes anti-displacement policies and strategies promoted in each of the aforementioned reports, as well as a list of references.

II.   Defining Residential Displacement

Residential displacement is a multifaceted process of which a single definition has been elusive. Conceptually, the definition by Grier and Grier (1978) has served as the backbone onto which subsequent definitions have been built. In their seminal report "Urban Displacement: A Reconnaissance" (sponsored by the US Department of Housing and Urban Development), the authors define residential displacement as follows:

> *Displacement occurs when any household is forced to move from its residence by conditions that affect the dwelling or its immediate surroundings, and that:*
> *1) are beyond the household's reasonable ability to control or prevent;*
> *2) occur despite the household's having met all previously imposed conditions of occupancy; and*
> *3) make continued occupancy by that household impossible, hazardous, or unaffordable.*[1]

To this definition, Marcuse (1985) appends many key concepts, such as "exclusionary displacement," which he describes as the phenomenon in which households that were once able to move into a unit can no longer do so for factors out of their control (e.g., rental price increases).[2] Marcuse notes:

> *A normal movement of households occurs in any housing market within any neighborhood. When one household vacates a housing unit voluntarily and that unit is then gentrified or abandoned so that another similar household is prevented from moving in, the number of units available to the second household in that housing market is reduced. The second household, therefore, is excluded from living where it would otherwise have lived.*

In short, definitions of displacement encompass not only the physical or economic forces that drive people from their homes, but also the active shrinking of housing options that displaced communities face.

To that end, Marcuse argues that displacement may be a multi-step process, in which abandonment and gentrification are connected to displacement. Disinvestment in neighborhoods by public and private entities can lead to the physical decline of a building or a neighborhood, initiating a "responsive" form of displacement that may not be driven by changes in rent (see Table 1). This first wave of displacement can ultimately facilitate gentrification, potentially jumpstarting another wave of displacement in which those "last residents" who remained after disinvestment-associated displacement are driven out by gentrification-associated pressures. These "chains" of displacement suggest that simply measuring the displacement of people from gentrifying or gentrified areas may

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[1] Grier, G, and Grier, EE. 1978. *Urban Displacement: A Reconnaissance.* Washington, D.C.: U.S. Department of Housing and Urban Development.
[2] Marcuse, P. 1985. Gentrification, Abandonment, and Displacement: Connections, Causes, and Policy Responses in New York City. *J. Urb. & Contemp. L.* 28:195-240.

underestimate the total amount of displacement that has taken place in a given community. Desmond and Shollenberger (2015) extend this point by arguing that evictions are a form of forced displacement that often take place in chronically low-income neighborhoods in which gentrification is not occurring.[3] As such, **any comprehensive measurement of displacement or displacement vulnerability should not focus solely on gentrifying areas, but also include an interrogation of housing stability, public and private investment, and residential mobility throughout the region.**

MAPC's *The Dimensions of Displacement* (2014), which sought to define and measure possible displacement impacts of a proposed Green Line Extension through the City of Somerville, touches on many of the aforementioned concepts[4]. In the report, the natural turnover of housing units is contrasted with replacement and displacement, the latter of which is defined as "out-migration [exceeding] the natural turnover rate because residents who otherwise would not consider moving feel pressure to do so due to changes in the cost and availability of housing." In this definition, the in-migrants are generally "people who can afford a higher cost of living and tend to have a different demographic profile" from the out-migrants. The report makes use of a definition of gentrification and displacement from Pollack, Bluestone, and Billingham (2010):

> *Gentrification is a pattern of neighborhood change in which a previously low-income neighborhood experiences reinvestment and revitalization, accompanied by increasing home values and/or rents. Gentrification, while frequently controversial, can be either good or bad for a neighborhood, depending on who benefits from the reinvestment and revitalization.*[5]

Alternatively, Marcuse (2015) defines gentrification as "displacement of a lower-income population by a higher-income one" through some combination of economic upgrading ("uppricing"), physical upgrading ("redevelopment"), or social upgrading ("upscaling" marked by changing social composition or "yuppification")[6]. (Marcuse emphasizes that neighborhood-level upgradings can take place without displacement, and those situations should not be considered gentrification.)

While there is no general consensus on the definition of gentrification,[7] the definitions above highlight the ways in which gentrification is inextricable from class (i.e. "low-income neighborhood"

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[3] Desmond, M, and Shollenberger, T. 2015. Forced Displacement from Rental Housing: Prevalence and Neighborhood Consequences. *Demography* 52: 1751-1772.

[4] Metropolitan Area Planning Council. 2014. *The Dimensions of Displacement: Baseline Data for Managing Neighborhood Change in Somerville's Green Line Corridor*. Boston, MA.

[5] Pollack, S, Bluestone, B, and Billingham, C. 2010. *Maintaining Diversity in America's Transit-Rich Neighborhoods: Tools for Equitable Neighborhood Change*. Boston, MA: Dukakis Center for Urban and Regional Policy.

[6] Marcuse, P. 2015. Gentrification, Social Justice, and Personal Ethics. *International Journal of Urban and Regional Research* 39(6):1263-69.

[7] For more on the evolving definitions of gentrification and the political and scholarly ramifications of this decades-long debate, see: Newman, K, and Wyly, EK. 2006. The Right to Stay Put, Revisited: Gentrification and Resistance to Displacement in New York City. *Urban Studies* 43(1): 23-57; Butler, T. 2007. For gentrification? *Environment and*

or "lower-income population"), and that the process of neighborhood upgrading can be associated with displacement, particularly in the absence of anti-displacement policies and programs.

