Market Risk Report Sample

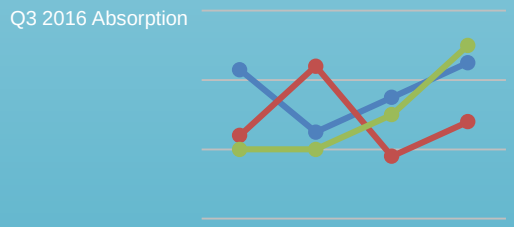
Apartment Market Risk Report

Wert-Berater, Inc.

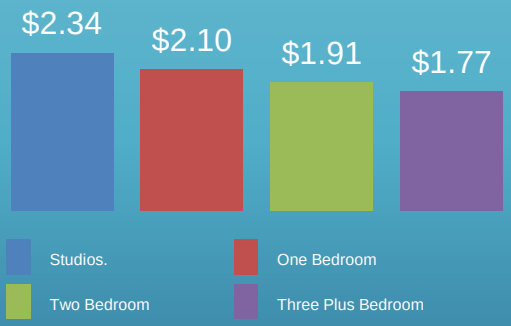
Sample City Rank 26 Risk Rating

1,491	3,331	3.2%	3.7%
12 Mo. Deliveries in Units	Net Absorption in Units.	Vacancy	12 Mo. Rent Growth

