

# CREATING HOME: MULTILEVEL GOVERNANCE STRUCTURES FOR EMERGING CLIMATE MIGRATION

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## ABSTRACT

*Whether in response to sudden disasters or “slow-onset” conditions like sea level rise, intolerable heat, or water scarcity, millions, if not billions, of people in the United States and around the world are likely to move in the coming decades. Where will people go? While considerable attention has focused on how communities can adapt to a changing climate in place, less attention has focused on those who choose or are compelled by circumstances to leave and the neighborhoods, cities, and states likely to absorb them. The experience will be most challenging for marginalized and low-income migrants, who will face significant hurdles in finding adequate housing and other resources. In-migration could intensify existing stresses within receiving communities, including gentrification, insufficient affordable housing, unemployment, and inadequate resources to manage the needs of an increasing population.*

*Focusing on housing, this Essay argues that a national strategy to address the needs of migrants and receiving communities is necessary. That strategy should incorporate roles for multiple levels of government. Against a backdrop of key federalism values, including pragmatism, democratic legitimacy, and the prevention of tyranny, the Essay identifies appropriate roles for federal and local governments.*

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#### INTRODUCTION

With increasingly dire predictions of potential climate impacts come increasingly dire predictions of mass migrations.<sup>1</sup> Domestic migrations have already occurred and will gain steam.<sup>2</sup> Moreover, as parts of the globe become uninhabitable—from small island states to newly flooded, parched, or overheated regions—many more will be seeking sustainable environments in the United States and elsewhere.<sup>3</sup> Migrations will happen in quick bursts, after a devastating hurricane or wildfire, or in slow but steady trickles as “slow-onset” changes like disappearing water supplies, rising seas, or

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1. See KANTA KUMARI RIGAUD ET AL., WORLD BANK GRP., *GROUNDSWELL: PREPARING FOR INTERNAL CLIMATE MIGRATION* 17 (2018) (“[M]ost research recognizes that the rate of climate migration is increasing and that growing climate risks in the coming decades will accelerate this trend.”); J.B. Ruhl & Robin Kundis Craig, *4°C*, 106 MINN. L. REV. (forthcoming 2021) (manuscript at 46) (on file with author) (“[T]he most important consequence of transformational 4°C warming . . . is massive human migration within the United States.”); Gaia Vince, *The Heat Is on over the Climate Crisis. Only Radical Measures Will Work*, *GUARDIAN* (May 18, 2019, 11:00 AM), <http://www.theguardian.com/environment/2019/may/18/climate-crisis-heat-is-on-global-heating-four-degrees-2100-change-way-we-live> [<https://perma.cc/SJT4-7S5K>] (describing recent research suggesting that the Earth may experience a four degree Celsius increase in average global temperatures, leading to as many as two billion climate migrants by 2100).

2. See Carlos Martín, *Who Are America’s “Climate Migrants,” and Where Will They Go?*, *URBAN INST.: URBAN WIRE* (Oct. 22, 2019), <http://www.urban.org/urban-wire/who-are-americas-climate-migrants-and-where-will-they-go> [<https://perma.cc/9D64-K2E9>]; Oliver Milman, *‘We’re Moving to Higher Ground’: America’s Era of Climate Mass Migration Is Here*, *GUARDIAN* (Sept. 24, 2018, 4:00 PM), <http://www.theguardian.com/environment/2018/sep/24/americas-era-of-climate-mass-migration-is-here> [<https://perma.cc/MPS8-G3JQ>].

3. See Jessica Owley, *Climate-Induced Human Displacement and Conservation Lands*, 58 *HOUS. L. REV.* 665, 667–69 (2021).

unsustainable heat take their toll.<sup>4</sup> Migrations will also occur on multiple scales. Some may move within their communities, from the riverside to the hills. Others could move within state, from the coasts to inland areas. And, especially as climate impacts intensify, many may move to entirely new states, regions, and countries.

While considerable attention has focused on the difficult climate adaptation challenges that communities experiencing direct impacts face,<sup>5</sup> less attention has focused on the welfare of “receiving” communities: the neighborhoods, cities, and states likely to absorb new migrants.<sup>6</sup> Accommodating an expanding population will impact every aspect of settled life, including housing, infrastructure, employment, schools, health care, environmental quality, and food security.

Local receiving communities will not be able to cope with incoming migrations on their own. The United States should develop a national strategy to address the needs of migrants and receiving communities. Managing climate migration effectively and equitably will require a multidisciplinary, multifaceted, and multilevel governance framework. This Essay addresses one slice of the challenge, focusing on housing and, more specifically, on affordable housing. Low-income and of-color migrants could face significant obstacles in finding adequate housing and other resources.<sup>7</sup> Moreover, low-wealth and marginalized neighborhoods within receiving communities are more at risk of gentrification and more intense shortages of affordable housing if their communities experience in-migration.<sup>8</sup>

Of course, the need for affordable housing did not arise with the specter of climate migration. As discussed below, many communities already lack sufficient affordable housing, especially for their lowest-income residents.<sup>9</sup> Housing advocates have long called for housing and land use reforms as well as greater financial support.<sup>10</sup> The need

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4. See *id.* at 671–75; Alex de Sherbinin, *Climate Impacts as Drivers of Migration*, MIGRATION POL’Y INST. (Oct. 23, 2020), <http://www.migrationpolicy.org/article/impacts-climate-change-drivers-migration> [<https://perma.cc/E52L-HMQZ>]. With sudden-onset events, like hurricanes or wildfires, there is often a large temporary exodus, with some later returning and others resettling in a new location. See François Gemenne, *Climate-Induced Population Displacements in a 4°C+ World*, 369 PHIL. TRANSACTIONS ROYAL SOC’Y A 182, 184 (2011).

5. See Robert W. Kates, William R. Travis & Thomas J. Wilbanks, *Transformational Adaptation when Incremental Adaptations to Climate Change Are Insufficient*, 109 PROC. NAT’L ACAD. SCI. 7156, 7159 (2012) (observing that most adaptation plans address incremental steps within communities experiencing direct impacts).

6. The U.S. Global Change Research Program’s Fourth National Climate Assessment, published in 2018, notes that: “the potential need for millions of people and billions of dollars of coastal infrastructure to be relocated in the future creates challenging legal, financial, and equity issues that have not yet been addressed.” Robert Lempert, Jeffery Arnold, Roger Pulwarty, Kate Gordon, Katherine Greig, Cat Hawkins Hoffman, Dale Sands & Caitlin Werrell, *Reducing Risks Through Adaptation Actions*, in 2 U.S. GLOBAL CHANGE RESEARCH PROGRAM, FOURTH NATIONAL CLIMATE ASSESSMENT: IMPACTS, RISKS, AND ADAPTATION IN THE UNITED STATES 1309, 1329 (2018); see also Ruhl & Craig, *supra* note 1 (manuscript at 33–36) (noting that existing adaptation policy focuses on *in situ* adaptation).

7. See *infra* Part I.E.

8. See *infra* Part II.C.

9. See *infra* Part II.C.

10. See, e.g., *The Solution*, NAT’L LOW INCOME HOUS. COALITION, <http://nlihc.org/explore-issues/why-we-care/solution> [<https://perma.cc/8YW3-R9FN>] (last visited June 1, 2021).

for affordable housing is thus nothing new.<sup>11</sup> At the same time, however, the scale of climate migration in the coming decades could place unprecedented pressure on receiving communities and lead to unprecedented hardship for those unable to find or afford adequate housing. As with many other climate impacts, climate change will intensify—perhaps greatly—an existing social problem.

This Essay proceeds in three parts. Section I focuses on projected migration, considering climate migration drivers, destinations, and demographics. Section II describes climate migration's potential implications, including its potential benefits, as well as challenges for climate migrants and receiving communities. Section III lays out a multilevel governance framework to accommodate climate migration. It identifies key aspects of a national strategy for addressing the housing challenges that climate migration is likely to engender. These include national scale research, federal requirements for receiving communities to engage in planning for in-migration and remove land use barriers to affordable housing, and the need for federal financial support for receiving communities. Section III concludes by explaining how the framework reflects key federalism values.

## I. PROJECTED MIGRATION

People are already moving in response to climate change,<sup>12</sup> a process likely to accelerate over the coming decades.<sup>13</sup> Hurricane Katrina provides a glimpse of potential demographic shifts. One year after the hurricane struck in 2005, 410,000, or twenty-nine percent, of those who had initially evacuated had not returned to their homes.<sup>14</sup> Eight percent of Louisiana's total population had migrated to another state.<sup>15</sup> One state absorbed much of the impact: of the Katrina evacuees from Louisiana who did not return home, thirty-seven percent remained in Texas.<sup>16</sup> We can expect more such stories.

After addressing some of the complexities in defining "climate migration,"<sup>17</sup> this Part reviews the domestic and international climate change impacts that could drive migration within and to the United States.<sup>18</sup> This Part then explores the factors and

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11. See JOINT CTR. FOR HOUS. STUDIES OF HARV. UNIV., *THE STATE OF THE NATION'S HOUSING 2020*, at 6 (2020).

12. INT'L ORG. FOR MIGRATION, *IOM OUTLOOK ON MIGRATION, ENVIRONMENT AND CLIMATE CHANGE* 39 (2014) [hereinafter MECC REPORT]; Martín, *supra* note 2.

13. See Abrahm Lustgarten, *Climate Change Will Force a New American Migration*, PROPUBLICA (Sept. 15, 2020, 5:00 AM), <http://www.propublica.org/article/climate-change-will-force-a-new-american-migration> [<https://perma.cc/YZD2-W2DP>] [hereinafter Lustgarten, *Climate Change*]; see also Vince, *supra* note 1.

14. Jeffrey A. Groen & Anne E. Polivka, *Hurricane Katrina Evacuees: Who They Are, Where They Are, and How They Are Faring*, MONTHLY LAB. REV., Mar. 2008, at 32, 48.

15. *Id.* at 40.

16. *Id.* at 40–41 & 41 tbl.3; see also Nicholas S. Bryner, Marisa Garcia-Lozano & Carl Bruch, *Washed Out: Policy and Practical Considerations Affecting Return After Hurricane Katrina and Superstorm Sandy*, 3 J. ASIAN DEV. 73, 76–79 (2017) (compiling data on post-Katrina migration).

17. See *infra* Part I.A.

18. See *infra* Part I.B.

uncertainties that could affect the destinations<sup>19</sup> and demographic makeup of those who migrate.<sup>20</sup>

#### A. *Defining Climate Migration*

The meaning of “climate migration” is not self-evident.<sup>21</sup> The term “migration” itself is contested.<sup>22</sup> This Essay uses the term to encompass people moving to seek new places to live because all moves, regardless of whether they were voluntary, forced, or part of a planned retreat, could trigger new opportunities and challenges for migrants and receiving communities alike.<sup>23</sup>

Whether the impacts prompting people to move are climate impacts is also not self-evident. Despite improvements in the attribution of changing climactic conditions to human-caused climate change,<sup>24</sup> it remains difficult to prove a direct causal connection between a given harm, like a hurricane or drought, and climate change.<sup>25</sup> Nonetheless, because we know that climate change is real and causing significant impacts,<sup>26</sup> and that the scale of associated migrations will likely be substantial,<sup>27</sup> this Essay sees value in explicitly naming the connection between climate and migration by using the term “climate migration.”

Even if one assumes that climate change is causing significant environmental stressors, the degree to which climate change can or should be considered the relevant cause of the migration is contested. Decisions to move are usually motivated by a variety of factors, including family, economic stresses, relative employment and housing

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19. See *infra* Part I.C.

