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Buying and Selling: Exploring Residential Landlords' Acquisition and Disposition Decisions

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ABSTRACT
We examine rental landlords' decisions to buy and sell investment properties. We use the results of a new survey of owners of rental properties in nine major US cities, focusing on a subset of rental investors who own properties themselves, where we ask questions about their demographic and economic backgrounds, rental portfolios, and business management practices, and questions about their interest in acquiring new investments and plans to sell properties currently in their portfolio. We use these data to specify a series of regressions examining the factors that shape owners' decisions to grow or shrink their businesses. First, we examine whether financial factors affect acquisition and disposition decisions. In this category, we include a variety of measures, including rents, external shocks, the owner's reliance on rental income, debt, and portfolio characteristics. Second, we examine the impact of the owner's personal characteristics—including age, gender, race, and ownership length—on investment behavior. Finally, we examine the influence of operating experience on future investment decisions, including interactions, vacancies, evictions, property investment, and business impacts from COVID-19 and other external events. Our analysis contributes to a growing body of research on the businesses of small landlords and their impact on the housing system.

KEYWORDS
Property investors; rental housing; landlords

Introduction

In housing scholarship, and even more so in popular discourse, we often treat landlords (a group we refer to with the more neutral term, residential rental property owners [RRPOs] henceforth) as a uniform block with similar financial resources, motivations, and strategies. However, scholars have begun highlighting the diversity among RRPOs, a group that ranges from owners of a a single local property to national companies with thousands of units in their portfolios across diverse locations. These researchers are motivated by the idea that if we better understand the businesses of these RRPOs, we can tailor housing policies, particularly those that seek to either subsidize or regulate rental businesses, to stabilize housing markets and increase housing stability efficiently. This project contributes to this effort by examining the decisions of RRPOs to expand or shrink their rental investments. We focus on a subset of RRPOs who personally own rental properties, excluding those who manage properties for other investors or invest through a fund or other financial vehicle.

To examine the acquisition and disposition decisions of these RRPOs, we analyze the results of the 2022 wave of a survey of rental property owners in 9 American cities. In it, we ask owners a panel of questions about their personal backgrounds, portfolios, rental business operations, business satisfaction, and plans to buy new or sell existing properties. With these responses, we estimate a series of regressions testing for associations between owners' personal, operational, and investment experiences and their desire to expand or shrink their rental holdings.

Our analysis illustrates the complexity of RRPO investment decision-making. While some owners may enter the business with clearly articulated investment strategies, others become RRPOs without a defined hold period or a future disposition strategy in mind. Our survey results suggest that RRPOs'

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decisions to expand their portfolios or to sell properties are influenced by their lifecycle considerations, such as age, tenure in the industry, and subjective enjoyment of the business. We also find that RRPOs' experiences operating their businesses influence their decisions to buy or sell, although factors that increase interest in purchasing new properties are not exact mirrors of those associated with plans to sell. Finally, not all RRPOs enter the field with a professional understanding of real estate practices or the strategies that help to mitigate risk. We find that financial considerations matter, particularly those that reflect specific investment strategies among investors.

Our paper proceeds as follows. In the next section, we review the existing literature related to RRPO business practices, focusing on the motivations and experiences of small-scale investors. Following that, we describe our survey and the empirical design we use in our analysis. We then interpret our analysis, detailing the correlates of sales and purchase decisions separately. In the final section, we provide a short conclusion and details for the next steps in this research.

Background

Although there is a growing interest in the businesses of individual RRPOs within the housing and policy research fields, there is still relatively little formal research on how these owners make business decisions (Cook et al., 2024). In this paper, we seek to add to the scholarship on RRPO decision-making by examining one of their most consequential decisions: whether to expand or shrink their portfolios. Previous research tends to fit into three categories related to the behavior and decision-making of RRPOs. The first set of studies focuses on investment strategies and, in particular, the financial factors that influence property investment and how risk tolerance, return expectations, and portfolio optimization affect owner decision-making. In the second set, scholars focus on operations and how property management, rent setting, and other operational factors influence RRPO behavior. In the final set of studies, researchers examine investor career trajectories and how changes in the lives and circumstances of the owners themselves influence their investment decisions. This research links the diversity in RRPO backgrounds and investment goals to the heterogeneity in RRPO behavior. In this section, we summarize each of these past research areas and consider how they may predict the investment decisions of RRPOs.

Investment Strategy

RRPOs are, by either intent or circumstance, real estate investors. As such, they may seek to earn their return in one, and often all three, ways. The first is through capital appreciation. While not all real property appreciates, most investors assume, or at least hope, they will sell their property for more than they purchased it. This is true for most residential landlords, as it is for investors seeking to flip properties quickly and even for owner-occupiers. Often what sets RRPOs apart from owner-occupiers and other investors is the role of added income from operations. RRPOs earn income from unit rents and by charging for parking, laundry, and other on-site amenities. Many RRPOs anticipate that their properties will produce a positive operating cash flow after paying for maintenance, debt, insurance, and taxes. Finally, in addition to the direct financial return from real estate investing, some RRPOs also benefit from the favorable tax treatment of real estate investments, particularly those that produce income through rent. Although the tax shelter benefits of investing in for-rent residential real estate have changed over time, they likely continue to affect the behavior and decisions of some investors.

Most previous research on the financial motivations of real estate investors focuses on the behavior of large institutional investors. For example, finance scholars studying the portfolios of large-scale, publicly traded REITs and private equity funds have examined whether investors optimally balance their portfolios (Hendershott & Macgregor, 2005), correctly time the acquisition and disposition of their investments (Bayer et al., 2021, Brown et al., 2008, Garriga et al., 2023, Haughwout et al., 2011), and adequately hedge against risk (Wiley, 2012). Looking at smaller-scale investors and owner-occupiers, researchers have begun to study whether and to what extent emotion and cognitive biases influence investment decisions (Salzman & Zwinkels, 2017). Much of this research is focused on the behavior of owner-occupiers; however, small-scale investors and owner-occupiers tend to make their own purchase and sale decisions, unlike institutional investors, REITs, and private equity firms that rely on the advice of investment committees and outside consultants. Thus, small-scale investors and owner-occupiers are likely to be influenced by biased and emotionally inflected decision-making similarly. Einiö et al. (2008) find some evidence of this in their study of condominium purchases in Helsinki. They find that condo owners are generally loss-averse and, as a result, less likely to sell when property prices fall. Investors renting out their condos still exhibit loss aversion, though to a lesser extent than owner-occupiers.

Individual investors are also more likely to rely on limited investment information and learn about investments via seminars, advertisements, and social networks (Garboden et al., 2018). This leads RRPOs to mistime their purchases and overpay for their properties. Bayer et al. (2021) found that during the inflation of the 2008 housing bubble, many individual investors were influenced by investment activity in their neighborhoods. As a result, these contagion-influenced investors were more likely to purchase properties at the market's peak. Other research suggests that at least when deciding when to sell, RRPOs generally respond to market signals, selling properties when prices are rising faster than rents (Brown & Geurts, 2005).

While many RRPOs are motivated by the possibility of capital appreciation, it is unclear whether and under what circumstances their investments meet their expectations. This could be because buyers tend to focus on assumed future property values when making their investment decisions. Although RRPOs, like many property owners, are optimistic about potential price appreciation, the aggregate effect of this behavior tends to price appreciation into property values. For example, Capozza and Seguin (1996) find an inverse relationship between gross rents and expected future price appreciation. This suggests that investors are willing to bid higher amounts relative to rents for properties they expect to appreciate in the future. However, some RRPOs do not purchase and sell properties based solely, or even primarily, on the expected sales price of their acquisitions. Although they study a very different market context from our current study, Kemp and Rhodes (1997) suggest that though most anticipate long-term capital gains, many RRPOs make their investment decisions based on a desire to park a large amount of capital in a relatively expensive 'brick-and-mortar' physical asset.

