Increasing Workforce Housing in Miami
by

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Increasing Workforce Housing in The City of Miami

By

Francis J. Weiss

Submitted to the Program in Real Estate Development in Conjunction with the Center for Real Estate on January 20th, 2023, in Partial Fulfillment of the Requirements for the Degree of Master of Science in Real Estate Development

Abstract

Miami is at the center of the housing affordability crisis, ranking for the first time ever above San Francisco and New York, Miami recently became the least affordable housing market in the United States. Rising rates, record prices, insurance premiums and the unprecedent migration to Southeast Florida due to the pandemic exacerbated the housing costs on Miami's households. Since the recent migration, over half of the households are now spending more than 30 percent of their income on housing. In this paper we investigate potential solutions through public policy, and private capital markets to help increase the supply of workforce housing, whilst producing a commercial rate of return.

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1 Introduction

Miami is known for its pristine beaches, vibrant lifestyle, rich culture, year-round warm weather, and pro-business policies. It is for these reasons that Miami experienced an unprecedented migration during the Covid-19 pandemic. Since dozens of new businesses and thousands of new households now claim Miami as their primary residence, residential real estate prices soared forcing more people to use a larger share of their income towards housing.

In this paper, we will focus on housing that is affordable - meaning that household expenses make up less than 30% of the gross income – for households in the 140% Area Median Income (AMI), listed on **Figure 1** below. We will interchangeably refer to workforce housing as middle-income housing for the purpose of this paper. We examine how recent interest hikes, construction escalations, and housing shortage has impacted residents. Lastly, we will focus on solutions to increase the housing stock for households making up to 140% of the AMI from the lens of a developer/sponsor.

Figure 1: Income and Rent Limits, 2022

Note: The general hold harmless provisions of IRC Section 142(d)(2)(E) mean that projects with at least one building placed in service on or before the end of the 45-day transition period for newly-released limits use whichever limits are greater, the current-year limits or the limits in use the preceding year.

HUD release: 4/18/2022
Effective: 4/18/2022
Implement on/before: 6/1/2022
FHFC Posted: 4/25/2022

2022 Income Limits and Rent Limits
Florida Housing Finance Corporation
Multifamily Rental Programs and CWHIP Homeownership Program
NOTE: Does not pertain to CDBG-DR, HHRP, HOME, NHTF or SHIP

County (Metro)	Percentage Category	Income Limit by Number of Persons in Household										Rent Limit by Number of Bedrooms in Unit					
		1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5
Miami-Dade County	**20%**	**13,660**	**15,600**	**17,560**	**19,500**	**21,060**	**22,620**	**24,180**	**25,740**	**27,300**	**28,860**	**341**	**365**	**439**	**507**	**565**	**624**
(Miami-Miami Beach-	25%	17,075	19,500	21,950	24,375	26,325	28,275	30,225	32,175	34,125	36,075	426	457	548	633	706	780
Kendall HMFA)	**28%**	**19,124**	**21,840**	**24,584**	**27,300**	**29,484**	**31,668**	**33,852**	**36,036**	**38,220**	**40,404**	**478**	**512**	**614**	**709**	**791**	**873**
	30%	20,490	23,400	26,340	29,250	31,590	33,930	36,270	38,610	40,950	43,290	512	548	658	760	848	936
	33%	**22,539**	**25,740**	**28,974**	**32,175**	**34,749**	**37,323**	**39,897**	**42,471**	**45,045**	**47,619**	**563**	**603**	**724**	**836**	**933**	**1,029**
	35%	23,905	27,300	30,730	34,125	36,855	39,585	42,315	45,045	47,775	50,505	597	640	768	887	989	1,092
	40%	**27,320**	**31,200**	**35,120**	**39,000**	**42,120**	**45,240**	**48,360**	**51,480**	**54,600**	**57,720**	**683**	**731**	**878**	**1,014**	**1,131**	**1,248**
	45%	30,735	35,100	39,510	43,875	47,385	50,895	54,405	57,915	61,425	64,935	768	822	987	1,140	1,272	1,404
	50%	**34,150**	**39,000**	**43,900**	**48,750**	**52,650**	**56,550**	**60,450**	**64,350**	**68,250**	**72,150**	**853**	**914**	**1,097**	**1,267**	**1,413**	**1,560**
	60%	40,980	46,800	52,680	58,500	63,180	67,860	72,540	77,220	81,900	86,580	1,024	1,097	1,317	1,521	1,696	1,872
	70%	**47,810**	**54,600**	**61,460**	**68,250**	**73,710**	**79,170**	**84,630**	**90,090**	**95,550**	**101,010**	**1,195**	**1,280**	**1,536**	**1,774**	**1,979**	**2,184**
Median: 68,300	80%	54,640	62,400	70,240	78,000	84,240	90,480	96,720	102,960	109,200	115,440	1,366	1,463	1,756	2,028	2,262	2,496
	120%	**81,960**	**93,600**	**105,360**	**117,000**	**126,360**	**135,720**	**145,080**	**154,440**	**163,800**	**173,160**	**2,049**	**2,194**	**2,634**	**3,042**	**3,393**	**3,744**
	140%	95,620	109,200	122,920	136,500	147,420	158,340	169,260	180,180	191,100	202,020	2,390	2,560	3,073	3,549	3,958	4,368

1.1 Motivation

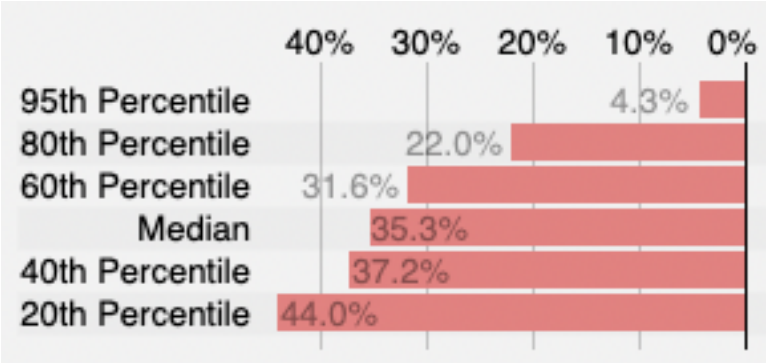
I would like to preamble with some of the reasons why I chose this topic. I remember going to Miami in 2018 to visit a friend who had just recently purchased a home. Moderate

condominiums in Miami back then were valued at around $250,000 to $300,000, which was more affordable than Chicago, where I was living at the time. I opted to purchase my first home in Chicago because I thought the fundamentals there were stronger and therefore it would result in greater appreciation. Fast-forward to now, the home of my friend, which was purchased for about $250,000 has almost doubled in value, while my condominium bought for a similar price has gone up in value marginally. As I come to the end of my graduate studies, I will be moving to Miami to work in real estate development, and I have noticed that what once rented for $1,800 is now going for $3,000, and the house I could have bought for $250,000 is now worth over $400,000. While this is great for the individuals who bought real estate at a lower basis with record low mortgage rates, it has made me think and feel some of the burdens that people are experiencing as real estate prices appreciation has outpaced real income growth.

