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# Achieving Housing Abundance Near Transit

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Access to abundant housing can reduce housing costs and improve housing affordability, particularly if combined with planning for public transportation, which supports more environmentally sustainable outcomes. Communities throughout the United States, however, have struggled to both provide adequate housing and do so in a way that is coordinated with transit. In this paper, I demonstrate how U.S. housing and transportation policy encouraged sprawling, car-dependent housing development that has reinforced social and racial inequity while increasing carbon emissions. The era of the greatest growth in housing abundance in the U.S.—the 1970s—was simultaneously associated with urban sprawl, car reliance, environmental degradation, and disinvestment in historic city centers, all of which reinforced segregated living patterns and reinforced social inequity.

New federal infrastructure funding and related policies provide an opportunity to reverse these trends by encouraging coordination of metropolitan housing and transportation plans. Federal funds can also be leveraged to support projects that maximize access to transit and promote the joint development of housing. States and local governments, too, can advance transit-oriented housing abundance. Through zoning reforms, public investments, and strategic planning processes that leverage both housing and transportation resources, it is possible to produce communities that are less car-reliant and offer residents lower costs of living.

## Introduction

Achieving housing abundance has become a unifying theme in much of the housing policy debate in recent years. Confronted with evidence that increased housing availability is associated with improved housing affordability<sup>1</sup> and reduced social and racial segregation,<sup>2</sup> scholars and policymakers have increasingly made the argument that the U.S. should refocus its attention toward building more housing.

What is often less of a focus is how to align that housing with investments in transportation infrastructure, and specifically public transit. Bus and train service can play an important role in improving neighborhoods<sup>3</sup> and expanding opportunity,<sup>4</sup> while reducing overall costs of living<sup>5</sup>—but only if people have access to it. Linking housing and transit has the added benefit of reducing the environmental harms of pollution generated by car and truck exhaust, tire shreds, and brake wear.<sup>6</sup> When housing is integrated with public transportation through transit-oriented development (TOD), residents can gain access to vibrant, mixed-use, and walkable neighborhoods that promise a high quality of life. These types of communities, in turn, reduce carbon emissions and other types of pollution by disincentivizing the use of personal automobiles for short trips.<sup>7</sup> Denser land-use patterns are associated with fewer vehicle miles traveled (VMT), and are a necessary complement to the electrification of the transportation fleet to mitigate climate change.<sup>8</sup>

Most transit agencies claim to coordinate with local housing and planning agencies. Staff from half of those agencies surveyed said that their regional plans prioritize locating housing—particularly affordable housing—near transit.<sup>9</sup> Still, integrating housing with public transportation investments remains a challenge. The majority of the U.S. population and jobs are in suburban areas and are difficult to link to frequent, fast transit options like bus or rail. There are also strong headwinds against changing land-use patterns. Coordinating housing investment with transit can be difficult in the context of cheap greenfield land, land-use regulations limiting infill development in existing neighborhoods, the considerably greater amount of government funding for transportation than for housing, and the lack of clarity of purpose by local governments in making choices about how to leverage their publicly-held land.

Given the federal government's recent commitment of hundreds of billions of dollars to new transportation infrastructure through the 2021 Infrastructure Investment and Jobs Act (IIJA), there are now new opportunities to encourage approaches that link housing and transportation. This requires concrete and thoughtful action by state and local transportation officials—who make most of the decisions about what sorts of investments to prioritize, and where<sup>10</sup>—as well as local land use and housing policymakers, who determine zoning and entitlement processes.

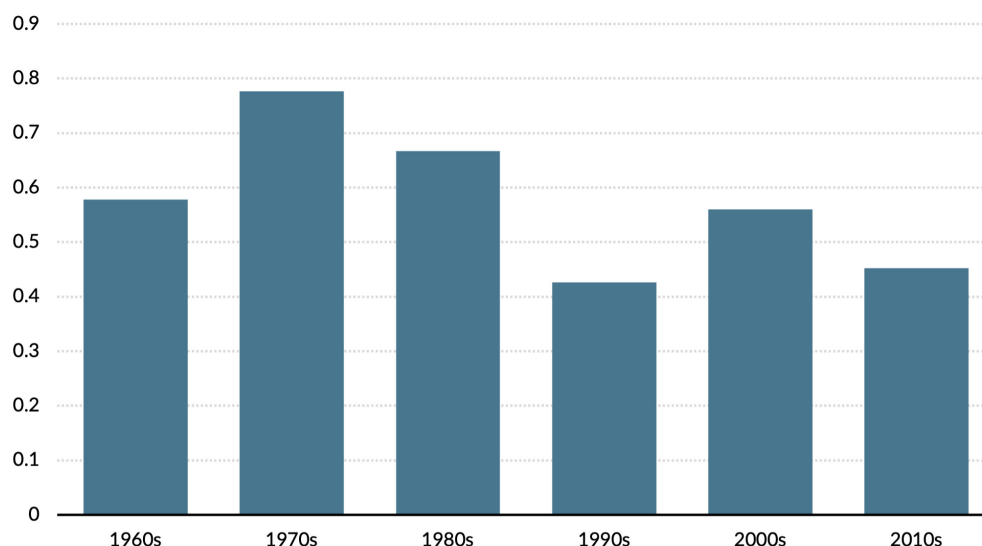
In this paper, I explore how federal support for infrastructure investments could be better linked to pro-housing outcomes in localities and states across the country. I first demonstrate that the majority of new housing construction over the past several decades has been located in communities with relatively low housing densities and with limited access to high-quality transit. Second, I investigate how federal support for infrastructure projects like new transit lines can be associated with new housing construction. Federal policy offers a considerable opportunity to encourage TOD if states and local governments desire it. I then point to specific tools that governments can use to enable coordination, offering examples of how to promote housing near transit through planning and funding choices. Finally, I emphasize the limitations inherent in the way current federal programs are designed.