There is relatively little contemporary research on the extent to which tax considerations influence the investment decisions of individual RRPOs. This is partly because tax reforms have reduced the extent to which real estate investments receive favorable treatment in the federal tax code. But there is clear evidence that developers and investors responded to the tax reforms of the 1980s, steering capital first into and then out of apartment investments as tax laws changed (Follain et al., 1993). More recently, researchers have found that income taxes and tax policy continue to matter vis-à-vis real estate investments (Shroder, 2001). King and Leape (1998) show that income, not surprisingly, is positively correlated with real estate investments, and increases in top marginal tax rates increase an investor's propensity to purchase real estate.

Operations

While some aspects of RRPO decision-making will be driven by their pre-determined and fairly fixed investment strategies, we also expect that their experience operating their rental businesses will influence their future purchase and sales decisions. Of course, property management and operation could be part of an RRPO's investment strategy. For example, Mallach (2010), focusing on investors in distressed properties during the 2008 housing crash, offers a typology of real estate investors that differentiates RRPOs by their operational strategies. Some investors buy properties intending to sell them again quickly, either after making substantial investments (rehabbers) or by taking advantage of seller or buyer ignorance (flippers). The two other investment strategies in Mallach's typology involve clear operational components—milkers and holders. Milkers are motivated by maximizing the rental income they can extract from their investments. To do so, they charge the highest rents possible and perform little to no property maintenance. Milkers do not expect to attract and retain long-term tenants or anticipate earning much of their return from property value appreciation. In contrast, holders are motivated by operational income and price appreciation. As such, they seek stable, long-term tenants and invest regularly in maintaining and improving their properties.

While some RRPOs may enter the business with preset and immutable operational strategies, other researchers have found that many RRPOs' experiences operating their rental properties can influence their management strategies and future investment behavior. This is particularly common among inexperienced RRPOs with limited financial resources. These investors often underestimate the work involved and the costs of maintaining their rental portfolios (Garboden & Newman, 2012). Not only does this lead to undesirable tenant and, by extension, community outcomes, but it can also compound the financial precarity of investors. Because of the costs associated with finding new tenants and the possibility of a prolonged unit vacancy, it is generally in an RRPO's interest to minimize turnover. This, in turn, requires keeping their tenants satisfied and proactively investing in property maintenance and upkeep. Neglect by investors may beget future financial precarity, which could influence the behavior of small RRPOs oriented toward protecting future investment outcomes.

Not only does experience with operating rental properties affect the financial position of RRPOs, but their experience with operating their rental properties can affect their desire to remain in the business. While disappointing returns can sour an RRPO's experience in the business, so too can challenging experiences with tenants. (Seelig et al., 2009), for example, find that RRPOs who report dealing with problem tenants cite it as a motivating factor in selling their property and exiting the business. Kuhlmann et al. (2022) similarly find that negative experiences with tenants can lower RRPOs' reported satisfaction with owning rental properties.

In summary, we expect that RRPOs will decide whether to expand or shrink their portfolios based on pre-determined investment strategies and their experience with and previous success operating their investments. Some RRPOs may decide to acquire new or dispose of existing properties when market prices have appreciated and they have reached certain return goals. Others may base their acquisition and disposition decisions on their experiences operating their existing portfolios, buying new properties when their existing rentals are stabilized, and selling when their investments are not hitting their cash flow expectations.

Career Lifecycle

So far, we have discussed how financial performance and operations drive and shape the investment behavior of individual RRPOs. While some RRPOs base their investment decisions on sophisticated financial projections that consider the cost of maintenance and operations, others have expectations shaped by their experiences with leasing and management challenges, slower-than-expected price appreciation, or other operational considerations. Although many of these factors are outside an RRPO's direct control, they are still related to the investment. The investment behavior and motivations of individual RRPOs are also influenced by factors exogenous to their investments. To wit: personal and life circumstances—age, family status, retirement planning, etc.—may shape owners' decisions to purchase additional buildings, affect their ability and desire to manage them, and influence the timing of their dispositions.

While most investors hope to earn a positive return on their properties, many enter the business with less defined financial motivations. For example, some property owners become RRPOs without explicit plans to do so—by inheriting their property, moving and retaining their old home as an investment, purchasing a property for the temporary use of a family member, or deciding to lease their vacation property. One study found that investors who become RRPOs due to life circumstances tend to focus less on profit maximization than those who enter the market intentionally (Shiffer–Sebba, 2020). These circumstantial owners are particularly sensitive to the time, effort, and expense of operating their portfolios. Their decisions to sell or use their properties for other purposes are more often influenced by lifestyle, employment status, or other external factors rather than a preconceived investment strategy.

But even RRPOs who purchased their properties primarily for financial return may have their future investment decisions influenced by changes in life circumstances. For example, Kohler and Rossiter (2005) find that many RRPOs purchase their properties during their prime income-earning years and begin selling them as they reach retirement age. However, depending on the RRPO's retirement planning, other investors might be less likely to sell as they reach retirement age if they plan to supplement their retirement income with rental cash flows. Similarly, they find evidence that RRPOs are more likely to sell their investments when they experience changes in their household composition through marriage or divorce (Brown et al., 2008).

Some investors, either by original intent or family circumstances, use their properties as savings vehicles for their children. These owners are more likely to purchase their properties when their children are young and sell or gift them to their children as they leave the house (Wood & Ong, 2010). Their children, in turn, can either continue to operate these properties as rentals, sell them, or decide to occupy them themselves. Which of these outcomes is more common and likely to occur is difficult to predict, *ex-ante*, but could have implications for tenant rental security.

Our review of the literature on RRPO decision-making suggests that individual real estate investors are exceptionally diverse. While some investors have predetermined investment strategies, are savvy about maintenance and leasing, and have adequate capital reserves to optimize their investments, others enter the business with little strategy, acumen, and foresight. Understanding RRPO behavior thus requires considering what drives traditional corporate financial decision-making and the more complex set of personal and portfolio factors that inform household finance research. While our survey data does not allow us to fully test the complex factors that can inform RRPOs' decisions to purchase or sell properties, we build our models to consider several key factors related to their existing businesses and those of personal circumstances. Our purpose is not to precisely describe the thought process behind RRPOs' purchase and sales decisions but rather to provide additional insight into the complex set of business and personal factors that lead them to either purchase new or sell existing investments.

Materials and Methods

In this paper, we examine individual RRPOs' decision to either expand or shrink their investment portfolios. We focus on investors who already own at least one rental property themselves and examine whether they intend to purchase additional properties or dispose of one or more units in their current portfolio. We use descriptive techniques and regression analysis to examine associations between financial, operational, and life-circumstance characteristics and future investment behavior.

Our data is from the 2022 wave of our panel survey of RRPOs[1]. We contact RRPOs in nine American cities: Dallas, Austin, Houston, Miami, Tampa, Des Moines, Minneapolis, Cleveland, and New Orleans. This study is part of a larger research project focused on the impact of natural disasters on the businesses of RRPOs. We thus selected these cities, as they represent a range of city sizes and geographies and those exposed to a range of potential natural disasters. We identified likely rental properties through a predictive modeling technique using property tax assessors, US Postal Service, and American Community Survey data (see: Kuhlmann et al., 2023, for a description of this process). We then sent invitations to likely rental property owners, inviting them to participate in our survey. In addition, for several cities in our sample—Minneapolis, Des Moines, Cleveland, and Tampa—we also had access to email addresses from publicly available rental registry databases. In these cities, we sent invitations electronically to those we had email addresses and a sample of physical surveys to owners without registered email addresses.