1.2 The Problem

Housing costs in Miami have increased at record pace year over year since the start of the Covid-19 pandemic. As housing costs have skyrocketed, income growth has been trailing behind. The Home Price Index has experienced a compounded annual growth rate of 44.7%, while income has experience an anemic 8.3%. These recent trends have made Miami the least affordable city in the United States, with over 60%[1] of the households being cost burdened on their homes as seen in **Figure 2**[2]**.**

Figure 2 Relative Household Income Percentiles – Miami



[1] FIU, *Miami's Housing Affordability Crisis*
[2] Statistical Atlas, *Household Income in Miami, Florida*

1.3 The Goal

The goal of this thesis is to provide solutions that increase the supply of workforce housing with a concurrent developer market rate return. Additionally, we want to incentivize the supply for naturally occurring workforce housing – defined as workforce housing that does not require any government subsidies - at 140% AMI whilst not hindering any of the resources of the City. We will investigate why there is a shortage of middle-income housing in Miami followed by strategies that will bridge this gap. Focusing from the perspective of the sponsor/developer, we will explore different triggers that can propel a developer to develop more workforce housing. What are some public policies that will incentivize this? Is there institutional capital willing to invest in this? Upon comparing different tools meant to stimulate the growth of middle-income housing, we will evaluate the efficacy of each one of them to determine what combination of them will yield the best result.

2 Miami Macro Trends

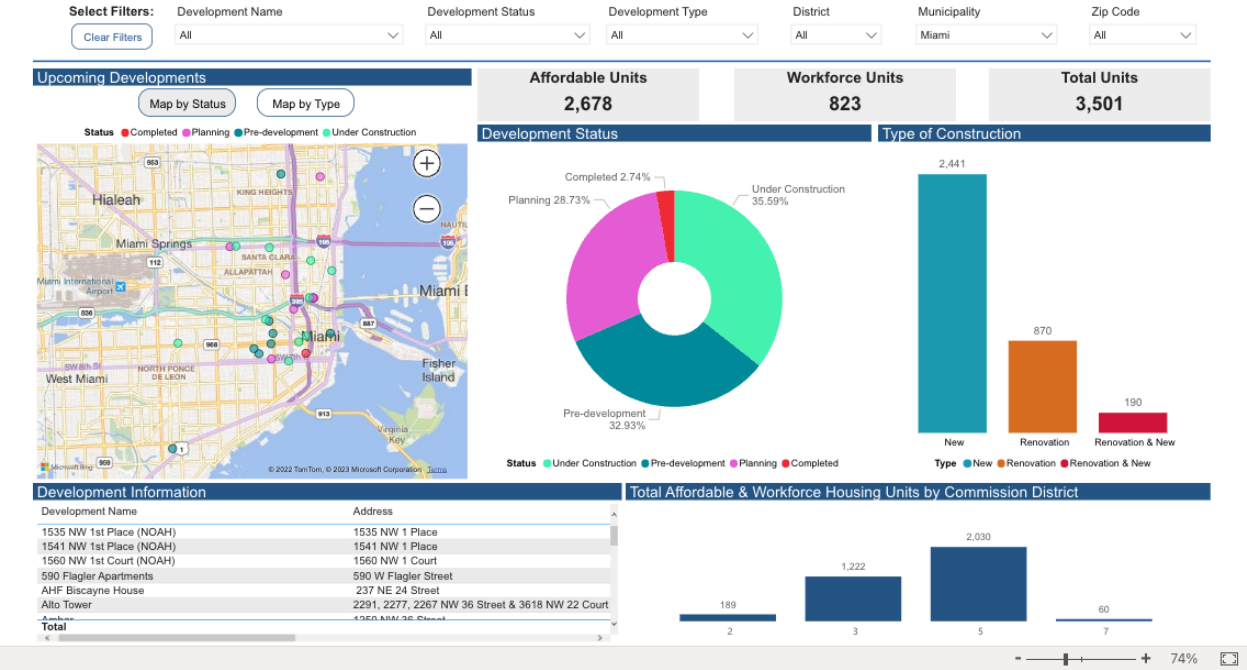
Miami experienced an accelerated population growth rate since the pandemic, referred to by many as the *Great Pandemic Migration*[3]. With its sprawling beaches, limited state taxes, and a government that accepted new business with open hands it is no surprise that companies and people flocked towards the Magic City. One of the other reasons why people flocked from New York, Illinois, and California was because Miami was cheap compared to those regions, however that is no longer the case. Miami is now deemed the least affordable city, regarding rent to income, in the United States.

The census estimated Miami's population to be 439,890[4] as of 2022. Out of that, 11.91% or around 52 thousand Miamians have an income of 140% AMI. While we could not find any information regarding the percentage of households at this income bracket that are rent burdened, we can conservatively estimate that at least 5% of that demographic is employed, rents and is rent burdened representing at least 2,600 households need workforce housing in Miami. Miami-

[3] Wall Street Journal, *The Great Pandemic Migration*
[4] Census, *Miami City,*

Dade County collaborated with The University of Miami to create a Housing Affordability Tracker. This tracker shows the total affordable and workforce units already delivered and under construction, shown in **Figure 3**[5]**.**

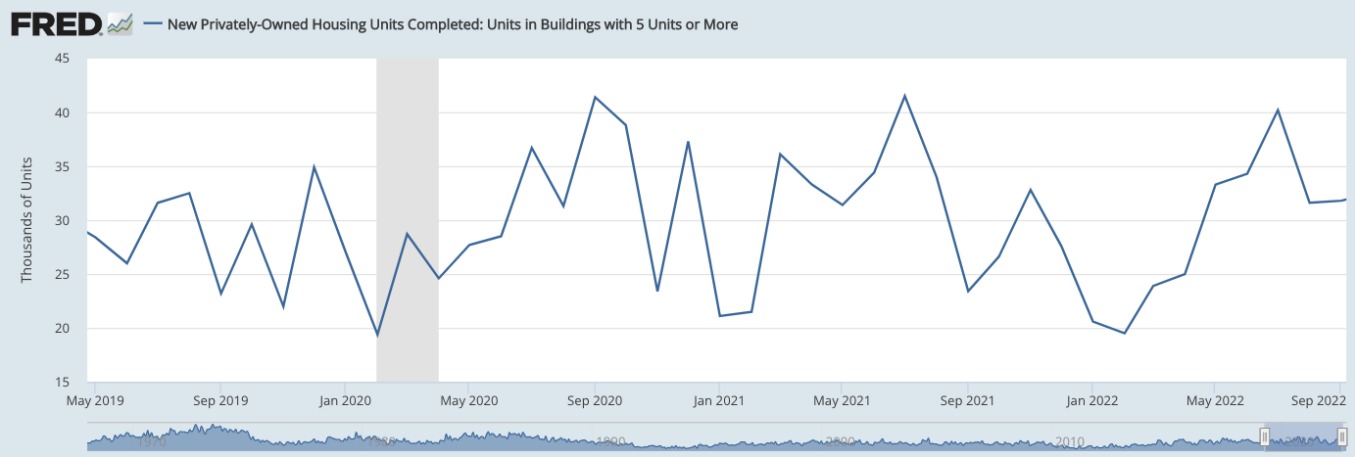
Figure 3. Affordability Tracker



Note that the Housing Affordability Tracker was last updated on 2019, so we use the compounded annual growth rate (CAGR) provided by Federal Reserve Economic Data, shown on **Figure 4**[6], which represents of 9.07%. We estimate that as of July 2022 there will be around 1,065 workforce housing units delivered or under construction. This would conservatively represent a shortage of 1,500 workforce housing units at 140% AMI.