## A history of U.S. sprawling housing growth, far from transit

Although levels of U.S. housing construction have varied over time, the peak decade for new housing construction after the post-World War II era was in the 1970s. Developers started almost twice as many housing units per new resident in the 1970s as they did in the 2010s (Figure 1). This high rate of housing growth made it possible for millions of families to afford homes and induced a state of housing abundance in much of the country, with overcrowding declining dramatically during that time.<sup>11</sup> Since the 1970s, however, housing construction has slowed considerably, with the number of new units completed per new resident falling to a nadir during the 1990s. Though trends have reversed somewhat in the past few years, the lack of new building in relation to population growth helps explain the significant housing deficit in many parts of the U.S.<sup>12</sup>

**Figure 1. U.S. Housing Construction Levels, 1960s through 2010s**

Privately-owned housing units started per new U.S. resident, by decade

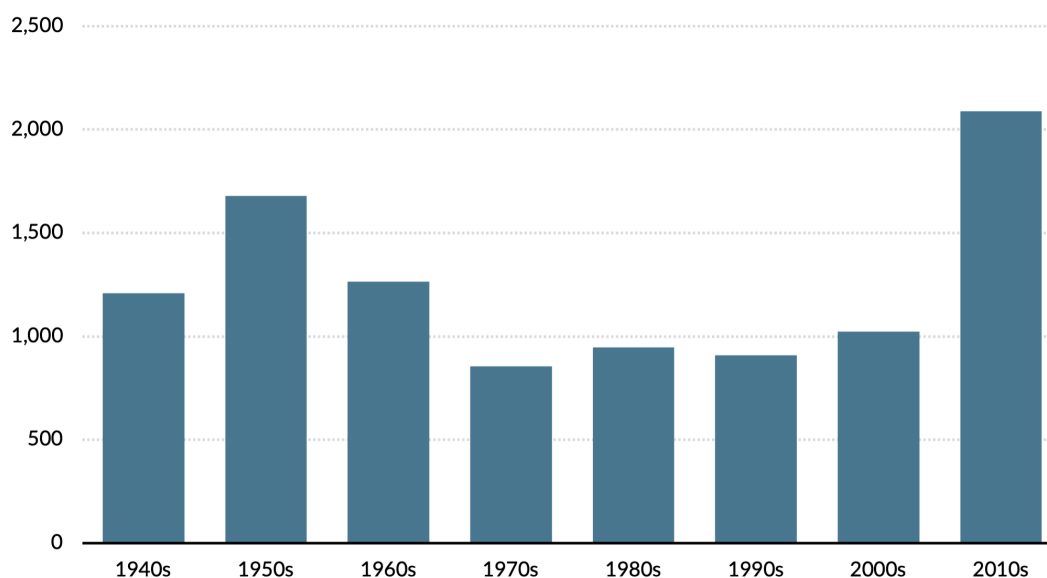


Note: Graph can be read as showing that for every new resident in the 1960s, the United States added roughly 0.6 new housing units.

Source: Author calculations based on data from St. Louis Federal Reserve, 2023.

## Figure 2. U.S. Housing Construction Density, 1960s through 2010s

Housing unit density per square mile for the average new housing unit, by decade



Note: Counts net housing units in tracts with an increasing number of units as “new” units. Graph can be read as follows: In the 2000s, the average new housing unit was completed in a tract that had roughly 1,000 housing units per square mile in 2000.

Source: Author calculations based on Markley et al. 2023.

The high levels of housing production in the 1970s contributed to the relatively low housing costs experienced by people during that period. In 1979, according to U.S. Census data, only 30.6 percent of renter households spent at least 35 percent of income on rent—compared to 40 percent of households in 2020.<sup>13</sup> And many spent significantly less: 36.9 percent of households spent *less than 20 percent* of income on rent—compared to 26.3 percent more recently.

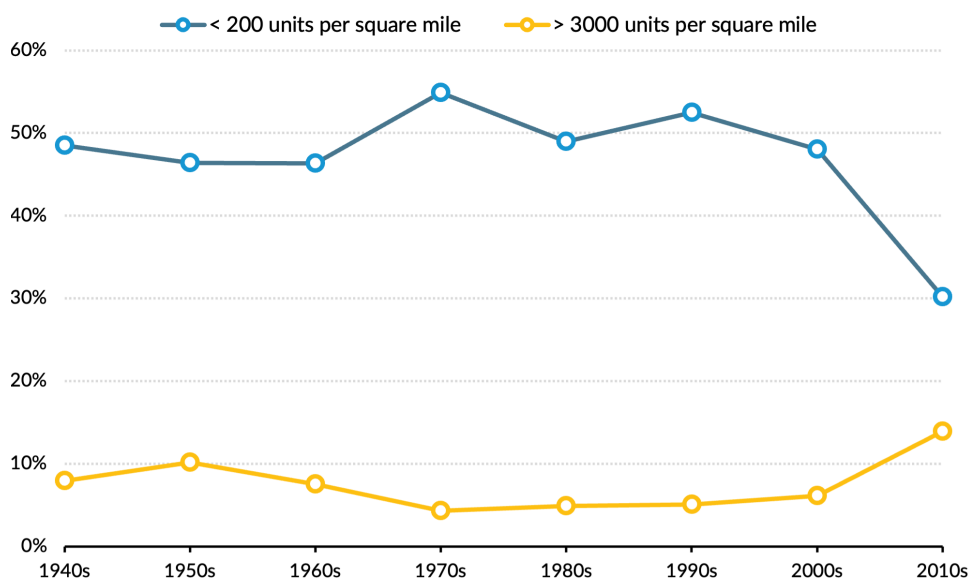
Whatever the housing affordability benefits of the 1970s building boom, the characteristics of construction during that period were also associated with problematic negative externalities. The typical new housing unit completed during that decade was located on formerly agricultural or natural land (often referred to as greenfield development), and relied on building forms such as culs-de-sac, office parks, and strip malls. Indeed, the housing

density of the neighborhood where the average unit was built was about half of what it had been in the 1950s (Figure 2).

The low density of the 1970s development environment—a building form that continued to predominate into the 2000s—was intrinsically related to car ownership and use and was encouraged by the construction of the Interstate Highway System<sup>14</sup> and federal subsidies for the purchase of single-family homes, typically only for White residents.<sup>15</sup> Because most new housing was being completed in neighborhoods designed entirely around cars, and because most destinations were accessible only by car, walking—let alone taking the bus or train—became increasingly impossible for residents of a growing portion of the nation. The number of road miles driven by the average American—already growing since World War II—continued to rise until the early 2000s.<sup>16</sup>

### Figure 3. Comparison of Shares of Housing Development in Lower and Higher Density Areas, 1940s through 2010s

Share of new housing units nationwide, by pre-existing housing unit density of encompassing tract



Note: Counts net housing units in tracts with an increasing number of units as “new” units. Graph can be read as follows: In the 1980s, about 50 percent of new housing units was completed in tracts with fewer than 200 housing units per square mile in 1980, and about 5 percent was completed in tracts with greater than 3,000 housing units per square mile in 1980.