Although our analysis in this paper relies predominantly on the data for our survey, as part of this broader project, we also conducted in-depth interviews with RRPOs across the sample cities. Although we include several quotations from these interviews in this paper, we do so only to illustrate themes we identify through the analysis of our survey data.

Our study focused on individual RRPOs who own properties as sole proprietors or through corporate structures such as LLCs and Trusts. To the best of our ability, we exclude owners who operate rental properties in partnership with on behalf of outside investors and corporations. We also dropped respondents who answered less than 50 percent of the questions and those who completed the survey in under 3 minutes. In total, we received 2,416 partial (at least 50% complete) or complete responses to the survey. We estimate our regressions with a little over 2,100 observations, dropping respondents who failed to respond to any of the questions we used to create our model variables.

In our survey, we ask respondents a panel of questions about their motivations for entering the industry, descriptions of their portfolios, experiences operating their rentals, business decision-making processes, and whether a recent disaster has impacted their businesses. For this paper, we focused on two specific outcomes. The first is whether the respondent is somewhat or very interested in purchasing new properties in the coming year. The second is whether the respondent plans to sell one or more of their properties in the next year. For those who responded affirmatively to the latter question, we also asked respondents to explain why they plan to sell properties, which we use in our descriptive analysis.

Our unit of analysis is the owner, not the property. While we have general information about the characteristics of owners' portfolios, we lack detailed property-level data. This creates a particular challenge when analyzing sales decisions since we do not have property-level information on their planned disposition nor the number of properties they intend to sell. We imperfectly address this by re-estimating our models, including only a subset of respondents who own three or fewer properties. Reassuringly, when limiting our sample, the results are generally consistent with the models that use all survey respondents. In our regression analysis, we specify two sets of binary logit models, estimating whether the respondents plan to sell or are interested in buying a property in the coming year. Following our literature review, we examine associations between these outcomes and roughly three owner characteristics: investment strategies, operations, and career life-cycle factors.

For investment strategies, we recategorize several owners' stated motivations for purchasing rental properties into a single binary measure. We code this variable '1' if the respondent stated that they purchased properties to provide retirement income, for 1031 exchange, to diversify their portfolio, or at the suggestion of a financial advisor. In addition, we include variables measuring whether the owner has outstanding debt on properties in their portfolio, whether any debt is past-due, whether their investment strategy includes significant renovations of the properties they purchase, whether any of their units are income-restricted, whether they own a single unit, whether they own any apartment buildings, and whether they earn more than 25% of their income from their rental business.

We include two measures of unit-level rents. Because our unit of analysis is the RRPO and not the property, we only ask whether respondents own any units within the rent brackets corresponding to how the American Community Survey tabulates area-level rents. We create two dummy variables measuring whether the RRPO owns any units with monthly rents under $1,000 per month or over $2,500—proxies for owning relatively low- and high-cost rentals. Since our survey covers a diverse set of rental housing markets, we interact these rent variables with the respondent city dummy variables. This allows us to model differences in owning low- or high-cost rental units and whether these associations vary across the nine cities in our sample.

In the operation impacts category, we recode several operations-based motivations for entering the rental business into a single binary measure. These include wanting a small business, attending a seminar, and wanting to build a legacy for their children. In addition, we include several measures related to the operation of their rental portfolios, including whether they have reported experiencing a natural disaster or shock, whether vacancy across their portfolio was higher in the last year, whether instances of rental arrears in the last year have increased, whether their use of the eviction process in the last year has increased, whether they have had direct contact with their tenants in the last month, whether they have made any major investments to their portfolio in the last month, whether they are unsatisfied operating rental properties, and whether they use the services of a property manager.

Finally, to measure factors related to personal motivations for entering the business, we create a binary variable capturing motivations unrelated to either operations or finance. These motivations capture what we broadly consider landlords of circumstance rather than intent, which includes those who entered the business because they moved and retained their old property, those who inherited their rental property, and those who originally purchased the rental property to provide housing for a family member. We also control for several demographic measures, including age (35 and under and 55 and over), race/ethnicity contrasted with White respodnents (Black, Asian, non-white Hispanic, and non-white other race or ethnicity), the number of years they have owned rental properties, and gender (male).

Since we are estimating generalized linear logistic models, it can be difficult to interpret the coefficients in the regressions substantively. Because of this, while we include our regression tables in the appendix, we primarily interpret our models by estimating and plotting average marginal effects for each control variable in our regressions. With this method, we feed the original survey data into the estimated regression models and predict the associations for each observation in the dataset. We then average these predicted associations for each variable. The result is a coefficient value, which we can interpret like a coefficient in an ordinary least squares model. We estimate our models in the R programming language and estimate the average marginal effects using the 'marginaleffects' analysis package.

Results

Why Do RRPOs Sell Properties?

> The reason that I sold that is because…[first] I have six properties in total in hand. I feel like it's a little bit too much burden for me. Second, …now I have two kids…and I would like to have a little bit more cash on hand. Three…I'm not so sure about the future but I think right now, it's a good market for the sellers…. The fourth reason…is I think this property is getting old [and] it requires a lot of my attention and my money to maintain…. – Single-Family Investor from Houston

In this section, we analyze the survey responses to understand the complexity of RRPOs decisions to sell a property from their portfolio. The above anecdote from an owner of multiple single-family rental properties in Houston highlights this complexity. While RRPOs seek to maximize the financial return of their investments, factors external to real estate holdings, including personal life circumstances, also impact an owner's decision to sell a property.

Among the respondents to our 2022 survey, 22% of current owners reported their intention to sell one or more properties in the coming year. In Figure 1, we show the percentage of respondents who anticipate selling by city during this period. Cleveland had the highest rate of anticipated sales, at 33%, and Minneapolis had the lowest, at 17%.

In our survey, we asked owners to explain why they planned to sell, which we plot in Figure 2. The most common explanation, 45% of those who planned to sell, was the thought it was the right time in the market. This varied by city, likely reflecting differences in market conditions across the cities during our 2022 study period. For example, in both Dallas and Tampa, of those who planned to sell in the next year, over 60% cited market timing as a motivating factor. In contrast, in Austin, New Orleans, and Minneapolis, market timing was cited by only 38%, 37%, and 34% of landlords planning to sell, respectively. We should note that we do not ask specifically if market timing refers to their sentiment about the for-sale market (i.e., do owners think that prices are reaching a peak) or the rental market (i.e., is there low vacancy and rising rents.) These factors are often linked, but it would be interesting to know which of the signals most directly influence RRPOs' investment decisions.

Specific definitions aside, we interpret market timing as indicating that the RRPO is selling to fulfill their investment objectives. From the RRPO's perspective, this is a positive motivation reflecting an active decision rather than a response to unforeseen circumstances. The next three most common responses were less positive if not reflecting outright duress. 21% of respondents planning to sell reported losing interest in the business, 18% reported needing cash, and 14% owned properties with negative cash flows. While it is difficult to distinguish between positive and negative motivations for planned sales, these three reflect unanticipated and undesirable issues with their rental businesses.

