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CHARACTERISTIC ANALYSIS OF FLIPPED HOMES IN UPPER ARLINGTON, OHIO: AVERAGE SQUARE FOOTAGE, DURATION AND YEAR BUILT

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ABSTRACT

House "flipping" is a trend that has caught the widespread attention of the public in recent years. Research papers and quality articles currently available to potential house flippers are quite limited. There is very little scholarly research on house flipping. Many of the existing articles on the subject are low-level and not particularly useful (McLaughlin & Jobe, 2018). A study conducted by Depken, Hollans, and Swidler (2009) serves as a foundational model in academic research on information that relates to house flipping, while a corporate replication and expansion later conducted by McLaughlin and Jobe (2018) further built upon their model. While both of these studies are very useful, they are difficult for the public to access, and the complexity of the information given makes them difficult for the average potential property investor to use. This paper attempts to rectify some of the current issues in the resources available to both researchers, as well as aspirational home flippers. This work includes an overview of house flipping, providing potential and current property investors with key information about issues of relevance to residential property investing today. This work then transitions to discussing a research study conducted by the authors that explore key characteristics of a home flip and explores property data in a midwestern suburb. This work reaffirms that the average flip property is smaller and older than the average non-flip home, and identifies an average ownership duration given the dataset and predetermined definition of a flip.



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Analysis of the Average Square Footage, Duration and Year Built of “Flipped” Homes in Upper Arlington

The trend of property “flipping” has come to the attention of the public in recent years, with many seeking to profit off of sinking home prices after the economic crash of 2008 and several TV shows being aired depicting individuals and couples taking on a house “flip” in hopes of earning a substantial profit. In 2009, a groundbreaking study titled “An Empirical Analysis of Residential Property Flipping” by Depken, Hollans and Swidler became a key introductory piece of scholarly information on property investment. This study identified a simple definition of house flipping, defining the term for research purposes as “a pair of transactions involving the same property that occur less than two years apart” (Depken et al., 2009). In 2018, a new study was published that expanded upon the work of Depken, Hollans, and Swidler titled “A Wild Ride: Economic Returns to U.S. House Flipping, 2002-18” by McLaughlin and Jobe written on behalf of CoreLogic. This study explored similar topics to the first foundational study, but with greater depth and on a national scale utilizing the property data of CoreLogic.

While these studies examine many areas of interest to investors, many first-time house flippers are likely most concerned with determining key characteristics related to prospective investment houses and the flipping process. Both of the key studies previously identified studied the average square footage of flipped homes in comparison to non-flip properties; Depken, Hollans, and Swidler (2018) also studied the average duration of ownership. The duration of property ownership is of high interest to first time investors as well as seasoned investors, as it is of great importance to have a keen understanding of how long significant financial resources will be utilized during a house flip before the property is sold.

This research paper first aims to discuss the basic elements and considerations of house flipping for new and current investors. This then leads to a newly conducted study on house flipping concerning average duration, size, and year built of investment properties. This study aims to assess these factors using the same definition of a flip identified in the Depken, Hollans, and Swidler (2009) study, but with a different geographic location than previously studied. This study focuses on the current market, examining property data over a three-year period from September 15, 2017 to September 15, 2020. Instead of conducting research on an entire metropolitan area or country, this study examines data in the suburb of Upper Arlington, Ohio, in the area north of Fishinger Road. This study seeks to identify whether the findings of the two key house flipping studies prove to be true for a Midwestern suburb case study, and will provide local investors with key information on the average square footage, average age, and duration of property investments in a specialized area.

