

**THE CORRELATION BETWEEN MARKET FUNDAMENTALS
AND APARTMENT REIT PERFORMANCE**

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Submitted to the Department of Urban Studies and Planning in Partial Fulfillment of the
Requirements for the Degree of Master of Science in Real Estate Development

at the

Massachusetts Institute of Technology

September 2001

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ABSTRACT

This paper empirically examines the correlation between apartment REIT performance (as measured by Funds from Operations, Net Operating Income, Gross Rental Revenue, Net Income, Market Capitalization and CAP Rate) and market fundamentals (as measured by weighted average rent growth, weighted average employment growth, weighted average stock growth and weighted average excess demand). The objective of this paper is to explain the variance in historical apartment REIT performance based on historical market fundamentals.

Market fundamentals are broadly defined as the employment growth, population growth, stock growth and rent growth. More detailed definitions of market fundamentals are provided within the paper. Independent variables are developed from market data collected from 57 MSAs. Using these data, weighted averages are generated in order to isolate geographical effects. These independent variables are regressed against measures of financial performance of apartment REITs as of December 31, 2000.

The results show that weighted average rent growth (given NREI rent data) and growth in apartment units explain 37.1% of the variance in the percent change in FFO per unit and 37.8% of the variance in the percent change in market capitalization per unit across the sample of selected apartment REITs. Furthermore, weighted average rent growth (given government rent data) does a relatively poor job of explaining the variance in the percent change in FFO per unit.

Thesis Supervisor: William C. Wheaton

Title: Chairman, Interdepartmental Degree Program in Real Estate Development

Acknowledgements

We would like to thank our wives for providing endless support and understanding throughout the project in the past school year. Their help made the difficult times seem bearable. We would also like to thank our classmates for their availability to answer our numerous questions.

We would also like to thank Professor Wheaton for his assistance in data collection as well as providing leadership and guidance for the research.

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1.0 Introduction

1.1 Context of Research

As of March 2000, there were approximately 17 million apartments in the US.¹ Of these, approximately 54% are located in major metropolitan cities and another 40% are located within the suburban ring of these metropolitan markets.² Additionally, construction started on 331,600 apartment units in 1999, and another \$24.1 billion worth of apartment building permits were issued.³ Below is a distribution breakdown by state.

Exhibit 1

State Distribution of Apartments					
State	# of Apts.	Rank	State	# of Apts.	Rank
Alabama	178,616	26	Montana	29,725	49
Alaska	30,609	48	Nebraska	98,503	34
Arizona	349,676	15	Nevada	189,801	24
Arkansas	84,421	38	New Hampshire	63,719	40
California	2,437,646	1	New Jersey	486,500	8
Colorado	306,010	18	New Mexico	66,862	39
Connecticut	188,261	25	New York	1,943,860	2
Delaware	39,092	45	North Carolina	348,516	16
Dist. of Columbia	107,852	33	North Dakota	49,836	42
Florida	1,146,079	4	Ohio	620,066	6
Georgia	453,548	10	Oklahoma	149,228	30
Hawaii	93,071	35	Oregon	205,068	23
Idaho	34,077	47	Pennsylvania	531,758	7
Illinois	808,124	5	Rhode Island	57,175	41
Indiana	286,892	20	South Carolina	158,402	29
Iowa	130,681	31	South Dakota	37,883	46
Kansas	118,836	32	Tennessee	274,060	21
Kentucky	168,371	28	Texas	1,460,445	3
Louisiana	171,738	27	Utah	92,343	36
Maine	48,736	43	Vermont	20,208	50
Maryland	358,454	14	Virginia	415,990	12
Massachusetts	416,025	11	Washington	403,049	13
Michigan	485,375	9	West Virginia	48,573	44
Minnesota	313,112	17	Wisconsin	298,640	19
Mississippi	88,021	37	Wyoming	15,538	51

¹ NMHC estimates based on U.S. Census Bureau data.

² NMHC tabulations of data from the U.S. Census Bureau's Current Population Survey for March 2000

³ U. S. Bureau of the Census, Current Construction Survey 1999

Missouri	243,994	22			
Total U.S.	17,153,065				

Source: NMHC estimates based on U.S. Census Bureau data.

Note: The apartment stock estimates include both occupied and vacant units. For these estimates, only units in structures with at least 5 or more units are counted.

Interestingly, the majority of apartments in the US are located in smaller structures, not the large garden-style or high rise properties so commonly associated with apartments.

Exhibit 2

# of Units on Property	% of Total
2 - 99 units	64%
100 - 199 units	14%
200 - 299 units	9%
300 - 399 units	5%
400 - 499 units	3%
500+ units	4%

Source: NMHC tabulation of unpublished data from the U.S. Census Bureau's 1995-1996 Property Owners and Managers Survey.

Note: Statistics refer to privately owned housing and do not include the 13,493 public housing projects or their 1,326,000 apartments (HUD estimates for 1995-1996).

One reason that the apartment unit per property breakdown favors small properties is the current U.S. ownership structure. In the aggregate, individuals and partnerships owned 67.2% of all apartment units.⁴ Smaller units per property are characteristic of individual or small partnership ownership, whereas institutional ownership tends to own larger properties.

⁴ NMHC tabulations of unpublished data from the U.S. Census Bureau's 1995-1996 Property Owners and Managers Survey.

Exhibit 3

Apartment Ownership	2-4 unit Properties	5-49 unit Properties	50+ unit Properties
Individuals	84.80%	57.40%	19.20%
Partnerships	3.90%	14.90%	32.70%
Real Estate Investment Trusts	0.60%	1.10%	3.40%
Real Estate Corporations	1.00%	4.00%	9.60%
Other Corporations	0.90%	4.00%	4.60%
Non-Profits/Co-Ops	0.60%	2.50%	6.00%
Other	3.70%	4.60%	4.90%
Not Reported	4.50%	11.50%	19.60%
TOTAL	100.00%	100.00%	100.00%

Source: NMHC tabulations of unpublished data from the U.S. Census Bureau's 1995-1996 Property Owners and Managers Survey.

As of 3rd quarter 2000, there were nineteen equity REITs whose portfolio is at least 90% comprised of apartments.⁵ This represents approximately 10% of the entire REIT industry. These nineteen REITs comprise a market capitalization of approximately \$30 billion, or approximately 18% of the entire REIT industry market capitalization.⁶ These statistics speak to the importance and size of the apartment sector in the REIT industry. Surprisingly, however, REITs only owned 2.1% of all apartments in the United States as of December 31, 1999.⁷ Yet many real estate observers foresee a shift in the way real estate is owned, declaring that “the future of commercial real estate is in securities, not direct ownership.”⁸ If REITs truly become the preferred method of ownership in the US, then apartment REITs certainly have significant market share yet to obtain.

⁵ Constituent Companies and Relative Weights in the NAREIT Real-Time Index for July 1, 2001

⁶ Ibid

⁷ NMHC tabulations of unpublished data from the U.S. Census Bureau's 1995-1996 Property Owners and Managers Survey.

⁸ Richard Schoninger, Prudential Securities, as quoted by Maria Wood, “Cash-Rich for the Next Buying Spree”

With a growing trend in public ownership of real estate and apartments, coupled with a huge market share still available to apartment REITs, a question then becomes, 'is it possible to predict how apartment REITs will perform, given a certain geographic concentration for their respective apartment portfolio?'

Prior academic research has touched on this topic, namely "The Determinants of REIT Franchise Value" by Jim Young and a reprise of that paper by Rosanna Santos-Wuest. In these papers, regional economic growth opportunities were examined as a determinant of franchise value, which is the premium/discount to NAV or the value of the company in relation to its net asset value. These papers, however, included both apartment and commercial REITs and focused more on the NAV aspect of REITs.

The purpose of this paper is to examine the correlation between apartment REIT financial performance (proxied by FFO, rental revenue, rental net operating income, net income, market capitalization and CAP rate) and market fundamentals (proxied by weighted average rent growth, weighted average employment growth, weighted average stock growth and weighted average excess demand). Apartment REIT performance is empirically analyzed in conjunction with market fundamentals using regression analysis in an attempt to explain the variation in historical performance of apartment REITs.

1.2 Supply and Demand Issues Affecting Market Fundamentals

Some previous academic research has focused on supply-demand factors affecting the investment demand for rental housing and accordingly, the apartment REIT industry. Kenneth Rosen's paper (1996), "The Economics of the Apartment Market in the 1990s," succinctly explains how the market fundamentals discussed in Chapter 3.0 are affected by supply and demand issues, thus affecting fundamental and investment demand for rental apartments. Rosen states that, "demand [for rental housing] will be strong for areas with high in-migration, due to the young age characteristics of movers, and the high costs of homeownership in many regions. Compounding this effect is the continued growth in nontraditional households, which tend to be younger and more likely to rent."⁹ The size, age distribution and growth rate by age group of the population are critical factors in determining rental-housing demand. So too is the increase in household formation relative to population, strong regional in-migration due to job growth, and the increase in the relative affordability of rental housing on the East and West coasts because of the sharp rise in prices of single family homes.¹⁰ New household formation is being greatly affected by divorce, couples delaying marriage, surviving elderly spouses' desire to remain in their own living quarters and very young people living with the opposite sex. Rosen writes that "these dramatic socioeconomic changes affecting all age groups [and increase in non-traditional households] have led to a substantial increase in the demand for rental housing units

⁹ Rosen, "The Economics of the Apartment Market in the 1990's" [1996]

¹⁰ Ibid

because individual and nontraditional households are more than twice as likely as family households to occupy rental housing units.”¹¹

Rosen’s paper illustrates the increase in the demand side for apartments, highlighting apartments’ increased importance in the coming years. The supply side should follow suit as long as vacancies remain moderate and the capital supply for apartments remains in-check. The combination of the increasing demand for apartments and increased demand for public ownership for REITs helps to set forth the importance of apartments in the U.S.

1.3 Research Issue

Market research firms, such as Torto Wheaton Research, have demonstrated an ability to predict MSA rent growth, employment growth and stock growth with reasonable accuracy. Also predictable, based on US Census Data, is age distribution and group size. Since it is possible to predict market fundamentals with reasonable accuracy, *is* it then possible to explain how apartment REITs perform based on geographic portfolio concentration? In order to make this jump, three hypotheses are set forth and tested empirically and/or through the academic research of others. They are:

1. weighted average employment growth and weighted average stock growth effectively measure demand and supply growth, which should be a proxy for weighted average rent growth;

¹¹ Ibid

2. weighted average rent growth should determine net income and FFO / NOI growth; and
3. FFO growth should determine a REIT's market capitalization growth.

The purpose of this paper is to explore these three hypotheses and determine if such a correlation exists between market fundamentals and apartment REIT performance.

This correlation will be tested empirically through market data collected for numerous MSAs and apartment REIT performance data collected on 19 REITs.

The following Chapter describes the research methodology and literature used to review the correlation between apartment REIT performance and market fundamentals. Chapter Three provides a more detailed account of the research methodology and defines the dependent and independent variables. Chapter Four describes the statistical sample pool used to empirically test the research findings, and Chapter Five summarizes the results of the empirical tests. Conclusions are presented in Chapter Six.

2.0 Research Methodology

This study defines the different measures of apartment REIT financial performance and market fundamentals and quantifies a relationship between the two through empirical analysis. Numerous explanatory (independent) variables were utilized to empirically examine and statistically explain an apartment REIT's performance using regression analysis. Regression analysis measures the relationship between one economic variable, the "dependent variable" and one or more explanatory variables, the "independent variables".

The investigation into the determinants of apartment REIT performance began as a theory proposed by Professor William Wheaton of the MIT Center for Real Estate and Economics Department. The research was initiated by a review of academic and industry literature in real estate and finance to establish how a REIT's financial performance is measured, as well as the appropriate components of market fundamentals. This work was complemented by informational interviews with academic practitioners to establish a scope of components for the regression analysis, particularly with respect to market fundamental data. Through the literature reviews and informational interviews, the appropriate dependent and independent variables were established in order to complete the regression analysis.

It is important to note that this paper's research is limited to REITs focusing solely on apartments and excludes manufactured home REITs. Apartment REITs were selected because:

1. The U.S government publishes reliable market data on MSAs
2. Apartment properties should better reflect market fundamentals due to the apartment lease structure. When compared to office or industrial leases, the apartment lease is generally shorter term (6 – 18 months) versus an office lease, which can be as long as 20 years (or even longer). Therefore, the office data is smoothed over a longer period and doesn't move as quickly as apartment data. The shorter-term nature of the apartment lease can more accurately reflect the current market conditions when compared to the longer-term office leases signed many years ago. Apartments essentially can re-price immediately. Additionally, office or industrial leases are affected by tenant quality, amount of space leased, concessions, and/or tenant improvements. Thus in some instances, it can be difficult to determine the effective lease rate, which can skew the market data.

2.1 Literature Review

A review of literature pertaining to apartment housing, apartment REITs and the REIT industry as a whole, yielded useful information, but also revealed very little research to date on the correlation of market fundamentals and apartment REIT performance. Over the last several years, considerably more has been written about the REIT industry. The National Association of Real Estate Investment Trusts (NAREIT), an industry group, as well as publications from independent research firms specializing in the REIT sector, such as Green Street Advisors and The Penobscot Group, sponsored much of this research. These publications provided the most useful insight into REIT performance measures. Academic research and

research sponsored by the National Multi Housing Council (NMHC) provided the greatest information regarding the apartment industry, particularly economic information utilized in generating market fundamental data. The NMHC and NAREIT websites, which provided “one-stop shopping” for apartment and REIT literature, were a tremendous resource for providing information. A large volume of writing is in non-academic publications covering current topical issues, particularly supply and demand issues that may affect the apartment industry, and therefore apartment REITs, as well as issues concerning REIT performance.

Publications from Trade Organizations

The NMHC and NAREIT organizations have published several papers relevant to the apartment industry or apartment REIT industry. Among the papers reviewed, one of the more notable is NMHC’s “Performance Across Local Markets” by Jack Goodman, which discusses the geographic correlation across local apartment markets. Specifically, the paper seeks to aid investors in maximizing the geographic diversification of an apartment portfolio, utilizing rent increases and vacancy rates among the measures. Two key results in this paper were: 1) some apartment markets are easier to forecast than others and 2) growing apartment markets are not always profitable markets.¹² Goodman’s research concludes that rent predictability in some apartment markets is possible while in others it is very difficult. The reason is that annual percentage increases in rents over the last ten years is highly correlated in some markets with annual job growth, multi-family

¹² Goodman, “Performance Across Local Apartment Markets”, [1999].

construction and vacancy rates, while in others there is no correlation at all.

Based on this study, there is no obvious pattern.¹³

Goodman's research is important because this thesis attempts to explain apartment REIT performance, which is predicated upon the ability to predict market fundamentals, such as rent growth, job growth and stock growth, by establishing a correlation between performance and fundamentals.

NAREIT has published several reports that were useful in gathering information on REIT return measures as well as understanding the industry's position on Funds from Operation (FFO), a topic of much discussion. According to NAREIT's "Investing in Real Estate Investment Trusts", there are many factors affecting REIT returns, such as real estate fundamentals, earnings and dividends, and company fundamentals. An important conclusion of this research is that although real estate fundamentals may affect the commercial real estate business as a whole, understanding a REIT's geographic concentration may impact a certain stock's price more than others, because the economy is not equally strong in all geographic regions, and economic demand may not increase the demand for all property types at the same time.¹⁴ This is important in this thesis as it supports the use of geographic concentration weights in the empirical analysis discussed in Chapter Five. By appropriately weighting the geographic concentration of a

¹³ Ibid

¹⁴ Ibid

REIT's portfolio, it is possible to compare different apartment REITs based on the relative strength or weakness of the real estate markets that exists in that portfolio.

The NAREIT "*White Papers on FFO*" were informative in defining and calculating FFO (discussed in greater detail in chapter 3.2). Moreover, the publication helped explain the history and intended purpose of the financial measure. Since FFO has been the subject of much debate among industry observers, this publication set out to clarify the industry's position. That is, FFO is intended to be a supplemental financial measure of a REIT's performance which specifically addresses the issue that historical cost accounting, in particular depreciation, can be misleading, as historical real estate values have risen and fallen with market conditions.¹⁵ Therefore, FFO excludes historical cost depreciation in its calculation. Understanding FFO is important since it is one of the dependent variables used in this paper's empirical analysis.

Publications from Independent Research Firms

Widely regarded as one of the key financial measures of a REIT, FFO was initially considered the most important dependent variable in the regression analysis. Green Street Advisors, however, has issued research reports that indicate net income may be just as important as FFO. Green Street's "*The High Cost of Owning Real Estate*" states that FFO dramatically overstates performance for most REITs while net income dramatically understates performance for most REITs. Although it is unclear which measure comes closer to the actual

economic truth, Green Street feels that net income is a conceptually superior performance measure because real estate does indeed depreciate (contrary to what FFO calculates) and net income properly matches revenues with expenses (which FFO does not do).¹⁶

A change in analyst sentiment also changed the initial importance given to FFO. Three major Wall Street firms, Merrill Lynch, Morgan Stanley and Citigroup's Salomon Smith Barney, recently announced that REIT analysts would add an additional forecast for financial results using net income per share.¹⁷ The reason for the change is that FFO does not conform to Generally Accepted Accounting Principles (see definition of FFO above). Many analysts feel that FFO represents a pro forma number. "As with other pro formas, the issue with FFO is there is no common definition, and people pick and choose the numbers that they use to calculate FFO."¹⁸ A major advantage to using net income per share is that gains and losses on asset sales, a large part of REITs' earnings, are included in the calculation, which is contrary to the FFO calculation.

As a result of Wall Street's increased emphasis on net income as well as independent research reports such as Green Street's support of net income, a net income dependent variable was added for the empirical analysis.

¹⁵ NAREIT "White Paper on Funds from Operations", [1999]

¹⁶ Green Street Advisors, "The High Cost of Owning Real Estate", [1999].

¹⁷ Starkman, Weil, "Three Firms to Emphasize Different Metric for REITs", [2001].

¹⁸ Green Street Advisors, "The High Cost of Owning Real Estate", [1999].

Academic Research

Much of the REIT academic research to date has focused on the relationships between publicly traded equity REITs and the larger stock market forces for publicly traded equities. Han and Liang (1995) studied the historical performance of REITs by determining: 1) whether REITs performed differently from the market portfolio, on a risk-adjusted basis, over the period 1970 – 1993; 2) whether REIT performance varies significantly over time; and 3) whether the outcomes of REIT performance studies are sensitive to the choice of performance benchmarks and REIT samples. Han and Liang concluded that over the 1970 – 1993 period, REIT performance was similar to that of a passively managed portfolio of three-month treasury bills and stock market portfolio. Also, REIT performance was not stable over the sample period, concluding that studies that focus on short time periods may lead to varying conclusions. Most importantly though, they found that the use of the S&P 500 index lead to results that overstated the performance of the REIT industry portfolios, relative to the stock market portfolio.¹⁹

More recent research on the same topic has yielded similar results. Ziering, Liang and McIntosh (1995) note that “the total return correlation between REITs and the S&P 500 Index, as well as other standard stock market indexes, spiked dramatically during the second half of 1998, reversing a trend toward decreasing

¹⁹ Han and Liang, “The Historical Performance of Real Estate Investment Trusts”, [1995].

correlation over the past three years.”²⁰ Ziering, Liang and McIntosh believe though that this trend is temporary and that there will be a continuation of the gradual disconnect between the performance of the REIT sector and other capital market indexes.²¹

Sanders (1997) found that equity REIT returns have a high correlation to the Wilshire Small Value index and the high-yield corporate bond index. Sanders, however, notes that there is still a considerable amount of unexplained variation in REIT returns that cannot be diversified away with major stock and bond indexes, particularly since 1991.²²

Hartzell and Mengden (1986) concluded that equity REIT prices track the stock market, mirroring the volatility, but have income characteristics that resemble unsecuritized real estate.²³ Similarly, Giliberto found that equity REITs correlation with the stock market has declined over time and correlation with bond returns has increased.²⁴ Intuitively, this makes sense since many investors view the cash flow stream of leases similar to the cash flow stream of bonds.

²⁰ Ziering, Liang, and McIntosh, “REIT Correlations with Capital Market Indexes: Separating Signal From Noise”, [1999].

²¹ Ibid.

²² Anthony B. Sanders, “The Historical Behavior of REIT Returns”, in *Real Estate Investment Trusts*, Garrigan and Parsons, [1997].

²³ Hartzell and Mengden, “Equity Real Estate Investment Trusts – Are They Stocks or Real Estate?”, Solomon Brothers, Inc., [1986].

²⁴ S. Michael Giliberto, “Equity Real Estate Investment Trusts and Portfolio Diversification”, Salomon Brothers, Inc., [1989].

Chen and Peiser examine the risk and return characteristics of REITs and their effects on returns. Specifically, they examined (1) the performance of “new” versus “old” REITs, (2) the risk-return trade-off of different REIT sectors, and (3) how certain characteristics of REITs such as size and portfolio diversity affect performance. Their research indicated that REITs are more highly correlated to the S&P Mid-Cap 400 index than with the S&P 500 index. This is not surprising since REITs have smaller capitalizations than the large companies included in the S&P 500 index. However, the correlation between REITs and the S&P Mid-Cap 400 index is still not very strong.²⁵

Their results also indicate that diversified REITs (multiple property types) performed worse than non-diversified REITs, meaning the market did not value diversification by property type as much as it valued more focused investment strategies. Other results of their study indicate that small REITs (\$20 – 100 million in market cap) had higher returns than the large REITs, but also had a higher standard deviation. Geographically concentrated REITs (investments in only one state) showed significantly higher returns but also significantly higher standard deviations than geographically diversified REITs (investments in four or more states.)

Since investors often perceive investment in equity REITs as comparable to direct investing in unsecuritized real estate, academic research has attempted to explain the correlation between equity REIT returns and unsecuritized real estate returns.

²⁵ Chen and Peiser, “The Risk and Return Characteristics of REITs – 1943 - 1997”, [1999].

The basic premise to these studies is that equity REIT returns share some unspecified factor or factors that also affect more traditional unsecuritized real estate. However, the correlation between indexes of equity REITs and real estate returns is conflicting, which casts doubt on this assumption. Giliberto's research (1990) concludes, "the correlation between indexes of equity REITs and real estate returns is zero."²⁶

Follow-up research by Giliberto finds that the residuals from regressions of both real estate series on financial asset returns are significantly correlated. After removing financial asset market influences, the co-movement between equity REIT returns and the NCREIF Property Index is significant. Giliberto states that there is a common factor (or factors) associated with real estate that affects both sets of returns. This may be the pure real estate market fundamentals that are not shared with financial asset markets but that influence both equity REITs and the NCREIF Index (private, institutional real estate returns). Additionally, lagged values of the equity REIT residuals help explain variation in the conventional unsecuritized real estate return residuals. Giliberto concludes that investors do capture some portion of real estate market returns by investing in REITs, although they must accept volatility that approaches that of stocks.²⁷

Lieblich, Pagliari and Webb (1997) conducted similar research to Giliberto's. Their research was motivated by the theory that long-run behavior of REITs

²⁶ S. Michael Giliberto, "Equity Real Estate Investment Trusts & Real Estate Returns", [1990]

²⁷ Ibid

should generally follow the behavior of the underlying real estate assets.

Accordingly, the NAREIT Index (historical public REIT returns) is compared to the NCREIF Index. Unlike previous research, Lieblich, Pagliari and Webb focused on dividends, investment values and dividend yields to compare the indexes.²⁸ As with previous research, a weak statistical relationship between total returns for securitized and unsecuritized real estate was found. In the short-term, dividends, investment value and changes in dividend yields between secured and unsecured real estate were statistically weak even when lags of up to two years were examined. They concluded that the long-term path of prices for securitized and unsecuritized real estate exhibited the strongest relationship and that the weak relationship for explaining total returns may be more attributable to the volatility of dividends and/or changes in dividend yields.²⁹

Nelling and Gyourko (1998) examined the predictability of monthly returns on equity REITs over the period 1975-1995 and compared them with small and mid-cap firms. Using a time series approach, their study indicated statistically significant evidence of predictability of monthly returns. The average monthly return, however, was insufficient to cover transactions costs necessary to exploit the prediction.³⁰

²⁸ Lieblich, Pagliari and Webb, "Historical Behavior of REIT Returns: A Real Estate Perspective", in *Real Estate Investment Trusts*, Garrigan & Parsons, [1997].

²⁹ Ibid.

³⁰ Nelling and Gyourko, "The Predictability of Equity REIT Returns", [1998].

Myer and Webb (1994) examined the return properties of equity REITs, common stocks and unsecuritized commercial real estate with the retail industry used as the common thread. Again, one of the goals of their research was to explore the long-term relationship between securitized and unsecuritized real estate. The results of Myer and Webb's research found evidence that a positive contemporaneous relationship exists between common stocks and equity REITs. Thus a common factor (or factors) affects the returns of common stocks and equity REITs that are unrelated to the general stock market. Their results, however, were inconclusive in drawing a correlation between commercial unsecuritized real estate and either equity REITs or common stocks.³¹

Chan, et al (1990), using a multifactor arbitrage pricing model for the period 1973 – 1987, found that four factors (unexpected inflation, changes in the risk and term structure of interest rates, and the percentage change in the discount on closed – end stock funds) consistently drive equity REIT returns. The impact of these variables is approximately 60 percent of that for common stocks.³²

Liu and Mei (1992) examined the predictability of equity REIT returns and their co-movement with other assets. They found that expected excess returns are more predictable for equity REITs than for bonds and small-cap and value-

³¹ Myer and Webb, "Retail Stocks, Retail REITs and Retail Real Estate", [1994].

