

Housing 101: Cost Impacts to Feasibility

Introduction

The financial feasibility of any housing project depends on balancing four interrelated factors: capital sources, capital uses, operating expenses and operating income. Each represents a different part of the project's financial equation, but all converge in determining whether Net Operating Income (NOI) is sufficient to cover debt, repay equity and allow the project to move forward. If any one side of the equation shifts unfavorably, the project may require higher rents, additional subsidy or may fail to proceed at all.

Capital Sources (Funding)

Capital sources are the funds used to finance housing projects, typically a mix of debt and equity. The cost of capital can rise for several reasons:

- **Interest rate increases** driven by Federal Reserve policy can sharply raise borrowing costs.
- **Regulatory or market uncertainty** around a project can increase the return expectations of both debt and equity providers, as they are taking on more of a risk.

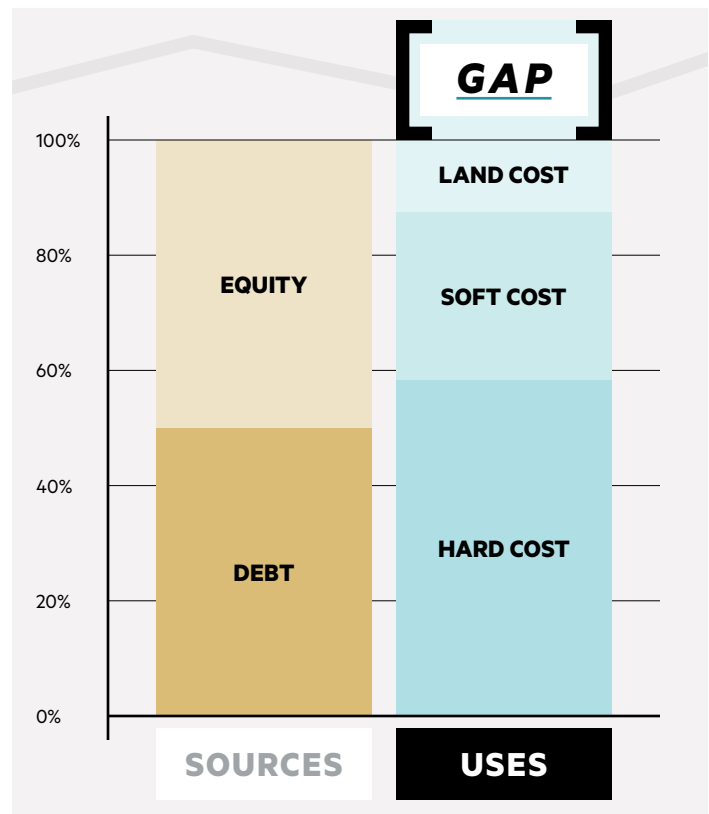
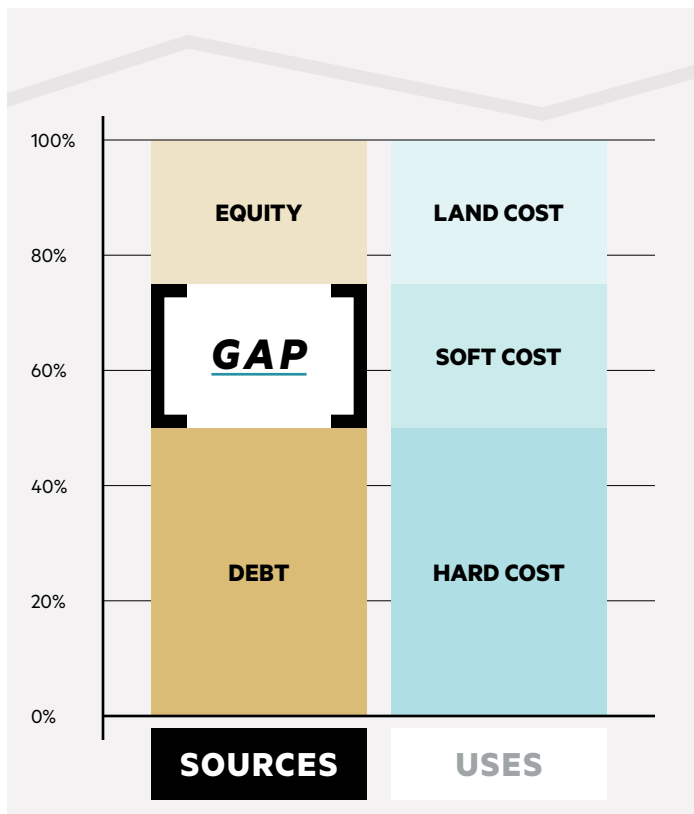
Because debt service is paid first from NOI, higher interest costs reduce the amount available for equity. If projected rents cannot cover these increased costs, developers may be forced to raise rents or abandon the project. In this way, the rising cost of capital directly threatens affordability and feasibility.