Overview of House Flipping

Due to the considerable financial investment a potential flipper has to take on when buying a property for renovation and resale, it is of great importance to have a sound understanding of both the financial and renovation sides of buying and reselling a property. Clearly, a prospective property buyer needs to have adequate funds available to flip a property prior to the purchase of a project; however, there are many considerations that go into determining what type of financing is the most logical and practical for different investors. Once a prospective flipper has lined up proper financing, they must be able to appropriately identify the current value of a potential flip, be able to estimate renovation costs, and be able to project a final selling price in order to determine if the property is a

worthwhile investment (“How to Effectively”, 2020). It is worthwhile for potential investors to understand common mistakes made by new and experienced flippers, in order to better protect themselves against these pitfalls; key examples include properly budgeting for an investment, being able to realistically estimate the duration of the ownership, and having an adequate team of professionals assembled prior to taking on a flip in order to ensure the process goes smoothly (Zinn, 2019). Thus, all potential property investors should develop a sound understanding of property financing methods, be able to identify current market value and after renovation value, and avoid common mistakes made by flippers; this paper will review key considerations in each of these important areas.

Financing

When one decides to take on a house flip, one of the first and most important considerations is financing this investment. Of course, real estate investments can be financed with cash. Investing in real estate requires a significant amount of funds, as an investor will not only have to pay the purchase price of the property itself, but also for renovation costs, utility expenses, property taxes and more. Thus, many investors attempting to launch a successful house flipping venture will not have enough funds to cover the costs of their investments. Since financing properties with cash is often not a realistic option for new property flippers, this paper will now shift to a discussion of the different methods of borrowing a potential flipper can obtain.

Mortgage

Naturally, the first place one may be inclined to seek funds is through obtaining approval for a loan to buy a property in the form of a mortgage. It is important to note that a property mortgage can take a variety of forms and payment plans. Traditionally, homebuyers seek mortgages with a 30-year repayment plan on a newly acquired property, and often make a down payment on the property in the amount of 10-20% of the purchase price. However, not all mortgages are the same in the way that one pays interest on the loan; some mortgages use a fixed interest rate, while others have a variable interest rate that can change throughout the life of the mortgage (Chiriac&Ofileanu, 2015). If a flipper intends to personally buy a property instead of starting a company that purchases the property and would consider making the flip their residence while it is under their ownership, a conventional mortgage is a reasonable possibility. However, there are many forms of financing one can seek when flipping a house that may be a more logical form of financing the investment.

Hard Money Loan

A common form of loan obtained to finance a house flip is a hard money loan. This short-term loan is designed to quickly provide real estate investors with the funds they need, and often allows flippers with weak credit scores to obtain financing (Bortz, 2018). However, this type of financing has important drawbacks and financial considerations. This form of a loan typically requires a higher down payment than a traditional mortgage, in the amount of 25-40% of the initial purchase price (Bortz, 2018). This type of loan also has a significantly higher interest rate than a traditional mortgage loan at a rate of 12-21%, in addition to other loan charges (Bortz, 2018). Due to the high costs of this type of financing, property investors must carefully weigh the risk, return, and costs of an investment before obtaining this type of loan.

Peer-to-Peer Lending

A relatively new form of obtaining funds for property investment is peer-to-peer lending. This type of funding is done online through the contributions of a group of people, given that the loan will be repaid within a predetermined period of time with interest (Bortz, 2018). This type of funding can enable a property flipper to quickly raise money; considering what the terms of the loan will be are key to its success. Some property flippers seek an investment line of credit, where an investor can borrow funds to invest in property given a predetermined credit limit (Bortz, 2018). This form of financing has a lower rate of interest than a hard money loan at 5-8%; however, this type of loan is typically given to experienced property investors based in their financial history, potentially putting this type of loan out of reach for many property investors.

Financing from Existing Assets

Another potential avenue of funding for a house flipper to seek is financing the property from the investor's own assets or the assets of family and friends. This financing can be obtained from one's private home; if there is equity in the home, one can refinance the property to obtain funds or seek a home equity loan or line of credit against the property. A home equity loan is more favorable than a line of credit in real estate investment due to the fact that only the equity loan provides a larger amount of funds immediately (Bortz, 2018). If a flipper does not have equity in their own home, they can attempt to identify family members or friends that may be willing to provide them with investment funds through taking equity out of their home.

