NATIONAL
MULTIFAMILY
HOUSING
COUNCIL

Cost Drivers

THE HOUSING AFFORDABILITY TOOLKIT

Developed in Partnership with
HR&A Advisors

The Cost of Developing New Apartments and the Link to Affordability

The rent required to support the creation of new apartments is determined by the cost to develop and operate that housing.

State and local governments often establish policies and regulations that increase the costs of apartments without considering the impact those policies will have on rents and affordability in a community.

On the other hand, state and local governments can also create policies and regulations that reduce development costs and increase the affordability of new rental apartments.

This document describes the relationship between costs and rents and illustrates how state and local policies impact affordability.

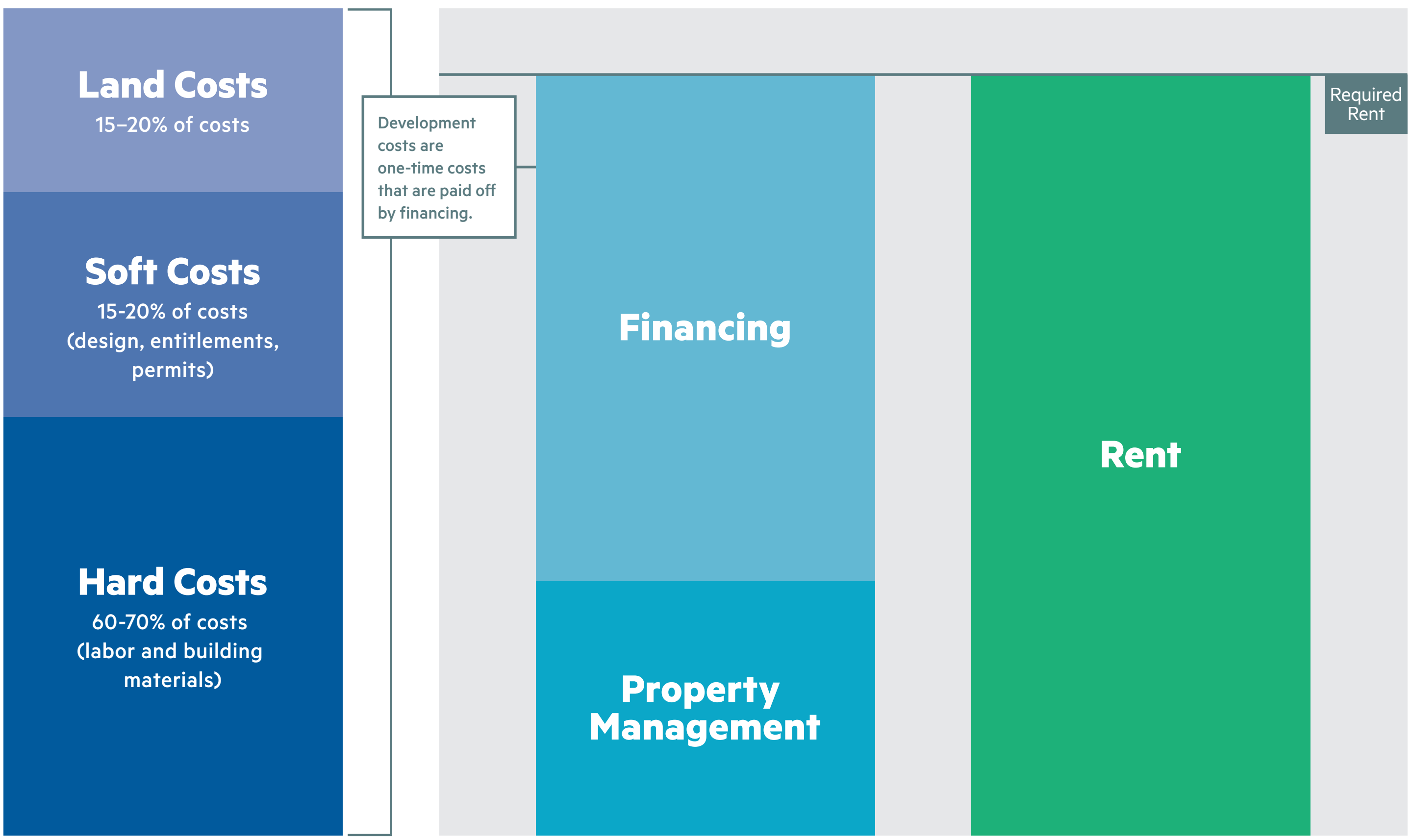
Apartment Development Framework

Development costs influence the operating costs for a property, which determine the rent required to make the project feasible.

Building new apartments incurs development costs that are paid for with financing. The greater the development costs, the more financing is needed. As the amount of financing increases (decreases), it raises (lowers) the operating cost for the apartments. As operating costs rise (fall), the required rent must rise to generate sufficient revenue to cover the higher operating expenses and maintain the apartments' viability.

SIMPLIFIED APARTMENT DEVELOPMENT FRAMEWORK

The framework below is a simplified representation of the apartment development process, illustrating the relationship between costs and rents



DEVELOPMENT COSTS

The project's **Development Costs** determine the amount of financing required.

OPERATING EXPENSES

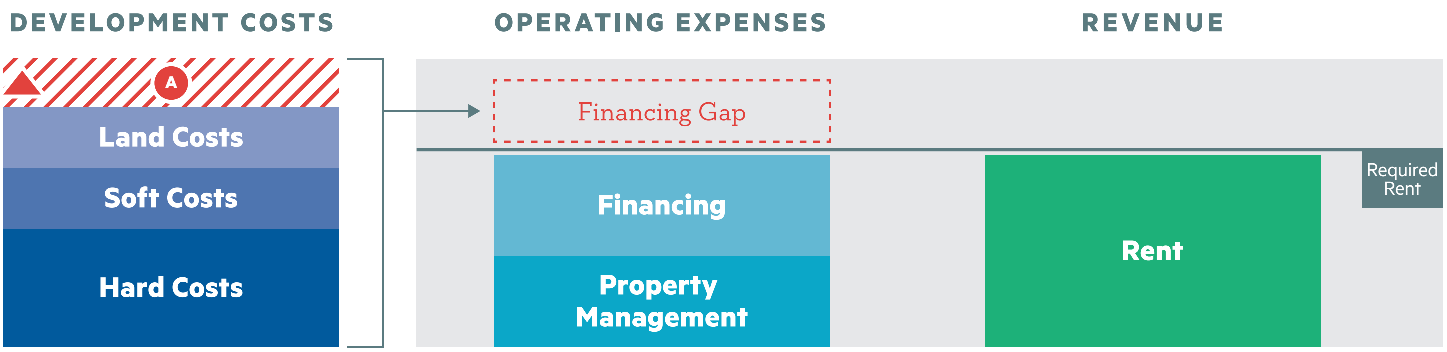
Financing Costs combined with property management costs make up the **Operating Expenses**.