Capital Uses

The “uses” side of a project's capital budget covers how funds are spent: land acquisition, hard construction costs, soft costs, reserves and financing during development. These can escalate due to:

- **Hard cost increases**, such as higher prices for steel, lumber or concrete.
- **Soft cost increases**, including architecture, engineering and regulatory approvals.
- **Financing carry costs** during delays,¹⁷⁹ when interest accrues before rental income begins.

When total uses rise, the project requires larger loans and more equity, which in turn increases the burden on NOI. Unless operating income grows to match, feasibility collapses.



¹⁷⁹ See Emrath, P., & Walter, C. S. (2022, June 9) for an extensive discussion of the financial costs of delays.

Operating Expenses

While capital costs are the money that needs to be raised to produce (acquire/preserve and or build) rental housing, operating expenses are the ongoing costs of running a property once it is built or preserved. In understanding the feasibility of production, we must take into account not only the money raised to produce the project (capital costs) but the ongoing money needed to run the project (operating expenses). Upon project inception, these operating expenses are planned to be covered by operating income. The operating expenses include:

- Insurance premiums
- Maintenance and repair costs
- Property taxes
- Utility expenses and sustainability contributions

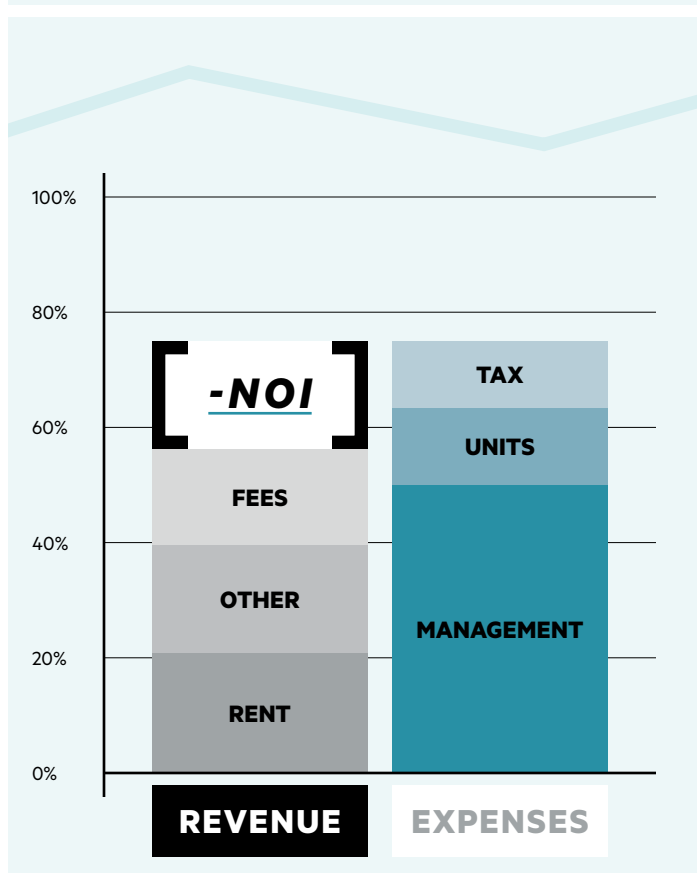
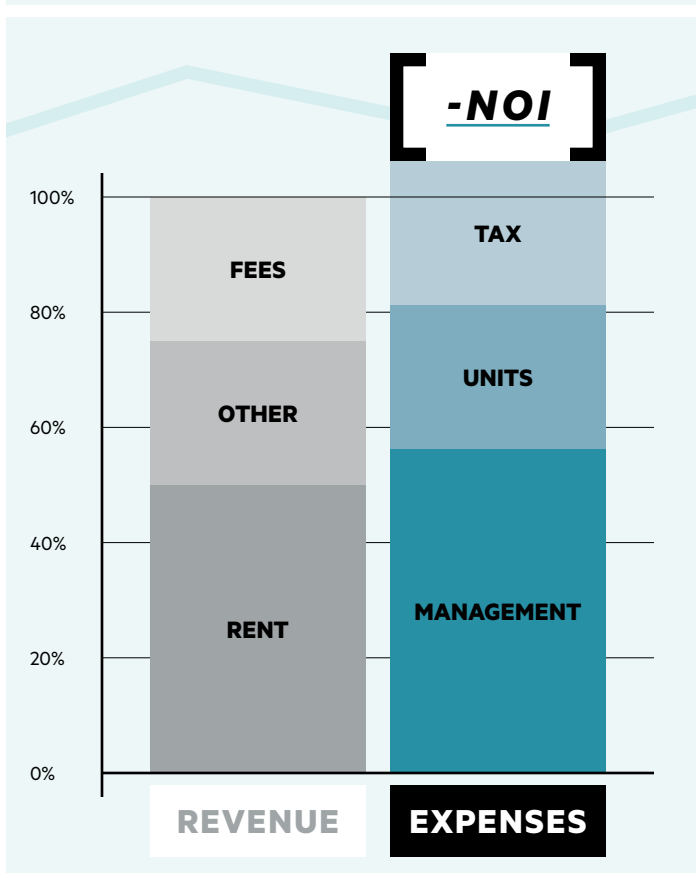
If operating expenses rise, NOI shrinks. Without the ability to raise rents proportionally, the property may fail to cover debt service and equity returns. Rising expenses can also deter future investment in similar projects. For more detail on these expense categories, see [Housing 101: Operating Budgets](#).