Overall, these definitions highlight many frameworks and approaches to residential displacement. A review by Zuk et al. (2017) summarizes the various conceptual definitions of displacement along several axes: forced vs. responsive, and direct or physical vs. indirect or economic vs. exclusionary causes (Table 1).[8]

Table 1. Categories of Displacement (from Zuk et al., 2017)

	Forced	Responsive
Direct or physical causes	• Formal eviction • Informal eviction (e.g., landlord harassment) • Landlord foreclosure • Eminent domain • Natural disaster • Building condemnation	• Deterioration in housing quality • Neighborhood violence or disinvestment • Removing parking, utilities, and so on.
Indirect or economic causes	• Foreclosure • Condo conversion	• Rent increase • Increased taxes • Loss of social networks or cultural significance of a place
Exclusionary causes	• Section 8 discrimination • Zoning policies (restriction on density, unit size, etc.) • NIMBY resistance to development	• Unaffordable housing • Cultural dissonance • Lack of social networks

Multiple causes can interact to increase displacement pressures in various geographic contexts and among different populations. For example, neighborhood investment by public agencies (e.g. transit improvements, public art, etc.) or private actors (e.g., building rehabilitation, storefront improvements) can make an area more attractive to higher-income households who otherwise would not consider living in the area, or who are now willing and able to pay more than low-income households already in the area. In other cases, changing demographics or consumer preferences may be a factor in higher-income households seeking out neighborhoods that they previously found to

Planning A 39:162-81; Slater, T. 2009. Missing Marcuse: On gentrification and displacement. *City* 13(2):292-311; Elliott-Cooper, A, Hubbard, P, and Lees, L. 2019. Moving beyond Marcuse: Gentrification, displacement and the violence of un-homing. *Progress in Human Geography*. https://doi.org/10.1177/0309132519830511.
[8] Zuk, M, Bierbaum, AH, Chapple, K, Gorska, K, and Loukaitou-Sideris, A. 2017. Gentrification, Displacement, and the Role of Public Investment. *Journal of Planning Literature*: 1-14.

be less desirable. Under these conditions, a gap may develop between current rents and what the market will bear, compelling landlords to maximize profit through various actions. For example, landlords might ask for higher rents, consider converting rental units into condominiums, or harass tenants to pressure them to move on their own accord (i.e. informal evictions) in order to open up housing units to residents with higher incomes.

Conversely, neighborhood and property disinvestment can lead to crumbling infrastructure, unfit housing conditions, diminished public services and employment opportunities, and landlord exploitation of low-income residents through unaffordable rents and persistent threats of eviction – all of which have been known to drive displacement[9,10].

When these forces interact with exclusionary housing and zoning policies or NIMBYism that restrict the development of new housing units affordable across the income spectrum (but particularly for low- and middle-income households) in the region, displaced residents are faced with fewer options to remain in the neighborhoods or cities in which they could previously live. As such, displaced residents may leave the region or state in search of more affordable housing, losing in the process many of the social and cultural ties to the places they once called home.

Operational Definitions for MAPC Displacement Analyses

Residential displacement has observable effects at multiple scales. Much of the discussion thus far has centered on displacement at the household level – the actions and forces that drive a household to become displaced. Yet if the amount of household-level displacement in a given community is substantial, and if this displacement is produced by economic uppricing and physical upgrading, the aggregation of displacement events at the community level may reveal broad shifts in neighborhood composition – changes that may alter the demographic and cultural milieu of a community. This community-level, gentrification-associated displacement sits in relation with other patterns of migration – namely *turnover* and *replacement* – that collectively describe the types of large-scale housing occupancy shifts that can drive demographic change.

For the purposes of MAPC's displacement analyses, this paper proposes the following operational definitions for residential displacement and displacement vulnerability at the household and community level. We also propose a definition of gentrification in order to contextualize our definition of gentrification-associated displacement. These definitions may not be inclusive of every form of residential displacement and every vulnerability factor, but they address many of the displacement pressures and vulnerabilities that are at play in the Greater Boston region. Our regional

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[9] Desmond, M, and Shollenberger, T. 2015. Forced Displacement from Rental Housing: Prevalence and Neighborhood Consequences. *Demography* 52: 1751-1772.

[10] Marcuse, P. 1985. Gentrification, Abandonment, and Displacement: Connections, Causes, and Policy Responses in New York City. *J. Urb. & Contemp. L.* 28:195-240.

housing market dynamics suggest that growing income inequality and inadequate housing production are major factors that combine to cause rising rents and sale prices, consequently increasing the number of cost-burdened households vulnerable to residential displacement. Our national housing context also suggests that federal funding and investment in Affordable Housing is declining. Together, these forces can precipitate the displacement of vulnerable communities, the impacts of which reverberate throughout the region.

Residential displacement (household level) *is defined as an involuntary household move due to factors outside of the household's control.*

Potential causes include, but are not limited to, landlord-related actions such as evictions, rent increases, landlord foreclosures, building condemnations, condominium conversions, and landlord harassment; property tax increases for already-cost-burdened low-income homeowners; foreclosures; and devastating climatic events such as floods.

Residential displacement, under this definition, can occur for both renters and homeowners. Displacement can occur in areas where the housing market is strong and rents and property values are rising. It can also occur in areas where the housing market is stable or weak, but low-income homeowners are at risk of foreclosure and renters may be evicted by cost-burdened or predatory landlords.[11] Distinguishing these differences is important due to the types of policy interventions that may be germane to different conditions.

Displacement vulnerability (household level) *is defined as the condition in which a household is susceptible to displacement pressures.*

Potential pressures include, but are not limited to, costs (and associated cost burden), shifting housing market dynamics, exploitative landlord behavior, and/or environmental hazards.

For example, low-income households who are at risk of formal evictions and "soft evictions" (e.g., landlord harassment) are vulnerable, as are households who have already experienced an eviction and have the blemish on their permanent record.[12] Severely cost-burdened low- and moderate-income households in neighborhoods with shifting housing dynamics and rising rents are also vulnerable, as well as residents in units with expiring affordability restrictions that may be redeveloped to market-rate housing. In addition, low-income older adults, particularly homeowners with mortgage debt, may face particular barriers to staying in place or securing housing that is

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[11] Desmond, M. 2012. Eviction and the Reproduction of Urban Poverty. *American Journal of Sociology* 118(1): 88-133.

[12] Forced moves such as evictions often drive renters to accept substandard housing, which may negatively impact health and compel residents to undergo a responsive, unforced move again soon. For more, see Desmond, M, Gershenson, C, and Kiviat, B. 2015. Forced Relocation and Residential Instability among Urban Renters. *Social Service Review* 89(2): 227-62.

accessible and affordable. Lastly, living in areas with high risks of climatic shocks such as floods can increase one's vulnerability to displacement.