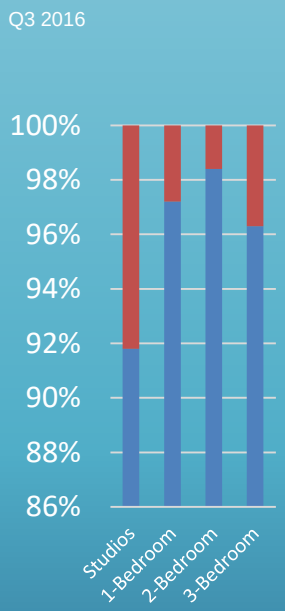
Absorption by Unit Type



Unit Type PSF Rents - Mean



Occupancy by Unit Type



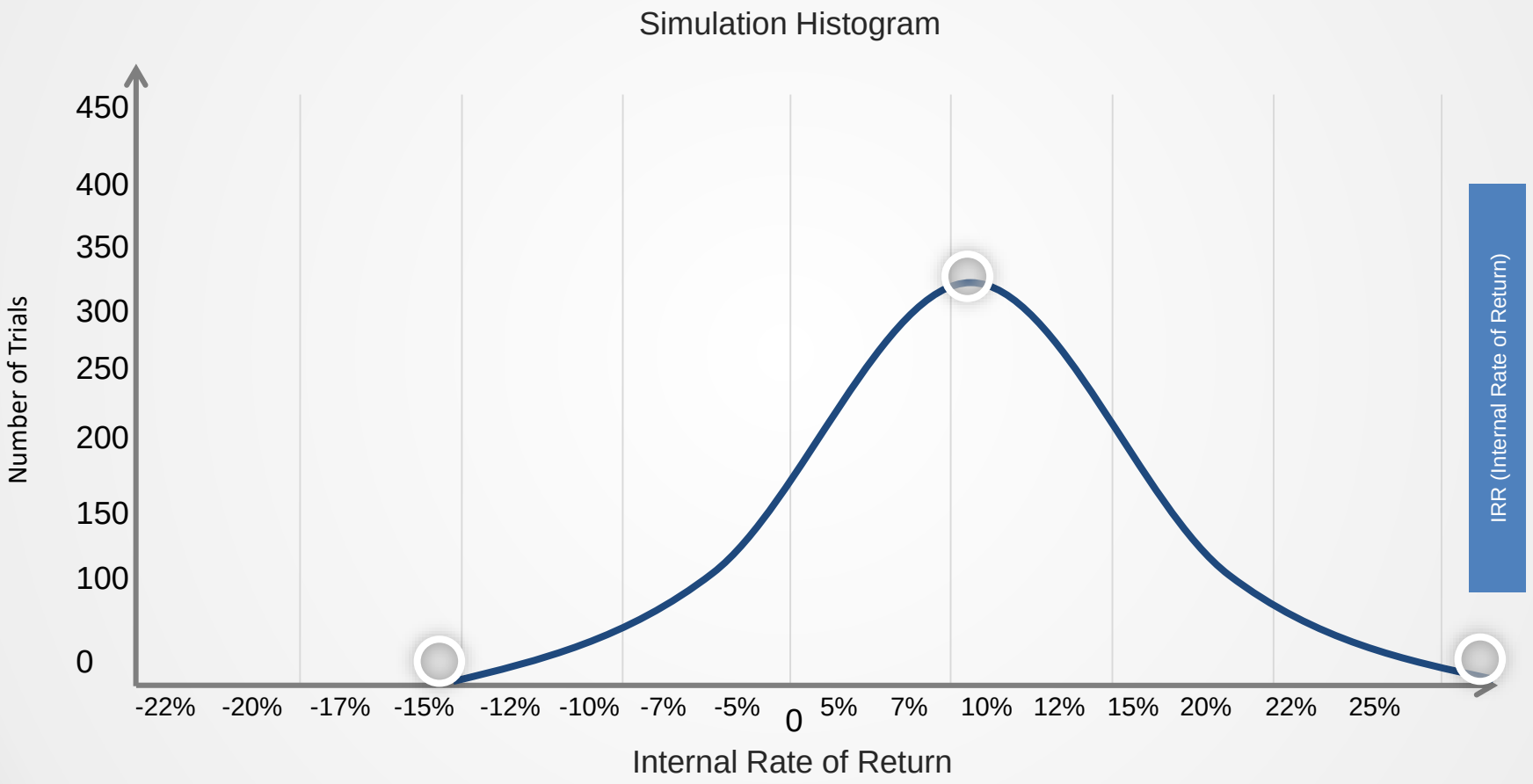
Unit Composition

Market Inventory by Unit Type