We present the results of our regression analysis in Appendix Table 1. To help simplify the interpretation of the results, we estimate the average marginal effects (AME) of each independent variable on the likelihood that the respondent stated that they intend to sell their property in the coming year. Estimating AMEs is a post-estimation technique that measures the unit effect of an independent variable on the outcome across all observations in the

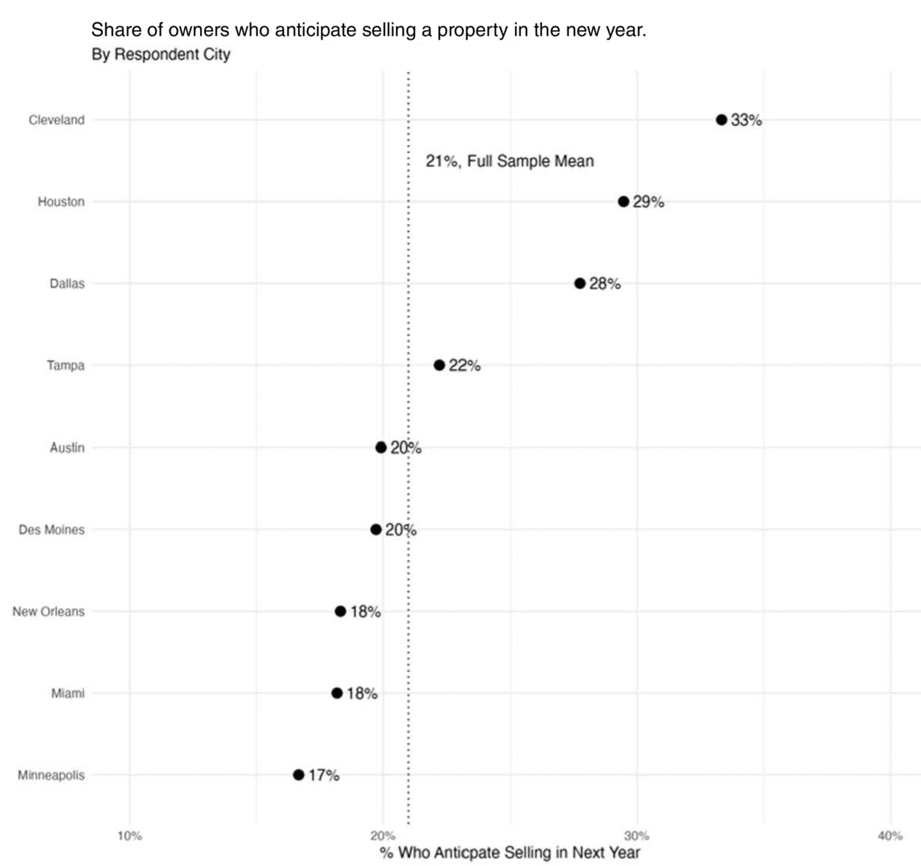

Figure 1. Share of owners who anticipate selling a property in the new year.

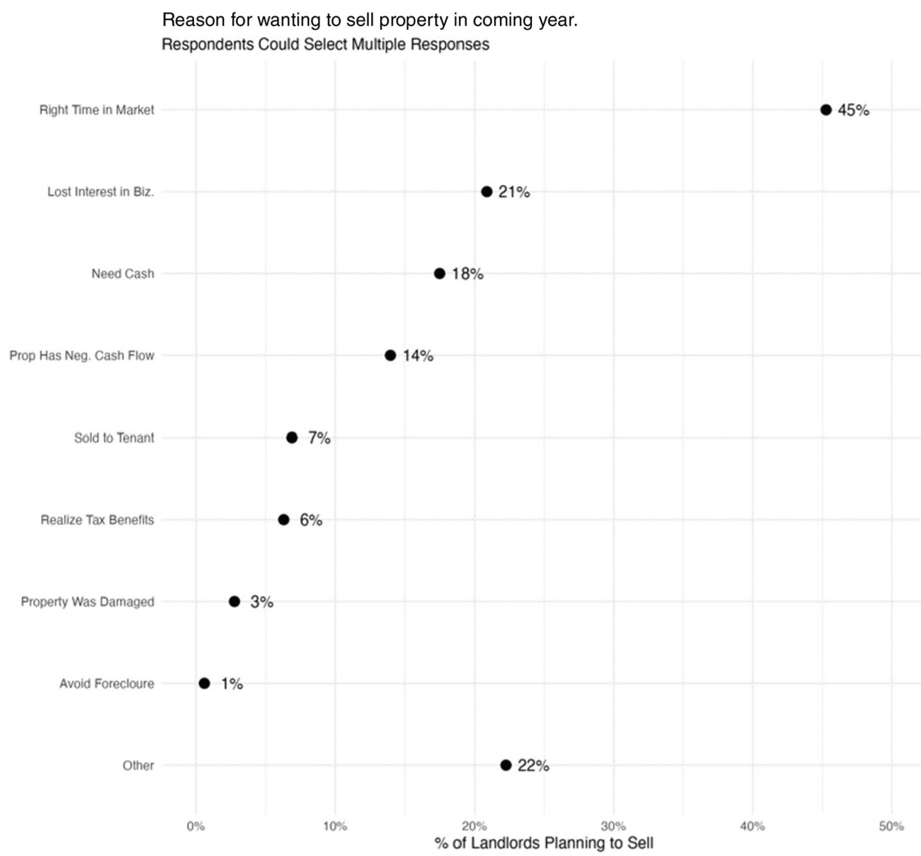

Figure 2. Reason for wanting to sell property in coming year.

sample. It is especially useful for non-linear models, as the interpretation of an individual variable's AME becomes similar to the coefficient beta in a linear model. We plot the estimated AMEs and their 95% confidence intervals in Figure 3. To ease interpretation, we color the statistically significant associations black and those falling below the significance grey.

Beginning with the personal and lifecycle set of control variables, our models suggest that ownership length (in years) and dissatisfaction with their business experience are positively and significantly associated with disposition intent. Dissatisfaction was associated with a nearly 22 percentage point increase in the likelihood that a respondent plans to sell a property in the coming year.

In the operational category, we find three variables are positively associated with disposition plans. Hiring a property manager is associated with an approximately five percentage point increase in the likelihood a respondent plans to sell. This is a surprising association since our *a priori* expectation was that owners who are less engaged with their properties on a day-to-day basis would be more inclined to hold properties for a longer time, content with the operating income the property produces. However, property manager salaries are operating costs, and perhaps managers are more responsive to tenant and property issues, generating additional expenses. RRPOs who use managers, particularly among smaller investors who benefit less from economies of scale, may thus enjoy smaller cash flows from their investments.

Reporting higher vacancy rates across their portfolio last year is associated with a 12-percentage point increase in the likelihood that an owner plans to sell an investment next year. Similarly, our models suggest a positive association between owners who reported that their rental businesses were negatively affected by the COVID-19 pandemic (which started approximately two years before we administered our survey) and their desire to sell. An owner reporting a negative business impact from the COVID-19 pandemic is associated with an approximately 7 percentage point increase in planned sales.