REVENUE

The project's revenues must cover the operating project's revenue. The **Required Rent** is the minimum average rent necessary for the project to be viable.

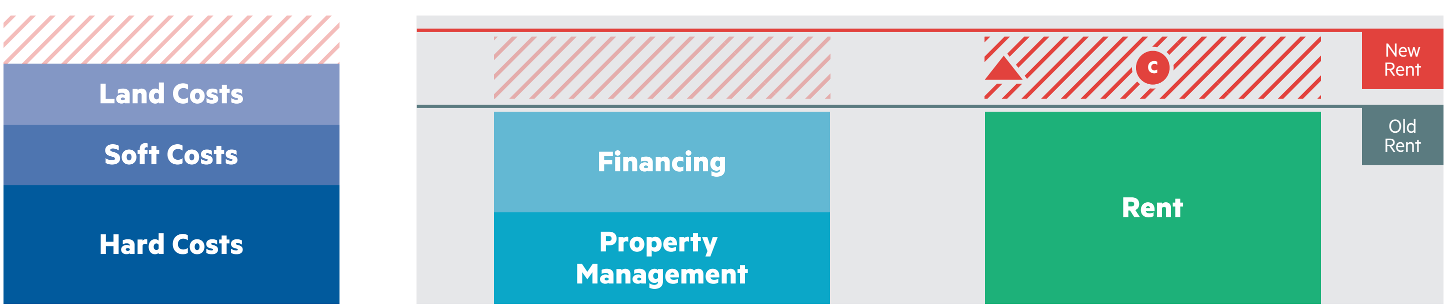
Effects of Increased Costs

An increase in development costs creates the need for additional financing and higher rents. If the market cannot support the higher rents, the project is no longer viable and will not move forward, resulting in reduced housing supply.



1. Increase in development costs A due to a rise in land, hard, or soft costs creates a financing gap.
Any policy or regulation that increases development costs creates a financing gap that must be filled with additional financing for the project to advance.

2. Additional financing raises operating expenses B. The revenue necessary to cover operating expenses also rises, creating a revenue gap.
Securing financing to support higher development costs increases operating expenses, creating a gap in revenue at current rents.

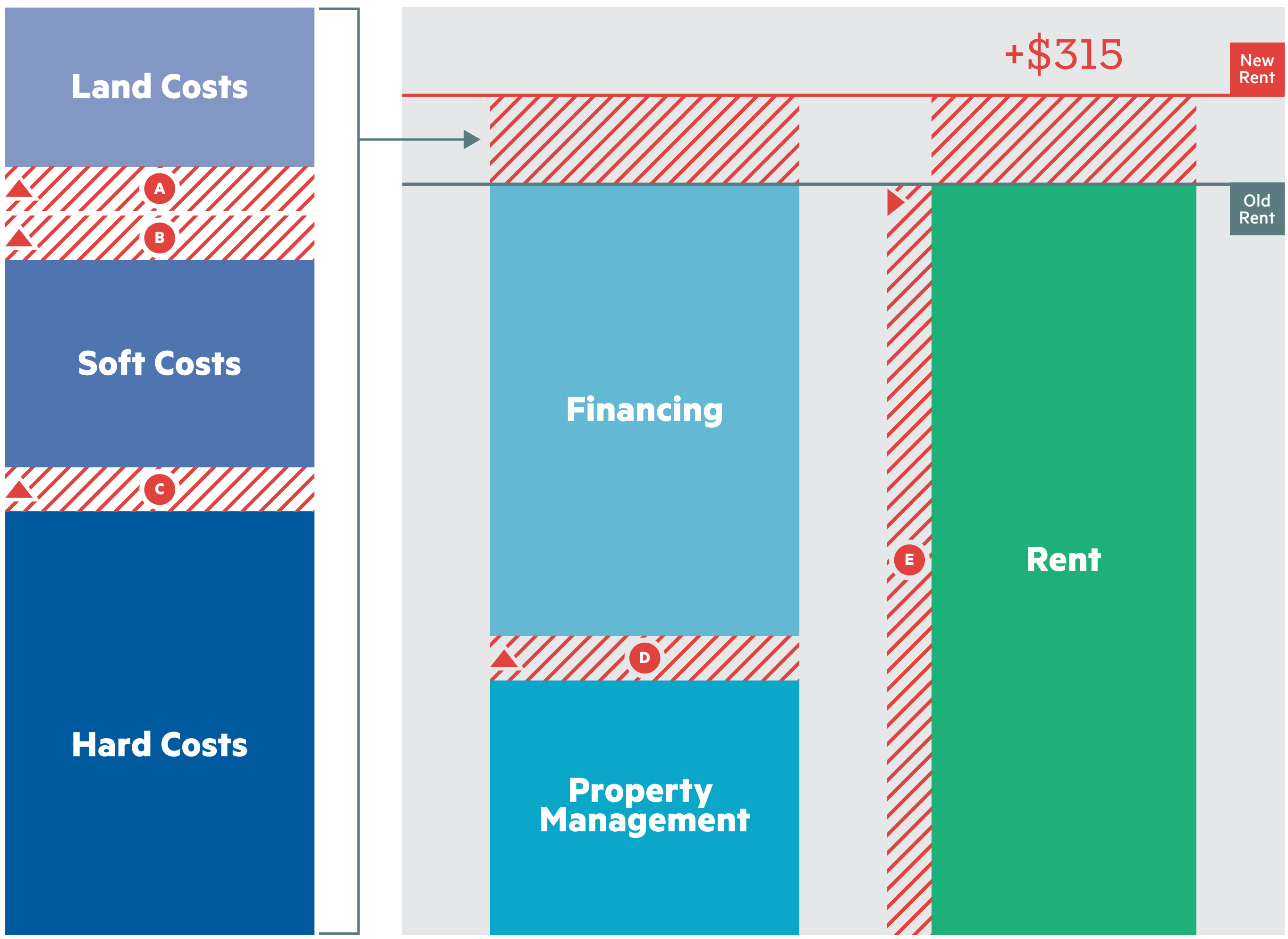


3. Rents rise C so that revenues are equal to the operating expenses. If the market is unable to support the higher rents, the project will not proceed and the overall supply of new apartments will be reduced.
To close the revenue gap, rents must rise. If the market cannot support higher rents, the project is not viable and will not advance.

