June 20, 2024

Interim Report – Phase 1

Publicly Driven Development and Ownership:

A Scan of Models in the U.S. and Abroad

NYU Furman Center for RIHousing and the Rhode Island Department of Housing

Acknowledgements: This report was prepared by Claudia Aiken, Hayley Raetz, Matthew Murphy, Daria Guzzo, and Will Viederman. We owe many of the details and insights presented in this report to our interviewees, who have included federal, state, and local policymakers and practitioners across the country, as well as scholars in Vienna, Finland, and Denmark. We thank them for graciously sharing their time and expertise with us and with Rhode Island.

This report was commissioned by the State of Rhode Island and the Rhode Island Housing and Mortgage Finance Corporation ("RIHousing"), and was completed in consultation with the Rhode Island Department of Housing and RIHousing. The report responds to a specific set of questions and is part of a larger study whose second phase will be completed in August 2024.

This research does not represent the institutional views (if any) of research funders, NYU, NYU School of Law, or the Wagner Graduate School of Public Service. Funders do not determine research findings or recommendations in research and policy reports by the NYU Furman Center.

The NYU Furman Center advances research and debate on housing, neighborhoods, and urban policy. Established in 1995, it is a joint center of the New York University School of Law and the Wagner Graduate School of Public Service. More information can be found at furmancenter.org and @FurmanCenterNYU.

Executive Summary

Study Purpose
Rhode Island is experiencing a significant housing shortage, especially in multifamily rental housing that is affordable to low- and very low-income households. The state also ranks among the lowest in the U.S. for housing production. One proposal for addressing these issues is publicly driven development and ownership of affordable housing. While public development was at one point a major source of affordable housing in the U.S., these efforts have been gradually limited and defunded over the last 50 years in favor of publicly subsidized private development. This report examines both longstanding and newly emerging models of publicly driven development and ownership within the U.S. and internationally. The goal is to understand how they might translate to, or are already working in, the Rhode Island context. We present high-level findings from the first four months of the six-month study period. An appendix provides more detailed descriptions of each of the models in the scan.

Study Methods
The research includes:
- Interviews with over 20 stakeholders and experts.
- Reviews of programmatic documents and underwriting data.
- Analysis of eight domestic and five international models of publicly driven development.

What Is Publicly Driven Development and Ownership?
Publicly driven development and ownership involve scenarios where:
- Local or state agencies invest significantly in exchange for a substantial, active stake in the development and operations of housing.
- Agencies act as real estate developers or engage closely (i.e., enter into a partnership or other development agreement) with development partners.
- They are long-term owners of the housing or the land it's built on.

Domestic Models Overview
The domestic models of publicly driven development and ownership are categorized into three groups:
- *Group A: Mixed-Income Housing*
    - Models like those in Montgomery County, MD; Atlanta, GA; and Chicago, IL use revolving loan funds to finance the construction of mixed-income developments. These funds replace private equity investments, ensuring public stakes in the projects.
    - Examples: Housing Production Fund (Montgomery County), Atlanta Urban Development Corporation, Chicago's Green Social Housing Revolving Fund.
- *Group B: Public Housing Conversions*
    - Public housing authorities like those in Boston, MA; Cambridge, MA; and Hawaii are expanding their portfolios using programs like Faircloth-to-RAD. They leverage existing public housing to redevelop and add units.
    - Examples: Boston Housing Authority, Cambridge Housing Authority, Hawaii Public Housing Authority.
- *Group C: New Affordable Housing*

  - Established public or quasi-public models showcase long-term publicly driven development with and without federal tax credits.
  - Examples: Dakota County Community Development Agency (Minnesota), The Housing Company (Idaho).

International Models Overview

The study also explores models from Vienna, Helsinki, Copenhagen, Singapore, and Hong Kong. These models vary greatly due to different political and economic contexts but offer valuable lessons on cost-based rents, the use of public land, and the role of nonprofits in housing development.

Key Insights and Applications for Rhode Island

- Affordability: The public development and ownership models captured in our scan are designed to produce new housing and, in some cases, preserve and improve existing housing. A public ownership stake in this housing may be paired with low-cost capital, tax-exempt bond financing, and other commonly used financial tools, generating savings which can be translated into increased affordability.
- Risks and Returns: An ownership stake exposes a public development entity to certain risks. However, it also has the potential to generate financial and public benefit returns, especially depending on the structure of the development. For example, if the project produces enough positive cash flow, it can pay back revolving funds with interest over time. These returns can ultimately be recycled for new development or other housing programs. If the publicly owned asset appreciates in value over time, the entity will have secured affordability in an appreciating market, achieving a key public policy purpose, and in the case of a mixed-income deal, that appreciation could yield profit to be used for other purposes.
- Need for Public Investment: In addition to revolving funds, these models require public resources like favorable financing terms and property tax exemptions.
- Market Conditions: Some (but not all) of the models depend on cross-subsidization to achieve affordability, which may be more achievable in Providence and coastal areas.
- Use of Public Land: Public land is advantageous but not essential. An inventory of public land in Rhode Island could enhance model feasibility.
- Development Capacity: Successful implementation, even in the case of turn-key development, requires some degree of in-house real estate development and underwriting expertise. Several of the domestic public development entities we studied combine the powers of public housing authorities and housing finance agencies.
- Combining Models: There may be potential to combine elements from different groups (A, B, and C) to maximize benefits in Rhode Island.

Introduction

Study Purpose and Methods

The state of Rhode Island faces a severe housing shortage, particularly multifamily rental housing affordable to low- and very low-income households.[1] Despite the shortage, Rhode Island ranks at the bottom of all U.S. states when it comes to housing production. Rhode Island is tied with Connecticut for issuing the fewest building permits for new housing per capita of any U.S. state.[2] One proposal for addressing these challenges is to support the development and ownership of affordable housing through one or more public entities, with the goal that such entities can find ways to achieve lower development costs than private actors, and, acting as owners, can do more to ensure the durability of the affordability.[3] Public development and ownership models exist across the globe, and in some cases, new ones are emerging. This study conducts a scan of publicly driven development and ownership models both in the U.S. and internationally. We examine eight domestic models and five international models to understand how they work and how they might translate to the Rhode Island context.

This initial report presents high-level findings from the first four months of the six-month study period. Through a set of more than twenty hour-long interviews with stakeholders who are pioneering public development models in the U.S. and with experts on social housing systems abroad, along with an in-depth review of programmatic documents, reports, and project-level underwriting (proformas), we identified models of particular interest for Rhode Island. This report provides overviews of those models along with preliminary considerations, based on our analysis to date, about how these models translate to Rhode Island's market context.

Our final report, in August 2024, will incorporate additional underwriting analysis to understand how Rhode Island land, construction, and labor costs, financing terms, and other conditions would affect publicly driven development models' feasibility in the state. It will also include additional analysis of the Rhode Island context based on a series of local interviews. Finally, the final report will present a detailed scan of funding mechanisms (such as revolving loan funds) for affordable multifamily development that do not rely on tax credits or rental subsidies.

What Is Publicly Driven Development and Ownership?

For the purposes of this study, we define **publicly driven development and ownership** as any scenario in which a local or state agency:

---

[1] National Low-Income Housing Coalition. *The Gap: A Shortage of Affordable Homes.* March 2024. https://nlihc.org/gap

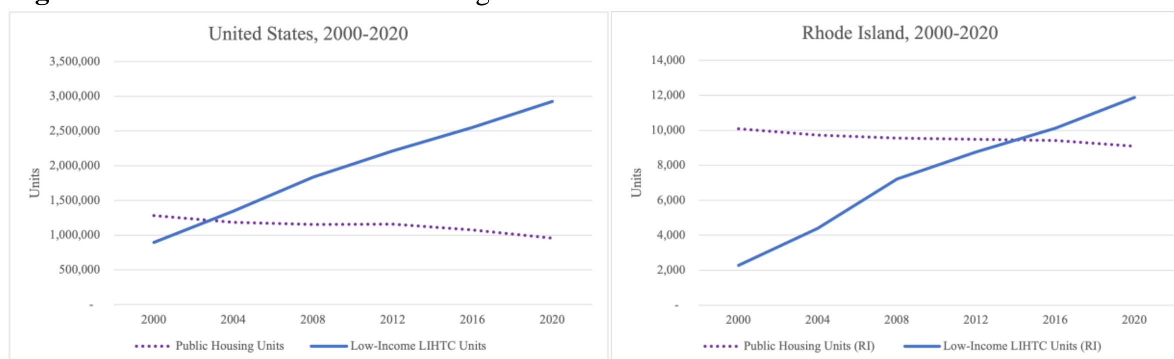
[2] U.S. Census Bureau, Building Permit Survey, Annual History by State. https://www.census.gov/construction/bps/annual.html

[3] For the context of this report, 'affordable housing' is housing whose cost consumes no more than 30 percent of a low-income household's income. Low-income households are typically categorized as those whose income is 80 percent of the area median income or below.

- Contributes significant investment in exchange for a major, non-passive stake in the development and operations of new housing.[4]
- Acts directly as a real estate developer, or actively engages (i.e., enters into a partnership or other development agreement) with a development partner in short- and long-term decision-making.
- Is the long-term owner of the housing or the land on which this housing is built, either independently or through a partnership model.
- A combination of these criteria.

The most familiar example of publicly driven development and ownership in the U.S. is public housing. While the federal government oversees and subsidizes the public housing program, local public housing authorities (PHAs) own and manage public housing developments. However, the public housing program has largely stopped producing new units. Instead, the prevailing paradigm for affordable housing production today is market-based, and is especially reliant on leveraging the Low-Income Housing Tax Credit (LIHTC) that the federal government makes available for states to allocate to local projects. Public entities support nonprofit or for-profit developers in producing affordable housing through grants, property tax discounts, tax credits, soft loans, and pre-development zoning changes, but largely do not themselves directly engage in development activities or have an ownership stake in the resulting building. While LIHTC projects are required by statute to serve at least 20 percent of households at or below 50 percent AMI or 40 percent of households at or below 60 percent AMI, LIHTC-financed housing ends up serving many extremely low-income tenants who would otherwise qualify for public housing (about 50 percent of LIHTC tenants earned less than 30 percent of Area Median Income in 2021) because of the program's interaction with vouchers and other subsidies. Figure 1 below shows low-income units built with LIHTC in relation to the public housing stock in the U.S. and in Rhode Island. Despite its creation in 1986, the number of low-income units that have been built using LIHTC is now more than double the number of public housing units nationwide, and the count of LIHTC units overtook the count of public housing units in Rhode Island by 2016.

Figure 1. Total Count of Public Housing versus Low-Income LIHTC Units



Note: the LIHTC trendlines represent all low-income units produced, regardless of expiration date, but exclude tax credit projects missing year-placed-in-service information. Sources: HUD Picture of Subsidized Households 2000-2020 and HUD LIHTC Property-Level Data 2000-2020.

[4] Investments can take the form of financial resources; land; subsidies; philanthropic grants; loan guarantees or other forms of insurance; construction materials or equipment; or so-called "sweat equity" (staff time and expertise).

Domestic Models

The concept of publicly driven development and ownership has received increasing attention in different parts of the U.S. over the last year.[5] Our scan identified eight domestic models that we consider far enough along in planning for or actually constructing new units that they offer valuable insights for Rhode Island. We divide them into three groups:

- **Group A: Mixed Income Housing.** These models–including the Housing Production Fund model pioneered by the Housing Opportunities Commission of Montgomery County, Maryland; the newly formed Atlanta Urban Development Corporation; and Chicago's Green Social Housing Revolving Fund–use, or intend to use, revolving loan funds to replace private equity in the construction financing for large, mixed-income developments, and in turn, secure a public stake in these projects.
- **Group B: Public Housing Conversions.** These models–including innovative approaches being taken by the Boston Housing Authority, Cambridge Housing Authority, and Hawaii Public Housing Authority–highlight the potential of public housing authorities to redevelop and expand their portfolios using the Faircloth-to-RAD program and harness the powers they retain to issue bonds, grant tax exemptions, and more.
- **Group C: New Affordable Housing.** These models–including Dakota County Community Development Agency's senior housing program in Minnesota and The Housing Company in Idaho–are examples of public or quasi-public development that have existed for decades, yet have received little national attention. The former model draws on a special county tax levy and unique bond structure to build affordable senior housing without any tax credits. In the latter model, Idaho's HFA spun off a nonprofit that acts much like any other affordable housing developer, but is partially governed by the public agency.