Source: Author calculations based on Markley et al. 2023.

At the same time, building in higher-density areas—what is referred to as infill growth, and which generally takes the form of new apartments in existing neighborhoods—stalled,<sup>17</sup> reaching a nadir in the 1970s (Figure 3). Whereas in the 1950s about 10 percent of new homes had been built in neighborhoods with at least 3,000 units per square mile, by the 1970s, only 4 percent of units were added in such neighborhoods. The fact that the Interstate Highway System (and the associated federal urban renewal program) provided funds specifically to bulldoze neighborhoods in central cities worsened the matter, particularly for the communities with predominantly populations of color and families with low incomes.<sup>18</sup>

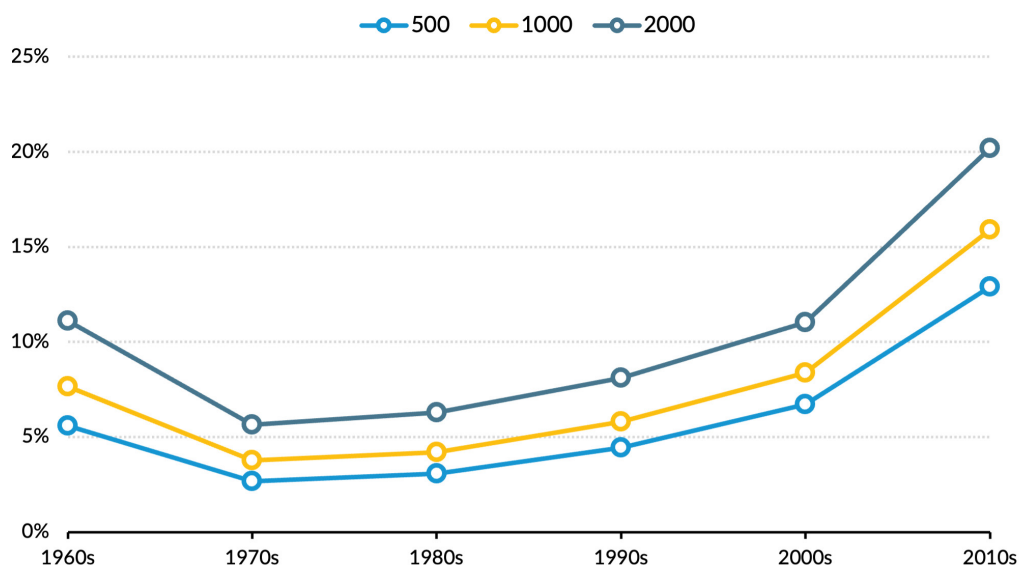
As a result, even as the suburbs exploded with new growth, central city neighborhoods suffered from increasing neglect and population loss. Census data show

that Chicago, Detroit, and New York City each had at least 300,000 fewer residents in 1980 than they had a decade before. Industrial cities like these suffered parallel declines in their local economic base.<sup>19</sup> This, too, had consequences for the link between transportation and housing. As central cities lost population and jobs, the transit systems built to serve them lost riders. Less ridership dissuaded investment in local transit and produced a vicious cycle of degraded transportation options.<sup>20</sup>

The concentration of new housing construction in low-density neighborhoods was also closely associated with a lack of housing in communities within reasonable distance of effective public transportation options (Figure 4). In the 1970s, less than three percent of net new housing units nationwide were located in tracts within 500 meters of rail or bus rapid transit stations. Almost 95 percent

## Figure 4. Concentration of Housing Near Transit, 1960s through 2010s

Share of new housing units nationwide, by meters from rail or bus rapid transit stations



Note: Counts net housing units in tracts with an increasing number of units as “new” units. Sums unit counts for full tracts with any portion located within 500, 1000, or 2000 meters of transit stations. Counts stations open for public service on urban railway or bus rapid transit lines at the end of each decade (or 2019 for the 2010s).

Source: Author calculations based on Freemark and Vance, 2023; Markley et al. 2023.

of new units were more than two kilometers away from such services. Though trends have improved in recent decades, the vast majority of new housing is still located far from fixed-guideway transit: housing units in the U.S. are now considerably less accessible to transit than those in peer countries like Canada, France, and the United Kingdom—producing dramatically higher transportation carbon emissions per capita in the U.S.<sup>21</sup> It is worth noting that this analysis does not include access to “local” bus routes,<sup>22</sup> which constitute the majority of U.S. transit service—but which suffer from considerably higher levels of unreliability<sup>23</sup> and slower service<sup>24</sup> and which, as a result, are less convenient for passengers.<sup>25</sup>

The fundamental challenge these data present to housing scholars and policymakers is that the era of the greatest housing abundance in the U.S.—the 1970s—was simultaneously

associated with urban sprawl, car reliance, environmental degradation, and disinvestment in historic city centers, all of which reinforced segregated living patterns and reinforced social inequity.<sup>26</sup> The interdependence of cheap, suburban single-family home construction and the automobile produced a series of negative interdependencies that threatened the environment, increased transportation costs, and did not improve quality of life for all. The fact that many cities tightened land-use regulations in the interest of stopping infill growth during this period reinforced a greenfield-centric approach to housing construction.<sup>27</sup>

There have been some recent improvements in these trends, particularly since the turn of the century. Figures 2 through 4 clearly demonstrate an increasing share of new housing being sited in higher-density and transit-adjacent neighborhoods. There are several