³² Chan, Hendershot and Sanders, "Risk and Return on Real Estate: Evidence from Equity REITs", [1992].

weighted stocks. They also found that equity returns move more closely with small-cap stocks than with large-cap stocks.³³

Similar to previous research, Goldstein and Nelling (1999) examined the diversification potential of REITs by comparing their return behavior over the period 1972 – 1998 to the returns on common stocks, small stocks, treasury bills, long-term government bonds, corporate bonds and the inflation rate. The major difference in Goldstein and Nelling’s work is that the behavior of REIT returns are investigated in advancing and declining stock markets separately to examine the claim that REITs provide a good hedge against general stock market declines. Additionally, both equity and mortgage REITs are studied. The results of the study indicated that REITs “do not have symmetric hedging properties.” In particular, both equity and mortgage REITs are more highly correlated with stocks when the market is declining than when it is advancing.³⁴

Clayton and MacKinnon’s (2001) research is very similar to Goldstein and Nelling in that Clayton and MacKinnon also study the links between REITs and financial asset returns. However, Clayton and MacKinnon include unsecuritized real estate returns as one of the factors in order to evaluate the claim that REITs are more highly linked with direct property markets. Accordingly, Clayton and MacKinnon examine the correlation between NAREIT and an “unsmoothed” or “de-lagged” NCREIF index. The NCREIF index is subject to a number of

³³ Liu, Hartzell, Grissom, Greig and Mei, “The Predictability of Returns on Equity REITs and Their Co-movement with Other Assets”, [1992].

limitations, most notably NCREIF returns lag true market returns as a result of appraisal smoothing at the individual property level and the inclusion of outdated information. Clayton and McKinnon counteract these limitations by employing the Transaction Value Index (TVI) created by Fisher and Geltner (2000). The TVI aims to undo the lag-induced distortions in the NCREIF index and produce a more realistic index of property returns. The results of Clayton's and MacKinnon's work are consistent with previous studies in that REIT market returns are highly correlated with small cap stocks and uncorrelated with direct real estate returns over the 1978-1998 time period. However, since 1992, the equity NAREIT returns were positively correlated and statistically significant with the de-lagged NCREIF index while the correlation between REITs and stocks in general fell by a large amount. Clayton and MacKinnon conclude that "with growth and maturation in the market, the performance of REITs has become less like the performance of stocks and more like that of the underlying real estate since the REIT boom of 1992 or 1993."³⁵

The work of Liang et al. (1996), which relates specifically to apartment REITs and apartment real estate, is very applicable to this thesis. Their research examines the possibility that equity apartment REITs provide a proxy for the ownership of apartment sticks and bricks. For this purpose, a hedged apartment REIT index was constructed by removing the return components of stocks in general and non-apartment equity REITs from returns of equity REITs that invest

³⁴ Goldstein and Nelling, "REIT Return Behavior In Advancing and Declining Stock Markets", [1999].

in apartment real estate. The resulting “double-hedged” apartment REIT index was found to satisfactorily track the performance of appraisal-based apartment real estate. Also, the hedged apartment REIT index does not suffer from appraisal smoothing or seasonality issues. Therefore, the hedged apartment REIT index can be used as a proxy for apartment real estate.³⁶ They determined this was significant in making portfolio diversification decisions.

A fair amount of research has been published on REIT pricing, most of which is in the context of REIT performance relative to the stock market or indices. A major impact on REIT pricing, the Revenue Reconciliation Act of 1993 paved the way for greater institutional ownership of REITs. Prior to this law, REITs had to abide by strict rules in order to qualify for the significant tax advantages that REITs enjoy. One of the rules that REITs had to comply with was the “five or fewer” rule. This rule disqualifies a REIT from advantageous tax status if more than 50% of its shares are held by five or fewer shareholders. This rule restricts the sources of income and retention of earnings, as well as limited institutional investment interest in REITs. Since REITs traditionally have small market capitalizations, institutional buyers found it difficult to accumulate a sufficient position in an individual REIT without jeopardizing the REIT’s tax status.

The 1993 Act modified the “five or fewer” rule, allowing each institutional beneficiary, rather than the fund itself, to be considered an individual REIT

³⁵ Clayton and MacKinnon, “The Time-Varying Nature of the Link between REIT, Real Estate and Financial Asset Returns”, [2000].

shareholder. Therefore, institutional investors can now take sizable positions in REITs without jeopardizing the REITs status. The result has been an increase in institutional ownership of REIT securities. Chan, Leung and Wang (1998) found institutional ownership in REITs ranged from 12% to 14% between 1986 and 1992. Institutional ownership increased to 17% in 1993, 26% in 1994 and 30% in 1995.³⁷

Crain, Cudd and Brown (2000) studied the increased REIT ownership by institutional investors specifically as the increased ownership relates to unsystematic risk. Their theory is that unsystematic (idiosyncratic) risk, which can be removed through diversification, will become less important due to the highly diversified nature of pension funds.³⁸ Since systematic risk can be removed through diversification, it should become less important in the pricing of equity REITs. They found strong empirical evidence that after enactment of the 1993 Act, the risk structure of equity REIT pricing changed significantly. Unsystematic risk represents variations in equity REIT returns unexplained by movement in the market index (S&P 500). Their study results indicate that since the 1993 Act the role of unsystematic risk in explaining equity REIT returns declined significantly over time,³⁹ the same corresponding time period as the increase in institutional ownership.

³⁶ Liang, Chatrath and McIntosh, "Apartment REITs and Apartment Real Estate", [1996].

³⁷ Chan, Leung and Wang, "Institutional Investment in REITs: Evidence and Implications", [1998].

³⁸ Crain, Cudd and Brown, "The Impact of Revenue Reconciliation Act of 1993 on the Pricing Structure of Equity REITs", [2000].

Fields, Rangan and Thiagarjan (1998) conducted research directly applicable to FFO growth as it relates to market capitalization. Fields et al. compared net income and FFO to help explain contemporaneous REIT pricing and annual stock returns. Since previous research has indicated that price should be expressed as a linear function of net income, book value and dividends, Fields et al. used end of year book value of equity and dividends, in addition to net income and FFO, as explanatory variables for stock prices. Using regression analysis, Fields et al. found that net income has more explanatory power for stock returns than does FFO. Moreover, net income explained 61% of the variation in price compared to FFO, which explained approximately 57.8% of the variation in price. However, the results were not statistically significant. They concluded that net income only marginally explains equity REIT prices better than FFO.⁴⁰

2.2 Empirical Data Sources

The U.S. Census Bureau was the primary source for market data, such as rent growth, employment growth and stock growth (which was calculated from permit data). These data are considered extremely reliable because they are comparable across markets and comprehensive of the conditions within the market. The figures comprise the entire rental stock, not just one structure type or quality grade. Housing construction data, as measured by building permits by size of structure, are also available from the Census Bureau. Since over 80% of all multi-family, construction is built for rental occupancy, multi-family permits are a good indicator of additions to

³⁹ Ibid.

the apartment stock.⁴¹ The estimates of rents, vacancies, and construction are generated using large, scientifically drawn samples and therefore considered very accurate.⁴²

The great extent to which publicly available rental housing data exists is both a strength and a weakness. Metropolitan areas are comprised of various, diverse sub-markets, and metro averages smooth through that diversity. Additionally, rental housing includes not only large properties, but also single-family home rentals and small multi-family properties. These smaller properties often perform differently than larger, institutional properties, which can affect the data and essentially “average” out the diversity.⁴³

Data was also obtained from National Real Estate Index (“NREI”), a provider of real estate/economic research. NREI’s publications analyze commercial real estate trends and demographic changes in over 50 metropolitan markets throughout North America. NREI’s proprietary database also provides quarterly prices, rents and cap rates for the office, industrial, retail, and apartment sectors at the metropolitan, regional and national levels.

NREI’s apartment rent data is gathered directly from apartment owners and managers in 58 metropolitan markets, as well as appraisers, brokers and institutional advisors.

⁴⁰ Fields, Rangan and Thiagarajan, “An Empirical Evaluation of the Usefulness of Non-GAAP Accounting Measures in the Real Estate Investment Trust Industry”, [1998].

⁴¹ Goodman, “Performance Across Local Apartment Markets”, [1999].

⁴² Ibid.

The rents include both Class A and B-rated properties. NREI defines Class B properties as those built or substantively renovated between 1980 and 1988. Additionally, the prototypical apartments NREI tracks are typically garden-style or campus-style, ranging from 100-300 units per property and maintaining a certain standard of appearance and amenities appropriate for the geographic region.

Much of the REIT-specific data (geographic concentration, revenue, NOI, FFO, units owned, interest expense, market share, etc.) were obtained from SNL DataSource, a fee-based service provider that tracks and researches corporate information in financial services, real estate and energy industries. Through an MIT subscription agreement, the SNL DataSource Real Estate Securities Module provided detailed geographic information on all owned-properties in which an applicable apartment REIT has an equity interest as well as all pertinent financial data, such as rental revenue, rental NOI, FFO, net income, market capitalization and CAP rate. SNL obtains all REIT data from either SEC public documents or directly from a REIT's published literature.

2.3 Informational Interviews

Having completed the initial literature review, interviews with academics were conducted to better understand the optimal dependent and independent variables required for the regression analysis. Moreover, these interviews helped to better organize the databases for regression analyses, resulting in the most efficient method for empirical analysis. Once initial regression analyses were produced, additional

⁴³ Ibid.

academic interviews yielded more independent variables, in hopes of generating stronger results. These additional interviews were critical as they strengthened the thesis core. Perhaps the main benefit of the academic interviews was the additional data source suggestions, which facilitated the data collection efforts. Through these data source suggestions, contacts at source providers were gained, providing access to data that was otherwise thought to be unattainable within the time constraints of this thesis.

3.0 Discussion of Variables

3.1 Components of Market Fundamentals

From the literature review and academic interviews, the important components of market fundamentals and REIT financial performance were determined for the empirical analysis. The components of market fundamentals are:

1. Weighted average rent growth
2. Weighted average stock growth
3. Weighted average employment growth
4. Weighted average excess demand growth
5. Percent change in apartments
6. Percent of portfolio in MSA

A short explanation of each component follows:

Weighted Average Rent Growth (WARG)

Rental growth represents the annual percent change in rental units for U.S. markets. Weighted average rent growth was calculated by multiplying each REIT's portfolio concentration (number of units in each MSA divided by the total number of units in the portfolio) by the percent change in rent growth for that MSA from the previous year. Summing up the results for each REIT equals the weighted average rent growth. WARG was calculated with two different sets of market rent data – government and NREI data - in order to fill gaps where data were missing.

Government – Weighted Average Rent Growth

Government – WARG was calculated by multiplying the REIT’s portfolio concentration by the percent change in rent for a given MSA (given government rent data). If the government data lacked information on the MSA, NREI rent data were used. If the NREI rent data lacked information on the MSA, the national rent average was used. As previously discussed, the government data includes all units rented in the U.S. regardless of size. It is obtained through U.S. Census Bureau Survey.

NREI – Weighted Average Rent Growth

NREI - WARG was calculated by multiplying the REIT’s portfolio concentration by the percent change in rent for a given MSA (given NREI rent data) If the NREI data lacked information about the MSA, government rent data were used. If the government data lacked information on the MSA, the national rent average was used. Again, NREI data focuses on larger, institutionally owned class A and B properties and obtains data directly from property owners, appraisers and pension funds.

Weighted Average Stock Growth (WASG)

Stock growth represents the annual change in units available for rent. Weighted average stock growth was calculated by first constructing the historical stock growth for 57 MSAs (identified in Appendix 1) by taking the number of “renter-occupied housing units” as reported by the U.S. Census Bureau in 1990 and adding permits (1990 – 1999) to the respective MSA’s stock number. For example, the number of

renter-occupied housing units for a certain MSA in 1991 was calculated by adding the number of renter-occupied housing units in 1990 to the number of multi-family permits issued in 1990. This process was repeated through 2000. After calculating the percent change in stock growth from year to year, that number was multiplied by each REIT's portfolio concentration. Where stock growth was not available for an MSA, the national stock growth minus the sum of the stock growth for the 57 MSAs that had stock growth information was used. Summing up the product of stock growth and portfolio concentration for each REIT produced the WASG.

Weighted Average Employment Growth (WAEG)

Employment growth measures the change in number of jobs for a specific MSA. Weighted average employment growth was calculated by multiplying the REIT's portfolio concentration by the growth in employment for each MSA. Where employment growth was missing for an MSA, the national employment growth minus the sum of the 57 MSAs that had employment growth information was used. Summing the product of employment and portfolio concentration for each REIT produced the WAEG.

Weighted Average Excess Demand (WAED)

This variable measures the extent to which employment is growing faster or slower than stock in each MSA where market data was available. Weighted average excess demand was calculated by taking the difference between the weighted average employment growth and weighted average stock growth.

Percent Change in Apartments

As discussed in Chapter 3.2, the dependent variables were calculated using per unit growth. Per unit values were used to compare REITs on an “apples to apples” basis. One problem with the per unit calculations though is the accounting method employed by REITs for newly acquired or disposed properties. For example, properties that were acquired in the second half of the calendar year were included in the per unit calculation if the units were still in the portfolio at year-end. However, the operating results associated with newly acquired units were only for a short stub period, therefore understating that REITs’ data, particularly during a high acquisition period.

To help smooth the volatility caused by this accounting issue, the independent variable “Percent Change in Apartments” was added. This variable was added to all regressions in order help offset the effects of the per unit data aberrations. The percent change in apartments variable was calculated by taking the difference in the number of apartments each REIT held in its portfolio between year 2 and year 1 and dividing that result by the number of apartments in year 1. This was done for five years, 1996 - 2000.

Percent of Portfolio in MSA

As indicated in Chapter 4.2, Exhibit 5, government and NREI rent data was obtained for 57 MSAs for a five-year period. However, rent data were unavailable for markets

outside the 57 MSAs in certain years. In those instances, national rent data were used as a substitution. In order to offset the possible effects of too many national data entries, the independent variable “Percent of Portfolio in MSA” was calculated. For each apartment REIT portfolio in the pool (see Chapter 4.1 Exhibit 4) the total number of apartments in the 57 MSAs (Exhibit 5) was calculated. This number was then divided by the total number of apartments in the corresponding REIT’s portfolio. The result is the concentration of a REIT’s portfolio in MSAs where rent data were available.

An additional measure was undertaken to negate the possible influence of national data. The ten REITs with the greatest concentration of units in MSAs for which we had government data were calculated and used in a regression analysis to verify the construction accuracy of the government data. This was used as a test to try and eliminate the noise of REITs with high concentrations of units in MSAs where government rent data did not exist.

3.2 Components of REIT Financial Performance

The measures of REIT financial performance are:

1. Percent change in rental revenue per unit
2. Percent change in rental net operating income per unit
3. Percent change in funds from operations per unit
4. Percent change in net income per unit
5. Percent change in market capitalization per unit
6. CAP rate

Percentage Change in Rental Revenue per Unit

Rental revenue data was collected from SNL DataSource, which obtained the data from company SEC filing documents. The percentage change was calculated year-to-year for a five-year period (1996 – 2000). Rental revenue is a significant financial measure of apartment REITs because it represents the revenue generated solely by real estate assets and excludes “other income” such as furniture rental, utility bill backs, laundry, etc. By excluding all other non-real estate revenue, the real estate revenue is isolated, providing a better analysis when compared to rent growth data.

In order to properly compare the REITs on an equal basis, percentage change in rental revenue *per unit* was used as a component of REIT financial performance.

Comparing REIT performance on an absolute basis (i.e., *not* on a per unit basis) is misleading and non-informative because the results of highly acquisitive REITs will show abnormal absolute growth. Note that for all per unit calculations, unit information was obtained from SNL DataSource and crosschecked against annual reports. Immaterial differences existed in certain instances, which can be explained by the criteria for determining actual units in a REIT’s portfolio for a given year.

These criteria are defined as follows: in order for a unit to be considered part of a REIT’s portfolio, the REIT had to own the unit as of December 31st of a given year. This implies that units under construction as of December 31st were included while assets sold anytime before December 31st were excluded.

Percentage Change in Rental Net Operating Income per Unit

Rental net operating income was also collected from SNL DataSource. The percentage change was calculated in a similar method to rental revenue, over the same five-year period. Rental net operating income (“Rental NOI”) is defined as rental revenue from real estate assets less all real estate-related expenses, including tenant improvements, leasing commissions and revenues but excludes financing costs. Rental NOI is the cash flow available to service the debt. This is a significant financial measure because many real estate properties are valued by applying a capitalization rate to the rental NOI to derive a property valuation. Additionally, since the NOI reflects the cash flow available for financing which is property specific, it can be a useful measure to compare properties, particularly on a per unit basis. As was the case with rental revenue, it is necessary to compare the REITs on an “apples to apples basis”. Therefore, percentage change in NOI is calculated on a per unit basis.

FFO per Unit

Funds from operations (“FFO”) is perhaps one of the most widely used measures of financial performance by industry analysts. FFO is net income (as measured by Generally Accepted Accounting Principles), excluding gains or losses from sales of properties, plus depreciation and amortization and after adjustments for unconsolidated partnerships and joint ventures.⁴⁴ Heavily endorsed by NAREIT, FFO was created to become a “standard supplemental measure of REIT operating performance that excluded historical cost depreciation from – or “added it back” – to

GAAP net income.”⁴⁵ FFO was intended to allow the prices of various REIT stocks to be compared with each other and in terms of the relationship between REIT stock prices and FFO. Thus, FFO was to be used for determining a capitalization multiple similar to a P/E ratio.⁴⁶ Perhaps the biggest argument for using FFO as a performance measure is that real estate, unlike other assets, doesn’t depreciate predictably over time and certainly not as quickly as GAAP accounting implies. A building might take 70 or 80 years to become fully obsolete, not the 30 or 40 years allowed by GAAP.⁴⁷ Due to the importance placed on FFO by industry observers, FFO is an integral measure in the empirical analysis. FFO data were obtained from SNL DataSource.

The percentage change is used since it is the growth in FFO that is being isolated. This percentage change is calculated on a per unit basis in order to properly compare each REIT on a “level playing field”. Additionally, calculations on a per unit basis help negate the effects of mergers or industry consolidation (discussed in chapter 4.1).

Net Income per Unit

As discussed in Chapter 2.1, a shift among industry analysts has occurred favoring the use of net income over FFO. Due to this shift in analyst sentiment by major Wall Street research firms, net income is included in the empirical analysis as a dependent variable. Net income figures were obtained from SNL DataSource for five years (1996 – 2000). Many industry observers favor net income because it represents

⁴⁴ NAREIT, “White Paper on Funds from Operations”, [1999].

⁴⁵ Ibid.

⁴⁶ Ibid.

⁴⁷ Ibid.

Generally Accepted Accounting Principles and properly matches income and expenses, a fundamental accounting rule. The net income used in this analysis is after extraordinary items and gains on sales.

As previously discussed, a per unit basis of net income is the appropriate measure used to compare REITs in this study because it “levels the playing field”.

Market Capitalization per unit

Market capitalization equals the share price multiplied by the number of shares outstanding, for a respective year. Using SNL DataSource, historical market capitalization information was obtained. Using six years of data, the percent change in market capitalization was calculated for five years (with the exception of Roberts Realty and Cornerstone Income Realty Trust, in which only three years of data was available so only two years of percentage change information was calculated.)

Market capitalization per unit is used because it reflects how the stock market values the equity of the company.

Cap Rate

As a measure of a REITs portfolio’s yield potential, cap rate was calculated by dividing rental NOI by the market capitalization for each respective REIT. The objective of this test was to measure a REITs weighted average rent growth relative to cap rate to determine the correlation.

4.0 Discussion of Statistical Sample and Markets

4.1 Statistical Sample – REITs

The initial database included all equity residential REITs in existence as of December 31, 2000. From this sample, several REITs were excluded because dependent variable data were not available or consistent with apartment data. For example, all manufactured home REITs were excluded from the sample since manufactured home rental/revenue characteristics are different from apartment characteristics and data is difficult to obtain for the product. Presidential Realty Corp. was also excluded since it is a hybrid REIT (not exclusively equity).

It is important to note that the apartment industry has experienced significant consolidation over the past few years. Among the REITs studied that have experienced consolidation over the last five years are:

- Avalon Communities and Bay Apartment Communities, consolidated into AvalonBay (AVB) in June 1998;
- Merry Land Investments Inc. was acquired by Equity Residential Trust in 1999;
- Security Capital Pacific Trust and Security Capital Atlantic Inc. merged into Archstone Communities Trust in 1999.

Where two apartment REITs merged in the middle of a calendar year, the target's operating results (Rental Revenue, Rental NOI, FFO, Net Income, and Market Cap) and total number of apartments held were *added* to those of the acquirer's in that calendar year, providing for seamless results over the five year period (1996 – 2000).

Several REITs have also de-REITed recently due to either low stock valuations, the inflexibility of the REIT tax structure, increasing liquidity of the private real estate markets or a strong desire to return to private status to avoid the pressures of being a public company. Some examples of these in the apartment industry which were excluded from the pool were:

- Irvine Apartment Communities Inc. was privatized in 1999.
- Berkshire Realty Company was taken private in 1999 by an alliance of its management team, a Goldman Sachs real estate equity fund, and the Blackstone Group, a financial advisor and global real estate investor.

Where apartment REITs broke-up or de-REITed in the middle of a calendar year, the target's operating results (Rental Revenue, Rental NOI, FFO, Net Income, and Market Cap) and total number of apartments held were *subtracted* from those of the acquirer's in that calendar year, providing for seamless results over the five year period (1996 – 2000).

In May 2001, Archstone Communities and Charles E. Smith announced a merger creating one of the largest apartment REITs in the U.S.. Due to the timing of the merger (post December 31, 2000), the two REITs remain in the sample pool as separate entities.

The final REIT sample consists of nineteen equity apartment REITs listed below, whose portfolios contain at least 90% apartments:

Exhibit 4

	Apartment REIT	Ticker
1	Associated Estates Realty Corporation	AEC
2	Apartment Investment & Mgmt. Co.	AIV
3	AMLI Residential Properties Trust	AML
4	Archstone Communities Trust	ASN
5	AvalonBay Communities Inc.	AVB
6	BRE Properties, Inc.	BRE
7	Camden Property Trust	CPT
8	Equity Residential Properties Trust	EQR
9	Essex Property Trust, Inc.	ESS
10	Gables Residential Trust	GBP
11	Home Properties of New York, Inc.	HME
12	Mid-America Apartment Communities, Inc.	MAA
13	Post Properties, Inc.	PPS
14	Roberts Realty Investors, Inc.	RPI
15	Summit Properties Inc.	SMT
16	Charles E. Smith Residential Realty	SRW
17	Cornerstone Realty Income Trust	TCR
18	Town and Country Trust, The	TCT
19	United Dominion Realty Trust, Inc.	UDR

Source: Constituent Companies and Relative Weights in the NAREIT Real-Time Index for July 1, 2001

4.2 Statistical Data – Markets

Torto Wheaton Research provided market data (i.e. employment growth, permits, and rent growth) on 57 MSAs (see Appendix 1). Employment growth, in MSAs where data were not readily available, was calculated by taking the difference between the National employment growth and sum of employment growth in the 57 MSAs. These calculated data were used as a proxy for employment growth for all MSAs outside of the 57 where Torto Wheaton Research provided information. Permit data for MSAs outside of the 57 MSAs were calculated in the same fashion.

Rent growth was calculated following two different procedures as outlined in Chapter 3.1. The following table highlights the MSAs where government and NREI data were used. For markets that lacked both government and NREI rent data, the

National average was used as a rent growth proxy. Note that an "x" denotes data obtained.

Exhibit 5

#	MSA	Year	GOV'T RENT	NREI RENT
1	ALBUQUERQUE	1995		X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
	2000			
2	ATLANTA	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
	2000	X		
3	AUSTIN	1995		X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
	2000			
4	BAKERSFIELD	1995		
		1996		
		1997		
		1998		
		1999		
	2000			
5	BALTIMORE	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
	2000	X		
6	BOSTON	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
	2000	X		
7	CHICAGO	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
	2000	X		
8	CHARLOTTE	1995		X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
	2000			

#	MSA	Year	GOV'T RENT	NREI RENT
9	CINCINNATI	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
	2000	X		
10	CLEVELAND	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
	2000	X		
11	COLUMBUS	1995		X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
	2000			
12	DALLAS	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
	2000	X		
13	DENVER	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
	2000	X		
14	DETROIT	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
	2000	X		
15	FT. LAUDERDALE	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
	2000	X		
16	FT. WORTH	1995	X	
		1996	X	
		1997	X	
		1998	X	
		1999	X	
	2000	X		

#	MSA	Year	GOV'T RENT	NREI RENT
17	FRESNO	1995		
		1996		
		1997		
		1998		
		1999		
		2000		
18	HARTFORD	1995		
		1996		
		1997		
		1998		
		1999		
		2000		
19	HONOLULU	1995	X	
		1996	X	
		1997	X	
		1998	X	X
		1999	X	X
		2000	X	
20	HOUSTON	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	
21	INDIANAPOLIS	1995		X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000		
22	JACKSON	1995		X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000		
23	JERSEY CITY	1995	X	
		1996	X	
		1997	X	
		1998	X	
		1999	X	
		2000	X	
24	KANSAS CITY	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	

#	MSA	Year	GOV'T RENT	NREI RENT
25	LOS ANGELES	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	
26	LONG ISLAND	1995	X	
		1996	X	
		1997	X	
		1998	X	
		1999	X	
		2000	X	
27	LAS VEGAS	1995		X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000		
28	MEMPHIS	1995		X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000		
29	MIAMI	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	
30	MILWAUKEE	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000		
31	MINNEAPOLIS	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	
32	NASHVILLE	1995		X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000		

#	MSA	Year	GOV'T RENT	NREI RENT
33	NEW YORK	1995	X	
		1996	X	
		1997	X	
		1998	X	
		1999	X	
		2000	X	
34	OAKLAND	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X
35	OKLAHOMA CITY	1995		
		1996		
		1997		
		1998		
		1999		
		2000		
36	ORANGE CNTY.	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X
37	ORLANDO	1995		X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X
38	OXNARD	1995	X	
		1996	X	
		1997	X	
		1998	X	
		1999	X	
		2000	X	
39	PHILADELPHIA	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X
40	PHOENIX	1995		X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X

#	MSA	Year	GOV'T RENT	NREI RENT
41	PITTSBURGH	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X
42	PORTLAND	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X
43	RALEIGH/DURHAM	1995		X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X
44	RIVERSIDE	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X
45	SACRAMENTO	1995		X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X
46	SALT LAKE CITY	1995		X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X
47	SAN DIEGO	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X
48	SEATTLE	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X

#	MSA	Year	GOV'T RENT	NREI RENT
49	SAN FRANCISCO	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X
50	SAN JOSE	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X
51	ST LOUIS	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X
52	STAMFORD	1995		
		1996		
		1997		
		1998		
		1999		
		2000		
53	TAMPA BAY	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X
54	TUCSON	1995		
		1996	X	
		1997	X	
		1998	X	
		1999	X	
		2000	X	
55	WASHINGTON D.C	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X
56	W. PLAM BEACH	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X

#	MSA	Year	GOV'T RENT	NREI RENT
57	WILMINGTON	1995	X	
		1996	X	
		1997	X	
		1998	X	
		1999	X	
		2000	X	
58	NON 57 MSAs	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X
59	NATION	1995	X	X
		1996	X	X
		1997	X	X
		1998	X	X
		1999	X	X
		2000	X	X

4.3 Descriptive Statistics – Dependent Variables

The following exhibit highlights the dependent variables used to proxy for apartment REIT returns. Of note in Exhibit 6 is AvalonBay's Rental Revenue per Unit, Rental NOI per Unit, Percentage Change FFO per Unit and Percentage Change Net Income, which is significantly higher relative to the other 18 apartment REITs. AvalonBay's portfolio is significantly concentrated in markets considered to have high barrier entries and high costs of living. Specifically, AvalonBay's 2000 portfolio is concentrated in San Jose (12%), San Francisco (5%), Boston (5%), New York (5%), Seattle (7%) and Washington D.C (14%). This provides anecdotal evidence that these markets are high rent growth markets, supported by Exhibit 6, which shows that AvalonBay has the second highest WARG given both Government and NREI data.