Operating Income

Operating income comes primarily from rent and, in some cases, ancillary charges such as parking or laundry. It is vulnerable to two main risks:

- **Market forces:** In oversupplied markets, rents may decline relative to fixed expenses.
- **Rent regulation:** Even in strong markets, regulation may prevent rents from keeping pace with rising expenses.

When income stagnates while costs climb, NOI is squeezed. If it falls below debt and equity requirements, the project is either foreclosed, sold or never built in the first place. For this reason, rent regulation can act as a powerful deterrent to housing production in markets where costs are rising.



Conclusion: Feasibility as a Balancing Act

Feasibility rests on maintaining equilibrium between sources, uses, expenses and income. Shifts in any one of these factors can unravel the project's economics. Rising capital costs, escalating construction uses, higher operating expenses or constrained income each threaten NOI and thus feasibility. To address these often uncontrollable pressures, projects often require some combination of higher rents, preservation strategies or public/private interventions.

This framework illustrates the mechanics of feasibility in private housing. Later chapters on ([Affordable Housing 101: Capital Budget and NOI](#)) explore how subsidies and by-right incentives can offset these pressures, allowing projects to proceed at affordable levels.

Affordable Housing 101: Income Limits and Rent Standards

Introduction: Why Income Limits Matter

The concept of housing affordability in the United States rests on two longstanding measures: the Brooke Amendment and Area Median Income (AMI). They determine who qualifies for assistance, the amount of rent households are expected to pay and how “affordable housing” is defined. These standards shape both supply (what developers can finance and build) and demand (what households can access without being rent-burdened). Yet while these benchmarks create consistency across markets, they also carry implicit assumptions that can introduce unintended consequences.

The Brooke Amendment and the 30 Percent Rule

The Brooke Amendment, passed in 1969, established that households receiving federal rental assistance should contribute no more than 25 percent of their income toward rent; it was later changed to 30 percent. This “30 percent rule” was originally intended as a household-level test: a way to ensure that an individual family would not be asked to pay more than it could afford for a specific unit. It was a policy benchmark of whether a fixed rent was affordable to a given household, rather than a precise mathematical determination.¹⁸⁰

Over time, HUD broadened the use of the 30 percent rule by tying it to Area Median Income (AMI) benchmarks—setting affordability at 30 percent of household income for families earning up to 80 percent of AMI, or averaging up to 60 percent of AMI in mixed-income developments supported by LIHTC. Many of the federal frameworks now implicitly rely on the unsubsidized market to serve households above the assisted income bands. If units existed at those rent levels, then drawing affordability thresholds downward from 80 percent AMI would ensure a continuum of affordable options.