Property Valuation

When searching for a property to purchase, it is important for investors to have a sound understanding of how to identify the current value of the property. In order to determine whether a potential flip is a sound investment, one should attempt to estimate the After Repair Value (ARV) that the property should sell for after a renovation is completed. In order to calculate the ARV, an investor must first collect key data on the property, such as age, square footage, and the number of bedrooms and bathrooms ("How to Effectively", 2020). After this step is completed, an investor must seek comparable homes in the area that have sold over the past year; this list of comparable properties should be narrowed down to the 3-4 properties that share the most key characteristics with what the potential flip will be like after the planned renovation is completed ("How to Effectively", 2020). Finding the average price per square foot of the best post renovation comparable properties should provide perspective on a realistic ARV of a potential flip. While there are companies that can determine the ARV for investors, it is important for investors to be able to have perspective on the ARV of a potential investment in order to be successful. While the ARV is an important tool in determining if a property is a sound investment, there are other methods one can use to estimate the post renovation value of a property. For example, a potential property investor can hire a realtor that is experienced in working with property flippers. Such a realtor can provide perspective on what the property is worth now, and estimating what it will be worth after making specific renovations.

Once the ARV has been determined, the 70% rule will serve as a litmus test to determine if the property being examined is a worthwhile flip. The 70% rule states that a property investor should pay no more than 70% of the ARV, after subtracting the estimated cost of repairs needed from the ARV ("How to Effectively", 2020). Thus, any offers made on a house one intends to flip should meet the financial criteria discussed above.

In order to determine if a property meets the 70% rule, one must estimate the cost of the renovations required on a property. To do this, one should consider the relevant cash flows to the renovation process. This includes considering the cost of renovation materials, such as the cost of new kitchen cabinets, countertops, appliances, and more if the property needs a new kitchen. When considering repair costs, one must determine if they will be taking on repairs themselves (Hackert& Brookman, 2009). If one will need to hire out repair work, it would be important to have a contractor walk through the house and provide an estimate for their labor based on the needed repairs. Outside of the renovation, important costs to consider when flipping a house are the relevant taxes, such as capital gains tax, property tax, insurance, and utility bills.

Common Mistakes

Budget

Prior to flipping a house, one should look to the common and recurring mistakes made by other investors. By being aware of these potential pitfalls, a property investor can be more vigilant of these issues and work proactively to avoid them. For new property investors, one key issue that may arise is not correctly estimating a budget for a house flip, and thus not having access to enough funds to properly complete the project (Zinn, 2019). When one is new to property investment, it is challenging to anticipate potential issues that will arise during a house flip and how much these issues may cost to resolve. When obtaining bids from contractors on renovation work needed, a new house investor's lack of knowledge on what typical renovations cost may lead to contractors taking advantage of this with higher-than-average bids. Thus, it is of great importance to have an understanding of renovation costs prior to buying a house and having plenty of funds in reserve when unanticipated costs arise (Zinn, 2019). Having extra funds available will allow house flippers to avoid the potentially dire situation of running out of funds prior to the completion of a renovation.

Flip Duration

A key potential mistake to avoid when taking on a property investment is underestimating the total duration of time a property flip will require from beginning to end. Since a significant amount of funds will be tied up in any given property, it is important to understand that these funds may remain tied up in a property investment longer than anticipated. For example, a contractor may estimate that the construction on a flip will be completed in two months; however, a multitude of issues may arise through the renovation that could push this completion time back. Potential reasoning for this includes encountering unanticipated issues in a renovation, such as finding mold that needs to be properly treated and removed, or a contractor splitting their time between multiple projects and subsequently not finishing construction projects in a timely manner. Also, one cannot precisely anticipate how long it will take a property to sell once it is completed. The house may sit on the market for a considerable amount of time before a worthwhile offer is received, and unanticipated issues may arise in the closing process that further push back the closing date. These potential issues including the buyer's financing falling through, issues in the home inspection that causes delays, and more. Later in this work, the average duration of a property investment in a midwestern suburb will be discussed, as well information on duration of flips found by foundational studies.

