ON FRAGMENTATION, BOUNDARY PROBLEMS, AND MOVEMENT TOWARD A REGIONAL FAIR HOUSING REGIME IN ERIE COUNTY, NY

Russell Weaver[1], Christopher Holtkamp[2], Jason Knight[3], and Heather R. Abraham[4]
[1]Cornell University ILR Co-Lab Buffalo
Buffalo, NY 14203
[2]Department of Plant and Earth Science
University of Wisconsin-River Falls
River Falls, WI 54022
[3]Department of Geography and Planning
State University College at Buffalo
Buffalo, NY 14222
[4]School of Law
University at Buffalo
Buffalo, NY 14260

ABSTRACT: *Prior to recent rule changes, which are still being deliberated as of this writing, Department of Housing and Urban Development (HUD) grantee communities charged with Affirmatively Furthering Fair Housing (AFFH) have been required to perform regular analyses of impediments (AIs) that identify barriers to fair housing in their territories. A central element of the AI is the delineation of racially or ethnically concentrated areas of poverty (R/ECAPs). Traditionally, grantees identify R/ECAPs using data for their jurisdictions only, ignoring surrounding communities. Doing so provides local decision-makers with knowledge about spaces in their territories where housing security might be relatively problematic, and where residents tend to be isolated from wealth-building opportunities. However, this piecemeal, jurisdiction-by-jurisdiction approach arguably reinforces, rather than challenges, the processes that produce residential segregation and concentrated poverty. This paper offers an example of how such an outcome might occur using information drawn from the most recent (February 2020) attempt at producing a countywide, "regional" AI in Erie County, NY, home to the city of Buffalo. The distribution of R/ECAPs calculated for that AI on a jurisdiction-by-jurisdiction basis are compared to R/ECAP distributions generated by spatial analyses which ignore municipal boundaries and operate on the entire study area. The thought exercise reveals that, while the regional geographies of R/ECAPs change depending on how boundaries are defined, the geographies of HUD funding are fixed, thereby disincentivizing grantees from pooling resources in ways that could contribute to cooperative regional solutions. The article concludes by exploring the policy implications of these findings.*

Keywords: housing, regionalism, fair housing, policy, metropolitan fragmentation

INTRODUCTION

In a recent issue of *The American Prospect*, Nathan Newman (2022 [emphases added]) describes the perpetual undersupply of affordable housing thusly:

"The fundamental problem is that most local governments don't have an incentive to increase housing construction locally, since people increasingly live under one government, work in another town or city, and shop in a third altogether different jurisdiction. Pre-pandemic studies found only 31 percent of people live and work in the same principal city within a metropolitan region…Since suburban governments have a disproportionate dearth of business or retail activity that they can tax, they end up with perverse incentives to limit housing to only the most economically attractive residents…Other municipalities offer "beggar your neighbor" tax incentives to attract local retail centers, luring shoppers from neighboring towns. *The result is a competition between local jurisdictions to attract the most economic activity while excluding any affordable housing* that might attract residents using more services than they pay in local property taxes…The core of the problem is that housing, transit systems, and job creation are all mutually dependent, yet with commuters crossing local city and town boundaries every day, *only regional coordination and shared returns from growth can create incentives for housing, particularly multiunit housing, to be built in ways that are affordable and transit-accessible.*"

Taking the implications of this analysis to their logical conclusion, Newman (2022) identifies "institutional systems of regional government" – naming consolidated regional governments in Portland, Oregon and the Minnesota Twin Cities as working examples – as a potential solution to the nation's growing crises of affordable housing supply (also see Wheeler, 2002).

It is difficult to argue with either Newman's characterization of the trans-jurisdictional nature of housing (along with transit, employment, and doubtless other) systems, or his favorable disposition toward coordinated regional action on affordable housing. Indeed, both of these ideas are widely acknowledged and held by scholars (e.g., Parlow, 2012) and practitioners (Sturtevant, 2015) alike. As just one example, the Local Housing Solutions Lab, run by the Furman Institute at New York University, advises that "a regional perspective can provide a more comprehensive understanding of the economic conditions that contribute to local housing needs…[and] regional approaches offer opportunities for localities…to align strategies and share resources, staff, and knowledge to more effectively address shared housing challenges" (Local Housing Solutions, n.d.-a).

Grounded in these observations, one can reasonably refer to affordable housing provision as an *institutional collective action problem* (Weaver et al., 2016), or a scenario in which the decisions and actions of multiple jurisdictions within a given region are correlated, and such that "more effective" (Local Housing Solutions, n.d.-a) – i.e., more collectively prosperous and regionally adaptive – outcomes are only achievable through coordinated, interjurisdictional decision-making and resource sharing (Ostrom, 2008). That being said, in the near term, the solution posed to this problem by Newman (2022) and others (e.g., Griffith, 2002) – consolidated regional planning units and regional governments that build on institutional designs like those in Portland – likely faces long odds of success (or even serious consideration) in many if not most of America's inflexibly fragmented metropolises (e.g., Kantor, 2010). While this is not to say that regional consolidation should not be pursued, it is to admit that alternative, nearer-term regional "solutions" to affordable housing solutions are needed.

Along those lines, regional consolidation is only one of at least two perspectives within the "new regionalism" movement, which advocates for coordinated regional responses to problems that cross jurisdictional boundaries (Wheeler, 2002). More specifically, this "neoprogressive" view (Feiock, 2007) holds that the forces of inter-municipal competition are so strong that only a centralized regional government can solve institutional collective action problems (e.g., Lowerey, 2000) – that is, this view calls for "de-fragmentation" of metropolitan landscapes. By contrast, a second perspective holds that regional cooperation can be achieved through voluntary interactions within existing, decentralized (i.e., still fragmented) networks of local governments (Feiock, 2013). Collaborative groups and regional councils, for instance, are informal networks "in which shared norms of trust and reciprocity facilitate the spread of information [and resources]" in ways that make collective action possible (Weaver et al., 2016). Collective decisions made by such groups rely on mutual consent. Feiock (2009) finds that these voluntary associations, to the extent that they produce shared understandings and expectations about regional challenges and opportunities, can be highly effective means for achieving regional cooperation.