Among the financial-related survey questions, we do not find a statistically significant association between financial motivations for investing (1031 exchange, retirement income, advice of a financial advisor, and portfolio diversification) and desire to sell. However, we find a positive association between sales intentions and owners who report purchasing properties that require major investments. This may

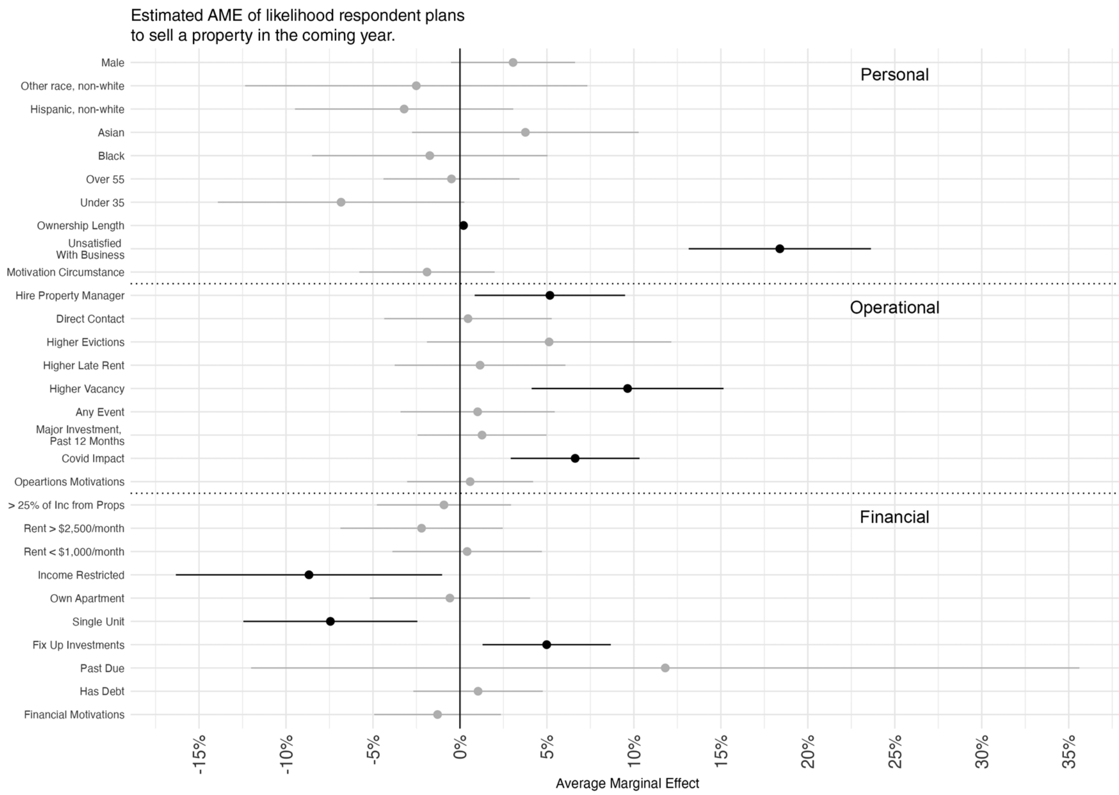

Figure 3. Estimated AME of likelihood respondent plans to sell a property in the coming year.

suggest that these investors behave more like flippers in Mallach's (2010) typology, planning for relatively short hold periods and quick dispositions. Owning a single rental unit and at least one property subject to income restrictions lowers future sales intentions. The former association may be more probabilistic than substantive since owners with fewer properties have fewer potential properties to sell at a given time. Finally, this model suggests a negative association between owning an income-restricted property and the respondent reporting plans to sell in the coming year.

In Figure 4, we show the plot of the AMEs for each city in our sample and how the associations between the two rent variables and sales intentions vary across cities. Panel A shows how sales intentions in each city differ relative to Austin. We use Austin as the referent group since approximately 20% of Austin respondents reported sales intentions, close to the full sample average of 21%. At the city level, the only statistically significant difference is between Cleveland and Austin, where respondents from Cleveland were around 14 percentage points more likely to express intentions to sell than those in Austin.

Our models do not suggest owning at least one high-rent (above $2,500 per month) or low-rent unit (under $1,000 per month) is associated with an RRPO's planned disposition. In an alternative specification we do not present in this paper, we re-estimate these models using rent measures that capture whether the respondents *only* own (as opposed to owning at least one) high- or low-rent units. Using these alternative rent measures has little impact on our models.

Why Do RRPOs Expand Their Portfolios?

> …we bought our home in 2007. It was a small, starter home…And we had a child…So we bought a house that was 2,000 square feet and rented the property that we had before, and then every year thereafter, because it was a good time to buy real property, the prices were significantly down in that period, so we bought a house or an apartment per year…we now own 9 properties, including a multi-unit building… as time progresses…I would like to be able to have enough to pay for my retirement…the more I accumulate, the more I can eventually sell or mortgage, so that I have enough income to live a fairly comfortable life. – RRPO in Miami

In the previous section, we examined the correlates of a RPPO's intention to shrink their portfolio. Our second research question mirrors the first—what factors are associated with an RPPOs' desire to expand their business? And as with their decisions

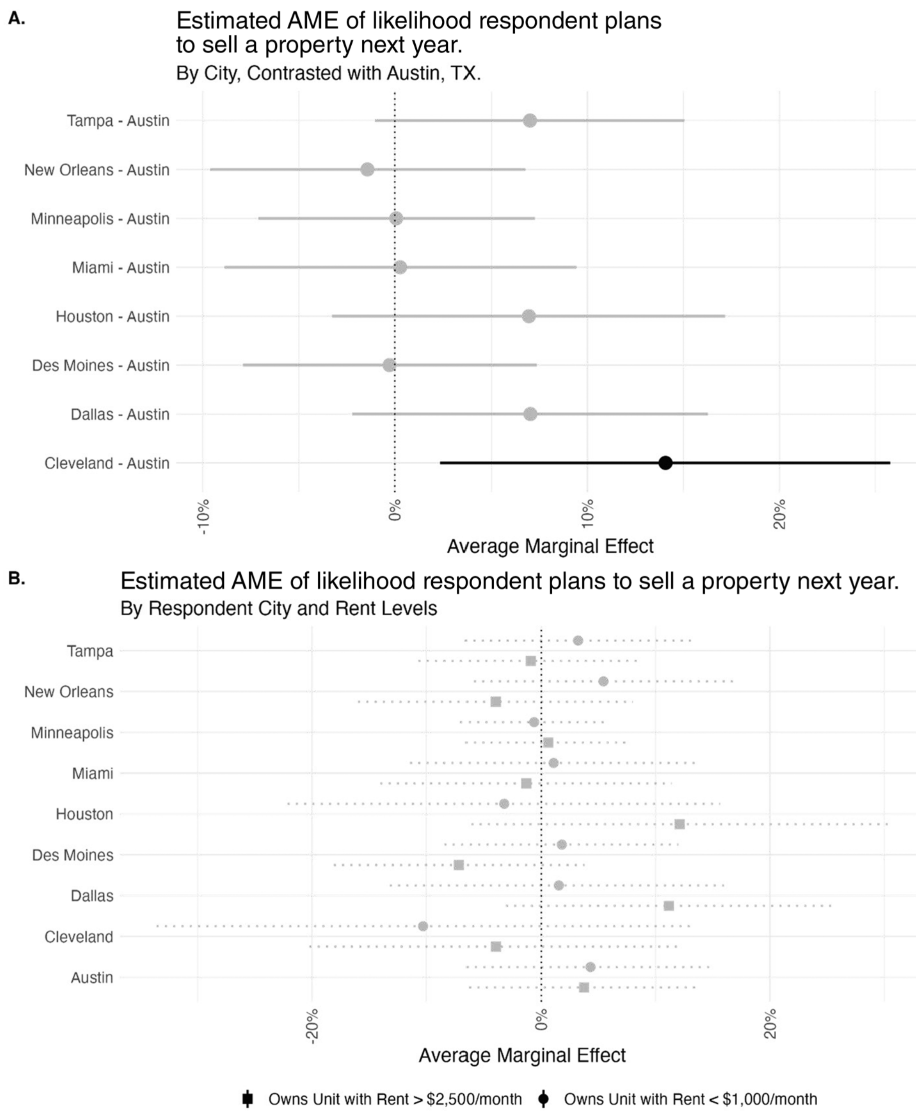

Figure 4. Estimated AME of likelihood respondent plans to sell a property next year.

to sell, we find a lot of nuance and complexity in the reasons RRPOs give for purchasing additional rental properties. As the quote above illustrates, the motivation for and goal of acquiring additional properties varies based on market characteristics, lifecycle factors, financial constraints, and investment goals.