Exhibit 6

Statistical Summary - Dependent Variables																		
Averages Over A Five Year Period (1996 - 2000)																		
#	REIT	Ticker	% Δ Rental Rev per Unit		% Δ Rental NOI per Unit		% Δ FFO per Unit		% Δ Net Income per Unit		Market Cap per Unit		% Δ Market Cap per Unit		Cap Rate			
			Avg	Std Dev	Avg	Std Dev	Avg	Std Dev	Avg	Std Dev	Avg	Std Dev	Avg	Std Dev	Avg	Std Dev		
1	Associated Estates Realty Corporation	AEC	3.28%	6.38%	2.09%	5.05%	-11.95%	8.96%	-16.40%	42.82%	-6.53%	44.63%	4.00%	0.38%	-2.72%	7.30%	8.86%	1.14%
2	Apartment Investment & Mgmt. Co.	AIV	15.03%	46.39%	15.40%	46.63%	16.63%	36.84%	-0.49%	37.31%	58.17%	60.09%	3.30%	0.98%	19.66%	45.19%	5.15%	0.96%
3	Aml Residential Properties Trust	AML	-9.74%	11.84%	-8.03%	12.28%	-1.46%	7.89%	17.84%	25.23%	42.99%	26.14%	3.23%	0.41%	-5.96%	6.51%	7.24%	0.71%
4	Archstone Communities Trust	ASN	10.82%	23.75%	13.30%	24.57%	14.37%	20.34%	25.21%	61.91%	42.42%	80.37%	6.97%	1.55%	10.04%	13.31%	6.69%	0.87%
5	AvalonBay Communities Inc.	AVB	44.71%	65.80%	42.37%	56.61%	40.13%	36.90%	58.09%	63.80%	89.72%	77.06%	8.41%	3.79%	37.34%	41.47%	6.04%	1.08%
6	BRE Properties, Inc.	BRE	4.46%	16.59%	5.14%	17.23%	-2.44%	25.96%	1.49%	65.51%	44.59%	134.37%	8.27%	0.65%	11.64%	19.80%	6.25%	1.18%
7	Camden Property Trust	CPT	31.86%	30.71%	38.84%	38.70%	36.52%	34.13%	72.09%	144.00%	77.85%	149.88%	3.72%	1.46%	34.21%	38.51%	7.80%	0.84%
8	Equity Residential Properties Trust	EQR	17.21%	30.04%	18.71%	28.16%	24.02%	33.89%	25.89%	21.14%	52.42%	12.91%	5.02%	1.28%	16.82%	15.88%	6.91%	1.37%
9	Essex Property Trust, Inc.	ESS	30.08%	59.48%	31.35%	59.18%	39.02%	73.32%	30.97%	48.72%	54.19%	103.59%	8.21%	0.82%	57.20%	119.58%	6.52%	1.01%
10	Gables Residential Trust	GBP	6.92%	6.77%	8.60%	8.11%	6.30%	7.97%	19.92%	22.62%	39.09%	20.95%	6.01%	0.44%	3.41%	13.10%	7.69%	1.04%
11	Home Properties of New York, Inc.	HME	7.23%	17.14%	10.05%	17.57%	10.34%	18.35%	19.67%	33.29%	78.65%	63.95%	4.90%	0.32%	9.00%	10.61%	7.06%	1.32%
12	Mid-America Apartment Communities, Inc.	MAA	7.04%	23.10%	8.18%	23.82%	3.04%	20.40%	23.36%	62.54%	35.32%	63.59%	4.14%	0.20%	3.73%	8.22%	8.87%	1.55%
13	Post Properties, Inc.	PPS	3.99%	22.91%	4.38%	22.66%	4.75%	22.64%	6.53%	23.21%	30.26%	26.06%	8.32%	0.95%	2.10%	20.10%	6.56%	1.00%
14	Roberts Realty Investors, Inc.	RPI	3.04%	27.94%	6.51%	35.30%	3.07%	31.36%	45.53%	194.60%	56.51%	216.71%	5.76%	0.19%	-9.99%	15.09%	8.60%	0.34%
15	Summit Properties Inc.	SMT	8.10%	3.46%	10.08%	3.66%	7.52%	4.43%	31.99%	41.59%	46.41%	45.50%	7.06%	0.85%	7.90%	12.41%	7.40%	0.81%
16	Charles E. Smith Residential Realty	SRW	3.80%	9.73%	5.36%	10.92%	8.43%	12.73%	52.39%	48.26%	79.00%	54.49%	8.60%	1.27%	7.97%	14.76%	7.39%	0.40%
17	Cornerstone Realty Income Trust	TCR	8.79%	35.49%	9.74%	35.76%	-7.84%	47.84%	-80.37%	213.37%	-119.42%	267.32%	4.13%	0.91%	12.86%	25.08%	9.09%	0.97%
18	Town and Country Trust, The	TCT	4.44%	5.31%	4.67%	7.23%	3.28%	6.01%	44.71%	57.22%	49.34%	63.97%	4.70%	0.40%	7.06%	4.57%	9.01%	0.41%
19	United Dominion Realty Trust, Inc.	UDR	16.59%	19.92%	17.84%	21.13%	15.08%	24.01%	12.35%	36.41%	22.74%	38.73%	4.53%	0.48%	10.77%	19.38%	6.45%	1.99%
			Total Avg	11.45%	12.87%	10.99%	20.67%	40.72%	5.73%	12.26%	7.45%							
			Total Std Dev	12.51%	12.62%	14.90%	32.63%	44.74%	1.90%	15.98%	1.13%							

4.4 Descriptive Statistics – Independent Variables

The following exhibit highlights the independent variables used to proxy for apartment REIT returns. Exhibit 6 illustrates the effects of market fundamentals on REIT performance. Of note in the Exhibit is that Essex Property Trust experienced the highest WARG in both the Government and NREI data. Essex's portfolio concentration is primarily located on the West Coast (Long Beach and Los Angeles 20%, Seattle 20%, Oakland 15%, Orange County 15%). AvalonBay also experienced high WARG. Similarly, AvalonBay's portfolio is heavily weighted on the West Coast (San Jose 12%, Los Angeles 6%, San Francisco 5%, Oakland 5%, Orange County 5%). Camden Property Trust experienced the highest employment growth based on market concentration. The three largest markets in Camden's portfolio are Las Vegas (20%), Dallas (15%) and Houston (13%). Charles E. Smith experienced the highest stock growth relative to the other REITs, which contributed to it also having the lowest WAED. Charles E. Smith is significantly weighted in the Washington D.C./Virginia/Maryland markets (64%).

Exhibit 7

Statistical Summary - Independent Variables

Averages Over A Five Year Period (1996 - 2000)

#	REIT	Ticker	Govt WARG		NREI WARG		WABG		WASG		WAED		% Total in MSA		% D # of Apts	
			Avg	Std Dev	Avg	Std Dev	Avg	Std Dev	Avg	Std Dev	Avg	Std Dev	Avg	Std Dev	Avg	Std Dev
1	Associated Estates Realty Corporation	AEC	2.82%	0.70%	3.96%	0.76%	1.92%	0.26%	1.17%	0.23%	0.75%	0.43%	72.43%	2.24%	12.32%	8.92%
2	Apartment Investment & Mgmt. Co.	AIV	3.15%	0.40%	3.89%	0.56%	3.00%	0.60%	1.86%	0.10%	1.14%	0.60%	70.96%	5.11%	76.25%	103.65%
3	Amli Residential Properties Trust	AML	3.62%	0.46%	3.30%	0.74%	3.57%	0.21%	2.47%	0.22%	1.10%	0.34%	96.65%	1.17%	22.30%	10.26%
4	Archstone Communities Trust	ASN	3.53%	0.46%	3.74%	0.49%	3.62%	0.29%	2.20%	0.13%	1.42%	0.37%	85.77%	5.14%	13.47%	23.97%
5	AvalonBay Communities Inc.	AVB	3.82%	0.90%	5.76%	1.26%	2.48%	0.44%	1.51%	0.12%	0.97%	0.49%	81.68%	2.05%	20.81%	22.29%
6	BRE Properties, Inc.	BRE	3.55%	1.20%	4.51%	1.09%	3.85%	0.22%	1.68%	0.13%	2.17%	0.19%	96.91%	1.02%	29.46%	30.02%
7	Camden Property Trust	CPT	3.13%	0.51%	3.37%	0.79%	4.37%	0.49%	2.92%	0.28%	1.44%	0.45%	91.00%	0.69%	3.48%	6.97%
8	Equity Residential Properties Trust	EQR	3.37%	0.37%	3.88%	0.41%	3.29%	0.34%	2.08%	0.09%	1.20%	0.41%	78.98%	2.24%	24.56%	27.63%
9	Essex Property Trust, Inc.	ESS	4.11%	1.02%	6.22%	2.21%	3.16%	0.79%	1.24%	0.19%	1.92%	0.80%	87.73%	1.08%	16.76%	45.65%
10	Gables Residential Trust	GBP	3.41%	0.32%	3.04%	1.18%	3.78%	0.45%	2.41%	0.35%	1.37%	0.58%	97.99%	1.21%	17.75%	15.60%
11	Home Properties of New York, Inc.	HME	3.03%	0.39%	4.37%	1.01%	2.91%	0.44%	1.02%	0.16%	0.99%	0.57%	42.08%	20.59%	50.81%	33.51%
12	Mid-America Apartment Communities, Inc.	MAA	3.40%	0.19%	4.03%	0.61%	2.56%	0.42%	1.57%	0.18%	1.00%	0.50%	52.80%	3.12%	14.98%	24.46%
13	Post Properties, Inc.	PPS	3.87%	0.50%	2.87%	0.47%	4.15%	0.21%	2.77%	0.24%	1.38%	0.24%	97.18%	1.66%	21.71%	24.13%
14	Roberts Realty Investors, Inc.	RPI	3.43%	0.21%	2.11%	0.80%	4.18%	0.63%	2.70%	0.17%	1.47%	0.49%	100.00%	0.00%	8.85%	22.53%
15	Summit Properties Inc.	SMT	3.38%	0.45%	3.28%	0.47%	3.26%	0.33%	2.65%	0.45%	0.61%	0.34%	85.71%	7.08%	11.36%	6.99%
16	Charles E. Smith Residential Realty	SRW	2.42%	1.13%	4.08%	1.55%	2.05%	1.07%	3.57%	0.37%	-1.52%	1.14%	100.00%	0.00%	17.89%	8.09%
17	Cornerstone Realty Income Trust	TCR	3.76%	0.45%	3.92%	0.62%	3.17%	0.46%	2.14%	0.24%	1.03%	0.55%	62.20%	6.92%	91.17%	174.21%
18	Towns and Country Trust, The	TCT	2.54%	1.01%	3.77%	0.99%	2.06%	0.89%	1.70%	0.38%	0.36%	0.73%	77.80%	2.37%	2.36%	5.37%
19	United Dominion Realty Trust, Inc.	UDR	3.32%	0.35%	3.87%	0.65%	3.07%	0.39%	2.00%	0.22%	1.07%	0.53%	65.87%	3.92%	9.41%	9.10%
		Total Avg	3.35%		3.89%		3.13%		2.09%		1.05%		81.25%		24.51%	
		Total Std Dev	0.45%		0.93%		0.78%		0.67%		0.75%		16.73%		23.51%	

5.0 Regression Results

Hypothesis #1 - weighted average employment growth and weighted average stock growth effectively measure demand and supply growth, which should be a proxy for weighted average rent growth.

Results: A regression analysis of WARG (given NREI and Gov't rent data) versus WAEG and WASG resulted in statistical models that explain (see Exhibit 8):

1. 55.1% of the variance in WARG (given Gov't rent data) using a cross-sectional data approach with 19 observations;
2. 10.5% of the variance in the WARG (given Gov't rent data) using a panel data approach with 95 observations; however the t-stat on the WASG variable is not significant;
3. the regression results using WARG (given NREI rent data) were not significant.

Exhibit 8

Panel Data Regression Results

Dependent Variable	# of Obs	Indep. Variable & Coef		t-Stat		R Square
		WAEG	WASG	WAEG	WASG	
Govt WARG	95	0.295090251	-0.21395749	3.244325084	-1.81772392	0.105450901
NREI WARG	95	-0.07772166	-0.92457699	-0.5661638	-5.2044401	0.278205674

Cross-Section Data Regression Results

Dependent Variable	# of Obs	Indep. Variable & Coef		t-Stat		R Square
		WAEG	WASG	WAEG	WASG	
Govt WARG	19	0.479364224	-0.33222551	4.39489386	-2.61276007	0.551425904
NREI WARG	19	-0.27577776	-0.69669975	-1.0480718	-2.27123058	0.407624388

Discussion: While the results indicate WAEG and WASG are highly correlated with WARG, given the cross-sectional data, the results are inconclusive because the sample size is less than 30. The Gov't WARG results also show there is a positive correlation between WARG and WAEG and a negative correlation between WARG and WASG. Interestingly, when using NREI rent data, the t-stats are insignificant

and the sign on the WAEG variable, in both result summaries above, is negative.

Intuition tells us that as employment grows in a market, rent growth in that market should be positive, not negative.

The results do not show conclusive evidence to support hypothesis#1.

Hypothesis #2 - weighted average rent growth should determine Net Income and FFO / NOI growth.

Results: A regression analysis of the variables described in Chapter 3.0 resulted in statistical models (see Exhibits 9, 10, 11), with significant t-stats, which explain:

1. 37.1% of the variance in the *percent change in FFO per unit* across the sample of selected apartment REITs using a *panel data approach* given NREI WARG and apartment growth;
2. 26.4% of the variance in the *percent change in FFO per unit* across the sample of selected apartment REITs using a *cross-sectional data approach* given NREI WARG;
3. 32.1% of the variance in the *percent change in Rental Revenue per unit* across the sample of selected apartment REITs using a *panel data approach* given NREI WARG and apartment growth;
4. 37.0% of the variance in the *percent change in Rental Revenue per unit* across the sample of selected apartment REITs using a *cross-sectional data approach* NREI WARG;

5. 31.2% of the variance in the *percent change in Rental Net Operating Income per unit* across the sample of selected apartment REITs using a *panel data approach* given NREI WARG and apartment growth;
6. 29.0% of the variance in the *percent change in Rental Net Operating Income per unit* across the sample of selected apartment REITs using a *cross-sectional data approach* given NREI WARG;

Exhibit 9

Panel Data Regression Results *Excluding* % Change in Apartments

Dependent Variable	# of Obs	Independent Variable & Coefficient					t-Stat					R Square
		WARG (Govt)	WARG (NREI)	WAEG	WASG	WAED	WARG (Govt)	WARG (NREI)	WAEG	WASG	WAED	
% Δ in FFO per Unit	94	0.589					0.135					0.0002
% Δ in FFO per Unit	94		7.241					2.983				0.0882
% Δ in FFO per Unit	94			3.767					1.057			0.0120
% Δ in FFO per Unit	94				-1.203					-0.259		0.0007
% Δ in FFO per Unit	94					4.513					1.266	0.0171
% Δ in Rental Revenue per Unit	94	3.394					0.810					0.0071
% Δ in Rental Revenue per Unit	94		6.420					2.728				0.0748
% Δ in Rental Revenue per Unit	94			1.987					0.577			0.0036
% Δ in Rental Revenue per Unit	94				-3.945					-0.888		0.0085
% Δ in Rental Revenue per Unit	94					4.371					1.275	0.0174
% Δ in NOI per Unit	94	3.233					0.772					0.0064
% Δ in NOI per Unit	94		5.823					2.460				0.0617
% Δ in NOI per Unit	94			2.760					0.804			0.0070
% Δ in NOI per Unit	94				-2.809					-0.632		0.0043
% Δ in NOI per Unit	94					4.467					1.304	0.0182
% Δ in Net Income per Unit	93	-14.853					-1.335					0.0192
% Δ in Net Income per Unit	93		7.642					1.159				0.0145
% Δ in Net Income per Unit	93			6.007					0.653			0.0047
% Δ in Net Income per Unit	93				15.776					1.334		0.0192
% Δ in Net Income per Unit	93					-3.428					-0.371	0.0015
Net Income per Unit	93	49.728					3.225					0.1026
Net Income per Unit	93		7.642					0.797				0.0069
Net Income per Unit	93			22.510					1.711			0.0312
Net Income per Unit	93				28.979					1.702		0.0309
Net Income per Unit	93					5.230					0.391	0.0017
% Δ in Market Cap per Unit	91	-2.881					-0.566					0.0036
% Δ in Market Cap per Unit	91		13.800					5.303				0.2401
% Δ in Market Cap per Unit	91			2.563					0.621			0.0043
% Δ in Market Cap per Unit	91				-7.731					-1.463		0.0235
% Δ in Market Cap per Unit	91					7.220					1.772	0.0341
Market Cap per Unit	91	0.945					3.146					0.1001
Market Cap per Unit	91		0.254					1.383				0.0210
Market Cap per Unit	91			0.121					0.473			0.0025
Market Cap per Unit	91				0.499					1.522		0.0254
Market Cap per Unit	91					-0.178					-0.693	0.0054
Cap Rate	91	-0.222					-1.055					0.0124
Cap Rate	91		-0.412					-3.556				0.1244
Cap Rate	91			-0.388					-2.329			0.0574
Cap Rate	91				0.230					1.044		0.0121
Cap Rate	91					-0.528					-3.248	0.1060

Exhibit 11

Cross-Sectional Data Regression Results <i>including % Change in</i>														
Dependent Variable	# of Obs	Independent Variable & Coefficient							t-Stat				R Square	
		Average WARG (Govt)	Average WARG (NREI)	Average WAEG	Average WASG	Average WAED	% Δ # of Apts	Average WARG (Govt)	Average WARG (NREI)	Average WAEG	Average WASG	Average WAED		% Δ # of Apts
Average % Δ in FFO per Unit	19	9.2868947						1.1580649						0.07312066
Average % Δ in FFO per Unit	19	10.70476					-0.155549	1.3188946					-1.038601	0.13166251
Average % Δ in FFO per Unit	19		8.2406652						2.4666123					0.2638648
Average % Δ in FFO per Unit	19		8.7891935						2.6573488				1.280847	0.33205314
Average % Δ in FFO per Unit	19			3.62933	-3.049902					0.6780335	-0.48835			0.03008187
Average % Δ in FFO per Unit	19			3.5715485	-3.913124					0.660287	-0.611624		-0.819147	0.07161183
Average % Δ in FFO per Unit	19					3.4226658						0.7190787		0.0295183
Average % Δ in FFO per Unit	19					3.6900497	-0.130005					0.7672427	-0.849727	0.07142247
Average % Δ in Rental Revenue per Unit	19	8.7020668						1.3052039						0.09108199
Average % Δ in Rental Revenue per Unit	19		8.2020304						3.1626192					0.37042074
Average % Δ in Rental Revenue per Unit	19			2.4271493	-5.42683					0.5501246	-1.05422			0.06514546
Average % Δ in Rental Revenue per Unit	19					3.4970428						0.8815719		0.04371725
Average % Δ in NOI per Unit	19	8.2537087						1.2201616						0.08055414
Average % Δ in NOI per Unit	19		7.3266137						2.6380821					0.29046866
Average % Δ in NOI per Unit	19			3.3808647	-4.651236					0.7557261	-0.891098			0.0554171
Average % Δ in NOI per Unit	19					3.8339669						0.9621257		0.05164019
Average % Δ in Net Income per Unit	19	-17.67738						-0.996839						0.0522427
Average % Δ in Net Income per Unit	19		1.2039636						0.1396044					0.00114512
Average % Δ in Net Income per Unit	19			-3.290065	15.042947					-0.293734	1.1269567			0.0778622
Average % Δ in Net Income per Unit	19					-7.224762						-0.699336		0.02796435
Average Net Income per Unit	19	85.949593						1.9632478						0.18512908
Average Net Income per Unit	19		31.156269						1.4402167					0.10874488
Average Net Income per Unit	19			18.809603	7.0979659					0.620488	0.1964773			0.04218801
Average Net Income per Unit	19					10.136119						0.3656983		0.00780538
Average % Δ in Market Cap per Unit	19	13.303351						1.572571						0.12699544
Average % Δ in Market Cap per Unit	19		13.414141						5.003748					0.59559911
Average % Δ in Market Cap per Unit	19			2.6721842	-8.02562					0.4905755	-1.239369			0.0893275
Average % Δ in Market Cap per Unit	19					4.479263						0.8956678		0.04506296
Average Market Cap per Unit	19	1.3031238						1.2631894						0.08580758
Average Market Cap per Unit	19		0.7514677						1.6052377					0.13162466
Average Market Cap per Unit	19			0.0115389	0.443389					0.0171912	0.5556749			0.02519222
Average Market Cap per Unit	19					-0.142028						-0.233259		0.00319037
Average Cap Rate	19	-0.941082						-1.568872						0.12647413
Average Cap Rate	19		-0.47592						-1.726632					0.14920279
Average Cap Rate	19			-0.375496	0.3276645					-0.956913	0.7023919			0.05840684
Average Cap Rate	19					-0.35935						-1.020459		0.05771951

Discussion: While the strength of these relationships supports the notion that apartment REIT performance and market fundamentals are linked, other non-market factors seem to play a more important role.

Surprisingly, NREI does a much better job of predicting apartment REIT performance over the last five years than does the government's, whether using a cross section or panel data approach. In fact, none of the regression results using the government rent index yielded results that were significant. Simply using the difference between current weighted average job growth and weighted average stock growth works better than the government index and about half as well as the NREI. The results from the 10-REIT sample (see Appendix 16 & 17), constructed from the 10 apartment REITs with the greatest portfolio concentration in MSAs where government rent data were

available, show that the failure of the government index to work has more to do with the index than the coverage.

A Review of Statistically Significant Variables

NREI - Weighted Average Rent Growth (WARG)

The regression results show that the NREI – WARG, when using either a cross section or panel data approach, does the best job of predicting FFO, Rental Revenue, Net Operating Income, and Market Capitalization.

The intuition behind these results is straightforward. FFO, Rental Revenue, and NOI all grow according to what rents are doing in markets where REITs own properties. REITs that have a high portfolio concentration in markets where rents are growing rapidly will show strong FFO, Rental Revenue, and NOI growth. We postulate that the NREI data does a better job of predicting apartment REIT performance over the last five years than does the government's because of the differences in how indices are constructed.

The government rental index includes not only larger multi-family rental properties of interest to institutional investors, but also single-family rentals and small multi-family properties. These smaller properties may perform differently from the institutional segment of the market. The NREI, however, excludes the smaller properties and looks only at class A and B properties, those most likely to be held by apartment REITs or institutional owners.

Weighted Average Excess Demand (WAED)

Weighted Average Excess Demand, the difference between employment growth and stock growth, was statistically significant in some models. Interestingly, WAED does a better job of predicting REIT returns than the government index and works about half as well as the NREI.

Percentage Change in the Number of Apartments

Because of the noise created by apartment unit accounting discussed in Chapter 3.1, this variable helped reduce the volatility in REIT returns, resulting in higher R-Squares across the board. For example, the statistical model which represents FFO growth per unit goes from an R-Squared of 8.82% to 37.1% when apartment growth is included in the regression.

A Review of Non-Statistically Significant Variables

Government - Weighted Average Rent Growth (WARG)

In all but a few cases the Government – WARG variable resulted in insignificant t-stats (i.e. $2 > t\text{-stat} > -2$). As previously discussed, we believe noise inherent in the construction of the government index is diluting its effectiveness. The inclusion of apartment growth in the analysis, however, did improve the R-Squared in each case, further supporting our theory that apartment unit accounting is skewing per unit growth rates.

Weighted Average Employment Growth (WAEG) & Stock Growth (WASG)

While WAEG and WASG were not predictive measures of apartment REIT returns, the signs of these variables indicate: (1) As MSA employment grows in areas where apartment REITs are heavily concentrated, their returns are positively impacted, and (2) Stock growth and apartment REIT returns are inversely correlated.

The results show conclusive evidence that FFO growth and market fundamentals are correlated, albeit the relationship is not as strong as anticipated.

Hypothesis #3 - FFO growth should determine a REIT's market capitalization growth.

Results: A regression analysis of the variables described in Chapter 3.0 resulted in statistical models, with significant t-stats, which explain:

1. 37.8% of the variance in the *percent change in Market Capitalization per unit* across the sample of selected apartment REITs using a *panel data approach* given NREI WARG and apartment growth;
2. 59.6% of the variance in the *percent change in Market Capitalization per unit* across the sample of selected apartment REITs using a *cross-sectional data approach* given NREI WARG; and
3. 39.0% of the variance in the *Capitalization Rate* across the sample of selected apartment REITs using a *panel data approach* given NREI WARG and apartment growth.