Studios 16%	One Bedrooms. 23%	Two Bedroom 62%	Three Plus Bedrooms 7%

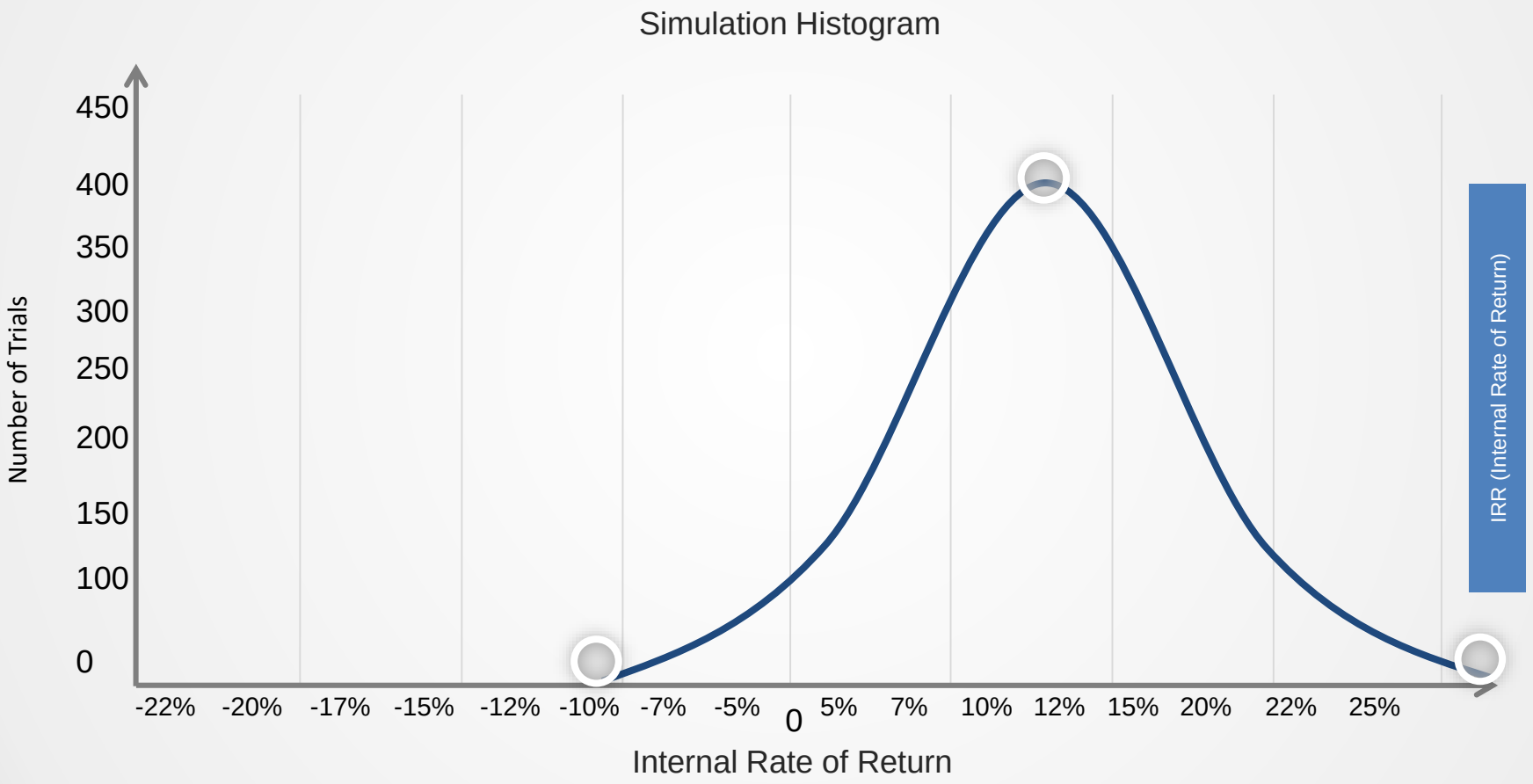
Wert-Berater,Inc.

Market Portfolio Monte Carlo Simulation Results
Internal Rate of Return 3-Year Hold on Equity