[5] Miami-Dade County, *Housing Affordability Tracker*
[6] FRED.St Louis, *New Privately-Owned Housing Units Completed,*

Figure 4. New Privately-Owned Housing Units Completed: Units in Building with 5+ Units

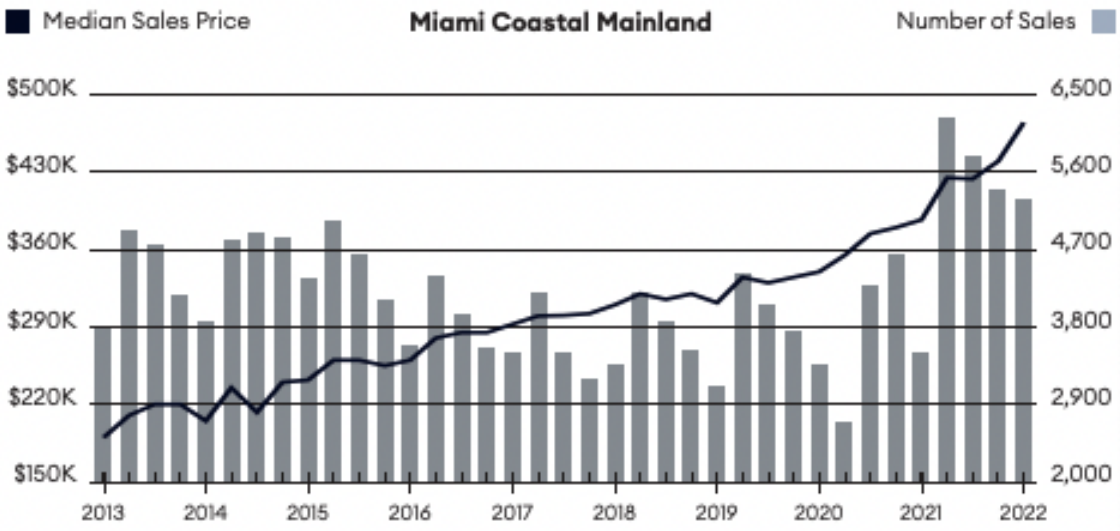


2.1 Miami Real Estate Outlook

With respect to real estate, Douglas Elliman reported that the number of transactions of single-family homes under $500k dropped significantly, however this is likely due to the fact that prices of those homes increased the $500k threshold. What is more representative, is the sharp increase in transactions priced over $10M - an increase of 247%. Moreover, the average sales price from Douglas Elliman's Elliman Report was $739,807, a 21% increase from the average sales price in Q1 2021 of $611,234 as seen in **Figure 5**[7]. The volume also experienced a sharp increase of 1,728 units representing a growth of 51% as compared to data from Q1 2021. While more recent reports show a decline in active listings, it is not a question that Miami experienced a boom in real estate since the beginning of the pandemic.

[7] Elliman Report, *Q1-2022 Miami Coastal Mainland Sales*

Figure 5 Miami Coastal Mainland Sales



2.2 Miami Economic Development

Real estate prices are not the lone prospect in the city, recent employment cost index reports rank Miami as the city with the highest growth in wage and salaries of the past year as seen in **Figure 6**[8]. However, updated data regarding income breakdown distributions is needed to better understand, which households experienced the highest wage growth. We hypothesize, that a significant factor of this wage growth is attributed to the highly compensated c-suite executives which where the first movers from their organizations to relocate to Miami. Starwood Capital was one of the earliest behemoths to relocate from New York. Trailing the move of their CEO Barry Sternlicht who moved to Miami in 2016, his company followed to relocate their headquarters in 2018. This trend has only increased over the past couple years. Some recent headquarter relocations or new offices into Miami follow:

[8] Bureau of Labor Statistics, *Employment Wage Index – September 2022*

Table 1: Company Relocations or New Offices

Company	Sector	AUM/*Market Value*	Detail
Starwood Capital	Private Equity	$120B+	HQ
Citadel	Hedge Fund	$50B+	HQ
Blackstone	Private Equity	$580B+	New Office 200+ employees
Andreessen Horowitz	Tech Venture Capital	$30B+	New Office

Figure 7. Employment Wage Index

Census region and metropolitan area[1]	12-month percent changes -					
	Total compensation[2]			Wages and salaries		
	Sep. 2021	Jun. 2022	Sep. 2022	Sep. 2021	Jun. 2022	Sep. 2022
Northeast						
Boston-Worcester-Providence, MA-RI-NH-CT CSA	3.7	5.8	5.6	4.2	5.8	5.7
New York-Newark, NY-NJ-CT-PA CSA	3.7	5.2	4.7	4.3	5.3	4.6
Philadelphia-Reading-Camden, PA-NJ-DE-MD CSA	3.3	4.0	4.4	4.2	3.9	4.9
South						
Atlanta-Athens-Clarke County-Sandy Springs, GA CSA	2.3	4.3	5.0	3.0	4.4	5.2
Dallas-Fort Worth, TX-OK CSA	3.5	5.4	5.3	4.3	5.9	5.7
Houston-The Woodlands, TX CSA	2.3	5.5	5.4	2.7	6.1	5.9
Miami-Fort Lauderdale-Port St. Lucie, FL CSA	4.1	6.3	6.7	4.7	6.8	7.1
Washington-Baltimore-Arlington, DC-MD-VA-WV-PA CSA	4.2	4.2	4.4	4.7	3.8	4.1
Midwest						
Chicago-Naperville, IL-IN-WI CSA	4.0	5.3	4.8	4.4	5.1	4.6
Detroit-Warren-Ann Arbor, MI CSA	2.6	4.8	5.6	2.7	4.9	5.0
Minneapolis-St. Paul, MN-WI CSA	3.4	5.6	5.7	3.4	5.8	5.9
West						
Los Angeles-Long Beach, CA CSA	5.5	5.6	5.8	6.5	5.7	6.1
Phoenix-Mesa-Scottsdale, AZ MSA	4.6	5.5	5.5	4.4	6.5	6.6
San Jose-San Francisco-Oakland, CA CSA	3.0	4.5	4.5	3.3	4.5	4.4
Seattle-Tacoma, WA CSA	5.2	8.7	3.0	2.5	5.4	5.9

[1] These areas include Consolidated Statistical Areas (CSAs) and Metropolitan Statistical Areas (MSAs). Beginning with the December 2018 release, area definitions are based on Office of Management and Budget Bulletin No. 13-01, dated February 28, 2013. Previous area definitions are based on Office of Management and Budget Bulletin No. 04-03, dated February 18, 2004. For more information on metropolitan area definitions, see www.census.gov/programs-surveys/metro-micro.html.

[2] Includes wages, salaries, and employer costs for employee benefits.

SOURCE: U.S. Bureau of Labor Statistics, National Compensation Survey

3 Workforce Housing Overview

Workforce housing is aimed for people who earn too much to qualify for affordable housing but not enough to pay the going market rates for housing. According to the Urban Land Institute (ULI)[9], workforce housing is defined as housing affordable to households earning between 60 and 120% of the AMI. In Miami, this definition is broadened to include households earning

[9] Community and Economic Development in North Carolina and Beyond, *What Exactly is Workforce Housing and Why is it Important?*

between 60% to 140% of the AMI. While identifying household earning 140% of the AMI may seem outlandish for cities such as Boston and New York, it is important to understand that the income of a household earning 140% in Miami is still less than the income of a household earning 120% in Boston or New York. A standard requirement from multifamily owners, is that tenants need to earn 3 times their rent in gross income. This automatically disqualifies hundreds of households in the city of Miami from even applying to new construction buildings in desirable locations forcing them to commute longer distances or live in older buildings of lesser quality.