Discussion: While the empirical results presented above do not directly address the issue of FFO and stock price correlation, previous academic research does. As previously stated, Fields et al. (1998) showed that FFO explains 57.8% of the variation in price, which is less than the 61.3% explained by the model including net income. “However, the Vuong test statistic is 1.55 with an associated two-tailed p -value of 0.12, suggesting that the explanatory power of the two models is not very different.”

Previous academic research does show conclusive evidence that FFO and market capitalization are correlated. The cumulative effect of this thesis’ results tends to validate the notion of reasonable REIT pricing.

1. weighted average rent growth explains 37% of FFO growth, and
2. FFO explains 58% of stock price.

Our empirical analysis supports these findings: weighted average rent growth explains 38% of the percent change in market capitalization (stock price). The model, when using a cross-sectional data approach, explains 60% of the variance, but lacks sufficient observations, with only nineteen.

5.1 Additional Research

Overall, a statistical model explaining 37.1% of apartment REIT per unit FFO growth is intriguing. The fact that the NREI does a better job than the government index at predicting REIT returns, however, is more enlightening. Additional study on a larger sample with better apartment unit accounting would provide important insight into

our results. Furthermore, more empirical analysis on the direct correlation between market fundamentals and stock price appreciation / yield could support the conclusions and highlight a more global perspective on reasonable REIT pricing.

6. Conclusion

This paper examines the correlation between apartment REIT performance and market fundamentals. Through a review of relevant literature and informational interviews with academics, the components of REIT performance were defined as: (1) FFO growth, (2) Rental Revenue growth, (3) Rental NOI growth, (4) Market Capitalization growth, and (5) Cap Rate. Market fundamentals were defined as: (1) Rent Growth, (2) Employment Growth, (3) Stock Growth, and (4) Excess Demand.

Components of market fundamentals were then empirically examined to explore and quantify their impact on REIT performance. Independent variables were developed as proxies for market fundamentals, such as weighted average rent growth, weighted average employment growth, weighted average stock growth, and weighted average excess demand. Dependent variables were calculated based on data obtained by SNL DataSource.

The analysis revealed that weighted average rent growth (given NREI data) and growth in apartment units explained 37.1% of the variance in the percent change in FFO per unit across the sample of selected apartment REITs. The results also show that NREI data does a much better job of predicting apartment REIT performance over the last five years than does government data, whether using a cross section or panel data approach. The failure of the government index to work has more to do with the way the index is constructed than the coverage. Finally, weighted average excess demand (WAEG – WASG) works better at predicting FFO growth than

weighted average rent growth (given government rent data) and about half as well as the weighted average rent growth (given NREI data).

The market capitalization results tend to validate reasonable REIT pricing. The results show that weighted average rent growth and apartment growth explain 38% of the variation in the percent change in market capitalization when using a panel data approach, and 60% when using a cross sectional data approach. These results, when taken in the context of previous research done by Fields et al., confirm the rational link between market fundamentals and REIT stock price returns.

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Appendix 3
Market Cap Growth

#	REIT	Ticker	Year	Market Cap	% Δ Market Cap	Market Cap per Unit	% Δ Mkt Cap	Cap Rate
1	Associated Estates Realty Corporation	AEC	1996	\$ 638.0	23.62%	\$ 0.043	5.89%	7.98%
			1997	\$ 779.9	22.24%	\$ 0.045	3.28%	7.49%
			1998	\$ 833.3	6.89%	\$ 0.039	-11.41%	8.86%
			1999	\$ 804.9	-3.41%	\$ 0.038	-3.43%	9.75%
			2000	\$ 784.5	-2.53%	\$ 0.035	-7.92%	10.20%
2	Apartment Investment & Mgmt. Co.	AIV	1996	\$ 1,041.3	90.02%	\$ 0.028	28.41%	5.70%
			1997	\$ 2,627.1	152.29%	\$ 0.049	75.46%	4.20%
			1998	\$ 4,807.4	82.99%	\$ 0.025	-49.10%	4.55%
			1999	\$ 6,391.7	32.96%	\$ 0.028	11.29%	4.75%
			2000	\$ 9,340.3	46.13%	\$ 0.036	32.22%	6.54%
3	Amlri Residential Properties Trust	AML	1996	\$ 641.1	27.23%	\$ 0.037	-2.90%	6.74%
			1997	\$ 799.1	24.65%	\$ 0.034	-8.14%	6.51%
			1998	\$ 915.3	14.54%	\$ 0.034	-1.31%	7.34%
			1999	\$ 878.2	-4.05%	\$ 0.028	-16.42%	8.34%
			2000	\$ 990.0	12.73%	\$ 0.028	-1.04%	7.26%
4	Archstone Communities Trust	ASN	1996	\$ 2,891.2	29.39%	\$ 0.049	-12.85%	6.71%
			1997	\$ 3,625.3	25.39%	\$ 0.054	10.76%	5.85%
			1998	\$ 5,365.5	48.00%	\$ 0.065	20.34%	5.79%
			1999	\$ 5,666.6	5.61%	\$ 0.074	13.97%	7.42%
			2000	\$ 6,018.3	6.21%	\$ 0.087	17.97%	7.65%
5	AvalonBay Communities Inc.	AVB	1996	\$ 1,026.7	84.66%	\$ 0.043	38.14%	5.37%
			1997	\$ 1,708.5	66.41%	\$ 0.047	9.44%	4.88%
			1998	\$ 4,161.2	143.56%	\$ 0.097	108.14%	5.62%
			1999	\$ 4,362.3	4.83%	\$ 0.105	7.43%	7.48%
			2000	\$ 5,589.6	28.13%	\$ 0.129	23.53%	6.84%
6	BRE Properties, Inc.	BRE	1996	\$ 1,125.8	152.36%	\$ 0.074	39.56%	5.52%
			1997	\$ 1,800.3	59.91%	\$ 0.090	22.09%	4.67%
			1998	\$ 1,920.6	6.68%	\$ 0.084	-6.58%	6.57%
			1999	\$ 1,916.0	-0.24%	\$ 0.078	-6.94%	7.70%
			2000	\$ 2,405.8	25.56%	\$ 0.086	10.05%	6.79%
7	Camden Property Trust	CPT	1996	\$ 744.8	18.94%	\$ 0.015	9.58%	6.98%
			1997	\$ 1,550.1	108.12%	\$ 0.031	100.53%	6.83%
			1998	\$ 2,335.5	50.67%	\$ 0.041	35.34%	8.14%
			1999	\$ 2,585.6	10.71%	\$ 0.046	10.69%	8.47%
			2000	\$ 2,785.3	7.72%	\$ 0.053	14.91%	8.59%
8	Equity Residential Properties Trust	EQR	1996	\$ 4,081.6	54.54%	\$ 0.032	0.79%	6.51%
			1997	\$ 8,979.4	120.00%	\$ 0.046	42.14%	4.85%
			1998	\$ 11,388.9	26.83%	\$ 0.051	10.63%	6.92%
			1999	\$ 12,796.6	12.36%	\$ 0.055	9.45%	8.32%
			2000	\$ 15,093.5	17.92%	\$ 0.067	21.07%	7.93%
9	Essex Property Trust, Inc.	ESS	1996	\$ 565.7	81.90%	\$ 0.084	269.86%	5.71%
			1997	\$ 961.2	69.91%	\$ 0.080	-4.49%	5.63%
			1998	\$ 1,052.0	9.43%	\$ 0.076	-5.52%	7.74%
			1999	\$ 1,277.7	21.43%	\$ 0.076	-0.02%	7.48%
			2000	\$ 1,524.9	50.65%	\$ 0.095	26.20%	6.04%
10	Gables Residential Trust	GBP	1996	\$ 1,052.8	48.41%	\$ 0.061	17.58%	6.45%
			1997	\$ 1,269.9	20.62%	\$ 0.064	5.09%	6.91%
			1998	\$ 1,741.9	37.17%	\$ 0.064	-0.15%	7.69%
			1999	\$ 1,666.9	-4.31%	\$ 0.053	-16.78%	8.99%
			2000	\$ 1,769.7	6.17%	\$ 0.059	11.32%	8.39%
11	Home Properties of New York, Inc.	HME	1996	\$ 308.0	58.60%	\$ 0.044	25.59%	6.94%
			1997	\$ 670.1	117.56%	\$ 0.049	12.02%	5.21%
			1998	\$ 1,169.6	74.54%	\$ 0.049	-1.20%	6.67%
			1999	\$ 1,676.2	43.31%	\$ 0.050	1.33%	7.71%
			2000	\$ 2,075.9	23.83%	\$ 0.053	7.26%	8.78%
12	Mid-America Apartment Communities, Inc.	MAA	1996	\$ 749.7	17.31%	\$ 0.039	10.85%	9.01%
			1997	\$ 1,358.3	78.51%	\$ 0.044	12.89%	6.22%
			1998	\$ 1,423.5	6.37%	\$ 0.043	-2.73%	9.18%
			1999	\$ 1,383.3	-2.82%	\$ 0.040	-5.95%	10.07%
			2000	\$ 1,408.0	1.79%	\$ 0.042	3.59%	9.88%
13	Post Properties, Inc.	PPS	1996	\$ 1,575.5	31.15%	\$ 0.067	-19.56%	6.37%
			1997	\$ 2,374.2	50.70%	\$ 0.090	34.00%	4.98%
			1998	\$ 2,608.8	9.88%	\$ 0.090	-0.02%	6.75%
			1999	\$ 2,889.4	10.76%	\$ 0.082	-8.72%	7.11%
			2000	\$ 3,083.1	6.70%	\$ 0.086	4.82%	7.61%
14	Roberts Realty Investors, Inc.	RPI	1996	\$ -	#DIV/0!	\$ -	#DIV/0!	#DIV/0!
			1997	\$ 134.1	#DIV/0!	\$ 0.079	#DIV/0!	8.84%
			1998	\$ 135.5	1.04%	\$ 0.058	-26.61%	8.24%
			1999	\$ 146.4	8.04%	\$ 0.059	2.87%	8.67%
			2000	\$ 150.8	3.01%	\$ 0.056	-6.24%	8.90%
15	Summit Properties Inc.	SMT	1996	\$ 894.8	27.28%	\$ 0.063	6.18%	6.52%
			1997	\$ 1,054.3	17.83%	\$ 0.066	5.63%	7.02%
			1998	\$ 1,282.3	21.63%	\$ 0.072	8.95%	7.34%
			1999	\$ 1,336.6	4.23%	\$ 0.067	-7.98%	8.69%
			2000	\$ 1,701.4	27.29%	\$ 0.084	26.72%	7.43%
16	Charles E. Smith Residential Realty	SRW	1996	\$ 1,190.0	18.89%	\$ 0.072	-3.58%	7.79%
			1997	\$ 1,725.2	44.97%	\$ 0.088	21.98%	6.74%
			1998	\$ 1,944.7	12.72%	\$ 0.077	-11.59%	7.64%
			1999	\$ 2,487.2	27.90%	\$ 0.088	13.96%	7.33%
			2000	\$ 3,185.0	28.06%	\$ 0.105	19.07%	7.42%
17	Cornerstone Realty Income Trust	TCR	1996	\$ -	#DIV/0!	\$ -	#DIV/0!	#DIV/0!
			1997	\$ 580.0	#DIV/0!	\$ 0.036	#DIV/0!	7.38%
			1998	\$ 614.5	5.95%	\$ 0.031	-13.03%	8.94%
			1999	\$ 903.6	47.05%	\$ 0.043	37.03%	8.21%
			2000	\$ 892.7	-1.21%	\$ 0.049	14.58%	10.13%
18	Town and Country Trust, The	TCT	1996	\$ 555.8	5.97%	\$ 0.041	5.97%	9.65%
			1997	\$ 622.4	11.98%	\$ 0.046	11.98%	9.07%
			1998	\$ 678.2	8.97%	\$ 0.046	0.56%	8.60%
			1999	\$ 772.4	13.89%	\$ 0.049	5.92%	8.72%
			2000	\$ 821.6	6.37%	\$ 0.054	10.88%	9.01%
19	United Dominion Realty Trust, Inc.	UDR	1996	\$ 2,422.6	63.59%	\$ 0.040	34.98%	5.67%
			1997	\$ 2,667.8	10.12%	\$ 0.042	4.07%	8.36%
			1998	\$ 3,704.6	38.86%	\$ 0.053	25.85%	7.54%
			1999	\$ 3,643.9	-1.64%	\$ 0.046	-13.04%	10.19%
			2000	\$ 3,588.4	-1.52%	\$ 0.047	1.96%	10.48%

Appendix 4
Weighted Averages

#	REIT	Ticker	Year	GOVT WARG	NREI WARG	WAEG	WASG	WAED
1	Associated Estates Realty Corporation	AEC	1996	2.84%	4.94%	1.89%	0.97%	0.92%
			1997	2.51%	3.92%	1.83%	0.99%	0.84%
			1998	3.50%	3.06%	2.29%	1.10%	1.20%
			1999	1.81%	4.44%	2.01%	1.26%	0.75%
			2000	3.42%	3.42%	1.58%	1.53%	0.05%
2	Apartment Investment & Mgmt. Co.	AIV	1996	2.81%	4.14%	3.59%	1.87%	1.72%
			1997	3.57%	3.79%	3.51%	1.90%	1.61%
			1998	2.96%	4.70%	3.07%	1.72%	1.35%
			1999	2.82%	3.24%	2.64%	1.99%	0.65%
			2000	3.58%	3.58%	2.18%	1.81%	0.37%
3	Amlil Residential Properties Trust	AML	1996	3.47%	2.48%	3.52%	2.43%	1.05%
			1997	3.74%	3.28%	3.49%	2.16%	1.33%
			1998	4.25%	4.33%	3.92%	2.38%	1.54%
			1999	2.97%	2.74%	3.57%	2.73%	0.84%
			2000	3.68%	3.68%	3.37%	2.64%	0.72%
4	Archstone Communities Trust	ASN	1996	2.97%	3.89%	3.78%	2.05%	1.73%
			1997	3.88%	4.12%	3.79%	2.07%	1.72%
			1998	3.29%	3.70%	3.87%	2.27%	1.60%
			1999	3.42%	2.93%	3.49%	2.36%	1.13%
			2000	4.10%	4.10%	3.16%	2.24%	0.93%
5	AvalonBay Communities Inc.	AVB	1996	2.99%	7.74%	2.13%	1.35%	0.78%
			1997	3.20%	5.77%	2.89%	1.46%	1.40%
			1998	4.22%	5.94%	3.04%	1.46%	1.58%
			1999	4.31%	4.54%	2.33%	1.65%	0.68%
			2000	4.79%	4.79%	2.04%	1.61%	0.44%
6	BRE Properties, Inc.	BRE	1996	2.44%	5.50%	3.88%	1.59%	2.33%
			1997	4.80%	5.58%	3.91%	1.69%	2.26%
			1998	1.98%	4.04%	4.13%	1.80%	2.33%
			1999	3.84%	2.97%	3.80%	1.89%	1.95%
			2000	4.48%	4.48%	3.53%	1.57%	1.96%
7	Camden Property Trust	CPT	1996	2.32%	3.69%	4.42%	2.85%	1.57%
			1997	3.45%	3.87%	5.05%	2.91%	2.15%
			1998	2.97%	3.73%	4.31%	2.93%	1.38%
			1999	3.28%	1.97%	4.38%	3.35%	1.02%
			2000	3.63%	3.63%	3.68%	2.58%	1.10%
8	Equity Residential Properties Trust	EQR	1996	3.02%	4.01%	3.60%	2.07%	1.53%
			1997	3.65%	3.98%	3.49%	1.98%	1.52%
			1998	3.18%	4.34%	3.48%	2.03%	1.45%
			1999	3.12%	3.22%	3.06%	2.20%	0.86%
			2000	3.85%	3.85%	2.81%	2.14%	0.67%
9	Essex Property Trust, Inc.	ESS	1996	2.49%	9.23%	3.25%	0.95%	2.30%
			1997	3.76%	7.64%	3.83%	1.26%	2.58%
			1998	5.09%	5.78%	3.98%	1.38%	2.60%
			1999	4.57%	3.81%	2.53%	1.42%	1.11%
			2000	4.64%	4.64%	2.19%	1.19%	1.00%
10	Gables Residential Trust	GBP	1996	3.61%	3.78%	3.37%	2.11%	1.26%
			1997	3.58%	4.23%	3.71%	2.08%	1.62%
			1998	3.72%	3.06%	4.56%	2.36%	2.20%
			1999	3.16%	1.14%	3.62%	2.93%	0.69%
			2000	2.98%	2.98%	3.69%	2.59%	1.06%
11	Home Properties of New York, Inc.	HME	1996	2.70%	5.29%	2.53%	0.98%	1.55%
			1997	2.67%	3.29%	2.39%	0.84%	1.55%
			1998	3.08%	5.56%	1.85%	0.90%	0.95%
			1999	3.05%	4.08%	1.79%	1.16%	0.63%
			2000	3.64%	3.64%	1.49%	1.22%	0.27%
12	Mid-America Apartment Communities, Inc.	MAA	1996	3.32%	4.94%	2.77%	1.39%	1.39%
			1997	3.52%	4.10%	2.86%	1.79%	1.06%
			1998	3.51%	4.16%	2.84%	1.46%	1.39%
			1999	3.09%	3.39%	2.46%	1.47%	0.99%
			2000	3.56%	3.56%	1.87%	1.72%	0.15%
13	Post Properties, Inc.	PPS	1996	4.66%	2.63%	3.90%	2.80%	1.10%
			1997	3.79%	3.12%	3.96%	2.40%	1.56%
			1998	4.00%	2.87%	4.36%	2.67%	1.68%
			1999	3.41%	2.25%	4.21%	3.00%	1.21%
			2000	3.49%	3.49%	4.32%	2.96%	1.36%
14	Roberts Realty Investors, Inc.	RPI	1996	5.36%	1.69%	4.30%	2.91%	1.39%
			1997	3.48%	1.79%	3.42%	2.51%	0.90%
			1998	3.71%	1.47%	3.91%	2.69%	1.21%
			1999	3.24%	1.91%	4.59%	2.69%	1.90%
			2000	3.29%	3.29%	4.79%	2.92%	1.86%
15	Summit Properties Inc.	SMT	1996	3.63%	4.09%	2.71%	2.18%	0.53%
			1997	3.93%	2.94%	3.26%	2.37%	0.89%
			1998	3.33%	2.98%	3.36%	2.50%	0.86%
			1999	2.71%	3.09%	3.59%	2.88%	0.71%
			2000	3.32%	3.32%	3.35%	3.29%	0.06%
16	Charles E. Smith Residential Realty	SRW	1996	2.30%	4.15%	0.18%	3.58%	-3.40%
			1997	0.54%	1.86%	2.39%	4.16%	-1.77%
			1998	2.79%	5.84%	2.22%	3.25%	-1.02%
			1999	3.06%	5.14%	2.70%	3.56%	-0.87%
			2000	3.42%	3.42%	2.75%	3.28%	-0.53%
17	Cornerstone Realty Income Trust	TCR	1996	3.41%	5.00%	2.97%	1.78%	1.18%
			1997	4.50%	3.74%	3.33%	2.01%	1.53%
			1998	3.85%	3.77%	3.47%	2.19%	1.29%
			1999	3.37%	3.41%	3.43%	2.35%	1.08%
			2000	3.69%	3.69%	2.45%	2.36%	0.09%
18	Town and Country Trust, The	TCT	1996	2.18%	5.22%	0.49%	1.26%	-0.77%
			1997	0.99%	2.43%	2.66%	1.44%	1.22%
			1998	2.87%	3.81%	2.28%	1.61%	0.67%
			1999	3.09%	3.81%	2.39%	2.00%	0.39%
			2000	3.58%	3.58%	2.49%	2.18%	0.31%
19	United Dominion Realty Trust, Inc.	UDR	1996	2.96%	4.50%	2.95%	1.79%	1.20%
			1997	3.79%	4.01%	3.42%	1.81%	1.61%
			1998	3.24%	4.32%	3.48%	2.01%	1.47%
			1999	3.04%	2.88%	3.01%	2.22%	0.79%
			2000	3.62%	3.62%	2.51%	2.21%	0.30%

Appendix 5
1996 - 2000 Average - Weighted Averages

#	REIT	Ticker	Average 1996 - 2000				
			GOVT WARG	NREI WARG	WAEG	WASG	WAED
1	Associated Estates Realty Corporation	AEC	2.82%	3.96%	1.92%	1.17%	0.75%
2	Apartment Investment & Mgmt. Co.	AIV	3.15%	3.89%	3.00%	1.86%	1.14%
3	Amlı Residential Properties Trust	AML	3.62%	3.30%	3.57%	2.47%	1.10%
4	Archstone Communities Trust	ASN	3.53%	3.74%	3.62%	2.20%	1.42%
5	AvalonBay Communities Inc.	AVB	3.82%	5.76%	2.48%	1.51%	0.97%
6	BRE Properties, Inc.	BRE	3.55%	4.51%	3.85%	1.68%	2.17%
7	Camden Property Trust	CPT	3.13%	3.37%	4.37%	2.92%	1.44%
8	Equity Residential Properties Trust	EQR	3.37%	3.88%	3.29%	2.08%	1.20%
9	Essex Property Trust, Inc.	ESS	4.11%	6.22%	3.16%	1.24%	1.92%
10	Gables Residential Trust	GBP	3.41%	3.04%	3.78%	2.41%	1.37%
11	Home Properties of New York, Inc.	HME	3.03%	4.37%	2.01%	1.02%	0.99%
12	Mid-America Apartment Communities, Inc.	MAA	3.40%	4.03%	2.56%	1.57%	1.00%
13	Post Properties, Inc.	PPS	3.87%	2.87%	4.15%	2.77%	1.38%
14	Roberts Realty Investors, Inc.	RPI	3.81%	2.03%	4.20%	2.75%	1.45%
15	Summit Properties Inc.	SMT	3.38%	3.28%	3.26%	2.65%	0.61%
16	Charles E. Smith Residential Realty	SRW	2.42%	4.08%	2.05%	3.57%	-1.52%
17	Cornerstone Realty Income Trust	TCR	3.76%	3.92%	3.17%	2.14%	1.03%
18	Town and Country Trust, The	TCT	2.54%	3.77%	2.06%	1.70%	0.36%
19	United Dominion Realty Trust, Inc.	UDR	3.32%	3.87%	3.07%	2.00%	1.07%

Appendix 6
Geographic Concentrations - 2000

State	% of Total	State	% of Total	State	% of Total	State	% of Total	State	% of Total	State	% of Total	State	% of Total
AL	0.00%	AK	0.00%	AR	0.00%	AZ	0.00%	CA	2.32%	CO	0.00%	CT	0.00%
DC	0.00%	DE	0.00%	FL	0.00%	GA	0.00%	HI	0.00%	IA	0.00%	IL	0.00%
IN	0.00%	KS	0.00%	LA	0.00%	MA	0.00%	MD	0.00%	ME	0.00%	MI	0.00%
MN	0.00%	MO	0.00%	MS	0.00%	MT	0.00%	NC	0.00%	ND	0.00%	OH	0.00%
OK	0.00%	OR	0.00%	PA	0.00%	RI	0.00%	SC	0.00%	SD	0.00%	TN	0.00%
TX	0.00%	UT	0.00%	VA	0.00%	VT	0.00%	WA	0.00%	WI	0.00%	WV	0.00%
WY	0.00%												
Foreign	0.00%												
Not Reported	0.00%												
Total	100.00%	Total	100.00%	Total	100.00%	Total	100.00%	Total	100.00%	Total	100.00%	Total	100.00%