Cumulative Impact of Government Policies

When state and local government policies are layered together, they can significantly raise the rent for new apartments.

State and local governments often establish new regulations that impact the cost of developing new apartments, without considering the impact on overall affordability. These regulations can add up over time and significantly increase rents in a community.*



STATE & LOCAL GOVERNMENT POLICIES

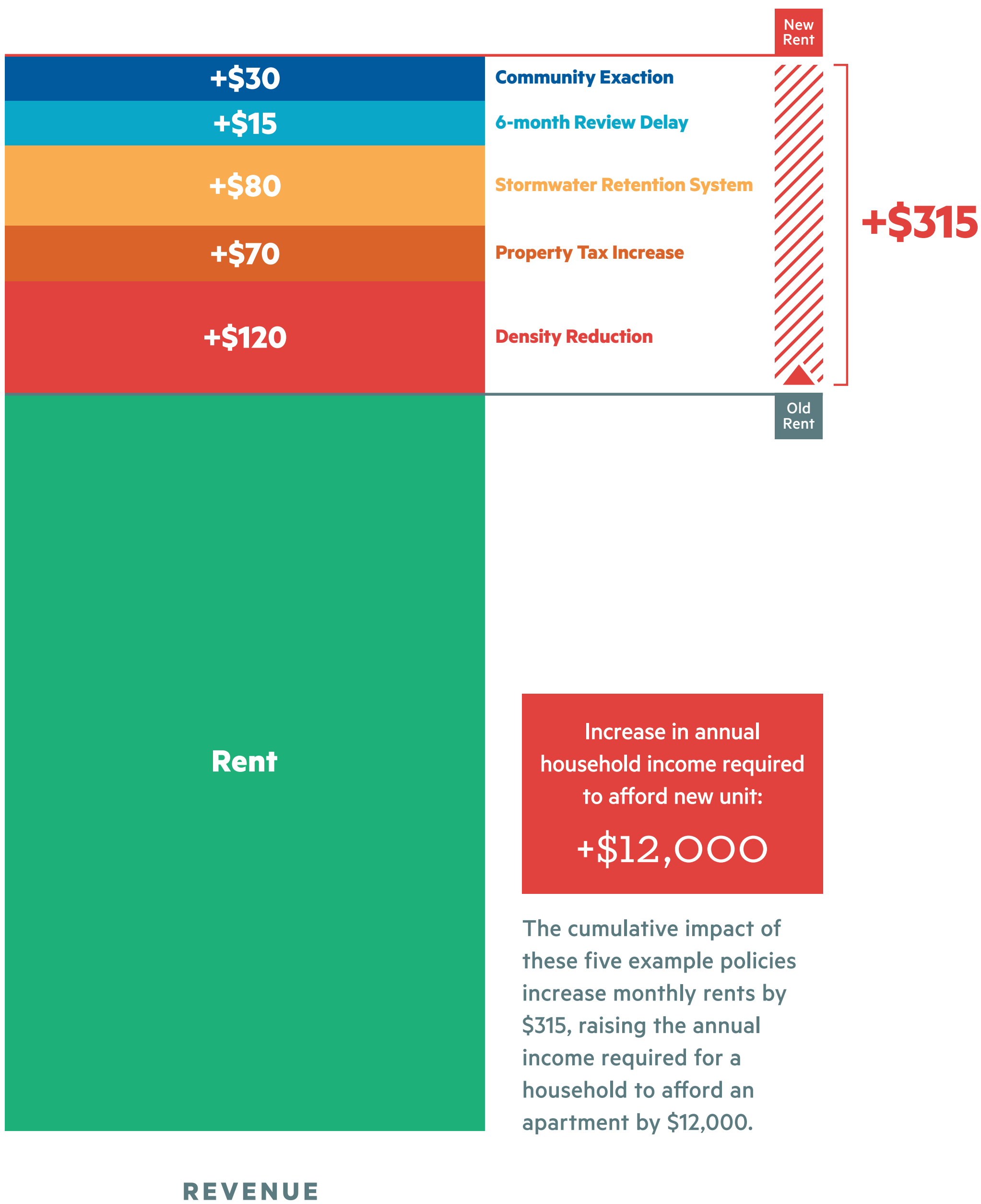
- **A** Community Exactions | Soft Cost Increase
- **B** 6-month Review Delay & Study | Soft Cost Increase
- **C** Stormwater Retention System | Hard Cost Increase
- **D** Property Tax Increase | Property Management Increase
- **E** Density Reduction** | Reduction to Revenues

1 * These calculations were based on a sample 200-unit garden-style apartment development in Atlanta. More information on the hypothetical project can be found in the appendix on pages 167 – 173.
2 ** A density reduction would also result in a marginal decrease in hard costs, shown in detail on page 28.

Cumulative Impact of Government Policies

The cumulative impact of many policies over time substantially reduces the affordability of new apartments.