It is this latter type of regional "solution" – voluntary, decentralized cooperation among multiple jurisdictions – that is of concern in this article. Namely, the article considers a recent example from Erie County, New York, in which multiple jurisdictions came together to undertake a "regional approach" to fair and affordable housing (see Knight et al and Holtkamp et al in this volume). In late 2019, lacking a centralized, regional government or planning agency, the six Department of Housing and Urban Development (HUD) grantee communities in Erie County voluntarily formed an ad hoc, collaborative group to perform a [then] HUD-mandated Analysis of Impediments to Fair Housing (AI) as a regional collective – as opposed to following the past, established practice whereby each grantee performed its own AI independent of the others.

Whereas this ad hoc group oversaw the development and publication of a joint AI report that covered all of Erie County, and therefore necessarily exposed decision-makers from individual grantee communities to the wider trends and patterns in which their jurisdictions are embedded, the effort fell short of an "authentic" regional approach to fair housing (Erie County Consortium, 2020). Among the reasons for this outcome is that, because HUD allocates fair housing funds to grantee communities for exclusive use in their given jurisdictional (i.e., grantee) boundaries, the AI is not equipped to identify and/or recommend opportunities to pool HUD funding for programs and projects that would substantively respond to observed regional, *trans-jurisdictional* patterns of racially and ethnically concentrated poverty. Given that federal dollars from HUD are the primary source for local fair housing expenditures (Local Housing Solutions, n.d.-b), absent mechanisms for pooling and using such funds at a regional scale, grantees inevitably

and rationally shift their foci inward, looking for opportunities to intervene in their jurisdictions – even if interventions are not connected to the wider regional dynamics in which they are enacted.

The remainder of this article selectively engages with this Erie County case study to show how existing tools of fair housing planning (e.g., the AI) are not presently well-suited to advance regional cooperation, precisely because of the fragmented nature of federal fair housing funding (wherein dollars are allocated to grantees for use in their administrative borders). Thus, where Feoick (2009) rightly observes that decentralized, self-organized, voluntary interjurisdictional cooperation can bring about effective regional solutions to shared problems, this article contends that such efforts can be crowded out by constraints and barriers at higher (in this case federal) levels of government. The implications of such a conclusion are at least twofold: (1) echoing Newman (2022), local governments that wish to pool resources (especially HUD dollars) to develop and implement regional-scale fair housing strategies might be well-served by spearheading consolidation efforts to integrate into metropolitan governments and planning agencies; and/or (2) to facilitate true regional coordination and cooperation, federal funding agencies like HUD would benefit from developing systems of and mechanisms that allow for interjurisdictional planning and, ultimately, fund-sharing and collaborative program delivery. Whereas the design and form of such systems go beyond the scope of this article, the bottom line is that without structural change (consolidation or a restructuring of federal funding systems), fair housing strategies are likely to remain fragmented, insular, and, as such, ineffective.

The following two sections, respectively, (1) provide a brief overview of the purpose of an AI, the data analyses it demands, and the types of solutions it is meant to inform; and (2) employ fundamental geographic concepts to make the case that HUD might inadvertently undermine regional approaches to fair housing by the way it carves regions into grantee communities. Subsequently, we present selected analyses and findings from the 2020 "regional" AI that was developed for, and in conjunction with, the six HUD grantee communities in Erie County. Those findings – which compare fragmented and regional patterns of racially and ethnically concentrated poverty – serve as a jumping off point for the final section, in which we explore key implications for public policy, as well as for fair housing researchers and practitioners.

AFFIRMATIVELY FURTHERING FAIR HOUSING AND RACIALLY OR ETHNICALLY CONCENTRATED AREAS OF POVERTY

Insofar as both the duty of HUD grantees to Affirmatively Further Fair Housing (AFFH), and the primary tool for tracking progress with respect to that duty, the Analysis of Impediments to Fair Housing (AI), are covered elsewhere in this volume (see Knight et al and Holtkamp et al in this volume), here we eschew (re-)defining these terms and instead home in on one of the more consequential concepts that feature prominently in AFFH and AI work: the racially or ethnically concentrated area of poverty, or R/ECAP. Importantly, AFFH "requires recipients of HUD funds to take meaningful actions…that overcome patterns of segregation and foster inclusive communities free from barriers that restrict access to opportunity based on" race, color, and other protected classes (U.S. Department of Housing and Urban Development, n.d.-a). In order to take such actions, it is first necessary for grantees to identify and describe patterns of segregation, and to pinpoint areas where segregation impedes access to opportunity. As such, HUD requires grantees, in the course of their AI planning processes, to delineate R/ECAPs.

HUD defines a R/ECAP as "a geographic area with significant concentrations of poverty and minority populations" (U.S. Department of Housing and Urban Development, n.d.-b). To operationalize this concept, HUD:

"…has developed a census tract-based definition of R/ECAPs. The definition involves a racial/ethnic concentration threshold and a poverty test. The racial/ethnic concentration threshold is straightforward: R/ECAPs must have a non-white population of 50 percent or more. Regarding the poverty threshold, Wilson (1980) defines neighborhoods of extreme poverty as census tracts with 40 percent or more of individuals living at or below the poverty line. Because overall poverty levels are substantially lower in many parts of the country, HUD supplements this with an alternate criterion. Thus, a neighborhood can be a R/ECAP if it has a poverty rate that exceeds 40 percent or is three or more times the average tract poverty rate for the metropolitan/micropolitan area, whichever threshold is lower. Census tracts with this extreme poverty that satisfy the racial/ethnic concentration threshold are deemed R/ECAPs" (U.S. Department of Housing and Urban Development, n.d.-c).

In practice, however, HUD's operational definition tends to be poorly suited to spaces – especially many suburban and rural areas in the U.S. – where the population is predominantly white. To the extent that the R/ECAP acts as something of a locus of action in fair housing planning (i.e., as either a space where interventions aim to improve living conditions, or as a home to residents and households who are seen as target audiences for potential geographic mobility programs [see below]), the implication is that housing challenges in areas with little racial-ethnic diversity could be overlooked since such areas would presumably not contain any R/ECAPs. To overcome this issue, HUD suggests replacing the 50 percent threshold in the above-quoted passage with a 20 percent threshold in relatively non-diverse regions (U.S. Department of Housing and Urban Development, n.d.-c).