The problem is that in many markets, cost drivers have pushed development costs so high that even households at 100 percent of AMI struggle to afford newly built units. This breaks the logic of the Brooke-to-AMI framework. If the private market cannot supply units affordable at 100 percent AMI, then pegging subsidies at 60 percent or 80 percent AMI can create larger financing gaps and requires deeper subsidy layers in high-cost markets.

This is precisely why this report develops two complementary approaches:

- **Time-to-Address (TTA) analysis** (see earlier TTA section) quantifies how long it would take to close affordability gaps given current production rates, making visible the limits of the Brooke/AMI framework when cost drivers are ignored.
- **The expanded definition of NOAH** (see earlier section on NOAH) acknowledges unsubsidized units that remain affordable at or below 100 percent AMI, closing the gap between what HUD definitions assume and what the market actually produces.

By reconnecting affordability metrics to both feasible development costs and observed NOAH supply, this framework restores the original logic of the Brooke Amendment—ensuring that the affordability standard reflects what households can truly pay relative to the housing available in their markets.¹⁸¹

Area Median Income (AMI) as Benchmark

HUD calculates AMI annually for each metropolitan area and non-metropolitan county. Households are classified as:

- **Extremely low-income (ELI):** below 30 percent of AMI
- **Very low-income (VLI):** 31–50 percent of AMI
- **Low-income (LI):** 51–80 percent of AMI

These thresholds guide eligibility for Capital A Affordable programs including LIHTC, income assistance and public housing.¹⁸²

¹⁸⁰ Collinson and Ganong, 2018.

¹⁸¹ HUD, n.d.; NYC HPD, n.d. While most federal affordability programs cap eligibility at 80% AMI, exceptions exist: HUD's Enhanced Vouchers can cover households up to 95% AMI, and some state and local programs (e.g., NYC MIH, California Mixed-Income Program) target affordability for households up to 120–130% AMI. These remain exceptions but illustrate attempts to fill gaps for moderate- and middle-income households.

¹⁸² Schwartz, 2021.

Critiques of AMI as Benchmark

Despite its ubiquity, AMI has serious shortcomings.¹⁸³

- **Fixed percentage ignores real costs.** A family's budget also includes food, childcare, transportation, healthcare and taxes. In some markets, childcare alone can exceed 40 percent of AMI.
- **Regional averages mask local variation.** Moving farther from job centers may lower rent but raises transportation and childcare costs.
- **Wealth concentration distorts AMI.** In affluent areas, AMI-driven rents can remain unaffordable for moderate-income households.
- **Displacement inflates affordability.** When lower-income households leave, the average income rises, making affordability appear to improve when it has worsened.

Other criticisms include regional skew, lag in data updates, household-size variation and eligibility distortions.¹⁸⁴

Toward a More Complete Framework

To capture the full landscape of affordability, this report distinguishes three categories:

1. **Capital A Affordable Housing**—Subsidized programs such as LIHTC, income assistance and public housing, usually discretionary and competitive.
2. **“Lowercase a” affordability (NOAH)**—Unsubsidized housing affordable at prevailing incomes, including both older properties and new units in lower-cost markets.
3. **Middle-Income Housing via By-Right Incentives**—Tools such as tax abatements (See [Policy Case Study—Tax Incentives](#)) that support moderate- and middle-income units through predictable rules rather than negotiated subsidies.¹⁸⁵

This tripartite framework shows why subsidized production alone is insufficient, NOAH must be preserved and middle-income by-right programs are vital to restoring affordability.

Conclusion

Income limits and rent standards remain foundational but embed assumptions that no longer hold. The Brooke Amendment's resident safeguard was stretched into an AMI-based continuum that fails when markets cannot produce units affordable at 100 percent AMI. AMI thresholds are useful for program design, but they distort the bigger picture of affordability.

By combining **Capital A Affordable subsidies, NOAH preservation and production** and **by-right middle-income tools**, policymakers can bridge the structural gaps left by Brooke and AMI. This approach aligns with TTA analysis, shortens timelines to affordability and grounds affordability standards in what households can truly pay.

¹⁸³ Numerous studies find that AMI based affordability measures can misstate need by ignoring variation in non housing costs, overstating typical renter incomes in many markets and inflating 'affordable' rent thresholds above what low income households can pay (Herbert, Hermann, & McCue 2018; Pelletiere 2005; Urban Institute 2020; Community Service Society 2020).