20. See *infra* Part I.D.

21. Calling people who move in response to climate change “migrants,” a term that highlights their status as outsiders, could potentially trigger fear and raise resistance. However, there is no clear alternative terminology, and a different word would be unlikely to dissipate the inevitable tensions that demographic shifts create.

22. The World Bank distinguishes among three different types of responses to climate change: migration, displacement, and planned relocation. See RIGAUD ET AL., *supra* note 1, at 4 fig.1.1. In contrast, the International Organization for Migration treats all three as migration. See MECC REPORT, *supra* note 12, at 23 (stating that migration “encompass[es] any kind of movement of people, whatever its length, composition, and causes,” and includes refugees, displaced persons, and voluntary migrants in its definition).

23. This approach accords with that taken by the International Organization for Migration. See MECC REPORT, *supra* note 12, at 23.

24. See, e.g., Kevin E. Trenberth, Lijing Cheng, Peter Jacobs, Yongxin Zhang & John Fasullo, *Hurricane Harvey Links to Ocean Heat Content and Climate Change Adaptation*, EARTH’S FUTURE, May 22, 2018, at 730, 730.

25. The International Organization for Migration prefers the term “environmental migrants” because of the uncertainties associated with attributing a given environmental stressor to climate change. MECC REPORT, *supra* note 12, at 22.

26. See Daniel L. Swain, Deepti Singh, Danielle Touma & Noah S. Diffenbaugh, *Attributing Extreme Events to Climate Change: A New Frontier in a Warming World*, 2 ONE EARTH 522, 522 (2020). The U.S. Global Change Research Program concludes that “evidence of human-caused climate change is overwhelming.” Alexa Jay et al., *Overview*, in FOURTH NATIONAL CLIMATE ASSESSMENT, *supra* note 6, at 33, 36 (emphasis omitted).

27. See *infra* Part I.B.

opportunities, and more.<sup>28</sup> The fact that a move could be triggered by multiple factors does not, however, mean that the role of climate change impacts is irrelevant. Where climate change is a cause, even if not the sole cause, of a decision to migrate, the migration can legitimately be labeled “climate migration.”<sup>29</sup>

Attributing migrations to climate change is further complicated by the sometimes indirect path between a climate-induced stressor and a later migration decision. For example, climate change may be causing increased drought in Central America, which is leading to crop failures that are driving farmers into the cities.<sup>30</sup> There, violence and a lack of economic opportunity have led some to migrate to the United States.<sup>31</sup> While these migrants might appear to be fleeing violence or economic hardship, their decision to come to the United States may nonetheless be traceable to climate change, even if climate change was not the immediately precipitating cause.<sup>32</sup>

### B. Climate Change Migration Drivers

A wide range of climate impacts are likely to drive migration. Sea level rise threatens to inundate coastal areas and penetrate freshwater supplies.<sup>33</sup> In addition, sea level rise contributes to higher storm surges which, when combined with the more intense hurricanes and storms attributable to climate change, could wreak havoc in coastal areas.<sup>34</sup> Measurable sea level rise has already occurred and scientists predict continuing and potentially devastating increases throughout the century.<sup>35</sup> In one of the first studies to assess the climate migration potential from sea level rise in the United States, Professor Matthew Hauer concluded that if sea levels rise by 1.8 meters by 2100,<sup>36</sup> thirteen million

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28. See RIGAUD ET AL., *supra* note 1, at 24 fig.2.1 (displaying multiple factors that influence migration decisions); de Sherbinin, *supra* note 4 (stating that climate circumstances are often one of several factors that drive migration decisions).

29. Jessica Owley observes that labeling such migration as climate migration helps policymakers anticipate and plan for the consequences of climate change. Owley, *supra* note 3, at 677–78. At the same time, however, the “climate” label is not exclusive. *Id.* The climate label should not mask efforts to address other motivators, like economic inequality, uncontrolled violence, or government oppression. See *id.* (describing concerns that the “climate” label could lead to less accountability for other migration motivators).

30. See Abraham Lustgarten, *The Great Climate Migration Has Begun*, N.Y. TIMES MAG. (July 23, 2020), <http://www.nytimes.com/interactive/2020/07/23/magazine/climate-migration.html> [<https://perma.cc/K5M5-NC5K>] [hereinafter Lustgarten, *The Great Climate Migration*].

31. *Id.*

32. See Oliver Milman, Emily Holden & David Agren, *The Unseen Driver Behind the Migrant Caravan: Climate Change*, GUARDIAN (Oct. 30, 2018, 1:30 AM), <http://www.theguardian.com/world/2018/oct/30/migrant-caravan-causes-climate-change-central-america> [<https://perma.cc/MZ5Z-KWGZ>].

33. See Elizabeth Fleming, Jeffrey Payne, William V. Sweet, Michael Craghan, John Haines, Juliette Finzi Hart, Heidi Stiller & Ariana Sutton-Grier, *Coastal Effects*, in FOURTH NATIONAL CLIMATE ASSESSMENT, *supra* note 6, at 322, 329–32.

34. *Id.* at 329.

35. *Id.*

36. Mathew E. Hauer, Jason M. Evans & Deepak R. Mishra, *Millions Projected To Be at Risk from Sea-Level Rise in the Continental United States*, 6 NATURE CLIMATE CHANGE 691, 691 (2016). Hauer based this sea level rise projection on the National Oceanic and Atmospheric Administration’s sea level rise projections for twenty-two coastal states and the District of Columbia. *Id.* at 691. Hauer’s analysis covered 319 counties in coastal states and took into account that populations in these counties are currently increasing notwithstanding the long-term risks posed by sea level rise. *Id.* at 691–93. The Fourth National Climate Assessment notes that if

people will be at risk and could potentially respond to that risk by migrating permanently.<sup>37</sup>

Although their migration impacts are more difficult to predict, other climate impacts will also induce domestic migration. Extreme heat and water shortages, with their associated impacts on daily life as well as their impacts on agriculture and infrastructure (including highways and energy supplies), could prompt a slow exodus from parts of the southwest.<sup>38</sup> Wildfires in the western states have already led to migration, a trend likely to increase.<sup>39</sup> More precipitation and more intense storms in the midwest and northeast could impact agriculture and compromise communities in or near existing floodplains.<sup>40</sup>

Some migration could follow not from climate change but from efforts to address climate change by reducing reliance on fossil fuels.<sup>41</sup> Areas reliant on fossil fuel production and processing, like coal-producing states and the oil-producing Gulf Coast, might revitalize in new directions, but some residents may migrate to find new employment opportunities.<sup>42</sup>

Precise predictions for domestic climate migration would be folly given the tremendous uncertainties at every stage in the analysis. There is little doubt, however, that the numbers could be large. Hauer predicts that up to thirteen million people are at

Greenland and Antarctica experience rapid ice loss, global sea levels could be higher, rising by an average of eight feet by 2100, with significant impacts on coastal communities. Fleming et al., *supra* note 33, at 329.

37. See Hauer et al., *supra* note 36, at 691; see also Lempert et al., *supra* note 6, at 1329 (“[I]n all but the very lowest sea level rise projections, retreat will become an unavoidable option in some areas of the U.S. coastline.”).

38. See, e.g., Patrick Gonzalez et al., *Southwest*, in *FOURTH NATIONAL CLIMATE ASSESSMENT*, *supra* note 6, at 1101, 1124 (describing the impact of drought on availability of water supplies to operate fossil fuel power plants); *id.* at 1126–29 (explaining the impact of drought and rising temperatures on the southwestern food industry); *id.* at 1129–31 (discussing the impact of extreme heat on human health); Keely Maxwell, Susan Julius, Anne Grambsch, Ann Kosmal, Libby Larson & Nancy Sonti, *Built Environment, Urban Systems, and Cities*, in *FOURTH NATIONAL CLIMATE ASSESSMENT*, *supra* note 6, at 439, 448 fig.11.4 (documenting “[t]hreats from [e]xtreme [h]eat” through infrared thermography of the temperature of playground equipment in Phoenix, Arizona). Lustgarten reports that areas west of the Missouri will experience extreme water shortages by 2040. Lustgarten, *Climate Change*, *supra* note 13.

39. See, e.g., Kate Wheeling, *Climate Migration Has Come to the United States*, *NATION* (Apr. 16, 2021), <http://www.thenation.com/article/environment/californias-climate-migrants-fire/> [<https://perma.cc/54N3-NDUQ>]; see also Gonzalez et al., *supra* note 38, at 1115–16 (describing increased wildfires and risk).

40. See, e.g., Jim Angel et al., *Midwest*, in *FOURTH NATIONAL CLIMATE ASSESSMENT*, *supra* note 6, at 872, 880–83 (describing the adverse impact of climate change on midwestern agriculture); *id.* at 900–01 (describing midwestern flooding risks); Lesley-Ann L. Dupigny-Giroux et al., *Northeast*, in *FOURTH NATIONAL CLIMATE ASSESSMENT*, *supra* note 6, at 669, 682–83 (describing an increase in intense precipitation in the Northeast).

41. The possibility of aggressive national climate change policies increased dramatically when President Biden took office in 2021. Within days of his inauguration, President Biden set ambitious climate goals, including carbon pollution-free power by 2035 and a net-zero economy by 2050. Tackling the Climate Crisis at Home and Abroad, Exec. Order No. 14,008, 86 Fed. Reg. 7619, 7622, 7624 (Jan. 27, 2021).

42. Oil and gas activities in Louisiana, for example, contribute around sixteen percent of the state’s economic output. See Charles Davidson, *Over a Century of Ups and Downs, Louisiana Remains Tied to Energy*, FED. RESERVE BANK OF ATLANTA: ECON. MATTERS (June 18, 2020), <http://www.frbatlanta.org/economy-matters/regional-economics/2020/06/18/over-a-century-of-ups-and-downs-louisiana-remains-tied-to-energy> [<https://perma.cc/8P24-CKHH>] Shifting away from fossil fuels could decrease demand for oil and gas and eliminate associated jobs.

risk from sea level rise alone, not counting the effects of heat, water shortages, wildfires, and more.<sup>43</sup> Based on an extensive review of climate impact data, reporter Abraham Lustgarten concluded that climate change could lead to a severe decline in environmental quality for ninety-three million residents. He suggests that, in addition to the millions likely to flee sea level rise, other climate impacts could lead tens of millions more to migrate.<sup>44</sup> By way of comparison, he observes that climate migration could be many times larger than the transformative Great Migration of African Americans from the south to the north in the 1900s and far greater than the 2.5 million who migrated in the drought-fueled Dust Bowl.<sup>45</sup>

Potential international climate migration into the United States should also be taken into account. Although predicting international climate-induced migration is challenging due to the multiplicity of variables that prompt migration decisions and the difficulty inherent in gathering adequate data, researchers nonetheless agree that substantial climate displacement will occur across the globe over the coming decades.<sup>46</sup> By way of example, water supply shortages caused or intensified by climate change have led to crop failures that have, in turn, prompted recent migrations of Central Americans to Mexico and the United States,<sup>47</sup> and threaten to cause continued migrations in Africa.<sup>48</sup> Sea level rise is expected to swamp some small island states<sup>49</sup> and erase significant territory in coastal nations like Bangladesh and Vietnam.<sup>50</sup> A recent National Academy

43. See *supra* notes 36–37 and accompanying text.

44. Lustgarten, *Climate Change*, *supra* note 13.

45. See *id.*

46. See MECC REPORT, *supra* note 12, at 38–41. Some estimates are dire. One global assessment of potential migration from sea level rise suggests that all or most of the 1.4 billion people expected to live in low elevation coastal zones by 2060 could become climate migrants. Charles Geisler & Ben Currens, *Impediments to Inland Resettlement Under Conditions of Accelerated Sea Level Rise*, 66 LAND USE POL'Y 322, 323 (2017). Impacted nations may be unable to manage internal migrations, leading to increased international migration.