The analysis below provides an example of how **a series of state and local government policies can have a significant cumulative impact on affordability of apartments.** By increasing apartment development and operation costs, these state and local policies raise the required rent and decrease the portion of apartments that are affordable to middle- and low-income households. **State and local governments should consider the impact of their policies on housing affordability, as well as the cumulative impact these policies have on affordability in their community.**



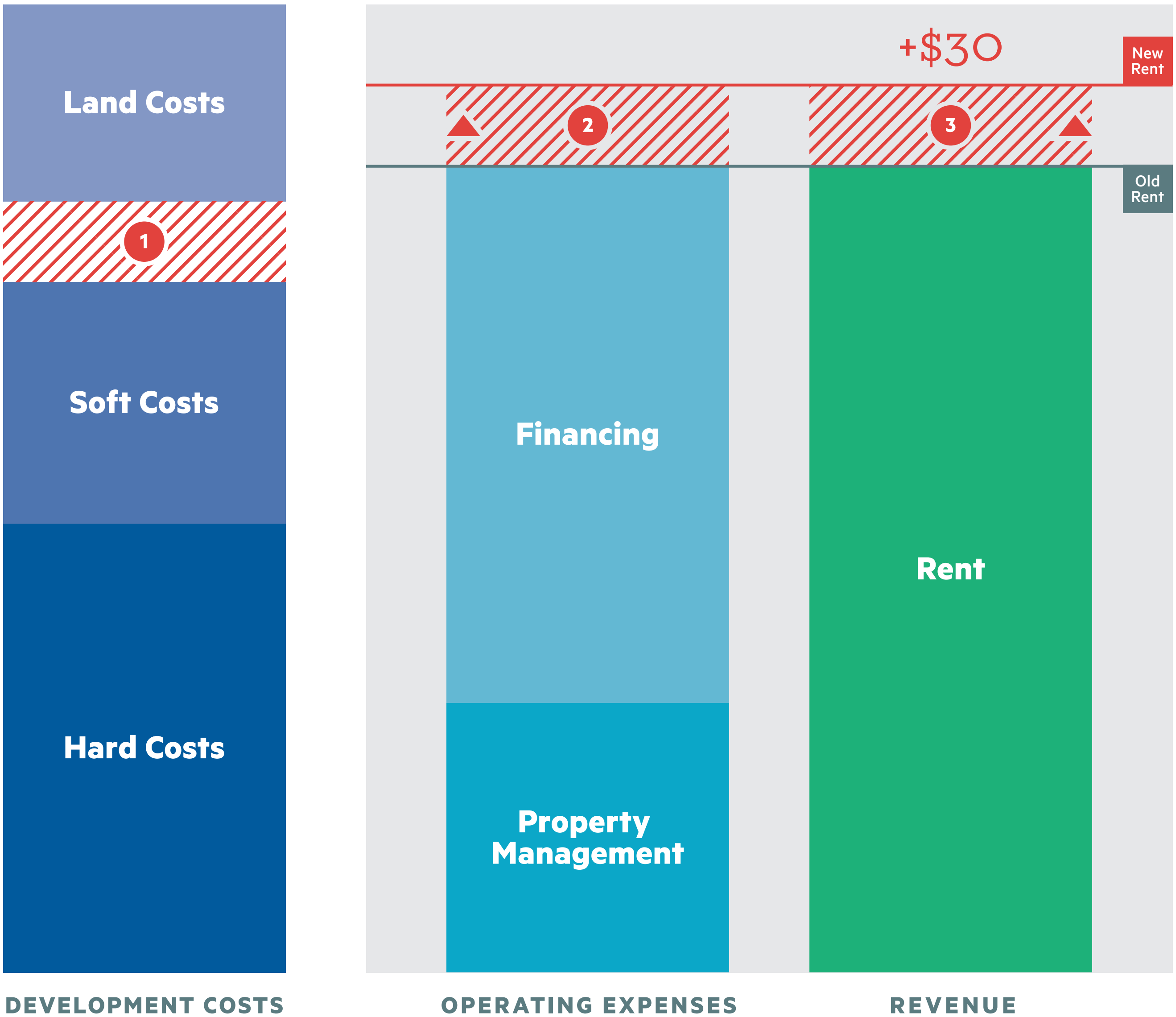
Increase in annual household income required to afford new unit:

+$12,000

The cumulative impact of these five example policies increase monthly rents by $315, raising the annual income required for a household to afford an apartment by $12,000.

Community Exaction

A community exaction for public open space costing $600,000 to secure approvals can increase rents **$20 to $50***.



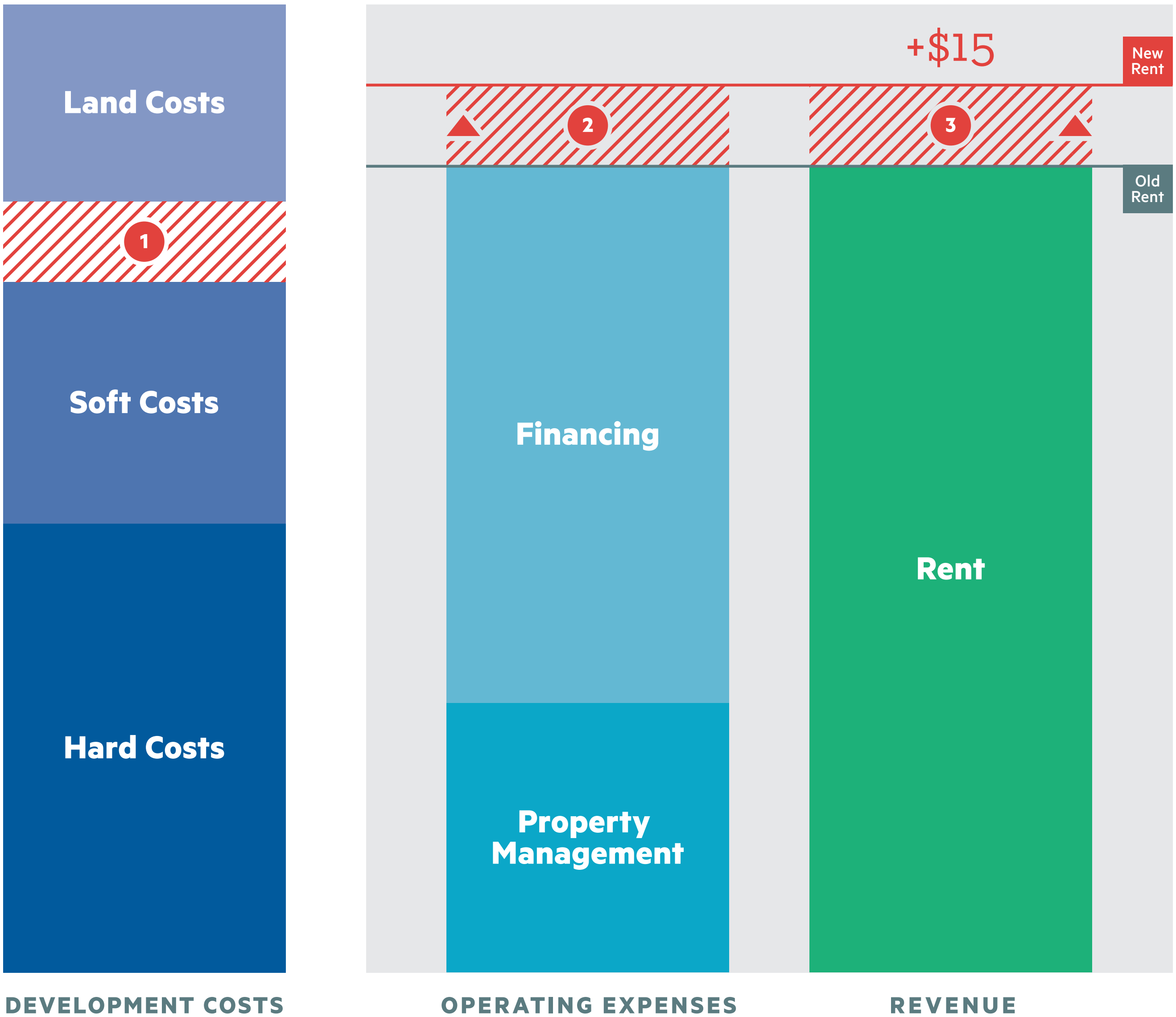
1. The exaction directly increases soft costs, requiring the developer to contribute $600,000 in extra costs for the public open space.