¹⁸⁴ For example, critics have noted that AMI can skew results in metro areas with large income disparities, relies on lagged data from Census and ACS surveys and can distort eligibility by including households that may not actually face affordability challenges.

¹⁸⁵ HUD defines "moderate income" households as those earning roughly 80–120% of AMI. By contrast, "middle income" is a broader, policy-driven term that can extend from 100% up to 140% (or more) of AMI. This report uses "middle-income" to describe housing supported through by-right incentives, not HUD's moderate-income category.

Affordable Housing 101: Capital Budget & NOI

Introduction

In [Housing 101: Definitions](#) we defined all housing as private, public/private or public. The Housing 101 chapters on [capital budgets](#), [operating budgets](#) and [feasibility](#) showed the economics of private housing. In [Affordable Housing 101: Income Limits](#) we then introduced a fuller framework for affordability: Capital A Affordable Housing, “lowercase a” affordability and middle-income housing via by-right incentives.

In this framework, “lowercase a” affordability (NOAH) is treated as private housing and addressed in earlier chapters. Public housing, as government-managed stock, is also not the focus here. Instead, this chapter examines the public/private category—where government and housing providers partner to deliver affordability. Within public/private, there are two distinct paths: Capital A Affordable subsidies (discretionary, negotiated programs) and middle-income by-right incentives (rule-based, time-sensitive programs that offset regulatory costs and help activate dormant development capacity).

Capital Budget Impacts

At the development stage, the capital budget must balance sources (debt, equity, subsidy) with uses (land, hard costs, soft costs, financing, overhead and profit). Affordable rents reduce NOI, which reduces the amount of debt the project can support. This creates a financing gap that must be filled before construction can proceed.

- **Discretionary, Supply-Side:** Tools such as LIHTC, tax-exempt bonds and soft loans (HOME, CDBG) fill this gap directly. They add equity or reduce financing costs, enabling projects to move forward. But they are slow: applications, competitions and review cycles are designed to prevent distortion and misuse of scarce public dollars.
- **By-Right, Supply-Side:** Property tax abatements, density bonuses and fee waivers reduce costs built into pro formas. Lenders capitalize these savings into higher debt capacity, improving feasibility without direct cash subsidy. Because they are rule-based, they can activate dormant development quickly. They also support preservation, helping owners of vacant or at-risk NOAH units reinvest and maintain affordability instead of converting to rentals targeted at higher incomes or Class A condominiums.

Operating Budget Impacts

Once stabilized, the operating budget must balance operating income (rents and ancillary fees) against operating expenses (management, maintenance, insurance, taxes, utilities). NOI must cover expenses, service debt, return equity and provide overhead/profit.

- **Discretionary, Supply- and Demand-Side:** Income Assistance on the supply-side (PBRA and PBV) and demand-side (Housing Choice Vouchers) supplement resident payments, filling the gap between what households can pay and what operating costs require. These tools are fast and responsive—they stabilize income for owners immediately and reach subsidy-dependent households that no other tool can. Funding, however, depends on annual federal appropriations.
- **By-Right, Supply-Side:** Property tax abatements lower the largest single operating expense line item for many projects. Expedited permitting and automatic fee waivers reduce recurring compliance costs. These savings improve NOI, strengthening long-term feasibility by improving the ability to service debt and equity.

Table: Public/Private Subsidy and Incentive Impacts

CATEGORY	TOOL / EXAMPLE	CAPITAL BUDGET EFFECT	OPERATING BUDGET EFFECT
Discretionary—Supply-Side	LIHTC, PBRA, PBV	Adds equity or reduces financing costs; closes capital gap	PBRA and PBV boost income stability by filling gap between rent and costs.
Discretionary—Demand-Side	Housing Choice Vouchers	Improves underwriting by guaranteeing resident income	Boosts income stability; fills gap between rent & costs
By-Right—Supply-Side	Tax abatements, density bonuses, fee waivers	Lenders can capitalize savings to create more debt capacity; lower upfront costs	Lower taxes and fees reduce annual expenses; raise NOI

Conclusion

Public/private tools shape both capital feasibility and operating stability. Discretionary subsidies are indispensable for subsidy-dependent households, but their slow timelines and limited funding constrain scale. By-right incentives, by contrast, are faster and better suited to activating dormant development or preserving at-risk stock—but cannot reach the lowest-income households on their own.