To study this question, we used a survey question in which we asked respondents whether they were very or somewhat interested in purchasing a new rental property in the coming year. There are two things to note with this question. First, unlike the disposition question, the wording we used in our survey asks about *interest* in purchasing rather than intent. We are thus likely capturing a weaker form of volition than we are with the survey's sales question. Second, because our survey is of current property owners, we cannot examine the full range of factors influencing investors' decisions to purchase rental properties. Rather, we are studying the decisions of current landlords who are seeking to expand their current holdings.

Among the respondents to our 2022 survey who owned at least one rental property, 59% reported that they were interested in expanding their portfolio in the coming year. This is notably higher than the share who intended to sell a property, but this may be partly attributable to the looser wording in our survey. In Figure 5, we show the share of respondents interested in purchasing more properties by city. Dallas had the highest rate of purchase interest, where 70% of respondents were either very or somewhat interested in purchasing a new property next year. Minneapolis had the lowest rate, with only 48% of respondents interested in expanding their portfolios.

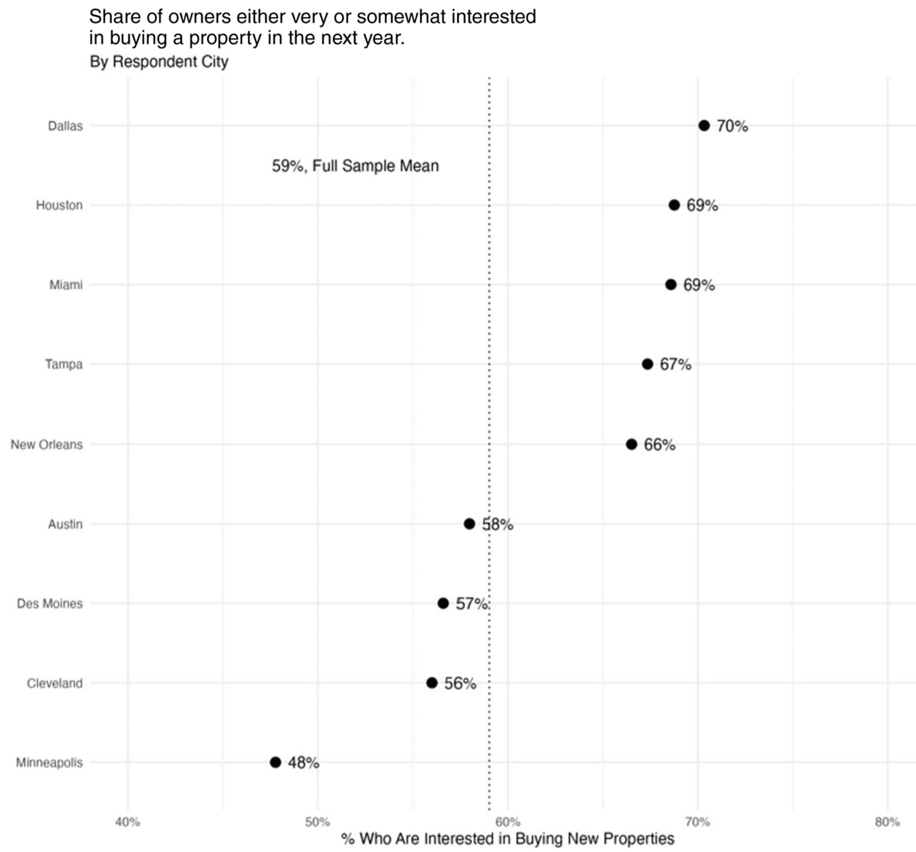

Figure 5. Share of owners either very or somewhat interested in buying a property in the next year.

We estimated our purchase models using the same independent variables to be comparable with the sales models. We report our estimated coefficients in Appendix Table 1 and plot the estimated AME for each variable in Figures 6 and 7.

At a high level, our model suggests that a combination of personal and financial factors primarily explains an RRPO's interest in expanding portfolios. Unlike in our sales models, the link between the operations-related variables and reported interest in buying properties is less clear. While certain operational experiences motivate RRPOs to sell properties, these experiences are less clearly linked to their desire to expand their portfolios.

Consistent with previous research on lifecycle factors correlated with rental property investment, notably Kohler and Rossiter (2005), our model suggests the length of time an RRPO has operated rental properties and being above 55 are negatively associated (~ -1 and -5 percentage points, respectively) with interest in acquiring new rental investments. Relative to white, non-Hispanic owners, Asian respondents, as well as those who identified in the 'other' racial/ethnic category, were more likely to report interest in purchasing a property in the coming year. Although we cannot examine this in detail in this current project, examining the extent of and reasons for racial/ethnic differences in rental property investment, particularly among those already in the business, is an interesting and understudied question. Finally, not surprisingly, we find a negative and significant association between a respondent expressing dissatisfaction with their rental businesses and interest in expanding their portfolios.

Our models also suggest a negative association between RRPOs who entered the business through less intentional pathways—inheriting their property, purchasing a property for a family member to live in, or moving and deciding to rent out their old home—and interest in expanding their portfolios. At least relative to RPPOs motivated to enter the business by financial goals or operational aspirations, owners of circumstance are less interested in acquiring new rental investments. Respondents who entered the business through inheritance, by initially purchasing a property for a family member, or renting their former residence after moving is associated with a 4-percentage point reduction in interest in expanding their portfolio.

In the financial category, we find that an owner's reliance on the income from their rental properties reduces interest in purchasing new properties. Those

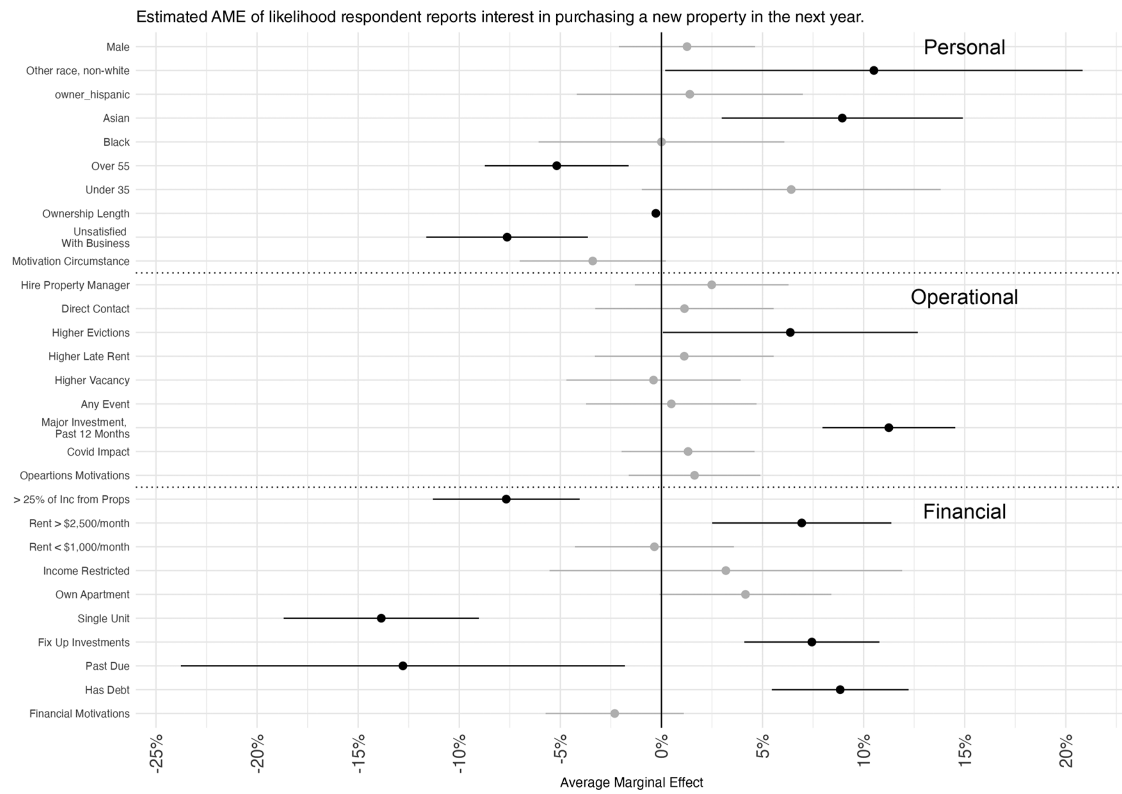

Figure 6. Estimated AME of likelihood respondent reports interest in purchasing a new property in the next year.