Yet, even that considerably lower threshold means that many HUD grantees will not contain R/ECAPs. The Town of Hamburg, in Erie County, New York, for instance, which is a HUD grantee, contained only one census tract that exceeded even a ten percent threshold at the time of the Erie County's 2020 AI (10.9 percent of residents of one tract in Hamburg were persons of color at the time of the latest AI). For these reasons, many grantees look past HUD's operational definition and adopt their own, context-sensitive thresholds. Historically, the grantees in Erie County – with the exception of Buffalo – have used a "two times" threshold: R/ECAPs in these jurisdictions are defined as tracts where both the poverty rate and percentage of persons of color are double the respective grantee-wide rates (Erie County Consortium, 2020).

The import of identifying R/ECAPs is perhaps best seen in the Local Housing Solutions Lab's (n.d.-c) description of the two general classes of strategies that grantees are expected to implement under AFFH: a grantee's "strategy can include both transforming [R/ECAPs] into resource-rich areas and creating integrated communities by enabling low-income people [from R/ECAPs] to live in areas from which they have been excluded—that is, both "place-based" and "mobility" strategies." Put another way, within a grantee community, R/ECAPs function as both the primary sites where HUD-funded interventions are meant to improve living conditions; and the primary residential environments of households who might be eligible to opt into HUD-funded programs that facilitate relocation to spaces of opportunity elsewhere within the grantee boundaries (e.g., Tegeler, 2018). Viewed through this lens, R/ECAP delineation, as part of the AI process, is foundational to crafting a context-sensitive fair housing strategy for a grantee community. As illustrated herein, however, the existing fragmented structure of both metropolitan government and federal (HUD) funding geographies adversely affect the extent to which such strategies can be developed and implemented in a coordinated, regional fashion and at a regional scale – even when grantees explicitly, and voluntarily, self-organize to undertake the AI as a regional endeavor.

ON THE GEOGRAPHIC BOUNDARY PROBLEM IN SPATIAL ANALYSIS AND THE GEOGRAPHIES OF FEDERAL FAIR HOUSING FUNDING

The preceding section presented a stylized description of how HUD grantees move to Affirmatively Further Fair Housing (AFFH): (1) a grantee, within the context of a participatory AI process, draws on empirical data to identify R/ECAPs in their geographic territories; then, (2) synthesizing the multiple streams of information obtained throughout the process, the grantee develops a combination of "place-based" and "mobility" strategies aimed at, respectively, improving living conditions in R/ECAPs and assisting households who currently live in R/ECAPs (but would prefer to move) with mobility to areas of relative opportunity within the grantee community.

Whereas this process has historically been undertaken at the grantee-level, nothing in the preceding (stylized) description suggests that it cannot scale up to become a coordinated, regional effort. Both the informational inputs – data to identify R/ECAPs along with supplemental information drawn from related data sources and public participation – and the goals – transforming R/ECAPs into resource rich areas and creating opportunities for households who so choose to leave R/ECAPs for relatively opportunity laden spaces – remain the same. Only the study area boundaries change (i.e., from the borders of the individual grantee communities to the envelope formed by all grantee communities, combined, within a given region).

That being said, insofar as a core step in the AI process, the identification of R/ECAPs, hinges on spatial data analysis, the situation is considerably more complex than the above paragraphs might suggest. Namely, spatial data are famously characterized by multiple analytical problems (e.g., the modifiable areal unit problem and the uncertain

geographic context problem [see, e.g., Kwan, 2012a, 2012b; Weaver, 2014]), including what is generally termed the "boundary problem" (Burt et al., 2009).

The boundary problem is essentially that "quantitative findings hinge on study area definition" (Weaver, 2016); that is, the results of an analysis look different depending on where the analyst draws their boundaries. In the case of a regional approach to an AI, the choice of boundaries appears to involve at least two options. First, as was the dominant (though not exclusive) thrust in the Erie County case study summarized below, the "parent" boundary of the study can be set as the entire region of interest (e.g., a county or group of counties); but such that analyses are still performed independently for each grantee within the given region. In this case, the regional boundary merely acts as a container in which results of separate AIs are housed. Alternatively stated, the regional boundary does not bear on the analysis – it is used as a simple narrative or descriptive device. A second option, then, is to set the boundary of the *analysis* as the relevant region, essentially ignoring internal (grantee) boundaries. In this case, the regional boundary would change the shape of the AI results. As opposed to being a mere tool used to sew together separate grantee-specific stories, it would be an active agent in crafting a broader, *regional* story in which R/ECAPs emerge not from thresholds grounded in arbitrary internal boundaries, but from observable patterns of how people are distributed across their shared, *regional* landscape.

On that backdrop, it seems almost self-evident that a self-organized consortium of grantee communities that wish to undertake a regional AI might opt for the latter option, and thus "solve" the spatial analysis boundary problem by performing operations for the entire region of interest. As the Local Housing Solutions Lab (n.d.-a; emphasis added) observes, such an approach might have several advantages, including "more strategic use of resources and know-how, especially for smaller localities that might benefit from *pooling funding*, expertise, and other resources on a regional level. Regional collaboration can also help ensure that housing opportunities are distributed equitably throughout the region."

The notion that the potential benefits from collaboration might be both many and meaningful implies that grantee communities wishing to adopt a regional approach to fair housing possess at least one of the two necessary conditions for solving the *institutional collective action problem* described in the Introduction. Namely, interjurisdictional cooperation is most likely to occur – and thus the collective action problem is most likely to be overcome – when "benefits to potential collaborators are high and the transaction costs of negotiating, monitoring, and enforcing agreements are low" (Feiock, 2007). That said, acknowledging that the potential benefits are presumably high, what of transaction costs?

Because it is beyond the scope of this article to identify and review the numerous transaction costs involved in intergovernmental cooperation, here we focus on just one barrier that both seems paramount and is related to a cooperative action named in the above-quoted passage from the Local Housing Solutions Lab: the cost(s) of pooling funding. Whereas researchers regularly note that fund sharing is rife with urban-suburban-rural tensions, whereby relatively resource-rich (e.g., suburban) communities tend to be uninterested in contributing to projects or programs in their nearby urban centers (e.g., Weaver et al., 2016), for illustrative purposes assume that these tensions do not exist and all HUD grantees who agree to undertake a regional AI are willing to pool their funds to implement regional fair housing strategies. In this hypothetical universe, there are facially zero transaction costs associated with cooperation: grantees are all willing and motivated to pool their AFFH-dedicated dollars and match the regional character of housing systems with regional solutions.