Gentrification is a pattern of neighborhood change in which a previously low-income neighborhood experiences reinvestment and revitalization, accompanied by demographic changes (increases in higher-income and college-educated residents), increasing home values and/or rents, and other social and economic changes that can be associated with the physical, cultural, and/or political displacement of pre-existing lower-income residents.

Gentrification occurs in places with housing stock that is relatively affordable when compared to the rest of the city or the region. The process of gentrification may be promoted by public or private actions such as transit improvements, public infrastructure upgrades, the renovation of deteriorated housing, public safety improvements, financial incentives and subsidies, or real estate speculation and marketing. Whether prompted by these actions or by other cultural, economic, or political preferences, households with higher incomes and/or education levels move into the neighborhood at higher rates. Their arrival and actions prompt further public and private investments in the physical environment, services, and amenities. These improvements increase the attractiveness and corresponding real estate values of the neighborhood, making it less affordable for the existing residents, thereby increasing the risk of displacement. Gentrification stands in contrast to other forms of neighborhood reinvestment that are specifically intended promote the physical, cultural, and/or political empowerment and benefit of pre-existing lower-income residents.

Gentrification-associated residential displacement (community level) is defined as the demographic restructuring of a neighborhood through the aggregated displacement of income-poor or working-class people, communities of color, and other households vulnerable to household-level displacement actions.

Displacement at the community level is a process, not a singular event (mass displacement due to environmental hazards being a notable exception). Changing neighborhood demographics driven by aggregated household-level displacements and shifts in public and private neighborhood investment patterns can induce further shifts in investments, the commercial landscape, property values, and more, all of which can introduce further displacement pressures capable of uprooting vulnerable community members and fracturing social networks. In this light, the process of gentrification-associated displacement is part of a historical lineage of land and property acquisition, government policies, landowner profit maximization, and market forces that have long benefitted people with high financial capital and social class and often neglected groups along racial/ethnic, class, and gender lines.

Displacement vulnerability (community level) is defined as the condition in which many members of a community are susceptible to residential displacement due to:

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1) *Historic and/or present discrimination that has limited the abilities of community members to accumulate the financial and social capital needed to stay in place, if desired (e.g., communities of color, particularly income-poor or working-class communities of color);*
2) *Environmental hazards (e.g., flood-prone neighborhoods); or*
3) *Limited financial resources (e.g., communities with significant numbers of seniors with fixed incomes)*

Residential turnover (community level) *describes patterns of in- and out-migration of residents from a geographic area due to circumstances largely unrelated to changes in housing affordability or other displacement pressures.*

In this migration dynamic, the demographic composition of in-migrants and out-migrants is relatively similar, so overall neighborhood demographics remain consistent or experience only minor changes over time.

Turnover-associated displacement (community level) *describes the phenomenon in which significant numbers of household-level displacement actions take place within a community that appears to be experiencing residential turnover. That is, out-migrants (e.g., households that have been displaced) are of similar demographic composition to in-migrants.*

While turnover may be innocuous in many scenarios, some neighborhoods experience community-level turnover and household-level displacement operating simultaneously. For example, chronically low-income neighborhoods may be exposed to displacement mechanisms such as eviction, landlord harassment, neighborhood disinvestment, or deteriorating housing quality that drive out-migration, but in-migration by demographically similar residents may occur due to limited housing options elsewhere. What may appear as turnover at the community level due to demographic similarity between in-migrants and out-migrants may be facilitated by household-level displacement actions.

Residential replacement (community level) *occurs when the number, composition, and movement rationale of out-migrants does not change dramatically over a given period, but the demographic profile of in-migrants is different from those who leave.*

In a neighborhood experiencing replacement, current residents are not necessarily experiencing increased displacement pressures, but those who do move away are replaced by residents who are different from the existing demographic profile. The reasons for demographic shifts of in-migrants can be many, and their impacts on a community can vary based on context. For example, rising housing costs in a distant neighborhood may drive some of that neighborhood's residents to move and become in-migrants of a demographically dissimilar neighborhood with housing costs affordable to them. Conversely, the preferences of a given demographic group may change over time, so fewer of these households move to neighborhoods they once favored.

By definition, replacement is a transitional state: given that in-migrants differ demographically from out-migrants, at some point the neighborhood either transitions to a turnover dynamic, in which pre-replacement residents have either left or managed to stay in place, creating a new homeostasis with the in-migrants (the demographics of which begin to make up the out-migrant group over time); or a displacement dynamic, in which pre-replacement residents are forced to leave the area for any of the reasons described in the definition above.

As previously noted, the operational definitions above do not include all forms of displacement, particularly those less amenable to quantification. As such, cultural, political, and exclusionary displacement are not addressed, despite their importance in the holistic accounting of displacement for households or communities. Cultural displacement occurs when long-term residents feel a diminished affinity with their neighborhood's identity due to changes in social networks, institutions, and behavioral norms precipitated by the arrival of new residents, who may seek to establish new neighborhood norms, behaviors, and values.[13] Political displacement refers to the process by which long-term neighborhood residents in a gentrifying neighborhood "become outvoted or outnumbered by new residents," losing political influence and decision-making power within the neighborhood.[14] Both cultural and political displacement are beyond the scope of this current analysis.

Exclusionary displacement, an important concept defined earlier, is predicated on the absence of a given action (i.e. a household being "excluded from living where it would otherwise have lived," as Marcuse writes)[15]. Thus, exclusionary displacement is conceptually difficult to estimate. That being said, we recognize the importance of assessing the range of housing options available in a given community, and the value of qualitative data collection (e.g., surveys and interviews) in evaluating the impact of limited housing options on vulnerable populations.

Collectively, the community-level concepts of turnover, replacement, and displacement are interrelated, and the mechanisms that drive them, along with their impacts on communities, may involve household-level instances of displacement at varying degrees of magnitude. Both household- and community-level perspectives are critical for developing a holistic understanding of residential displacement and for identifying and implementing appropriate interventions to minimize displacement and its associated impacts on residents and communities. Also, we acknowledge that household-level displacement is difficult if not impossible to measure comprehensively since individual motivation for the move (voluntary/involuntary) is such an essential component of the

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[13] Hyra, D. 2015. The Back-to-the-City Movement: Neighborhood Redevelopment and Processes of Political and Cultural Displacement. *Urban Studies* 52(10): 1753-73.