[5] In February 2023, Seattle, WA voters approved Initiative 135 to create a Seattle Social Housing Developer (SSHD) charged with developing and maintaining "social housing" in which higher-income tenants subsidize lower-income ones. The SSHD does not yet have a dedicated revenue stream, though advocates submitted another ballot initiative in February 2024 to fund it using a tax on salaries in excess of $1 million. Members of the California, Massachusetts, and New York state legislatures have each since submitted bills to create their own state-level social housing agencies. Governor Healey of Massachusetts has since included language for a social housing pilot in a housing bond bill. Other states have been making strides to enable publicly driven development without calling it social housing. For instance, Colorado passed a bill in 2022 to create the Middle-Income Housing Authority, which has the power to "acquire, own, operate, and finance affordable rental projects" by issuing its own tax-exempt bonds and by entering into public-private partnerships. Finally, in August 2023, the *New York Times* drew national attention to the mixed-income public development model with an article titled "This Is Public Housing. Just Don't Call It That" showcasing The Laureate, a newly opened apartment building in Montgomery County, Maryland in which the county's public housing authority had a 70 percent ownership stake.

Table 1. Selected Characteristics of Domestic Models

	Montgomery County	Atlanta	Boston	Cambridge	Idaho	Dakota County*
LIHTC				✓	✓	
State Subsidy	✓			✓	✓	
Non-LIHTC Federal Subsidy	✓		✓	✓		
Property Tax Exemption or PILOT	✓	✓	✓	✓	✓	✓
Governance Level	County	City	City	City	State	County
Affordability Mix	At least 30 percent of units are affordable	At least 30 percent of units are affordable	Unknown	Unknown	Close to 100 percent affordable	Close to 100 percent affordable
Units/projects completed or under construction**	731 units in 2 projects	None	None	203 units in 2 projects	1,800 units in 29 projects	2,010 units in 48 projects
Units/projects in pipeline**	2,399 units in 4 projects	Unknown, 2 projects	3,000 units in an unknown number of projects	1,500 units in an unknown number of projects	Unknown	Unknown

**For the purposes of this table, we focus only on Dakota County CDA's senior housing program.*
***Note that these numbers are drawn from a variety of sources, including interviews, presentations, and documents, which date from late 2023 through early 2024.*

Group A: Mixed-Income Housing

Group A models produce mixed-income housing in part using a **revolving loan fund**, which is a pool of capital from which loans are made to finance housing developments. Once loans are repaid, the funds are "revolved" back into that same pool, making them available for other projects. The loan fund is sustained using this replenished capital. In Montgomery County and Atlanta, revolving loan funds are seeded with public funds and are used to make short-term (5-year) construction loans that are designed to replace market-based equity investments in a **construction financing capital stack**.[6] These revolving loan funds

[6] A capital stack is the structure of the various financing sources used to fund a real estate project, and typically includes a combination of equity and debt. The stack determines who will receive the income and profits generated

finance mixed-income housing development at a lower required rate of return than is typical of a market-based or "private equity" investment. In the case of Montgomery County, its Housing Production Fund (HPF) loans have interest rates below 5 percent, which is significantly lower than the rates of return expected by private equity investors. Although still a relatively new tool, HPF loans could account for approximately 12-25 percent of the total construction funding, with conventional construction loans and separate equity investments making up the remaining sources. Because the revolving loan is "taken out" (the principal is repaid) when a project converts to permanent financing, its main function is to help overcome the hurdle of construction financing. In exchange for providing the riskiest capital for construction as well as low-cost permanent financing, the public entity retains an ownership stake.

The HPF in Montgomery County was created in March 2021. The county's PHA, called the Housing Opportunities Commission (HOC), issued a $50 million bond, with the County Council agreeing to fund the principal and interest payments.[7] The Council approved a second issuance of an additional $50 million in May 2022 for a total annual appropriation of $100 million in bond revenue. Each $50 million tranche of funds is expected to fund two projects at a time and to revolve every five years. One of the first projects to receive an HPF construction loan paid interest on that loan during the construction period at a rate of 3.5 percent. The interest accrued during the construction term and was repaid, along with principal, to the county at permanent loan closing. HOC underwrote the project to pay about $1.6 million in interest for a $14.3 million loan. The HOC anticipates that the HPF will cover a total of $250 million in construction loans, funding approximately 3,000 units for the first 20 year period. Over the first 20 years the bond issuance will be fully repaid, at which point it will revolve with no additional costs.[8]

There are essentially two approaches Group A models use for identifying viable projects. The first is to enter a development project that has already been designed and secured permits, but has stalled due to lack of financing. The public entity then offers HPF financing in exchange for a stake in the final project and the inclusion of affordable units. Montgomery County has used this approach. A second option is to develop a strategy for using public land. For instance, Chicago is considering how sites that will open up during the course of the Red and Purple Modernization, the largest capital project in the Chicago Transit Authority's history, could be harnessed for mixed-income development. This approach allows the public entity to manage projects from their inception.

Importantly, however, Group A models also rely on a package of public resources beyond the revolving fund. The HOC of Montgomery County is both a housing authority and a housing finance agency (HFA), providing it rare discretion to offer low-cost capital, tax-exempt and taxable bond financing, recycled volume cap financing, property tax exemptions, discounted land, and a County-run property insurance program. The HOC also has two lines of credit with a local bank in an aggregate amount of $210 million,

---

by the development and in what order (usually, senior debt lenders are paid first, followed by mezzanine debt, then private equity). Often, a project has one set of loans with terms of 3-5 years specifically to finance the construction phase. Once construction is complete, this converts to a permanent (mortgage) loan with a term of 30-40 years.

[7] The HOC calculates that in exchange for issuing a low-cost triple-A municipal bond for $50 million, the County might pay about $4.25 million per year in today's high-interest environment. But the fund revolves at no cost after 20 years, and in the meantime, the HOC earns a 5 percent development fee on each project–totaling to about $2.5 million per year–which it repays to the County. This means that the HPF may cost the County as little as $1.75 million per year.

[8] HOC 2024. *Adopted Budget Book,* p.147.

which allows it to act nimbly as a joint venture developer and/or lender, with more flexibility than comparable entities.[9] For example, in the case of the aforementioned HPF-financed deal, its financial feasibility relies on the use of a full property tax exemption, cross-subsidy from market rate rentals, and a separate equity investment from the HOC itself. The Atlanta Urban Development Corporation (AUD) operates as a subsidiary of the city's public housing authority, Atlanta Housing. Georgia law allows PHAs and their subsidiaries to grant tax exemptions. The AUD also relies on public land, funding, and debt guarantees from the City of Atlanta, and underwriting and development capacity from the city's economic development agency. Both Montgomery County and Atlanta's models will take advantage of **FHA risk-share loans**[10], which are low-interest and do not trigger prevailing wage requirements, for permanent financing.

Some of these tools are actively used in Rhode Island, but not others. RIHousing is one of the HFAs approved to use the risk-sharing program, which allows it to spread risk, but not necessarily to save on financing costs. It has Level II approval, which allows RIHousing to insure less than 50 percent of any losses on risk-share loans and can use its own underwriting standards and loan terms and conditions for Level II loans. In terms of property tax treatment, Rhode Island has a statewide law that allows affordable units to be taxed at 8 percent of the previous year's rental income. Municipalities have the ability to grant property tax exemptions, but might be unlikely to do so for mixed-income housing. The property of city-based housing authorities (but not other housing authorities like RIHousing) is also exempt from property taxes. Interviews suggested that there is not a large supply of publicly owned land in the state, and that it has not been systematically inventoried. Insurance costs were also significantly higher in Rhode Island mixed-income developments than in Montgomery County's.

Group A models are designed to create mixed-income housing by using the proceeds from market-rate rents from some units to subsidize the lower rents of affordable units, typically targeting the 50-80 percent Area Median Income (AMI) range. The projects tend to be built at a large scale, with typical projects including hundreds of units. These are substantially larger than the typical LIHTC development in Rhode Island and elsewhere.[11] Market conditions matter on both the demand and supply side. On the demand side, market rents need to be high enough to produce income that can dependably act as a "cross-subsidy" that supports the maintenance and operations costs of the income-restricted units (and in the case of public development, for there to be reliable profit that can be put into future deals). On the supply side,

---

[9] Housing Opportunities Commission of Montgomery County, MD. 2023. "New Issue: Multiple Purpose Bonds, 2023 Series C." *Bond Prospectus*, October 19, 2023, p.8. https://prospectus.bondtraderpro.com/$MDHSG23.PDF

[10] The Federal Housing Agency (FHA) risk-sharing program, also called Section 542(c), was created in 1992 to allow some state and local HFAs to offer FHA-insured multifamily loans at reduced interest rates in return for sharing the risk of losses on those loans. In a risk-sharing arrangement, the FHA agrees to share the risk of loan default with the lender. This means if the borrower fails to make loan payments, the FHA and the lender both absorb part of the financial loss, rather than the HFA or FHA taking on all of that risk alone. HFAs must meet rigorous standards to participate, including carrying a "top tier" designation from a nationally recognized rating agency such as Standard & Poor's and receiving an overall rating of "A" for general obligation bonds. In February 2024, HUD and the Department of the Treasury announced that they would indefinitely extend the program, which was set to sunset in 2027.

[11] According to HUD data, the average size of LIHTC projects built between 2000 and 2019 is 80.3 units nationally and 78 units in Rhode Island. The size of projects may be constrained both by land use regulations and by LIHTC program design. Practitioners say that it is difficult to build tax credit properties that fall outside of a certain size range or that are mixed-income (see: Miriam Axel-Lute. 2023. "The Only Tool in the Box." *Shelterforce.* http://shelterforce.org/2023/12/08/the-only-tool-in-the-box-what-it-means-that-lihtc-dominates-affordable-housing/)

development costs cannot be so high that the project is not economically feasible even after these forms of public subsidies play their intended role. For example, high land, construction, or labor costs, or too-low rents, could make the model infeasible in certain markets. Rhode Island interviewees suggested that outside of Providence's Jewelry District and certain coastal areas, market rents are not much higher than 120 percent of AMI, potentially limiting the degree to which projects could benefit from cross-subsidization. In the next phase of this study, we will analyze market data to gain a deeper understanding of how rent levels in Rhode Island impact the extent to which using market-rate rents to cross-subsidize more deeply affordable rents is possible.

Group A's cross-subsidization model also relies on a willingness to use publicly-owned land and investment to develop what might be considered "workforce housing," as opposed to focusing only on the most deeply affordable units. Proponents argue that Group A models can 1) complement the more affordable projects already being built using competitive and limited LIHTC funding, filling an important gap on the housing affordability spectrum; 2) accommodate, and even focus on voucher-holders who face discrimination on the private rental market, thereby enabling deeper affordability; and 3) generate returns over time through rental income and appreciation in property values, which could then be reinvested in additional development and housing assistance programs. The next phase of analysis will further explore how these models might be expected to generate long-term returns.

In these models, a public entity directly assumes the role of real estate developer, which puts a premium on in-house capacity for, and experience with, real estate development and underwriting. Montgomery County's HOC has a high level of development expertise, which stems from the Commission's long history of public-private partnerships for mixed-income development, and has proven crucial for troubleshooting and implementing the model. Similarly, by bringing together three separate entities, the AUD is able to benefit from their relative strengths. In Rhode Island, many existing state and local agencies have important experience with development and financing, and if the state chooses to support a revolving loan fund, in addition to many budgetary considerations of such a decision, it will need to consider the best location for an associated program based on existing capacity and powers.

Key Takeaways

- Group A models are designed to produce large amounts of housing without the use of federal tax credits, especially in high-opportunity areas that low-income households may not otherwise be able to access.
- The public ownership stake in these models has the potential to generate returns that can be recycled for additional development or other housing programs.
- These models require significant additional public investment beyond a revolving loan fund. Group A models pair these funds with favorable long-term financing (commonly generated from bond sale proceeds), property tax exemptions, and other tools to reduce total development costs as well as operating costs. Some of these tools are actively used in Rhode Island, but not others.
- The feasibility of these models depends on specific local market conditions, which are more likely to be present in Providence and select coastal areas of Rhode Island.
- Public land is useful, but not always essential, in Group A models.
- In some cases, an existing entity is well-positioned to act as a public developer, while in other cases it may be useful to create a new entity.