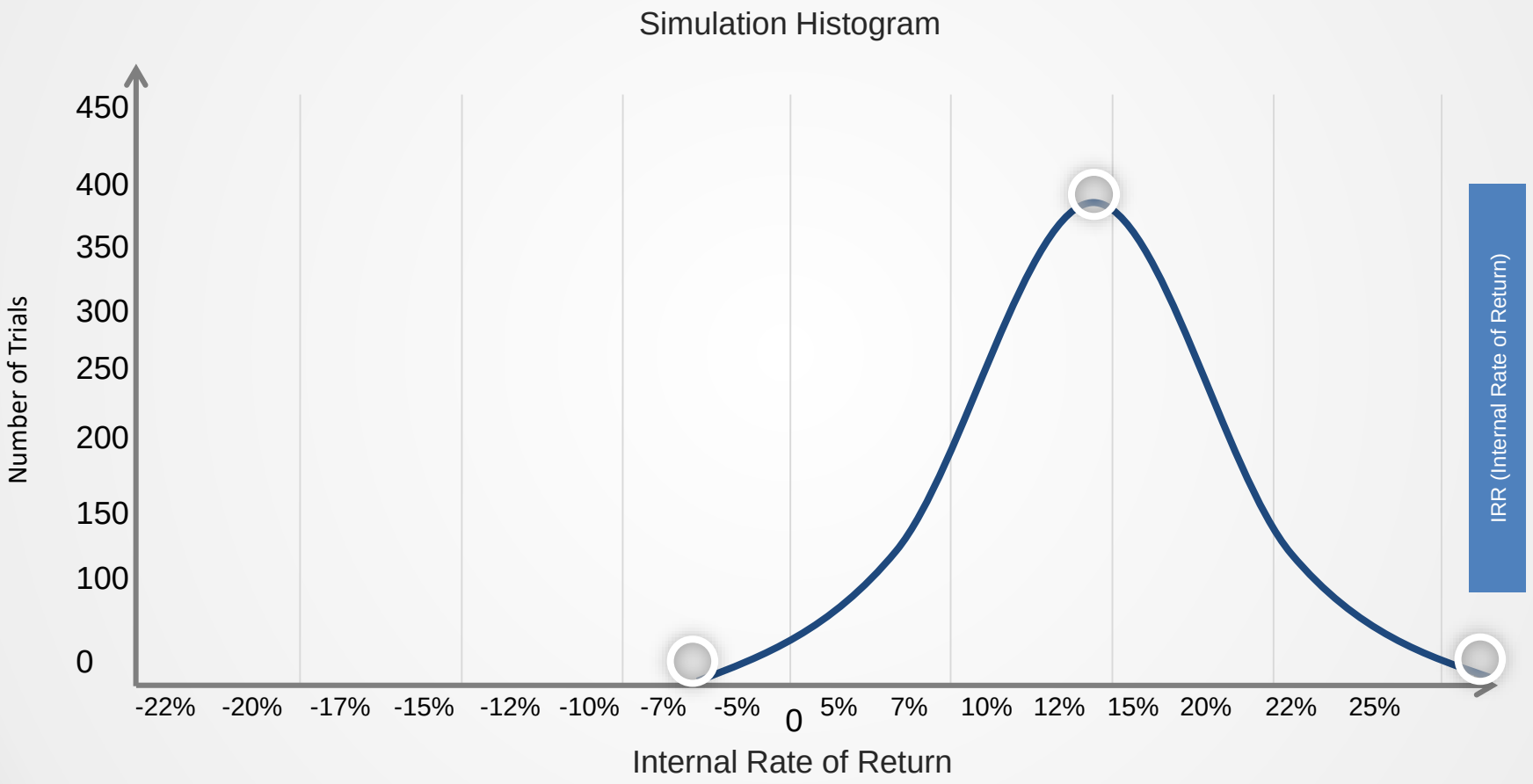
The conclusion of the Monte Carlo Simulation for the 3 year IRR hold period is indicated in the histogram and percentile distribution graphs to the left. The standard deviation is estimated at about 8.16%; the Variance is estimated at about 0.67%; the Skewness is -0.77%; and the Kurtosis is estimated at 3.79. IRR greatest frequency was 11.13% at 307 trials of 2,500, or about 12.28%. Probability of Default (IRR less than 10%) was 40.64% at 1,106 trials of 2,500. The pro forma variables were stressed 20%. Leveraged IRR whereas equity at 20% of Portfolio Value at 5.25% Capitalized Value. Mean IRR was 9.86%.

Market Portfolio Monte Carlo Simulation Results
Internal Rate of Return 5-Year Hold on Equity