2. Additional financing must be added to the project to support the increased development costs, raising operating expenses.

3. Rents must rise to cover the additional operating expenses. If the market cannot support higher rents, the development will not proceed.

Approval Delay & Additional Studies

A six-month delay in development approval and $200,000 in additional studies can increase rents **$14 to $30***.



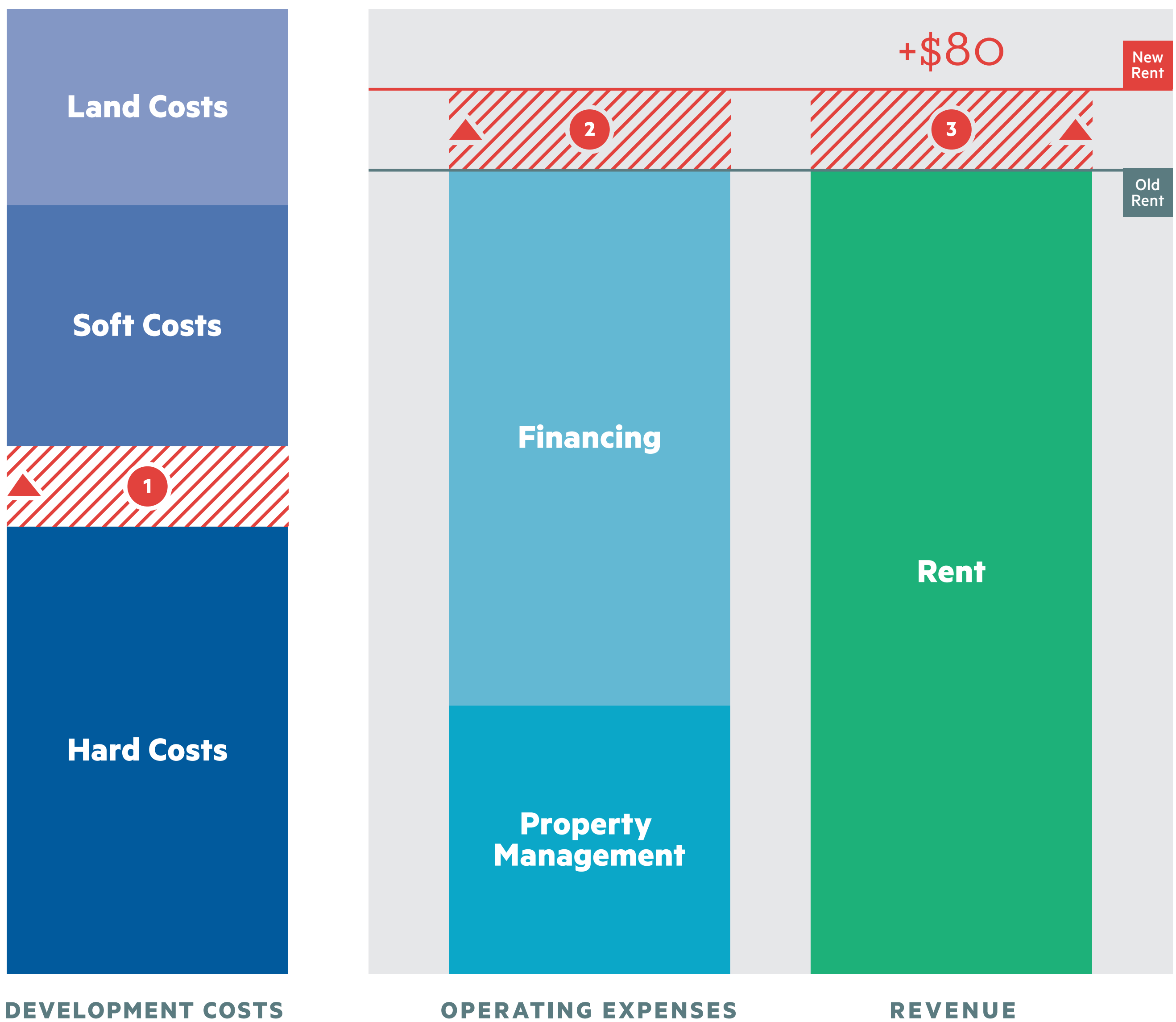
1. The delay and additional studies **directly increases soft costs.**

2. Additional financing must be added to the project to support the increased development costs, raising operating expenses.

3. Rents must rise to cover the additional operating expenses. If the market cannot support higher rents, the development will not proceed.

Hard Costs

A requirement for on-site stormwater retention that costs $1.5 million would increase required rents by **$60 to $85***.