- A key consideration is the opportunity cost of each public dollar. The absence of federal tax credits in Group A models necessitates additional local spending as well as an element of risk-taking on behalf of the developer entity. A public ownership stake has the potential to generate durable affordability and long-term returns, but also exposes the public entity to the same risks and challenges any private real estate developer faces.

Group B: Public Housing Conversions

The second set of models involves the redevelopment and expansion of existing public housing. Using federal and other subsidies, Boston, Cambridge, and Hawaii's public housing authorities aim to preserve or replace existing affordable units, add additional deeply affordable units, and in some cases add market-rate units as well to cross-subsidize rent-restricted units.

Importantly, the models in Group B all leverage **Faircloth-to-RAD**[12] conversions. Faircloth-to-RAD is a relatively new tool for public housing development and comes with several caveats that housing authorities must navigate. First, PHAs can only harness this tool to build up to the number of units they owned or operated as of 1999 (their 'Faircloth Limit'); some PHAs have much less Faircloth capacity than others. Rhode Island PHAs collectively have approximately 730 unbuilt Faircloth units, and the majority of these (more than 400 units) are concentrated in Newport. Second, although converting Section 9 public housing subsidies to Section 8 project-based vouchers creates a deeper level of federal subsidy, it typically leaves a financing gap, given the high repair need. The housing authorities we include in our scan are finding different ways to address this gap. The Boston Housing Authority, as a non-**Moving to Work** authority that has implemented **Small Area Fair Market Rents** (SAFMRs)[13], has a special ability to increase RAD rents to their small area payment standards, creating a much deeper level of federal subsidy in high-cost zip codes. The Cambridge Housing Authority, on the other hand, does not have this ability and must combine Faircloth-to-RAD with LIHTC financing in order to make new development pencil out. Rhode Island does not have any PHAs with Moving to Work status, but seven housing authorities have implemented SAFMRs as of 2024.[14]

---

[12] The Faircloth Amendment prohibited the construction of any new public housing beyond the number of units PHAs owned as of October 1, 1999. Many PHAs have since de-densified their public housing stock through HOPE VI and other programs, and so are below their "Faircloth Limit." Faircloth-to-RAD allows these authorities to convert their unbuilt Section 9 public housing units into Section 8 project-based vouchers. In 2021, HUD first offered guidance for Faircloth-to-RAD conversions. Faircloth-to-RAD builds on the Rental Assistance Demonstration (RAD) Program, which was created in 2011 to enable PHAs to preserve and improve their public housing by converting it from Section 9 to project-based Section 8. Section 8 contracts are stable, predictable, and usually increase the subsidy the federal government pays for the unit. PHAs use this margin to reinvest in their public housing stock. Faircloth-to-RAD uses the same model to enable housing authorities to build *new* units.

[13] Moving to Work (MTW) is a demonstration program for PHAs that gives participating agencies the opportunity to design and test new strategies. It exempts from many existing public housing and voucher rules and allows greater flexibility with how they use their federal funds. Small Area Fair Market Rents (SAFMRs) are payment standards for Section 8 voucher holders that are calculated at the Zip Code level, rather than at the level of the entire metropolitan area. SAFMRs are designed to allow voucher holders to access high-cost neighborhoods by increasing the amount a PHA can pay in those neighborhoods. HUD permits non-MTW agencies to augment Faircloth-to-RAD rents in certain scenarios, including in zip codes where 90% of the SAFMR is more than 110% of the metropolitan area FMR.

[14] The PHAs that have implemented SAFMRs are Providence, North Providence, South Kingstown, Bristol, East Greenwich, Narragansett, and RIHousing.

Also critical to these models is PHAs' capacity, experience, and reputation as a developer or development partner. The Boston Housing Authority has significant in-house development capacity which has allowed them to successfully partner with private developers in large-scale public redevelopment projects. The Cambridge Housing Authority has so much development expertise that it now acts as a development and preservation consultant to at least two other Massachusetts housing authorities. Some Rhode Island PHAs do have some development experience, though at different scales. For instance, Coventry Housing Authority (a relatively small agency that has a portfolio of 195 public housing units and 282 vouchers and has never issued a bond) responded to the lack of nonprofit housing developers locally by creating its own nonprofit development arm in 1999. The nonprofit, using a consultant, has developed four new projects including three LIHTC properties and one HUD 202 development. In doing so, it collects rents and earns a development fee that it can use much more flexibly than the PHA's other funds. The authority has recently begun advising Smithfield on how to emulate this approach. Newport Housing Authority also has development experience. It has just completed Phase IV of a five-phase redevelopment of Park Holm, a 262-unit site, with help from TAG Associates Inc. Newport hopes to use its Faircloth authority to add new units, but worries it may run out of land. Other PHAs, including Providence Housing Authority (the largest PHA in the state with 2,606 public housing units and around 2,600 vouchers), have not engaged in development in recent years. Providence Housing Authority solicits developers to apply for project-based vouchers but focuses its own capacity on renovation and repairs, and on expanding services for their extremely low-income residents.

Because of limited and uneven Faircloth authority and development expertise, Group B models may be difficult to replicate at scale in Rhode Island. Nevertheless, by combining elements of Group B models with Groups A or C, the state may be able to take advantage of Faircloth-to-RAD, tax-exempt housing authority-owned land, and certain PHAs' expertise for publicly driven development and ownership.

Key Takeaways

- Group B models take advantage of the important statutory powers retained by PHAs in order to improve the quality of existing public housing and add new, deeply affordable units.
- Group B models are best suited for housing authorities with sizable Faircloth capacity, like Newport Housing Authority in Rhode Island. Even with this capacity, the Faircloth-to-RAD program usually does not offer a deep enough subsidy on its own to cover the costs of development, leaving a gap that must be filled with tax credits and other sources.
- Group B models rely on public housing authorities' development expertise. Some Rhode Island authorities have relevant experience, but on a relatively small scale. Others have not developed new housing in recent years, instead focusing their energy and resources elsewhere.
- Nevertheless, there is potential to combine elements of Group B with elements of models in Groups A and C.

Group C: New Affordable Housing

While Groups A and B include emerging models, there are much longer-standing models of publicly driven development and ownership in the U.S. One example is the Dakota County Community

Development Agency (CDA) in Minnesota, which has developed new affordable housing for seniors without using federal tax credits since the 1980s. Minnesota state statute allows the CDA to issue tax-exempt "essential function" bonds, which are credit-enhanced with a general obligations pledge from Dakota County, to finance new senior housing developments. Each new bond issuance is amended to join one, large common bond, which allows the CDA to pool revenue from across its developments to service the debt. Aggregating all operating revenue and costs also allows the CDA to spread out the cost of major repairs such as new roofs, windows, and siding – something that is increasingly important as its earlier projects turn thirty and forty years old. Importantly, in addition to its rent revenue, the CDA relies on a special property tax levy authorized by the Minnesota legislature in 1999 to help service its bond debt. Because it does not use any LIHTC financing for its senior housing program, the CDA also has the freedom to design its projects to be high quality but without more expensive amenities such as dishwashers, in-unit washers, or large common spaces. These savings are then passed along in the form of affordable rents. The CDA has not experienced any lack of demand for its units despite the absence of such amenities, but it is not clear whether the same would be true in buildings aimed at families.

Dakota County's approach has elements that appear particularly promising in the Rhode Island context. It creates relatively small, 100 percent affordable buildings, which are likely to be more politically palatable in many Rhode Island communities than large mixed-income developments. The Dakota County CDA works with municipalities across the county to identify suitable sites, sometimes accessing municipal land and other local subsidies; a Rhode Island public developer would need to work with each of the state's 39 municipalities in a similar way. In order to replicate this model, Rhode Island would need to identify or create an entity with sufficient real estate development expertise and set up a dedicated funding stream. It is also important to note that in Dakota County CDA's approach, the size of the portfolio supports the model; Rhode Island would be likely to face higher levels of risk and difficulty at the beginning of implementation.

Another long-standing model in Idaho highlights the importance of developing a strategy to avoid cannibalizing existing funding streams for affordable housing. The state's HFA, the Idaho Housing and Finance Company, created a nonprofit called The Housing Company (THC) in 1992, when there was little competition for LIHTC in the state. THC has since become a very effective affordable housing developer, producing units all over the state, and like the Dakota County CDA, uses this large portfolio to invest in new development. THC must perform a careful balancing act, however. On the one hand, because it competes with other nonprofits for the state's allocation of tax credits, it must be seen as not benefitting from the HFA's favoritism. On the other hand, its expertise and public mission have made it an attractive way to funnel non-LIHTC financing, including Idaho's ARPA funds, into affordable housing. Replicating this model in Rhode Island today would risk pitting a public developer against a well-established nonprofit housing sector.

Key Takeaways

- Group C models create relatively small, 100 percent affordable buildings, which may be more feasible in the Rhode Island context than large mixed-income developments.
- These longer-standing models show that publicly driven development can be sustainable over time and underline the value of developing a large portfolio of units, which can be used to spread out the cost of financing, management, and repairs.

- Group C highlights the importance of creating public development models that are additive rather than competitive. Public developers can complement the existing affordable housing development community and enhance existing efforts.
- For publicly driven development to succeed under any model, development capacity and expertise are key. Partnering with outside consultants, developers, and contractors can reduce the burden on public entities, but some in-house underwriting and real estate development capacity is essential in every case. Models across Groups A and C also underline the usefulness of combining this development capacity with HFA status.

International Models

We also studied five models of publicly driven development and ownership in international contexts: Vienna, Austria; Helsinki, Finland; Copenhagen, Denmark; Singapore; and Hong Kong. These models have evolved in environments that are often very different from Rhode Island's. Factors including political movements, reliance on low-cost foreign labor, or the gradual accumulation of land by the government over the course of decades have played a role in shaping some of these systems and have no equivalent in the U.S. Nevertheless, non-U.S. examples offer important lessons.

Publicly driven development and ownership in the international context is often referred to as '**social housing**.' This term has distinct connotations. It evokes models wherein the housing produced is available to a very broad sector of the population (for instance, in Vienna, more than three quarters of residents are currently eligible to access social housing). This has allowed social housing to escape much of the poverty-concentrating effects and stigma associated with 'public housing' in the U.S. or 'council housing' in the United Kingdom.

Many—though not all—social housing models have **cost-based rents**. This means that rents are calculated based on the cost of developing, operating, and maintaining a housing development. This cost may be calculated at the project level or set at the portfolio or national level. Rents are lower than they are in privately-owned units only because 1) they are not expected to generate a profit and 2) governments lower development costs by using publicly-owned land at no acquisition cost, lower-than-market-rate interest loans, and other mechanisms. In these models, households do not pay higher rents or lose their home if their income increases. An additional "housing allowance" (rental assistance that is not tied to the unit) is available to ensure housing stability for the lowest-income households in Vienna, Helsinki, and Copenhagen, while in Singapore, lower-income households benefit from additional mortgage assistance. In some countries, robust healthcare, educational, and other social supports may also contribute to helping households afford cost-based rents.

Key features of the models we studied include:

Vienna, Austria

- Social housing rents are calculated based on the cost of developing, operating, and maintaining housing.
- In some Viennese social housing, tenants contribute equity to help cover the costs of land acquisition and construction.

- Low-cost development loans issued to limited-profit housing associations are partially revolving; as they are repaid, each region reinvests in new development.
- After these loans are repaid, rent decreases to a level sufficient to cover day-to-day administration and maintenance.

Helsinki, Finland

- After mortgage loans guaranteed by the national government are repaid, rent restrictions on social housing expire, and municipal and nonprofit housing associations are free to privatize the housing or raise rents.
- Although, as in Vienna, rents are cost-based, housing associations have the ability to "equalize" them across their portfolios. This means that rents for new construction can be kept lower.

Copenhagen, Denmark

- Municipalities and nonprofit housing associations collaborate closely to decide when, where, and how much social housing to build, and to allocate units to applicants.
- After mortgage loans are repaid, rents remain steady, and the revenue formerly used to service the loans flows into a National Building Fund that is used to make major renovations, invest in new construction, and fund programming for social housing residents.

Singapore

- Although Singapore's housing authority retains perpetual ownership of the land on which social housing is built, residents can buy, sell, and inherit units, making them valuable commodities that can build residents' wealth over time.
- Mandatory personal savings accounts for every employed person are the principal way residents pay their mortgages, as well as a fund the government borrows against.
- New development occurs on a build-to-order basis (i.e., prospective residents "order" a unit, and ground does not break on a new social housing project until 70 percent of its units have been bought).
- Public land and low-cost imported labor from South Asia keep development costs low.