47. See Diego Pons, *Climate Extremes, Food Insecurity, and Migration in Central America: A Complicated Nexus*, MIGRATION POL'Y INST. (Feb. 18, 2021), <http://www.migrationpolicy.org/article/climate-food-insecurity-migration-central-america-guatemala> [<https://perma.cc/QW9D-NJR3>] (discussing forces contributing to Central American migration, including droughts and hurricanes potentially attributable to climate change).

48. See RIGAUD ET AL., *supra* note 1, at 84 (describing how deteriorating water availability could lead to out-migration hotspots in parts of eastern Africa); *id.* at 138 (describing projected drought-induced migration in Ethiopia).

49. Leonard A. Nurse, Roger F. McLean, John Agard, Lino Pascal Briguglio, Virginie Duvat-Magnan, Netatua Pelesikoti, Emma Topkins & Arthur Webb, *Small Islands*, in INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2014: IMPACTS, ADAPTATION, AND VULNERABILITY 1613, 1616–17 (2014).

50. RIGAUD ET AL., *supra* note 1, at 146–54 (describing predicted migration in Bangladesh); *Climate Displacement in Bangladesh*, ENVTL. JUSTICE FOUND., <http://ejfoundation.org/reports/climate-displacement-in-bangladesh#:~:text=Two-thirds%20of%20Bangladesh%20is,five%20metres%20above%20sea%20level.&text=By%202050%2C%20with%20a%20projected,exacerbated%20by%20rising%20sea%20levels> [<https://perma.cc/NS27-7L2X>] (stating that Bangladesh could lose 11% of its land due to sea level rise); Dan Southerland, *Rising Coastal Sea Levels Pose Threat to Cities in Vietnam and Thailand*, RELIEFWEB (Nov. 13, 2019), <http://reliefweb.int/report/viet-nam/rising-coastal-sea-levels-pose-threat-cities-vietnam-and-thailand#:~:text=Rising%20Coastal%20Sea%20Levels%20Pose%20Threat%20to%20Cities%20in%20Vietnam%20and%20Thailand,-News%20and%20Press&text=A%20recent%20study%20referred%20to,more%20land%20than%20previously%20predicted.&text=Millions%20of%20people%20in%20Vietnam's,forced%20to%20flee%20>



of Sciences study of increasing heat concluded that, given our current global emissions trajectory, around thirty percent of the projected global population (3.5 billion people) would have to migrate in order to continue living within the range of average temperatures in which humans have lived in recent millennia.<sup>51</sup>

Although most migrations have, historically, occurred within national borders and are likely to continue to be internal, climate change is likely to increase pressures for cross-border migration.<sup>52</sup> Assuming the United States responds to increasing climate-induced migration pressures by opening its doors to some share of international climate migrants,<sup>53</sup> the combination of internal and international migration could have major impacts on population distributions in the United States.

### C. Potential Migrant Destinations

Assessing where migrants will go will be critical to directing resources where they are needed. Studies of general migration trends and of the particular migration patterns following disaster events suggest some of the variables that could determine migrant destinations. Short-distance moves within metropolitan areas and within states are more common than cross-state moves.<sup>54</sup> People often move to areas where they have family ties or to areas that already have people of a similar background or culture.<sup>55</sup> Employment and housing opportunities are additional motivators.<sup>56</sup> Migrations have tended to be to urban areas.<sup>57</sup>

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oastal%20areas [https://perma.cc/7UVP-E95Y] (concluding that millions of Vietnamese could be displaced in the Mekong Delta due to coastal flooding).

51. Chi Xu, Timothy A. Kohler, Timothy M. Lenton, Jens-Christian Svenning & Marten Scheffer, *Future of the Human Climate Niche*, 117 *PROC. NAT'L ACAD. SCI.*, at 11350, 11352 (2020). Strong mitigation efforts would reduce the migration needed to maintain the temperature range to thirteen percent of projected global population (about 1.5 billion people). *Id.* at 11352. The authors make clear that they are not predicting actual migration; they are only identifying the migration that would allow people to maintain their livelihoods within the temperature range that has sustained human habitation over the last several thousand years. *Id.* at 11353–54.

52. RIGAUD ET AL., *supra* note 1, at 19 box 2.1 (stating that researchers believe “climate change may increase international migration,” notwithstanding the significant challenges posed by cross-border movement).

53. The United States rejoined the Paris Agreement on climate change in 2021. *See* Dino Grandoni & Brady Dennis, *U.S. Officially Rejoins Paris Accord, Vowing To Make Up for Lost Time*, *WASH. POST* (Feb. 19, 2021, 5:00 PM), <http://www.washingtonpost.com/climate-environment/2021/02/19/climate-paris-accord/> [https://perma.cc/BE2R-2ZBT]. The Paris Agreement acknowledges the likelihood of climate displacement. *See* Owley, *supra* note 3, at 680–81. Moreover, in early 2021, President Biden issued an executive order requiring a “report on climate change and its impact on migration, including . . . options for protection and resettlement of individuals displaced directly or indirectly from climate change.” Rebuilding and Enhancing Programs to Resettle Refugees and Planning for the Impact of Climate Change on Migration, Exec. Order No. 14,013, 86 *Fed. Reg.* 8839, 8843–44 (Feb. 4, 2021); *see also* Adam Aton, *Biden Pushes U.S. – and the World – To Help Climate Migrants*, *SCI. AM.* (Feb. 8, 2021), <http://www.scientificamerican.com/article/biden-pushes-u-s-and-the-world-to-help-climate-migrants/> [https://perma.cc/NAV7-3PJC].

54. Owley, *supra* note 3, 682–83.

55. OLI BROWN, *INT'L ORG. FOR MIGRATION, MIGRATION AND CLIMATE CHANGE* 23–24 (2008).

56. *See* Owley, *supra* note 3, at 684.

57. *See* Lustgarten, *Climate Change*, *supra* note 13.

Hauer's analysis of sea level rise migration impacts assessed potential migrant destinations.<sup>58</sup> To do so, he relied on prior migration data to predict future patterns.<sup>59</sup> Migrations are likely to occur on multiple scales.<sup>60</sup> At the local level, migration from vulnerable lowlands to higher ground is possible and may already be occurring in Miami, which has seen increased demand for higher-elevation housing.<sup>61</sup> Some migrations will be within states, like migration from southern Louisiana to central Louisiana.<sup>62</sup> Other migrations could be farther reaching, like migrations from Florida and Louisiana to Texas.<sup>63</sup>

Hauer's research on potential migration in response to sea level rise suggests that migration will be widespread, with migrants traveling to over half of the counties in the nation.<sup>64</sup> At the same time, the intensity of in-migration is likely to vary substantially. According to his 2017 predictions, thirteen areas are likely to see over one hundred thousand in-migrants.<sup>65</sup> Hauer's model projects that six hundred thousand to eight hundred thousand migrants fleeing sea level rise could relocate to Austin, Texas.<sup>66</sup> Orlando is projected to see 370,000 to 470,000 new residents in response to sea level rise.<sup>67</sup> Smaller local governments receiving fewer migrants could also be significantly impacted; a critical factor is the scale of in-migration relative to the size of the receiving community.

Notwithstanding the value of using past data to predict future movements, Hauer recognizes the past is not a perfect—or even near-perfect—predictor of the future.<sup>68</sup> Communities that appear to be likely destinations based upon past data may prove inhospitable in the future due to their own climate conditions, like high temperatures and water scarcity.<sup>69</sup>

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58. See Mathew E. Hauer, *Migration Induced by Sea-Level Rise Could Reshape the US Population Landscape*, 7 NATURE CLIMATE CHANGE 321, 321 (2017).

59. This data was available through an unexpected source: IRS data on county-to-county migration flows, derived from tax filers' location data. See *id.* at 325.

60. See *id.* at 323 (noting that migrations will be both intra- and interstate).

61. Alex Harris, *Climate Gentrification: Is Sea Rise Turning Miami High Ground into a Hot Commodity?*, MIAMI HERALD (Dec. 18, 2018, 7:00 AM), <http://www.miamiherald.com/news/local/environment/article222547640.html> [<https://perma.cc/33WM-WFTW>].

62. See Hauer, *supra* note 58, at 323 fig.3 (showing substantial in-state migration within Louisiana).

63. See *id.*

64. See *id.* at 323 (finding that "56% of counties (1,735 out of 3,113) could be affected in some way by net migration . . . associated with 1.8m of SLR [sea-level rise]").

65. *Id.*

66. See *id.* at 324 tbl.1. A key variable in determining the extent of potential migration is the degree to which those impacted by sea level rise will respond by moving. Not everyone at risk from sea level rise will migrate; some may adapt. Hauer ran two sets of projections, one assuming no adaptation, and one assuming that some wealthier communities and residents will adapt rather than move, decreasing migration estimates. See *id.* at 323–24.

67. See *id.* at 324 tbl.1.

68. *Id.* at 324.

69. See *id.* (observing multiple factors, including climate conditions, that could affect the likelihood that projected receiving communities will, in fact, receive migrants). For example, Hauer's model projects that southern California and southern Arizona will experience net in-migration. See *id.* at 322 fig.1 (showing net in-migration in eastern California and southern Arizona). However, high temperatures and water scarcity could reduce the desirability of these locations to future migrants. In Arizona, summer high temperatures have already

Moreover, models and data predicting short-distance moves, based on past data from moves that were not motivated by climate change or that were initially a temporary response to a sudden disaster, might underestimate the scale of climate-induced migration from slow-onset risks, like tidal flooding, heat, or drought.<sup>70</sup> When a pervasive, far-reaching, and long-term climate threat is a migration driver, we could see more long-distance moves than are suggested in some of the migration literature.

Some analysts are already predicting long-distance migration patterns that could shift population distributions in the United States. Professors J.B. Ruhl and Robin Kundis Craig suggest that, if global warming reaches four degrees Celsius, “there is [a] general consensus that the coasts and the southern parts of the United States are most at risk of becoming unlivable and hence that the country’s more northern and interior areas are likely migration destinations.”<sup>71</sup> According to one report, studies predict that eight percent of the residents in southern states will migrate by 2065, while population in the northeast will increase by nine percent, and population in the western states will increase by over ten percent.<sup>72</sup> Researchers have speculated that Washington state, Oregon, the Great Lakes region, and New England will be likely domestic migration destinations.<sup>73</sup> Migrations in response to slow-onset climate drivers could, therefore, involve longer distances and more profound regional shifts than what is suggested by studies based on past migration patterns or on moves that began as temporary responses to sudden events.

#### D. Potential Migrant Demographics

Migrant characteristics will strongly affect how migrants integrate into receiving communities. Will the most vulnerable populations, those who are elderly, poor, and people of color, be more or less likely to migrate as environmental conditions

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shifted some outdoor work and leisure activity from day to night. Marguerite Holloway, *As Phoenix Heats Up, the Night Comes Alive*, N.Y. TIMES (Aug. 13, 2019), <http://www.nytimes.com/interactive/2019/climate/phoenix-heat.html> [<https://perma.cc/PQ7Z-XPKV>].