Appendix 7
Geographic Concentrations - 1999

#	MSA NAME	# of Apts	% of Total	# of Apts	% of Total	# of Apts	% of Total	# of Apts	% of Total	# of Apts	% of Total	# of Apts	% of Total	# of Apts	% of Total	# of Apts	% of Total
1	New York NY	11,954	25.9%	11,954	25.9%	11,954	25.9%	11,954	25.9%	11,954	25.9%	11,954	25.9%	11,954	25.9%	11,954	25.9%
2	Atlanta GA	11,545	25.3%	11,545	25.3%	11,545	25.3%	11,545	25.3%	11,545	25.3%	11,545	25.3%	11,545	25.3%	11,545	25.3%
3	Chicago IL	8,000	17.8%	8,000	17.8%	8,000	17.8%	8,000	17.8%	8,000	17.8%	8,000	17.8%	8,000	17.8%	8,000	17.8%
4	Phoenix AZ	7,000	15.6%	7,000	15.6%	7,000	15.6%	7,000	15.6%	7,000	15.6%	7,000	15.6%	7,000	15.6%	7,000	15.6%
5	Los Angeles CA	6,000	13.3%	6,000	13.3%	6,000	13.3%	6,000	13.3%	6,000	13.3%	6,000	13.3%	6,000	13.3%	6,000	13.3%
6	San Francisco CA	5,000	11.1%	5,000	11.1%	5,000	11.1%	5,000	11.1%	5,000	11.1%	5,000	11.1%	5,000	11.1%	5,000	11.1%
7	Dallas TX	4,000	8.9%	4,000	8.9%	4,000	8.9%	4,000	8.9%	4,000	8.9%	4,000	8.9%	4,000	8.9%	4,000	8.9%
8	San Diego CA	3,000	6.7%	3,000	6.7%	3,000	6.7%	3,000	6.7%	3,000	6.7%	3,000	6.7%	3,000	6.7%	3,000	6.7%
9	San Jose CA	2,500	5.6%	2,500	5.6%	2,500	5.6%	2,500	5.6%	2,500	5.6%	2,500	5.6%	2,500	5.6%	2,500	5.6%
10	Portland OR	2,000	4.5%	2,000	4.5%	2,000	4.5%	2,000	4.5%	2,000	4.5%	2,000	4.5%	2,000	4.5%	2,000	4.5%
11	Seattle WA	1,800	4.0%	1,800	4.0%	1,800	4.0%	1,800	4.0%	1,800	4.0%	1,800	4.0%	1,800	4.0%	1,800	4.0%
12	Denver CO	1,700	3.8%	1,700	3.8%	1,700	3.8%	1,700	3.8%	1,700	3.8%	1,700	3.8%	1,700	3.8%	1,700	3.8%
13	San Antonio TX	1,600	3.6%	1,600	3.6%	1,600	3.6%	1,600	3.6%	1,600	3.6%	1,600	3.6%	1,600	3.6%	1,600	3.6%
14	San Jose CA	1,500	3.3%	1,500	3.3%	1,500	3.3%	1,500	3.3%	1,500	3.3%	1,500	3.3%	1,500	3.3%	1,500	3.3%
15	San Francisco CA	1,400	3.1%	1,400	3.1%	1,400	3.1%	1,400	3.1%	1,400	3.1%	1,400	3.1%	1,400	3.1%	1,400	3.1%
16	San Francisco CA	1,300	2.9%	1,300	2.9%	1,300	2.9%	1,300	2.9%	1,300	2.9%	1,300	2.9%	1,300	2.9%	1,300	2.9%
17	San Francisco CA	1,200	2.7%	1,200	2.7%	1,200	2.7%	1,200	2.7%	1,200	2.7%	1,200	2.7%	1,200	2.7%	1,200	2.7%
18	San Francisco CA	1,100	2.4%	1,100	2.4%	1,100	2.4%	1,100	2.4%	1,100	2.4%	1,100	2.4%	1,100	2.4%	1,100	2.4%
19	San Francisco CA	1,000	2.2%	1,000	2.2%	1,000	2.2%	1,000	2.2%	1,000	2.2%	1,000	2.2%	1,000	2.2%	1,000	2.2%
20	San Francisco CA	900	2.0%	900	2.0%	900	2.0%	900	2.0%	900	2.0%	900	2.0%	900	2.0%	900	2.0%
21	San Francisco CA	800	1.8%	800	1.8%	800	1.8%	800	1.8%	800	1.8%	800	1.8%	800	1.8%	800	1.8%
22	San Francisco CA	700	1.6%	700	1.6%	700	1.6%	700	1.6%	700	1.6%	700	1.6%	700	1.6%	700	1.6%
23	San Francisco CA	600	1.3%	600	1.3%	600	1.3%	600	1.3%	600	1.3%	600	1.3%	600	1.3%	600	1.3%
24	San Francisco CA	500	1.1%	500	1.1%	500	1.1%	500	1.1%	500	1.1%	500	1.1%	500	1.1%	500	1.1%
25	San Francisco CA	400	0.9%	400	0.9%	400	0.9%	400	0.9%	400	0.9%	400	0.9%	400	0.9%	400	0.9%
26	San Francisco CA	300	0.7%	300	0.7%	300	0.7%	300	0.7%	300	0.7%	300	0.7%	300	0.7%	300	0.7%
27	San Francisco CA	200	0.4%	200	0.4%	200	0.4%	200	0.4%	200	0.4%	200	0.4%	200	0.4%	200	0.4%
28	San Francisco CA	100	0.2%	100	0.2%	100	0.2%	100	0.2%	100	0.2%	100	0.2%	100	0.2%	100	0.2%
29	San Francisco CA	50	0.1%	50	0.1%	50	0.1%	50	0.1%	50	0.1%	50	0.1%	50	0.1%	50	0.1%
30	San Francisco CA	25	0.0%	25	0.0%	25	0.0%	25	0.0%	25	0.0%	25	0.0%	25	0.0%	25	0.0%
31	San Francisco CA	12	0.0%	12	0.0%	12	0.0%	12	0.0%	12	0.0%	12	0.0%	12	0.0%	12	0.0%
32	San Francisco CA	6	0.0%	6	0.0%	6	0.0%	6	0.0%	6	0.0%	6	0.0%	6	0.0%	6	0.0%
33	San Francisco CA	3	0.0%	3	0.0%	3	0.0%	3	0.0%	3	0.0%	3	0.0%	3	0.0%	3	0.0%
34	San Francisco CA	1	0.0%	1	0.0%	1	0.0%	1	0.0%	1	0.0%	1	0.0%	1	0.0%	1	0.0%

Appendix 11
WARG v. WAEG WASG Results

Govt WARG v. WAEG, WASG

<i>Regression Statistics</i>	
Multiple R	0.324732045
R Square	0.105450901
Adjusted R Square	0.086004181
Standard Error	0.007218946
Observations	95

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	0.000565173	0.000282587	5.422554713	0.005940082
Residual	92	0.004794412	5.21132E-05		
Total	94	0.005359586			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.028927222	0.003017706	9.585832784	1.69733E-15	0.022933798	0.034920646	0.022933798	0.034920646
WAEG	0.295090251	0.090955821	3.244325084	0.001641762	0.11444414	0.475736362	0.11444414	0.475736362
WASG	-0.213957486	0.117706261	-1.817723919	0.072361243	-0.44773228	0.019817308	-0.44773228	0.019817308

NREI WARG v. WAEG, WASG

<i>Regression Statistics</i>	
Multiple R	0.527452059
R Square	0.278205674
Adjusted R Square	0.262514493
Standard Error	0.010895403
Observations	95

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	0.004209465	0.002104733	17.73006598	3.06916E-07
Residual	92	0.010921301	0.00011871		
Total	94	0.015130767			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.060642803	0.00455456	13.31474574	3.56402E-23	0.051597054	0.069688551	0.051597054	0.069688551
WAEG	-0.077721664	0.137277701	-0.566163797	0.572660907	-0.350367028	0.194923699	-0.350367028	0.194923699
WASG	-0.924576985	0.177651576	-5.204440103	1.17635E-06	-1.277408349	-0.571745621	-1.277408349	-0.571745621

Average Govt WARG v. Average WAEG & WASG

<i>Regression Statistics</i>	
Multiple R	0.742580571
R Square	0.551425904
Adjusted R Square	0.495354142
Standard Error	0.003172582
Observations	19

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	0.00019797	9.89849E-05	9.834288862	0.001639357
Residual	16	0.000161044	1.00653E-05		
Total	18	0.000359014			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.025620884	0.003261855	7.854697291	7.02843E-07	0.018706061	0.032535706	0.018706061	0.032535706
WAEG	0.479364224	0.109072992	4.39489386	0.000452009	0.248139862	0.710588585	0.248139862	0.710588585
WASG	-0.332225506	0.127155	-2.612760069	0.018845707	-0.601782003	-0.062669009	-0.601782003	-0.062669009

Appendix 11
WARG v. WAEG WASG Results

Average NREI WARG v. Average WAEG & WASG

<i>Regression Statistics</i>	
Multiple R	0.638454687
R Square	0.407624388
Adjusted R Square	0.333577436
Standard Error	0.007653567
Observations	19

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	0.000644927	0.000322464	5.504944899	0.015162729
Residual	16	0.000937233	5.85771E-05		
Total	18	0.001582161			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.062091581	0.007868929	7.890728177	6.62564E-07	0.0454102	0.078772962	0.0454102	0.078772962
WAEG	-0.275777764	0.263128695	-1.048071798	0.310180375	-0.833585553	0.282030024	-0.833585553	0.282030024
WASG	-0.696699748	0.306749897	-2.271230585	0.037292493	-1.346980334	-0.046419163	-1.346980334	-0.046419163

Appendix 12
Panel Data Results without Apartment Growth

% Change in FFO per Unit v. Weighted Average Rent Growth (Govt Data)

<i>Regression Statistics</i>	
Multiple R	0.014068772
R Square	0.00019793
Adjusted R Square	-0.010669483
Standard Error	0.307616636
Observations	94

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.001723478	0.001723478	0.018213197	0.892941268
Residual	92	8.705775513	0.094627995		
Total	93	8.707498991			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.091000127	0.149712822	0.607831219	0.544796963	-0.206342461	0.388342715	-0.206342461	0.388342715
WARG	0.589475334	4.36789861	0.134956277	0.892941268	-8.085548332	9.264499	-8.085548332	9.264499

% Change in FFO per Unit v. Weighted Average Rent Growth (NREI Data)

<i>Regression Statistics</i>	
Multiple R	0.296930873
R Square	0.088167943
Adjusted R Square	0.078256725
Standard Error	0.293771886
Observations	94

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.767722276	0.767722276	8.895772761	0.003658711
Residual	92	7.939776715	0.086301921		
Total	93	8.707498991			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.172569871	0.099705799	-1.730790714	0.086841753	-0.370594194	0.025454452	-0.370594194	0.025454452
WARG	7.240973122	2.42775633	2.982578207	0.003658711	2.419239492	12.06270675	2.419239492	12.06270675

% Change in FFO per Unit v. Weighted Average Employment Growth

<i>Regression Statistics</i>	
Multiple R	0.109580441
R Square	0.012007873
Adjusted R Square	0.001268828
Standard Error	0.305794412
Observations	94

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.104558543	0.104558543	1.118150942	0.293085625
Residual	92	8.602940448	0.093510222		
Total	93	8.707498991			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.006899343	0.115640485	-0.059662	0.952554245	-0.236571327	0.222772642	-0.236571327	0.222772642
WAEG	3.767689882	3.563074736	1.057426566	0.293085625	-3.308884101	10.84426386	-3.308884101	10.84426386

Appendix 12
Panel Data Results without Apartment Growth

% Change in FFO per Unit v. Weighted Average Stock Growth

<i>Regression Statistics</i>	
Multiple R	0.02708513
R Square	0.000733604
Adjusted R Square	-0.010127987
Standard Error	0.307534217
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.006387859	0.006387859	0.067541143	0.795531821
Residual	92	8.701111133	0.094577295		
Total	93	8.707498991			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.135775414	0.101398437	1.339028663	0.18386043	-0.065610635	0.337161463	-0.065610635	0.337161463
WASG	-1.203275306	4.629997963	-0.25988679	0.795531821	-10.39885091	7.9923003	-10.39885091	7.9923003

% Change in FFO per Unit v. Weighted Average Excess Demand

<i>Regression Statistics</i>	
Multiple R	0.130894587
R Square	0.017133393
Adjusted R Square	0.00645006
Standard Error	0.305000178
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.149189002	0.149189002	1.603749826	0.208569659
Residual	92	8.55830999	0.093025109		
Total	93	8.707498991			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.063707768	0.048675045	1.308838406	0.19384906	-0.032965072	0.160380608	-0.032965072	0.160380608
WABD	4.512661369	3.563398839	1.266392445	0.208569659	-2.564556309	11.58987905	-2.564556309	11.58987905

% Change in FFO per Unit v. % Change in Rental Revenue per Unit

<i>Regression Statistics</i>	
Multiple R	0.878280019
R Square	0.771375791
Adjusted R Square	0.768890745
Standard Error	0.147100419
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	6.716753924	6.716753924	310.4070788	3.11527E-31
Residual	92	1.990745067	0.021638533		
Total	93	8.707498991			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.00540772	0.016307795	0.331603365	0.740942985	-0.026980969	0.037796408	-0.026980969	0.037796408
% D Rent Rev per Unit	0.912534709	0.051794493	17.61837333	3.11527E-31	0.809666376	1.015403042	0.809666376	1.015403042

Appendix 12
Panel Data Results without Apartment Growth

% Change in FFO per Unit v. % Change in Rental NOI per Unit

<i>Regression Statistics</i>	
Multiple R	0.891236439
R Square	0.79430239
Adjusted R Square	0.792066547
Standard Error	0.139529946
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	6.916387262	6.916387262	355.2584787	2.3781E-33
Residual	92	1.791111729	0.019468606		
Total	93	8.707498991			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.009207134	0.015735786	-0.585107977	0.559907482	-0.040459763	0.022045495	-0.040459763	0.022045495
% D Rental NOI per Unit	0.926996028	0.049181939	18.84830175	2.3781E-33	0.829316452	1.024675605	0.829316452	1.024675605

% Change in FFO v. % Change in Number of Apartments

<i>Regression Statistics</i>	
Multiple R	0.254923966
R Square	0.064986228
Adjusted R Square	0.054823035
Standard Error	0.318792839
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.649842731	0.649842731	6.394272656	0.013152117
Residual	92	9.34985642	0.101628874		
Total	93	9.999699151			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.269816587	0.036496578	7.39292832	6.4605E-11	0.197331232	0.342301942	0.197331232	0.342301942
# Apts	0.162295427	0.064181625	2.528689909	0.013152117	0.03482518	0.289765674	0.03482518	0.289765674

% Change in Rental Revenue per Unit v. Weighted Average Rent Growth (Govt Data)

<i>Regression Statistics</i>	
Multiple R	0.084160568
R Square	0.007083001
Adjusted R Square	-0.003709575
Standard Error	0.295048143
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.057131808	0.057131808	0.656284575	0.419965221
Residual	92	8.008913427	0.087053407		
Total	93	8.066045235			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.001747998	0.143595908	0.012173038	0.99031392	-0.28344587	0.286941867	-0.28344587	0.286941867
WARG	3.393920888	4.189436539	0.810113927	0.419965221	-4.926661701	11.71450348	-4.926661701	11.71450348

Appendix 12
Panel Data Results without Apartment Growth

% Change in Rental Revenue per Unit v. Weighted Average Rent Growth (NREI Data)

<i>Regression Statistics</i>	
Multiple R	0.273574716
R Square	0.074843125
Adjusted R Square	0.064787072
Standard Error	0.284802701
Observations	94

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.603688035	0.603688035	7.442594569	0.007630005
Residual	92	7.462357201	0.081112578		
Total	93	8.066045235			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.135797299	0.096661669	-1.404872279	0.163426777	-0.327775717	0.056181119	-0.327775717	0.056181119
WARG	6.420977501	2.353634207	2.728111906	0.007630005	1.746456806	11.0954982	1.746456806	11.0954982

% Change in Rental Revenue per Unit v. Weighted Average Employment Growth

<i>Regression Statistics</i>	
Multiple R	0.060028008
R Square	0.003603362
Adjusted R Square	-0.007227036
Standard Error	0.295564683
Observations	94

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.029064879	0.029064879	0.332708153	0.565477467
Residual	92	8.036980356	0.087358482		
Total	93	8.066045235			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.053407967	0.111771968	0.47782971	0.633904792	-0.16858081	0.275396744	-0.16858081	0.275396744
WABG	1.986459196	3.443879339	0.576808593	0.565477467	-4.85338244	8.826300831	-4.85338244	8.826300831

% Change in Rental Revenue per Unit v. Weighted Average Stock Growth

<i>Regression Statistics</i>	
Multiple R	0.092206001
R Square	0.008501947
Adjusted R Square	-0.002275206
Standard Error	0.294837246
Observations	94

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.068577086	0.068577086	0.788886159	0.376753427
Residual	92	7.997468149	0.086929002		
Total	93	8.066045235			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.197444295	0.097212064	2.031067822	0.045133793	0.004372745	0.390515846	0.004372745	0.390515846
WASG	-3.942546915	4.438842154	-0.888192636	0.376753427	-12.75847058	4.873376754	-12.75847058	4.873376754

Appendix 12
Panel Data Results without Apartment Growth

% Change in Rental Revenue per Unit v. Weighted Average Excess Demand

<i>Regression Statistics</i>	
Multiple R	0.13174417
R Square	0.017356526
Adjusted R Square	0.006675619
Standard Error	0.293517771
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.139998527	0.139998527	1.625004866	0.2056055
Residual	92	7.926046708	0.086152682		
Total	93	8.066045235			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.069868446	0.046842565	1.491558934	0.139235874	-0.023164931	0.162901823	-0.023164931	0.162901823
WAED	4.371455625	3.429246794	1.274756787	0.2056055	-2.439324513	11.18223576	-2.439324513	11.18223576

% Change in Rental NOI per Unit v. Weighted Average Rent Growth (Govt Data)

<i>Regression Statistics</i>	
Multiple R	0.080268703
R Square	0.006443065
Adjusted R Square	-0.004356467
Standard Error	0.294824957
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.051858034	0.051858034	0.596605927	0.441855712
Residual	92	7.996801473	0.086921755		
Total	93	8.048659507			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.021087185	0.143487286	0.146962043	0.883483554	-0.263890952	0.306065321	-0.263890952	0.306065321
WARG	3.233484292	4.186267479	0.772402697	0.441855712	-5.080804269	11.54777285	-5.080804269	11.54777285

% Change in Rental NOI per Unit v. Weighted Average Rent Growth (NREI Data)

<i>Regression Statistics</i>	
Multiple R	0.248392412
R Square	0.06169879
Adjusted R Square	0.051499864
Standard Error	0.286509484
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.496592557	0.496592557	6.049537895	0.015778731
Residual	92	7.552066951	0.082087684		
Total	93	8.048659507			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.098460641	0.097240949	-1.012542991	0.31393409	-0.29158956	0.094668277	-0.29158956	0.094668277
WARG	5.82364599	2.367739211	2.459580837	0.015778731	1.12111154	10.52618044	1.12111154	10.52618044

Appendix 12
Panel Data Results without Apartment Growth

% Change in Rental NOI per Unit v. Weighted Average Employment Growth

<i>Regression Statistics</i>	
Multiple R	0.083498065
R Square	0.006971927
Adjusted R Square	-0.003821856
Standard Error	0.29474648
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.056114666	0.056114666	0.645920589	0.423646671
Residual	92	7.992544841	0.086875487		
Total	93	8.048659507			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.043214497	0.111462553	0.387704174	0.699130526	-0.178159754	0.264588749	-0.178159754	0.264588749
WABG	2.760155683	3.434345743	0.80369185	0.423646671	-4.060751407	9.581062772	-4.060751407	9.581062772

% Change in Rental NOI per Unit v. Weighted Average Stock Growth

<i>Regression Statistics</i>	
Multiple R	0.065763995
R Square	0.004324903
Adjusted R Square	-0.006497652
Standard Error	0.295139058
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.034809671	0.034809671	0.399619389	0.528853757
Residual	92	8.013849836	0.087107063		
Total	93	8.048659507			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.187828263	0.097311576	1.93017389	0.056665551	-0.005440926	0.381097452	-0.005440926	0.381097452
WASG	-2.808906726	4.443386	-0.632154561	0.528853757	-11.63385486	6.016041412	-11.63385486	6.016041412

% Change in Rental NOI per Unit v. Weighted Average Excess Demand

<i>Regression Statistics</i>	
Multiple R	0.134757766
R Square	0.018159656
Adjusted R Square	0.007487478
Standard Error	0.293081429
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.146160885	0.146160885	1.701588578	0.19533424
Residual	92	7.902498623	0.085896724		
Total	93	8.048659507			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.082841411	0.046772929	1.771140125	0.079849082	-0.010053663	0.175736485	-0.010053663	0.175736485
WAED	4.466629428	3.424148902	1.304449531	0.19533424	-2.334025855	11.26728471	-2.334025855	11.26728471

% Change in Net Income per Unit v. Weighted Average Rent Growth (Govt Data)

<i>Regression Statistics</i>	
Multiple R	0.138561413
R Square	0.019199265
Adjusted R Square	0.008421235
Standard Error	0.783637583
Observations	93

Appendix 12
Panel Data Results without Apartment Growth

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	1.093895224	1.093895224	1.781333411	0.185315499
Residual	91	55.88199535	0.614087861		
Total	92	56.97589057			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.698715128	0.381389048	1.832027245	0.0702185	-0.058867442	1.456297697	-0.058867442	1.456297697
WARG	-14.85329009	11.12884404	-1.33466603	0.185315499	-36.95937389	7.252793708	-36.95937389	7.252793708

Appendix 12
Panel Data Results without Apartment Growth

% Change in Net Income per Unit v. Weighted Average Rent Growth (NREI Data)

Regression Statistics	
Multiple R	0.120588376
R Square	0.014541556
Adjusted R Square	0.003712343
Standard Error	0.785496081
Observations	93

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.828518127	0.828518127	1.342808155	0.249571236
Residual	91	56.14737244	0.617004093		
Total	92	56.97589057			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-0.099378804	0.272021831	-0.365333928	0.715709937	-0.639716809	0.440959201	-0.639716809	0.440959201
WARG	7.64208542	6.594849708	1.158795994	0.249571236	-5.457774706	20.74194555	-5.457774706	20.74194555

% Change in Net Income per Unit v. Weighted Average Employment Growth

Regression Statistics	
Multiple R	0.068263648
R Square	0.004659926
Adjusted R Square	-0.006277877
Standard Error	0.789424517
Observations	93

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.265503409	0.265503409	0.426038535	0.515584772
Residual	91	56.71038716	0.623191068		
Total	92	56.97589057			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.01398557	0.298535647	0.046847237	0.962737639	-0.579018879	0.606990019	-0.579018879	0.606990019
WAEG	6.007433211	9.203743567	0.652716274	0.515584772	-12.2746746	24.28954102	-12.2746746	24.28954102

% Change in Net Income per Unit v. Weighted Average Stock Growth

Regression Statistics	
Multiple R	0.138526964
R Square	0.01918972
Adjusted R Square	0.008411585
Standard Error	0.783641396
Observations	93

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	1.09335138	1.09335138	1.780430471	0.185425874
Residual	91	55.88253919	0.614093837		
Total	92	56.97589057			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-0.126054862	0.258494659	-0.487649772	0.626970731	-0.6395228	0.387413076	-0.6395228	0.387413076
WASG	15.77640694	11.82348735	1.334327722	0.185425874	-7.70950059	39.26231447	-7.70950059	39.26231447

Appendix 12
Panel Data Results without Apartment Growth

% Change in Net Income per Unit v. Weighted Average Excess Demand

<i>Regression Statistics</i>	
Multiple R	0.038866412
R Square	0.001510598
Adjusted R Square	-0.009461813
Standard Error	0.790672428
Observations	93

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.086067665	0.086067665	0.137672384	0.711468432
Residual	91	56.8898229	0.625162889		
Total	92	56.97589057			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.237159849	0.126582447	1.873560311	0.064200434	-0.014280658	0.488600355	-0.014280658	0.488600355
WAED	-3.428017651	9.238886522	-0.371042294	0.711468432	-21.77993263	14.92389733	-21.77993263	14.92389733

Appendix 12
Panel Data Results without Apartment Growth

% Change in Market Cap per Unit v. Weighted Average Rent Growth (Govt Data)

<i>Regression Statistics</i>	
Multiple R	0.059894539
R Square	0.003587356
Adjusted R Square	-0.007608292
Standard Error	0.353461102
Observations	91

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.04003211	0.04003211	0.320424138	0.572777408
Residual	89	11.11919281	0.124934751		
Total	90	11.15922492			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.223472325	0.173709915	1.286468452	0.201616041	-0.121685388	0.568630039	-0.121685388	0.568630039
WARG	-2.880530302	5.088735011	-0.566060189	0.572777408	-12.9917329	7.230672291	-12.9917329	7.230672291

% Change in Market Cap per Unit v. Weighted Average Rent Growth (NREI Data)

<i>Regression Statistics</i>	
Multiple R	0.490005653
R Square	0.24010554
Adjusted R Square	0.2315674
Standard Error	0.308673006
Observations	91

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	2.679391729	2.679391729	28.1215277	8.22903E-07
Residual	89	8.479833187	0.095279025		
Total	90	11.15922492			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.414391089	0.10716994	-3.86667277	0.000209497	-0.627335362	-0.201446816	-0.627335362	-0.201446816
WARG	13.8003871	2.602386597	5.302973477	8.22903E-07	8.629503168	18.97127104	8.629503168	18.97127104

% Change in Market Cap per Unit v. Weighted Average Employment Growth

<i>Regression Statistics</i>	
Multiple R	0.065715223
R Square	0.004318491
Adjusted R Square	-0.006868942
Standard Error	0.353331399
Observations	91

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.048191007	0.048191007	0.386012652	0.535990906
Residual	89	11.11103391	0.124843078		
Total	90	11.15922492			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.047536617	0.13378029	0.355333488	0.723180518	-0.218281825	0.313355059	-0.218281825	0.313355059
WABG	2.562810612	4.12492203	0.621299165	0.535990906	-5.633317157	10.75893838	-5.633317157	10.75893838

Appendix 12
Panel Data Results without Apartment Growth

% Change in Market Cap per Unit v. Weighted Average Stock Growth

<i>Regression Statistics</i>	
Multiple R	0.153234478
R Square	0.023480805
Adjusted R Square	0.01250868
Standard Error	0.349914875
Observations	91

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.262027588	0.262027588	2.140041578	0.147020611
Residual	89	10.89719733	0.122440419		
Total	90	11.15922492			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.28816999	0.115855701	2.487318159	0.01473506	0.057967304	0.518372676	0.057967304	0.518372676
WASG	-7.731302289	5.284958102	-1.462888095	0.147020611	-18.23239577	2.769791196	-18.23239577	2.769791196

% Change in Market Cap per Unit v. Weighted Average Excess Demand

<i>Regression Statistics</i>	
Multiple R	0.184647847
R Square	0.034094827
Adjusted R Square	0.02324196
Standard Error	0.348008024
Observations	91

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.380471846	0.380471846	3.141550244	0.079743088
Residual	89	10.77875307	0.121109585		
Total	90	11.15922492			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.052529461	0.055816259	0.94111396	0.349193907	-0.058376198	0.163435119	-0.058376198	0.163435119
WAED	7.220162382	4.073567903	1.772441887	0.079743088	-0.873925885	15.31425065	-0.873925885	15.31425065

Cap Rate v. Weighted Average Rent Growth (Govt Data)

<i>Regression Statistics</i>	
Multiple R	0.111164828
R Square	0.012357619
Adjusted R Square	0.001260514
Standard Error	0.014607127
Observations	91

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.000237605	0.000237605	1.113589397	0.294159271
Residual	89	0.018989767	0.000213368		
Total	90	0.019227372			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.081297853	0.007178733	11.32481935	6.16923E-19	0.067033872	0.095561835	0.067033872	0.095561835
WARG	-0.221919553	0.210296974	-1.055267453	0.294159271	-0.639774935	0.19593583	-0.639774935	0.19593583

Appendix 12
Panel Data Results without Apartment Growth

Cap Rate v. Weighted Average Rent Growth (NREI Data)

<i>Regression Statistics</i>	
Multiple R	0.352740784
R Square	0.124426061
Adjusted R Square	0.114588151
Standard Error	0.013753441
Observations	91

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.002392386	0.002392386	12.64761192	0.000605036
Residual	89	0.016834985	0.000189157		
Total	90	0.019227372			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.09008621	0.004775136	18.86568637	7.46225E-33	0.080598123	0.099574298	0.080598123	0.099574298
WARG	-0.412371648	0.115953679	-3.556348116	0.000605036	-0.642769013	-0.181974282	-0.642769013	-0.181974282