Hong Kong

- The region's housing authority owns a diverse portfolio of commercial and residential property The revenue from leasing these assets, and from selling some units as homeownership housing, helps subsidize public rental housing.
- Deep and direct investment by the Hong Kong government, including grants of public land, infrastructure, and social programming, help the housing authority keep rents extremely low in a high-cost market.

Table 2. Selected Characteristics of International Models

	Vienna	Helsinki	Copenhagen	Singapore	Hong Kong
Cost-based	✓	✓	✓	✓	
Income-based					✓
Public land	✓	✓	✓	✓	✓
Low-cost labor				✓	
Participation of nonprofits	✓	✓	✓		
Ownership option	✓			✓	✓
Permanently affordable	✓		✓		✓

Key Takeaways

- Scale and social mix can create financial and political stability for social housing systems in the long term.
- Cost-based models in Vienna, Helsinki, and Copenhagen point to the value of pushing rents down as far and as close to operating cost as possible, rather than legislating a certain level of affordability upfront.
- Social housing models are countercyclical; they tend to generate the most units when conditions are unfavorable for market-rate development.
- Singapore’s model is idiosyncratic, but suggests the potential of social housing as a wealth-building tool.
- Hong Kong’s model shows how non-housing public investments, including in revenue-generating infrastructure and social programs, can help make a social housing system financially feasible.

Appendix

Montgomery County, Maryland

The Housing Opportunities Commission (HOC) is the public housing authority of Montgomery County, Maryland. It also acts as a public developer and a housing finance agency, with the ability to issue taxable bonds rated A2 by Moody's.[15] The HOC is governed by a volunteer commission appointed by the County Executive and approved by the City Council. The Commission's FY24 operating budget of $339 million mainly consists of voucher funding and federal subsidy pass-throughs, while its capital budget of $255 million is funded by bond proceeds and tax credit equity.[16] Importantly for the model, the HOC has a lot of development experience, including developing mixed-income housing. HOC's real estate division includes about seventeen staff members, including project managers, analysts, quality oversight, relocation managers, and construction professionals.

The HOC's Housing Production Fund (HPF) seeks to provide "revolving, low-cost, construction-period financing to HOC's developments."[17] These revolving funds are designed to replace market-based equity investments ("private equity") in the construction financing capital stack. HPF loans have a 5 percent interest rate, which is significantly lower than the 15-20 percent rates of return expected for private equity investors. Though still relatively new, HPF loans make up somewhere between 12 and 25 percent of total construction financing. The revolving loan is repaid before a project converts to permanent financing, which means that its main function is to help overcome the hurdle of construction.

According to local officials, the HPF arose from necessity: Montgomery County needed to expand their pipeline of affordable housing but they were running out of private activity volume cap. The HPF was approved by the Montgomery County Council in March 2021, and the Council agreed to fund the principal and interest payments up to $3.4 million annually for a $50 million bond issuance by HOC. The Council then approved a second issuance of an additional $50 million in May 2022 for a total annual appropriation of $100 million in bond revenue.[18] The HOC anticipates that the HPF will cover a total of $250 million in construction loans, funding approximately 3,000 units in a 20-year period.[19] Over this period, the bond issuance will be fully repaid, after which point it will revolve at no additional cost.[20] It is important to note that separate from the HPF, the HOC has two lines of credit with a local bank in an aggregate amount of $210 million, which allows HOC to act nimbly as a joint venture developer and/or lender, with more flexibility than comparable entities.

The HOC often leverages publicly-owned land, including aging public housing developments, as a way to lower total development costs (TDC). For example, its first HPF-financed project, The Laureate, was

---

[15] Housing Opportunities Commission of Montgomery County, MD. 2018. "We Are Housers." *Strategic Plan 2018-2022.* https://www.hocmc.org/images/files/ResourceDocs/Strategic_Plan_Current.pdf
[16] Housing Opportunities Commission of Montgomery County, MD. 2023. Presentation to Public Development Community of Practice. November 2, 2023.
[17] Housing Opportunities Commission of Montgomery County, MD. 2024. *Adopted Budget Book Fiscal Year 2024,* p.147. https://www.hocmc.org/images/files/Publications/FY_2024_Adopted_Budget_Book.pdf
[18] HOC 2024. *Adopted Budget Book,* p.147.
[19] HOC 2024. *Adopted Budget Book,* p.147.
[20] HOC 2024. *Adopted Budget Book,* p.147.

recently constructed on the site of a 95-unit public housing development adjacent to a metro station.[21] However, in other cases, HOC has paid market prices to acquire land for HPF projects. In HOC's experience, using public land lowers the cost of the project by 10-15 percent: a substantial but not tremendous impact.

The HOC's status as both an HFA and a qualified risk-share lender is extremely useful in this model in that it allows them to issue fixed-rate, lower cost debt and combined development with other tools like vouchers. With FHA risk-share, the HOC is able to fund projects with a 40-year amortization in term, at a relatively low rate.

As is often the case for income-restricted new housing development, HPF projects pull together a number of tools to make their projects financially feasible. What is unique in this model is the non-reliance on LIHTC. Achieving this requires a mixed-income model that is supported by a mix of different types of operating subsidies and fee reductions. For example, HPF projects partially rely on tenant-based subsidies. Although the HOC has not executed any Faircloth-to-RAD projects yet, in the future, the HOC's publicly-driven housing projects could be paired with Faircloth-to-RAD allowances and vouchers that provide deep operating subsidies for a portion of the units, which has the advantage of being able to house extremely low-income residents, while collecting closer to market rents.[22] Other tools include reductions in operating costs and development fees. The HOC's ownership of the completed properties allows them to unlock reductions in property tax liabilities (via tax exemptions), which have the effect of lowering a property's operating costs. In addition, if a certain share of units in the property (greater than 25 percent) are deemed affordable, the project qualifies for impact fee reductions and other exemptions from the County. In the case of The Laureate, the financing is structured such that after construction, the developer will stay in the deal with the addition of a mezzanine lender, possibly a mission-focused private investor. The permanent debt will cover the construction loan and pay off as much of the HPF financing as possible, with FHA risk-sharing between FHA and the HFA coming through at permanent loan conversion.[23]

Compared to a typical market-rate developer, the HOC can access less expensive construction financing through the HPF, unlock tax abatements, lower the cost of insurance (through self-insurance mechanisms), and help guide the project through local approvals, shortening the entitlement process. In addition, the requirement to include affordable units acts as a boon in some ways, because those units lease up relatively quickly. Montgomery County can be a challenging development environment, and the HOC is sometimes able to enter a project that has stalled to help move it forward. As an example of this model in practice, the HOC's current projects include one begun by a private developer who was awarded permission to develop on private land but then faced financing issues, which allowed the HOC to enter the deal, infuse the project with affordable units, and also gain control of the development.

In order to better understand how the HOC's financing model works, we examine a 2021 proforma for a mixed-income HOC development of between 250 and 300 units that also included a commercial component. This development was built with an approximately $14 million loan from the HPF, which

---

[21] HOC 2023. Presentation to Public Development Community of Practice.
[22] HOC 2023. Presentation to Public Development Community of Practice.
[23] HOC 2023. Presentation to Public Development Community of Practice.

replaced private equity in the construction financing capital stack and was taken out (repaid) at conversion to permanent financing. The development also benefited from a 2.1 percent senior mortgage loan over a 40-year term. The TDC was $455,000 per unit, with the senior loan covering about $370,336 per unit (81 percent loan-to-value). Remaining sources that covered the deal include a loan from the HPF, low-cost land, and other equity investments. The deal also benefited from a 100 percent Payment in Lieu of Taxes (PILOT). Importantly, the HOC's proforma used a more conservative rate of 3.7 percent to determine the maximum debt size for the project; it then based interest payments on the senior mortgage loan on the aforementioned 2.1 percent rate on the senior mortgage loan. Table A1 below shows the relative importance of subsidy sources on this majority publicly financed deal.

Table A1. The Relative Importance of Subsidy Sources in HOC's Model

		Senior Loan/Unit	Gap/Unit
	Original HOC-financed deal (40-year senior mortgage loan with 2.1% rate, low-cost land, 100% property tax exemption)	*$ 370,000*	*$ -*
Financing Terms	30 Year Loan (Alone)	$ 342,000	**$ 27,100**
	4.1% Rate (Alone)	$ 307,000	**$ 62,000**
	4.1% Rate and 30 Year Term (Combined)	$ 273,000	**$ 95,000**
	6.1% Rate (Alone)	$ 239,500	**$ 127,235**
Land and Taxes	Free Land (Alone)	$ 370,335	**$ (8,700)**
	Full Residential Property Taxes (Alone)	$ 346,000	**$ 23,652**
	Free Land and Full Property Taxes (Combined)	$ 346,000	**$ 15,000**

Notes

1. Holds constant the affordability levels (20% of units at 50% AMI, 10% at 80% AMI, remainder at market rate)
2. Costs increase at higher inflation rates, due to higher carrying costs during the term of the construction loan
3. Assumes 1.15 Debt Service Coverage Ratio after accounting for all funding sources
4. Assumes constant source of Mezzanine Loan, in this case, a public source of funding (HPF)
5. Senior Loan is a conventional senior loan at an 81% loan to cost
6. In this example, the property tax exemption is equal to the full cost of property taxes (~$3,153 per unit, per year). The property tax exemption has the effect of adding Net Operating Income (because it reduces the payment of property taxes). This in turn increases borrowing capacity, just as added rent or not having to pay an operating cost, like a water and sewer bill would have.

As Table A1 shows, if the loan term were altered from 40 years to 30 years at the initial 2.1 percent rate, the funding gap increases by $27,100 per unit. But at a 4.1 percent rate, a difference of 200 basis points, that gap increases to $62,000 per unit. Assuming a 6.1 percent rate, the gap increases to $127,000 per unit. Combining a 4.1 percent rate with a 30-year term shows that the cumulative effect is to increase the per-unit gap to $95,000. Similarly, that analysis shows that while free land is an important source on the deal, it doesn't play nearly as significant of a role as the financing terms. Its value also pales in comparison to the role that a property tax exemption plays.[24]

Atlanta, Georgia

The Atlanta Urban Development Corporation (AUD) is an incorporated subsidiary of Atlanta Housing (AH), the housing authority of the City of Atlanta. AH is well represented on the AUD board; four board members are also board members of AH, and three others are recommended by the mayor and approved by AH. As a wholly owned subsidiary of AH, the AUD can issue bonds, own property, and award property tax exemptions just like a PHA.[25] As a start-up entity that does not share AH's balance sheet, however, the AUD generally relies on a "benefactor" like the City or Invest Atlanta to issue debt on its behalf.

The AUD is also responsive to the City of Atlanta and Invest Atlanta, the City's economic development authority. Besides recommending the three AUD board members, the City supports AUD with seed funding. The City is currently considering acting as a debt guarantor for AUD projects (the City is AA+ rated). Invest Atlanta's role includes helping intake, underwriting, project approval and closing, and it may also work with AUD to develop long-term public financing in the future.

Funded by the 2023 Housing Opportunity Bond, a $38 million appropriation from the City of Atlanta, the Housing Production Fund (HPF) is structured to provide "mezzanine-level, low-interest construction loan to developments that commit to long-term affordability through AUD ownership."[26] The joint effort requires AUD to identify HPF projects, with Invest Atlanta managing the bond financing and controlling and approving fund drawdowns. The AUD HPF model calls for the loans to cover up to 20 percent of the construction capital stack for up to a five-year period, with the below-market loans intended to be taken out at permanent loan conversion. By providing the interest-only construction financing at lower than market rates, and building on publicly-owned land (which reduces overall construction costs, thereby acting as a form of additional equity), the AUD HPF model – like the HOC's HPF – is designed to lower total development costs in exchange for the creation of affordable units.[27]

---

[24] How this model plays out in an era of definitively higher interest rates than in the pre-pandemic environment is unknown. If interest rates increase at a rate faster than market rents, making the economics of such deals work is much more difficult. At the same time, as investor and developer, the public entity might still decide to move forward on such deals, rather than needing to "shop around" for interest rates from typical construction lenders.

[25] It is important to note that while PHAs in Georgia are exempt from property taxes, special exemptions, and payments in lieu of taxes, and can exempt for-profit housing developers and managers from property taxes through a "private enterprise agreement," the same is not true in every state. O.C.G.A § 8-3-8 (2010).