Lack of a Professional Team

Another common mistake made by property investors is beginning a flip without having first assembled a strong team of professionals in the industry to help where needed (Zinn, 2019). When one lacks experience in real estate investment, it is imperative to meet and learn from professionals in the industry prior to making a large financial investment, as these individuals can provide significant help and knowledge across all areas of house flipping. Zinn's brief introductory property investment guide (2019) suggests that this team be composed of "...an experienced house flipping mentor, a real estate agent, construction/remodeling company, home inspector, a real estate attorney and an accountant to help [one] prepare [their] taxes" (Zinn, 2019). In addition to the professionals mentioned, one should consider having an individual or company on this team that may be willing to invest funds in a potential flip project, in order to have access to additional funds if needed.

Once a property investor has developed a sound understanding of potential property flipping pitfalls, property financing, and valuation, one will have developed knowledge on some of the most important components of property investment. While this development of understanding will not educate an up-and-coming property flipper on every component of this career, it will provide them with a sound introductory basis of knowledge in which they can use to launch their venture. Prior to buying an investment property, a property investor should also have sound knowledge of the market in which they are investing in, and know the key statistics of flipped properties in the area; such information will be reviewed in this study. In order to further develop knowledge in property investment, a prospective property investor should be informed on what literature is currently available on property flipping, which will be the focus of the next section.

Current Literature on House Flipping

The current body of quality literature available on house flipping is quite limited. When conducting a simple internet search about house flipping, one is overwhelmed with results that include brief "how-to" guides, information about reality TV shows, potential loan information, and articles about how to decorate a home. While these articles serve a purpose to some, they are generally lower-level articles when considering academic standards. Some of the results are simply bad sources of information that are trying to sell some type of product or service; some of these sources are reminiscent of a late night infomercial for a get rich quick scheme, making such sources not helpful for research. Notably lacking are academic or professionally researched information about house flipping; upon a further inspection of research databases and advanced internet searches, it was determined that the amount of scholarly work available on flipping houses is highly limited.

When examining the currently available scholarly level work on flipping houses, the study by Depken, Hollans, and Swidler (2009) proves to be one of the current greatest assets to academic research on this subject. This scholarly analysis studies house flipping in Las Vegas, Nevada over the course of thirteen years and details averages on characteristics of flipped homes, the portion of real estate transactions house flips account for, analysis of returns and economic profits of flips using Hedonic Modeling and more. During the timespan studied there was a considerable amount of house flipping occurring in the Las Vegas real estate market, as 32% of the real estate transactions that occurred met their criteria for a potentially flipped property (Depken et al., 2009). In their research, it was determined that the average flipped home was 138 square feet smaller than the average non-flip home sold over the thirteen-year period examined. (Depken et al., 2009). While this study has many

other key findings, this partial replication will focus on examining Depken, Hollans, and Swidler's (2009) analysis of key characteristics of flipped properties.

Several years later, "A Wild Ride: Economic Returns to U.S. House Flipping, 2002-18" by McLaughlin and Jobe (2018) aimed to expand the work of the initial study discussed above and examined house flipping on a national level. While their study also focused on many key areas to house flipping, the area of focus in this paper will be on the characteristics of the properties analyzed. Over the period studied from the beginning of 2002 through the third quarter of 2018, the average flipped home was found to be 249 square feet smaller than the average non-flip property sold over the same time span (McLaughlin & Jobe, 2018). This study also identified the median duration of a flip in each quarter studied. As identified by McLaughlin and Jobe (2018), a primary barrier for academic research on house flipping is the tedious process of acquiring data. Thus, companies such as CoreLogic exist to collect this data and sell it are able to do this research with less time spent on data collection and on a bigger scale (McLaughlin & Jobe, 2018). The study from CoreLogic is one of very few studies that were discovered to be released on this subject from a property data company.