[14] Martin, L. 2007. Fighting for Control: Political Displacement in Atlanta's Gentrifying Neighborhoods. *Urban Affairs Review* 42(5): 603-28.

[15] Marcuse, P. 1985. Gentrification, Abandonment, and Displacement: Connections, Causes, and Policy Responses in New York City. *J. Urb. & Contemp. L.* 28:195-240.

definition. The impacts of household level displacement can be measured through qualitative surveys; but recommend that measures intended to comprehensively track neighborhood change focus on community-level phenomena of turnover, replacement, and displacement.

Placing the Operational Definitions in Context

The definitions of residential displacement and displacement vulnerability outlined above share much overlap with what we often label "housing instability." Indeed, many of the manifestations of housing instability (e.g. overcrowding, trouble paying rent, frequent moves, and evictions)[16] can be the causes, signs, or downstream impacts of displacement or vulnerability to displacement. As such, housing instability can be considered the umbrella under which both displacement and the factors that make one vulnerable to displacement reside. This framework allows us to tease apart, however slightly, vulnerability factors and potential outcomes of residential displacement from the displacement itself, while allowing us space to interrogate the ways in which some causes of displacement can also act as downstream impacts (and vice versa) under different circumstances (e.g. overcrowding as both cause of displacement and potential outcome). Understanding that all of these issues are indicators of housing instability, and that they may drive macro-level migration patterns in the aggregate, grounds the analysis in a larger housing ecosystem framework.

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[16] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. 2014. Housing Instability. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/housing-instability

III.   Prior Research on Residential Displacement and Displacement Risk/Vulnerability

Since the late 1970s, researchers have attempted to measure the amount of displacement that has taken place in a given geography using a wide range of operationalized definitions of displacement. More recently, efforts to measure displacement vulnerability in cities and metropolitan areas have led to the development of detailed reports and "early warning systems" that have identified locations where those most vulnerable to the pressures of gentrification and displacement reside. In this section, I will describe the tools and metrics used in these two types of displacement analyses, highlighting studies and approaches that may be most relevant to our proposed research interests.

Residential Displacement Measurement

Measuring residential displacement is far from a trivial manner. Residents move for a variety of reasons – change in preference, unsustainable cost burden, new job, divorce, eviction, etc. – and it is difficult to tease apart the drivers of a residential move using existing data sources. Researchers have thus tried to link various quantitative and qualitative data to develop proxies for displacement. Importantly, the proxies depend on the framing of the research itself: Are the researchers looking at government-promoted displacement (e.g., urban renewal)? Gentrification-related displacement? Displacement by eviction? The research context is instrumental in how displacement is operationally defined and measured.

Studies in the 1980s that attempted to measure displacement in the context of gentrification either compared in-movers to out-movers (known as 'succession' studies) or used survey methods to ask out-movers why they moved[17,18]. The former type of method can provide the upper bound of displacement, but it may also obscure the driver(s) of the movement, whether the movement is different from normal housing turnover, and which populations moved for displacement vs. non-displacement reasons. Studies using survey methods have sometimes failed to include the characteristics of the location from which the respondent has moved (i.e. the survey item asks why someone moved and how recently, but little about their neighborhood of origin), making it difficult to ascertain some of the effects of displacement on those affected.

Marcuse (1985) estimated displacement in New York City from 1970-1981 using a combination of data sources: The New York City Housing and Vacancy Survey (NYCHVS), an extensive survey conducted every three years by the US Census Bureau that samples approximately 16,000 housing units; the number of multifamily buildings that were rehabilitated through the use of a tax exemption program; the number of Single Room Occupancy (SRO) buildings lost during the decade; condo conversion counts; landlord harassment filings; and the number of cost-burdened

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[17] Newman, SJ, and Owen, MS. 1982. Residential Displacement: Extent, Nature, and Effects. *Journal of Social Issues* 38(3): 135-148.

[18] Lee, BA, and Hodge, DC. 1984. Spatial Differentials in Residential Displacement. *Urban Studies* 21(3): 219-231.

rental households. In a city with roughly 1.93 million renter households at the time, Marcuse finds that between 41,000 and 100,000 renter households were displaced annually from 1970-1981 (this amounts to an estimated 1 in 50 to 1 in 20 renter households experiencing displacement). Marcuse is quick to mention that the combined use of these data sources can only provide an estimate of certain forms of displacement, but his creative use of administrative records, publicly accessible Census data, and granular New York City survey data provides an interesting case study in the difficulties and uncertainties inherent in measuring displacement.

More recent studies on displacement have primarily focused on its relationship with gentrification – namely, the question of whether gentrifying areas have more or less displacement than non-gentrifying areas. While a substantial review of the literature examining this particular question is outside the scale of this review, the existing evidence reveals mixed results, borne primarily by data limitations and inconsistent operational definitions of displacement. That being said, many of these studies have attempted to quantify displacement in ways that warrant discussion.

Freeman and Braconi (2002)[19] and Newman and Wyly (2006)[20] used the NYCHVS to estimate displacement. One survey item asks whether respondents moved since the previous survey iteration, and if so, why. Quantifying the households who said they moved because they wanted 1) a less expensive residence or had trouble paying rent; 2) experienced landlord harassment; or 3) were displaced for "private action" (e.g., condo conversions, but excluding evictions), Freeman and Braconi estimate that between 9,664 and 13,313 households were displaced annually from 1987-1999 in New York City, while Newman and Wyly estimate between 8,341 and 11,651 households were displaced annually from 1991-2002.[21]

However, absent these highly granular survey data, measuring displacement is rife with difficulty. Surveys that provide evidence of the reason for household migration have been a critical component of several rigorous studies and reports that have sought to quantify displacement or assess its effects on the displaced. Unfortunately, such surveys are rare and expensive to implement. **As a result, many policy-minded researchers have instead shifted their focus toward "early warning systems" assessing the risk of displacement**, primarily through the development of neighborhood typologies built on publicly available Census data. The next section highlights key displacement vulnerability reports and analyses to consider.