Although regional coordination in this scenario seems like a highly probable outcome, we submit that a less visible transaction cost might act as an impediment here: the geography of fair housing funding. Recall from earlier in this volume (see Knight et al and Holtkamp et al in this volume) that HUD allocates funds to grantee communities for use within their jurisdictional boundaries. As previously noted, in expending these resources, the AFFH rule "requires grantees to identify and prioritize [R/ECAPs] in their jurisdictions" (Tegeler, 2018). Thus, not only is there a geographic limitation on where funds can be spent (within a grantee area); there is seemingly an incentive for each grantee to identify as least one R/ECAP where they can target their HUD dollars. For these reasons, even where the desire to cooperate on a regional AI is high, it seems likely that the incentives for and geographical restrictions on spending federal AFFH-related funds will thwart authentic regional housing strategies and instead perpetuate existing piecemeal, fragmented approaches to fair housing planning and action. As the final two sections of this article illustrate, such appears to be the case of the most recent (2020) "regional" AI effort in Erie County, New York.

CASE STUDY: FRAGMENTED REGIONALISM IN ERIE COUNTY, NY

Because other articles in this volume provide finer resolution details on the 2020 "regional" AI effort in Erie County (see Knight et al and Holtkamp et al in this volume), here the focus lies narrowly on the pivotal analytical variables at play (refer to the prior two sections) that can either contribute to or detract from an authentically regional, multi-jurisdictional approach to fair housing planning and action: (1) the operational definition(s) of R/ECAPs employed in the AI, where R/ECAPs are effectively the areas to which fair housing funding, programs, and projects are most readily and forcefully directed; and (2) the "solution" adopted to address the "boundary problem" – i.e., the study area definition employed – in performing the spatial analyses required to identify and map those R/ECAPs.

Along those lines, recall that Erie County – for all intents and purposes, the *region* in which jurisdictions sought to cooperate on a joint AI – contains six grantee communities: (1) the principal city of Buffalo, NY; (2) the first-ring suburban town of Tonawanda, which borders Buffalo to the north; (3) the town (or, perhaps more appropriately, edge city [Weaver and Knight, 2021]) of Amherst, which contains the principal campus of the county's premier public research university, the State University of New York (SUNY) at Buffalo, and which sits to the north-east of Buffalo; (4) the first-ring suburban town of Cheektowaga, which borders Buffalo to the east; (5) the second-ring suburban town of Hamburg, which lies south of the city of Lackawanna (which borders Buffalo to the south); and (6) the remainder of Erie County (to HUD, the "Urban County"). These six geographies are HUD "entitlement communities" under the federal agency's [arguably relatively arbitrary] definition of "eligible grantees", which are either (U.S. Department of Housing and Urban Development, n.d.-d):

- Principal cities of Metropolitan Statistical Areas (MSAs) [city of Buffalo]
- Other metropolitan cities with populations of at least 50,000 [Tonawanda, Amherst, Cheektowaga, and Hamburg all have populations that exceed 50,000 persons]
- Qualified urban counties with populations of at least 200,000 (excluding the population of entitled cities) [the remainder of Erie County]

Historically, Buffalo has undertaken its AI process independently of the remaining five grantees. The latter have nominally produced joint AIs; but, as detailed below, the analyses in these joint efforts have been performed separately – rather than regionally – for each jurisdiction, resulting in fragmented products. In late 2019, however, for their 2020 AI cycle, the six Erie County grantee communities voluntarily came together to oversee a single, collaborative AI process and produce a single, collective AI report. Unfortunately, as noted by Knight et al and Holtkamp et al (this volume), the fragmented structure of local government within the region presented as an obstacle throughout the process. The remainder of this section illustrates how fragmentation manifested in the spatial analyses leading to R/ECAP identification.

Early meetings with grantee planning staff responsible for their jurisdictions' portions of the envisioned regional AI made it clear that, despite the regional rhetoric of the 2020 AI process, all six grantees' valued consistency and compatibility with prior AIs (Erie County Consortium, personal communication). This position is neither unreasonable nor anti-regional *per se*. Rather, because the AI is a tool for monitoring progress that a grantee makes with respect to affirmatively furthering fair housing, there is utility in replicating analyses cycle-to-cycle to observe how the geographies of R/ECAPs are changing and, ideally, how racialized poverty is deconcentrating (Erie County Consortium, 2020). On the other hand, this situation suggests that fair housing planning and action are susceptible to inertia and institutional rigidity (e.g., Lustick, 2011) – i.e., current and future AIs follow past formulas under a "this is the way we've always done things" logic, even if those past formulas are characterized by fragmentation and/or other inefficiencies. Still, to the extent that an AI needs to be adopted by a grantee jurisdiction and then used to fulfill HUD reporting obligations, it is imperative for grantees to produce AIs that enable them to confidently and comfortably perform these duties.

With that in mind, the "regional" 2020 AI for the six grantees in Erie County took a two-step approach to its spatial analyses (and, hence, R/ECAP identification) that simultaneously: (1) replicated past practices to ensure that officials in each grantee community could monitor progress and perform their HUD reporting using information consistent with their previous AIs; and (2) produced and summarized a more forceful regional approach to R/ECAP identification that used cluster analysis to locate intersecting concentrations of racialized poverty in Erie County as a whole, irrespective of internal grantee boundaries.

The Fragmented "Regional" Approach to R/ECAP Identification

To be consistent with past practices, the 2020 Erie County AI began by adopting pre-existing operational definitions for the two concepts that combine to form the composite concept of a R/ECAP: (1) a racially or ethnically concentrated area (R/ECA); and (2) a concentrated area of poverty (CAP). With respect to the former, the city of Buffalo has historically defined R/ECAs as spaces where "populations of a racial or ethnic group are at least ten percent greater than for the city as a whole" (City of Buffalo, 2019). At least in prior AIs, this definition has been interpreted to mean that R/ECAs are spaces where a given demographic group's fraction of population is ten percentage points higher than the group's share of citywide population (City of Buffalo, 2014). Past precedents have applied this definition to the three largest non-white demographic groups in Buffalo: persons who identify as (1) Black or African American, (2) Asian, and (3) Hispanic or Latinx. Put differently, Buffalo has tended to use three separate thresholds in defining R/ECAs – one for each of the city's most populous non-white racial-ethnic subgroups (Erie County Consortium, 2020). The remaining five grantees in Erie County, by comparison, have historically defined R/ECAs as census tracts in their jurisdictions where the non-white fraction of population (all demographic groups of color, combined) is more than double their corresponding jurisdiction-wide figure (Erie County Consortium, 2015).