[26] Atlanta Urban Development. 2024. *Request for Qualifications for Phase 1 of the Redevelopment of Thomasville Heights,* p.21. https://assets-global.website-files.com/657ad30f1454198c9d8e1d97/65f348991e2b812a59cdc5a4_Thomasville%20Heights%20RFQ_Final.pdf

[27] AUD 2024. *RFQ for Thomasville Heights*, p. 21.

Because the HPF was created so recently, the AUD is exploring different financing structures. The AUD has released two Requests for Qualifications (RFQs) to date, the redevelopment of Fire Station 15 and Phase I of the redevelopment of Thomasville Heights. In these, AUD outlined an example capital stack: 5-10 percent of TDC would be AUD land acting as equity; another 5-10 percent of TDC would be additional (investor or private) equity; up to 20 percent lower-cost debt, funded by the HPF as described above (at an interest rate of 6 percent or lower); and the remaining 60 percent of funding in the form of a market-based construction loan.[28] Importantly, the projects will be able to leverage Private Enterprise Agreements (PEAs), which allows PHAs to grant a full (100 percent) tax exemption for City, County, and school taxes for all units in the project that are affordable up to 140 percent AMI. The participation of a public entity like AUD in these deals can also speed up the entitlement process, creating additional savings.

As the AUD explores different approaches to project financing, it is taking a number of factors into consideration. First, the agency is weighing standardization and scalability. While pairing HPF loans with more conventional financing could increase the model's ability to scale, the team is also open to other, less scalable funding structures, including a 100 percent bond-financing deal where the AUD would be the full owner. The timing of when public money can enter a project is also a critical consideration. Funding a project with public money in the pre-development phase can increase return on investment for investors, allowing investors to ask for less return when the project is finished. However, such an approach would open the AUD up to more risk, and they would plan to take more of a leadership role on those projects. A third and final consideration is the availability and flexibility of complementary public finance tools. For example, Tax Increment Financing (TIF, a way to capture property tax revenue from new development in order to fund improvements needed for the development) can help with funding the construction of affordable housing, but none of its funding can be used in the pre-development phase.

In terms of exiting a project, there are a number of considerations. Primarily, the AUD will want to have a controlling stake in the project and determine the exit by deploying permanent financing (with the goal of achieving low-cost permanent financing in the future). When considering how to allocate the equity stakes of a project, the AUD will consider the relative risk for the corporation. For example, the AUD might be more interested in retaining a full equity stake with a developer fee on a project providing workforce housing that should have no trouble finding households interested in leasing up units affordable at 80 percent AMI. Alternatively, projects with more market-rate units are riskier because units with higher rent levels will be more challenging to fill. However, those units have higher returns and help finance projects in higher-opportunity markets. In those cases, the AUD might be more interested in pursuing an equity position for the developer partner to ensure that the entire team has a stake in the successful outcome of the project.

The affordability of AUD projects will vary depending on the project structure. In the RFQ for both Fire Station 15 and Thomasville Heights, the AUD notes that all AUD projects must have at least 20 percent

---

[28] AUD 2024. *RFQ for Thomasville Heights*, p. 21; Atlanta Urban Development. 2024. *Request for Qualifications for Redevelopment of Fire Station 15 with Integration of New Affordable and Market Rate Housing,* p.12. https://assets-global.website-files.com/657ad30f1454198c9d8e1d97/65a1dea1fa5edfde7724124c_01%2011%202024%20-%20Midtown%20Fire%20Station%20RFQ.pdf

of rental units affordable to households earning at or below 50 percent of AMI and 10 percent of rental units targeted to households at or below 80 percent AMI. The Thomasville Heights project should also include homeownership units, including equivalent levels of affordability or deeper. The RFQs also note that neither project should make use of LIHTC funding. Instead, that equity is meant to be replaced by the following combination: no land acquisition; lower-cost equity investment from a government entity; an exemption from property tax payments; and cross-subsidizing with market based rents.

This model needs three components to work as designed: land, public investment, and capacity. Capacity is key; the public entity needs a very skilled development entity or PHA to support with underwriting and structuring the deal. Bringing these components to the project allows the AUD to lead on the structure of the deal.

Chicago, Illinois

Modeled on the Montgomery County and Atlanta HPFs, the Green Social Housing Revolving Fund in Chicago is intended to help fill a funding gap for affordable housing as almost 45 TIF districts expire over the next three years. The proposal was released in early 2024, and if approved by the City Council, would be seeded with $115-135 million out of a $1.25 billion bond issuance. Similar to the HPFs described above, the revolving fund would provide lower cost construction loans, which would be repaid over three to five years. The proposal notes that the developer would "sell the building back to the local government when it is completed" and that the government would then contract with a third party for property management.

Because the Fund proposal is so new, much of the structure of the final program remains unclear. However, the City would likely create a separate entity through a program ordinance to run the program. The Chicago Department of Housing would likely be involved, and would be able to contribute underwriting experience gained from its role on LIHTC deals. The City is looking into a number of ways to lower total development costs and subsidize affordable units, many of which were also used or explored by Montgomery County and Atlanta. For example, projects in the program would be able to get a tax abatement under a statewide program. In addition, there is a hope that the Illinois Housing Development Authority would be able to collaborate as a risk-share lender to help lower costs. Finally, Chicago has some of the largest numbers of Faircloth units in the country, and the City is also interested in using the program on Faircloth-to-RAD projects to inject additional subsidy for affordable units.

Although the proposal states that the properties would include affordable units and would not require longer-term subsidies (like LIHTC), more detail on the selection criteria and process for developing new projects would be determined by a program ordinance that would need to be passed by the City Council. The City estimates that the revolving fund would produce 600 or more new rental units each year.[29]

The City is weighing a couple of options in terms of building out a potential pipeline of projects. The first would be to enter a project that has stalled and offer financing in exchange for a stake in the final project

---

[29] City of Chicago. 2024. *2024-2028 Housing and Economic Development Bond,* February 2024. https://www.chicago.gov/content/dam/city/sites/business-and-neighborhood-development-strategy/pdf/Housing-and-Economic-Development-Bond-Book.pdf

and the inclusion of affordable units. A second option would be to consider sites that will open up during the course of the Red and Purple Modernization, the largest capital project in the Chicago Transit Authority's history.[30] The higher rents in some of those neighborhoods could be sufficient to subsidize mixed affordable properties and would allow the City to manage projects from the beginning of their development.

Boston, Massachusetts

The Boston Housing Authority (BHA) is a traditional federally-funded public housing authority.[31] The agency is managed by an administrator who is appointed by and serves at the pleasure of the Mayor of Boston. The Mayor also appoints a nine-member Monitoring Committee – of which five members are public housing residents and one is a voucher-holder – to oversee the work of the BHA and report on its activities.[32]

BHA is currently engaging in a major redevelopment and expansion of the Mary Ellen McCormack complex, the city's oldest public housing development, located in South Boston.[33] The redevelopment will demolish the existing structures on the land and rebuild all 1,016 affordable apartments, as well as adding another 2,000 middle-income and market-rate units.[34] BHA is doing so in partnership with a private developer. BHA will continue to own the land under Mary Ellen McCormack while the private developer will own the buildings. BHA provides the subsidy for the replacement public housing units. The project's market-rate units will also help to cross-subsidize some of the affordable and middle-income units. Construction of the redevelopment will be financed with a combination of private debt, LIHTC (for the first redevelopment phase only), BHA equity, private developer equity, and grants from both the city and state. At stabilization, BHA will receive rental payments on the land, transaction payments if the private partner resells the building, and a portion of profits if the market-rate rents pass a profitability threshold. While Mary Ellen McCormack is *not* an example of "publicly driven development" as defined above, it does involve a public entity partnering in the construction of new, cross-subsidized development and retaining long-term control over the outcomes of that development.

BHA intends to branch out beyond the Mary Ellen McCormack model in an effort to build income-restricted units without the need for LIHTC, as the Group A models do. To do so, BHA intends to use HUD's Faircloth-to-RAD program. Because of significant de-densification since 1999, the BHA has about 3,000 units of Faircloth authority today. To finance new construction using Faircloth-to-RAD, BHA intends to issue debt on the project-based vouchers it will receive for these 3,000 units, generating

---

[30] Chicago Transit Authority. "About the RPM Phase One Project." Accessed April 8, 2024. https://www.transitchicago.com/rpm/about/

[31] Boston Housing Authority. "Mission and History." Accessed April 8, 2024. https://bostonhousing.org/en/About-BHA.aspx

[32] Boston Housing Authority. "Monitoring Committee." Accessed April 8, 2024. https://bostonhousing.org/en/Center-for-Community-Engagement/Resident-Empowerment/Monitoring-Committee.aspx

[33] Nik DeCosta-Klipa. 2023. "In Southie, Boston's Oldest Public Housing Project Is Getting a Makeover." *WBUR Boston,* December 15, 2023. https://www.wbur.org/news/2023/12/15/mary-ellen-mccormack-housing-redevelopment-south-boston-newsletter

[34] Winn Companies. "Mary Ellen McCormack." Accessed April 8, 2024. https://www.memredevelopment.com/home

significant leverage. Prior to the Faircloth-to-RAD program, BHA was unable to take advantage of its unbuilt Faircloth authority. Leverage on the approximately $800-per-month Section 9 subsidy was insufficient to support new construction. Converting Section 9 subsidies to project-based vouchers through Faircloth-to-RAD increased the level of subsidy to about $1,200 per month per unit.

Boston's transformative opportunity stems from the combination of Faircloth-to-RAD with Small Area Fair Market Rents (SAFMRs). SAFMRs allow PHAs to provide housing subsidies for vouchers at a neighborhood – instead of metropolitan – level, so tenants have access to much higher subsidy levels in more expensive neighborhoods. In July 2023, HUD gave non-Moving to Work housing authorities that have implemented SAFMRs the ability to raise Faircloth-to-RAD subsidy levels to the small area payment standard. This will give BHA up to $3,200 per unit per month in subsidy in certain neighborhoods, instead of $1,200.[35] The increase in federal subsidy per unit will enable BHA to more than double the debt it could generate for construction, broadening the scope of feasible development.

BHA manages most new development and redevelopment projects in partnership with private developers who provide expertise or technical capacity. As it embarks on its Faircloth-to-RAD development pipeline, the agency anticipates exploring alternate management models, including possibly bringing all development in-house or hiring private developers for turnkey projects. BHA also often relies on partnerships with the City of Boston and MassHousing, the state housing finance agency, to execute on its deals. BHA has bonding authority but relies on MassHousing to support financing at the scale of its recent, large developments. Furthermore, many of BHA's redevelopment efforts have utilized grant funding from the City of Boston or the state budget to support non-construction needs like remediation or tenant relocation.

Thus far, all of BHA's development and redevelopment efforts have been on land already owned by BHA and therefore exempt from property taxes. As the agency creates a plan for developing its 3,000 Faircloth units over the next decade, it has identified 50 publicly owned sites of varying sizes that could support development.

BHA's federal subsidies create significant flexibility in its rent mix, and the agency can thus target development priorities to the highest needs in the Boston area. BHA is the only developer in the area that is able to build homes that support extremely low-income families (those with incomes at or below 30 percent of AMI), so the agency attempts to maximize units affordable to those households. BHA projects over the past decade have typically included 80 percent of units with market-rate rents and 20 percent targeted towards extremely low-income households using project-based vouchers. The agency also finds that efforts to provide homes affordable to households with incomes 60-70 percent of AMI are relatively well-resourced locally, homes targeting rents affordable to households with incomes 80-100 percent of the area's AMI are relatively scarce. As BHA expands its public development work over the next decade, it is interested in evolving its model to support more homes affordable to households with incomes just below 100 percent AMI.

[35] Small Area Fair Market Rents set voucher rents at the 40th-percentile rent of a given zip code rather than an entire region, which enables much higher voucher payments in expensive neighborhoods. See also footnote n.13.

Cambridge, Massachusetts

The Cambridge Housing Authority (CHA) is a federally-funded public housing authority like BHA. It is managed by a five-member board: one resident, three community members appointed by the town manager, and one community member appointed by the Governor.[36] CHA has already begun using the Faircloth-to-RAD model to great success – with some local innovations and creative alterations to the program.