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[19] Freeman, L, and Braconi, F. 2002. Gentrification and Displacement. *The Urban Prospect* 8(1): 1-4.
[20] Newman, K, and Wyly, EK. 2006. The Right to Stay Put, Revisited: Gentrification and Resistance to Displacement in New York City. *Urban Studies* 43(1): 23-57.
[21] While the methods and data employed in both studies are similar, Newman and Wyly hypothesize that their numerical estimate is lower than Freeman and Braconi's because Newman and Wyly excluded renters moving into units in the same building as their previous unit.

Risk and Vulnerability Studies

As concern about displacement increases, researchers have conducted numerous analyses, such as so-called "early warning systems," to help focus policy attention and assess the degree of neighborhood change, describe populations vulnerable to displacement pressures, or analyze displacement pressures. These reports and analyses can generally be divided into four categories[22]:

1. Neighborhood Change/Gentrification Indices
   - *What neighborhoods have experienced gentrification or neighborhood change?*
2. Vulnerable Population Analyses
   - *Given what the research literature suggests, which types of communities are vulnerable to displacement pressures? How many reside in the geographic location of interest, and what are their characteristics?*
3. Displacement Risk Index/Typologies[23]
   - *Given the relationship between gentrification, housing market changes, and demographics, what neighborhoods may be most at risk for the displacement of vulnerable populations?*
   - *Often incorporates Neighborhood Change/Gentrification Indices*
4. Modeling Gentrification and/or Displacement
   - *How does X impact the likelihood that a census tract has gentrified or will in the future?*

Table 2 highlights the key tools and reports developed over the last decade to monitor neighborhood change and displacement vulnerability at various geographic scales. The approaches of select analyses from the literature review are briefly described below:

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[22] Several studies incorporate multiple types of analyses in their reports (see Table 2)
[23] These analyses generally use the term "displacement risk" to describe the vulnerability of a neighborhood's residents to displacement pressures.

Table 2. Tools and Reports to Assess Gentrification and Displacement Vulnerability

City/Region	Agency	Geographic Scope	Project Type	Community Engagement?
Chicago	Institute for Housing Studies (IHS) at DePaul University	City	Displacement Risk Index/Typologies	Yes (stakeholder engagement to refine cluster analysis and housing market findings)
Chicago	Nathalie P. Voorhees Center for Neighborhood and Community Improvement at the University of Illinois at Chicago	City	Neighborhood Change/Gentrification Indices	No
East New York	Center for NYC Neighborhoods	Neighborhood	Vulnerable Population Analyses	Yes (survey of community members and client intake data from community partners)
Los Angeles	Los Angeles Innovation Team, Office of the Mayor, Los Angeles	City	Displacement Risk Index/Typologies; Neighborhood Change/Gentrification Indices	No
NY-NJ-CT Metro	Regional Plan Association (RPA)	Region	Displacement Risk Index/Typologies; Vulnerable Population Analyses	Yes (stakeholder interviews)
Philadelphia	Federal Reserve Bank of Philadelphia	City	Modeling Gentrification and/or Displacement; Vulnerable Population Analyses	Somewhat (cursory neighborhood case studies)
Portland	City of Portland and Portland State University (Lisa K. Bates)	City	Displacement Risk Index/Typologies	No
St. Louis	Center for Social Development, Washington University in St. Louis	City	Neighborhood Change/Gentrification Indices	Yes (case studies of "rebound" neighborhoods
San Francisco Bay Area	Urban Displacement Project	Region	Displacement Risk Index/Typologies; Modeling Gentrification and/or Displacement	Yes (on-the-ground observation of select neighborhoods; stakeholder interviews)
Seattle	Office of Planning and Community Development, City of Seattle	City	Displacement Risk Index/Typologies	Yes (public comments on draft Seattle 2035: Growth and Equity report)
Somerville	Metropolitan Area Planning Council (MAPC)	City	Vulnerable Population Analyses; Modeling Gentrification and/or Displacement	No

Key Examples of Risk/Vulnerability Studies

Several displacement vulnerability analyses have sought to contextualize the locations and/or populations for which displacement pressures are strongest. A number of these analyses stand out for their use of multiple analytical approaches (e.g., a vulnerable populations analysis that also develops a displacement risk typology system), their creative use of data (either original or, in most cases, publicly available data), or their mixing of quantitative data with interviews and "ground-truthing" to test the resonance of the quantitative findings with community perceptions and expertise. While the analyses described below focus on a range of geographic scales – from a single neighborhood to a metropolitan area – they all have several strengths that should be considered in our displacement analyses going forward.

Mapping Displacement Pressure in Chicago, Institute for Housing Studies at DePaul University[24]

- *Scale*: City (Chicago, IL)
- *Project type:* Displacement Risk Index/Typologies
- *Analysis*: Researchers developed a typology of displacement risk for Chicago census tracts by conducting a market segmentation analysis (clustering census tracts into one of six categories based on socioeconomic, demographic, and housing variables) and a housing market analysis (assessing changes in housing sales cost and current housing costs).
- *Policy recommendations*: Inclusionary zoning and the preservation of existing affordable units in high-cost areas with rising prices; creating targeted tax allocation districts to fund future Affordable Housing work and providing tax incentives to owners of rental units in exchange for keeping units affordable in moderate-cost areas with rising prices; acquiring land for Affordable Housing development and community ownership and providing resources to help renters become homeowners in lower-cost areas with rising prices.
- *Data*:
  - US Census Bureau: 2015 5-year American Community Survey (ACS) sample estimates; 2000 Decennial Census and 2010 Decennial Census data
  - IHS Data Clearinghouse: housing stock data, including parcel-level data on sales activity and property characteristics of one-to-four-unit properties from 2012 and 2016 (obtained via administrative records from the Cook County Recorder of Deeds)
  - Department of Housing and Urban Development: Picture of Subsidized Households data from 2009-2016
  - City of Chicago: violent crime data, zoning district spatial data
- *Pros:* Housing/census tract typologies are extensive and allow for more granular policy targeting; interactive website with discussion on the potential impacts of major current and planned developments

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[24] https://www.housingstudies.org/releases/Mapping-Displacement-Pressure-in-Chicago/

- *Cons*: Could use more qualitative analyses (e.g., interviews) to tell a holistic, persuasive story

East New York: Preserving Affordability in the Face of Uncertainty, Center for NYC Neighborhoods[25]