Taken together, the above decision-making rules suggest that identifying R/ECAs in the six Erie County grantee communities therefore involves the use of *eight* separate thresholds. A similar scenario holds for the identification of CAPs. In Buffalo, CAPs have generally been operationalized as spaces where the share of households earning less than 80 percent of area median income make up at least 51 percent of all households (City of Buffalo, 2019). For the other five grantees, CAPs follow the same "doubling" rule used in the delineation of R/ECAs – namely, CAPs are tracts where the local poverty rate is at least twice as high as the relevant jurisdictional (grantee-wide) poverty rate (Erie County Consortium, 2015). Accordingly, the identification of CAPs has generally involved the use of *six* separate thresholds. For all grantees, a R/ECAP exists where the relevant (grantee-specific) R/ECA and CAP thresholds are simultaneously exceeded.

Panel A in Figure 1 (on the left) shows that, in adopting this fragmented, grantee-specific threshold approach, it is possible to identify R/ECAPs in all six HUD grantee communities in Erie County. However, notwithstanding that all the shaded tracts in Figure 1(A) hold the same designation as "R/ECAPs" under the fragmented regional approach, there are evident qualitative differences in these tracts. Table 1, below, summarizes the relevant demographic and poverty numbers by grantee community, from the 2020 AI (Erie County Consortium, 2020). Figure 2 then plots selected data from Table 1 to illustrate that – except for an outlier in Amherst which is likely due to the significant presence of college students earning below the poverty level while attending school – conditions of poverty and racial segregation in Buffalo R/ECAPs are far more extreme than in the remainder of the County. Indeed, observe that in a typical "R/ECAP" in Buffalo, more than three out of every four residents are persons of color, and roughly one of every two residents is living below the poverty level. At the other extreme, in Hamburg, more than 90 percent of residents living in so-called "R/ECAPs" are white, and just 14 percent of residents live at or below the poverty level. Between these two extremes, R/ECAs in the remaining grantee areas are all majority white, with poverty rates that range between about 26 and 36 percent – well below the level observed in Buffalo. Similarly, more people were living in R/ECAPs in Buffalo at the time of the 2020 AI (70,073 persons) than in all the remaining "R/ECAPs" in Erie County, combined (66,875 persons).

The point here is that a fragmented regional approach for identifying R/ECAPs – in which a regional boundary acts as a simple container for collecting grantee-specific information but does not bear on the AI's spatial analysis – tends to produce a disjointed geography of racially-ethnically concentrated poverty which, at least facially, suggests that some spaces in affluent white suburbs like Hamburg face challenges similar to those in deeply segregated and impoverished locations in principal cities like Buffalo (City of Buffalo Planning Official, personal communication). Of course, given the trans-jurisdictional nature of housing systems, such communities are most certainly connected and interdependent (Newman, 2022); however, relative to R/ECAPs in Buffalo, for example, a "R/ECAP" in Hamburg is an ostensible area of opportunity. Hence, the notion that both spaces might be the target of HUD funding and programs aimed at moving willing residents to spaces of opportunity seems counterintuitive. Even though a grantee like Hamburg (and R/ECAPs therein) receives nowhere near the level of HUD funding that would be allocated to a principal city like Buffalo (see, for example, the HOME program formula [U.S. Department of Housing and Urban Development, n.d.-e]), to define a Hamburg census tract in which the poverty rate is 10 percent and the population is 92 percent white as a "racially or ethnically concentrated area of poverty" is to distract from and fragment the broader distribution of racialized poverty in Erie County. It is to this broader distribution that we now turn.
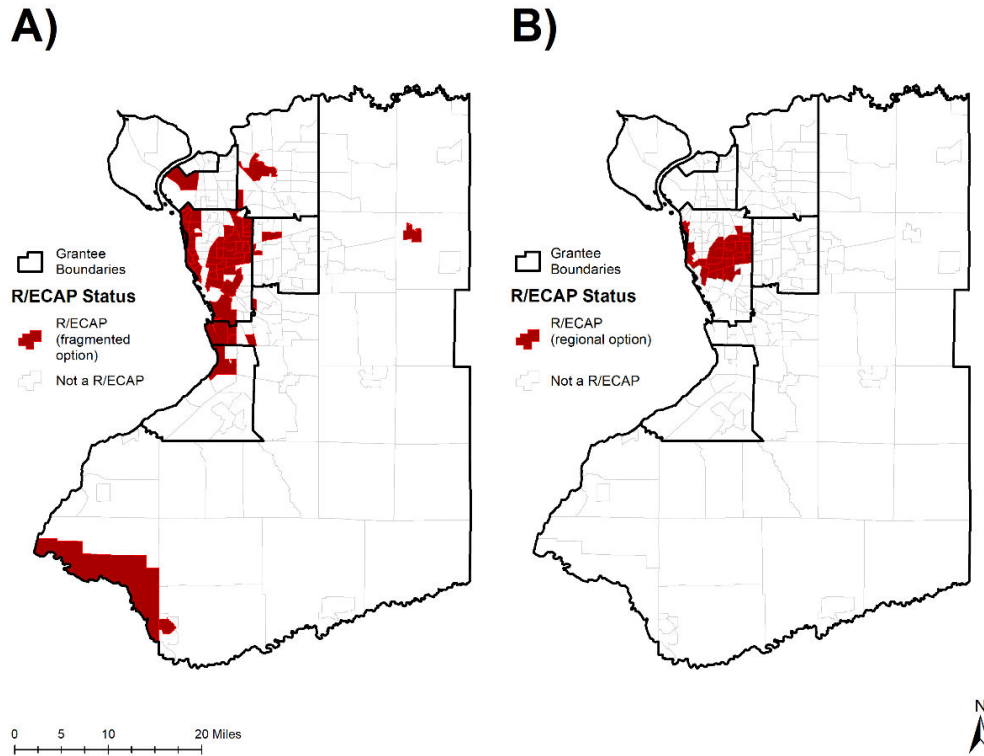
Figure 1. The geographies of R/ECAPs under (A) fragmented regional threshold and (B) spatial statistical approaches (adapted from Erie County Consortium [2020]).
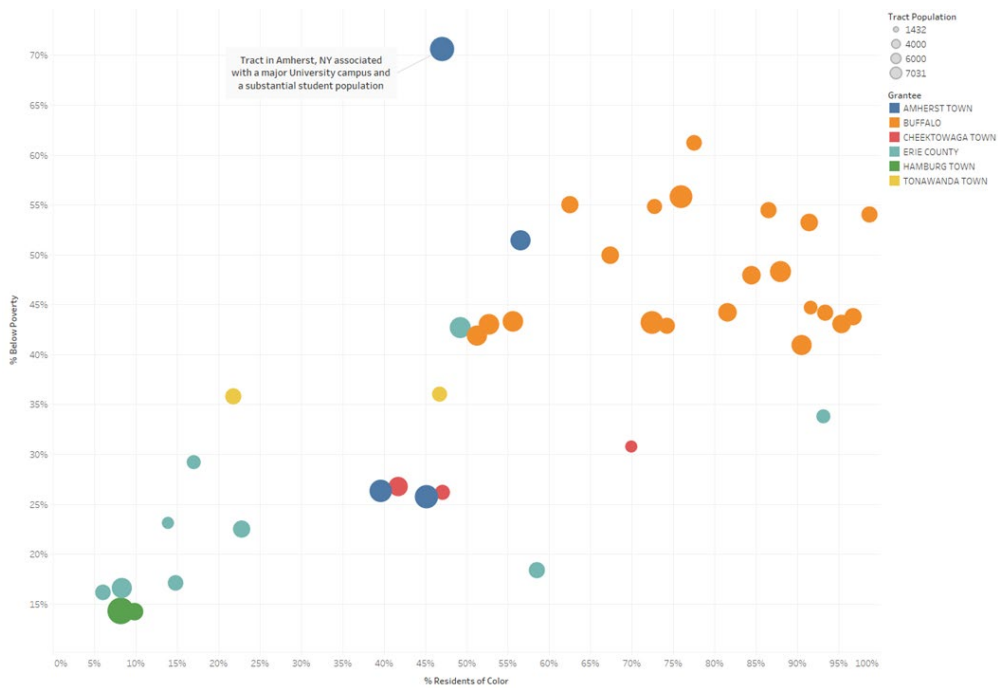