Table 2: AMI Ranges for Miami, New York and Boston

	Miami	New York	Boston
100% AMI	$ 68,250	$ 93,400	$ 98,150
120% AMI	$ 81,900	$ 112,080	$ 117,800
140% AMI	$ 102,375	$ 140,100	$ 147,225

Increasing the workforce housing threshold to 140% in Miami, lowers the household rent burden from 36.71% at 120% to 29.37% as seen on **Table 3.** We gathered average rents and sale prices from CoStar[10] in order to determine what the rent burdens at different AMI's are for Miami, New York and Boston. Furthermore, by increasing the AMI threshold in Miami we begin to see ways to eliminate rent burden (as defined by households spending more than 30% of gross income on rent). The importance of this tool, which we will further expand on, is that by deeming 140% AMI as workforce housing, developers are able to tap into some incentives such as density bonuses allowing developers to build more of this stock at a better rate of return.

[10] CoStar, *Market and Submarket Reports – Miami, New York and Boston*

Table 3: Rent Burden for Miami, New York and Boston

	Miami	New York	Boston
Average Rent	$ 2,575	$ 3,400	$ 2,900
Rent Burden on 120% AMI	37.7%	36.4%	29.5%
Rent Burden on 140% AMI	30.2%	29.1%	23.6%
Market Rent/SF	45.55	57.52	42.44
Market Rent/SF monthly	$ 3.80	$ 4.79	$ 3.54
Average Rent for 660 SF	$ 2,505.25	$ 3,163.60	$ 2,334.20
Rent Burden on 120% AMI	36.71%	33.87%	23.78%
Rent Burden on 140% AMI	29.37%	27.10%	19.03%
Market Sale/SF	$ 394.00	$ 671.00	$ 477.00
Average Market Value	$ 315,200.00	$ 536,800.00	$ 381,600.00
Years at 100% AMI	4.62	5.75	3.89

***High-cost is a housing value to income ratio of over 3.5*[11]

To better understand the importance of workforce housing, we need first to look at the history of affordable housing and federal housing programs. The programs leading to creation of the Department of Housing and Urban Development (HUD) took place in the early 1930's with programs meant to mitigate the housing burdened caused by the Great Depression. This led to the Housing Act of 1937, which was passed in order to address the housing needs of low income households. Within the Housing Act came Section 8, one of the most important covenants which has aided the supply of low income housing. Section 8 consists of subsidies provided by the government to fill in the gap between the asking rent price and what low income households can afford.

A little over a decade after the Housing Act, HUD was established, elevating the importance of a department focused on the housing needs for Americans. Another groundbreaking policy in subsidized housing was Low-Income Housing Tax Credits (LIHTC). This policy was created under the Tax reform Act of 1986 and spurred an influx of private capital into the development of affordable housing. But why would an investor invest into a LIHTC project that may not even cashflow for many years? In addition to the social impact that investors create through

[11] National Association of Counties, *A Diagnostic Tool for Local Officials*

investment in affordable housing, LIHTC projects can provide a wider range of benefits. Tax benefits in the forms of depreciation and deduction of operating losses as well as the tax credits which can be used by the investor to offset some of their federal income tax liability. In addition to the tax benefits that LITHC allots, affordable housing has been a good hedge against inflation in that rents are backstopped by the federal government. Backstopped rents paired with above average occupancy rates make these investments relatively safe.

While many tools have been created to foster the construction of affordable housing, most if not all of the federal subsidies are targeted for affordable housing or households with incomes below the 80 percent AMI. With limited subsidies from a federal level, workforce housing is left to the state and local governments to address and are often neglected. In addition to the lackluster policies geared towards workforce housing, this segment of the population in Miami is growing rapidly with supply of adequate housing lagging behind. Some of the key attributes towards workforce housing are that they are affordable (costing 30 percent of the household income), of equal quality, and often overlooked but equally as important is that they are within proximity to employment hubs. The latter is perhaps the hardest quality that makes workforce housing hard to attain in desirable metro areas like Miami. With increasing construction costs and a limited supply of workforce housing, families are forced to move to the outer fringes of a region leading to longer commute times and furthering them from the economic nexus that are the city centers.

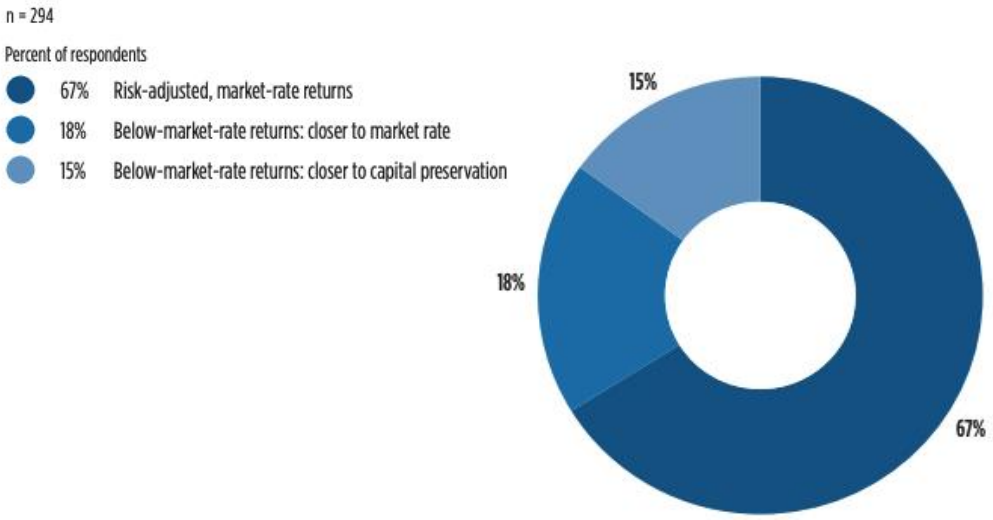
4 Social Impact Investments

Impact Investing dates to the 18th century when the Methodists prohibited the investments which would promote harmful tendencies, such as gambling and liquor sales. Since then, this type of investments evolved to what is now known as Socially Responsible Investing (SRI). SRI's have grown since its inception, fueled by wars and movements such as the Vietnam War, were protestors demanded that university endowment funds no loner invest in defense contractors. In 2006, the United Nations released the *Principles for Responsible Investments*, this report provided guidelines and a method of analysis for those who desire to engage in responsible ownership. The support of the UN, backed by 3,800 signatories and over 120 trillion dollars in assets, garnished the SRI's with institutional backing. In addition to the institutional support

towards SRI's, this type of investment has gained more attention with the more current concept of Environmental, Social and Corporate Governance (ESG). While SRI, ESG and Social Impact Investing are very similar, the main difference between SRI and ESG is that they focus on committing capital to investments that avoid a specific harm as opposed to Social Impact Investments which focus on proactively generating a positive impact, we focus on the latter.