A balanced pipeline therefore requires both categories. Discretionary programs guarantee affordability for those most in need, while by-right incentives expand feasibility in cost-burdened markets by offsetting regulatory expenses and reducing risk. Together, they form the toolkit that connects policy to feasibility—ensuring that affordable housing is not just defined in law, but delivered in practice.

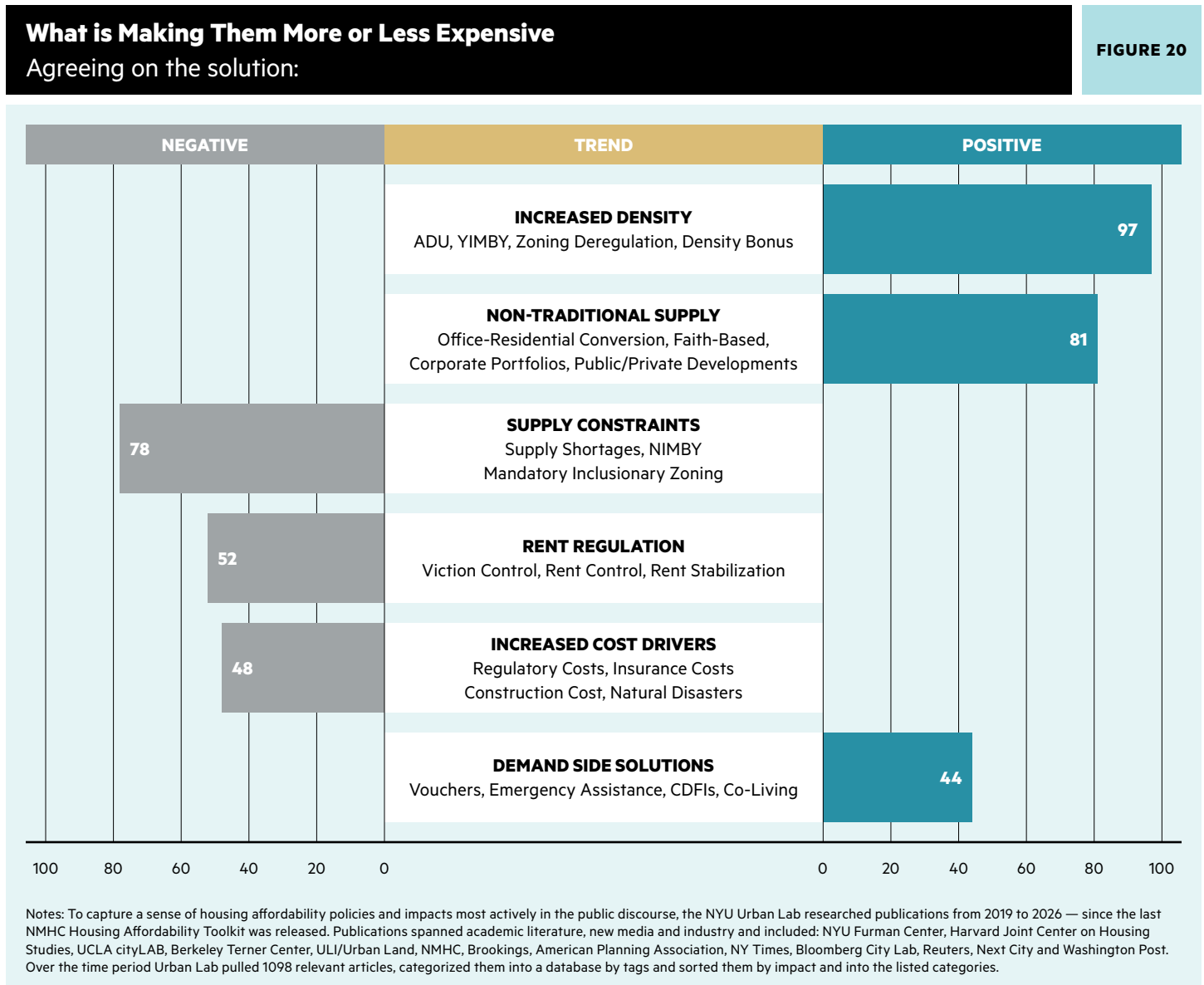
Policy Research Report Card

The “Policy Research Report Card” is a scan of publications that discussed housing affordability policies and issues in the public discourse. The report card focuses attention on policies that are supportive (positive) for increased housing affordability and policies that undermine (negative) housing affordability.