Outside of the two primary studies of interest for this project, there are few but still significant academic and corporate studies pertaining to flipping houses. These other important academic research studies that have been done on residential property investment are typically on a smaller scale than the previously mentioned studies. A 2019 study titled "Property Investment: Gearing and the Equity Rate of Return" demonstrates the importance of debt financing in property investment, and how utilizing debt is typically beneficial to equity returns when the market is strong, and how negative returns financed with debt can be detrimental if the market declines (French, 2019). While this study is of importance to novice property investors, it does not discuss any real property data. In 2011, Lee and Choi released a key academic study pertaining to flipping houses titled "The Role of House Flippers in a Boom and Bust Real Estate Market." This study utilized property data on only single-family properties in Chicago, Illinois from 1995 to 2010 (Lee & Choi, 2011). This study explored the participation and impact on the market of flippers in the years studied, rates of return earned, and the risk involved in flipping activities. This research will now turn its focus to a new study conducted by the authors, which details the methodology and results of research on average flip duration, average square footage and average age of flip and non-flip properties in a specific midwestern geographic area.

Data: Methods & Findings

The data utilized in this study covers flip and non-flip transactions in Upper Arlington, Ohio in the area of Upper Arlington north of Fishinger road from September 15, 2017 to September 15, 2020. This location was selected because it is representative of a Midwestern suburban market in which property values are high and homes are older; thus, opportunities for property investment are ample and competitive. This study utilizes the same definition of a flip as the Depken, Hollans, and Swidler (2009) study as well as the study conducted by McLaughlin & Jobe (2018) on behalf of CoreLogic; that definition is two or more sale transactions that occur within two years of time on the same property. Flips were examined on the sell side of the transaction, so properties initially purchased and then later resold up to two years before September 15, 2017 are included in the flip data set. It is important to note that by following this simple definition of a flip, the properties identified as flips were not all owned, remodeled, and resold by a property investor; this concern is also identified by, Depken, Hollans, and Swidler (2009).

In order to obtain this data, all property transactions over the past three years in the previously identified geographic area were reviewed for properties that had multiple transactions; this data was then cross referenced with the information available on the Franklin County, Ohio auditor's website to ensure the accuracy of the information. The non-flip property data was obtained from a property search on the MLS of properties that were sold over the same geographic area and timeframe (S. Wainfor, personal communication, October 7, 2020). All properties that were previously identified as flips were then removed from the non-flip dataset. Notably, the authors of the CoreLogic paper had a significant advantage over academic researchers in obtaining property data, as obtaining property data from public sources is indeed tedious as experienced by the authors of this present study. In total, this study obtained data on 46 flipped properties and 651 non-flip property sales that occurred over the time period studied; this indicates that approximately 7.07% of properties sold in Upper Arlington over the time period studied met the criteria of a flip. In this dataset, four properties were flipped twice over the three-year period assessed; in these cases, the most recent flip transaction data was used.

Average Square Footage

The average square footage of a flip in comparison to that of a non-flip property was found to follow a similar trend to both of the foundational studies. When assessing the 46 investment properties in this study, it was found that flip properties on average were smaller than non-flip properties in the same geographic region, at an average square footage of 2,001. Non-flip properties sold over the same timespan were on average 450 square feet larger than the flip properties at an average of 2,451 square feet. Table 1 below shows a comparison of the data found in this study on average square footage relative to that of CoreLogic's foundational study. The table design and percentage difference in square footage were determined using the methods of the McLaughlin and Jobe study (2018); the equation used is as follows:

$(\text{flip value} - \text{non flip value}) / \text{non flip value}$

Table 1

Average Square Footage of Flip and Non-flip Properties

Property Type	Average Square Footage (New Study)	Average Square Footage (McLaughlin & Jobe)
Flip	2,001	1,731
Non-Flip	2,451	1,980
% Difference	-18.36%	-12.6%

Unfortunately, the Depken, Hollans, and Swidler (2009) study did not indicate the specific average square footage of flip and non-flip properties in their dataset; however, they did indicate that the average flipped property in their dataset was 51 square feet smaller than the average non-flip property sold from 1994-2004 and 138 square feet smaller on average than the non-flips sold from 2004-2006, compared to a 249 square foot difference in McLaughlin and Jobe's (2018) study. Notably, Upper Arlington proved to have the greatest disparity in square footage of flip and non-flip