70. After disasters, many (though not all) residents will seek to return to their homes and rebuild as necessary. See, e.g., Groen & Polivka, *supra* note 14, at 37–39 (discussing the percentage of individuals in Louisiana who returned after Hurricane Katrina). In contrast, when slow-onset climate impacts make continued habitation impossible, residents who choose to leave do so with no expectation of returning. See Robert R.M. Verchick, *The Long Goodbye: How To Build a Responsible Climate Migration Program*, 93 TEMP. L. REV. 713, 715 (2021) (discussing the need for Native Louisiana tribes to relocate without hope of return as rising sea levels swallow their lands).

71. Ruhl & Craig, *supra* note 1 (manuscript at 39).

72. Milman, *supra* note 2; see also Qin Fan, Karen Fisher-Vanden & H. Allen Klaiber, *Climate Change, Migration, and Regional Economic Impacts in the United States*, 5 J. ASS’N ENVTL. & RES. ECONOMISTS 643, 667 (2018). This study not only assesses the direct migration pressures posed by climate change impacts, but accounts for the ways that housing and wage prices could offset climate drivers. See *id.* at 646. For example, as workers leave due to climate impacts, the supply shortage could increase wages, reducing net migration. *Id.* Or, focusing on potential destinations, as more migrants arrive, housing prices could increase, dampening in-migration. *Id.*

73. Milman, *supra* note 2; see also Al Shaw, Abrahm Lustgarten & Jeremy W. Goldsmith, *New Climate Maps Show a Transformed United States*, PROPUBLICA (Sept. 15, 2020), <http://projects.propublica.org/climate-migration/> [<https://perma.cc/7RT8-BSJN>] (comparing how climate change will impact different cities and regions in the United States).

deteriorate?<sup>74</sup> The wide range of individual, social, economic, and environmental factors that directly and indirectly influence migration decisions, including but not limited to climate risks, could implicate migration demographics.<sup>75</sup> While all of these attributes are relevant to assessing potential migration and its implications, the most important variables for purposes of assessing affordable housing needs are income and race.

The degree to which race and income are correlated with the kinds of physical risks that could prompt migration is, at this point, indeterminative. In the flooding context, for example, risks are highly localized. In some areas, like southern California, wealthier residents live closer to beaches and ocean views and are therefore more vulnerable.<sup>76</sup> In other areas, like northern California, poorer and of-color residents populate lowlands and are more at risk.<sup>77</sup>

Focusing in on income, wealthy residents who have the financial capacity to adapt in place could be more likely to stay rather than leave, at least until climate impacts make continued habitation impossible.<sup>78</sup> Wealthier residents and communities could elevate homes and infrastructure, install pumps, insulate and air condition homes and other buildings against extreme heat, invest in new water supplies, and the like.

Homeownership status—and the lack thereof—is another factor that suggests that poorer and of-color residents could be more likely to migrate. At least in connection with past disaster behavior, homeownership has been an important factor in decisions to return or relocate after a disaster.<sup>79</sup> On the positive side, renters may find relocating less

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74. A study of post-Katrina migration indicates that younger people were less likely to return than older people, and that Black people, unmarried individuals, and those with lower levels of education were less likely to return. Groen & Polivka, *supra* note 14, at 41. The study notes that, by 2006, forty-six percent of Black evacuees had not returned to pre-Katrina counties, compared with only eighteen percent of white evacuees. *See id.*; *see also* WILLIAM H. FREY, AUDREY SINGER & DAVID PARK, BROOKINGS INST. METRO. POL'Y PROGRAM, RESETTLING NEW ORLEANS: THE FIRST FULL PICTURE FROM THE CENSUS 22–23 (2007) (observing that low-income African Americans were more likely to have left New Orleans than white, higher-income, higher-educated whites).

75. *See, e.g.*, INT'L ORG. FOR MIGRATION, WORLD MIGRATION REPORT 2020, at 253–54 (Marie McAuliffe & Binod Khadria eds., 2019); de Sherbinin, *supra* note 4 (describing a wide range of factors that affect migration decisions).

76. *See* MATTHEW HEBERGER, HEATHER COOLEY, PABLO HERRERA, PETER H. GLEICK & ELI MOORE, CAL. CLIMATE CHANGE CTR., THE IMPACTS OF SEA-LEVEL RISE ON THE CALIFORNIA COAST 43 (2009), <http://pacinst.org/wp-content/uploads/2014/04/sea-level-rise.pdf> [<https://perma.cc/YP28-3YPV>].

77. *See, e.g., id.* (observing that, in northern California, sea-level rise is likely to have a greater impact on poor communities of color than white and wealthy communities); Maya K. Buchanan, Scott Kulp, Lara Cushing, Rachel Morello-Frosch, Todd Nedwick & Benjamin Strauss, *Sea Level Rise and Coastal Flooding Threaten Affordable Housing*, 15 ENV'L RES. LETTERS, Dec. 1, 2020, at 1, 1–2 (discussing extent of low-income residents living in affordable housing in low-lying areas vulnerable to sea level rise); Timothy W. Collins, Sara E. Grineski, Jayajit Chakraborty & Aaron B. Flores, *Environmental Injustice and Hurricane Harvey: A Household-Level Study of Socially Disparate Flood Exposures in Greater Houston, Texas, USA*, 179 ENV'L RES., Sept. 25, 2019, at 1, 7 (finding greater flooding in Hispanic, non-Hispanic Black, and non-Hispanic other racial minorities' homes relative to the homes of non-Hispanic whites).

78. *See* Hauer, *supra* note 58, at 322 (assuming that wealthier households “are likely to adapt to SLR [sea-level rise] in some manner, and [are] thus unlikely to migrate”). Hauer analyzed two scenarios, one in which wealthy residents adapted and stayed in place, and one in which everyone exposed to sea level rise risks potentially migrated. *See id.* at 324 tbl.1.

79. *See, e.g.*, Bryner et al., *supra* note 16, at 78 (observing that “homeownership was determinative for many evacuees” deciding whether to return to New Orleans).

disruptive than homeowners; they have less to lose, at least in terms of property.<sup>80</sup> More negatively, where disaster leads to damaged housing, rents and prices for unimpacted housing go up, decreasing affordability for low-income residents and driving them away.<sup>81</sup> Due to historic patterns of housing and lending discrimination, people of color are more likely to be renters than homeowners.<sup>82</sup> Therefore, people of color could be relatively more likely to migrate than whites. The Katrina story is telling: a year after the hurricane, forty-six percent of African-American evacuees had not returned, compared with eighteen percent of white evacuees.<sup>83</sup>

But now and increasingly in the future, this dynamic could reverse, with wealthier and whiter populations migrating at a greater rate than poorer and of-color populations because they have more resources to finance a move and will be able to find housing and jobs more successfully than low-income and of-color migrants.<sup>84</sup> The poorest and most marginalized residents could become trapped in areas of high risk,<sup>85</sup> while those who migrate will be those with greater means and opportunity. Moreover, decreasing housing prices in areas experiencing high levels of risk and associated out-migration could attract low-income households desperately seeking affordable housing, placing highly vulnerable populations in harm's way.<sup>86</sup>

At this stage, we cannot predict the demographic characteristics of likely migrants, and migration patterns could depend upon the nature of climate stressors, local adaptation efforts, the degree of social capital in sending communities, and a multitude of other factors. For now, it is clear that receiving communities will have to anticipate the implications of a wide range of migrant characteristics and needs.

## II. MIGRATION'S IMPLICATIONS

Large-scale relocations will have multidimensional implications for migrants and receiving communities. Population changes will impact housing, land use, education, employment, infrastructure, and the social safety net. In-migration could benefit some

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80. Studies of postdisaster displacement indicate that homeowners are more likely to return after disasters, so long as their homes are not uninhabitable or at high risk. *Id.*

81. *See id.* at 78 (noting that post-Katrina, New Orleans rents and housing prices surged and that renters had difficulty finding housing after Superstorm Sandy).

82. The home ownership gap between whites and African Americans in 2020 was 30.6 percent, the largest disparity since 1983. JOINT CTR. FOR HOUS. STUDIES OF HARV. UNIV., *supra* note 11, at 26.

83. *See* Groen & Polivka, *supra* note 14, at 41; *see also* FREY ET AL., *supra* note 74, at 13, 16–17, 22–23 (observing that low-income African Americans were more likely to have left New Orleans than higher-income, higher-educated whites).

84. Owley, *supra* note 3, at 683.

85. Migration analysts consider both who migrates and who is unable to migrate due to inadequate resources. *See* MECC REPORT, *supra* note 12, at 39; Gemenne, *supra* note 4, at 188; de Sherninin, *supra* note 4, at 5. A recent international study of household responses to increasing floods found that low-income households often become trapped in hazard zones. *See* Koen de Koning & Tatiana Filatova, *Repetitive Floods Intensify Outmigration and Climate Gentrification in Coastal Cities*, 15 ENV'L RES. LETTERS, Feb. 18, 2020, at 1, 1. Although lower-income people of color were less likely to return to New Orleans after Hurricane Katrina, sixty thousand residents lacked the resources to leave at the time of the hurricane or thereafter. *See* Gemenne, *supra* note 4, at 188.

86. *See* Fan et al., *supra* note 72, at 644; Alice Kaswan, *Domestic Climate Change Adaptation and Equity*, 42 ENVTL. L. REP. 11125, 11134 (2012) [hereinafter Kaswan, *Domestic Climate Change*].

areas,<sup>87</sup> especially those that have experienced depopulation in recent decades.<sup>88</sup> Careful preparation for climate migration will entail matching migrants with the communities that can best absorb them. In many instances, however, receiving communities could experience significant challenges if they are not adequately prepared for in-migration.<sup>89</sup> To facilitate the smooth and effective integration of new residents, receiving communities will need resources, planning, and new approaches to development to address multiple features of community life. This Section begins by noting potential benefits,<sup>90</sup> and then turns to the risks for migrants<sup>91</sup> and existing residents within receiving communities,<sup>92</sup> focusing on housing.

#### A. *The Benefits of In-Migration*

Under the right circumstances, in-migration could benefit receiving communities. One of the areas likely to experience less drastic climate impacts, and even climate improvements, is the upper Midwest, which has underutilized housing and other infrastructure that gives it the capacity to absorb new residents and businesses.<sup>93</sup> New residents could revitalize neighborhoods and local economies.

For example, Duluth, Minnesota, which anticipates climate benefits and was designed to accommodate a larger population, has been identified as a potential climate migrant destination.<sup>94</sup> The Duluth Area Chamber of Commerce actively promotes migration, with a dedicated “Move to Duluth” webpage, complete with a free relocation resources packet.<sup>95</sup> Cincinnati, Ohio, which has over thirty thousand vacant housing units and, according to a city official, has the capacity for another two hundred thousand residents, explicitly addressed the possibility of attracting businesses from disaster-prone locations in the city’s 2018 Green Cincinnati Plan.<sup>96</sup> The mayor of Buffalo, New York, has reportedly declared the city a “climate refuge.”<sup>97</sup> Although not prompted by climate

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87. See *infra* Part II.A.

88. See *infra* Part II.A.

89. See *infra* Parts II.B, II.C.

90. See *infra* Part II.A.

91. See *infra* Part II.B.

92. See *infra* Part II.C.

93. See Sebastien Malo, *Cool U.S. Cities Prepare as Future ‘Havens’ for Climate Migrants*, REUTERS (Apr. 6, 2019, 4:17 AM), <http://www.reuters.com/article/us-usa-climatechange-migration/cool-u-s-cities-prepare-as-future-havens-for-climate-migrants-idUSKCN1R1061> [<https://perma.cc/A24A-XX69>].