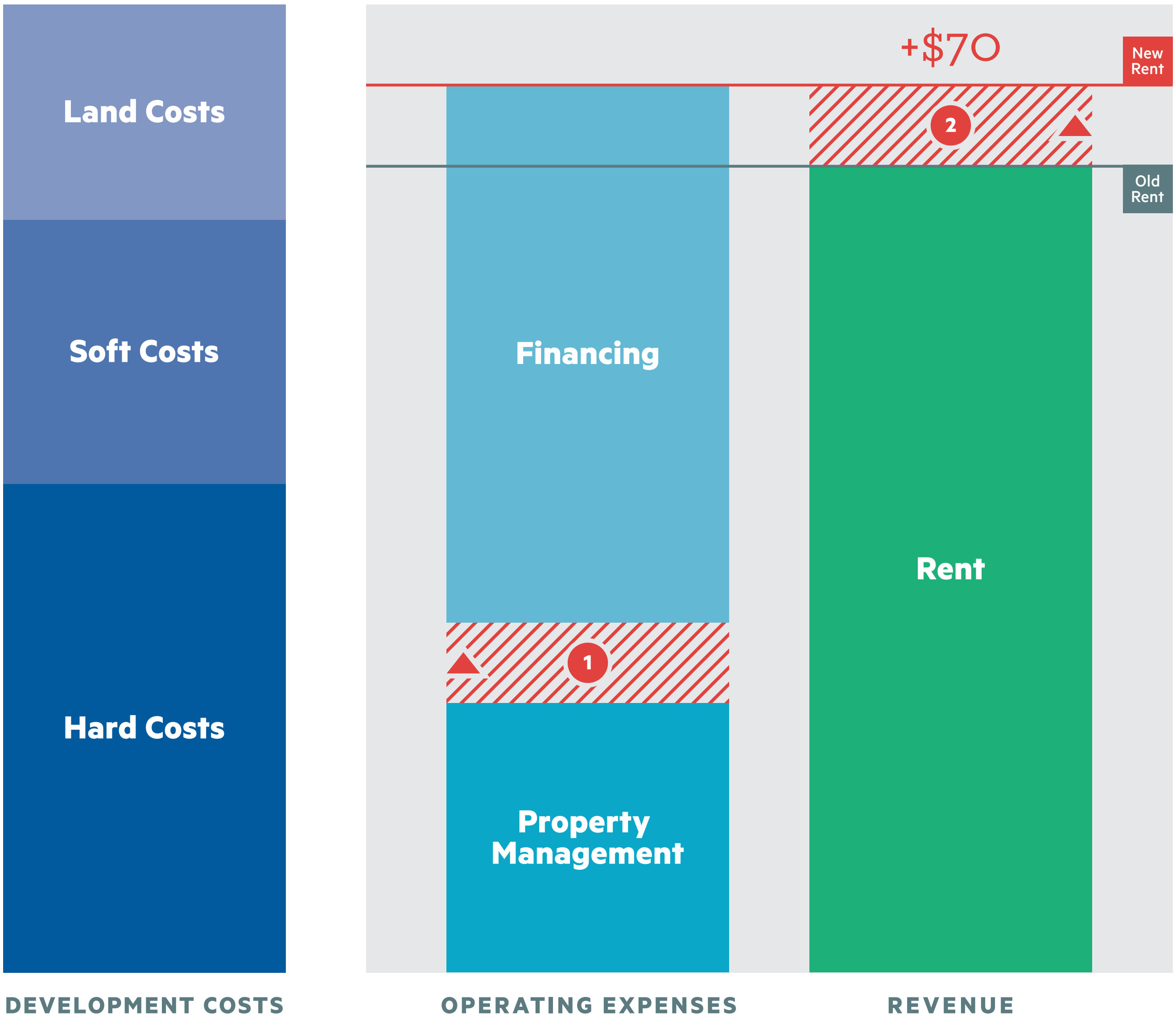
1. The policy directly increases hard costs. Installation of a large underground stormwater retention facility adds $1.5 million in hard costs.

2. Additional financing must be added to the project to support the increased development costs, raising operating expenses.

3. Rents must rise to cover the additional operating expenses. If the market cannot support higher rents, the development will not proceed.

Tax Increase

An increase in property taxes by $150,000 in the fourth year of operations can increase rents from **$50 to $100***.



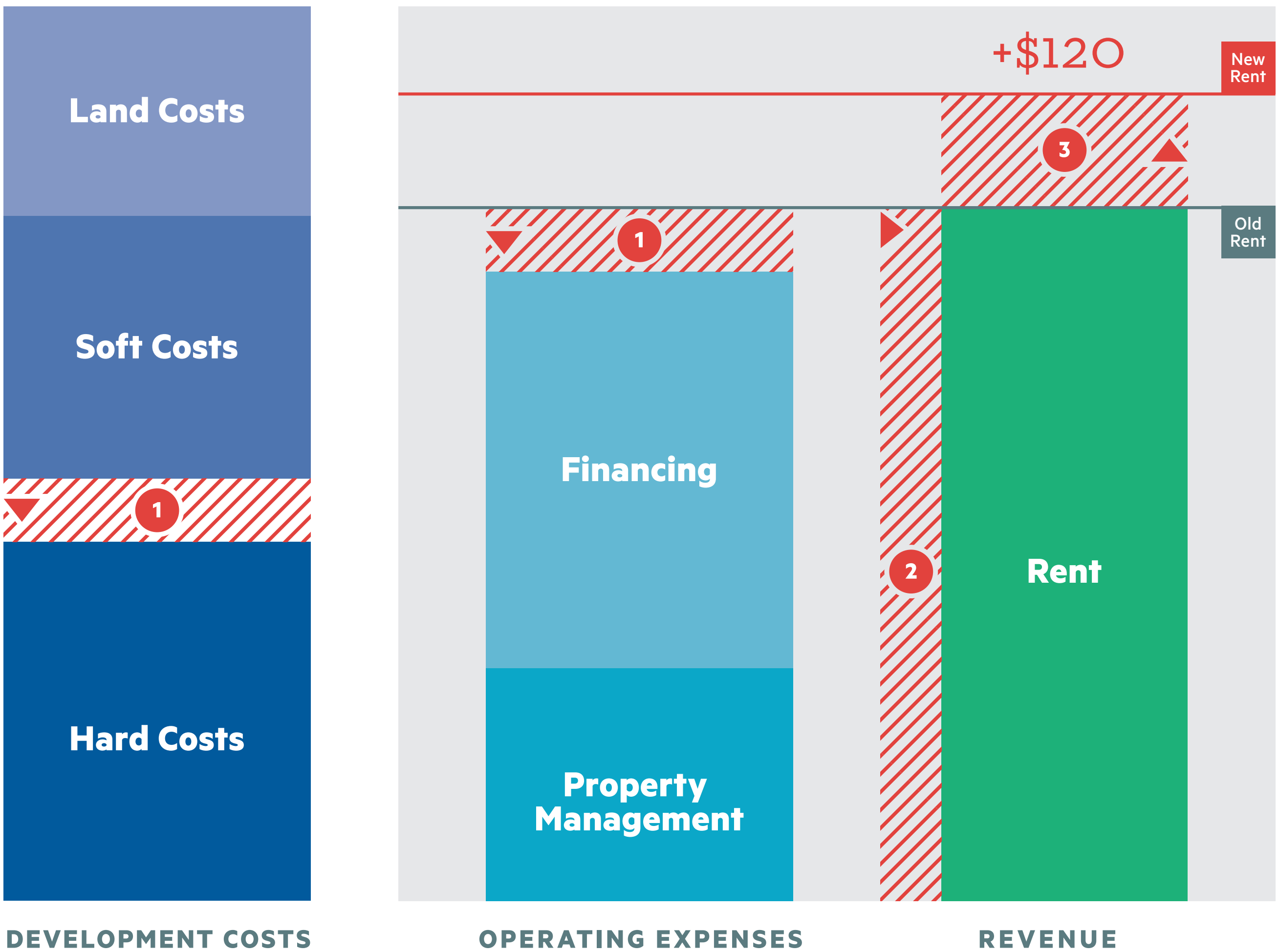
1. The additional tax directly increases property management costs. This raises the overall operating expenses of the project.