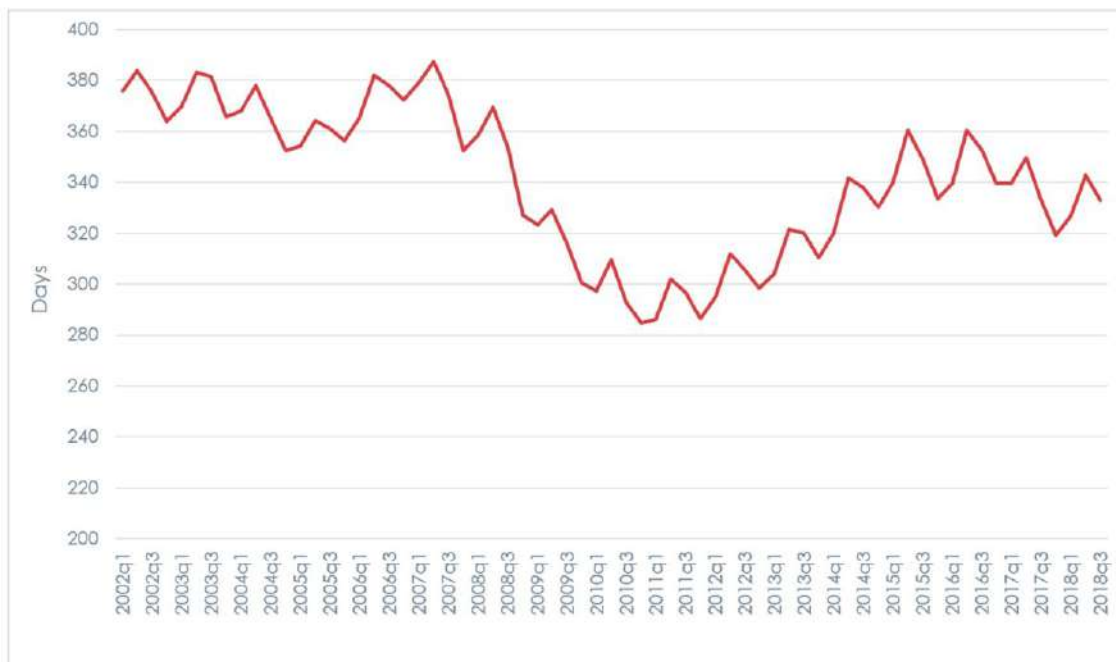
properties. However, this result is consistent with the property square footage in this dataset, as the average flip and non-flip home sold in Upper Arlington over the time period studied is significantly larger than the average flip and non-flip property in McLaughlin and Jobe's (2018) study.

Average Duration

This analysis will now examine the average duration of property flips in Upper Arlington. It is of great importance for an investor to have a realistic understanding of how long they may own an investment property, as this understanding will allow them to have a clearer view of the costs associated with flipping a house outside of the renovation itself. Examples of these costs include utility bills, property taxes, HOA fees, and more.

Once the dataset of properties that were flipped was completed, the data on duration was completed by imputing the property address into the Franklin County Auditor's website, and taking note of the dates that the property was bought and resold. When examining the duration data, it is worth indicating that there is a wide range of flip durations. In this dataset, the shortest duration is 55 days while the longest flip duration is 718 days; however, both of these numbers are outliers. The foundational study by Depken, Hollans, and Swidler (2009) identified that flips which are bought and resold within six months are considered short term flips, those that are bought and sold between six and 12 months are medium term flips, and properties that are sold within one to two years are long term flips. The average flip duration of the 46-property dataset in Upper Arlington is approximately 329.09 days, indicating that most of the flips that occurred over this time period are considered short-term or medium-term flips. While in the minority, a substantial number of flips in this dataset were held for the long term; while this study does not determine the motivation of the seller by its definition of a flip, it is worth noting that one may own a property prior to its final sale for a significant amount of time.