Figure 2. Poverty rates and shares of non-white population in R/ECAP tracts in Erie County, by grantee community.

Table 1. Summary of poverty rates and racial demographics in R/ECAP tracts

Grantee	Total Population (2020 AI)	% White	% Black	% Asian	% Hispanic or Latinx	% Persons of Color	% in Poverty
Buffalo	70,073	22.3%	45.5%	0.5%	19.7%	77.7%	47.6%
Tonawanda Town	4,868	66.6%	8.2%	0.2%	10.7%	33.4%	35.9%
Amherst Town	20,333	53.4%	15.4%	0.4%	7.9%	46.6%	33.0%
Cheektowaga Town	7,304	51.1%	34.7%	0.0%	5.0%	48.9%	27.4%
Remainder of Erie County	24,258	68.7%	9.5%	6.8%	9.3%	31.3%	25.9%
Hamburg Town	10,112	91.3%	1.4%	0.2%	3.4%	8.7%	14.3%

A Regional Spatial-Analytic Approach to R/ECAP Identification

Despite the best intentions of Erie County's six grantee communities to collaborate on a regional AI, a fragmented approach to R/ECAP identification that prioritizes consistency with past practices (e.g. for HUD reporting purposes) results in a disjointed picture of racialized poverty in Erie County. Acknowledging that situation, the 2020 Erie County AI also developed an analysis that could function as a bridge toward a more authentic regional approach moving forward (refer to the Discussion and Conclusions section below). Specifically, as reported in the 2020 AI, a true, countywide

"approach to the AI should engage with the broader nature of spatially concentrated poverty and relatively segregated populations of color across the six Grantee jurisdictions. In other words, it is worthwhile to explore census tract-level distributions of poverty and persons of color irrespective of Grantee boundaries" (Erie County Consortium, 2020).

The authors of the AI discussed different options for the Erie County grantees to consider toward this end (Erie County Consortium, 2020). Among those options, the authors emphasized that an approach which relies on spatial statistical methods possesses several advantageous qualities, including that:

- Statistical detection of clusters does not rely on arbitrary thresholds. Rather, statistical methods reveal where spatial concentrations in race/ethnicity and poverty are significantly different from what one would expect by chance alone, given how the populations of interest are distributed across Erie County.
- As such, the results of statistical analyses show where target populations are over-concentrated relative to the hypothetical scenario in which members of the target populations were located randomly across Erie County (Erie County Consortium, 2020).

Grounded in the above framing, the 2020 AI illustrated how such an exercise can be carried out, using the Getis-Ord Gi* statistic. Briefly, Gi* is used to detect clusters of high (or low) values of a particular variable. The method compares the value of a variable (e.g., local poverty rate) in a given census tract to the values of that variable in neighboring tracts – where spatial definitions of neighborhoods might be based on contiguity or distance. The observed value for any given tract is then compared to the value that would be expected if the variable were randomly distributed across the study area. Tracts where the observed value is significantly larger than this "random" expected value are flagged as clusters, or "hot spots" of the phenomenon of interest (e.g. Mitchel, 2005). As the authors of the 2020 AI note, while there are numerous other methods of cluster detection, Gi* is readily available in open source software packages and thus would be available to future regional consortia in Erie County to implement (Erie County Consortium, 2020).