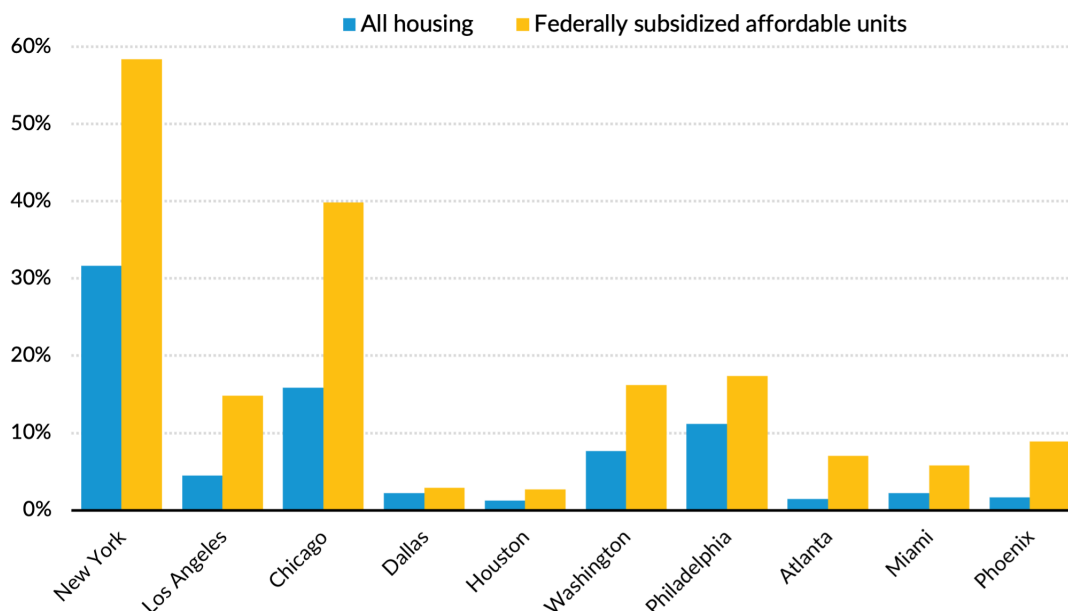
potential explanations for this turnaround. The New Urbanist movement, as well as some entrepreneurial states, like Oregon, have encouraged developers and local officials to link denser housing to transit investment.<sup>28</sup> Shifting patterns of job location, household composition, and desire for more walkable neighborhoods and other urban cultural amenities may also be driving housing demand toward more urban and dense locations, particularly in “superstar cities.”<sup>29</sup> Public policies that encourage central-city redevelopment, such as programs like HOPE VI and Choice Neighborhoods, may also be contributing to increased housing development on urban cores.<sup>30</sup> Federally subsidized units are more likely to be located in neighborhoods near transit

than housing units overall (Figure 5), so in cities like Seattle and San Francisco where mixed-income redevelopment increased density, this could be having an effect. In some states like California, preference is given to new affordable housing if it is located near transit, with the goal of expanding access to public transportation and reduced commute costs for lower income households.

There is much more to be done, however, to advance the goal of housing abundance in a manner that simultaneously promotes environmental sustainability and equity. The progress in achieving a higher share of infill and transit-adjacent housing in the 2010s was accompanied by low rates of housing construction (Figure

**Figure 5. Share of Housing Near Transit in 10 Largest U.S. Metropolitan Areas**

Share of housing within 500 meters of rail or bus rapid transit stations, by core-based statistical area



Note: Uses areal interpolation of tract-level data to estimate housing unit counts for all housing units. Data reflect full core-based statistical areas, not just central cities. Federally subsidized units include those that are “project-based,” such as supported by the public housing, Low Income Housing Tax Credit, or project-based Section 8 programs; it does not include the locations of households with housing vouchers (unless they are using those vouchers in otherwise project-subsidized units, a relatively common phenomenon).

Source: Author calculations based on Freemark and Vance 2023; Markley et al. 2023; National Housing Preservation Database 2023.

1), which could worsen affordability for all—particularly renters with low incomes. A large share of housing is still being built at the exurban edge (Figure 3), which could entrench the vicious cycle of car dependence and encourage more pollution. The trick is to return to an era where housing investments match demand, but in a different manner when it comes to location. This requires better planning and investment designed to link housing and transportation.

## Leveraging Federal Transportation Policy to Promote Links to Housing

The federal government—thanks to new funding from IIJA and recent policy reforms—could play a growing role in encouraging more transit-oriented housing and more housing-oriented transit. Congress has paved the way for a localities and state governments to pay more attention to these linkages, though due to the structure of the U.S. federal system, lower levels of government need to take the lead on such initiatives in order to produce change.

Through IIJA, Congress appropriated almost \$566 billion over five years for transportation—a large increase over previous federal allocations. IIJA explicitly limits the ability to use almost any of its funds for housing investments *directly*. Nevertheless, IIJA *does* offer the opportunity to support investment in—and access to—housing, particularly affordable housing, albeit in a roundabout manner.<sup>31</sup> There are also clear mechanisms to plan for better linking of housing and transportation. Taking an integrative approach to housing means housing policymakers must seriously engage with transportation planning, and actively work to alter it.

## Coordinating metropolitan housing and transportation plans

One opportunity afforded by IIJA is to strengthen joint planning efforts. IIJA includes an option for metropolitan planning organizations (MPOs) to integrate what it calls “Housing Coordination Plans” into their short- and long-term transportation plans. Transportation plans list projects that every MPO must identify before they can spend federal dollars on transportation; these lists are developed by MPO boards, whose membership varies by region.

As described in IIJA, the Housing Coordination Plans are intended for MPOs to “better connect housing and employment” through “integration of housing, transportation, and economic development strategies” that involves coordination with state and local housing agencies. Housing Coordination Plans—parameters for which have not yet been fully described by the Department of Transportation (DOT) as of this writing—allow policymakers and planners to articulate the transportation-housing nexus in several different ways. First, when choosing which sorts of transportation projects to build, they can specifically decide to focus on infrastructure that “align[s] transportation improvements with housing needs, such as housing supply shortages, and proposed housing development.” Second, policymakers can find ways to “expand housing and economic development within the catchment areas of existing transportation facilities... including higher-density development.” These plans systematize the federal government’s recognition of the links between transportation and housing, and explicitly encourage MPOs to make these links at the local and regional scale.



Coordination with housing in the MPO planning process is difficult in part because of the division of responsibilities between different political actors in making decisions related to transportation, housing, and land use. For example, state DOTs make most policy related to highways; local housing authorities most manage U.S. Department of Housing and Urban Development (HUD) affordable housing grants; local legislatures like city councils determine zoning rules; and transit authorities control public transportation projects. MPOs could, in theory, unify strategy amongst these entities by connecting major infrastructure investments with plans for housing projects. At least historically, few MPOs have led on this front; most have primarily reinforced other agencies' decisions instead<sup>32</sup> and have rarely produced integrated housing-transportation planning, due to being primarily focused on transportation policy.<sup>33</sup> Nevertheless, in the right hands, the Housing Coordination Plans could alter this dynamic.

### **Emphasizing housing in federal grant distribution**

Planning, however, constitutes just a small component of IIJA's investments, which largely focus on capital projects. IIJA funds several competitive grants. The largest of such programs include the intercity rail grants (\$36 billion over five years); bridge investments (\$12 billion); new transit line investments (\$8 billion); and a series of multimodal infrastructure grants totaling \$20 billion.<sup>34</sup> DOT's criteria for these grant awards vary, but the agency—at least its current leadership—is focused on housing as a priority in projects it funds through the RAISE grant program, noting that proposed projects will be judged in terms of their ability to “reduce

transportation and housing cost burdens by integrating mixed-use development and a diversity of housing types.”<sup>35</sup> This suggests that localities and states that explicitly prioritize integrating housing into transportation plans may be more likely to win DOT grants.