- *Scale*: Neighborhood (East New York, New York City, NY)
- *Project type*: Vulnerable Population Analyses
- *Analysis*: Extensive vulnerable population analysis that focused on both homeowners (including landlords) and renters. Includes data on the socioeconomic characteristic of East New York homeowners and renters; surveyed residents to ascertain the challenges they face in staying in their homes; assessed housing trends, including foreclosure rates; and analyzed where out-movers from an East New York residence moved.
- *Policy recommendations*: Protections for vulnerable landlords and tenants; support affordable homeownership and disincentivize predatory and extractive real estate practices.
- *Data*:
    - New York City Housing and Vacancy Survey, 2014
    - US Census Bureau: 2010 and 2015 5-year ACS sample estimates; 2009-2016 1-year ACS sample estimates; 2000 Decennial Census data
    - East New York Homeowner Survey (Internally developed survey on household finances, demographics, and housing challenges): conducted in spring and summer of 2017, over 500 households responded to short version, 78 responding to in-depth version
    - Center for NYC Neighborhoods + housing counseling and legal service partners data collected from clients (1,025 East New York homeowners looking for assistance with mortgages in 2015-16)
    - NYC Department of Finance: assessed market values, property tax, and sales data for real estate market trend analysis
    - Home Mortgage Disclosure Act data, 2007-2016 (mortgage lending trends)
    - United States Postal Service: change-of-address filings and proprietary data to determine where East New York residents relocated between 2012-16
- *Pros*: Extensive analyses that creatively incorporate different data sources; ascertains where people move to when they leave East New York
- *Cons*: Highly granular survey data hard to replicate outside of New York City

Pushed Out: Housing Displacement in an Unaffordable Region, Regional Plan Association (RPA)[26]

- *Scale*: Region (NY-NJ-CT Metropolitan Area)
- *Project type*: Displacement Risk Index/Typologies; Vulnerable Population Analyses

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[25] https://cnycn.org/eastnewyork/
[26] http://www.rpa.org/publication/pushed-out-housing-displacement-in-unaffordable-region

- *Analysis*: Displacement risk typology and vulnerable population analysis that focuses on the at-risk populations and housing market dynamics of "accessible" neighborhoods (based on proximity to jobs and Walk Score). Includes interviews with those displaced or fearing displacement.
- *Policy recommendations*: Tenant protections against evictions and sharp rent increases; housing subsidies for low-income households; Affordable Housing construction on government-owned land; incorporation of displacement risk into decision making.
- *Data*:
  - US Census Bureau: 2015 5-year ACS sample estimates; 2000 Decennial Census and 2010 Decennial Census data; 1990 Census through NHGIS
    - Housing and rental market data obtained from Census Bureau data: Change in number of apartments with contract rents greater than $2,000 and change in number of homes with values greater than $500,000
  - Walk Score, 2014: used to distinguish "accessible" neighborhoods that are walkable
  - RPA & Conveyal's Fragile Success Access to Jobs Map and analysis: used to distinguish "accessible" neighborhoods with good access to transit
- *Pros*: Predominantly uses public data sources; extensive community engagement; combination of multiple displacement analyses.
- *Cons*: Not interactive; small number of typologies may obscure intra-typology differences in neighborhoods that may warrant different types of policies.

A Practitioner's Summary: Gentrification and Residential Mobility in Philadelphia, Federal Reserve Bank of Philadelphia[27]

- *Scale*: City (Philadelphia, PA)
- *Project type*: Modeling Gentrification and/or Displacement; Vulnerable Population Analyses
- *Analysis*: Assessed residential mobility patterns in gentrifying vs. non-gentrifying neighborhoods in Philadelphia using the Federal Reserve Bank of New York Consumer Credit Panel/Equifax data, which provides individual-level, longitudinal data on mobility patterns over short time windows (i.e. quarterly). Researchers were able to determine what neighborhoods residents moved from/to, when the move occurred, and what the credit status of the mover was (a proxy for socioeconomic status when it comes to housing).
- *Policy recommendations*: Policymakers and researchers "should recognize the heterogeneity in understanding gentrification-induced displacement and focus attention on the *quality* of residential moves and non-moves for less advantaged residents, rather than only mobility rates, to better understand the consequences of gentrification."
- *Data*:

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[27] Ding, L, Hwang, and Divringi, E. 2015. *A Practitioner's Summary: Gentrification and Residential Mobility in Philadelphia*. Philadelphia, Pennsylvania: Federal Reserve Bank of Philadelphia.

- o US Census Bureau: 2013 5-year ACS sample estimates; 1980, 1990, and 2000 Decennial Census data
- o Federal Reserve Bank of New York Consumer Credit Panel/Equifax data: quarterly credit characteristics, census tract geography identifiers to measure migration across time, age, and more
- *Pros:* Highly granular (individual- and household-level) data
- *Cons:* Data only includes those with a credit history (this criterion excludes an estimated 1 in 10 adults in the U.S.) and a social security number. Also, the reason for resident migration was unable to be determined from the available data.

Gentrification and Displacement Study: implementing an equitable inclusive development strategy in the context of gentrification, Dr. Lisa K. Bates (Portland State University) and the City of Portland[28]

- *Scale:* City (Portland, OR)
- *Project type:* Displacement Risk Index/Typologies
- *Analysis:* Researcher developed a typology of gentrification and displacement risk by assessing vulnerability to housing displacement through a vulnerable population analysis, a gentrification/neighborhood change analysis, and a housing market dynamics analysis. The different typologies describe different stages in gentrification and displacement, with each stage necessitating a different set of policy recommendations.
- *Policy recommendations:* Community Impact Reports and embedding community impacts and anti-displacement and equity goals into comprehensive plans; development review that demonstrates that new developments have community support from a range of stakeholders; negotiated community benefits agreements (CBAs), inclusionary zoning; Affordable Housing creation and preservation. The displacement typology and neighborhood context help narrow the set of policies that may be of most use to prevent displacement.
- *Data:*
  - o US Census Bureau: 2010 5-year ACS sample estimates; 1990 Decennial Census and 2000 Decennial Census data
  - o Department of Housing and Urban Development: 2005-2009 Comprehensive Housing Affordability Strategy (CHAS) data (used to define the income threshold used in the "vulnerability score" for the analysis)
- *Pros:* Census tract typologies are extensive and allow for more granular policy targeting; provides roadmap for more extensive neighborhood-level "drilldown" analyses
- *Cons:* Not interactive