The foundational studies also examined flip duration, but did so in a different way and reported the findings of their data differently than a simple average. Unfortunately, neither study disclosed their data or averages for duration, thus preventing a direct and fully precise comparison. However, when examining the graphs related to duration in the Depken, Hollans, and Swidler study (2009), it is evident that that over 50% of the flips identified from 1996 to 2001 were identified as long-term flips. When considering their data from 2002 to 2007, long term investments that have ownership duration of 1-2 years appear to account for at least 50% of all flips except for Q4 of 2003-Q1 of 2005, when shorthand medium term flips accounted for a larger percentage of total flips. McLaughlin and Jobe's (2018) study reported the median duration of property flips per quarter from 2002-2018 on a line graph. Unfortunately, they do not disclose their dataset or an average for the entire flip duration dataset. Based on the Figure 1 from McLaughlin and Jobe's study shown below, it appears that the median duration per quarter of flipped homes sold hovers between approximately 285 and 385 days throughout the dataset. While imprecise, it does seem that the duration reported in McLaughlin and Jobe's (2018) study is in line with the finding of an average flip duration of 329.09 days determined in this study.

Figure 1**Median Duration of Property flips Per Quarter 2002-2018**

Retrieved from A Wild Flipping Ride: Economic Returns to U.S. House Flipping, 2002-2018

Average Year Built

When considering characteristics of house flips, the year of construction is often an important factor in determining a property's value and estimating the amount of work that will be needed. Both of the foundational studies explored the average age of flip properties in comparison to the non-flip homes sold over the same time period in the same geographic location. This study aims to compare this portion of their analysis with information from a new dataset in order to compare their results to that of a midwestern suburb.

It is important to have context on the development of Upper Arlington prior to comparing it to the foundational studies, as its timeline of development will determine the average age of properties sold. Upper Arlington is an older community, with development of homes starting in the early 1900's; development gradually continued overtime until most of the suburb was developed by the 1980's. Today, it is common to see properties in Upper Arlington purchased, demolished, and rebuilt. While most of the homes in Upper Arlington are older, the new redevelopment of properties will undeniably impact the average age of properties in the area. The area of Upper Arlington that this study utilizes is considered to be "North Arlington;" properties in this area were primarily developed from the 1950's through the 1980's, with the exception of the new construction homes that are built when preexisting homes are torn down. These demographics will certainly result in different results than the Depken, Hollans, and Swidler (2009) study, as many of the homes in their study were quite new at the time the analysis was conducted.

The data used to assemble a dataset on the ages of flip and non-flip properties was obtained from the Multiple Listing Service (2020), commonly referred to as the MLS, utilizing the access to this service from licensed realtor Susan Wainfor (S. Wainfor, personal communication, October 7, 2020). The predetermined flip properties were removed from the data obtained provided by the MLS, and the year built of the flipped properties was then transferred to the flip dataset. A simple average of the overall dataset was then determined.

Interestingly, the average age of the flip properties in this study were quite similar to the age of the non-flips, as indicated in Table 2 on the following page.

Table 2
Age of Flip and Non-flip Properties

Property Type	Average Year Built	Average Age (Years)
Flip	1966.42	53.58
Non-flip	1968.32	51.68
% Difference		3.68%