To capture a sense of the impact of the housing affordability policies that are most actively discussed since the publication of the first NMHC Housing Affordability Toolkit, the NYU Urban Lab researched publications from 2019 to January 2026. Publications spanned academic literature, news media and industry and included: NYU Furman Center, Harvard Joint Center on Housing Studies, UCLA cityLAB, Berkeley Turner Center, ULI/Urban Land, NMHC, Brookings, American Planning Association, NY Times, Bloomberg City Lab, Reuters, Next City and Washington Post.

- NYU Urban Lab pulled 1,098 potentially relevant articles to housing affordability;
- Categorized all articles into a database by tags;
- Discarded articles we evaluated as irrelevant to policy decision-making; and
- Sorted the remainder by impact into the categories listed in the Report Card and described below.

Figure 20 shows which programs or policies received the most attention.



Positive Impacts most often cited in the literature:

- **Increased density** lowers the cost per buildable square foot at the same land price, which leaves potential for lowering rents. Such policies include ADU, YIMBY, zoning deregulation and voluntary density bonuses.
- **Non-traditional supply creation** increases overall stock and puts downward pressure on rents. It includes office-residential conversions, institutional and employer partnerships (corporate housing programs, non-profit and faith-based portfolios) and public/private developments (including by-right tax abatement programs and LIHTC).
- **Demand-side solutions** expand access to private housing stock. This includes Housing Choice Vouchers (HCV), Project-Based Rental Assistance (PBRA), local income assistance, emergency assistance, Community Development Fund Institution (CDFI)-supported capital stacks and co-living. Articles discussing demand-side solutions had the highest percentage increase from 2024 to present.
- **Deregulation** reduces approval timelines and soft costs, lowering overall capital budgets and providing room for reduced rents.

Negative Impacts most often cited in the literature:

- **Supply constraints/shortages** with the same demand drive up pricing. These include supply shortages (due to cost drivers or restrictive policy), NIMBY-ism and mandatory inclusionary zoning.
- **Rent regulation** discourages investment, limiting supply and putting upward pressure on all non-regulated apartments. This includes rent control, as well as most forms of rent stabilization and some forms of eviction moratoria.
- **Increased cost drivers** require increased rents to pay back capital sources. This includes costs from increased regulatory hurdles, insurance, construction and repairs from natural disasters.

From Literature to Evaluation

This Policy Report Card highlights not performance, but attention: how often tools like LIHTC, vouchers or rent regulation appear in policy debates. To move from discourse to outcomes, we need a grounded framework for evaluation. As established in [Housing 101](#) and [Affordable Housing 101](#), tools/solutions must be assessed against the economics of feasibility: capital budgets (sources and uses), operating budgets (income vs. expenses) and NOI's role in servicing debt, returning equity and sustaining preservation.

From our [TTA analysis](#), we learned that achieving affordability within a generation requires a balanced pipeline. Neither Capital A Affordable programs nor market-only solutions suffice.

We need:

- Subsidy-dependent tools for deeply affordable households.
- By-right tools for middle-income feasibility.
- Preservation to maintain [NOAH](#) and avoid losing stock faster than we build it.

The Grading Framework

We grade the policy tools that were most mentioned against 10 weighted criteria:

- Scale (25 percent)—ability to meaningfully impact capital/operating budgets & inspire development.
- Speed (15 percent)—how quickly the tool produces affordability once enacted.
- Net Fiscal Benefit & Economic Impact (15 percent)—after externalities and multipliers.
- Execution Risk & Risk of Abuse (15 percent)—feasibility, administrative capacity and misuse potential.
- Targeting (10 percent)—alignment with income bands and need.
- Preservation (10 percent)—contribution to sustaining NOAH.
- Other Factors (10 percent)—discourages supply, political feasibility and stakeholder support.

Grades (A–F) reflect performance across these weighted factors.