94. *Id.*

95. See *Relocation Resources*, DULUTH AREA CHAMBER OF COMMERCE, <http://duluthchamber.com/local-living/move-to-duluth/> [<https://perma.cc/ABC5-UJEK>] (last visited June 1, 2021). Another website, “Destination Duluth” provides employment, housing, and other advice to encourage people to move to Duluth. *Mission*, DESTINATION DULUTH, <http://www.destinationduluth.org/> [<https://perma.cc/8AVA-HZHJ>] (last visited June 1, 2021).

96. Patrick J. Kiger, *Could Some Cities Benefit from Migration Driven by Climate Change?*, URBANLAND (Sept. 20, 2019), <http://urbanland.uli.org/economy-markets-trends/could-some-cities-benefit-from-migration-driven-by-climate-change/> [<https://perma.cc/R763-W4FE>] (describing remarks by the director of Cincinnati’s Office of Environment and Sustainability at the Urban Land Institute’s 2019 fall meeting).

97. Kendra Pierre-Louis, *Want To Escape Global Warming? These Cities Promise Cool Relief*, N.Y. TIMES (Apr. 15, 2019), <http://www.nytimes.com/2019/04/15/climate/climate-migration-duluth.html> [<https://perma.cc/N834-MSXD>].

change, a case study documenting the slow integration of three thousand Somali immigrants into the small town of Lewiston, Maine, reveals the potential some areas have to absorb new residents.<sup>98</sup>

Climate migrants are unlikely to find their way to the communities that could most benefit from new residents and revitalization on their own.<sup>99</sup> Further, even when communities could benefit from new residents, existing residents could fear that new residents would adversely impact civic life.<sup>100</sup> Consequently, migration pathways will require planning and coordination, and receiving communities would benefit from resources that assist them in integrating new residents and adjusting to the changes they bring.<sup>101</sup>

### B. *Challenges Migrants Face*

Although some communities and regions could benefit from an influx of new residents and economic activity, others will be deeply challenged. This Essay focuses on housing, one of the most critical challenges, beginning with the obstacles migrants could face and then turning to the difficulties receiving communities could encounter.

Many parts of the country already face a shortage of affordable housing. One report suggests that there are only ten million affordable rentals available for the eighteen million renters with very low incomes.<sup>102</sup> As a consequence, to obtain housing, many renters end up paying a disproportionate share of their income on housing. Nationwide, in 2019, 46.3% of renters, representing over twenty million households, were “cost burdened,” devoting more than thirty percent of their income to housing.<sup>103</sup> Sixty-two percent of renters with household incomes under \$25,000 per year paid more than half their income on rent.<sup>104</sup> For moderate-income households, defined as those earning between \$25,000 and \$49,999 per year, fifty-eight percent were cost burdened in 2019, fourteen percent more than in 2001.<sup>105</sup> Although the supply of rental housing is growing overall, it is growing the most for single-family homes and for larger buildings, which tend to have higher rents, and decreasing for small multifamily units, which tend to have lower rents.<sup>106</sup>

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98. See ANDREA M. VOYER, STRANGERS AND NEIGHBORS: MULTICULTURALISM, CONFLICT, AND COMMUNITY IN AMERICA 8–11, 13–15 (2013).

99. See *infra* Part III.A.1.

100. See Pierre-Louis, *supra* note 97 (noting that Duluth residents have struggled with diversity and the possibility that integrating new residents could present challenges); Mimi Swartz, *The Year of Living Dangerously*, TEX. MONTHLY (Oct. 2006), <http://www.texasmonthly.com/articles/the-year-of-living-dangerously/> [https://perma.cc/28C3-SSNH] (describing Houston residents’ antagonism to Hurricane Katrina migrants from New Orleans).

101. See *infra* Part III.A for a discussion of a proposed multi-level governance solution.

102. JOINT CTR. FOR HOUS. STUDIES OF HARV. UNIV., *supra* note 11, at 37; see also *2020 Preservation Profiles, United States*, NAT’L HOUSING PRESERVATION DATABASE, <http://preservationdatabase.org/reports/preservation-profiles/> [https://perma.cc/ZF3F-8APX] (last visited June 1, 2021) (reporting that the United States faces a shortage of almost seven million “rental homes affordable and available for ELI [extremely low-income] renters”).

103. JOINT CTR. FOR HOUS. STUDIES OF HARV. UNIV., *supra* note 11, at 34.

104. *Id.* at 1.

105. See *id.*

106. *Id.* at 32.

Although homeowners, overall, are less likely to be cost burdened, 16.7 million homeowner households, over one-fifth of homeowners, devote more than thirty percent of their income to housing.<sup>107</sup> The supply of low to moderately priced homes falls far short of demand, and consequently increases prices in this market. In early 2020, some experts asserted that the demand for new homes exceeds supply by 1.6 million homes, a gap that is increasing by three hundred thousand per year as new supply fails to keep pace with new demand generated by new homebuyers and the need to replace existing housing.<sup>108</sup> These experts explain that “[t]he entirety of this shortfall is for low- and middle-priced housing.”<sup>109</sup>

The existing lack of affordable housing has likely contributed to increasing homelessness, a problem that could worsen if climate migrants are unable to find affordable housing. Although the causes of homelessness are complex and multifaceted, it is worth noting that, in 2019, the number of homeless individuals increased to well over half a million.<sup>110</sup>

The lack of affordable housing is not simply a product of the private housing market. In addition to high permitting fees and construction costs, it is also a function of deliberate land use policies designed to limit affordable housing.<sup>111</sup> Many communities have low-density zoning codes that require minimum lot sizes, limit housing to single-family homes and forbid multifamily housing, and have occupancy codes that require substantial square footage requirements per person, precluding smaller apartments.<sup>112</sup> For example, a recent study found that more than one-third of 1,703 local governments had housing density limits that permitted no more than seven housing units per acre, which translates into minimum lot sizes of 6,200 square feet.<sup>113</sup> In contrast, only about one-quarter of the studied jurisdictions allowed more than thirty units per acre.<sup>114</sup> These restrictions significantly increase housing costs, reducing the availability of affordable housing.

The challenge of finding affordable housing is likely to be more difficult for migrants of color. In Houston, where tens of thousands of Hurricane Katrina evacuees, many of them poor and Black, remained twelve months after the hurricane, white, wealthy residents at a town hall meeting said the “Katrina illegal immigrants” should stop getting special entitlements, and that “[w]e want the New Orleans residents to go

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107. *See id.* at 34.

108. Jared Bernstein, Jim Parrott & Mark Zandi, *The Conundrum Affordable Housing Poses for the Nation*, WASH. POST (Jan. 2, 2020, 6:30 AM), [http://www.washingtonpost.com/realestate/the-conundrum-affordable-housing-poses-for-the-nation/2020/01/01/a5b360da-1b5f-11ea-8d58-5ac3600967a1\\_story.html](http://www.washingtonpost.com/realestate/the-conundrum-affordable-housing-poses-for-the-nation/2020/01/01/a5b360da-1b5f-11ea-8d58-5ac3600967a1_story.html) [<https://perma.cc/PKX3-QN78>].

109. *Id.*

110. JOINT CTR. FOR HOUS. STUDIES OF HARV. UNIV., *supra* note 11, at 36.

111. *See* Bernstein et al., *supra* note 108.

112. The motivations for low-density zoning are complex. One driver is “fiscal zoning,” in which local governments adopt zoning provisions designed to maximize local government revenue and minimize local costs. *See* Richard Briffault, *The Local Government Boundary Problem in Metropolitan Areas*, 48 STAN. L. REV. 1115, 1134 (1996). Low-density zoning and other limits on affordable housing keep property values and property taxes high, while keeping the number of residents and the services they expect low. *See id.*

113. JOINT CTR. FOR HOUS. STUDIES OF HARV. UNIV., *supra* note 11, at 12 (discussing findings of its 2019 National Longitudinal Land Use Survey).

114. *Id.*



home.”<sup>115</sup> More generally, housing discrimination has not disappeared. Though not a perfect proxy for discrimination, de facto housing segregation remains high in many areas.<sup>116</sup> Beyond rare instances of explicit discrimination, implicit discrimination, operating through conscious or unconscious biases, could continue to make finding available housing harder for migrants of color than for others.<sup>117</sup> The home ownership gap between whites and African Americans is 30.6 percent, the largest disparity since 1983,<sup>118</sup> suggesting that African Americans still struggle to afford and find housing.

### C. Challenges Receiving Communities Face

The most significant housing-related risks in receiving communities are exacerbated housing shortages and gentrification. If affordable housing is in short supply, then an influx of migrants needing affordable housing will intensify the shortage, with adverse consequences for receiving communities as well as migrants. Even if incoming residents are wealthy and do not directly compete for affordable housing, the influx could prompt gentrification.<sup>119</sup> As housing demand increases, rental prices could increase across the spectrum, with wealthier residents occupying rental units that might previously have been available to middle-income residents, generating pressures that radiate down the line to the lowest-income residents. Along the way, existing residents could be squeezed out of their communities. In the home ownership context, increased demand could likewise increase housing prices and, over time, shift ownership patterns to those wealthy enough to buy.

A recent study in Miami-Dade County, where lower elevations are beginning to experience flooding at high tides and face significant risks in hurricanes, found some evidence that higher-elevation properties within the county were appreciating in value, reflecting increased demand for housing with a lower flood risk.<sup>120</sup> Because racially restrictive covenants prevented people of color from occupying beachfront property,

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115. Swartz, *supra* note 100.

116. JOINT CTR. FOR HOUS. STUDIES OF HARV. UNIV., *supra* note 11, at 5–6 (observing that people of color are concentrated together and in high-poverty areas, while being underrepresented in higher-income areas). Although segregation has slowly decreased since its high point in the 1960s and 1970s, whites remained highly concentrated, with the typical white person living in a neighborhood that is seventy-five percent white. JOHN R. LOGAN & BRIAN J. STULTS, U.S. 2010 PROJECT, THE PERSISTENCE OF SEGREGATION IN THE METROPOLIS: NEW FINDINGS FROM THE 2010 CENSUS 2–3 (2011), <http://s4.ad.brown.edu/Projects/Diversity/Data/Report/report2.pdf> [<https://perma.cc/X7EU-LRJJ>]. In contrast, the diversity of communities of color has increased, but primarily by a greater diversity of residents of color and not through greater integration with white residents. *Id.* at 3. To the degree white areas have become more diverse, that diversity largely consists of more Latinx and Asian neighbors, with little integration of African Americans into white neighborhoods. *Id.* The majority of the ten metropolitan areas with the highest level of Black-white segregation are in the Midwest, *id.* at 5, areas that could be likely migrant destinations as sea levels rise.

117. A recent Harvard report suggests that higher rates of homelessness among people of color reflect the greater difficulties they experience accessing affordable housing. JOINT CTR. FOR HOUS. STUDIES OF HARV. UNIV., *supra* note 11, at 6.

118. *Id.* at 26.

119. See Owley, *supra* note 3, at 694 (describing how an exodus of wealthy Phoenix residents to cooler Flagstaff is increasing Flagstaff housing prices and could price out poor residents).

120. Jesse M. Keenan, Thomas Hill & Anurag Gumber, *Climate Gentrification: From Theory to Empiricism in Miami-Dade County, Florida*, 13 ENVTL. RES. LETTERS, Apr. 23, 2018, at 1, 9–10.