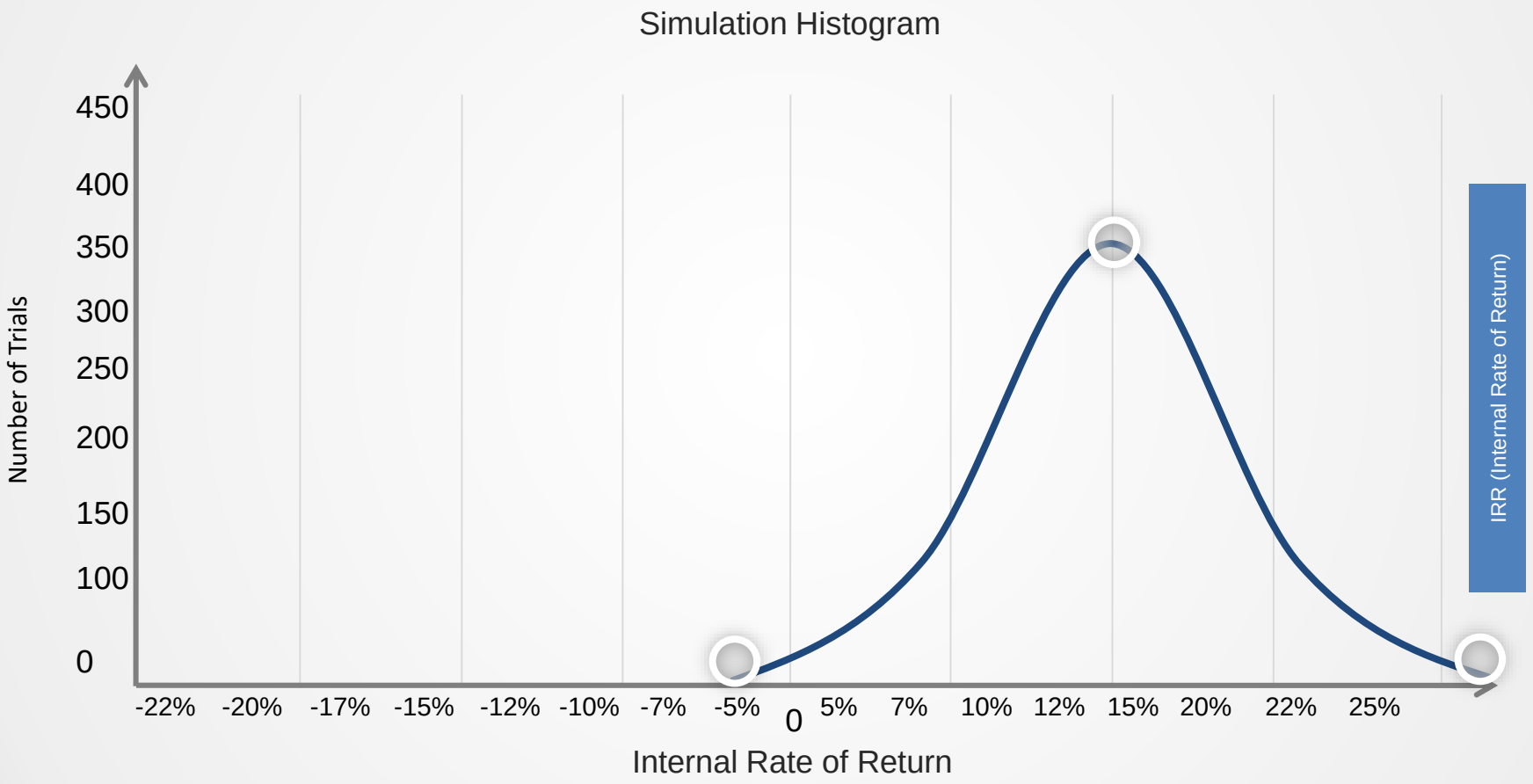
The conclusion of the Monte Carlo Simulation for the 5 year IRR hold period is indicated in the histogram and percentile distribution graphs to the left. The standard deviation is estimated at about 2.96%; the Variance is estimated at about 0.09%; the Skewness is -0.31%; and the Kurtosis is estimated at 2.74. Probability of Default (IRR less than 10%) was 30.84% at 871 trials of 2,500. The pro forma variables were stressed 20%. Leveraged IRR whereas equity at 20% of Portfolio Value at 5.25% Capitalized Value. Mean IRR was 12.18%.

Market Portfolio Monte Carlo Simulation Results
Internal Rate of Return 7-Year Hold on Equity



The conclusion of the Monte Carlo Simulation for the 7 year IRR hold period is indicated in the histogram and percentile distribution graphs to the left. The standard deviation is estimated at about 8.39%; the Variance is estimated at about 0.70%; the Skewness is -0.96%; and the Kurtosis is estimated at 4.59. Probability of Default (IRR less than 10%) was 26.08% at 652 trials of 2,500. The pro forma variables were stressed 20%. Leveraged IRR whereas equity at 20% of Portfolio Value at 5.25% Capitalized Value. Mean IRR was 14.73%.