who reported that their rental properties make up over 25% of their income lower the probability they stated interest in expanding their portfolios by 7 percentage points. This could correlate with older owners either retired or nearing retirement and thus less actively seeking new investment opportunities. But it may also represent owners with less financial capacity to purchase new properties. Our models also suggest that reporting owning only a single rental unit decreases stated interest in purchasing new properties by nearly 14 percentage points.

Our models also suggest that reporting having outstanding debt on their properties is positively associated with a desire to acquire new properties (8 percentage points). Once again, this may be a life-cycle correlate, with older owners more likely to have paid off their debt and thus content with the debt-free income of their existing portfolio. Alternatively, it could reflect an active investment strategy in which landlords use leverage to maximize the return on their equity investments. However, being past due on debt, though rare among our survey respondents, lowers the likelihood that the respondents are interested in purchasing a new property (13 percentage points.)

In Figure 7, we plot the AME estimates for each city relative to Austin, TX., and within each city by owning either a high- or low-rent unit. Our models suggest that respondents from both Dallas and Houston are more likely to report interest in purchasing new properties. When we estimate the city-level purchase interest AMEs by rent levels, we find that only owners of units with rents over $2,000 a month are positively associated with interest in purchasing new properties. However, it is important to interpret these differences cautiously since, in each case, the high-rent/city interaction estimates are statistically different from zero but not relative to the corresponding low-rent/city interaction.

Finally, in the operational category, we find that two factors are positively and significantly associated with interest in expanding their rental portfolio. Interestingly, the operational factors associated with purchase interest less clearly mirror those in the sales models. Recall, in our disposition models, the operational correlates of sales intentions were those generally associated with some negative experience operating their businesses (negative COVID-19 impact and a recent increase in vacancy.) While the point estimates for these variables decrease in purchase models, neither is negative, as we hypothesized. Indeed, our models indicate a positive association between a reported increase in an owner's use of evictions and a desire to purchase new

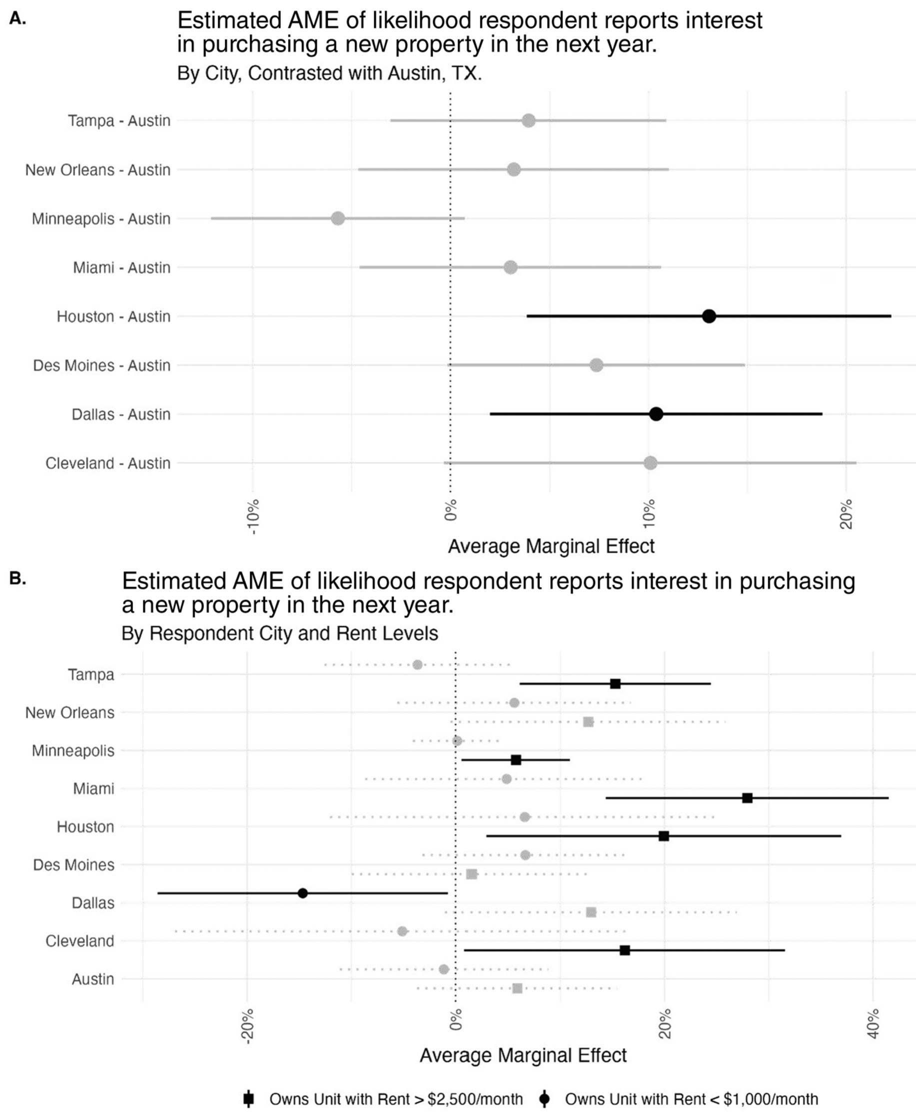

Figure 7. Estimated AME of likelihood respondent reports interest in purchasing a new property in the next year.

properties. This was a somewhat surprising association since an increase in evictions could represent some combination of business hardship and a difficult and time-consuming process for the owner. It may also suggest that these owners see eviction as a positive tool to improve their property's operation.

Our models also suggest that owners who have made major investments (such as capital expenditures above day-to-day maintenance) are nearly 12 percentage points more likely to report interest in purchasing new property. When viewed alongside the positive association between increased evictions and purchase interest, this finding suggests that owners who actively manage and invest in their businesses are more interested in expanding their portfolios. Importantly, how we worded the question in our survey does not allow us to differentiate between whether the investments were planned or unplanned. Thus, the effect size here is likely lower than it would be if we asked explicitly whether these investments were planned. We would generally expect major, unplanned outlays to reduce an RPPO's financial capacity and significant association between owners who report fixing up properties before renting them out and their desire to purchase new properties.

Discussion

In this study, we examine the sales and purchase decisions of owners of residential rental properties. We do so by analyzing the results of a 2022 survey of individual RRPOs in 9 major US cities, administered as part of a larger research project on the impact of natural disasters on the business of non-institutional rental property owners.

Our analysis of RRPOs' decisions to sell properties shows that owners' decisions to sell their rental holdings are influenced partly by stage-of-life considerations. Consistent with past research, we found that small-scale investors are likelier to sell properties as they age. However, we cannot test whether investors have entered their investments with planned hold periods nor whether they time their sales to maximize capital appreciation.