The Global Impact Investing Network (GIIN) is a global champion of impact investing[12]. It defines impact investments as investments made with the intention to generate positive, measurable social and environmental impact alongside a financial return. It has been refined to further include (i) an intention to have a positive or social impact through investing; (ii) an investment with a return expectation; and (iii) a commitment to a statement of initial goals as well as a measuring and reporting results[13]. Impact investing has a broad range of target financial returns, and investor pursue any of the following target returns: market rate, below market returns, and simply return of capital. In the 2020 GIIN Annual Impact Investor Survey, shown on **Figure 8** below, of the respondents, 67% indicated they pursued market rate returns, 18% target below market rate returns, and 15% only wanted their return on capital.

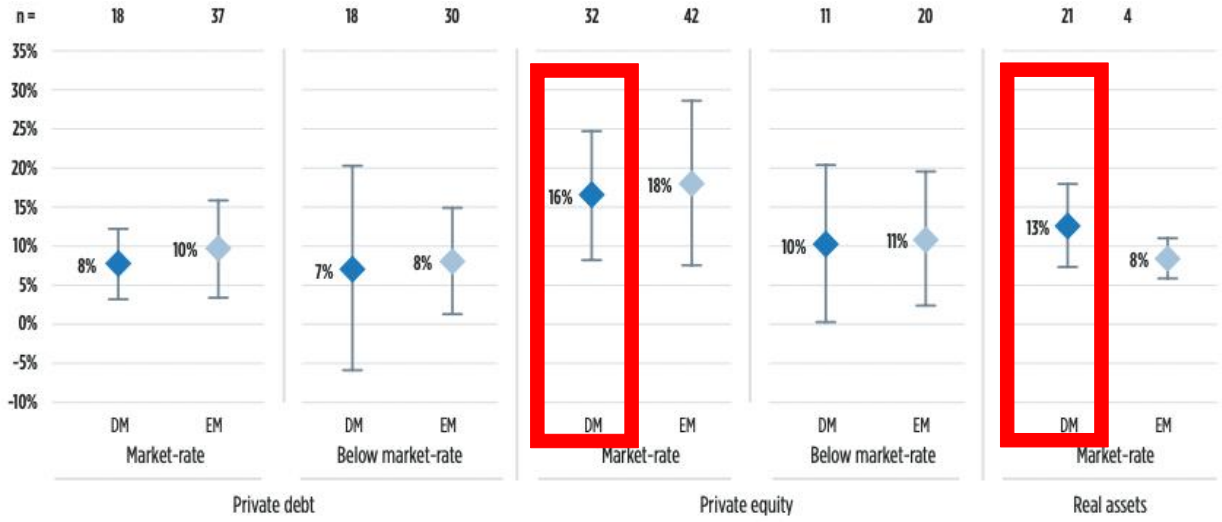
Figure 8 Target Financial Returns[14]



[12] GIIN, *Impact Investing Decision-Making*
[13] Nori Gerardo Lietz, *Ver de Verdad*, Harvard Business School Case
[14] GIIN, *Annual Impact Investor Survey 2020*

While GIIN does not define what constitutes a market return, it does provide the average realized gross return for private market investments, shown on **Figure 9**[15] below. For social impact investments in workforce housing, we will focus on the market rate returns of development markets in private equity and real assets. These range from 16 percent plus or minus 9 percent for private equity and 13 percent plus or minus 5 percent for real assets – we will focus and target real asset returns. Since there are no average gross returns for below market real assets we will target a return of around 9 percent plus or minus 3 percent; for the purpose of this paper this means that the limited partner, or investor shall generate gross returns no more than 3 percent or 300 basis points of what they would generate on a market rate deal.

Figure 9 Average Realized Gross Returns Since Inception for Private Market Investments



GIIN's 2020 Annual Impact Investor Survey noted that 87% of all respondents consider impact being central to their mission. Additionally, 88% of the responded indicated that they met or exceeded their financial expectation. The initial survey conducted over a decade ago found that most investors were willing to tradeoff returns for impact, however this year's survey appears to have consolidated more strongly around risk adjusted and market rate returns. So how is it possible that the majority of these investors and funds who find impact investment as an important motivation expect to have market rate returns? This may be driven in part since over

[15] GIIN, *Growth of Realized Gross Returns and Assets Over Time*

the last decade, most funds in real estate have outperformed their target returns and in the next decade this may no longer be the case. Today, investors want risk-adjusted to market rate returns, but what is important to note is that they are satisfied with concessionary financial performance, if it is in line with what they target – so as long as they outperform their target benchmarks investors are willing to tradeoff some alpha.

4.1 Workforce Housing Impact Investing

Impact investing has grown drastically over the past decade, the most recent report by GIIN, *Sizing the Impact Investing Market 2022*[16], estimates that assets under management for impact investments surpassed 1 trillion dollars for the first time. GIIN estimated that over 3,349 organization manage 1.164 trillion dollars in impact investing worldwide. The main question for this paper is whether workforce housing is falls under the category of impact investments. Numerous housings advocated would find it absurd that creating housing for households earning 140% AMI should be considered an impact investment. While I understand that households earning below 100% AMI should be the priority, ignoring the supply of 140% AMI households will only continue to rent burden more residents of Miami. So long as we are not detracting from funding or incentives towards lower income households, workforce housing does have space in impact investing, including 140% AMI in Miami. This income bracket sounds high, however if they are still rent burdened then there is mission in helping those households bridge the gap towards affordability.

5 Miami Zoning and Entitlements

One solution at the core of the housing affordability crisis in Miami lies within policy. Miami's zoning history dates to 1934, when the City of Miami Commission adopted the first zoning ordinance. For decades the zoning code in Miami was described as a hodge-podge of innumerable amendments with no regard to smart growth nor quality of life[17]. In 2021, Miami

[16] GIIN, *Sizing the Impact Investing Market*
[17] Miami 21, *Miami's Zoning History*

had a major overhaul of the city's code; changing every aspect of how buildings are developed, from how buildings are designed to how developers interact with the city. This project was called Miami 21, and it shifted the Euclidian based zoning policies to a hybrid containing both a traditional Euclidian zoning section and a form-based section[18] - leaning towards form-based zoning. Miami 21 was intended to represent Miami as the city of the 21st century, providing a roadmap for future generations guided by tenets of New Urbanism and Smart Growth[19].
Miami 21 focuses on: economic development, historic preservation, park and open spaces, arts and culture, and transportation. The new priorities have put a spotlight on affordable and workforce housing.
While the shortage of workforce housing has only increased in recent years, this new code reform has allowed new neighborhoods to sprawl. Without the overhaul of Miami's code neighborhoods such as Wynwood would not exist, as Francisco Garcia, the city's planning director mentioned in an interview[20]. Developers can broaden their land acquisitions further from the city center to provide equal quality buildings at a lower basis making it possible to provide housing below market, particularly at the 140% threshold that we target in this paper.

5.1 Workforce Housing Incentives

The need for workforce housing in Miami spurred the Board of County Commissioners to adopt a workforce housing development program in 2007. It focused on creating incentives for the development of projects targeting the workforce target income group – defined in section 33.-193.4 of the Code of Miami as households earning from 60 percent up to 140 percent of the county's median income. The amended code states that it is in the best interest of public health and future residents of Miami to reduce this economic stratification by adopting land use regulations encouraging the development of projects in the workforce income bracket[21]. Some of the incentives created to promote the development of workforce housing follow.