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[28] https://www.portlandoregon.gov/bps/62635

Mapping Displacement and Gentrification in the San Francisco Bay Area, Urban Displacement Project (University of California, Berkeley)[29]

- *Scale*: Region (San Francisco Bay Area, CA)
- *Project type*: Displacement Risk Index/Typologies; Modeling Gentrification and/or Displacement; Vulnerable Population Analyses
- *Analysis*: Displacement risk/gentrification typology that uses data on housing market dynamics and socioeconomic and demographic indicators to assign census tract-level typologies through the San Francisco Bay Area (similar analyses were completed for Los Angeles, Orange, and San Diego counties in Southern California; Portland, OR (in collaboration with Dr. Lisa K. Bates at Portland State University); and New York City). Also includes extensive anti-displacement policy information, case studies of select neighborhoods, ground-truthing methodologies, and explainer videos. Additionally, a survey of 100 low-income tenants in East Palo Alto/San Mateo County was administered to assess displacement impacts.
- *Policy recommendations*: Municipalities were scored on the number of anti-displacement policies they currently implement. Policies include just cause eviction ordinances, rent stabilization or rent control, foreclosure assistance, housing density bonuses, and more (a total of 14 policy measures were used). Municipal scores ranged from 0 to 11 (each implemented policy had an equal weight of 1).
- *Data*:
  - US Census Bureau: 2013 5-year ACS sample estimates; 1990 Decennial Census and 2000 Decennial Census data
  - Property sales value (Dataquick, 2014)
  - Change in number of market rate units (California Housing Partnership Corporation (CHPC)) subsidized housing database
- *Pros*: Census tract typologies are extensive and well-defined; interactive map with extensive online portal including municipal-level breakdown of anti-displacement policies, videos, and more; ground-truthing that involved walking through neighborhoods and speaking with stakeholders; incorporates exclusionary displacement
- *Cons*: Somewhat difficult to navigate, particularly with regards to detailed methodology on typology data sources

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[29] https://www.urbandisplacement.org/map/sf

IV.   Avenues for Further Research

Displacement is a pressing concern for many low-income and working-class residents in the Greater Boston region. As several rigorous studies have illustrated, evaluating displacement is a difficult, but important task. In lieu of attempting to measure displacement directly, many advocates and researchers have sought to assess displacement vulnerability. There is high demand for such an assessment from residents, service providers, and community groups, among others, as assessing vulnerability is crucial for proactively addressing known factors of displacement through planning, policy, and organizing. Unfortunately, the data that often serve as proxies for displacement have several limitations that make it difficult to validate vulnerability assessment methods against empirical data on demographic change. For example, publicly available Census data may show changes in the amount and proportion of lower-income residents in a given census geography, but the same data has temporal constraints (i.e. how regularly the data are updated) and an inability to account for economic mobility (e.g. lower-income households attaining higher incomes). These issues and more also make it difficult to evaluate the efficacy of policy interventions.

Furthermore, our conversations with community partners have highlighted concerns over the local impacts of new housing construction – especially of market-rate or luxury buildings in neighborhoods experiencing or anticipating displacement pressures. Addressing these concerns requires an understanding of the impacts of different types of housing developments across the range of communities in our region.

Given the need to address issues of neighborhood change and displacement in a rigorous and holistic manner, and informed by the aforementioned studies conducted across the country, we propose four avenues for further research at MAPC. Ultimately, the findings of these proposed studies will inform MAPC's anti-displacement policy recommendations.

One proposed project would identify and map neighborhoods throughout the region in which populations are vulnerable to displacement – that is, neighborhoods that present displacement pressures. A displacement vulnerability mapping analysis could facilitate targeted policy recommendations that address the displacement pressures that may manifest differently across neighborhood types. Yet in order to identify neighborhoods that present displacement pressures, it may be useful to first distinguish the various neighborhood types that exist throughout the region. As a separate project, and drawing from the example of the Regional Housing Solutions Data Tool developed by DePaul University's Institute of Housing Studies (IHS), we developed a region-wide, census tract-level housing submarket typology analysis for the MAPC region using housing characteristics, housing market trends, socioeconomic data, and neighborhood factors. This analysis will help us identify a range of housing submarkets, from lower-cost areas that could be subject to increasing housing market pressure and displacement, to very high-cost areas from which lower-income households are excluded due to the lack of affordable units.

By first developing a housing submarket typology, the IHS researchers were able to assess displacement vulnerability throughout Chicago by analyzing which typologies presented displacement pressures to vulnerable populations within these neighborhoods. For example, the 'Moderate-cost, rising prices' typology, which described census tracts with rising sales prices that were relatively affordable at the time of analysis, were flagged as 'vulnerable' if a significant portion of the residents within the census tract had socioeconomic and demographic characteristics linked to displacement vulnerability. Conversely, census tracts with the same typology that did not have significant numbers of residents with displacement vulnerability were not labeled as 'vulnerable' neighborhoods.

Similarly, we aim to use our regional housing submarket typology for Greater Boston to identify neighborhoods that may have a higher potential for residential displacement. Furthermore, the submarket typologies may allow us to distinguish between the *type* of displacement to which a neighborhood's residents may be vulnerable (e.g. gentrification-associated displacement or turnover-associated displacement). Ultimately, this analysis will be useful for developing targeted anti-displacement policy recommendations.

A second avenue of additional research would focus on assessing displacement impact through a survey of low-income residents who have moved out of their neighborhoods (voluntarily or involuntarily) or are experiencing the pressures of displacement in their current residence. A survey would allow us to gain valuable insight into the motives, geographies, and impacts of residential moves, with a focus on the experiences and stressors of those vulnerable to displacement. This work could be modeled after displacement impact assessment surveys implemented by the Center for NYC Neighborhoods (for East New York) and UC Berkeley's Urban Displacement Project (for San Mateo County) and would be done through collaboration across departments and with external partners. Our agency's work on the Healthy Neighborhood Study (HNS) initiative illustrates our ability to develop strong partnerships with community groups that are able to lead and/or implement qualitative storytelling and survey work useful for our research and planning needs. A first step would be to identify existing partnerships that can be leveraged, or new partnerships that should be developed, to carry out desired qualitative work.