IIJA's largest transportation grants are distributed by formula, meaning without direct intervention by the federal DOT other than program compliance. The largest such programs include the National Highway Performance Program (\$148 billion), Surface Transportation Block Grants (\$72 billion), and transit grants (\$33 billion). Recipients of these funds—mostly state DOTs, but also transit authorities and other local agencies—are able to “flex” dollars. This means that a grant originally designed for roadway projects could be reallocated to public transportation investments,<sup>36</sup> perhaps paired with housing projects. In the past, states have rarely taken advantage of this opportunity, focusing instead on roadway expansion with little interest in pairing transportation infrastructure with affordable housing.<sup>37</sup> But a proactive agency with a housing-focused mindset could take a different approach.

### **The potential for joint development**

The Federal Transit Administration (FTA), a subagency of the DOT, encourages transit agencies to pursue what it refers to as “joint development,” meaning projects located directly on public transportation property, such as station areas.<sup>38</sup> Joint development differs from TOD, which often encourages construction in the broader neighborhood and not just on land owned by public transit agencies. Under joint development, transit agencies can designate land they

acquired to build transit infrastructure (e.g., land used for staging or other construction needs) for housing development. FTA allows joint development projects if they contribute to economic development, enhance transit (such as by increasing ridership), are physically (or functionally) connected to transit projects, and contribute some revenue back to the agency, including covering a fair share of costs. Though FTA funds cannot be used for housing directly (and there is no funding source specifically designated for joint development), the funds can be used for property acquisition, site preparation, building foundations, open space, and community services, among other uses. An agency could then choose to lease the property to a private developer for residential use.

Joint development has been successfully used to expand the supply of housing, creating much needed supply near transit in several cases. For example, the Washington Metropolitan Area Transit Authority (WMATA), which operates the capital's metro system, has executed 55 joint development projects since 1975, netting the region 10,700 housing units.<sup>39</sup> The agency has plans for dozens of additional projects in the coming years. These efforts do not need to be made simultaneously with transit investments: Washington's approach shows that development projects are feasible even decades after transit lines are completed. At Bethesda station, which opened in suburban Maryland in 1984, two nearby lots were developed in 1985, but another parcel was not developed into housing until 2021.

There are some structural limitations that can limit the use of FTA joint development funds; for example, using federal dollars requires compliance with environmental review requirements,

and often, mandates the procurement of products made in the U.S. There is also the reality that transportation dollars are themselves limited; as such, spending a portion of funds that could otherwise be dedicated to transportation is not necessarily a popular choice among transit agencies. Even so, joint development processes that encourage the use of publicly-owned land for housing can make affordable housing more feasible by reducing land costs.

Another issue transit agencies sometimes encounter in pursuing joint development is that federal rules have historically made property disposition of transit-owned land relatively difficult. Information about land sales previously had to be published to the federal register and approved by the FTA—and the FTA had to be refunded for its original assistance paying for land costs. Some agencies bypassed this requirement by executing long-term leases with developers, but this was a challenge for transit agencies without much of a background in real estate. The 2022 National Defense Authorization Act (NDAA), however, offered a new disposition option for land purchased with federal funding. FTA guidance on these new rules, expected to be finalized soon, will enable agencies to more easily transfer surplus land to other public entities, nonprofit organizations, and even private organizations in association with TOD projects that include a high level of housing affordability guaranteed for 30 years.<sup>40</sup> Such land transfers could be undertaken at no cost, meaning the initial federal support to purchase the land would not have to be refunded. Efforts to make local transit agencies aware of these rule changes has the potential to unlock significantly more publicly-owned land for housing development in the future.

## Financing housing through low-interest federal transportation loans

Perhaps the most promising, but so far unused, approach to financing new housing near transit through transportation funds is the availability of low-interest loans through the Railroad Rehabilitation and Improvement Financing (RRIF) and Transportation Infrastructure Finance and Innovation Act (TIFIA) programs. RRIF can finance up to 75 percent of project costs (even for private developers) as part of an FTA-approved joint development project, including the housing component immediately connected to transit service, involving a commuter rail or intercity rail station.<sup>41</sup> TIFIA can finance up to 49 percent of project costs for joint development projects for a broader range of rail and bus rapid transit stations. It can also finance “public infrastructure” within a half-mile of stations; this definition can encompass the public elements of private developments (similar to those fundable by block grants) or structures “owned, occupied, developed, or operated/maintained by the public sector,” which could mean publicly-developed housing, according to officials at the DOT’s Build America Bureau, which manages these loan products. So far, no housing developers have leveraged either RRIF or TIFIA loans, but that may change as DOT has streamlined its rules—especially in the current environment of high interest rates.<sup>42</sup>

These potential federal funding sources could offer opportunities for considerable investment in TOD near transit stations. Yet localities and states have limited funds for transit investments, which in turn can limit the amount of funding available for joint development or TOD

more broadly. The good news is that—as noted—DOT allows recipients of the considerably larger quantity of federal highway funds to “flex” them for transit—and thus, joint development.

Though IIJA transportation funding will substantially increase opportunities for new projects, state and local officials will be the ones largely responsible for delivering on DOT’s goals to encourage better use of these funds. Because of the political dynamics of the U.S. federal system, policymakers in Washington, DC do not originate plans for new infrastructure—they rely on officials in the lower tiers of government to do so. Moreover, the majority of funding for transportation nationwide is derived from state and local sources, not federal ones,<sup>43</sup> meaning federal commitments for project funding can only go so far in encouraging better outcomes.

## Complementary Local and State Actions to Support Integrating Housing and Transit

Beyond the opportunities presented by federal infrastructure policy, local and state governments have a set of tools in their respective portfolios that enable them to maximize the links between housing and transportation investments. These tools are typically related to either transportation or housing, but rarely the two simultaneously. Yet, there are specific opportunities to use these tools more effectively. In this section, I point to several promising examples that aim to plan for new housing investment *after* transportation projects are completed; plan for new transportation projects that respond to existing housing needs; or plan for housing and transportation simultaneously.