Cap Rate v. Weighted Average Employment Growth

<i>Regression Statistics</i>	
Multiple R	0.239665667
R Square	0.057439632
Adjusted R Square	0.046849066
Standard Error	0.014269854
Observations	91

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.001104413	0.001104413	5.423660274	0.022130773
Residual	89	0.018122958	0.000203629		
Total	90	0.019227372			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.085987587	0.005402931	15.91498809	9.0624E-28	0.075252083	0.09672309	0.075252083	0.09672309
WAEG	-0.387971027	0.166591583	-2.328875324	0.022130773	-0.718984774	-0.056957279	-0.718984774	-0.056957279

Cap Rate v. Weighted Average Stock Growth

<i>Regression Statistics</i>	
Multiple R	0.10994458
R Square	0.012087811
Adjusted R Square	0.000987674
Standard Error	0.014609122
Observations	91

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.000232417	0.000232417	1.088978525	0.299523882
Residual	89	0.018994955	0.000213426		
Total	90	0.019227372			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.069108738	0.004837034	14.28742052	9.25109E-25	0.05949766	0.078719816	0.05949766	0.078719816
WASG	0.230257047	0.220649665	1.043541339	0.299523882	-0.2081689	0.668682994	-0.2081689	0.668682994

Appendix 12
Panel Data Results without Apartment Growth

Cap Rate v. Weighted Average Excess Demand

<i>Regression Statistics</i>	
Multiple R	0.325510351
R Square	0.105956988
Adjusted R Square	0.095911561
Standard Error	0.013897739
Observations	91

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.002037274	0.002037274	10.54778332	0.001641329
Residual	89	0.017190097	0.000193147		
Total	90	0.019227372			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.07937574	0.002229029	35.61001454	1.93834E-54	0.07494671	0.083804769	0.07494671	0.083804769
WAED	-0.528336317	0.16267839	-3.247735106	0.001641329	-0.851574638	-0.205097997	-0.851574638	-0.205097997

Appendix 13
Panel Data Results

% Change in FFO per Unit v. WARG (Govt), % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.48093192
R Square	0.231295512
Adjusted R Square	0.214400908
Standard Error	0.271210019
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	2.014005434	1.007002717	13.69049607	6.33948E-06
Residual	91	6.693493557	0.073554874		
Total	93	8.707498991			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.168269944	0.132818363	1.266917766	0.208417612	-0.095557445	0.432097334	-0.095557445	0.432097334
Govt WARG	0.386738625	3.851150199	0.10042159	0.920230545	-7.263098925	8.036576175	-7.263098925	8.036576175
% D # of Apts	-0.285606814	0.054604681	-5.230445579	1.07371E-06	-0.394072316	-0.177141311	-0.394072316	-0.177141311

% Change in FFO per Unit v. WARG (Govt), % Change in # of Apts, % in MSA

<i>Regression Statistics</i>	
Multiple R	0.482364534
R Square	0.232675543
Adjusted R Square	0.207098061
Standard Error	0.272467673
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	2.026022059	0.675340686	9.096890161	2.54039E-05
Residual	90	6.681476932	0.074238633		
Total	93	8.707498991			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.219853332	0.185049705	1.18807718	0.237928823	-0.14777991	0.587486574	-0.14777991	0.587486574
Govt WARG	0.55191972	3.890731793	0.14185499	0.88751161	-7.177691856	8.281531295	-7.177691856	8.281531295
% D # of Apts	-0.291217725	0.056602881	-5.144927617	1.55512E-06	-0.403669137	-0.178766313	-0.403669137	-0.178766313
% Total in MSA	-0.068761794	0.170911362	-0.4023243	0.688399321	-0.408306772	0.270783184	-0.408306772	0.270783184

% Change in FFO per Unit v. WARG (NREI), % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.609000884
R Square	0.370882076
Adjusted R Square	0.357055309
Standard Error	0.245353382
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	3.229455305	1.614727653	26.82348386	6.95518E-10
Residual	91	5.478043686	0.060198282		
Total	93	8.707498991			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.171119462	0.08327293	-2.054923033	0.042753233	-0.336530925	-0.005707999	-0.336530925	-0.005707999
NREI WARG	9.219180468	2.05108359	4.494785347	2.04482E-05	5.144954469	13.29340647	5.144954469	13.29340647
% D # of Apts	-0.319535469	0.049967848	-6.394821505	6.78966E-09	-0.418790471	-0.220280467	-0.418790471	-0.220280467

Appendix 13
Panel Data Results

% Change in FFO per Unit v. WARG (NREI), % Change in # of Apts, % in MSA

<i>Regression Statistics</i>	
Multiple R	0.609824364
R Square	0.371885755
Adjusted R Square	0.350948613
Standard Error	0.246515813
Observations	94

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	3.238194833	1.079398278	17.7620118	3.86691E-09
Residual	90	5.469304158	0.060770046		
Total	93	8.707498991			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.225817183	0.166745071	-1.354266018	0.179042033	-0.557085102	0.105450737	-0.557085102	0.105450737
NREI WARG	9.361885466	2.094876355	4.468944166	2.28128E-05	5.200051295	13.52371964	5.200051295	13.52371964
% D # of Apts	-0.315202472	0.051488356	-6.121820465	2.37293E-08	-0.417492995	-0.212911948	-0.417492995	-0.212911948
% Total in MSA	0.059277606	0.156311688	0.379226955	0.705412596	-0.251262596	0.369817807	-0.251262596	0.369817807

% Change in FFO per Unit v. WAEG, WASG, % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.517045731
R Square	0.267336288
Adjusted R Square	0.242914165
Standard Error	0.266242757
Observations	94

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	2.327830462	0.775943487	10.94647998	3.38301E-06
Residual	90	6.379668529	0.070885206		
Total	93	8.707498991			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.153434738	0.114217594	1.34335466	0.182534681	-0.073478266	0.380347742	-0.073478266	0.380347742
WAEG	6.064926759	3.376533686	1.796199097	0.075818211	-0.643141352	12.77299487	-0.643141352	12.77299487
WASG	-7.589092059	4.411305147	-1.720373405	0.088801221	-16.35291263	1.174728515	-16.35291263	1.174728515
% D # of Apts	-0.300697858	0.054308329	-5.536864495	3.01495E-07	-0.408590746	-0.192804971	-0.408590746	-0.192804971

% Change in FFO per Unit v. WAED, % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.516087308
R Square	0.266346109
Adjusted R Square	0.250221848
Standard Error	0.264954703
Observations	94

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	2.319208475	1.159604238	16.51834483	7.58317E-07
Residual	91	6.388290516	0.070200995		
Total	93	8.707498991			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.116609875	0.043341535	2.690487892	0.008488934	0.030517231	0.202702519	0.030517231	0.202702519
WAED	6.505457509	3.116218748	2.087612595	0.039627788	0.315471151	12.69544387	0.315471151	12.69544387
% D # of Apts	-0.298556085	0.053698944	-5.559812975	2.67743E-07	-0.405222452	-0.191889719	-0.405222452	-0.191889719

Appendix 13
Panel Data Results

% Change in FFO per Unit v. WARG (Govt), WAEG, WASG, % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.519771761
R Square	0.270162684
Adjusted R Square	0.237361007
Standard Error	0.267217407
Observations	94

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	4	2.352441298	0.588110324	8.236246059	1.0672E-05
Residual	89	6.355057693	0.071405143		
Total	93	8.707498991			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.224421194	0.16661805	1.346920059	0.181425705	-0.106645143	0.555487531	-0.106645143	0.555487531
Govt WARG	-2.353873163	4.009448313	-0.587081558	0.558635317	-10.32055724	5.612810912	-10.32055724	5.612810912
WAEG	6.713165449	3.564238977	1.88347793	0.062901153	-0.368897639	13.79522854	-0.368897639	13.79522854
WASG	-8.166658258	4.535437636	-1.800632908	0.075148178	-17.17847135	0.845154832	-17.17847135	0.845154832
% D # of Apts	-0.30217881	0.054565479	-5.537911817	3.06562E-07	-0.410599195	-0.193758424	-0.410599195	-0.193758424

% Change in FFO per Unit v. WARG (NREI), WAEG, WASG, % Change in # of Apts, % in MSA

<i>Regression Statistics</i>	
Multiple R	0.519965261
R Square	0.270363872
Adjusted R Square	0.228907274
Standard Error	0.268694357
Observations	94

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	2.354193145	0.470838629	6.521612583	3.33279E-05
Residual	88	6.353305846	0.072196657		
Total	93	8.707498991			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.236556717	0.184766332	1.280302064	0.203803444	-0.130627826	0.60374126	-0.130627826	0.60374126
Govt WARG	-2.276284708	4.062261126	-0.560349184	0.57666509	-10.3491813	5.796611886	-10.3491813	5.796611886
WAEG	6.861115981	3.707656627	1.850526268	0.067593052	-0.50707814	14.2293101	-0.50707814	14.2293101
WASG	-7.732007623	5.346398957	-1.446208501	0.151671098	-18.35686028	2.892845035	-18.35686028	2.892845035
% D # of Apts	-0.304130632	0.056279624	-5.403920833	5.50494E-07	-0.415974645	-0.19228662	-0.415974645	-0.19228662
% Total in MSA	-0.03443998	0.221092168	-0.15577205	0.876569477	-0.473814545	0.404934584	-0.473814545	0.404934584

% Change in FFO per Unit v. WARG (NREI), WAEG, WASG, % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.643937156
R Square	0.414655061
Adjusted R Square	0.388347424
Standard Error	0.239308237
Observations	94

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	4	3.610608529	0.902652132	15.76177482	8.68552E-10
Residual	89	5.096890462	0.057268432		
Total	93	8.707498991			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.495961528	0.17136725	-2.89414417	0.004780869	-0.83646442	-0.155458637	-0.83646442	-0.155458637
NREI WARG	10.97774262	2.319502944	4.732799605	8.29177E-06	6.368942172	15.58654306	6.368942172	15.58654306
WAEG	6.822002339	3.039158435	2.244701119	0.027266035	0.783262537	12.86074214	0.783262537	12.86074214
WASG	2.09593434	4.461961296	0.469733868	0.639694053	-6.769882907	10.96175159	-6.769882907	10.96175159
% D # of Apts	-0.321877929	0.049018919	-6.566402022	3.34904E-09	-0.419277424	-0.224478434	-0.419277424	-0.224478434

Appendix 13
Panel Data Results

% Change in FFO per Unit v. WARG (NREI), WAEG, WASG, % Change in # of Apts, % in MSA

<i>Regression Statistics</i>								
Multiple R	0.651675271							
R Square	0.424680659							
Adjusted R Square	0.39199206							
Standard Error	0.238594192							
Observations	94							

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	3.697906412	0.739581282	12.99170578	1.8085E-09
Residual	88	5.009592579	0.056927188		
Total	93	8.707498991			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.427329641	0.179620073	-2.379075087	0.019517894	-0.784287068	-0.070372215	-0.784287068	-0.070372215
NREI WARG	11.56792106	2.361179788	4.899212302	4.34513E-06	6.875568783	16.26027335	6.875568783	16.26027335
WAEG	8.073856409	3.194273344	2.527603476	0.013269833	1.725904469	14.42180835	1.725904469	14.42180835
WASG	5.589548542	5.267789152	1.061080537	0.29155679	-4.879083527	16.05818061	-4.879083527	16.05818061
% D # of Apts	-0.337327425	0.050439915	-6.687708075	2.00856E-09	-0.437566233	-0.237088616	-0.437566233	-0.237088616
% Total in MSA	-0.246353741	0.198937736	-1.238345953	0.218881158	-0.641700993	0.148993511	-0.641700993	0.148993511

% Change in Rental Revenue per Unit v. WARG (Govt), % Change in # of Apts

<i>Regression Statistics</i>								
Multiple R	0.456155107							
R Square	0.208077482							
Adjusted R Square	0.190672591							
Standard Error	0.264942101							
Observations	94							

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	1.678362381	0.839181191	11.95511582	2.45506E-05
Residual	91	6.387682854	0.070194317		
Total	93	8.066045235			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.071104609	0.129748807	0.548017439	0.585021737	-0.186625483	0.3288347	-0.186625483	0.3288347
Govt WARG	3.211946457	3.762146514	0.853753687	0.395483292	-4.261096188	10.6849891	-4.261096188	10.6849891
% D # of Apts	-0.256357803	0.053342716	-4.805863329	6.05084E-06	-0.362316566	-0.15039904	-0.362316566	-0.15039904

% Change in Rental Revenue per Unit v. WARG (Govt), % Change in # of Apts, % in MSA

<i>Regression Statistics</i>								
Multiple R	0.472350075							
R Square	0.223114593							
Adjusted R Square	0.197218413							
Standard Error	0.263868503							
Observations	94							

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	1.799652404	0.599884135	8.615733734	4.35093E-05
Residual	90	6.266392832	0.069626587		
Total	93	8.066045235			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.23498657	0.179209476	1.311239647	0.193112368	-0.121044047	0.591017186	-0.121044047	0.591017186
Govt WARG	3.76731722	3.767939019	0.991717675	0.323994093	-3.748930773	11.22239422	-3.748930773	11.22239422
% D # of Apts	-0.274183835	0.054816475	-5.001850867	2.79015E-06	-0.383086243	-0.165281426	-0.383086243	-0.165281426
% Total in MSA	-0.21845827	0.165517343	-1.319851238	0.190232041	-0.547287097	0.110370557	-0.547287097	0.110370557

Appendix 13
Panel Data Results

% Change in Rental Revenue per Unit v. WARG (NREI), % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.566517557
R Square	0.320942143
Adjusted R Square	0.306017794
Standard Error	0.245336983
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	2.588733839	1.29436692	21.50459983	2.2478E-08
Residual	91	5.477311396	0.060190235		
Total	93	8.066045235			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.134494867	0.083267364	-1.615217059	0.109725752	-0.299895274	0.03090554	-0.299895274	0.03090554
NREI WARG	8.197360469	2.050946494	3.996867053	0.000130238	4.123406795	12.27131414	4.123406795	12.27131414
% D # of Apts	-0.286935222	0.049964508	-5.742780888	1.21808E-07	-0.38618359	-0.187686855	-0.38618359	-0.187686855

% Change in Rental Revenue per Unit v. WARG (NREI), % Change in # of Apts, % in MSA

<i>Regression Statistics</i>	
Multiple R	0.56893285
R Square	0.323684588
Adjusted R Square	0.301140741
Standard Error	0.246197543
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	2.610854529	0.870284843	14.35800141	1.00922E-07
Residual	90	5.455190706	0.06061323		
Total	93	8.066045235			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.047473766	0.16652979	-0.285076719	0.776240357	-0.378313994	0.283366462	-0.378313994	0.283366462
NREI WARG	7.970324572	2.092171712	3.809593891	0.000254111	3.813863643	12.1267855	3.813863643	12.1267855
% D # of Apts	-0.293828786	0.051421881	-5.714080888	1.41119E-07	-0.395987245	-0.191670327	-0.395987245	-0.191670327
% Total in MSA	-0.094307449	0.156109878	-0.604109429	0.547290698	-0.40444672	0.215831821	-0.40444672	0.215831821

% Change in Rental Revenue per Unit v. WAEG, WASG, % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.495503148
R Square	0.24552337
Adjusted R Square	0.220374148
Standard Error	0.260035097
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	1.980402605	0.660134202	9.762663001	1.21789E-05
Residual	90	6.08564263	0.067618251		
Total	93	8.066045235			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.228474773	0.111554521	2.048099633	0.043463913	0.006852425	0.45009712	0.006852425	0.45009712
WAEG	4.840146013	3.297807127	1.4676862	0.145675609	-1.711518174	11.3918102	-1.711518174	11.3918102
WASG	-9.431668777	4.308452072	-2.189108436	0.031176579	-17.99115393	-0.872183624	-17.99115393	-0.872183624
% D # of Apts	-0.275491938	0.053042087	-5.193836681	1.27113E-06	-0.380869217	-0.170114659	-0.380869217	-0.170114659

Appendix 13
Panel Data Results

% Change in Rental Revenue per Unit v. WAED, % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.485615925
R Square	0.235822827
Adjusted R Square	0.219027724
Standard Error	0.260259542
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	1.902157586	0.951078793	14.04116608	4.8454E-06
Residual	91	6.163887649	0.067735029		
Total	93	8.066045235			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.117540483	0.042573496	2.760883966	0.006971971	0.032973454	0.202107511	0.032973454	0.202107511
WAED	6.167237613	3.060997424	2.014780399	0.046879037	0.086941642	12.24753358	0.086941642	12.24753358
% D # of Apts	-0.269039883	0.052747365	-5.100536886	1.83651E-06	-0.373816055	-0.164263711	-0.373816055	-0.164263711

% Change in NOI per Unit v. WARG (Govt), % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.462918193
R Square	0.214293253
Adjusted R Square	0.197024973
Standard Error	0.263615731
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	1.724773429	0.862386715	12.40964655	1.71535E-05
Residual	91	6.323886078	0.069493254		
Total	93	8.048659507			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.091540666	0.12909925	0.70907202	0.480092494	-0.164899161	0.347980492	-0.164899161	0.347980492
Govt WARG	3.048631947	3.743312211	0.814420966	0.41753001	-4.386998665	10.48426256	-4.386998665	10.48426256
% D # of Apts	-0.260412086	0.053075668	-4.906430667	4.04444E-06	-0.365840392	-0.154983781	-0.365840392	-0.154983781

% Change in NOI per Unit v. WARG (Govt), % Change in # of Apts, % in MSA

<i>Regression Statistics</i>	
Multiple R	0.475681881
R Square	0.226273251
Adjusted R Square	0.20048236
Standard Error	0.263047591
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	1.821196357	0.607065452	8.773378402	3.64542E-05
Residual	90	6.227463151	0.069194035		
Total	93	8.048659507			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.237660366	0.178651943	1.330298241	0.186781154	-0.117262616	0.592583347	-0.117262616	0.592583347
Govt WARG	3.516538633	3.756216709	0.936191627	0.351679867	-3.945835466	10.97891273	-3.945835466	10.97891273
% D # of Apts	-0.276306053	0.054645938	-5.056296314	2.23583E-06	-0.384869659	-0.167742447	-0.384869659	-0.167742447
% Total in MSA	-0.194780784	0.165002408	-1.180472376	0.240922897	-0.522586603	0.133025034	-0.522586603	0.133025034

Appendix 13
Panel Data Results

% Change in NOI per Unit v. WARG (NREI), % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.558184621
R Square	0.311570071
Adjusted R Square	0.296439743
Standard Error	0.246757836
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	2.507721418	1.253860709	20.59242004	4.1939E-08
Residual	91	5.540938089	0.06088943		
Total	93	8.048659507			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.09714968	0.083749602	-1.160001699	0.24908253	-0.263507993	0.069208632	-0.263507993	0.069208632
NREI WARG	7.611661506	2.062824416	3.68992215	0.000381715	3.514113796	11.70920922	3.514113796	11.70920922
% D # of Apts	-0.288814202	0.050253874	-5.747103211	1.19547E-07	-0.38863736	-0.188991044	-0.38863736	-0.188991044

% Change in NOI per Unit v. WARG (NREI), % Change in # of Apts, % in MSA

<i>Regression Statistics</i>	
Multiple R	0.55990982
R Square	0.313499007
Adjusted R Square	0.290615641
Standard Error	0.247777067
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	2.523246764	0.841082255	13.69986396	1.94814E-07
Residual	90	5.525412744	0.061393475		
Total	93	8.048659507			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.0242466	0.167598192	-0.14467101	0.88529411	-0.357209392	0.308716193	-0.357209392	0.308716193
NREI WARG	7.421459175	2.105594412	3.524638521	0.000669006	3.23833173	11.60458662	3.23833173	11.60458662
% D # of Apts	-0.294589376	0.051751787	-5.692351779	1.54969E-07	-0.397403251	-0.191775502	-0.397403251	-0.191775502
% Total in MSA	-0.079007315	0.157111429	-0.502874399	0.616280979	-0.39113634	0.233121709	-0.39113634	0.233121709

% Change in NOI per Unit v. WAEG, WASG, % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.49891452
R Square	0.248915698
Adjusted R Square	0.223879555
Standard Error	0.259170082
Observations	94

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	2.003437702	0.667812567	9.942254062	1.00064E-05
Residual	90	6.045221806	0.067169131		
Total	93	8.048659507			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.209244638	0.111183431	1.881976804	0.063070765	-0.011640476	0.430129752	-0.011640476	0.430129752
WAEG	5.358168071	3.286836867	1.630189841	0.106556413	-1.171701797	11.88803794	-1.171701797	11.88803794
WASG	-8.585456962	4.29411987	-1.999351956	0.048586303	-17.11646872	-0.054445209	-17.11646872	-0.054445209
% D # of Apts	-0.277851091	0.052865641	-5.25579726	9.83289E-07	-0.38287783	-0.172824353	-0.38287783	-0.172824353

Appendix 13
Panel Data Results

% Change in NOI per Unit v. WAED, % Change in # of Apts

Regression Statistics	
Multiple R	0.494077817
R Square	0.244112889
Adjusted R Square	0.227499985
Standard Error	0.258564889
Observations	94

ANOVA					
	df	SS	MS	F	Significance F
Regression	2	1.964781525	0.982390762	14.69417362	2.94979E-06
Residual	91	6.083877982	0.066855802		
Total	93	8.048659507			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.13127116	0.042296283	3.103609806	0.002547457	0.04725478	0.215287539	0.04725478	0.215287539
WABD	6.290954033	3.041066064	2.068667336	0.041414218	0.250249267	12.3316588	0.250249267	12.3316588
% D # of Apts	-0.273316072	0.052403907	-5.215566731	1.14216E-06	-0.377410005	-0.169222138	-0.377410005	-0.169222138

% Change in NOI per Unit v. WARG (Govt), WAEG, WASG, % Change in # of Apts

Regression Statistics	
Multiple R	0.499228891
R Square	0.249229486
Adjusted R Square	0.215486991
Standard Error	0.260567579
Observations	94

ANOVA					
	df	SS	MS	F	Significance F
Regression	4	2.00596327	0.501490818	7.386219829	3.48757E-05
Residual	89	6.042696237	0.067895463		
Total	93	8.048659507			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.186504563	0.162471683	1.147920418	0.25407762	-0.136323036	0.509332162	-0.136323036	0.509332162
Govt WARG	0.754048813	3.909671351	0.19286757	0.847502122	-7.014380673	8.522478299	-7.014380673	8.522478299
WAEG	5.150508788	3.475541254	1.481929982	0.141891036	-1.75531391	12.05633148	-1.75531391	12.05633148
WASG	-8.400437177	4.422571188	-1.899446458	0.060744531	-17.18798716	0.387112808	-17.18798716	0.387112808
% D # of Apts	-0.273736677	0.053207592	-5.213103393	1.19437E-06	-0.383098972	-0.171654383	-0.383098972	-0.171654383

% Change in NOI per Unit v. WARG (NREI), WAEG, WASG, % Change in # of Apts

Regression Statistics	
Multiple R	0.582775772
R Square	0.339627601
Adjusted R Square	0.309947942
Standard Error	0.244377507
Observations	94

ANOVA					
	df	SS	MS	F	Significance F
Regression	4	2.733546919	0.68338673	11.44311017	1.54097E-07
Residual	89	5.315112589	0.059720366		
Total	93	8.048659507			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-0.280678488	0.174997326	-1.60390158	0.112278803	-0.628394258	0.067037283	-0.628394258	0.067037283
NREI WARG	8.281923159	2.368637017	3.496493172	0.000737587	3.57549441	12.98835191	3.57549441	12.98835191
WAEG	5.929327553	3.103536984	1.910506491	0.059287623	-0.237330986	12.09598609	-0.237330986	12.09598609
WASG	-1.278795909	4.556479104	-0.2806544	0.779626859	-10.33241793	7.774826108	-10.33241793	7.774826108
% D # of Apts	-0.293829943	0.050057288	-5.869873423	7.36604E-08	-0.393292653	-0.194367232	-0.393292653	-0.194367232

Appendix 13
Panel Data Results

% Change in N.I. per Unit v. WARG (Govt), % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.284662581
R Square	0.081032785
Adjusted R Square	0.060611292
Standard Error	0.762736123
Observations	93

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	4.616915106	2.308457553	3.968014613	0.022310063
Residual	90	52.35897546	0.581766394		
Total	92	56.97589057			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.801646175	0.373565581	2.145931574	0.034569701	0.059493544	1.543798806	0.059493544	1.543798806
Govt WARG	-15.08132014	10.83240791	-1.392240789	0.167280093	-36.60177183	6.439131553	-36.60177183	6.439131553
% D # Apts	-0.379261172	0.154118634	-2.460839175	0.015769403	-0.685444491	-0.073077852	-0.685444491	-0.073077852

% Change in N.I. per Unit v. WARG (Govt), % Change in # of Apts, % in MSA

<i>Regression Statistics</i>	
Multiple R	0.311739907
R Square	0.09718177
Adjusted R Square	0.066749694
Standard Error	0.760240003
Observations	93

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	5.537017869	1.845672623	3.193399366	0.027370663
Residual	89	51.4388727	0.577964862		
Total	92	56.97589057			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.348778534	0.517171716	0.674395995	0.501807599	-0.678830093	1.376387161	-0.678830093	1.376387161
Govt WARG	-16.51048694	10.85621079	-1.520833305	0.131846633	-38.08153485	5.060560965	-38.08153485	5.060560965
% D # Apts	-0.331520359	0.158205622	-2.09550302	0.038966492	-0.645871391	-0.017169328	-0.645871391	-0.017169328
% Total in MSA	0.604507195	0.479108664	1.261732964	0.210341671	-0.347471	1.55648539	-0.347471	1.55648539

% Change in N.I. per Unit v. WARG (NREI), % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.292739102
R Square	0.085696182
Adjusted R Square	0.065378319
Standard Error	0.760798369
Observations	93