African Americans, Haitian immigrants, and other low-income people of color are currently concentrated in these higher-elevation, and now more desirable, areas.<sup>121</sup>

According to real estate expert Jesse Keenan, as wealthier residents escape the flooding routinely plaguing richer communities like Miami Beach, they “will crowd out existing affordable housing, especially rentals.”<sup>122</sup> Some anticipate that climate gentrification in the Miami area “is likely to push people of color and the poor out of neighborhoods that have historically been mostly black or Caribbean.”<sup>123</sup> Marcia McNutt, president of the National Academy of Sciences and a geophysicist, predicts that initial coastal displacements could have a domino effect, as coastal property owners displace one set of inland residents, who in turn migrate and displace another set of inland residents, and so on, in a pattern that could, ultimately, leave some with no place to go.<sup>124</sup>

Millions of people could be on the move over the next few decades.<sup>125</sup> Many local governments are ill-equipped to meet the needs of their existing residents, much less a substantial influx of new residents. The “free market,” which has failed to generate sufficient affordable housing to date, is unlikely to provide the housing supply or other services occasioned by these demographic shifts.<sup>126</sup> A proactive approach to climate migration is essential to avoid the human suffering that could result from a failure to plan and prepare.

### III. A MULTILEVEL GOVERNANCE FRAMEWORK TO ACCOMMODATE CLIMATE MIGRATION-INDUCED HOUSING NEEDS

Assuming the need for a proactive approach to climate migration and the housing challenges it will engender, the next question is: Who should act? Housing and land use policy has historically been within the purview of local governments, as authorized by state law that delegates these powers to the local level.<sup>127</sup> But local governments cannot anticipate or prepare for incoming migration on their own, nor should they. As the foregoing discussion made clear, local governments have not always exercised their land use authority to foster affordable housing and may not do so as pressures increase.<sup>128</sup>

121. See Erika Bolstad, *High Ground Is Becoming Hot Property as Sea Level Rises*, E&E NEWS: CLIMATEWIRE (May 1, 2017), reprinted in SCI. AM., <http://www.scientificamerican.com/article/high-ground-is-becoming-hot-property-as-sea-level-rises/> [https://perma.cc/XM8Z-VGQ2].

122. *Id.*

123. *Id.* In Miami, gentrification is occurring not only through individual land purchases but also through strategic housing purchases by developers and real estate speculators. See *id.*

124. *Id.*

125. See *supra* Section I.

126. See Kaswan, *Domestic Climate Change*, *supra* note 86, at 11139 (describing the free market’s inability to solve adaptation challenges); Ruhl & Craig, *supra* note 1 (manuscript at 44–46).

127. See David J. Barron, *A Localist Critique of the New Federalism*, 51 DUKE L.J. 377, 395 (2001); Ashira Pelman Ostrow, *Land Law Federalism*, 61 EMORY L.J. 1397, 1404–05 (2012).

128. See *supra* Part II.B. A few states require local governments to address affordable housing needs. California, for example, explicitly requires local governments to include a housing element in their comprehensive plans, and that element must assess and plan for housing to meet the jurisdiction’s share of regional housing need at all income levels. See SAHAR SHIRAZI, ELIZABETH BACA, MICHAEL MCCORMICK & SETH LITCHNEY, GOVERNOR’S OFFICE OF PLANNING & RESEARCH, STATE OF CALIFORNIA GENERAL PLAN GUIDELINES 96–99 (2017), [http://opr.ca.gov/docs/OPR\\_COMPLETE\\_7.31.17.pdf](http://opr.ca.gov/docs/OPR_COMPLETE_7.31.17.pdf) [https://perma.cc/4LDR-MEFL]. Similarly, New Jersey has long required local governments to provide their fair share of affordable

Although there are federal programs that support affordable housing,<sup>129</sup> they have been insufficient to meet existing need, much less emerging need.

Neither a purely local nor a purely federal approach would be adequate. A local approach would be too small, given the limitations, both practical and democratic, of local action. A purely federal approach could be too remote from local needs and aspirations. A multilevel governance approach would achieve the best of both worlds. Although this Essay focuses on the specific question of affordable housing, the multilevel governance approach suggested here could be more broadly applicable to the range of challenges raised by climate migration.

Part III.A proposes a national strategy to address migration-induced housing needs, including federal migration research, federal requirements that local governments develop plans to address migration-induced affordable housing needs, federal land use requirements as needed to accomplish affordable housing goals, and federal financial resources for the local governments housing the nation's climate migrants. Part III.B analyzes the proposal in light of core federalism values, including pragmatism, democratic legitimacy, and the prevention of tyranny/enhancement of liberty, and demonstrates that multilevel initiatives can best prepare the nation for the difficult work ahead.

#### A. *A Multilevel Governance Proposal for Addressing Climate Migration-Induced Housing Needs*

Local governments have unique capacities and retain a vital interest in shaping their communities.<sup>130</sup> At the same time, they have neither the capacity nor resources to assess future climate migration, direct it in positive directions, or cope with potential in-migration.<sup>131</sup> Moreover, some local governments could potentially erect barriers to addressing migrants' legitimate needs.<sup>132</sup> Finding the balance between receiving communities' needs and preferences and accommodating the needs and preferences of potential in-migrants will require a delicate balance and a carefully crafted multilevel governance framework.

As explained in more detail below, the first component of a national strategy is for the federal government to undertake comprehensive research on national migration

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housing. *See* N.J. STAT. ANN. § 52:27D-302 (West 2021) (finding that the New Jersey Supreme Court requires every municipality in a "growth area" to provide a "realistic opportunity for a fair share of its region's present and prospective needs for housing for low and moderate income families"); *id.* § 52:27D-307 (requiring new Council on Affordable Housing to administer the state's fair share obligations). Only a "handful" of states have such requirements, however. *See* PAUL BOUDREAUX, THE HOUSING BIAS: RETHINKING LAND USE LAWS FOR A DIVERSE NEW AMERICA 184 (2011).

129. For example, the federal Department of Housing and Urban Development (HUD) provides Community Development Block Grants to help local governments meet housing needs and revitalize neighborhoods. *See* U.S. DEP'T OF HOUSING & URBAN DEV., PROGRAMS OF HUD 11–15 (2020), <http://www.hud.gov/sites/dfiles/Main/documents/HUDPrograms2020.pdf> [<https://perma.cc/9W85-QBVM>]. HUD provides additional grants to assist local governments developing affordable housing opportunities. *Id.* at 23–24 (describing HOME investment grants); *id.* at 26 (describing the Housing Trust Fund, which funds housing for low-income families).

130. *See infra* Part III.A.2.

131. *See supra* Section II.

132. *See supra* Part II.B.

trends and opportunities.<sup>133</sup> Second, although the federal government cannot engage in local planning itself, the federal government should require all potential receiving communities to assess the need and plan for affordable housing.<sup>134</sup> Federal law should establish both substantive and procedural parameters for local planning. Third, because a planning requirement alone might fail to generate actual results, local governments could, as needed, be required to adopt certain land use approaches, including reducing exclusionary zoning and facilitating or developing affordable housing (with due care to avoid eminent domain abuse).<sup>135</sup> Lastly, a national strategy would provide substantial resources to enable local governments to engage in planning and implementation.<sup>136</sup>

#### 1. Research On and Tracking of National Migration Trends and Opportunities

From a practical standpoint, the national scale of projected migration suggests that the federal government would be best placed to track emerging migration and potential migration pathways. “Sending” communities—the areas from which residents are leaving—are unlikely to know or track where their residents are going. Future receiving communities, on their own, have no way of ascertaining whether residents are likely to gravitate to them. Moreover, having many potential receiving communities attempt to ascertain future migration patterns would be duplicative and inefficient. Federal research would lay the groundwork for planning and coordinating relocations to minimize the human suffering that could result if large-scale population shifts are not anticipated and managed effectively and equitably.<sup>137</sup>

Research should focus not only on the raw numbers of migrants and where they might go but should also scrutinize, to the degree possible, the demographics of the relevant populations, including factors like age, income, race, and disability. Because the needs of potential migrants and their consequences for receiving communities will depend upon these demographics, this data would help receiving communities better prepare to meet the needs of existing and future residents. Although uncertainties will remain, uncertain information is better than no information.

State and local governments will be necessary partners in the inquiry.<sup>138</sup> To understand potential migration from sending communities, federal researchers will have to work with local governments to understand how climate change impacts could lead to migration within or out of a jurisdiction in light of that area’s climate vulnerability and the range of factors that could affect residents’ migration decisions. To identify the regions and communities most capable of absorbing in-migration, federal researchers should forge close working relationships with state and local planners and decisionmakers in regions less vulnerable to climate change. Federal researchers could work with potential receiving communities to identify those that would benefit from

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133. See *infra* Part III.A.1.

134. See *infra* Part III.A.2.

135. See *infra* Part III.A.3.

136. See *infra* Part III.A.4.

137. See Ruhl & Craig, *supra* note 1 (manuscript at 40) (stating that climate migration “will require a national perspective [and] national coordination”).

138. See *infra* Part III.B.

in-migration and identify those that are likely to receive migrants but are ill-prepared to manage their integration.

## 2. Planning for In-Migration

As Professor Jessica Owley has stated, without advance planning and preparation, climate migration will be chaotic.<sup>139</sup> With appropriate preparation, however, both receiving communities and climate migrants will benefit. A multilevel governance approach would strike a balance between a federal push and local discretion. Part III.A.2.a explains the importance of federal requirements for local planning. Part III.A.2.b outlines the substantive planning parameters the federal government should establish for local planning. Part III.A.2.c recommends procedural parameters the federal government should establish to maximize meaningful engagement by historically marginalized populations within receiving communities.

### a. Planning Requirement

Based on migration data, federal law should require potential receiving communities to engage in proactive planning. Without an affirmative planning obligation, local governments could otherwise fail to engage in the planning necessary to accommodate future growth. Future migration could appear too speculative. Longer-term possibilities like climate migration could receive less attention than a municipality's more immediate or higher-profile challenges. Unless the community is actively seeking new residents, or already experiencing the strains of unplanned in-migration, the prospect of future migrants could be one which the local government would rather avoid than embrace.

### b. Substantive Planning Parameters

As discussed above, insufficient affordable housing within receiving communities could leave climate migrants with nowhere to go or with highly inadequate housing for their needs.<sup>140</sup> For existing residents, in-migration could lead to gentrification and accentuate existing shortages of affordable housing, adversely impacting the most vulnerable within receiving communities.<sup>141</sup> Given a history of local resistance to affordable housing,<sup>142</sup> federal parameters should guide receiving communities' planning and strategies.

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139. Owley, *supra* note 3, at 670–71; *see also* Hauer, *supra* note 58, at 324 (observing that migration from sea level rise “could place undue burden in [receiving communities] . . . if accommodation strategies are left unplanned”).

140. *See supra* Part II.B for a discussion of the challenges migrants will face if receiving communities lack sufficient affordable housing.

141. *See supra* Part II.C for a discussion of the challenges that residents in receiving communities will face if incoming migrants increase pressure on existing housing supplies.

142. Tim Iglesias, *Managing Local Opposition to Affordable Housing: A New Approach to NIMBY*, 12 J. AFFORDABLE HOUSING & CMTY. DEV. 78, 79 (2002).

The Affirmatively Furthering Fair Housing (AFFH) regulation,<sup>143</sup> which was adopted by the Obama administration pursuant to the 1968 Fair Housing Act,<sup>144</sup> provides a model for a planning requirement's substantive and procedural components. The regulation required that local governments receiving federal housing money "affirmatively further fair housing."<sup>145</sup> Although the Trump administration ultimately replaced the regulation before it could take effect,<sup>146</sup> it is nonetheless instructive.