## Zoning reforms to encourage denser development near transit

Reform of land-use regulations to support additional housing production is a promising strategy to effectively site new housing in optimal locations. States like California and Oregon have pioneered these efforts, such as by:

- Encouraging multifamily housing on major, transit-accessible corridors on lots previously zoned for commercial uses;<sup>44</sup>
- Prohibiting requirements for parking minimums in new developments;<sup>45</sup>
- Providing eased permitting for accessory dwelling units in the backyards of single-family homes;<sup>46</sup> or
- Requiring municipalities to eliminate single-family zoning altogether<sup>47</sup> or allowing single-family zoned lots to be split and redeveloped into missing middle housing.<sup>48</sup>

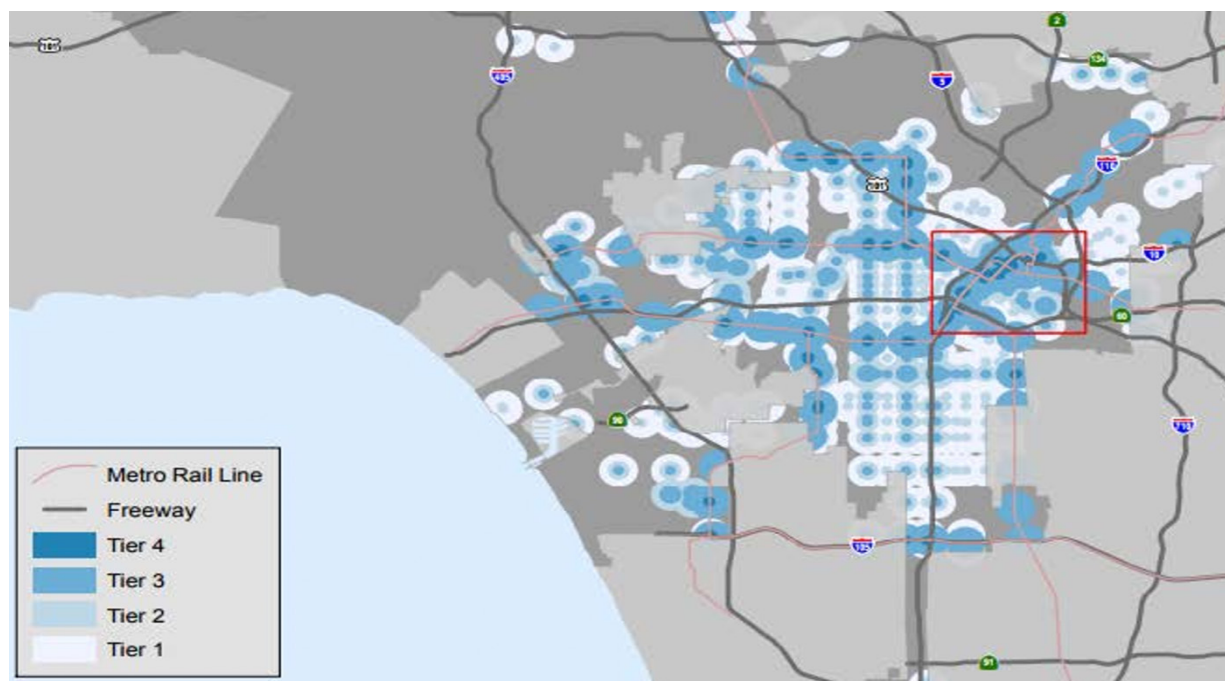
States can mandate that local governments execute policy changes designed to encourage more housing near transit. Massachusetts' new Massachusetts Bay Transportation Authority (MBTA) Communities program, for example, requires the creation of a zoning district of a "reasonable size" (determined by state rules) within a half-mile of transit with minimum allowed densities of 15 units per acre, in which multifamily housing can be constructed by right.<sup>49</sup> Local governments are currently developing final plans to comply with the state mandate.

State governments can also, finally, designate transit authorities as capable of leading development and superseding

local zoning rules. California's AB 2923, passed in 2018, implements minimum density requirements for landed owned by Bay Area Rapid Transit (BART) around the agency's rapid transit stations, giving BART the ability to enforce the requirements if the locality does not.<sup>50</sup> BART's rules allow residential densities of up to 75 dwelling units per acre, enforce maximum parking requirements, and depending on the neighborhood, enable floor-area ratios for new buildings of up to 7.2. These criteria could make possible the construction of large housing complexes near the system's stations, some of which still have surface parking lots surrounding them despite having been completed decades ago.

Some cities have taken the initiative to rezone themselves in ways that encourage more development near transit.<sup>51</sup> Los Angeles' Transit Oriented Communities program—enacted after the passage of a voter referendum in 2016—is a useful example. This program allows developers in areas near transit to scale up construction by 40 to 80 percent, compared to baseline permitted density levels, in exchange for incorporating a certain share of units for low-income households.<sup>52</sup> Incentives scale up into tiers (Figure 6) dependent on transit type (e.g., being adjacent to subway or light rail stations incentivizes higher densities than being adjacent to two local bus routes). Since enactment, the program has been leveraged by projects with more than 43,500 housing units, of which more than 20 percent have been affordable.<sup>53</sup> There is some evidence that this program is increasing affordable housing production by making affordable housing units more financially feasible to construct.<sup>54</sup>

Figure 6. Map of Los Angeles' Transit Oriented Communities Program Tiers and Proximity to Transit



Note: This is a portion of a map of the full city. Tiers reflect varying incentive levels, with higher tiers enabling more significant increases in housing construction compared to the baseline.

Source: City of Los Angeles (2018).

Upzoning policies in and of themselves—at least based on the experience in the U.S. so far—may not produce a massive spurt of new housing construction overall.<sup>55</sup> Even so, they can play an important role in concentrating housing in specific areas, particularly if they are implemented in combination with growth controls limiting outward growth.<sup>56</sup> Moreover, if combined with effective use of public land prioritizing dense development, zoning changes could spur concentrated growth.

## Direct public investments in TOD

The DOT is not the only federal funding provider. Indeed, HUD distributes grants by formula to most medium and large counties and cities throughout the country. These funds can be leveraged to support TOD, often as a supplement

to locally generated dollars if local governments make a plan to do so. Localities can target HUD's HOME grants for housing development, for example, to areas accessible to the local transit system. HOME funds are often associated with Low-Income Housing Tax Credit (LIHTC) projects to help fill financing gaps; states and cities that include preferences for transit through their allocation plans for LIHTC would, in essence, also be encouraging HOME funds to be concentrated in such areas.<sup>57</sup>

States and city-level LIHTC allocators could focus their federally-mandated qualified allocation plans to preference TOD for projects even further than they do today, even requiring it for projects in certain metropolitan areas. Chicago's latest plan explicitly prioritizes projects near transit and provides an added boost to applicants that plan to provide tenants

low- or no-cost transit or bikeshare passes.<sup>58</sup> This type of policy will further reinforce the links between transit and subsidized housing, as shown in Figure 5, to the benefit of tenants.