Report Card: Primary Tools

TOOL	GRADE	COMMENTARY
LIHTC	B	Impacts both capital and operating budgets by injecting equity and reducing debt load, but compliance requirements add cost and limited scale relative to need. Strong targeting at ≤60% AMI.
Income Assistance—Supply (PBRA, PBV)	B	Provides operating revenue certainty that preserves affordability for deeply low-income residents. Scale limited by appropriations; execution strong but inflexible.
Income Assistance—Demand (Housing Choice Vouchers)	B	Strengthens operating budgets by supplementing resident rents, stabilizing NOI quickly. Limited by housing provider participation and local supply. High demand-side efficiency, but weaker on preservation.
Tax Abatements (By-right)	A-	Improves operating feasibility by reducing property tax burden, offsetting regulatory costs and unlocking dormant development. Fast implementation. Requires compliance guardrails to ensure targeting.
Deregulation (By-right)	B+	Reduces soft costs and entitlement delays, making capital budgets more viable. Strong for speed and scale. Risks arise if poorly designed or politically weakened.

Report Card: Supplemental Tools

TOOL	GRADE	COMMENTARY
Adaptive Reuse / Conversions	C+	Can lower capital costs by repurposing structures, saving embodied carbon. Feasible mainly in markets with soft commercial demand. Grade is low due to scale—at best scale is episodic, tied to cycles.
Accessory Dwelling Units (ADUs)	C	Incremental additions to operating revenue at the household scale. Pricing power may be less subject to market forces. Low overall scale but politically popular. Diffuse but important impact.
Institutional & Employer Partnerships	C+	Directly affect capital feasibility when employers/institutions subsidize housing (land or funding). Historic and modern examples (Amazon, Apple, Google, Microsoft, Tesla). Scale depends on employer incentives.
Density Reform / Upzoning	B-	Expands capital feasibility by lowering land costs per unit. Grade reflects the requirement for complementary financing or tax tools. Politically contentious but long-run effective. Density reform from single family to multifamily has limited impact. Upzoning in commercial districts most applicable to high cost cities.
Rent Regulation	F	Provides immediate relief for incumbents but reduces capital feasibility for new projects and undermines operating budgets via capped rents against rising costs. Long-run affordability and preservation harmed.

Strengths and Limits

No single policy tool can solve the housing affordability challenge on its own. Each mechanism—from deeply subsidized programs to market-based incentives—serves a distinct role within the broader housing ecosystem. Understanding their strengths and limitations is critical for designing a balanced, effective policy mix that can reach different income groups, respond to market conditions and sustain production over time.

- Capital A Affordable tools (LIHTC, PBRA, HCV): These tools offer the most precise targeting for deeply income-restricted households. However, they are highly subsidy-dependent, making them slow, costly and limited by funding caps.
- By-right tools (Tax abatements, deregulation): These approaches emphasize scale and speed, making them best for activating dormant development and supporting middle-income affordability. They require strong compliance and monitoring to prevent unintended benefits—or “leakage”—from reaching higher-income households.
- Supplemental Tools: These can be valuable but are often episodic or narrow in scope. For example, adaptive reuse shines in economic downturns, when underused buildings can be repurposed; employer or institutional housing can relieve pressure in tight labor markets; ADUs and upzoning incrementally add supply in established neighborhoods. But none can substitute for large-scale strategies.
- Rent regulation: While intended to protect residents, rent control has negative long-term impacts on both production and preservation, which ultimately undermines affordability goals—hence its low policy grade.

Pipeline Connection

A balanced housing pipeline, as outlined in the TTA chapter, depends on aligning tools by function:

- Capital A Affordable subsidies to serve the most vulnerable, subsidy-dependent populations.
- By-right, supply-side tools to accelerate production, expand middle-income affordability and offset regulatory costs.
- Preservation strategies to maintain NOAH and prevent erosion of gains.

Policy tools must be judged not in isolation but by how effectively they contribute to the overall to this pipeline. Grades highlight how each fit: some are indispensable but inherently limited (PBRA, HCV, LIHTC), while others are scalable and time-sensitive (tax abatements, deregulation).

Conclusion

The policy report card shows that no single tool solves affordability. LIHTC and income assistance remain essential but cannot achieve moonshot scale alone. Tax abatements and deregulation stand out as underutilized levers capable of unlocking dormant development capacity quickly. Supplemental strategies add resilience but are niche. Rent regulation undermines the very pipeline we seek to balance.

To achieve affordability in a generation, the U.S. must rebalance its policy toolkit, amplifying fast, scalable tools while sustaining targeted subsidies. This requires political courage to shift from over-reliance on slow, subsidy-dependent programs toward a diversified affordability pipeline.