2. Rents must rise to cover the additional operating expenses. If the market cannot support higher rents, the development will not proceed.

Density Reduction

A reduction of 30 units for a 200-unit project can result in a **$70 to $140** increase in required rent.

The loss of units in the project reduces the total rents the property generates, but also decreases hard costs as there is less building space constructed and as a result lowers operating expenses slightly. Overall the decrease in revenues exceeds the limited reduction in operating expenses. The result is that rents on the remaining units must increase so that revenues once again equal operating expenses.



1. Reduction in Hard Costs and Financing. Reducing the number of units and the amount of building space decreases overall construction costs.

2. Reduction in Revenue. Reducing the number of units decreases the amount of rent produced by the property.

3. Rents on the remaining units must rise to cover the lost revenue so that the property continues to cover the operating expenses. If the market cannot support higher rents, the development will not proceed.

Who Influences Development Costs?

Most development costs are determined by market forces and state and local regulations, over which developers have limited influence.

LAND COSTS

15-20% of cost

Market Forces: Landowners are reluctant to accept less for their land than a prior observed market peak, a behavior known as *anchoring*. As a result, land prices rarely decline in the short-term absent a recession, and landowners rarely reduce their asking prices significantly.[1] Land in desirable areas with better access to regional employment centers and better amenities is more expensive.

State and Local Government: The uses and density allowed by zoning influence the revenue a property can generate and, thus, affect the land's value and cost. By making additional land available for housing, zoning may help increase the supply of apartments, which helps reduce rents.

SOFT COSTS

15-20% of cost (design, entitlements, permits)

Market Forces: Market forces determine the cost of design and construction financing expenses, which comprise much of a project's soft costs. These market forces relate to the relative demand and supply of architecture and engineering consultants who design new housing, and the macroeconomic forces that determine interests rates.

State and Local Government: The cost of required reviews and studies, and other approvals (entitlements & permits) imposed by state and local governments, directly impact the cost to build new apartments, and thus the

HARD COSTS

60-70% of cost (labor and building materials)

Market Forces: Labor and material costs have increased more than 50% since 2000, due to increased demand for both. This translates into higher rents.[2]

State and Local Government: Beyond the market cost of materials, building codes can dramatically increase development costs. These codes affect cost by setting the standards for specific materials and construction methodologies that developers must use. Obsolete codes may increase costs by being inflexible or not allowing new building technologies.

1 Wheaton, Urban Economics and Real Estate Markets, 1996
2 National Building Cost Manual, 2018

Who Influences Operations Costs?

Most operation costs are determined by market forces and state and local regulations, over which developers have limited influence.

FINANCING

Market Forces: The cost to acquire capital to finance a property is determined by macroeconomic market forces. Most developers are not self-funded, meaning that they provide only a small portion of the funds that finance a property. Instead, developers must meet the demands of banks that provide the debt and investors who provide the equity investments that pay much of the development costs. Interest rates and the perceived risk of the local real estate market determine the cost of the debt, while the potential profits of alternative investment opportunities determine the cost (known as returns) demanded by equity investors.

To entice equity investors, developers must provide returns that are attractive compared to other investment alternatives, or the project will not secure the financing it requires.

State and Local Government: To encourage development of additional apartments at affordable prices, state and local governments may fund a portion of project development costs. This directly reduces the amount of financing required for development, decreasing the operating costs and the required rents.

PROPERTY MANAGEMENT

Market Forces: Property management is comprised of a number of expenses, such as routine maintenance, staffing, and insurance. The cost of these various components is determined by local market forces, such as the market wages for property staff.

State and Local Government: State and local governments directly control property taxes and often utilities, which are a significant portion of the management expenses. A 2016 survey of 217 rental properties nationwide found that taxes consumed 11%-13% of total revenues, while utilities consumed 2.5% of total revenues.[3]

3 NAA Survey of Operating Income & Expenses in Rental Apartment Communities, 2016

State and Local Housing Affordability Policy Tools

State and local governments have a broad range of powerful policy tools that can be used to lower costs and improve housing affordability.

State and Local Policy Tools

LAND COSTS 15–20% of cost	– **Zoning** – **Infrastructure & Services** – **Discounted Public Land**
SOFT COSTS 15-20% of cost (design, entitlements, permits)	– **Impact Fees** – **Required Studies** – **Exactions** – **Entitlement Process**
HARD COSTS 60-70% of cost (labor and building materials)	– **Building Codes** – **Prevailing Wage Requirements** – **Development Requirements**

Government Levers to Impact Land Costs

State and local governments have a broad range of powerful policy tools that can be used to lower costs and improve housing affordability.