HUD's Community Development Block Grants—the largest source of local funding from HUD—cannot be used for new housing construction. But they can be used by recipient jurisdictions for land acquisition, site clearance, streets, sewers, and other pre-development needs in advance of new housing projects. The same can be said for Section 108 loans, provided by HUD as an advance on future block grants. Localities could choose to focus these funds in certain neighborhoods near transit as a key element of their comprehensive plans.

Many cities and states also raise their own funds for housing. About 17 percent of large municipalities, for example, have housing trust funds they use to support new housing investments;<sup>59</sup> these could be targeted to TOD areas. California, meanwhile, has established the Affordable Housing and Sustainable Communities (AHSC) program, funded by revenues from the cap-and-trade of greenhouse gas emissions in that state.<sup>60</sup> This funding model is designed to explicitly link housing, transportation, and environmental sustainability.

## **Reducing vehicle miles traveled as a key element of transportation planning**

State governments investing in transportation have a wide range of choices available in terms of what types of projects are built where. As noted, though federal support is important, state DOTs make most choices about how transportation dollars are spent. Over the past 70 years, they have chosen

to distribute the vast majority of funds to highways,<sup>61</sup> and in so doing, contributed to the disconnect between housing and public transportation.

Several states, however, are altering their policies regarding what sorts of transportation projects get funded by explicitly requiring planning for reduced VMT. California's SB 743, passed in 2012, for example, mandates that projects—both transportation and built developments—be analyzed in terms of their potential impacts on VMT, including VMT produced by induced demand, before they are approved.<sup>62</sup> This is an important change because it is an acknowledgement that increased driving has negative impacts on the environment, and that projects that do not increase VMT should be prioritized.

In Colorado and Minnesota, state policymakers recently altered rules related to planning for transportation projects that require agencies to show how they will reduce greenhouse gases.<sup>63</sup> If the state DOT cannot meet its targets, it must choose to invest in mitigation measures, such as public transportation. In either case, by forcing transportation investments to account for their climate impacts, these states are likely to end up with more transit projects that are more coordinated with housing investments, since that combination produces fewer emissions.

## **Promoting integrated planning approaches through co-investment in new housing and new transit**

Finally, planning for transportation and housing simultaneously is a compelling strategy for local governments seeking to maximize the benefits of both types of investments. Doing so can help ensure that new transit lines have sufficient ridership demand when they open—and that people in new homes are able to benefit from the accessibility made possible through improved public transportation. This requires coordinated thinking between transit agencies, housing agencies, and local planning departments.

Such integration of housing and transportation planning can be conducted at the district level; it does not necessarily have to involve the full route of a new transit line. Seattle’s Yesler Terrace neighborhood provides a useful example of a complete neighborhood redeveloped in concert with a streetcar route, the First Hill line. In the late 2000s, the city began planning for this route, which would connect its train station and the Capitol Hill district. At the same time, the low-strung, 561-unit public housing development at Yesler Terrace—on a 30-acre site—was identified by the Seattle Housing Authority for redevelopment due to aging infrastructure, and the agency began plans for its redevelopment, which involved a combination of LIHTC, HUD grants, state housing grants, and private investment.<sup>64</sup>

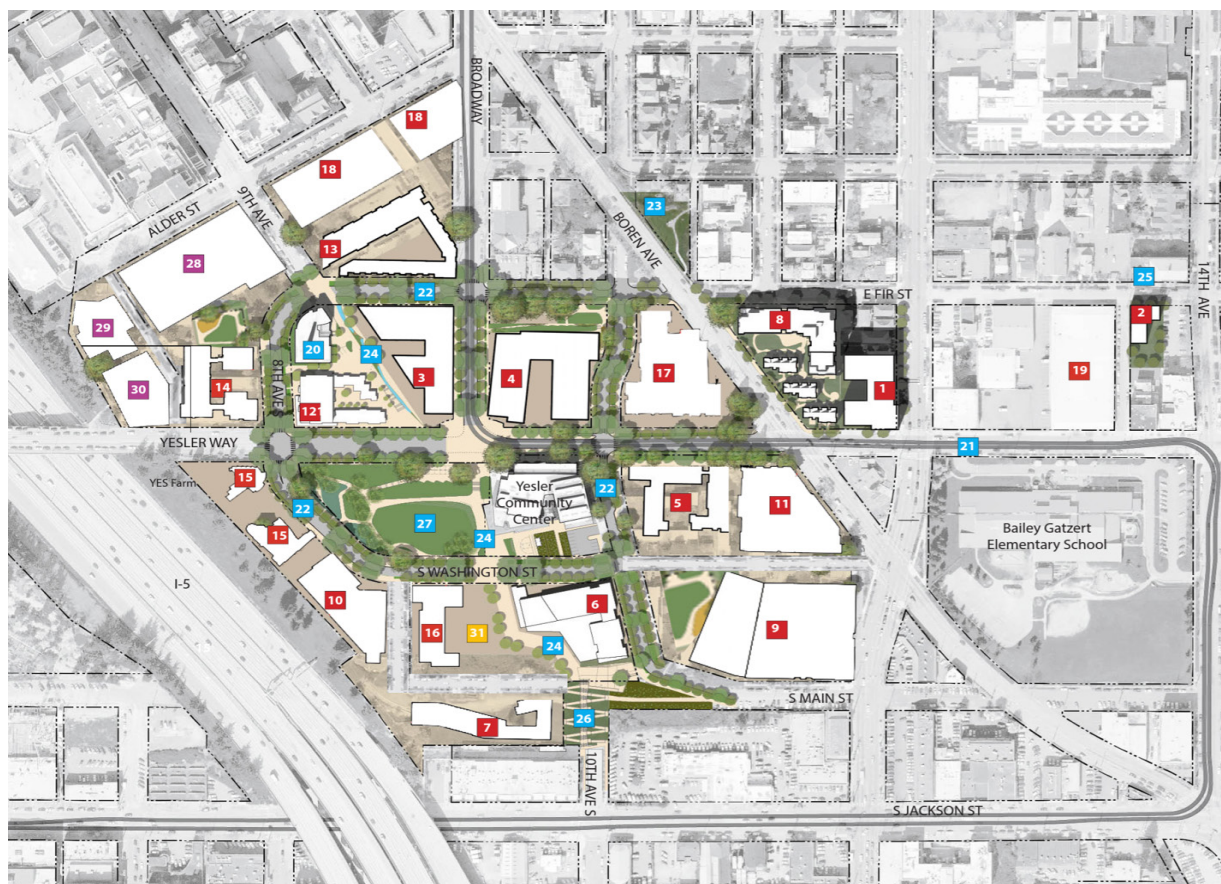
Given the importance of the redevelopment project, planners at Sound Transit, which manages the Seattle region’s rail system, altered the proposed alignment of the First Hill line, with the goal of better serving