A third component of additional displacement research could focus on attempting to quantify residential mobility using data sources that track households over time, such as InfoGroup residential data, credit data, and more. As previously mentioned, the Federal Reserve Bank of Philadelphia has used similar credit data to model residential mobility and gentrification patterns in Philadelphia. For this project, we could also partner with external researchers such as Dr. Mariana Arcaya at MIT, whose research group is using comparable datasets to develop a web application that allows users to examine residential mobility across Massachusetts neighborhoods. Knowing residential mobility patterns for our region can give us a deeper understanding of how and for whom neighborhood quality changes across moves in the presence or absence of neighborhood change.

The fourth project would assess the impacts of housing development on surrounding housing prices – an important factor that contributes to displacement pressure. Work by UC Berkeley's Urban Displacement Project provides an example of how to measure the impacts of housing developments on surrounding rents and displacement at several spatial scales (e.g., neighborhood, city, and region) and across different types of housing development[30]. For this project, we will first conduct a literature review to examine the frameworks, methods, and measures used to assess development impacts, particularly as they pertain to surrounding housing prices. We then aim to implement or develop a method to measure such impacts using the data sources at our disposal. We hope to extend this analysis further by using our housing submarket typologies to examine the ways in which different types of housing development (affordable, market rate, etc.) may have disparate impacts across housing submarkets. Ultimately, understanding the impacts of housing development allows us to adopt a more nuanced and informed approach to potential "development without displacement" advocacy efforts.

In sum, this multi-tiered approach seeks to identify neighborhoods in which low- and moderate-income households are vulnerable to displacement pressures; assess the effects of displacement on individual households through qualitative data collection led by community partners; quantify or model residential mobility using a variety of data sources; and examine the impacts of housing developments on surrounding housing prices. The conversations and collaborations that develop during the course of these projects, coupled with our research findings, will help shape MAPC's anti-displacement policy recommendations.

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[30] Zuk, M., and Chapple, K. 2016. *Housing Production, Filtering, and Displacement: Untangling the Relationships*. Berkeley, CA: University of California, Berkeley, Institute of Governmental Studies.

V.   Conclusion

This white paper is intended to serve as a resource for MAPC staff involved in anti-displacement work with policymakers, community organizers, housing stakeholders, and residents on the front lines of current and future anti-displacement efforts. Informed by a rich literature on residential displacement, we have proposed definitions that seek to distinguish distinct but interrelated processes: displacement, displacement vulnerability, turnover, and replacement. Furthermore, we seek to differentiate household-level displacement and displacement vulnerability from the larger-scale gentrification-associated displacement and vulnerability that manifests itself at the community level. It is our hope that defining these terms can help build a greater shared understanding and effective dialogue about these complex phenomena.

Our review of the literature also identifies a wide range of approaches that other researchers and organizations have employed to understand or anticipate neighborhood change in their own communities. While there is a multiplicity of efforts to define risk and vulnerability, challenges with data availability and inconsistencies in research methods and operational definitions of displacement reveal knowledge gaps that, in part, may be addressed by the holistic research approach described above. Currently, there are few examples of robust and practical methods to determine a) how many people in a neighborhood have been displaced, and if that number is increasing; b) whether observed demographic change is due to displacement or replacement; c) which of the various vulnerability analyses are most useful for guiding policy interventions; and d) what effect policy interventions are having on patterns of community-level displacement. But the studies that do exist have provided valuable insight that inform our holistic approach. For example, studies tracking household movements over time indicate that not every move (or non-move) is created equal. Depending on where people live or move to, the effects of displacement or housing instability may have very different effects on social connectedness, commute times, transportation costs, school stability, health, safety, and other important outcomes. Therefore, it is important that an analysis of individual-level displacement effects include a wide range of households, including those who have moved within their own neighborhood, those who have moved to different types of areas within the region, those who have been able to stay put, and those who are currently experiencing (or have experienced) homelessness.

Informed by our findings, we propose four research projects that can improve our understanding of residential displacement in Greater Boston. The first proposed project seeks to use a census tract-level housing submarket typology to identify neighborhoods in which low- and moderate-income households may be vulnerable to displacement pressures. The second aims to assess the personal impact of residential mobility and displacement through qualitative data collection administered in partnership with community organizations. The third will attempt to quantify residential mobility using data sources that will allow us to track residential moves over time. The fourth aims to assess the impacts of housing developments on surrounding areas. We hope that these efforts will collectively provide more regional context for assessing neighborhood change and residential

displacement vulnerability, a richer understanding of the personal impacts of displacement, and methods for measuring neighborhood change over time.

VI.   <u>Appendix</u>

<u>Anti-Displacement Policies and Strategies from the Research Literature</u>

An essential part of our future displacement research efforts will be to develop anti-displacement policy recommendations and best practices for our regional and local contexts. Over the course of our literature review, several policies and best practices surfaced, proposed by researchers and practitioners from across the country to combat residential displacement in their communities. The following list outlines many of the anti-displacement strategies that were regularly highlighted by the studies in our review:

- Inclusionary zoning as a means to increase affordable housing stock*
- Rent stabilization or rent control to limit rent increases over time*
- Using vacant or government-owned land to develop Community Land Trusts (CLTs) or other non-market-based approaches to permanently affordable homeownership*
- Home buying assistance, including programs and funding sources to help renters become homeowners
- Foreclosure prevention assistance for those at risk
- Condominium conversion regulations*
- Housing trust funds or other sustainable public funding streams for affordable housing preservation or construction*
- Embedding community impacts and displacement considerations and mitigation strategies into comprehensive plans and policies around land use*
- Protections for vulnerable residents, such as just cause eviction ordinances and anti-landlord harassment policies*
- Participatory planning, including supporting community-based trainings for residents to participate fully in planning conversations and processes
- Penalization of speculative investment and unwanted solicitation from real estate agents
- Tracking public investment at the neighborhood level and the displacement impacts of development projects in order to implement mitigation strategies and reallocate funds more equitably*

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* Policies included in MAPC's 2011 report *Managing Neighborhood Change: Selected Anti-Displacement Strategies in Practice.*

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