Zoning

To increase the supply of apartments, local governments have the ability to allow denser development through a diverse range of policies. Examples include up-zoning land so that more units are allowed by-right, increasing floor to area ratios, and reducing minimum lot sizes. Numerous studies find that reduced regulation and zoning restrictions are associated with a reduction in housing costs.[4]

Infrastructure & Services

The level of infrastructure and services that state and local governments provide can make land available for new development, as well as make existing neighborhoods attractive for infill growth. This increases supply and helps to alleviate demand pressures that drive up apartment costs in other parts of the city.

Potential strategies to alleviate demand pressures include expanding access to transportation networks, investing broadly in utility and sewage expansion, and increasing community amenities.

Discounted Public Land

To provide a subsidy for affordable housing, state and local governments can make public land available at a reduced price. This lowers the overall development costs and enables production of apartments at reduced rents.

A zoning change that allows **an additional 80 units (30% increase)** results in a

$200 per month

decrease in the required rent to make a project feasible[5].

As the number of apartment units increases...

...the required rent per apartment unit decreases (so long as construction type is able to remain the same).

4 Based on a hypothetical podium-style mid-rise apartment in the Northeast for an average 2-BR apartment.
5 Urban Institute, 2016

Government Influence on Soft Costs

The project approval process, including required studies, entitlement fees, and exactions, influences total costs.

Impact Fees & Exactions

Impact fees are costs imposed on new development to pay for a portion of the infrastructure that supports it, while exactions are improvements provided to secure approvals. A study in Kings County, Washington, found that a $1 increase in impact fees correlated with a $1.66 increase in the sale price, indicating that these fees are passed on to renters and home buyers.[6]

A 2018 study in California[7] found that development fees in the state increase costs

up to 18%

per apartment unit, with the expense passed on to renters.

Required Studies

Prior to granting entitlement approvals, state and local governments may require traffic studies, environmental impact studies, parking studies, and other studies that delay a project and directly increase costs. To reduce costs, governments may streamline these requirements and limit the ability of opposition groups to call for additional studies that effectively block development proposals.

Projects in the Mid-Atlantic region reported an

average delay of **4 months**

in the entitlement process for apartment developments.

Entitlement Process

Land entitlements can act as a bottleneck by delaying construction and reducing apartment production. Providing space for by-right apartment development can minimize these delays and allow developers to avoid navigating a regulatory maze of variances, adjustments, and permits. Reducing the entitlement period lowers cost by decreasing risk and reducing project development expenses.

This delay resulted in an increase in rent of

$125 (5%) per month.

6 Mathur et al., Urban Studies, 2004
7 Terner Center for Housing Innovation UC Berkeley, 2018

Government Influence on Hard Costs

Building codes, parking requirements, and prevailing wage requirements directly impact construction costs.

Building Codes

Building codes dictate construction standards, which significantly influence costs. A recent study found that changes to the International Building Code from 2012 to 2015 increase the cost to build a typical or prototype apartment tower by 10%.[8]

Prevailing Wage Requirements

Prevailing wage requirements mandate a minimum wage for construction laborers at levels similar to more highly paid unionized workers. A 2005 study of 205 projects in California found that prevailing wage requirements increased construction costs by 9% to 37%.[9] A similar 2016 study in New York found that construction costs increased 23% in affordable housing projects where prevailing wages were required.[10]

Development Requirements

Many local governments have requirements for developments related to parking, stormwater, traffic and other impacts. Parking requirements above what the market demands is one of the most common requirements. A 2018 report found that structured parking costs an average of $24,000 per space, while below-ground parking costs $33,000 per space.[11] Reducing parking requirements can reduce both the land required and the construction costs for new apartments.

An increase of 10% in hard costs due to a revised building code in a Texas mid-rise could result in a

+13% increase

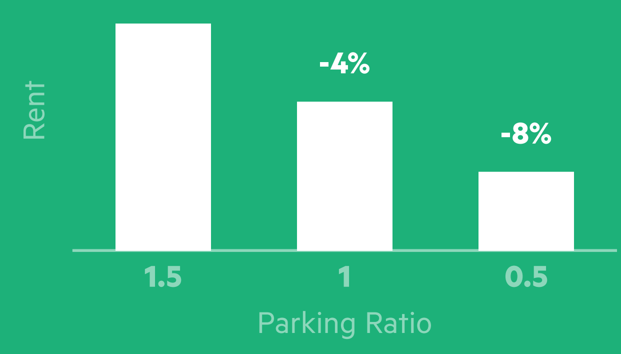
in required rent per unit.

A decrease of 15% in hard costs by lifting a prevailing wage requirement for a podium-style apartment could result in a

+20% decrease

in required rent per unit.

Reducing existing parking requirements can significantly decrease required rent for development feasibility.



8 University of Florida, 2016
9 Dunn et al. ILR Review, 2005
10 New York City Independent Budget Office, 2016
11 Rider Levett Bucknall, Riders Digest, 2018

Glossary

The framework below is a simplified representation of the apartment development process. This simplified framework highlights the three overarching categories and their six elements that are most important to the relationship between costs and rents. In practice, real estate development is far more complicated, and these categories have dozens to hundreds of sub-categories and individual elements within them.

Land Costs

Purchase of land and associated costs, such as legal and transfer taxes

Soft Costs

Design, entitlements (legal approval to develop a property for a particular use), building permits, and other non-direct construction costs

Hard Costs

Labor and building materials

Development costs are one-time costs that are paid off by financing.

Financing

Financing is comprised of debt service and equity returns. Debt is the loans secured from financial institutions to construct a building. Equity is an investment of money in exchange for an ownership stake of the resulting revenue from a property. Equity investors expect to receive sufficient returns in exchange for taking on risk and investing in the development

Property Management

Ongoing property costs: routine maintenance, staffing, insurance, and taxes

Rent

Payments by residents to occupy their units

Supplementary Sources: Revenues from elements such as parking or amenity fees that may comprise a small portion of the total revenue from a property

DEVELOPMENT COSTS

The project's Development Costs are costs associated with planning, designing, and constructing apartments.

OPERATING EXPENSES

The costs associated with operating and maintaining apartments after construction.

REVENUE

Revenue is the income generated by the property.