CHA is not able to blend Faircloth-to-RAD conversions with SAFMRs in the way that has made BHA's Faircloth-to-RAD financing so promising. Unlike BHA, CHA has a Moving-to-Work (MTW) designation from HUD, giving it greater flexibility to shift funds between programs but excluding it from the special ability to raise Faircloth-to-RAD subsidy levels in line with small area payment standards. Instead, CHA combines Faircloth-to-RAD with LIHTC, soft debt from the state housing finance agency (HFA), and, in some cases, investments from the city of Cambridge.

A recent CHA redevelopment project has used this model and is about to begin construction. The project relies on $10-12 million from LIHTC, approximately $12 million in soft debt from the state, debt on Faircloth-to-RAD subsidies, and $44 million in funding from the city of Cambridge. Unlike BHA's recent development efforts, CHA's project is 100 percent affordable, with many units put aside for extremely low-income residents. CHA is placing much less of an emphasis on cross-subsidization and mixing incomes and is prioritizing deep affordability.

Most of CHA's redevelopment work in recent years has relied on LIHTC, but caps on tax-exempt private activity bonds have slowed CHA's development plans. Private activity bonds are issued by states annually to fund projects in the public interest and are exempt from taxes. When private activity bonds are used for housing projects, they automatically come with 4 percent LIHTC, which can be a useful piece of a complex capital stack in affordable housing development (as seen in CHA's stack discussed above).[37] The federal government places a cap on the amount of private activity bonds that a state can issue every year, and in recent years many states, including Massachusetts, have run up against the cap.[38] In the absence of the cap, CHA could be working on up to 15 affordable housing projects, but with the cap in place, they are limited to one or two per year. The cap on private activity bonds and resulting bottleneck of LIHTC has driven CHA to begin to explore other financing options.

CHA has a long history of innovation in preservation and development and began using Faircloth-to-RAD before many other PHAs. As such, it has begun working as a consultant and development partner with other PHAs that have unbuilt Faircloth authority – particularly small PHAs in the Boston region that do not have the technical expertise to make full use of HUD's financing tools. Massachusetts allows

---

[36] Cambridge Housing Authority. "Board of Commissioners." Accessed April 8, 2024. https://cambridge-housing.org/about/board-of-commissioners/

[37] Local Housing Solutions Lab. "Increased Use of Multifamily Private Activity Bonds to Draw Down 4 Percent Low Income Housing Tax Credits." *Housing Policy Library.* Accessed April 8, 2024. https://localhousingsolutions.org/housing-policy-library/increased-use-of-multifamily-private-activity-bonds-to-draw-down-4-percent-low-income-housing-tax-credits/

[38] Patrick McAnaney. 2024. "How Federal Stimulus Accidentally Bottlenecked Affordable Housing in D.C." *Greater Greater Washington,* March 28, 2024. https://ggwash.org/view/93101/how-federal-stimulus-accidentally-bottlenecked-affordable-housing-in-dc

PHAs to operate anywhere in the state which enables CHA to blend its own subsidies with other PHAs in other towns and cities and operate across town lines. Given the complexity of some of these projects and the fact that Faircloth-to-RAD subsidies are often insufficient to generate new housing units on their own, CHA sees these consulting partnerships with other PHAs as an important effort to operationalize Faircloth-to-RAD.

Hawaii

The Hawaii Public Housing Authority (HPHA) is governed by an eleven person Board of Directors appointed by the Governor and is also overseen by the state legislature.[39] In partnership with the Hawaii Housing Finance and Development Corporation, HPHA has recently explored large-scale redevelopment of its statewide portfolio under a similar program as Boston and Cambridge. The authority recently received approval from the Hawaii state legislature to build mixed-income housing (as opposed to housing targeted just to low-income households) and has identified a private developer partner – Highridge Costa Development Co – to implement HPHA's Ka Lei Momi project.[40]

Under Ka Lei Momi, the HPHA and Highridge Costa Development Co will work together to build and manage 10,000 new units of affordable and workforce housing on 9 properties already owned by the HPHA. These units will be financed by RAD conversion of both existing public housing units and unbuilt Faircloth authority (like BHA and CHA above), as well as supplemental funding from HDHA's MTW funds, LIHTC, and private equity financing through Highridge Costa.

Dakota County, Minnesota

The Dakota County Community Development Agency (CDA) was created in 1989 as an independent legal entity and is now a recognized and respected affordable housing developer in the communities it serves. During the first 20 years of the CDA's operation, the Dakota County Board, which is elected, appointed the CDA's Board of Directors. In approximately 2010, however, members of the County's board appointed themselves to serve as the CDA's board. This has the effect of holding the CDA directly accountable to county residents for high-quality development and fiscal responsibility.

When planning a new development, the CDA's typical practice is to look for underused sites in the county. Occasionally these sites are publicly owned, but that is not the norm. They work closely with municipalities within Dakota County to identify ideal sites, especially redevelopment opportunities. The CDA has two distinct housing programs: publicly owned senior housing and workforce housing (typically townhomes for families with children). All of the CDA's projects have an affordability component. Its workforce housing utilizes LIHTC and sets affordability levels accordingly, while the senior housing program targets households with incomes at or below 80 percent of AMI.

---

[39] Hawaii Public Housing Authority. "Our Team." Accessed April 8, 2024. https://hpha.hawaii.gov/team
[40] Office of the Governor, Hawaii. 2023. "The Hawai'i Public Housing Authority Announces Master Developer To Create More Than 10,000 Affordable Rental Units." *Press Release,* July 3, 2023. "https://governor.hawaii.gov/newsroom/news-release-the-hawai%CA%BBi-public-housing-authority-announces-master-developer-to-create-more-than-10000-affordable-rental-units/

The CDA's senior housing program constitutes true publicly driven development and ownership according to our definition. Minnesota state statute allows the CDA to issue tax-exempt "essential function" bonds, which are credit enhanced with a general obligations pledge from Dakota County, to finance new senior housing developments. Each new bond issuance is amended to join one, large common bond, which allows the CDA to pool revenue from across its developments to service the debt.[41] Aggregating all operating revenue and costs also allows the CDA to spread out the cost of any major repairs such as new roofs, windows, and siding – something that is increasingly important as its earlier projects turn thirty and forty years old. Importantly, in addition to its rent revenue, the CDA relies on a special property tax levy authorized by the Minnesota legislature in 1999 to help service its bond debt.[42] This allows Dakota County's backing of the bonds to remain strictly a credit enhancement; it does not use its own tax receipts to service the bond.

Typically, the CDA begins construction on a new senior housing development immediately after floating a new bond, without the need for separate construction loans. The CDA generally hires a general contractor through a public bidding process (it does not negotiate) and simply draws down the funds needed to make each month's construction payment. The agency pays a sales tax on the construction contract, but can obtain a rebate on construction materials from the state at the end of construction. Another important aspect of the development package is that the CDA is exempted from property taxes (though it does pay a PILOT in order to help pay for public services for their affordable senior projects). The CDA chooses to pay prevailing wages for the construction of all its senior housing developments, even though they are typically not using any federal financing that triggers Davis Bacon laws.

The common bond structure serves as a safety net across the properties and underlines the advantage of building up a larger portfolio. Today, the CDA owns and operates more than 1,700 senior units in nearly 30 properties. The ability to issue the tax-exempt bonds to fund development is reflected in the rent structure. Initially, the CDA set a minimum and maximum rent for each building and residents paid 30 percent of their income towards rent within that range. More recently (for the newest 10-12 buildings), the agency has transitioned to a flat rent structure. Because most of its projects are small (the CDA now aims for ~65-unit buildings), cross-subsidization is less feasible and the agency has not pursued a mixed-income approach to date.

CDA senior housing is high quality, but the agency has deliberately chosen not to include expensive amenities such as dishwashers, in-unit washers and dryers, and common areas in order to maximize affordability for its residents. This has not appeared to deter interest in the developments. The CDA has the freedom to make this choice, as well as greater flexibility with rent structures, because the essential function bond and county-level tax levy come with few strings attached compared to the LIHTC program. The CDA also has its own maintenance staff and conducts all property management in-house.

---

[41] Dakota County Community Development Agency (CDA). Senior Housing Development Program. *Presentation.* Shared with the research team via private email.
[42] Office of the Revisor of Statutes. 1999. Chapter 238, S.F. no 1876. Minnesota Legislature. https://www.revisor.mn.gov/laws/1999/0/248/#laws.0.3.0

Idaho

The Idaho Housing Finance Association (IHFA) is the state's self-sufficient housing finance agency, operating much like a nonprofit. Its core responsibilities include administering housing tax credits and overseeing the state's HUD-insured developments. In 1992, in response to the underutilization of LIHTC in the state, the IHFA created The Housing Company (THC) to be a 501(c)(3) nonprofit development and property management organization. THC's Board of Directors consists of 50 percent independent members and 50 percent IHFA-appointees – a structure that HUD accepted. As a nonprofit developer that uses LIHTC, THC does not meet our criteria for publicly driven development and ownership. Nevertheless, its public mission and relationship with IHFA makes it relevant for this report.

THC typically coordinates with municipalities to identify new development opportunities, sometimes drawing on the considerable surplus of public land throughout the state. Alternatively, sometimes land is donated to THC, although this occurs less frequently. In terms of financing, THC acts much like a typical affordable housing developer. It commonly relies on LIHTC – both the 4 percent and 9 percent credits. THC projects also use CDBG funding when it is available. THC has used HOME funding for several of its rural projects which are usually smaller in size, from six to 15 units per project. THC also sometimes receives philanthropic donations to subsidize its developments, including for single-family homes with deed restrictions to ensure long-term affordability or with a shared-equity model. In recent years, THC successfully accessed $50 million of American Rescue Plan Act (ARPA) funds, used in combination with 4 percent credits, to create approximately 1,200 workforce units. This is a model that THC would like to replicate with future funds from the state.

THC manages, and to some extent owns, all of its properties. With tax credit projects, the investor LLC holds majority ownership in the project while THC only owns a small stake, but THC includes a provision that passes full ownership to the organization after the compliance period. By serving as a property manager, THC can and does exercise the option to raise rents more slowly than the market would merit, thereby keeping units as affordable as possible. All of THC's projects have some affordability component, and they typically establish a preference for voucher holders.

THC is now recognized for its long history as a successful developer. This reputation, combined with the rules established to clearly distinguish THC from IHFA and the straightforward and transparent nature of the state's QAP, is key in protecting THC from a perception of a conflict of interest due to its relationship to IHFA. Experts in Idaho expect that this model may be hard to replicate today because developers may view a similar entity as a competitor with an unfair advantage for receiving tax credits.

Vienna, Austria

In Vienna, social housing accounts for more than 43 percent of all housing units–one of the highest proportions in the world.[43] This 43 percent is nearly evenly split between two social housing systems: 'municipal housing' built and owned by Wiener Wohnen, a city-owned company whose budget is approved by the Viennese City Council, and 'limited-profit housing' built by limited-profit housing

[43] Justin Kadi and Johanna Lilius. 2022. "The Remarkable Stability of Social Housing in Vienna and Helsinki: A Multi-Dimensional Analysis." *Housing Studies.* DOI: 10.1080/02673037.2022.2135170

associations (LPHAs). Both systems 1) exclusively produce rental housing, which is owned by either the municipality or LPHA indefinitely[44]; 2) base rents on the cost of developing and maintaining the housing; 3) have broad eligibility, such that households of varying income levels, etc. can access this housing stock.