The results from detecting the intersections of racially-ethnically concentrated areas (R/ECAs, or high clusters of persons of color) and concentrated areas of poverty (CAPs, or high clusters of persons living in poverty) for Erie County as a whole, using the Gi* approach, are reproduced from the 2020 AI in panel B of Figure 1, above. Recall from Figure 1A that, under a fragmented, multi-threshold approach, R/ECAPs are found in all six grantees in Erie County. Compare that disjointed distribution (Fig. 1A) to the geography of racialized poverty that emerges from the Gi* analysis displayed on the right-hand-side of Figure 1 (panel B). This side-by-side comparison makes it clear

that a regional response to racially-ethnically concentrated poverty – and thus to impediments to fair housing and barriers to accessing areas of opportunity – in Erie County is arguably one that concentrates its strongest interventions in the city of Buffalo. Or, as the 2020 AI reports, "an authentic regional approach to fair housing must run through [Buffalo]...it is necessary for jurisdictions to *cooperatively* engage with the forces that simultaneously concentrate vulnerable residents in certain parts of the City and prevent them from accessing housing opportunities in the surrounding communities" (Erie County Consortium, 2020 [emphasis added]).

The final section of this article teases out and explores the implications of this finding as it relates to both a regional approach to affirmatively furthering fair housing in Erie County, and to the prospects for inter-jurisdictional cooperation on regional housing solutions more generally.

DISCUSSION AND CONCLUSIONS

Scholars and practitioners working in areas like housing, transportation, and employment regularly confront and lament the *institutional collective action problem* (Feiock, 2007): generally speaking, all jurisdictions within a given region stand to benefit from cooperative planning and decision-making in these domains, insofar as their issues and challenges cross internal political boundaries; however, transaction costs and competitive impulses tend to keep jurisdictions from working together, thereby undermining the development of regional solutions to what are fundamentally regional challenges (e.g., Wheeler, 2002; Feiock, 2007, 2009; Ostrom, 2008; Weaver et al., 2016; Newman, 2022).

One specific area where the sort of fragmentation that underlies the institutional collective action problem manifests is in fair housing planning, especially within the context of analyzing the impediments to fair housing choice (AI) as required by HUD for its grantee communities (see Knight et al and Holtkamp et al in this volume). As argued in this article, one pivotal action in such planning is to define and delineate racially- or ethnically concentrated areas of poverty (R/ECAPs). These spaces function as priority targets for HUD fair housing funding, where "place-based" interventions to improve local living conditions combine with "mobility" strategies that help move willing R/ECAP residents to spaces of opportunity within a given grantee community (e.g., Tegeler, 2018; Local Housing Solutions, n.d.-c). Because geographic regions like counties typically contain multiple HUD grantee communities, these AI planning efforts tend to be undertaken in a fragmented, grantee-by-grantee fashion. As such, the geographies of R/ECAPs in a given region tends to be a patchwork of areas cobbled together by applying multiple, often arbitrary thresholds to census tract-level data.

In Erie County, the result has been that some R/ECAPs are characterized by more than half the population living in poverty, and nearly every R/ECAP resident being a person of color; while other R/ECAPs are more than 90 percent white with poverty rates far below countywide averages (Figure 2). That being said, a reasonable observer would likely argue that HUD-funded fair housing interventions – which are designed to deconcentrate racialized poverty and transform R/ECAPs into areas of opportunity (Local Housing Solutions, n.d.-c) – are more essential and urgent for the former type of spaces relative to the latter. Thus, to the extent that a disjointed AI analysis produces a disjointed geography of R/ECAPs, thereby encouraging a disjointed and disunified use of HUD funding, the existing fragmented structure of fair housing planning and funding is rife with inefficiencies and entities working at cross purposes (Newman, 2022).

Within the "new regionalism" literature, at least two remedies to such situations have been proposed. The first, as championed by authors like Wheeler (2002), Griffith (2002), and Newman (2022), calls for consolidation, or the supplanting of multiple local government and planning entities with unified, *regional* governments and organizations. Whereas exemplar cases in places like Portland and the Minnesota Twin Cities show that this solution has promise (Newman, 2022), the reality is that the degrees of fragmentation and intergovernmental competition in most American metropolitan regions make this sort of large-scale structural change infeasible in the near- to medium-term (e.g., Kantor, 2010; Weaver et al., 2016). The second, plausibly nearer-term perspective from within the new regionalism literature is therefore voluntary interjurisdictional cooperation in the form of regional councils and related entities (Feiock, 2007, 2009).

As it happens, many local jurisdictions in regions throughout the U.S. are open to and seek out such arrangements. In Erie County, NY, for example, in late 2019, the county's six HUD grantee communities self-

organized to engage in a regional AI process. While, as illustrated in this article, that process did not yield what the AI authors implied would be an "authentic regional approach" to fair housing planning (Erie County Consortium, 2020), by explicitly naming the role of the geographic "boundary problem" in R/ECAP delineation – and advancing a methodology for engaging with that problem at a regional scale, in contradistinction to the grantees' more familiar, fragmented approach – the collaboration arguably pointed to and laid groundwork for strategies to make the AI a more thoughtfully and meaningfully "regional" exercise going forward. Specifically, we conclude the article by claiming that the preceding case study revealed three key conditions for future (potentially more authentic) regional fair housing planning, all of which emerged in the 2020 Erie County AI process, and that these conditions have meaningful implications for regional AI practices in and beyond Erie County.

New Multi-Jurisdictional Fair Housing Institutional Infrastructure with Internal Information Sharing

The case study hereinbefore demonstrated that, regardless of any shortcomings, the 2020 AI process in Erie County was successful in building and nurturing new regional fair housing institutional infrastructure. Prior to the 2020 AI cycle, the city of Buffalo approached its AI independently from and without reference to or regard for the AIs undertaken by the remaining five HUD grantees in Erie County (Erie County Consortium, 2020). The ad hoc, voluntary group formed by planning officials from Buffalo and the remaining HUD grantees in late 2019 to pursue a regional AI led to what appears to be a durable, informal network of decision-makers closest to HUD funding and HUD reporting related to affirmatively furthering fair housing (AFFH). Prior literature has found that such "voluntary associations, insofar as they produce shared understandings and expectations about regional challenges and opportunities, are highly efficacious means for achieving reginal cooperation" (Weaver et al., 2016). Alternatively stated, by joining together and sharing information throughout the 2020 AI process, key decision-makers gained sharper understandings of the geographies of racialized poverty in which their individual communities are both included and embedded. Such information has the potential to lead to more effective regional collaboration moving forward (e.g., Feiock, 2009).