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	4.882616274	2.441308137	4.217775429	0.017744918
Residual	90	52.0932743	0.578814159		
Total	92	56.97589057			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.089229329	0.26349678	-0.338635368	0.735673201	-0.612711252	0.434252594	-0.612711252	0.434252594
NREI WARG	10.00693098	6.449691844	1.551536293	0.124282749	-2.806497291	22.82035925	-2.806497291	22.82035925
% D # Apts	-0.410790684	0.155218338	-2.646534478	0.009599047	-0.719158757	-0.102422611	-0.719158757	-0.102422611

Appendix 13
Panel Data Results

% Change in N.I. per Unit v. WARG (NREI), % Change in # of Apts, % in MSA

<i>Regression Statistics</i>	
Multiple R	0.324361935
R Square	0.105210665
Adjusted R Square	0.075049226
Standard Error	0.75685199
Observations	93

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	5.994471321	1.998157107	3.488250918	0.019007536
Residual	89	50.98141925	0.572824935		
Total	92	56.97589057			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.70259208	0.512383223	-1.371223818	0.173752795	-1.720686079	0.315501919	-1.720686079	0.315501919
NREI WARG	11.51636759	6.507066434	1.769824806	0.080181188	-1.413027805	24.44576298	-1.413027805	24.44576298
% D # Apts	-0.362697913	0.15822466	-2.29229699	0.024246814	-0.677086772	-0.048309053	-0.677086772	-0.048309053
% Total in MSA	0.670247843	0.481085532	1.393198918	0.167029603	-0.285658344	1.62615403	-0.285658344	1.62615403

% Change in N.I. per Unit v. WAEG, WASG, % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.270225609
R Square	0.07302188
Adjusted R Square	0.041775426
Standard Error	0.770345056
Observations	93

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	4.16048663	1.386828877	2.33696537	0.07904243
Residual	89	52.81540394	0.593431505		
Total	92	56.97589057			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.017450519	0.330511824	-0.05279847	0.95801081	-0.674170117	0.63926908	-0.674170117	0.63926908
WAEG	2.919357936	9.77066916	0.298787922	0.765798402	-16.49474304	22.33345891	-16.49474304	22.33345891
WASG	10.48385163	12.77597571	0.820591074	0.41407171	-14.90172621	35.86942947	-14.90172621	35.86942947
% D # Apts	-0.357484294	0.157599922	-2.268302482	0.025729948	-0.670631813	-0.044336776	-0.670631813	-0.044336776

% Change in N.I. per Unit v. WAED, % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.247700793
R Square	0.061355683
Adjusted R Square	0.04049692
Standard Error	0.770858799
Observations	93

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	3.495794679	1.74789734	2.941482396	0.057882526
Residual	90	53.48009589	0.594223288		
Total	92	56.97589057			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.305666265	0.126680741	2.41288663	0.017854518	0.053993066	0.557339464	0.053993066	0.557339464
WAED	-0.950974032	9.066529657	-0.104888427	0.916697748	-18.96320318	17.06125511	-18.96320318	17.06125511
% D # Apts	-0.375550171	0.156777232	-2.395438202	0.018672124	-0.687015257	-0.064085086	-0.687015257	-0.064085086

Appendix 13
Panel Data Results

% Change in N.I. per Unit v. WARG (Govt), WAEG, WASG, % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.308032069
R Square	0.094883755
Adjusted R Square	0.053742108
Standard Error	0.765519759
Observations	93

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	4	5.40608647	1.351521617	2.306270198	0.064400989
Residual	88	51.5698041	0.586020501		
Total	92	56.97589057			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.487789421	0.477462202	1.021629394	0.309756716	-0.461067107	1.436645948	-0.461067107	1.436645948
Govt WARG	-16.74902059	11.48832067	-1.457917225	0.148423039	-39.57966143	6.081620255	-39.57966143	6.081620255
WAEG	7.527960758	10.21108363	0.737234267	0.462941052	-12.76443791	27.82035943	-12.76443791	27.82035943
WASG	6.358535096	13.00744955	0.48883796	0.626172515	-19.4910575	32.20812769	-19.4910575	32.20812769
% D # Apts	-0.367685177	0.156768966	-2.345395187	0.021255556	-0.679230794	-0.056139561	-0.679230794	-0.056139561

% Change in N.I. per Unit v. WARG (Govt), WAEG, WASG, % Change in # of Apts, % in MSA

<i>Regression Statistics</i>	
Multiple R	0.316705279
R Square	0.100302234
Adjusted R Square	0.048595465
Standard Error	0.767598745
Observations	93

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	5.714809081	1.142961816	1.939827938	0.095832298
Residual	87	51.26108149	0.589207833		
Total	92	56.97589057			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.325517215	0.528645553	0.615757029	0.539662493	-0.725223826	1.376258256	-0.725223826	1.376258256
Govt WARG	-17.76950716	11.60546794	-1.531132329	0.129364941	-40.83664806	5.297633739	-40.83664806	5.297633739
WAED	-0.605635836	15.27345928	-0.039652827	0.968460764	-30.96331199	29.75204031	-30.96331199	29.75204031
WAEG	6.167958617	16.52446567	0.373262212	0.709861247	-26.67622999	39.01214723	-26.67622999	39.01214723
% D # Apts	-0.342379154	0.161035383	-2.126111346	0.036327081	-0.662454647	-0.022303662	-0.662454647	-0.022303662
% Total in MSA	0.458639346	0.633609011	0.723852309	0.471098331	-0.800728085	1.718006776	-0.800728085	1.718006776

% Change in N.I. per Unit v. WARG (NREI), WAEG, WASG, % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.363660325
R Square	0.132248832
Adjusted R Square	0.092805597
Standard Error	0.749552105
Observations	93

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	4	7.534994994	1.883748748	3.352890111	0.013277201
Residual	88	49.44089558	0.561828359		
Total	92	56.97589057			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-1.082686755	0.540688153	-2.002423669	0.048317696	-2.157191671	-0.008181839	-2.157191671	-0.008181839
NREI WARG	18.03903464	7.360543208	2.450774913	0.016232981	3.411490434	32.66657884	3.411490434	32.66657884
WAEG	4.108420261	9.519314099	0.431587845	0.667096531	-14.80923076	23.02607128	-14.80923076	23.02607128
WASG	26.18094234	13.98414731	1.872187254	0.064501954	-1.609633313	53.971518	-1.609633313	53.971518
% D # Apts	-0.387597908	0.153837524	-2.519527739	0.013556643	-0.693317896	-0.081877921	-0.693317896	-0.081877921

Appendix 13
Panel Data Results

% Change in N.I. per Unit v. WARG (NREI), WAEG, WASG, % Change in # of Apts, % in MSA

<i>Regression Statistics</i>	
Multiple R	0.363665818
R Square	0.132252827
Adjusted R Square	0.0823823
Standard Error	0.753845833
Observations	93

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	7.535222624	1.507044525	2.651923591	0.027978548
Residual	87	49.44066794	0.56828354		
Total	92	56.97589057			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-1.08606074	0.569317415	-1.907654167	0.05973484	-2.217641568	0.045520089	-2.217641568	0.045520089
NREI WARG	18.00587515	7.585850022	2.373613385	0.019816298	2.928165899	33.08358439	2.928165899	33.08358439
WAED	-26.00013739	16.71572125	-1.555430185	0.123474072	-59.22446743	7.224192661	-59.22446743	7.224192661
WAEG	30.04432644	18.74850731	1.602491652	0.112671677	-7.220388936	67.30904182	-7.220388936	67.30904182
% D # Apts	-0.386826446	0.159448133	-2.426033085	0.017330005	-0.703747105	-0.069905787	-0.703747105	-0.069905787
% Total in MSA	0.012667418	0.632929077	0.020013962	0.984078065	-1.245348568	1.270683404	-1.245348568	1.270683404

% Change in Market Cap per Unit v. WARG (Govt), % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.322700136
R Square	0.104135377
Adjusted R Square	0.083774818
Standard Error	0.337051972
Observations	91

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	1.162070099	0.58103505	5.114563623	0.007918903
Residual	88	9.997154817	0.113604032		
Total	90	11.15922492			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.309827468	0.167909159	1.845208867	0.068370533	-0.023856958	0.643511895	-0.023856958	0.643511895
GOVT WARG	-3.395374461	4.85525935	-0.699318866	0.486197135	-13.0441896	6.253440681	-13.0441896	6.253440681
% D # Apts	-0.332003899	0.105641918	-3.142728818	0.00228132	-0.541945174	-0.122062625	-0.541945174	-0.122062625

% Change in Market Cap per Unit v. WARG (Govt), % Change in # of Apts, % in MSA

<i>Regression Statistics</i>	
Multiple R	0.326902145
R Square	0.106865013
Adjusted R Square	0.076067254
Standard Error	0.338466695
Observations	91

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	1.192530711	0.397510237	3.469895825	0.019540472
Residual	87	9.966694205	0.114559704		
Total	90	11.15922492			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.391312642	0.231089794	1.693335894	0.093969407	-0.068003678	0.850628963	-0.068003678	0.850628963
GOVT WARG	-3.075956624	4.914831495	-0.625851899	0.533050558	-12.84472348	6.692810235	-12.84472348	6.692810235
% D # Apts	-0.340559461	0.107374987	-3.171683376	0.002094049	-0.553979029	-0.127139893	-0.553979029	-0.127139893
% Total in MSA	-0.111028021	0.215317451	-0.515648037	0.607408176	-0.538995081	0.316939039	-0.538995081	0.316939039

Appendix 13
Panel Data Results

% Change in Market Cap per Unit v. WARG (NREI), % Change in # of Apts

<i>Regression Statistics</i>								
Multiple R	0.614585298							
R Square	0.377715088							
Adjusted R Square	0.363572249							
Standard Error	0.280912015							
Observations	91							

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	4.215007624	2.107503812	26.7071619	8.62041E-10
Residual	88	6.944217292	0.07891156		
Total	90	11.15922492			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.378333748	0.097873352	-3.865543992	0.000211715	-0.572836619	-0.183830877	-0.572836619	-0.183830877
NREI WARG	14.95491561	2.382753848	6.276315796	1.27086E-08	10.21968939	19.69014184	10.21968939	19.69014184
% D # Apts	-0.390543176	0.08853155	-4.411344598	2.89914E-05	-0.566481165	-0.214605188	-0.566481165	-0.214605188

% Change in Market Cap per Unit v. WARG (NREI), % Change in # of Apts, % in MSA

<i>Regression Statistics</i>								
Multiple R	0.61529226							
R Square	0.378584566							
Adjusted R Square	0.357156447							
Standard Error	0.282324396							
Observations	91							

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	4.224710317	1.408236772	17.66765322	4.83523E-09
Residual	87	6.934514599	0.079707064		
Total	90	11.15922492			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.436250889	0.192955759	-2.260885564	0.026261082	-0.81977163	-0.052730148	-0.81977163	-0.052730148
NREI WARG	15.09914383	2.43015146	6.213252167	1.73416E-08	10.26895116	19.92933649	10.26895116	19.92933649
% D # Apts	-0.386137562	0.089868213	-4.296709015	4.50009E-05	-0.564760496	-0.207514628	-0.564760496	-0.207514628
% Total in MSA	0.063082423	0.180805083	0.348897398	0.728009319	-0.296287518	0.422452364	-0.296287518	0.422452364

% Change in Market Cap per Unit v. WAEG, WASG, % Change in # of Apts

<i>Regression Statistics</i>								
Multiple R	0.41513231							
R Square	0.172334835							
Adjusted R Square	0.143794657							
Standard Error	0.325825243							
Observations	91							

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	1.923123185	0.641041062	6.03832374	0.00087514
Residual	87	9.236101731	0.106162089		
Total	90	11.15922492			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.283191322	0.14101794	2.008193577	0.047724589	0.002902693	0.563479952	0.002902693	0.563479952
WAEG	7.281688197	4.150871027	1.754255468	0.082907917	-0.968623408	15.5319998	-0.968623408	15.5319998
WASG	-14.54571228	5.447183114	-2.670318214	0.009042494	-25.37258639	-3.718838173	-25.37258639	-3.718838173
% D # Apts	-0.385110904	0.104062784	-3.700755328	0.000376194	-0.591947105	-0.178274702	-0.591947105	-0.178274702

Appendix 13
Panel Data Results

% Change in Market Cap per Unit v. WAED, % Change in # of Apts

<i>Regression Statistics</i>								
Multiple R	0.393599278							
R Square	0.154920392							
Adjusted R Square	0.135714037							
Standard Error	0.327359155							
Observations	91							

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	1.728791495	0.864395748	8.066100717	0.000607429
Residual	88	9.430433421	0.107164016		
Total	90	11.15922492			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.107202864	0.054720147	1.959111404	0.053265606	-0.001542013	0.215947742	-0.001542013	0.215947742
WAED	9.346012126	3.878450257	2.409728501	0.018047317	1.638401292	17.05362296	1.638401292	17.05362296
% D # Apts	-0.368159929	0.103792166	-3.547087821	0.000627026	-0.574425208	-0.16189465	-0.574425208	-0.16189465

% Change in Market Cap per Unit v. WARG (Govt), WAEG, WASG, % Change in # of Apts

<i>Regression Statistics</i>								
Multiple R	0.442360989							
R Square	0.195683245							
Adjusted R Square	0.158273163							
Standard Error	0.323058631							
Observations	91							

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	4	2.183673341	0.545918335	5.230762303	0.000807528
Residual	86	8.975551575	0.104366879		
Total	90	11.15922492			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.519922825	0.204934344	2.537021451	0.012984411	0.112527165	0.927318486	0.112527165	0.927318486
GOVT WARG	-7.772905536	4.919478518	-1.580026319	0.117772034	-17.55249722	2.006686145	-17.55249722	2.006686145
WAEG	9.39823206	4.328140652	2.171424825	0.03265308	0.794180195	18.00228392	0.794180195	18.00228392
WASG	-16.49672728	5.540286978	-2.977594364	0.003773529	-27.51044433	-5.483010228	-27.51044433	-5.483010228
% D # Apts	-0.398989103	0.103552368	-3.85301765	0.00022418	-0.604844231	-0.193133975	-0.604844231	-0.193133975

% Change in Market Cap per Unit v. WARG (Govt), WAEG, WASG, % Change in # of Apts, % in MSA

<i>Regression Statistics</i>								
Multiple R	0.44580177							
R Square	0.198739218							
Adjusted R Square	0.151606231							
Standard Error	0.324335507							
Observations	91							

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	2.217775634	0.443555127	4.216563176	0.001796645
Residual	85	8.941449282	0.105193521		
Total	90	11.15922492			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.468568779	0.224645677	2.08581258	0.039993691	0.02191272	0.915224838	0.02191272	0.915224838
GOVT WARG	-8.214835806	4.999539458	-1.643118506	0.104052765	-18.15526565	1.725594038	-18.15526565	1.725594038
WAEG	8.744150962	4.494536165	1.945506865	0.05501911	-0.192196435	17.68049836	-0.192196435	17.68049836
WASG	-18.47887689	6.56180002	-2.816129238	0.006041126	-31.52550114	-5.43225264	-31.52550114	-5.43225264
% D # Apts	-0.393546427	0.104400198	-3.769594651	0.000301068	-0.601122115	-0.185970739	-0.601122115	-0.185970739
% Total in MSA	0.155515781	0.273134883	0.569373562	0.57060427	-0.387549868	0.69858143	-0.387549868	0.69858143

Appendix 13
Panel Data Results

% Change in Market Cap per Unit v. WARG (NREI), WAEG, WASG, % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.64788819
R Square	0.419759106
Adjusted R Square	0.392771158
Standard Error	0.274392323
Observations	91

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	4	4.684186279	1.17104657	15.55357592	1.3033E-09
Residual	86	6.475038637	0.075291147		
Total	90	11.15922492			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.683278441	0.198932827	-3.434719398	0.000915124	-1.078743492	-0.28781339	-1.078743492	-0.28781339
NRBI WARG	16.32760045	2.69622515	6.055725893	3.56565E-08	10.9676866	21.6875143	10.9676866	21.6875143
WAEG	8.2878593	3.499584612	2.368240868	0.020114465	1.330920992	15.24479761	1.330920992	15.24479761
WASG	-0.231480915	5.16050795	-0.044856227	0.964325899	-10.49022286	10.02726103	-10.49022286	10.02726103
% D # Apts	-0.402150335	0.087681185	-4.586506616	1.5208E-05	-0.57645462	-0.22784605	-0.57645462	-0.22784605

% Change in Market Cap per Unit v. WARG (NREI), WAEG, WASG, % Change in # of Apts, % in MSA

<i>Regression Statistics</i>	
Multiple R	0.652811749
R Square	0.426163179
Adjusted R Square	0.392408072
Standard Error	0.274474346
Observations	91

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	4.755650767	0.951130153	12.6251467	3.55372E-09
Residual	85	6.403574149	0.075336166		
Total	90	11.15922492			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.623194336	0.20833534	-2.991303995	0.003634222	-1.037421057	-0.208967615	-1.037421057	-0.208967615
NRBI WARG	16.91738672	2.76417615	6.12022744	2.7763E-08	11.42146068	22.41331276	11.42146068	22.41331276
WAEG	9.459242717	3.70147159	2.55553568	0.012381849	2.099721112	16.81876432	2.099721112	16.81876432
WASG	3.028170039	6.152050918	0.492221225	0.623831891	-9.203762732	15.26010281	-9.203762732	15.26010281
% D # Apts	-0.411899466	0.088276735	-4.666002507	1.13361E-05	-0.587417371	-0.236381562	-0.587417371	-0.236381562
% Total in MSA	-0.227934357	0.234027237	-0.97396508	0.332837524	-0.693243482	0.237374768	-0.693243482	0.237374768

Cap Rate v. WARG (Govt), % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.504894105
R Square	0.254918058
Adjusted R Square	0.237984377
Standard Error	0.012759118
Observations	91

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	0.004901404	0.002450702	15.05390736	2.3822E-06
Residual	88	0.014325967	0.000162795		
Total	90	0.019227372			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.086865278	0.006356209	13.66620908	1.79048E-23	0.074233639	0.099496918	0.074233639	0.099496918
GOVT WARG	-0.255112205	0.183796063	-1.38801779	0.168635822	-0.620368539	0.11014413	-0.620368539	0.11014413
% D # Apts	-0.02140471	0.00399908	-5.352409116	6.8264E-07	-0.029352046	-0.013457374	-0.029352046	-0.013457374

Appendix 13
Panel Data Results

Cap Rate v. WARG (Govt), % Change in # of Apts, % in MSA

Regression Statistics	
Multiple R	0.535215534
R Square	0.286455668
Adjusted R Square	0.261850691
Standard Error	0.012557721
Observations	91

ANOVA					
	df	SS	MS	F	Significance F
Regression	3	0.00550779	0.00183593	11.64218393	1.73557E-06
Residual	87	0.013719582	0.000157696		
Total	90	0.019227372			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.098362255	0.008573845	11.47236187	4.27516E-19	0.081320797	0.115403713	0.081320797	0.115403713
GOVT WARG	-0.210044628	0.18234905	-1.151882214	0.252525035	-0.572483373	0.152394117	-0.572483373	0.152394117
% D # Apts	-0.022611839	0.003983804	-5.675941109	1.78331E-07	-0.01469359	-0.030530087	-0.030530087	-0.01469359
% Total in MSA	-0.015665261	0.007988663	-1.960936523	0.05308523	-0.031543606	0.000213083	-0.031543606	0.000213083

Cap Rate v. WARG (NREI), % Change in # of Apts

Regression Statistics	
Multiple R	0.573717449
R Square	0.329151711
Adjusted R Square	0.313905159
Standard Error	0.012106839
Observations	91

ANOVA					
	df	SS	MS	F	Significance F
Regression	2	0.006328722	0.003164361	21.58859989	2.35218E-08
Residual	88	0.012898649	0.000146576		
Total	90	0.019227372			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.09191178	0.004218178	21.78944896	3.21242E-37	0.083529031	0.100294529	0.083529031	0.100294529
NREI WARG	-0.353918291	0.102692718	-3.446381593	0.000873082	-0.557998646	-0.149837937	-0.557998646	-0.149837937
% D # Apts	-0.019773058	0.003815562	-5.182213579	1.3804E-06	-0.027355692	-0.012190424	-0.027355692	-0.012190424

Cap Rate v. WARG (NREI), % Change in # of Apts, % in MSA

Regression Statistics	
Multiple R	0.624650742
R Square	0.39018855
Adjusted R Square	0.369160569
Standard Error	0.011609088
Observations	91

ANOVA					
	df	SS	MS	F	Significance F
Regression	3	0.0075023	0.002500767	18.55568296	2.16022E-09
Residual	87	0.011725071	0.000134771		
Total	90	0.019227372			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.112054446	0.007934279	14.12282686	3.12334E-24	0.096284196	0.127824696	0.096284196	0.127824696
NREI WARG	-0.404078584	0.099927048	-4.043735848	0.000113397	-0.602694556	-0.205462613	-0.602694556	-0.205462613
% D # Apts	-0.021305261	0.003695352	-5.765421246	1.21648E-07	-0.028650179	-0.013960344	-0.028650179	-0.013960344
% Total in MSA	-0.021939069	0.007434647	-2.950922838	0.004070648	-0.036716246	-0.007161893	-0.036716246	-0.007161893

Appendix 13
Panel Data Results

Cap Rate v. WAEG, WASG, % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.55460087
R Square	0.307582125
Adjusted R Square	0.283705647
Standard Error	0.012370421
Observations	91

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	0.005913996	0.0019711332	12.88222324	4.85306E-07
Residual	87	0.013313376	0.000153027		
Total	90	0.019227372			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.086159225	0.005353948	16.09265408	8.18324E-28	0.075517667	0.096800783	0.075517667	0.096800783
WAEG	-0.461353746	0.157593747	-2.927487644	0.004360079	-0.774588609	-0.148118883	-0.774588609	-0.148118883
WASG	0.300877623	0.206810086	1.454849848	0.149309464	-0.110180115	0.711935361	-0.110180115	0.711935361
% D # Apts	-0.019872647	0.003950892	-5.02991381	2.61031E-06	-0.027725479	-0.012019816	-0.027725479	-0.012019816

Cap Rate v. WAED, % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.55013577
R Square	0.302649365
Adjusted R Square	0.286800487
Standard Error	0.012343668
Observations	91

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	0.005819152	0.002909576	19.09594887	1.29376E-07
Residual	88	0.01340822	0.000152366		
Total	90	0.019227372			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.082271305	0.002063322	39.87322812	4.05247E-58	0.078170883	0.086371727	0.078170883	0.086371727
WAED	-0.4157489	0.146243967	-2.842844791	0.005557572	-0.706378278	-0.125119522	-0.706378278	-0.125119522
% D # Apts	-0.019498168	0.003913671	-4.982066267	3.11618E-06	-0.027275773	-0.011720563	-0.027275773	-0.011720563

Cap Rate v. WARG (Govt), WAEG, WASG, % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.556591388
R Square	0.309793973
Adjusted R Square	0.277691367
Standard Error	0.012422246
Observations	91

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	4	0.005956524	0.001489131	9.650119185	1.70633E-06
Residual	86	0.013270848	0.000154312		
Total	90	0.019227372			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.089183686	0.007880132	11.31753675	1.02282E-18	0.073518514	0.104848858	0.073518514	0.104848858
GOVT WARG	-0.099305956	0.189163712	-0.524973604	0.600952306	-0.475350665	0.276738753	-0.475350665	0.276738753
WAEG	-0.434312968	0.166425598	-2.609652445	0.010688874	-0.765155839	-0.103470098	-0.765155839	-0.103470098
WASG	0.275951627	0.21303503	1.295334516	0.198671209	-0.147547652	0.699450906	-0.147547652	0.699450906
% D # Apts	-0.020049954	0.003981794	-5.035407066	2.59545E-06	-0.027965492	-0.012134416	-0.027965492	-0.012134416

Appendix 13
Panel Data Results

Cap Rate v. WARG (Govt), WAEG, WASG, % Change in # of Apts, % in MSA

<i>Regression Statistics</i>	
Multiple R	0.586691167
R Square	0.344206525
Adjusted R Square	0.305630438
Standard Error	0.012179629
Observations	91

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	0.006618187	0.001323637	8.92279529	7.65312E-07
Residual	85	0.012609185	0.000148343		
Total	90	0.019227372			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.096336901	0.00843602	11.4197096	7.55544E-19	0.079563823	0.113109979	0.079563823	0.113109979
GOVT WARG	-0.037748543	0.187745505	-0.201062301	0.841130209	-0.41103713	0.335540043	-0.41103713	0.335540043
WAEG	-0.343204613	0.168781338	-2.033427492	0.045128797	-0.678787334	-0.007621893	-0.678787334	-0.007621893
WASG	0.552049486	0.246412388	2.240347943	0.027676696	0.062115348	1.041983624	0.062115348	1.041983624
% D # Apts	-0.020808076	0.003920495	-5.307512875	8.72448E-07	-0.028603074	-0.013013078	-0.028603074	-0.013013078
% Total in MSA	-0.021662126	0.010256914	-2.111953531	0.037625506	-0.042055631	-0.001268621	-0.042055631	-0.001268621

Cap Rate v. WARG (NREI), WAEG, WASG, % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.653072652
R Square	0.426503889
Adjusted R Square	0.399829651
Standard Error	0.011323377
Observations	91

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	4	0.008200549	0.002050137	15.9893562	8.00312E-10
Residual	86	0.011026823	0.000128219		
Total	90	0.019227372			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.113971771	0.008209382	13.8831188	1.12506E-23	0.097652072	0.130291469	0.097652072	0.130291469
NREI WARG	-0.469866875	0.11126541	-4.22293753	5.96653E-05	-0.691055009	-0.24867874	-0.691055009	-0.24867874
WAEG	-0.490308795	0.14441773	-3.395073408	0.001040101	-0.777401508	-0.203216083	-0.777401508	-0.203216083
WASG	-0.111049603	0.21295923	-0.52145945	0.603387072	-0.534398197	0.312298991	-0.534398197	0.312298991
% D # Apts	-0.019382296	0.003618349	-5.356668746	6.97873E-07	-0.026575329	-0.012189262	-0.026575329	-0.012189262