LPHAs can be organized as limited liability companies, public liability companies, or cooperatives, but – in order to receive LPHA status and receive access to low-interest government loans – they must abide by an Austrian law (the *Wohnungsgemeinnützigkeitsgesetz,* or WGG) that dictates how they calculate the cost of a given development and prohibits them from charging rents either above *or below* the cost-recovery level for a given development.[45]

Municipal housing in Vienna is financed primarily by a federal income tax. A portion of the tax revenue is distributed to each of Austria's nine states, which decide whether to use it for housing construction or for subsidies (since the early 2000s, they may also invest it in infrastructure). The City has an annual budget for new development and renovation of about $700 million, of which $530 million comes from the national government.[46]

Financing for limited-profit housing is more complex. New LPHA developments are usually financed with 1) a low-interest, subordinate loan from the regional government, making up 30-40 percent of the capital stack; 2) a bank loan, also making up 30-40 percent of the capital stack, typically with a 25-30 year term and an interest rate of 1-1.5 percent (when interest rates increase, special-purpose housing construction banks exist to offer affordable rates); 3) equity from the LPHA itself, comprising 10-20 percent of the stack; 4) a tenant equity contribution making up 5-10 percent of the total investment; and 5) additional public grants, often 5 percent of the stack, to cover the expense of meeting secondary policy objectives such as adding renewable energy sources.[47]

The regional low-interest loans that finance LPHA development are, in part, revolving. Historically, as LPHAs repaid their loans, regional governments were required to reinvest these funds in new development. This statutory obligation no longer exists, but LPHA loan repayments still account for about two-thirds of the funds used to issue new LPHA development loans. The remainder comes from the regional government's own revenue, often drawing on a regional housing-specific tax of 1 percent on gross salaries. LPHAs do not have to service the interest on these regional loans until their other loans have been repaid.[48]

The City of Vienna also subsidizes social housing, where possible, through public land. Wohnfonds Wien, a public land bank, has been acquiring public land for the last forty years. In order to be granted an opportunity to buy public land or (more recently) access it via a 99-year ground lease, LPHAs must go

---

[44] Except in the case of right-to-buy units, see information on tenant equity contributions below.
[45] Alice Pittini, Dara Turnbull, and Diana Yordanova. 2021. *Cost-based Social Rental Housing in Europe: The Cases of Austria, Denmark and Finland.* Housing Europe, December 2021. https://www.housingeurope.eu/resource-1651/cost-based-social-rental-housing-in-europe
[46] Adam Forrest. 2019. "Vienna's Affordable Housing Paradise." *HuffPost,* February 25, 2019. https://www.huffpost.com/entry/vienna-affordable-housing-paradise_n_5b4e0b12e4b0b15aba88c7b0
[47] Pittini et al. 2021.
[48] Pittini et al. 2021.

before a jury, and if the project is large, compete against other proposals. Entries are judged based on criteria of economic feasibility, ecology, architectural quality, and social sustainability. Municipalities can also specially zone land for LPHA housing, helping to limit the cost of land. Nevertheless, rising land prices combined with cheap financing available on the private market for non-social housing in recent years has dampened LPHA production. Conditions are only now becoming more favorable due to rising interest rates.

Tenant equity contributions are another distinctive component of LPHA financing and are often invoked when a development incurs high land acquisition or other up-front costs. In this model, tenants are required to make a down payment at move-in. These down payments have risen significantly in recent years because of the rise in land prices. In Vienna today, they may vary between 200 and 800€ per square meter ($20-80/ft^2$), and so could reach 30.000€ ($32,400). The down payment is returned to tenants–minus a deduction of 1 percent per year–when they move out. Tenants whose down payment exceeds a certain amount have the right to buy their unit after a tenancy of five years. Nevertheless, the tenant equity contribution represents a significant barrier for some, so Vienna offers loans to cover it. The absence of this requirement in Vienna's municipal housing makes it more accessible than LPHA housing for low-income households.[49]

In Vienna, social housing rents are based on the cost of developing and maintaining a given project. The WGG, which regulates rent calculations in limited-profit housing, factors in all planning, construction, financing, and management costs for a development. Because calculations must occur at the level of an individual development, cross-subsidization between developments–even those owned by the same LPHA–is impossible.[50] Once the LPHA's loan is paid off, a development's rents typically decline, though not precipitously. LPHAs continue to charge a base rent (set by the WGG at 1,87€/m^2 in 2021, updated every two years, and indexed to CPI), plus maintenance, service, and renovation costs. Surpluses are reinvested by the LPHA in new development.[51] Meanwhile, in Vienna's municipal housing, rents are set by the City in line with federal rent regulation laws, and are slightly cheaper than LPHA rents.[52]

In 2016, average rents in Vienna's municipal housing was 3,97€/m^2 (40¢/ft^2), compared to 4,84€/m^2 in limited-profit housing and 6,34€/m^2 in private housing.[53] A version of LPHA housing called "smart housing," which has efficient ground floor plans and fewer amenities, also has lower rents and down payments. Social housing recipients may also be eligible for a housing allowance–but these are fairly rare in Vienna because rents remain largely affordable.

Together, the municipal and LPHA systems have helped keep housing affordable in Vienna. Only 10 percent of households report that meeting their housing needs represents a "heavy financial burden," compared to nearly 30 percent in the EU as a whole.[54]

---

[49] Justin Kadi. 2015. "Recommodifying Housing in Formerly 'Red' Vienna." *Housing, Theory, and Society* 32: 247-265.
[50] Pittini et al. 2021.
[51] Pittini et al. 2021.
[52] Kadi and Lilius 2022.
[53] Lukas Tockner. 2017. "Mieten in Österreich und Wien, 2008 bis 2016." *Arbeiterkammer.* https://www.arbeiterkammer.at/infopool/wien/Mieten_in_Oesterreich_und_Wien_2008_bis_2016.pdf
[54] EU-SILC database, Table [ilc_mded04].

Social housing is available to much of the Viennese population. The application process and basic eligibility requirements for municipal and limited-profit housing are the same; the 2023 after-tax income cap of 53.340€ ($57,600) for an individual – and higher amounts for larger households – qualifies about 75 percent of the population.[55] Municipal housing is now additionally restricted to those who have lived at their current address in Vienna for at least two years; this was introduced as an "exclusion mechanism" in the early 2000s as a response to rising international migration. Tenants in both municipal and limited-profit housing can only receive a unit that fits their current household size (with some exceptions), and municipal housing is prioritized for those with urgent needs (overcrowding, doubling-up, or cost burden).[56]

Vienna's social housing system dates to the 1920s, when the city's Social Democratic government built 60,000 municipal apartments in vast "people's palaces" (*Wolkswohnungspaläste*).[57] Today, Wiener Wohnen owns and manages about 221,000 units in Vienna.[58] The city's 58 LPHAs manage another 200,000 units.[59] Between 2001 and 2020, there was a net increase of about 60,000 units of social housing units in Vienna.[60] The massive scale and age of the social housing system in Vienna creates advantages that would be hard to replicate elsewhere; buildings whose mortgages have long since been paid continue to generate rent revenue that can be used to cover repair needs and invest in new development, and the system is so established that it is immune from the whims of politics. On the flip side, there have not been any new LPHAs founded in Vienna in the recent past, as it is difficult to newly enter the social housing space.

Helsinki, Finland

In Helsinki, social housing accounts for 19 percent of the housing stock as of 2020,[61] compared with 11 percent of the housing stock in Finland as a whole.[62] The Finnish social housing sector bears some resemblance to Vienna's dual system of municipal and limited profit housing associations. ARA, the national agency which regulates social housing, partners with about 800 social housing providers across the country. These can be either municipalities (or housing associations principally owned by a municipality) or ARA-approved nonprofits specializing in social housing development. In reality, up to 80 percent of social housing in Finland is managed by municipally owned housing associations.[63] The largest provider in the country, with about 50,000 units, is Heka, Helsinki's municipal housing

---

[55] Stadt Wien. "Flat Allocation Criteria." Accessed March 28, 2024. https://socialhousing.wien/tools/flat-allocation-criteria
[56] Kadi and Lilius 2022.
[57] Richard Conway. 2023. "Vienna Launched a Public Housing Revolution in the 1920s." *Bloomberg CityLab,* November 8, 2023. https://www.bloomberg.com/news/features/2023-11-08/the-design-history-of-vienna-s-world-famous-social-housing
[58] Wiener Wohnen. 2022. *Geschäftsbericht.* https://www.wienerwohnen.at/ueber-uns/geschaeftsbericht.html
[59] Stadt Wien. "Limited Profit Housing Construction." Accessed March 28, 2024. https://socialhousing.wien/tools/limited-profit-housing-construction
[60] Kadi and Lilius 2022.
[61] City Hall, Helsinki. 2020. *Asumisen ja siihen liittyvän maankäytön toteutusohjelma*. https://dev.hel.fi/paatokset/media/att/57/575b338de14f698c1228a244265057ed428f7ed4.pdf
[62] Pittini et al. 2021.
[63] Pittini et al. 2021.

association.[64] The most important aspects distinguishing Finland's system are: 1) new social housing is financed primarily by bank loans, but these are guaranteed – and interest rates are subsidized – by the state; 2) after these loans are paid off, the rent restriction period comes to an end and the social housing provider has the option to gradually increase rents, privatize the units, and/or decide on their own allocation criteria; and 3) social housing providers in Finland (unlike in Austria) are permitted to equalize rents across their stock, making some cross-subsidization possible.

The principal financier of social housing in Finland is MuniFin, a bank collectively owned by the Republic of Finland, Finnish municipalities, and the public sector pension fund. Munifin finances not just housing but schools, hospitals, and other infrastructure, and grants loans with terms of up to 41 years.[65] It lent 827 million euros for new social housing in 2020 and made a net profit of 197 million euros. Loans from MuniFin and other private financial institutions typically make up 95 percent of the cost of developing a new social housing project, but loans are guaranteed by ARA to reduce risk and improve the loan terms.[66] As interest rates currently exceed 3.9 percent, the state has intervened further to reduce debt service costs for social housing providers. Social housing providers must invest the remaining 5 percent in the development cost, either out of their own savings or via a separate, non-guaranteed bank loan.

The City of Helsinki owns a large amount of land, which represents an important input for affordable development. The City leases land to social housing providers at about 10 percent below market rent. (Other cities have chosen to sell public land directly to social housing providers). In either case, the ARA sets a maximum price or rent that is pegged to the social housing provider's market value.[67]

Rents in Finland's social housing are regulated by the ARA, which caps them at the cost of providing the housing, factoring in development, maintenance, renovation, and administration costs. A key distinction from the Austrian cost-based model is that Heka and other social housing providers can "equalize" rents across their entire stock–including even units whose mortgages have been repaid, and are therefore no longer rent-restricted, as long as the effect is to lower rents in the restricted units. This means that rents can be low even in newer, more expensive housing, and that the cost of major renovations or repairs can be spread out across a large group of tenants.[68]

About 40 years after construction, when the loans for a social housing project have been repaid, cost-based rent rules longer apply. The ARA can also end the restriction period for a project early if, for instance, population decline has resulted in an oversupply of social housing and it is challenging to find households willing to pay the cost-based rent. Generally, though, the projects are still owned by the same municipal housing association at the end of the restriction period and the same social motivation

[64] City of Helsinki. "Heka rental apartments." Accessed March 28, 2024. https://www.hel.fi/en/housing/rental-housing/heka-rental-apartments
[65] MuniFin. 2022. "Finnish System for Affordable Social Housing Supports Social Mixing and Brings Down Homelessness." November 18, 2022. https://www.munifin.fi/whats-new/finnish-system-for-affordable-social-housing-supports-social-mixing-and-brings-down-homelessness/
[66] Pittini et al. 2021.
[67] Pittini et al. 2021.
[68] Pittini et al. 2021.

remains.[69] Studies show that rents do not change after the rent restriction period in about 80 percent of cases.[70]

The differential between private and social rents is especially large in high-demand areas like central Helsinki. In 2017, social housing in Helsinki rented for an average of 12,75€/m^2 (\$1.28/ft^2), compared with 19,58€/m^2 (\$1.96/ft^2) for market-rate units.[71] Low-income households may also be eligible for rental assistance.

All households are theoretically eligible for social housing in Finland. In practice, preference is given based on the household's income, wealth, and urgency of need. Helsinki's allocation process is somewhat opaque but designed to promote a social mix such that people who all speak a certain language, or who are all unemployed, will not be grouped in a single building. About 3,000 social apartments become available in Helsinki every year, but there are 10,000 applications in the queue at any given time. Applicants must reapply every three months until they are selected.[72]

Finland's social housing sector underwent a major change in the late 1990s, when two major nonprofit developers transformed their business strategy and became real estate investors. They have since converted and sold off most of their social housing stock. Nevertheless, the overall share of social housing in Helsinki has remained stable thanks to municipal production of about 3,200 new units between 2001 and 2020.[73]

Finland is experiencing a slow shift away from promoting housing affordability purely through social housing production toward subsidizing housing costs for low-income households. This shift jeopardizes the many advantages that a large stock of social housing brings, including very high-quality, affordable housing in desirable neighborhoods. There is also ongoing political debate about whether the government should periodically verify income for social housing tenants, in order to encourage those whose means have improved to transition to private housing; Helsinki has opposed this proposal.