[18] Miami Dade, *Zoning Code*
[19] Miami 21, *Project Vision*
[20] Governing, *The Miami Method for Zoning: Consistency Over Chaos*
[21] Miami Code, *Sec.33-19.4*

Density Bonus

For below market rate to be competitive with market rate projects, from the perspective of a developer, added density is crucial. Under section 3.14.4 of the amended code, the development shall be allowed an equivalent amount of developer floor area for each square foot of workforce housing priced above 80 percent of the AMI. This tool may be the strongest one in the advancement of workforce housing; however, it is important to note that housing below 80 percent AMI is allotted a 300% density bonus, therefore higher density bonuses will likely be needed for developers to generate commercial rate of returns. Also, to consider, this 1 for 1 density bonus does not have to be filled with additional workforce housing, meaning that a building could consist of half workforce housing and half market rate housing. In an average size apartment building of around 200 units this would mean 100 less workforce units would be delivered. In the event that all building is workforce housing an additional density bonus would yield significantly more units; for example, if a 150 percent bonus is allotted the developer could generate a total of 250 workforce units instead of 100 – we will explore this option in our base case scenario.

Impact Fee Deferral

Like most cities, developers pay impact fees to help fund the expenses incurred by police, fire department and emergency services. In Miami, these impact fees are required for the city to issue a permit. The schedule of impact fees can be significant and penalizes developments with bonus FAR; the reason for this is because impact fees are charged on a unit basis plus a cost per square foot so a building with 100 percent FAR bonus will essentially pay double what a market rate development would pay. In Miami, the cost per unit is $8,269.13 plus $0.918 per square foot as shown on **Figure 10** below:

Figure 10: Miami Impact Fee Schedule

MIAMI-DADE COUNTY IMPACT FEES RATE SCHEDULE									
LAND USE	ROAD	ROAD	FIRE	POLICE	SCHOOL	PARKS	PARKS	PARKS	UNITS
	As of October 1, 2022		As of October 1, 2022						
	Non UIA*	UIA*				DIST 1 (North)	DIST 2 (Middle)	DIST 3 (South)	
Port and Terminal									
Truck Terminals	$10.6605	$10.0802	$1.4477	$0.4048					sq. ft.
Industrial									
Industrial Park	$7.4243	$7.0207	$1.4477	$0.4048					sq. ft.
Manufacturing	$4.0755	$3.8535	$1.4477	$0.4048					sq. ft.
Warehousing	$5.2916	$5.0023	$1.4477	$0.4048					sq. ft.
Mini-Warehouse	$2.5550	$2.4154	$1.4477	$0.4048					sq. ft.
Residential									
Single Family Detached	$10,093.68	$9,543.67	$447.01	$583.31	$612.00	$4,154.34	$2,931.47	$2,613.33	
Total road, fire, police, park & school						**Non UIA****	$15,890.34	$14,667.47	$14,349.33	unit
						UIA**	$15,340.33	$14,117.46	$13,799.31	
plus (max. 3,800 sq. ft. per unit)					$0.918				sq. ft.
Apartment (Rentals)	$7,087.95	$6,701.09	$447.01	$583.31	$612.00	$2,438.63	$1,837.85	$1,619.13	
Total road, fire, police, park & school						**Non UIA****	$11,168.90	$10,568.12	$10,349.39	unit
						UIA**	$10,782.04	$10,181.26	$9,962.53	
plus (max. 3,800 sq. ft. per unit)					$0.918				sq. ft.
High-Rise Apart or Condo over 3 floors	$4,430.39	$4,188.18	$447.01	$583.31	$612.00	$2,438.63	$1,837.85	$1,619.13	
Total road, fire, police, park & school						**Non UIA****	$8,511.34	$7,910.56	$7,691.83	unit
						UIA**	$8,269.13	$7,668.35	$7,449.63	
plus (max. 3,800 sq. ft. per unit)					$0.918				

To mitigate the impact fees on affordable and workforce housing the city implemented some additional incentives. In 2021, impact fees for housing below 80% was waived.
On July 7, 2022 the Board of County Commissioners approved an ordinance, which would extend the waiver of impact fees for housing up to 120% AMI. While workforce housing at 140% does not get an impact fee waiver, it did receive a deferral, allowing developers to pay impact fees upon issuance of a certificate of occupancy rather than upfront.

Expedited Permit Review

Another negative effect of density bonuses is the added time to build which returns are very sensitive too. The city of Miami has prioritized permit reviews for workforce housing reducing the pre-construction timeline significantly. This process is expedited as it is reviewed by all departments simultaneously, voids any appeals, and prioritizes the project allowing the developer to start construction faster. We estimate that the shortened expedited process, alongside with the quicker stabilization period due to more competitive pricing will yield similar timeline from acquisition to disposition for a project with 100+ percent density bonus.

6 Methodologies

To evaluate recommendations and solutions to attract developers to create more workforce housing we will investigate public policy, and capital markets. The goal of this exercise is to find multiple scenarios where a general partner/developer will generate similar returns from below market residential markets than from market rate residential. To do so we will model the following scenarios:

- Market rate rental
- Below market rate (140% AMI) rentals

We believe that through incentives such as higher density, expedited permitting, and more amenable capital a workforce housing developer will be able to compete with market rate developers thereby increasing the supply of workforce housing.

7 Case Study

We will be focusing on District 3 with a focus on Wynwood and Edgewater. These neighborhoods have proximity to most of the city hubs and at lower land basses (as compared to Brickell, Miami Beach, and Coconut Grove) while remaining a desirable location. We will be analyzing a hypothetical one-acre lot on the north end of Wynwood in this model.

7.1 Assumptions

Comparable projects with their respective rental prices can be seen on **Table 4** below. For this case we will assume a price per square foot of $4.31 for the market rate. For the workforce housing we will assume $3.84, and a unit mix of equal size and unit type allocations, shown on **Table 5,** as the market rate scenario. Although many affordable and workforce housing developers will shrink the unit size to yield higher psf, one of our criteria is to develop workforce housing of equal standard to market rate. The city of Miami does a good job at mitigating this side-effect by prioritizing density on units per acre as opposed to simply floor area ratios,

however it is easy to manipulate and model various permutations of different area matrices to provide smaller units.

With regards to land, Wynwood has had multiple recent sales ranging in price per acre from $5 million to upwards of $13 million. For our model we will assume a land acquisition cost of $8 million dollars per acre.