Based on federal data on potential in-migration as well as their own local information, receiving communities should be required to assess existing affordable housing needs and evaluate potential future needs.<sup>147</sup> In addition, as in the AFFH regulation, local planners should identify the factors that have contributed or might contribute to insufficient affordable housing as well as existing barriers to developing adequate affordable housing.<sup>148</sup>

Given the potential for new migration to spark increasing demand that could raise housing prices, planning parameters should require potential receiving communities to address gentrification risks. Potential displacement of existing low-income populations by wealthier residents is an issue even if the jurisdiction were to provide alternative affordable housing, given the social and community harms that arise from displacement itself.

After assessing factors affecting affordable housing, the plans should identify priorities and specific goals.<sup>149</sup> To achieve these priorities and goals, the plans should then identify specific "strategies and actions."<sup>150</sup> Although the AFFH regulation was grounded in concerns about discrimination, suggested strategies directly addressed affordable housing and are relevant to housing strains that an influx of new residents could cause. The regulation stated: "Strategies and actions must affirmatively further fair housing and may include, but are not limited to, enhancing mobility strategies and

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143. Affirmatively Furthering Fair Housing, 80 Fed. Reg. 42,271 *passim* (July 16, 2015).

144. 42 U.S.C. §§ 3601–31 (2018). Given the legacy of racial discrimination in access to housing, and a corresponding wealth gap attributable to discriminatory policies that have kept people of color from accruing wealth and opportunities through homeownership, there is a strong connection between the law's antidiscrimination purposes and meeting communities of color's need for affordable housing.

145. Affirmatively Furthering Fair Housing, 80 Fed. Reg. 42,271 *passim* (July 16, 2015).

146. The Trump administration delayed implementation of the rule in 2018 and then replaced the rule in 2020 with a new rule entitled "Preserving Community and Neighborhood Choice." See Preserving Community and Neighborhood Choice, 85 Fed. Reg. 47,899 (Aug. 7, 2020). The Biden administration has vowed to reevaluate the regulations. By executive order, President Biden asked the Secretary of the Department of Housing and Urban Development to evaluate the Trump rule and then take "any necessary steps" to implement the Fair Housing Act's requirement that HUD administer its programs so as to affirmatively further fair housing. Redressing Our Nation's and the Federal Government's History of Discriminatory Housing Practices and Policies, 86 Fed. Reg. 7,487, 7,488 (Jan. 26, 2021).

147. The AFFH regulation required program participants to analyze HUD and local data. Affirmatively Furthering Fair Housing, 80 Fed. Reg. at 42,355.

148. The AFFH regulation required program participants to assess factors contributing to fair housing challenges. *Id.*

149. The AFFH regulation required priority and goal-setting and provided some guidance on which factors should receive the highest priority. *Id.* at 42,356.

150. Under the AFFH requirements, program participants can include their strategies and actions in their more general planning documents; they do not have to be incorporated into their "fair housing assessment" document. *Id.*

encouraging development of new affordable housing in areas of opportunity, as well as place-based strategies to encourage community revitalization, including preservation of existing affordable housing, including HUD-assisted housing.<sup>151</sup> Given the displacement risks that climate migration poses, strategies to preserve existing affordable housing and prevent gentrification are likely to be important components of a local government's strategies and actions.<sup>152</sup>

New legislation requiring receiving communities to assess and address migrant needs, including affordable housing needs, would have a broader mandate than the Fair Housing Act's focus on protected classes. The Fair Housing Act's affirmatively furthering fair housing requirements are grounded in the nation's historic and ongoing discrimination against protected groups, particularly race- and ethnicity-based discrimination.<sup>153</sup> The concerns facing climate migrants and receiving communities are not limited to disadvantages faced by protected classes.

Even if not explicitly focused on race, planning for in-migration will implicate racial justice. As discussed above, people of color continue to experience constrained opportunities in the housing market and de facto segregation that indirectly impacts available choices.<sup>154</sup> Thus, although the affordable housing assessment and strategic planning requirement proposed for receiving communities would stem from a broader mandate than the prior AFFH requirement, these requirements are likely to further racial justice.

### c. Procedural Planning Parameters

In addition to specifying the substantive affordable housing parameters that local governments should address, federal parameters to ensure meaningful community engagement in the development of local assessments and plans are essential. Explicit mechanisms to enable participation by historically marginalized residents, including people of color, immigrants, and others, are essential to ensuring that community participation is not disproportionately dominated by community participants with more resources and political influence.<sup>155</sup>

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151. *Id.*

152. As housing shortages have led to gentrification and displacement concerns in numerous cities, housing policy experts are exploring specific strategies to reduce the risks. See *Mitigating Gentrification: How Several Sun Belt Cities Are Responding*, RICE U. KINDER INST. URB. RES.: URB. EDGE (Dec. 13, 2018), <http://kinder.rice.edu/urbanedge/2018/12/12/mitigating-gentrification-how-several-sun-belt-cities-are-responding> [<https://perma.cc/BCK8-E486>].

153. See *Affirmatively Furthering Fair Housing*, 80 Fed. Reg. at 42,272, 42,274; see also JULIAN CONRAD JUERGENSMEYER, THOMAS E. ROBERTS, PATRICIA E. SALKIN & RYAN ROWBERRY, *LAND USE PLANNING AND DEVELOPMENT REGULATION LAW* § 6:8 (3d ed. Jan. 2021 update).

154. See *supra* notes 116–119 and accompanying text. It is worth noting that the Fair Housing Act provides protections for people with disabilities, an important protection in the climate context. See 42 U.S.C. § 3604(f) (2018). People with disabilities are among the most vulnerable to climate impacts, whether hurricanes, heat waves, or fires. See Janet E. Lord, Michael E. Waterstone & Michael Ashley Stein, *Natural Disasters and Persons with Disabilities*, in *LAW AND RECOVERY FROM DISASTER: HURRICANE KATRINA* 71 (Robin Paul Malloy ed., 2009).

155. Robert D. Bullard, *Smart Growth Meets Environmental Justice*, in *GROWING SMARTER: ACHIEVING LIVABLE COMMUNITIES, ENVIRONMENTAL JUSTICE, AND REGIONAL EQUITY* 23, 25 (Robert D. Bullard ed., 2007).

Here too, the rolled-back AFFH regulation provides helpful guidance. The regulation establishes measures to ensure that required housing assessments and planning are “informed by meaningful community participation.”<sup>156</sup> Rules applicable to community planning programs state that the “requirements are designed especially to encourage participation by low- and moderate-income persons, particularly those persons living in areas designated . . . as a revitalization area or in a slum and blighted area.”<sup>157</sup> The rule goes on to state that each fund recipient should take steps to encourage “the participation of all its citizens, including minorities and non-English speaking persons . . . as well as persons with disabilities.”<sup>158</sup> The regulations encourage outreach to community groups, faith-based organizations, and other nonprofits, recognizing their roles as key players in galvanizing and channeling widespread community participation.<sup>159</sup> Recognizing that some communities may lack relevant expertise, at least one program states that the participating jurisdiction should, when requested, provide technical assistance to those in “insular areas.”<sup>160</sup>

These substantive and procedural planning parameters would not substitute federal for local control. Housing policies inevitably embody critical socioeconomic and environmental considerations and deeply shape the quality of the municipal experience. Moreover, migration will not occur on a blank slate. Receiving communities already face an array of local challenges and municipal planning should incorporate community perspectives on how to integrate new residents in ways that help solve, rather than exacerbate, existing problems. Local communities are also likely to best identify the opportunities that could arise with a new influx of residents. Given the history of local control over land use and the value of bottom-up decisionmaking by those most directly affected, local governments should play a central role in preparing for migrants.

While the planning process should provide local governments with considerable discretion, that discretion should not be unbounded. Because migrants are not, by definition, current members of the community, and not a part of the planning process, federal planning requirements that ensure that local governments are addressing the needs of potential climate migrants are essential.

### 3. Land Use Requirements

Even with extensive planning requirements, barriers to affordable housing are stubborn. As a 2020 Harvard study stated: “[w]ithout state and federal mandates, many local governments are less inclined to expand the housing options for lower-income households.”<sup>161</sup> As noted above, whatever the willingness of private developers, local zoning laws often effectively prevent the construction of affordable housing.<sup>162</sup> Land use

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156. Affirmatively Furthering Fair Housing, 80 Fed. Reg. at 42,357.

157. *Id.* at 42,361.

158. *Id.* The regulation later makes clear that jurisdictions’ “citizen participation plan[s]” should take “reasonable steps” “to provide language assistance to ensure meaningful access to participation by non-English-speaking residents.” *Id.*

159. *See id.* at 42,360–61.

160. *Id.* at 42,366. The program does not, however, have to provide financial assistance. *Id.*

161. JOINT CTR. FOR HOUS. STUDIES OF HARV. UNIV., *supra* note 11, at 39.

162. *See supra* notes 111–114 and accompanying text.



measures that effectively rule out entry altogether, or limit entry to rich residents, present obstacles to resolving the national challenge that climate-induced migration poses.<sup>163</sup> While local governments should retain primary authority to shape their communities, federal law should place limits on their power to use their land use laws to exclude.

If necessary to accommodate projected migration, federal law could require local governments to partially or completely eliminate low-density zoning provisions. Appropriate measures could include allowing multifamily housing and smaller lot sizes. In larger jurisdictions, the location of affordable housing also presents critical questions. Federal parameters should prevent the concentration of low-income housing in isolated enclaves. And federal parameters should not reinforce, existing patterns of race and income segregation. In other words, exclusive suburbs should be expected to eliminate the kinds of exclusive zoning that has barred affordable housing.

If eliminating barriers to affordable housing does not translate into sufficient, new housing, jurisdictions may need to proactively support affordable housing development, including designating land for the development of higher-density housing with an affordable housing component, shepherding the urban development process, and providing other incentives. As discussed below, jurisdictions engaging in this type of development to accommodate climate migrants should be entitled to federal funds to support their contribution to addressing a national climate migration challenge.

The need to construct new affordable housing raises additional issues. One is local governments' potential exercise of eminent domain power to take land for affordable housing development. Some have argued that the history of eminent domain reveals a tendency to exercise the power disproportionately in poor, predominately people of color neighborhoods, with devastating impacts on community life.<sup>164</sup> Federal parameters to reduce the risk of eminent domain decisions that disproportionately or unjustifiably affect historically marginalized communities are warranted. Before exercising eminent domain to take land for housing, local governments should be required to consider the impacts on vulnerable populations.

At the other end of the spectrum, housing demand driven by climate migration could place pressure on existing "greenfields"—areas that are currently undeveloped.<sup>165</sup> Just as currently developed areas should not be unmindfully razed, currently undeveloped areas should not be unmindfully plowed. Some development in protected areas may be necessary to accommodate climate migration, but decisions to open up such areas should be guided by parameters that address the balance between development and conservation.

#### 4. Financial Resources for Affordable Housing

Federal requirements should be accompanied by federal support. Given the high cost of developing affordable housing, additional government support is likely to be

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163. See *supra* notes 111–114 and accompanying text.

164. See, e.g., DICK M. CARPENTER II & JOHN K. ROSS, INST. FOR JUSTICE, VICTIMIZING THE VULNERABLE: THE DEMOGRAPHICS OF EMINENT DOMAIN ABUSE 4–7 (2007).