Copenhagen, Denmark

Denmark's social housing sector is, in reality, a nonprofit housing sector. There are over 500 nonprofit housing associations in the country, which (though they vary widely in size) all have the same basic legal structure and all produce exclusively rental housing. These nonprofits have produced over 560,000 housing units, making up about 20 percent of the Danish housing stock as of 2021.[74] This housing type is thought of as "social" for two reasons. First, as in Austria and Finland, rents must be purely cost-based. National law requires that the income and expenditures of nonprofit housing organizations match, and

---

[69] Pittini et al. 2021.
[70] Mikko Hietala, Hanna Kaleva, Saana Kumpula, and Riitta Lahtinen. 2021. "Rajoitksista vapautuneet ARA-khotet 2010-2020." *Reports of the Housing Finance and Development Center.* https://www.ara.fi/fi-FI/Tietopankki/Julkaisut/Aran_raportteja_julkaisusarja/Rajoituksista_vapautuneet_ARAkohteet_201(61475)
[71] City of Helsinki. 2017. *Vuokranmäärits Hekassa*, cited in Kadi and Lilius 2022.
[72] City of Helsinki. *Hekan vuokra-asunnot*. Accessed March 28, 2024. https://www.hel.fi/fi/asuminen/vuokra-asunnot/hekan-vuokra-asunnot
[73] Kadi and Lilius 2022.
[74] Pittini et al. 2021.

rents must be determined annually based on an operating budget for the coming year. The State also sets a maximum per-square-meter cost of new nonprofit housing construction by housing type and region, which helps keep rents low.[75] Second, municipalities – including Copenhagen – work closely with nonprofit housing associations to decide how much and where to build, and have the right to directly administer the tenant screening and selection process for a quarter of the units in every development. In exchange, municipalities typically pay about 10 percent of the cost of new construction. Every "dialogue" between municipalities and nonprofit housing associations in which they jointly plan for new construction.

A distinctive aspect of the Danish system is that when the mortgage is paid off for a given social housing project, its rents do not decrease. Instead, they continue to increase in line with a national home price index until the 45th year after loan take-up, after which the nominal rent level is maintained in perpetuity. The share of rents previously used for debt service then flows into a National Building Fund (NBF). Denmark uses the NBF to subsidize renovations, fund social programs, and sometimes to invest in construction of new social housing, for example, through the remediation of environmentally damaged sites. The NBF is a critical element in the social housing system; it creates a permanent, dedicated stream of revenue for social housing, and prevents politicians as well as residents from perceiving social housing tenants as welfare-dependent.

In 2015, Denmark began encouraging municipalities to set aside up to a quarter of large new developments for social housing units. This policy was intended to address the reality that developing social housing is more difficult during economic growth periods when land prices soar. So far, this approach has been principally tested only in the major cities of Copenhagen and Aarhus, and will be formally evaluated in 2024-5.[76] One early problem with the approach is that the nonprofit-developed social housing units were often the last to be built, and so their rents were set when the costs of construction were the highest. A new law has forced a stop to this practice, and a single developer now typically builds the entire complex at once, handing the keys to the nonprofit for the social units when they have been constructed.

Singapore

Singapore's social housing system is of a scale and design that wholly departs from those found in Europe. Beginning in the 1960s, Singapore's Housing and Development Board (HDB) began churning out massive, high-rise projects as a way to combat informal communities (*kampongs*) forming on the urban periphery.[77] This public housing stock (which exceeds a million units and continues to grow) today houses nearly 90 percent of the country's citizens and permanent residents.[78]

---

[75] Pittini et al. 2021.
[76] Rikke Skovgaard Nielsen, Lene Wiell Nordberg, and Hans Thor Andersen. 2023. "Taking the Social out of Social Housing? Recent Developments, Current Tendencies, and Future Challenges to the Danish Social Housing Model." *Tidsskrift for Boligforskning,* 6(2): 136-151.
[77] Loh Kah Seng. 2009. "The Politics of Fires in 1950s Singapore and the Making of the Modernist Nation-State," Ch. 5., in *Reframing Singapore: Memory, Identity, and Trans-Regionalism.* Amsterdam University Press, pp.89-108.
[78] Beng Huat Chua. 2014. "Navigating Between the Limits: The Future of Public Housing in Singapore." *Housing Studies* 29(4): 520-533.

There are four especially noteworthy aspects of Singapore's model. First, a large majority of social housing residents are effectively homeowners, because they can buy, sell, and inherit their government-built units–though in reality, HDB sells them a 99-year lease and the agency perpetually retains ownership of the land on which social housing is built. As of 2021, only 3 percent of the resident population are renters.[79] In 2021-2022, the price of a typical one-bedroom unit ranged from SGD $372,000 to $525,000 (USD $276,000 to $389,400).[80] Generous housing grants are available to first-time homebuyers with lower incomes.

Second, Singapore has a unique way of financing this public homeownership. The country's Central Provident Fund (CPF), which started out as a retirement savings scheme, creates a compulsory savings account for every employed Singaporean. Account-holders contribute 20 percent of their wages and their employers contribute another 17 percent each month.[81] The Singaporean government sells bonds to the CPF board in order to access CPF savings, which are then used to finance the public building program through various loans and grants to the HDB.[82] Meanwhile, beginning in the 1960s, the government began allowing individuals to withdraw from their CPF accounts before retirement. This has allowed CPF accounts to become the primary way that families repay their HDB mortgage loan; no private financial institutions are involved in the transaction.[83]

A third salient characteristic of the Singapore model involves the nation's strategy for keeping development costs low. An eminent-domain-style land acquisition program dating to the 1960s means that the government today owns 90 percent of the country's land, and it awards construction contracts for entire urban districts to private construction companies whose only customer is the state.[84] Another important input is cheap, foreign labor. Singapore does not have a minimum wage and relies on low-paid temporary workers from elsewhere in South Asia to construct new social housing. These workers are not eligible for HDB housing themselves and instead live in crowded dormitories.[85]

Fourthly, in response to a period of oversupply when HDB units were sitting vacant, the agency has shifted to a build-to-order model. Prospective residents purchase an apartment plan, and HDB begins construction on a new project only when 70 percent of units have been presold. This strategy creates up-

---

[79] Housing and Development Board. 2023. *Key Statistics: HDB Annual Report 2021/2022.* https://assets.hdb.gov.sg/about-us/news-and-publications/annual-report/2022/ebooks/Key%20Statistics%20FY21.pdf

[80] Housing and Development Board 2023.

[81] The CPF contribution rates fluctuate with the economy. They reached as high as 25 percent from both individuals and employers in the early 1980s. Employers' contributions were lowered in order to keep labor costs low. Employer contribution rates also get progressively lower for workers older than 50. Source: Chua 2014.

[82] Sock Yong Phang. 2007. "The Singapore model of housing and the welfare state." *SMU Research Collection School of Economics*. http://ink.library.smu.edu.sg/soe_research/596/

[83] Ng Kok Hoe, Lee Kuan Yew School of Public Policy, National University of Singapore. https://lkyspp.nus.edu.sg/docs/default-source/gia-documents/public-housing-policy-in-singapore_with-graphics(1).pdf?sfvrsn=7c4b6c0a_2

[84] Adrienne Woltersdorf. 2018. "A Bold Approach to Public Housing." *The Politics of Housing.* IPS Journal, June 18 2018. https://www.ips-journal.eu/in-focus/the-politics-of-housing/a-bold-approach-to-public-housing-2800/

[85] Mimi Kirk. 2015. "The Peculiar Inequality of Singapore's Famed Public Housing." *Bloomberg CityLab,* June 9, 2015. https://www.bloomberg.com/news/articles/2015-06-09/for-migrant-workers-in-singapore-it-s-build-high-live-low

front financing for the government, but also leads to longer waits (3 to 5 years) for households acquiring a new unit.[86]

Ultimately, the structure of Singapore's model creates a delicate balancing act for its conservative government. There is an active resale market for HDB units, and resale units can be significantly more expensive than HDB units. Singaporean homeowners of course benefit when home prices rise, as this increases the value of the asset which represents their retirement savings.[87] The HDB must try to protect the appreciation of existing units, while also providing affordable units to newly formed households.

Hong Kong

Hong Kong until recently has been one of the most expensive housing markets in the world.[88] In this context, public housing is an especially important resource. The Hong Kong Housing Authority (HKHA), established in 1973, is the primary provider of public housing in the region. As of 2023, the authority owned 193 public rental housing estates, containing more than 800,000 units.[89] Perhaps the most distinctive characteristic of HKHA's model is that the authority owns a diverse portfolio that includes market-rate commercial and industrial spaces, car parks, and former warehouses converted to apartments that it leases. HKHA also leases commercial spaces within its public housing projects at near-market rates.[90] In 2020, HKHA's total income was HK $46 billion, of which 45 percent came from rent collections in commercial, industrial, and rental properties and 50 percent from the sale of apartments via its Home Ownership Scheme. These profits are used to subsidize the maintenance of public housing estates and to build new housing.[91]

To finance new development, the HKHA draws on its own reserves, supplemented by permanent capital or loans from the government.[92] It also receives grants of free or very cheap land; in Hong Kong, all land is owned by the People's Republic of China and managed by Hong Kong's special administrative government.[93] Finally, the HKHA benefits from free infrastructure and social services provided by the

---

[86] Marc Lee. 2023. "Housing Lessons from Singapore." *PolicyNote,* August 10, 2023. https://www.policynote.ca/singapore-housing/

[87] With Singapore's society beginning to age, the government has created two new programs to help retirees tap the value in their homes. Very low-income retirees are allowed to sell their lease back to HDB in exchange for a monthly income and without having to vacate their unit. Others are allowed to sublet, creating a stream of income while still allowing them to bequeath their home to their children. Source: Chua 2014.

[88] Jacky Wong. 2024. "How the World's Priciest Property Market Stumbled." *Wall Street Journal,* February 29, 2024. https://www.wsj.com/economy/housing/how-the-worlds-priciest-property-market-stumbled-9b5d3eec

[89] Hong Kong Housing Authority. *Annual Report 2023, Key Figures.* https://www.housingauthority.gov.hk/mini-site/haar2223/common/pdf/1-Key-Figures.pdf

[90] Eddie C.M. Hui and Francis K.W. Wong. 2004. "The Hong Kong Housing Authority and its Financial Arrangement over the Past 50 Years." Department of Building and Real Estate, the Hong Kong Polytechnic University, HKSAR, China. https://www.housingauthority.gov.hk/hdw/ihc/pdf/thkhafa.pdf

[91] Xin Li and Shomon Shamsuddin. 2022. "Housing the Poor? A Comparative Study of Public Housing Provision in New York, Shenzhen, and Hong Kong." *Housing Policy Debate* 32(4-5): 678-696.

[92] Li and Shamsuddin 2022.

[93] Community Legal Information Centre. "Basic knowledge of land ownership in Hong Kong." *Law and Technology Centre, University of Hong Kong.* https://www.clic.org.hk/en/topics/saleAndPurchaseOfProperty/basic_knowledge_of_land_ownership_in_hong_kong

government.[94] Thus, public rental development is primarily financed purely with public funds, rarely leveraging any private investment.

Rents in Hong Kong's public rental housing are income-based, not cost-based. Rent caps were first implemented in 1997, requiring that the ratio of median rent to income cannot exceed 10 percent. HKHA certifies tenants' income every two years and makes rent adjustments accordingly. As of March 2020, public housing monthly rents averaged only HK $2,070 ($265), compared with HK $20,000 ($2,550) for a private-market apartment.[95] The deep rent discount means that public housing estates sometimes operate at a deficit and also makes these units extremely attractive.[96] Using a centralized application system, the HKHA channels applicants onto three waiting lists: one for families of low income (with income capped at about $3,750 for a family of four), another for low-income elderly applicants, and a third for non-elderly single applicants. Waiting times for families usually exceed five years. Younger single applicants wait longer, since although about 10 percent of units are reserved for this group, large numbers of Hong Kong residents apply as soon as they are 18.[97]

---

[94] Hui and Wong 2004.
[95] Li and Shamsuddin 2022; Pearl Liu and Joanna Lam. 2018. "Nearly half of Hong Kong flats rent for US$2,550 a month – 70 per cent of median household income." *South China Morning Post,* August 20, 2018. https://www.scmp.com/business/article/2160554/nearly-half-hk-flats-rent-us2550-month-70-cent-median-household-income
[96] Hui and Wong 2004.
[97] Li and Shamsuddin 2022.