Cap Rate v. WARG (NREI), WAEG, WASG, % Change in # of Apts, % in MSA

<i>Regression Statistics</i>	
Multiple R	0.663625179
R Square	0.440398379
Adjusted R Square	0.407480636
Standard Error	0.01125097
Observations	91

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	0.008467703	0.001693541	13.37875402	1.28032E-09
Residual	85	0.010759668	0.000126584		
Total	90	0.019227372			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.117645403	0.008539868	13.77602096	2.27842E-23	0.100665847	0.134624959	0.100665847	0.134624959
NREI WARG	-0.433806455	0.113306268	-3.828618329	0.00024567	-0.659089808	-0.208523103	-0.659089808	-0.208523103
WAEG	-0.418688651	0.15172692	-2.759488241	0.007088851	-0.720362598	-0.117014704	-0.720362598	-0.117014704
WASG	0.088250361	0.252178549	0.349951893	0.727240439	-0.413148458	0.589649179	-0.413148458	0.589649179
% D # Apts	-0.019978372	0.003618549	-5.521100107	3.59398E-07	-0.027173022	-0.012783723	-0.027173022	-0.012783723
% Total in MSA	-0.01393625	0.009593004	-1.452751349	0.149974549	-0.033009723	0.005137224	-0.033009723	0.005137224

Appendix 14
Cross-Section Panel Data Results

Average % Change in FFO per Unit v. Average WARG (Govt)

Regression Statistics	
Multiple R	0.270408318
R Square	0.073120659
Adjusted R Square	0.018598345
Standard Error	0.147623186
Observations	19

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.029226375	0.029226375	1.341114364	0.262848895
Residual	17	0.370474284	0.021792605		
Total	18	0.399700659			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-0.20125835	0.270816791	-0.743153146	0.46753559	-0.772632632	0.370115932	-0.772632632	0.370115932
Govt WARG Average	9.286894726	8.019321326	1.158064922	0.262848895	-7.632417961	26.20620741	-7.632417961	26.20620741

Average % Change in FFO per Unit v. Average WARG (Govt), % Change in # of Apts

Regression Statistics	
Multiple R	0.362853286
R Square	0.131662507
Adjusted R Square	0.023120321
Standard Error	0.147282693
Observations	19

ANOVA					
	df	SS	MS	F	Significance F
Regression	2	0.052625591	0.026312795	1.213007691	0.323227591
Residual	16	0.347075068	0.021692192		
Total	18	0.399700659			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-0.210638815	0.270343066	-0.779153754	0.447260935	-0.783740384	0.362462754	-0.783740384	0.362462754
Govt WARG Average	10.70474952	8.116455692	1.318894592	0.205770501	-6.50136403	27.91086307	-6.50136403	27.91086307
% D # of Apts	-0.155548667	0.149767425	-1.038601464	0.314431946	-0.473041352	0.161944019	-0.473041352	0.161944019

Average % Change in FFO per Unit v. Average WARG (NREI)

Regression Statistics	
Multiple R	0.513385622
R Square	0.263564797
Adjusted R Square	0.22024508
Standard Error	0.131586169
Observations	19

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.105347023	0.105347023	6.084176231	0.024567585
Residual	17	0.294353636	0.01731492		
Total	18	0.399700659			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-0.210967524	0.133542346	-1.579779968	0.132582792	-0.49271764	0.070782593	-0.49271764	0.070782593
NREI WARG Average	8.240655189	3.340879795	2.466612298	0.024567585	1.192005111	15.28930527	1.192005111	15.28930527

Appendix 14
Cross-Section Panel Data Results

Average % Change in FFO per Unit v. Average WARG (NREI), % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.576240525
R Square	0.332053143
Adjusted R Square	0.248559785
Standard Error	0.129174978
Observations	19

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	0.13272186	0.06636093	3.977000733	0.039621899
Residual	16	0.266978799	0.016686175		
Total	18	0.399700659			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.191331416	0.131988661	-1.449604953	0.166486883	-0.471134815	0.088471982	-0.471134815	0.088471982
NREI WARG Average	8.78919347	3.30750466	2.657348779	0.017209189	1.777598398	15.80078854	1.777598398	15.80078854
% D # of Apts	-0.16725581	0.130582157	-1.280847346	0.218502764	-0.444077554	0.109565935	-0.444077554	0.109565935

Average % Change in FFO per Unit v. Average WAEG, WASG

<i>Regression Statistics</i>	
Multiple R	0.173441244
R Square	0.030081865
Adjusted R Square	-0.091157902
Standard Error	0.155659267
Observations	19

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	0.012023741	0.006011871	0.248118798	0.78321435
Residual	16	0.387676918	0.024229807		
Total	18	0.399700659			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.059817946	0.160522648	0.3726449	0.714302968	-0.28047479	0.400110682	-0.28047479	0.400110682
WAEG Average	3.629329955	5.352729219	0.678033543	0.507438337	-7.71794652	14.97660643	-7.71794652	14.97660643
WASG Average	-3.049901723	6.245320129	-0.488349942	0.631927312	-16.28938597	10.18958252	-16.28938597	10.18958252

Average % Change in FFO per Unit v. Average WAEG, WASG, % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.26760386
R Square	0.071611826
Adjusted R Square	-0.114065809
Standard Error	0.157284745
Observations	19

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	0.028623294	0.009541098	0.385678253	0.764898055
Residual	15	0.371077365	0.024738491		
Total	18	0.399700659			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.111902631	0.1742166	0.642318996	0.53036148	-0.259431489	0.483236752	-0.259431489	0.483236752
WAEG Average	3.571548514	5.409085267	0.660286969	0.519081377	-7.957650907	15.10074794	-7.957650907	15.10074794
WASG Average	-3.913123631	6.397920524	-0.611624295	0.549944687	-17.54997681	9.723729545	-17.54997681	9.723729545
% D # of Apts	-0.131623637	0.160683876	-0.819146517	0.425526819	-0.474113422	0.210866148	-0.474113422	0.210866148

Appendix 14
Cross-Section Panel Data Results

Average % Change in FFO per Unit v. Average WAED

<i>Regression Statistics</i>	
Multiple R	0.171808896
R Square	0.029518297
Adjusted R Square	-0.027568862
Standard Error	0.151055536
Observations	19

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.011798483	0.011798483	0.517074196	0.481860831
Residual	17	0.387902177	0.022817775		
Total	18	0.399700659			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.074072327	0.060694575	1.220411013	0.238968074	-0.053982211	0.202126865	-0.053982211	0.202126865
WAED Average	3.422665778	4.759792934	0.719078713	0.481860831	-6.619633525	13.46496508	-6.619633525	13.46496508

Average % Change in FFO per Unit v. Average WAED, % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.267249826
R Square	0.07142247
Adjusted R Square	-0.044649722
Standard Error	0.152305829
Observations	19

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	0.028547608	0.014273804	0.615328003	0.552771144
Residual	16	0.371153051	0.023197066		
Total	18	0.399700659			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.103137841	0.070107746	1.471133324	0.160648767	-0.045483907	0.25175959	-0.045483907	0.25175959
WAED Average	3.69004969	4.809494928	0.767242662	0.454110955	-6.505621793	13.88572117	-6.505621793	13.88572117
% D # of Apts	-0.130005457	0.152996692	-0.849727242	0.408012163	-0.454343883	0.194332968	-0.454343883	0.194332968

Average % Change in NOI per Unit v. Average WARG (Govt)

<i>Regression Statistics</i>	
Multiple R	0.283767761
R Square	0.080524142
Adjusted R Square	0.026437327
Standard Error	0.124522762
Observations	19

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.023085123	0.023085123	1.488794306	0.239060181
Residual	17	0.26360061	0.015505918		
Total	18	0.286685733			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.147821514	0.228438741	-0.647094765	0.5262126	-0.629785802	0.334142775	-0.629785802	0.334142775
Govt WARG Average	8.253708694	6.764439039	1.22016159	0.239060181	-6.018030097	22.52544749	-6.018030097	22.52544749

Appendix 14
Cross-Section Panel Data Results

Average % Change in NOI per Unit v. Average WARG (NREI)

Regression Statistics	
Multiple R	0.538951447
R Square	0.290468663
Adjusted R Square	0.248731525
Standard Error	0.109386662
Observations	19

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.083273221	0.083273221	6.959477341	0.017262697
Residual	17	0.203412511	0.011965442		
Total	18	0.286685733			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-0.15655753	0.111012819	-1.410265334	0.176496367	-0.390774432	0.077659372	-0.390774432	0.077659372
NREI WARG Average	7.326613651	2.777250018	2.638082133	0.017262697	1.467120117	13.18610718	1.467120117	13.18610718

Average % Change in NOI per Unit v. Average WAEG, WASG

Regression Statistics	
Multiple R	0.235408377
R Square	0.055417104
Adjusted R Square	-0.062655758
Standard Error	0.130095743
Observations	19

ANOVA					
	df	SS	MS	F	Significance F
Regression	2	0.015887293	0.007943647	0.469346665	0.633753862
Residual	16	0.27079844	0.016924902		
Total	18	0.286685733			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.119838155	0.134160424	0.893245203	0.38496456	-0.164569175	0.404245485	-0.164569175	0.404245485
WAEG Average	3.380864725	4.473664185	0.755726086	0.46079538	-6.102877546	12.864607	-6.102877546	12.864607
WASG Average	-4.651235809	5.219667171	-0.891098159	0.386080848	-15.71643341	6.413961789	-15.71643341	6.413961789

Average % Change in NOI per Unit v. Average WAED

Regression Statistics	
Multiple R	0.227244775
R Square	0.051640188
Adjusted R Square	-0.004145683
Standard Error	0.126463486
Observations	19

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.014804505	0.014804505	0.925685783	0.349473155
Residual	17	0.271881227	0.015993013		
Total	18	0.286685733			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.088586048	0.050813414	1.743359496	0.099326585	-0.018621034	0.19579313	-0.018621034	0.19579313
WAED Average	3.833966903	3.984892065	0.962125659	0.349473155	-4.573432193	12.241366	-4.573432193	12.241366

Appendix 14
Cross-Section Panel Data Results

Average % Change in Rental Revenue per Unit v. Average WARG (Govt)

<i>Regression Statistics</i>	
Multiple R	0.301797926
R Square	0.091081988
Adjusted R Square	0.037616223
Standard Error	0.122732905
Observations	19

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.025661305	0.025661305	1.703557171	0.209213911
Residual	17	0.256077221	0.015063366		
Total	18	0.281738526			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.17702669	0.225155224	-0.786242872	0.442547627	-0.652063351	0.298009972	-0.652063351	0.298009972
Govt WARG Average	8.702066787	6.667208789	1.305203881	0.209213911	-5.364533821	22.7686674	-5.364533821	22.7686674

Average % Change in Rental Revenue per Unit v. Average WARG (NREI)

<i>Regression Statistics</i>	
Multiple R	0.608622001
R Square	0.37042074
Adjusted R Square	0.333386666
Standard Error	0.102146588
Observations	19

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.104361793	0.104361793	10.00216015	0.005686736
Residual	17	0.177376732	0.010433925		
Total	18	0.281738526			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.204826822	0.103665113	-1.97585105	0.064632747	-0.423541398	0.013887753	-0.423541398	0.013887753
NREI WARG Average	8.202030397	2.593429655	3.162619191	0.005686736	2.73036447	13.67369632	2.73036447	13.67369632

Average % Change in Rental Revenue per Unit v. Average WAEG, WASG

<i>Regression Statistics</i>	
Multiple R	0.255236092
R Square	0.065145463
Adjusted R Square	-0.051711354
Standard Error	0.128302508
Observations	19

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	0.018353987	0.009176993	0.557481065	0.583381054
Residual	16	0.263384539	0.016461534		
Total	18	0.281738526			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.151724899	0.132311162	1.146727886	0.268354209	-0.128762171	0.432211968	-0.128762171	0.432211968
WAEG Average	2.42714929	4.41199936	0.550124579	0.589831963	-6.925869421	11.780168	-6.925869421	11.780168
WASG Average	-5.426829758	5.147719469	-1.054220183	0.307442501	-16.33950507	5.485845558	-16.33950507	5.485845558

Appendix 14
Cross-Section Panel Data Results

Average % Change in Rental Revenue per Unit v. Average WAED

<i>Regression Statistics</i>	
Multiple R	0.209086703
R Square	0.043717249
Adjusted R Square	-0.012534677
Standard Error	0.12589017
Observations	19

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.012316833	0.012316833	0.777168927	0.390302876
Residual	17	0.269421692	0.015848335		
Total	18	0.281738526			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.077930448	0.050583054	1.5406434	0.141810769	-0.028790616	0.184651511	-0.028790616	0.184651511
WAED Average	3.497042783	3.966826733	0.88157185	0.390302876	-4.872241742	11.86632731	-4.872241742	11.86632731

Average % Change in N.I. per Unit v. Average WARG (Govt)

<i>Regression Statistics</i>	
Multiple R	0.234998443
R Square	0.055224268
Adjusted R Square	-0.000350775
Standard Error	0.326334636
Observations	19

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.105822131	0.105822131	0.993688264	0.332820877
Residual	17	1.810403009	0.106494295		
Total	18	1.91622514			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.798859056	0.59871335	1.334293039	0.199706708	-0.464317461	2.062035573	-0.464317461	2.062035573
GOVT WARG Average	-17.67738152	17.73343449	-0.996839137	0.332820877	-55.0917101	19.73694705	-55.0917101	19.73694705

Average % Change in N.I. per Unit v. Average WARG (NREI)

<i>Regression Statistics</i>	
Multiple R	0.033839653
R Square	0.001145122
Adjusted R Square	-0.057611047
Standard Error	0.335544406
Observations	19

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.002194312	0.002194312	0.019489394	0.890613153
Residual	17	1.914030828	0.112590049		
Total	18	1.91622514			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.159774465	0.344991893	0.463125275	0.649148257	-0.568095821	0.887644751	-0.568095821	0.887644751
NREI WARG Average	1.203963559	8.624107824	0.139604419	0.890613153	-16.99133889	19.399266	-16.99133889	19.399266

Appendix 14
Cross-Section Panel Data Results

Average % Change in N.I. per Unit v. Average WAEG, WASG

<i>Regression Statistics</i>	
Multiple R	0.279037984
R Square	0.077862197
Adjusted R Square	-0.037405029
Standard Error	0.332323604
Observations	19

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	0.149201499	0.074600749	0.675492937	0.522837358
Residual	16	1.767023641	0.110438978		
Total	18	1.91622514			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.004145431	0.336323909	-0.012325711	0.990318138	-0.717120107	0.708829245	-0.717120107	0.708829245
WAEG Average	-3.290064574	11.20083517	-0.293733862	0.772737315	-27.03476905	20.4546399	-27.03476905	20.4546399
WASG Average	15.04294674	13.34829145	1.126956719	0.276379146	-13.25416065	43.34005414	-13.25416065	43.34005414

Average % Change in N.I. per Unit v. Average WAED

<i>Regression Statistics</i>	
Multiple R	0.167225451
R Square	0.027964352
Adjusted R Square	-0.029214216
Standard Error	0.331009076
Observations	19

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.053585994	0.053585994	0.489070517	0.493800694
Residual	17	1.862639146	0.109567009		
Total	18	1.91622514			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.283076383	0.132992694	2.128510786	0.048217367	0.002485934	0.563666832	0.002485934	0.563666832
WAED Average	-7.224761778	10.33089126	-0.699335769	0.493800694	-29.02106752	14.57154397	-29.02106752	14.57154397

Appendix 14
Cross-Section Panel Data Results

Average Cap Rate v. Average WARG (Govt)

<i>Regression Statistics</i>	
Multiple R	0.355632017
R Square	0.126474131
Adjusted R Square	0.075090257
Standard Error	0.010892044
Observations	19

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.000292007	0.000292007	2.461358401	0.135102536
Residual	17	0.002016823	0.000118637		
Total	18	0.00230883			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.105971853	0.020208369	5.243958791	6.59863E-05	0.063335862	0.148607843	0.063335862	0.148607843
GOVT WARG Average	-0.941081951	0.599846344	-1.568871697	0.135102536	-2.206648879	0.324484977	-2.206648879	0.324484977

Average Cap Rate v. Average WARG (NREI)

<i>Regression Statistics</i>	
Multiple R	0.386267765
R Square	0.149202786
Adjusted R Square	0.099155891
Standard Error	0.010749408
Observations	19

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.000344484	0.000344484	2.981259601	0.102358805
Residual	17	0.001964346	0.00011555		
Total	18	0.00230883			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.09299432	0.010985321	8.465325746	1.67624E-07	0.069817286	0.116171353	0.069817286	0.116171353
NREI WARG Average	-0.475919969	0.275634789	-1.726632445	0.102358805	-1.057459352	0.105619414	-1.057459352	0.105619414

Average Cap Rate v. Average WAEG, WASG

<i>Regression Statistics</i>	
Multiple R	0.241675076
R Square	0.058406843
Adjusted R Square	-0.059292302
Standard Error	0.011656485
Observations	19

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	0.000134851	6.74257E-05	0.496238462	0.617883148
Residual	16	0.002173978	0.000135874		
Total	18	0.00230883			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.079440532	0.011800826	6.731777257	4.81842E-06	0.054423904	0.104457161	0.054423904	0.104457161
WAEG Average	-0.375495616	0.392403034	-0.956913131	0.352847695	-1.207352699	0.456361467	-1.207352699	0.456361467
WASG Average	0.327664464	0.466498037	0.702391946	0.492527778	-0.661266973	1.316595902	-0.661266973	1.316595902

Appendix 14
Cross-Section Panel Data Results

Average Cap Rate v. Average WAED

<i>Regression Statistics</i>	
Multiple R	0.240248842
R Square	0.057719506
Adjusted R Square	0.002291242
Standard Error	0.011312579
Observations	19

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.000133265	0.000133265	1.041337065	0.321814175
Residual	17	0.002175565	0.000127974		
Total	18	0.00230883			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.078267986	0.004504596	17.37513814	2.94276E-12	0.068764105	0.087771867	0.068764105	0.087771867
WAED Average	-0.359349973	0.352145346	-1.020459242	0.321814175	-1.102312748	0.383612801	-1.102312748	0.383612801

Average % Change in Market Cap per Unit v. Average WARG (Govt)

<i>Regression Statistics</i>	
Multiple R	0.3563642
R Square	0.126995443
Adjusted R Square	0.075642234
Standard Error	0.153610234
Observations	19

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.058352685	0.058352685	2.472979686	0.134243526
Residual	17	0.401133765	0.023596104		
Total	18	0.459486451			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.322095968	0.284998132	-1.130168698	0.274099255	-0.923390306	0.279198371	-0.923390306	0.279198371
GOVT WARG Average	13.3033509	8.459618382	1.572571043	0.134243526	-4.544908668	31.15161047	-4.544908668	31.15161047

Average % Change in Market Cap per Unit v. Average WARG (NREI)

<i>Regression Statistics</i>	
Multiple R	0.77175068
R Square	0.595599111
Adjusted R Square	0.571810824
Standard Error	0.104548533
Observations	19

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.273669722	0.273669722	25.03749417	0.000108722
Residual	17	0.185816729	0.010930396		
Total	18	0.459486451			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.398326012	0.10684302	-3.72814258	0.001672446	-0.623745395	-0.172906629	-0.623745395	-0.172906629
NREI WARG Average	13.41414104	2.680818659	5.003748012	0.000108722	7.758100169	19.0701819	7.758100169	19.0701819

Appendix 14
Cross-Section Panel Data Results

Average % Change in Market Cap per Unit v. Average WAEG, WASG

<i>Regression Statistics</i>	
Multiple R	0.297199433
R Square	0.088327503
Adjusted R Square	-0.025631559
Standard Error	0.161806435
Observations	19

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	0.040585291	0.020292645	0.775080991	0.477211419
Residual	16	0.41890116	0.026181322		
Total	18	0.459486451			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.207047354	0.163810062	1.263947717	0.224353623	-0.140214386	0.554309094	-0.140214386	0.554309094
WAEG Average	2.672184248	5.447039472	0.490575525	0.630386542	-8.875020986	14.21938948	-8.875020986	14.21938948
WASG Average	-8.02561996	6.475569766	-1.239368928	0.233081136	-21.75321152	5.701971602	-21.75321152	5.701971602

Average % Change in Market Cap per Unit v. Average WAED

<i>Regression Statistics</i>	
Multiple R	0.212280385
R Square	0.045062962
Adjusted R Square	-0.011109805
Standard Error	0.160656856
Observations	19

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.02070582	0.02070582	0.802220799	0.382937659
Residual	17	0.43878063	0.025810625		
Total	18	0.459486451			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.075811703	0.063972533	1.185066462	0.252293758	-0.059158732	0.210782139	-0.059158732	0.210782139
WAED Average	4.479263043	5.001031707	0.895667795	0.382937659	-6.072006293	15.03053238	-6.072006293	15.03053238

Appendix 15
% of Portfolio in MSA with Rent Data (Govt and/or NREI)

#	REIT	Ticker	Year	% Total in MSA w/ Rent Data
1	Associated Estates Realty Corporation	AEC	1996	72.79%
			1997	71.27%
			1998	76.18%
			1999	70.65%
			2000	71.25%
2	Apartment Investment & Mgmt. Co.	AIV	1996	74.92%
			1997	77.73%
			1998	68.70%
			1999	67.76%
			2000	65.69%
3	Amlı Residential Properties Trust	AML	1996	95.60%
			1997	95.90%
			1998	96.47%
			1999	96.72%
			2000	98.58%
4	Archstone Communities Trust	ASN	1996	80.16%
			1997	81.86%
			1998	84.83%
			1999	89.73%
			2000	92.27%
5	AvalonBay Communities Inc.	AVB	1996	78.72%
			1997	84.42%
			1998	81.14%
			1999	81.92%
			2000	82.17%
6	BRE Properties, Inc.	BRE	1996	98.65%
			1997	96.16%
			1998	96.28%
			1999	96.53%
			2000	96.96%
7	Camden Property Trust	CPT	1996	89.84%
			1997	91.19%
			1998	91.38%
			1999	91.61%
			2000	91.00%
8	Equity Residential Properties Trust	EQR	1996	78.62%
			1997	76.24%
			1998	77.84%
			1999	80.12%
			2000	82.11%
9	Essex Property Trust, Inc.	ESS	1996	86.21%
			1997	88.44%
			1998	87.55%
			1999	87.36%
			2000	88.89%
10	Gables Residential Trust	GBP	1996	96.86%
			1997	97.26%
			1998	98.01%
			1999	97.79%
			2000	100.00%
11	Home Properties of New York, Inc.	HME	1996	8.66%
			1997	39.14%
			1998	45.21%
			1999	56.75%
			2000	60.65%
12	Mid-America Apartment Communities, Inc.	MAA	1996	58.21%
			1997	50.76%
			1998	52.76%
			1999	51.21%
			2000	51.08%
13	Post Properties, Inc.	PPS	1996	95.81%
			1997	96.27%
			1998	96.61%
			1999	97.20%
			2000	100.00%
14	Roberts Realty Investors, Inc.	RPI	1996	88.72%
			1997	100.00%
			1998	100.00%
			1999	100.00%
			2000	100.00%
15	Summit Properties Inc.	SMT	1996	78.68%
			1997	80.88%
			1998	82.44%
			1999	92.00%
			2000	94.48%
16	Charles E. Smith Residential Realty	SRW	1996	100.00%
			1997	100.00%
			1998	100.00%
			1999	100.00%
			2000	100.00%
17	Cornerstone Realty Income Trust	TCR	1996	51.96%
			1997	61.18%
			1998	62.58%
			1999	64.01%
			2000	71.27%
18	Town and Country Trust, The	TCT	1996	76.77%
			1997	76.77%
			1998	78.56%
			1999	75.39%
			2000	81.53%
19	United Dominion Realty Trust, Inc.	UDR	1996	61.82%
			1997	63.58%
			1998	63.84%
			1999	65.60%
			2000	70.52%

Appendix 16
10-REIT Index

#	REIT	Ticker	5 Year Average Govt MSA*
3	Amlri Residential Properties Trust	AML	96.65%
4	Archstone Communities Trust	ASN	85.77%
6	BRE Properties, Inc.	BRE	96.91%
7	Camden Property Trust	CPT	91.00%
9	Essex Property Trust, Inc.	ESS	87.73%
10	Gables Residential Trust	GBP	97.99%
13	Post Properties, Inc.	PPS	97.18%
14	Roberts Realty Investors, Inc.	RPI	97.74%
15	Summit Properties Inc.	SMT	85.71%
16	Charles E. Smith Residential Realty	SRW	100.00%

* 10 Apartment REITs with the greatest percent portfolio concentration in MSA with Govt Rent Data

Appendix 17
10-REIT Data Results

% Change in FFO per Unit (10 REITs) v. WARG (Govt), % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.654180838
R Square	0.427952569
Adjusted R Square	0.403080942
Standard Error	0.239910432
Observations	49

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	1.980704533	0.990352267	17.20645625	2.63595E-06
Residual	46	2.647622706	0.057557015		
Total	48	4.628327239			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.402014989	0.15673632	2.564912766	0.013647723	0.086521441	0.717508537	0.086521441	0.717508537
Govt WARG	-3.903298981	4.464599183	-0.874277582	0.386508899	-12.89006243	5.083464472	-12.89006243	5.083464472
% D # of Apts	-0.909623826	0.160902375	-5.653265388	9.5519E-07	-1.233503198	-0.585744454	-1.233503198	-0.585744454

Average % Change in FFO per Unit (10 REITs) v. Average WARG (Govt), % Change in # of Apts

<i>Regression Statistics</i>	
Multiple R	0.680057482
R Square	0.462478178
Adjusted R Square	0.308900515
Standard Error	0.119307024
Observations	10

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	0.085728497	0.042864248	3.011363555	0.113863977
Residual	7	0.099639161	0.014234166		
Total	9	0.185367658			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.003049407	0.307369022	0.009920995	0.992361147	-0.723762316	0.729861129	-0.723762316	0.729861129
ovt WARG Average	9.755105589	9.140374128	1.067254519	0.321275692	-11.85842928	31.36864046	-11.85842928	31.36864046
% D # of Apts Average	-1.333045114	0.553766607	-2.407232751	0.046964489	-2.642494126	-0.023596101	-2.642494126	-0.023596101