We also find that owners' experience operating their rental properties affects their decisions to sell. RRPOs are more likely to sell when dissatisfied with their experiences renting properties. Similarly, if they believe the COVID-19 pandemic negatively impacted their business and have recently experienced an increase in vacancy, they are more likely to report plans to sell rental properties in the coming year.

On the purchase side, our analysis suggests that owners who appear to use active investment and management strategies—making major capital investments on their property, using debt to finance purchases, and increasing their use of evictions—are more likely to report interest in purchasing new rental investments. We also find evidence that access to financial resources influences the desire to expand one's rental portfolio. Specifically, owners for whom their rental properties provide over 25% of their total income are less likely to report a desire to purchase additional rental properties. And, like our disposition analysis, owners appear to consider life-cycle factors when expanding their portfolios. The greater the owner's age or the number of years since they first purchased a rental property are associated with a reduced probability of reporting interest in a new rental investment.

These findings help illustrate the complex and nuanced factors that influence the investment decisions of individual RRPOs. RRPOs are not a monolith. This is particularly true for the subset of RRPOs we study in this paper. The respondents to our survey listed a diverse set of motivations for first investing in rental properties. Our regression analysis illustrates that owners' decisions to shrink or expand their portfolios are complex and influenced by various factors, including personal considerations, operational experiences, and financial dynamics.

There are several limitations to our current study design. First, our data in this analysis comes from the 2022 round of a voluntary survey of RRPOs. This provides a snapshot of an RRPO's decision-making at a particular point in time but does not know whether and in what way these associations might differ based on time-variant market and economic conditions. There is no doubt that market conditions (rental vacancy, interest rates, etc.) affect purchase and sales decisions, but we do not know, and cannot measure with our research design, whether market conditions might alter the other associations we identify in this analysis. We also do not know whether owners responded to our questions accurately, either by avoiding sensitive questions or misrepresenting certain aspects of their business. And, as is a particular challenge with a self-administered survey, we are unable to validate the representativeness of our sample fully nor correct for potential self-response bias within the target population. As a result of these limitations, we must caution readers to consider our findings within the particular context of this study.

In addition to the general survey issues, we chose to use property owners as the unit of analysis. The benefit of this design is that it allows us to capture detailed information about the owner's personal and financial circumstances. However, by doing so, our survey only captures summary-level information on the characteristics of individual properties within their portfolio. For example, in our disposition analysis, we examine whether owners plan to sell any properties in the coming year. However, we do not have information on the characteristics of the property they plan to sell. To test whether the differences in portfolio sizes influence our results, we re-estimate our models, limiting our samples to owners of three or fewer units. While the estimated AMEs and significance differ between models, the models with the limited samples are generally consistent with the full model results. Even so, one should view our analysis as examining portfolio-level decision-making rather than strategic decisions about individual properties.

A final shortcoming in our research design stems from the questions our survey asks about the financial situations of RRPOs. Although we can examine some basic motivations for purchasing rental investments and have some basic information on their income, we lack a fuller picture of these investors' overall financial situation. In future iterations of this work, we plan to expand our analysis to incorporate other data sources that allow us to examine the financial background of RRPOs in more detail and the impact this has on their investment decisions.

Note

1. We provide more information on our survey and larger research project at: https://rentalhousing.design.iastate.edu.

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Appendix

Table A1. Full Model Regression Results.

	Model 1 (Plans to Sell)		Model 2 (Interest in Buying)	
(Intercept)	0.06**	(.000)	0.07**	(.000)
Use Debt?	1.07	(0.585)	2.11**	(.000)
Debt Past Due?	2	(0.277)	0.25	(0.117)
Financial Motivations?	0.92	(0.487)	0.83	(0.182)
Fix-Up Investments?	1.4**	(0.008)	1.82**	(.000)
Owns Single Unit?	0.58**	(0.008)	0.24**	(.000)
Owns Apartment Building?	0.96	(0.807)	1.38*	(0.047)
Own Inc. Restricted Units?	0.5	(0.065)	1.28	(0.458)
> 25% of Inc From Rental?	0.94	(0.639)	0.55**	(.000)
Operations Motives?	1.04	(0.75)	1.14	(0.321)
Unsatisfied with Business?	2.89**	(.000)	0.51**	(0.001)
Covid Impact?	1.55**	(.000)	1.11	(0.431)
Major Invetment in Last 12 mths?	1.09	(0.505)	2.62**	(.000)
Any Event?	1.07	(0.65)	1.04	(0.819)
Higher Vacancy?	1.8**	(.000)	0.97	(0.859)
Higher Late Rent?	1.08	(0.639)	1.09	(0.613)
Higher Evictions?	1.38	(0.129)	1.62*	(0.035)
Direct Contact Last Mth?	1.03	(0.851)	1.1	(0.617)
Hires Property Mgr?	1.4*	(0.016)	1.22	(0.193)
Circumstantial Motivations?	0.88	(0.346)	0.75	(0.072)
Ownership Length (yrs)	1.01**	(0.007)	0.98**	(.000)
Under 35?	0.6	(0.096)	1.62	(0.07)
Over 55?	0.97	(0.807)	0.66**	(0.004)
Owner Black?	0.89	(0.624)	1	(1)
Owner Asian?	1.28	(0.237)	1.94**	(0.002)
Owner Hispanic, non-white?	0.8	(0.338)	1.12	(0.617)
Owner Other Race, non-white?	0.84	(0.631)	2.14*	(0.03)
Male?	1.23	(0.099)	1.11	(0.464)
Rent < $1k	1.31	(0.489)	0.93	(0.871)
Rent > $2,500	1.09	(0.824)	2.04	(0.082)
Cleveland?	4.38*	(0.018)	2.51	(0.22)
Dallas?	1.31	(0.581)	3.68**	(0.009)
Des Moines?	1.17	(0.723)	1.55	(0.377)
Houston?	1.75	(0.293)	2.87	(0.065)
Miami?	1.38	(0.496)	1.75	(0.245)
Minneapolis?	1.17	(0.654)	0.48	(0.099)
New Orleans?	0.88	(0.799)	1.3	(0.614)
Tampa?	1.94	(0.075)	1.92	(0.121)
Cleveland? * Rent < $1k	0.41	(0.202)	0.75	(0.718)
Dallas? * Rent < $1k	0.96	(0.944)	0.44	(0.185)
Des Moines? * Rent < $1k	0.88	(0.809)	1.74	(0.348)
Houston? * Rent < $1k	0.61	(0.434)	1.12	(0.873)
Miami? * Rent < $1k	0.84	(0.763)	1.27	(0.688)
Minneapolis? * Rent < $1k	0.73	(0.501)	1.1	(0.87)
New Orleans? * Rent < $1k	1.17	(0.792)	1.49	(0.513)
Tampa? * Rent > $2,500	0.91	(0.841)	0.75	(0.599)
Cleveland? * Rent > $2,500	0.38	(0.194)	0.97	(0.962)
Dallas? * Rent > $2,500	2.4	(0.138)	1.14	(0.827)
Des Moines? * Rent > $2,500	0.49	(0.316)	0.33	(0.094)
Houston? * Rent > $2,500	2.5	(0.209)	0.84	(0.819)
Miami? * Rent > $2,500	0.7	(0.554)	0.87	(0.81)
Minneapolis? * Rent > $2,500	1.02	(0.975)	1.5	(0.505)
New Orleans? * Rent > $2,500	0.71	(0.616)	0.67	(0.55)
Tampa? * Rent > $2,500	0.43	(0.137)	1.11	(0.848)
N	2134		2134	

** = significant at the 0.01 level; * = significant at the 0.05 level.