165. Owley, *supra* note 3, at 669, 697–701. Owley argues that current efforts to strictly protect conservation and agricultural lands into perpetuity could conflict with the needs of climate migrants. See *id.* at 701–18.

necessary. Local governments receiving a large influx of residents are unlikely to be able to finance such housing on their own or based only on existing, and limited, federal housing assistance programs.<sup>166</sup> Moreover, such support is warranted. Receiving communities bearing the brunt of national and international climate migration should not, in fairness, bear the costs on their own. They are helping to solve a national problem, for which national support is appropriate. Federal financial support will distribute the cost more equitably, with the rest of the nation sharing in the costs of this national challenge.

### B. *Climate Migration Housing Policy and Federalism Values*

Given a long history of local control over local land use, it is controversial to propose a significantly expanded role for the federal government in managing climate migration and, more specifically, in spurring local affordable housing planning and initiatives.<sup>167</sup> While local engagement remains vital, core federalism values justify an enhanced federal role.<sup>168</sup>

The first federalism value is pragmatism: which level of government can most effectively address an acknowledged problem?<sup>169</sup> Fundamentally, local governments cannot manage climate migration on their own;<sup>170</sup> climate-induced migration is a national problem requiring a national solution.<sup>171</sup> In collaboration with local governments and regions, the national government can undertake the research necessary to assess national migration trends and projections more effectively and efficiently than local governments or states acting on their own.<sup>172</sup>

Efforts to cope with climate-induced migration could end up ineffective or inefficient if local governments block the actions needed to address a national-scale challenge. Local governments could be reluctant to plan for projected in-migration or, if

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166. See Monivette Cordeiro, *Puerto Ricans Fleeing Hurricane Maria's Wreckage Find Scarce Affordable Housing in Central Florida*, ORLANDO WKLY. (Oct. 25, 2017), <http://www.orlandoweekly.com/orlando/central-florida-has-an-affordable-housing-crisis-but-with-the-influx-of-puerto-ricans-fleeing-hurricane-marias-wreckage-leaders-dont-have/Content?oid=7995421> [<https://perma.cc/6T2Y-UUUA>] (noting a local Florida official's need for federal assistance to help with Hurricane Maria evacuees due to limited local resources); MARGERY AUSTIN TURNER & G. THOMAS KINGSLEY, URBAN INST., *FEDERAL PROGRAMS FOR ADDRESSING LOW-INCOME HOUSING NEEDS: A POLICY PRIMER*, at iv (2008).

167. See Alice Kaswan, *Climate Adaptation and Land Use Governance: The Vertical Axis*, 39 COLUM. J. ENVTL. L. 390, 394 (2014) [hereinafter Kaswan, *Climate Adaptation*].

168. See *id.* at 416–26 (proposing a federalism values framework for evaluating distribution of authority). Other scholars have explored the appropriate distribution of environmental authority pursuant to a federalism values framework. See generally ERIN RYAN, *FEDERALISM AND THE TUG OF WAR WITHIN* (2011); Kirsten H. Engel, *Harnessing the Benefits of Dynamic Federalism in Environmental Law*, 56 EMORY L.J. 159 (2006).

169. See Kaswan, *Climate Adaptation*, *supra* note 167, at 420–23 (elaborating on the “pragmatic efficacy” federalism value).

170. See, e.g., Cordeiro, *supra* note 166 (“[P]roviding long-term support – such as temporary housing – for evacuees from another community is beyond the means of a local county’s ability, and more in the wheelhouse of state and federal leaders.” (quoting Orange County, Florida mayor Teresa Jacobs)).

171. See Ruhl & Craig, *supra* note 1 (manuscript at 37) (observing that the local, inward nature of current adaptation planning will have to shift to a national approach given the “prospect of substantial inter-regional population migration”).

172. See Kaswan, *Climate Adaptation*, *supra* note 167, at 437 (observing that the federal government will have greater resources and can more efficiently gather information about climate risks).

they do plan, could exhibit the chronic unwillingness to address affordable housing needs that remains common across the country.<sup>173</sup>

Moreover, local governments suddenly facing an influx of new residents are unlikely to have the financial resources to develop necessary affordable housing, much less the additional infrastructure and services that new residents require.<sup>174</sup> Federal funding to help these communities shoulder the burden of national population shifts is necessary and justified.<sup>175</sup>

Pragmatic considerations do not all point in the direction of federal control. Even if decentralized federal agencies could begin to manage local housing,<sup>176</sup> that expansion of federal control would be a mistake. Receiving communities should be in the driver's seat when it comes to planning for climate in-migration. Local governments will best understand a community's existing strengths and needs and can best shape preparations that preserve strengths, address current needs, and anticipate and respond to future demands.<sup>177</sup> For example, a local government can identify important features of community life, like vibrant cultural centers that should be preserved rather than eliminated for higher-density construction. Local governments are most in tune with the current need for homes or rentals, and with the demographics of those in need, whether for families (small and large), for seniors, or for young people in college or early careers. Although local governments' efforts will be affected by federal parameters and requirements, planning would be most effective when local governments retain significant discretion.

The second federalism value is democratic legitimacy.<sup>178</sup> A common argument for decentralized power is that citizens can have a greater voice in local decisions than they can at larger scales.<sup>179</sup> The ability to engage in the democratic process to realize one's preferences is a key part of democracy. Community planning processes in receiving communities will be essential from a democratic as well as a pragmatic perspective.

Here again, though, a federal role is warranted. Within communities, because power imbalances can impede marginalized populations' capacity to participate in and

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173. See *supra* notes 111–114 and accompanying text for a discussion of the long-standing opposition to affordable housing. See also JUERGENSMEYER ET AL., *supra* note 153, § 6:1 (describing how local governments have used zoning to “exclude, among others, persons of low and moderate income, racial minorities, and the disabled”).

174. See *supra* Part III.C for a discussion concerning local governments' need for federal support.

175. See Ruhl & Craig, *supra* note 1 (manuscript at 40) (arguing that federal resources will be necessary to manage the scale of impending migration).

176. Federal programs can, and often are, administered through decentralized regional and local offices. See, e.g., Dave Owen, *Regional Federal Administration*, 63 UCLA L. REV. 58 *passim* (2016) (describing the responsiveness of decentralized Army Corps of Engineers federal offices to state and local interests).

177. See Kaswan, *Climate Adaptation*, *supra* note 167, at 426–27 (observing, in the context of local adaptation planning, that local governments will best understand local challenges and issues).

178. See *id.* at 423–24, 440–41 (discussing the democratic legitimacy value).

179. See Briffault, *supra* note 112, at 1123–24; Kaswan, *Climate Adaptation*, *supra* note 167, at 440–41.

influence local decisionmaking,<sup>180</sup> federal “meaningful engagement” provisions should enhance their ability to realize the democratic benefits of local decisionmaking.<sup>181</sup>

In addition, in considering democratic legitimacy, a key issue is determining the relevant polity: which citizens should have a voice in decisions that will affect them?<sup>182</sup> Local land use policies represent only the views of existing local residents, not the views of those who would seek to be future residents. With a national scale challenge, the views of those outside out of a municipality matter, yet those outside do not have a voice in local planning or in a local government’s potentially exclusionary policies.<sup>183</sup> A federal law that requires affordable housing assessments and planning, and that mandates that local governments reduce exclusionary land use policies could, thus, better represent the collective will than policies that only current residents control.

While the democratic legitimacy value focuses on the potential of government to represent the democratic will, the third federalism value reflects a more cautious view of government power, focusing on the prevention of tyranny and enhancement of liberty.<sup>184</sup> By preventing total control by one level of government, civil rights and liberty are more likely to be protected.

Although local land use policies can accomplish many positive goals, exclusionary land use policies could prevent individual landowners from building affordable housing that they—and the housing market—might prefer.<sup>185</sup> Federal policies that stop or limit local governments’ ability to exclude could provide landowners with correspondingly greater autonomy.

Moreover, federal limits on exclusionary zoning and promotion of affordable housing are liberty-enhancing for those who have been or could be excluded from communities that limit affordable housing.<sup>186</sup> The history of exclusionary zoning is tied

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180. See *supra* Part III.A.2.c.

181. See Alice Kaswan, *Climate Change, Consumption, and Cities*, 36 *FORDHAM URB. L.J.* 253, 309–10 (2009) (discussing the importance of marginalized communities’ meaningful engagement in local planning to reduce local sources of greenhouse gas emissions).

182. See JONATHAN LEVINE, *ZONED OUT: REGULATION, MARKETS, AND CHOICES IN TRANSPORTATION AND METROPOLITAN LAND-USE* 42 (2006); Kaswan, *Climate Adaptation*, *supra* note 167, at 443–44; Edward L. Rubin & Malcom Feeley, *Federalism: Some Notes on a National Neurosis*, 41 *UCLA L. REV.* 903, 948–49 (1994).

183. See Kaswan, *Climate Adaptation*, *supra* note 167, at 442–45 (describing how local decisionmaking can exclude those affected by but outside the local government’s jurisdiction); see also BOUDREAUX, *supra* note 128, at 181–82 (discussing the ways in which local land use decisionmaking can fail to “reflect the true community at issue,” who are the people who might want to live in a community but cannot do so due to the lack of available housing).

184. See Kaswan, *Climate Adaptation*, *supra* note 167, at 424–25 (discussing the prevention of tyranny and enhancement of liberty value). Arguably, the framers distributed power between the federal government and the states so that each level could serve as a check and balance on the other, preventing a concentration of power at either level. Erin Ryan, *Federalism and the Tug of War Within: Seeking Checks and Balances in the Interjurisdictional Gray Area*, 66 *MD. L. REV.* 503, 602 (2007). By preventing total control by one level of government, individuals’ civil rights and liberty are more likely to be protected.

185. See LEVINE, *supra* note 182, at 42.

186. Federal programs to foster affordable housing could also increase options for existing residents, many of whom are disadvantaged by restrictive land use policies that preclude the development of sufficient affordable housing for existing residents. See *supra* Part II.B for a description of housing challenges faced by existing residents.

to racial discrimination.<sup>187</sup> Although large lots and limits on multifamily housing are often justified by a “neutral” desire to maintain property values, these zoning mechanisms effectively limit lower-wealth citizens’ access<sup>188</sup> and, due to the strong correlation between wealth and race, limit people of color’s access.<sup>189</sup> Federal limits on local exclusionary land use policies could thus provide greater rights and freedom to previously excluded citizens, serving individual liberty.

#### CONCLUSION

Contemplating millions on the move might seem like a dystopian movie plot. But by the time we realize facts are stranger than fiction, significant and unnecessary suffering could have transpired. It is not too soon to begin to sketch the contours of a national strategy that will set the planning gears in motion.

Nothing about the enterprise will be easy. Increasing the federal role in local land use will be politically challenging. Finding federal resources to finance a national commitment to affordable housing will be difficult. And affordable housing is only one piece of the climate migration pie.

It is important, however, to start somewhere. Arguably, the multilevel governance proposal articulated here could be expanded to include other climate migration challenges, including nonhousing infrastructure, community investment policies, social services, food security, and other local yet national issues. Climate change adaptation policy cannot focus only on soaked cities and baking deserts. It must also consider how the nation comes together to help receiving communities—communities that may appear insulated from harm—thrive as their populations shift and grow.

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187. See *supra* notes 111–114 and accompanying text.

188. See BOUDREAU, *supra* note 128, at 9–10; JUERGENSMEYER ET AL., *supra* note 153, § 6:1.

189. See JUERGENSMEYER ET AL., *supra* note 153, § 6:1; James J. Hartnett, Note, *Affordable Housing, Exclusionary Zoning, and American Apartheid: Using Title VIII to Foster Statewide Racial Integration*, 68 N.Y.U. L. REV. 89, 98–99 (1993).