Table 4: Unit Comps

Building	Price	Area	PSF
Base Case			$ 4.31
Strata Wynwood	$ 2,513.00	566	$ 4.44
Strata Wynwood	$ 3,800.00	915	$ 4.15
Wynd 27	$ 2,665.00	562	$ 4.74
Wynd 27	$ 4,140.00	924	$ 4.48
Eve	$ 2,974.00	707	$ 4.21
Eve	$ 4,002.00	1027	$ 3.90
Wynwood 25	$ 2,695.00	636	$ 4.24
Wynwood 25	$ 3,720.00	1026	$ 3.63

**Source: Zillow*

Table 5: Unit Mix

Below Market Rate Unit Mix				
	Unit Count	Unit Mix Pct.	Area	Rent
Studio	54	10%	550	$2,112.00
1 Bed	130	28%	650	$2,496.00
2 Bed	210	55%	800	$3,072.00
3 Bed	26	8%	900	$3,456.00

Market Rate Unit Mix				
	Unit Count	Unit Mix Pct.	Area	Rent
Studio	27	13%	550	$2,370.50
1 Bed	65	31%	650	$2,801.50
2 Bed	105	50%	800	$3,448.00
3 Bed	13	6%	900	$3,879.00

7.2 Financial Assumptions

Our financial assumptions will be virtually the same for below market rate and market rate scenario except for the percentage contribution of the general partner on the below market rate scenario. We are assuming a 10 percent and 15 percent sponsor contribution on the below market rate and market rate scenario respectively. Since the below market rate project will be larger in value and size, to generate commercial returns developers will need to raise more equity both in volume and percentage. Capital stack, partnership structure, and sources and uses can be seen on the **Table 6** and area matrix assumptions can be seen on **Table 7.**

Table 6: Partnership Structure, Uses and Sources

Partnership Structure		
Sponsor Equity Share	10%	$7,213,320
LP Equity Share	90%	$64,919,881
Total Equity		$72,133,202

	Sponsor	LP	IRR
Preferred Return	10%	90%	8%
Hurdle 2	**20%**	**80%**	11%
Hurdle 3	**30%**	**70%**	0%

SOURCES			PSF
GP Equity	10%	$7,209,722	$180.24
LP Equity	90%	$64,887,494	$1,622.14
Total Equity	40%	$72,097,216	$1,802.38
Debt	60%	$108,145,824	$2,703.57
Total Sources		$180,243,040	$4,505.95

USES	pct		PZFA
Acquisition	4.44%	$8,000,000	$18.37
Closing Costs	0.04%	$80,000	$0.18
Hard Costs	75.40%	$135,906,054	$312.00
Soft Costs	15.71%	$28,313,761	$65.00
TDC Before Interest	97.68%	$176,053,391	$404.17
Interest	2.32%	$4,189,649	$9.62
TDC		$180,243,040	$414

Partnership Structure		
Sponsor Equity Share	15%	$5,870,320
LP Equity Share	85%	$33,265,148
Total Equity		$39,135,468

	Sponsor	LP	IRR
Preferred Return	15%	85%	8%
Hurdle 2	**20%**	**80%**	12%
Hurdle 3	**30%**	**70%**	0%

SOURCES			PSF
GP Equity	15%	$5,868,164	$293.41
LP Equity	85%	$33,252,932	$1,662.65
Total Equity	40%	$39,121,096	$1,956.05
Loan	60%	$58,681,644	$2,934.08
Total Sources	0%	$97,802,741	$4,890.14

USES	pct		PZFA
Acquisition	8.18%	$8,000,000	$36.73
Closing Costs	0.08%	$80,000	$0.37
Hard Costs	71.26%	$69,695,229	$320.00
Soft Costs	16.03%	$15,681,426	$72.00
TDC Before Interest	97.48%	$95,333,441	$437.72
Interest	2.52%	$2,469,300	$11.34
TDC		$97,802,741	$449.05

Table 7: Area Matrix

Below Market Rate Project Details		
Lot Size	43,560	1.0 Acres
Density Bonus		100%
Allow GFA	435,600	10 FAR
Residential	305,595	*70%*
Retail	20,000	*5%*
Lobby/Amenity	30,000	*7%*
Mech/Loading	40,000	*9%*
Parking	40,001	*9%*
Total	435,596	100%

Below Market Rate Rental Assumptions	
Resi	$3.84
Parking	$120.00
Retail	$40.00
Vacancy	5%
OPEX	21%
Rent Growth	3%
Interest	6%

Market Rate Project Details		
Lot Size	43,560	1.0 Acres
Density Bonus		0%
Allow GFA	217,800	1 FAR
Residential	152,798	*70%*
Retail	10,000	*5%*
Lobby/Amenity	15,000	*7%*
Mech/Loading	20,000	*9%*
Parking	20,000	*9%*
Total	217,798	100%

Market Rate Rental Assumptions	
Resi	$4.31
Parking	$120.00
Retail	$40.00
Vacancy	5%
OPEX	21%
Rent Growth	5%
Interest	6%

8 Economic Summary

With the assumptions in place, most importantly maintaining the 100% bonus FAR and equal impact fees we gathered the following return metrics. On the market rate scenario, we estimate levered, general partner and limited partner returns of 14.05%, 16.55% and 13.61% respectively. Focusing on levered returns, these are in line with the average realized gross returns shown in **Table 8**, ranging for market rate returns for private equity and real assets between 16% and 13%. For the below market rate scenario, we estimated levered, general partner and limited partner returns of 11.69%, 14.90% and 11.32% surpassing the average realized gross returns for below market private equity deals. Our spreads between market and below market returns for levered, general partner, and limited partner returns are -237 bps, -165bps and -228bps respectively (note that our target spreads from the LP's perspective mentioned in Chapter 4 were -300bps and we are targeting a spread of -228bps). Although the developer yields returns close to commercial rates they are still not fully incentivized to develop a more complex project while leaving 165bps on the table. In the strategies and recommendation section of this paper we will look into ways so that the developer can generate equal or greater returns.

Table 8: Economic Summary

Market Rate Returns	
Project Profit	$26,194,172
Unleverred IRR	11.80%
Unleverred EM	1.27x
Equity Profit	$18,453,896
Leverred IRR	14.05%
Leverred EM	1.47x
YoC	6.53%
Trended YoC	6.86%
GP IRR	16.55%
GP EM	1.76x
LP IRR	13.61%
LP EM	1.53x

Below Mkt. Returns		Return Impact
Project Profit	$38,421,673	
Unleverred IRR	10.28%	-153bps
Unleverred EM	1.22x	-0.06x
Equity Profit	$24,657,356	
Leverred IRR	11.69%	-237bps
Leverred EM	1.34x	-0.13x
YoC	6.37%	
Trended YoC	6.56%	
GP IRR	14.90%	-165bps
GP EM	1.71x	-0.05x
LP IRR	11.32%	-228bps
LP EM	1.40x	-0.13x

9 Risk Mitigation

A model is only as strong as its assumptions, and we understand that there can be fluctuations in this model, which need to be addressed. Fluctuations in cap rates spreads, and not adhering to zoning restrictions due to greater density are the greatest risks that need to be considered prior to developing workforce housing.

Regarding cap rates, affordable housing or Class B and Class C housing have historically traded around 60bps to 100bps above market rate housing[22]. In this model we assumed equal cap rates of 6.00 percent. If cap rates increase by 25bps the spread between below market rate to market rate from the developer's perspective would increase downwards from to -165bps to -861bps, however we don't believe this to be a realistic scenario in the workforce housing market. While Class B and Class C housing tend to trade at higher cap rates, we need to understand that the product we are analyzing in this paper should more closely align with Class A property. The reason for this is because it is new product in desirable locations.

One key distinction why the market rate product analyzed in this paper may trade at a lower cap rate historically is because of the higher rent growth and percentage of rent collected. In the current cycle that we are on, rent growth has begun to mean revert and market rate apartment

[22] Walker & Dunlop, *Affordable Housing: A Large & Undersupplied Market,*

rent growth is expected to keep slowing this year[23], which is likely to impact market rate apartments more since they are much more dependent on rent growth than workforce housing. In addition to rent growth reversal, workforce housing is less volatile and has a lower beta than do market rate apartments. As we are experiencing record high rental rates and an affordability crisis, the demand for workforce housing will increase at a faster pace than market rate, this will result in quicker stabilization periods, lower turnovers and vacancy rates providing less volatility in top line revenue for workforce housing.