A Spatial Statistical Approach for Addressing the Boundary Approach in R/ECAP Identification

R/ECAP identification and detection is a core – presumably foundational – component of the AI. Absent a method for defining and mapping the geographies of racialized poverty in an area, there is little opportunity to track how these phenomena are changing and, ideally, de-concentrating over time as AFFH actions are taken. Whereas HUD provides working operational definitions for grantees to identify R/ECAPs, these definitions tend to be arbitrary and context-insensitive (refer to the third section in this article, above). Accordingly, HUD grantees in Erie County have historically adopted their own operational definitions of R/ECAPs. Although such an approach embraces local context at a much higher level than HUD's blanket (national) definitions, it still suffers from a combination of arbitrariness and disjointedness. As demonstrated in this article, the approach can lead to the identification of R/ECAPs in relatively affluent and white spaces, essentially putting some such areas on equal footing with locations of severely concentrated racialized poverty (Table 1; Figure 2). Importantly, such an outcome is neither unreasonable nor inherently "wrong" per se. Rather, due to the geographies of HUD funding and AFFH strategies – whereby HUD dollars are allocated to grantee communities for use in their jurisdictional boundaries and R/ECAPs are intended to receive priority investment of AFFH-related dollars (e.g., Tegeler, 2018) – this outcome is entirely expected.

Our case study showed that, by explicitly developing and implementing a spatial statistical approach to R/ECAP identification, in which analyses were performed at the county scale irrespective of internal grantee boundaries, the inchoate, self-organized Erie County fair housing regional council revealed to all of its members – and to the AI audience, including HUD, with whom the AI is filed and used for reporting – that "an authentic regional approach to fair housing must run through the [city of Buffalo]" (Erie County Consortium, 2020). Put another way, and as expanded on below, the new regional fair housing institutional infrastructure in Erie County developed a replicable methodology – one that borrows from the toolkits of applied geography and spatial analysis – for mapping and monitoring the geographies of racially-ethnically concentrated poverty, at the countywide scale, over time.

A Pathway for Institutionalizing Regional Fair Housing Planning

Recall from the Erie County case study that, because planning officials in HUD grantee communities are responsible for tracking and reporting progress made with respect to AFFH, there is a built-in inertia to the AI process. Decision-makers place a premium on consistency: they want analyses in every new AI to be compatible with and comparable to analyses from prior AIs, in order to easily "track and monitor changes in…patterns" of racialized poverty (Erie County Consortium, 2020). For the 2020 AI process in Erie County, that meant replicating a fragmented

approach to R/ECAP identification which involved eight separate thresholds for identifying racially- or ethnically concentrated areas and six thresholds for identifying concentrated areas of poverty (see above).

Whereas pursuing this fragmented strategy produced results that decision-makers could compare to results from their prior (2014-15) AI cycles, they did not amount to what the AI authors suggested would be an "authentic regional" approach to mapping racialized poverty. Consequently, the 2020 AI included separate sections in which the regional spatial analytical approach to R/ECAP identification discussed in the prior subsection was developed and implemented. In that sense, whereas the 2020 AI enabled decision-makers to perform their desired retrospective comparisons (i.e., looking backwards to comparable results from prior AIs), it also planted seeds for prospective changes – explicitly, it opened the door for the new, multi-jurisdictional fair housing consortium to adopt the same approach in the next AI cycle, thereby creating a new, *regional* standard or basis for comparison going forward.

Concluding Remarks

Although the case study in this article suggests that 2020 AI in Erie County fell short of achieving the status of a regional fair housing plan and set of strategies, it arguably made progress toward that goal, by: building new multi-jurisdictional networks; developing a methodology for regional R/ECAP identification; and applying that methodology in an analysis that can function as a transitional moment, moving from fragmented AIs to more authentically regional AIs going forward. To more forcefully move in a regional fair housing planning direction, however, it will be important for Erie County's ad hoc regional network to continue experimenting with and evolving its institutional forms. Most prominently, the default geography of HUD funding is still tied to grantee boundaries, thereby perpetuating the incentives that grantees have to adopt fragmented approaches that identify R/ECAPs in each of their borders. However, several HUD programs do allow grantees in the same region to formally form consortia and apply for funding in a joint manner (U.S. Department of Housing and Urban Development, n.d.-d). Possibilities like these – as well as opportunities to restructure HUD funding allocation systems in ways that facilitate greater interjurisdictional cooperation – represent exciting opportunities for practical experimentation and research in and beyond the emerging Erie County regional fair housing network.

What remains to be seen and understood, though, is precisely how and why surrounding jurisdictions might agree to participate in and dedicate resources to cooperative fair housing arrangements in which the lion's share of interventions focus on center cities like Buffalo, rather than on their own territorial boundaries. While it has long been known that so-called "urban problems" like concentrated poverty, blight, and poor housing conditions are spatial phenomena subject to spillover effects, and which can eventually do spread from city to suburban spaces in the absence of interruptive actions (e.g., Bourne, 1981; Weaver and Bagchi-Sen, 2014), such possibilities rarely move "relatively wealthy, better off suburbs" to provide direct aid to their comparatively "resource-deficient" central city neighbors (Weaver et al., 2016). Rather, decision-makers remain motivated by the short-term incentives that come from securing federal dollars for, and spending those dollars within, their own territories (e.g., building political capital and enhancing reelection prospects). The long-term consideration of solving "urban problems" before they can become suburban or regional problems rarely factors into the local political decision-making calculus. One reason for this tendency is precisely because, as implicated in this article, the current institutional landscape is essentially designed to produce inertia – to prioritize the pursuit of short-term gains in ways that do not deviate from business as usual (also see Lustick, 2011).

Given the results produced in this article – namely, that "regional" affordable housing strategies are likely to be ones that combine interjurisdictional resources into interventions that invest disproportionately in a region's central city – additional research is needed to uncover mechanisms for radically transforming existing incentive structures and resolving the institutional collective action problem in regional housing systems. The most valuable research in this vein will facilitate the creation of flexible roadmaps for jurisdictions like the six HUD grantees in Erie County to adopt as they experiment with new, more geographically inclusive ways of advancing affordable, secure, and quality housing for all residents in their shared regional landscapes.

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