Yesler Terrace.<sup>65</sup> 3,900 housing units are already completed or underway in the area, including a full set of replacement units designed for families with very low incomes, plus 1,000 more for families with low and moderate incomes.<sup>66</sup> The project also includes new public parks, a community center, and medical facilities (Figure 7). This deliberate concentration of units around a new transit line is demonstrative of the intentional increase in density made possible through better access to public transportation and a combination of public subsidies and private real-estate investments.

Seattle is pursuing other strategies to encourage jointly planned development as well. Sound Transit has committed to leveraging FTA-enabled joint development for the surplus properties it has left over after it completes the series of new light rail lines currently under construction.<sup>67</sup> The agency’s board has committed to TOD on its surplus land; Washington state law requires the agency to offer 80 percent of this land to developers building housing designed for families with incomes at 80 percent or less than the area median income. These projects will benefit from reduced land costs enabled by joint development, federal support through LIHTC, and a \$20 million revolving loan fund Sound Transit established specifically for affordable housing on its properties.

Planning for the Green Line light rail system connecting the Minnesota Twin Cities also provides a useful example of this sort of coordinated planning. As designs for the line began to be concretized in the mid-2000s, the city of St. Paul and a set of nonprofit and philanthropic organizations established a working group to ensure that the project would not only expand the

Figure 7. Map of Seattle's Yesler Terrace



Note: Housing projects noted with red boxes; neighborhood amenities noted with blue boxes; medical and hotel uses noted with purple boxes; and future project noted with yellow box.

Source: Seattle Housing Authority (2022).

public transportation system, but also that it would actually increase access to opportunity for the thousands of residents of color and families with low incomes who live along the route.<sup>68</sup> This collaborative focused on using the ten-year planning and construction period to assemble resources to finance new housing and prevent displacement along the route (the collaborative also worked on supporting small business and workforce development). Thanks to a combination of philanthropic grants, LIHTC support, new mezzanine loans from a community development financial institution, and a local land bank, the group added or preserved more than 3,500 housing units along the line between 2011 and 2016. The group

also provided support for almost 1,000 households to remain in their homes.

At the same time, organizers associated with the collaborative fought to ensure that the Green Line itself would guarantee better transit service to the neighborhoods impacted. Faced with challenging FTA cost effectiveness rules, the local transit agency claimed it had to eliminate stations planned in some of the lowest-income portions of the line. Organizers fought back to ensure that the project would guarantee access to the housing—and the people living in that housing—along the route.<sup>69</sup> They won, showing how integrated planning can produce more effective, pro-housing outcomes along public transportation alignments.



## Obstacles to integrating housing and transportation

Though federal, state, and local governments have demonstrated progress in encouraging housing development near transit, there remain substantial obstacles standing in the way of that goal. First, local housing markets are not automatically conducive to attracting new housing, even in the presence of permissive zoning or robust public transportation options. Municipalities with low housing values have a difficult time attracting new residential development due to the inability of private investors to profit from the rents or sales prices they are able to charge local residents.<sup>70</sup> In addition, neighborhood opposition to new housing is relatively widespread—particularly in existing communities where residents have higher incomes, exactly where new development is most in-demand, and often in areas near transit—and can serve as a major impediment.<sup>71</sup>

Second, there are widespread concerns that transit, and the TOD that sometimes accompanies it, can contribute to gentrification and displace current residents. Scholarly evidence suggests that new transit is only sometimes accompanied by gentrification; such outcomes often simply reinforce previously existing trends.<sup>72</sup> That said, there is compelling evidence that new transit service increases property values.<sup>73</sup> These changes could mean that new transit service—at least without affordability guarantees—could be associated with people with low incomes moving out and people with higher incomes moving in.<sup>74</sup>

Third, localities face major obstacles to using federal funding for the purpose of increasing housing supply.<sup>75</sup> Federal government regulations make combining funds from various agencies difficult, meaning it is not always possible to, for example, include both DOT and HUD grants in a single project. Different programs impose different environmental review and reporting requirements. Budgets are also limited: advocates argue that the federal government must expand support for housing by hundreds of billions of dollars to meet the nation's affordable housing needs, for example.<sup>76</sup> In other words, there is a path forward for integrating housing and transportation planning—but it will only accomplish so much.

## Conclusion

Motivated by the widespread sentiment that the U.S. is in need of improved infrastructure, Congress passed a major law, IIJA, to increase funding in 2021. Though housing costs have risen more quickly than incomes over the past few decades, and despite declining federal funding for affordable housing over time, the law provided virtually no direct money for housing investments. Even so, this federal support can help finance new projects and lay the groundwork for investments through land acquisition and investments in site preparations. Moreover, there are plentiful ways to leverage transportation to support more abundant access to dwellings even in the absence of new housing funds, whether that involves concentrating housing in areas near existing transit, building new transit near existing or planned concentrations of housing, or planning for both simultaneously.

The federal government's policies designed to encourage linking transportation and housing are important complements to the goal of integrated planning, but achieving that goal depends on engaged state and local governments. Ultimately, they are the entities responsible for making choices about how to allocate limited affordable housing funds. They choose which transit investments to prioritize and have significant holdings of public land. And they hold power over land-use policy essential to concentrating new residential development.

Despite the manifest failure of U.S. metropolitan areas to encourage concentrations of housing—affordable and not—in areas near public transportation services, new federal funding for infrastructure offers a potential way forward. Dense, abundant housing available in areas near transit stations can reduce greenhouse gas emissions, create racially integrated, mixed-income neighborhoods, prevent the degradation of natural and agricultural land, and reduce overall costs of living for American households. It is an opportunity for cities and states throughout the nation.

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