Last, how do we mitigate not exceeding the height and density limits in Miami? Since the inception of Miami 21 and a shift towards form-based code a developer is able to understand what the height and density limits in their proposed project are. To avoid surpassing any zoning limits, we need to focus on areas that have a density of 65 to 150 units per acre. These areas typically have height restrictions of up to 500 feet, and as of right 100% bonus density for workforce housing. Maintaining this density with a 100% bonus premium will allow the developer not to exceed the 500 feet heigh limit. It is unlikely that projects in higher zoned areas will meet this requirement as the height restrictions won't allow for double the density.

10 Strategies

While the public and private sector both provide various tools to incentivize the development of workforce housing, they still have not stopped the growing shortage on of this product type. A combination of cheaper capital and public incentives is needed to mitigate this shortage and aid the affordability crisis in Miami.

The growth of socially responsible investments is the biggest source of capital we investigate in this paper. We focus on such given the merchant strategy of this development – develop, stabilize, and sell. If institutional investors pursue longer holding periods, additional cheaper capital can be sourced from permanent loans and larger banks. Appetite for social impact investing and SRI's is not only growing in the equity investors sectors but with the growth of ESG, there is added pressure for larger institutional banks to invest in social impact investing and

[23] The Wall Street Journal, *Apartment Rent Growth Set to Keep Slowing,*

SRI's. Higher limited partner equity, more amenable waterfall structures, and lower interest rates on permanent rates will further incentivize developers to build workforce housing.

In the economic summary, Chapter 8, we see how based on our model the developer of below market rate is leaving 165 bps on the table. Developer fees can mitigate this delta. One assumption we wanted to hold on these scenarios was having comparable waterfall structures given that investors are funding larger investments for below market projects. However, one tool we do not analyze and will cover the negative spread are developer fees. Given the larger total development cost of the 140% AMI scenario, $180M vs. $97M, a developer fee will yield much more volume for the 140% AMI developer. For example, if a developer charges a 2% and 3% fee for the below market and market rate project respectively, the developers would generate $3.6M as opposed to $1.9M. We assume a lower developer fee for the larger project to be conservative, but even at a 50% discount in fee, the below market rate developer will collect a higher fee covering the negative spread in the return previously mentioned.

Miami is a leader in pro-development policies however the difference in incentives from affordable to workforce housing limits the appetite and conviction for workforce housing developments. While our aim is to limit the resources for 140% AMI housing, as to not disturb resources which are better used on affordable housing, there are other tools that can be expanded with minor repercussions to the overall population. In our base scenario, if we only use either density bonus or impact fee reductions, we estimate that the following recommendations can increase the supply of workforce housing per project by 200 percent. For a developer to achieve returns commensurate with market rates we estimate the need of density bonuses greater than or equal to 131 percent as opposed to the current 100 percent bonus. Keep in mind, that affordable housing currently receives an as of right 300 percent bonus. Regarding impact fees, we estimate that impact fees should be reduced by 38 percent, meaning that a workforce housing developer would pay 62 percent/per unit of what a market rate developer would. This would not affect the resources of the services severely because although each unit would only pay 62 percent of other impact fees, there are double the number of units. These strategies would increase the return of the below market rate to 16.55% matching the returns of the market rate scenario.

Table 9: Scenario Analyses for Bonus FAR and Impact Fee Rate

Bonus FAR	Leverred	GP	LP
200%	13.46%	19.59%	12.75%
175%	13.12%	18.66%	12.48%
150%	12.73%	17.58%	12.17%
131%	12.36%	16.55%	11.88%
125%	12.26%	16.26%	11.81%
110%	11.93%	15.36%	11.54%
100%	11.69%	14.90%	11.32%

Impact Fee Rate	Leverred	GP	LP
0%	13.48%	19.63%	12.77%
25%	13.03%	18.05%	12.46%
50%	12.58%	17.16%	12.06%
62%	12.37%	16.55%	11.89%
75%	12.13%	15.69%	11.71%
90%	11.87%	15.24%	11.48%
100%	11.69%	14.90%	11.32%

A more prudent strategy to spur workforce development is a combination of density bonuses and impact fee discounts. **Table 10** shows the combination of both tools that would generate a commensurate return to market rate apartments from the perspective of a developer.

Table 10: Combined Scenario Analysis

Developer Rate of Return Based on Density Bonus and Impact Fee Discount								
		Percent of Market Rate Impact Fee						
Bonus FAR	0.00%	100%	90%	80%	70%	60%	50%	40%
160%	18.05%	18.56%	19.06%	19.57%	20.07%	20.57%	21.06%	
150%	17.58%	18.09%	18.59%	19.10%	19.60%	20.10%	20.60%	
140%	17.09%	17.60%	18.11%	18.61%	19.11%	19.61%	20.11%	
130%	16.54%	17.05%	17.56%	18.06%	18.57%	19.07%	19.56%	
120%	15.97%	16.48%	16.99%	17.49%	17.99%	18.49%	18.99%	
110%	15.36%	15.83%	16.34%	16.84%	17.35%	17.85%	18.35%	
100%	14.90%	15.24%	15.65%	16.16%	16.66%	17.16%	17.66%	

11 Conclusion

With the ongoing and growing affordability crisis in Miami, households earning 140% will continue to be rent burdened and unqualified for quality housing close to city centers. In this paper, we looked at different strategies to incentivize sponsors to develop more workforce housing. While we understand that affordable housing at lower income levels is a higher priority, we believe that the 140% demographic is underserved, and stakeholders can do good by developing more housing for this demographic. We focus on the public sector, capital market and developer perspective and find a combination of tools that can spur the supply for workforce housing.

Although Miami has been at the forefront in pro development policies there is more that can be done to serve the workforce population. We noticed that there is a hard line between affordable housing and market rate housing and recommend a couple of strategies to stagger the incentives across the board whilst not affecting the city's resource for affordable housing. From these we highlight a FAR bonus of 120% for developers who provide a building with 100% workforce housing. Paired with a 15% discount in impact fees we anticipate that this can generate 200% additional workforce units per project.

From the capital markets perspective, the growth of socially impact investments has helped the supply of affordable housing. We recommend limited partners to increase their investments in workforce housing. While this investment type may be less mission driven than affordable housing, we have proposed tools to generate higher returns as compared to affordable housing to mitigate that. Not only is workforce housing a socially responsible investment, but it can also be a safe investment while generating above benchmark returns. Although the focus of this paper is on private investors, institutional investors would also do good on expanding their SRI's into workforce housing; this would allow developers to maintain workforce housing for longer periods of times with amenable permanent loans.

The public sector and capital markets are vital partners in stimulating the supply of workforce housing, but ultimately it is up to the developer to make this happen. In this paper we have provided various tools and recommendations providing a blueprint for positive impact investments with commercial returns, but there is one final tool and perhaps the most powerful one. We as developers need to be creative looking at different projects to develop and be

champions of developments that will not rent burden households. In order to grow the supply of workforce housing in Miami, we need to talk about this issue, voice our concerns and take action.

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Figures

Tables