It was determined that the average investment property is slightly older than the average non-flip property. It is not surprising that the average flip is older than the average non-flip in general, as older homes generally need more work than newer homes. Both of the foundational studies also determined that the average flip is older than the average non-flip, even with different location demographics. However, the average age of the properties in the other studies' datasets were quite different. McLaughlin andJobe(2018) found that the average flipped property in their dataset was 26.2 years old, while the average non-flip was 16.5 years old; this resulted in a significant 59.2% difference in age. Due the size of their dataset, McLaughlin andJobe's(2018) study likely included more diversity of property ages in their dataset. It was clear from the beginning that the average property in this study would be older than the average properties in the others; the point of interest was to determine how much older the flips were on average than the non-flips, or if they were older at all. Depken, Hollans, and Swidler (2009)also found that flipped homes were older than the non-flip homes in their dataset throughout their study. However, the average age difference between flip and non-flip homes in this study was also quite small; for example, the median flipped home in their sample for their data in the year 1998 was built in 1996, while the median non-flip home sold was built in 1998 due to the amount of new construction properties in the area. Based on the results of these three studies, it is evident that the average or median flip is typically older than a non-flip. However, the percentage difference between the age of the properties seems to have great variability; one area of possible future research could be a replication study on the average age of flip vs. non-flip properties done on a national scale to obtain more conclusive results.

CONCLUSION

This research has achieved the two-fold goal of providing an overview of flipping that serves as an introductory guide to residential property investment for new and inexperienced buyers, as well as reevaluating key findings of foundational research studies on property flipping in a suburban, midwestern geographic area of study; this includes average flip duration, square footage and year built. First, this paper introduced key areas of concern to aspiring property investors, including financing of investment properties, how to estimate a reasonable valuation for a property to purchase, key mistakes and lessons learned by property investors, and key characteristics of flipped properties. By having this foundational understanding of key areas related to property flipping, new and aspiring investors will be better prepared to begin their new career in property investment.

While it is evident that there is a notable lack of academic research on flipping houses, two key foundational studies provide an excellent opportunity for replication and further exploration across various points in time and differing geographic locations. Through significant research it became evident that private firms that collect property data have a notable advantage in conducting research on house flipping, as the sources that are publicly available to academic researchers often require tedious methodology to collect data; this is likely part of the reason why there is limited academic research on house flipping that utilizes real property data. When considering the many potential opportunities for future research on this topic, flips that were bought and resold multiple times over a two-year period offer excellent and seemingly untapped potential to research. Additionally, a similar replication study could be done in small towns, as all comparable studies done to date have focused on large cities and their suburbs.

Utilizing the same definition of a house flip as the two foundational studies, it was determined that house flips in Upper Arlington over the time period and area studied are smaller than the non-flip homes sold over that same timespan, as investment properties were found to be 2,001 square feet on average versus 2,451 for non-flips. These results largely fall in line with the findings of the two foundational studies on flip and non-flip square footage. It is important to note that the disparity in square footage between flips and non-flips found in this study is larger than what was found in the foundational studies; however, the average property sold in this study is also significantly larger than the averages in the foundational studies.

Using this same data set, it was determined that the average duration of a property investment in this sample is approximately 329.09 days. Due to a lack of transparency of the data used in the foundational studies (likely due to their size) and different methodologies used for reporting the data, there is no clear way to compare this figure to the average duration of their datasets. However, it was evident that for most of the quarters in the Depken, Hollans, and Swidler (2009) dataset, over 50% of flipped properties resold in a given quarter were long-term flips. When considering the findings from McLaughlin and Jobe's (2018) study, the median number of days that a flipped property was owned prior to being resold had a minimum of approximately 285 and a maximum of 385 days; while impossible to determine precisely based on the data available, it seems that the average duration of a property flip in McLaughlin and Jobe's study is quite similar to what was identified in this study.

When considering the average year that flips versus non-flip homes were constructed, major differences in the time in which properties were developed resulted in significantly different average

years of construction. The geographic limitations in this study as well as the study by Depken, Hollans, and Swidler (2009) limit their application when considering flipped homes in other areas. However, both of the foundational studies used identified that flip homes are typically older than non-flip homes, even given the diversity of areas surveyed. One key difference with McLaughlin and Jobe's (2018) study is that the percentage difference in age between flip and non-flip homes was found to be a considerable 59.2%, while this study and the study conducted in Las Vegas found a significantly smaller difference in the age between flip and non-flip homes. For further research, it is recommended that a replication study that explores the average year of construction in depth is conducted on a national scale, in order to fully ensure non-incidental results.

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