Market Portfolio Monte Carlo Simulation Results
Internal Rate of Return 7-Year Hold on Equity



The conclusion of the Monte Carlo Simulation for the 10 year IRR hold period is indicated in the histogram and percentile distribution graphs to the left. The standard deviation is estimated at about 8.42%; the Variance is estimated at about 0.71%; the Skewness is -0.93%; and the Kurtosis is estimated at 4.41. Probability of Default (IRR less than 10%) was 13.16% at 329 trials of 2,500. The pro forma variables were stressed 20%. Leveraged IRR whereas equity at 20% of Portfolio Value at 5.25% Capitalized Value. Mean IRR was 14.86%.

Market Portfolio Analysis Summary Conclusions

Location Risk Rank	**26**	**% of National Mean**
3-Year Hold Mean IRR	9.86%	87.04%
5-Year Hold Mean IRR	12.18%	88.21%
7-Year Hold Mean IRR	14.73%	92.48%
10-Year Hold Mean IRR	14.86%	91.30%

Market Stock Units	**127,401**	
Class A	26,322	20.66%
Class B	61,876	48.57%
Class C	28,712	22.54%
Class D	10,491	8.23%

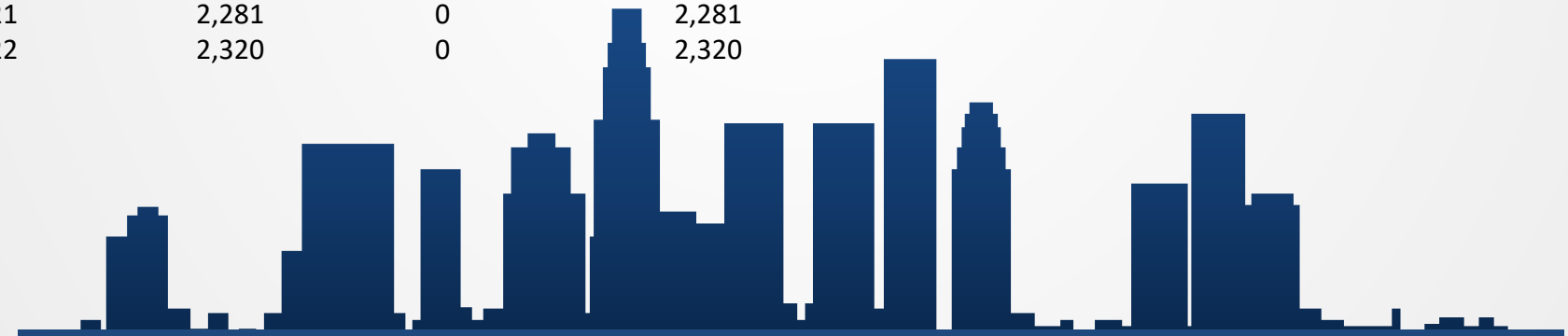
Projected Demand

Year	Count	Pipeline	Deficit
2018	2,166	1,874	292
2019	2,293	932	1,400
2020	2,282	221	2,061
2021	2,281	0	2,281
2022	2,320	0	2,320

Vacant Units	**4,086**	
Studio	1,672	8.2%
One Bedroom	820	2.8%
Two Bedroom	1,264	1.6%
Three+ Bedroom	330	3.7%

Mean Age Years	**18.2**	
Built Before 1980	15,787	12.4%
Built Before 1990	28,156	22.1%
Built Before 2000	49,814	24.3%
Built Before 2010	30,958	24.3%
Built After 2010	2,675	2.1%

Population Growth Rate	1.7%
Job Growth Rate	1.9%



Monte Carlo Simulation Definition & Terms

Basic Characteristics

MCS Definition

MCS is a technique that converts uncertainties in input variables of a model into probability distributions. By combining the distributions and randomly selecting values from them, it recalculates the simulated model many times and brings out the probability of the output.

Basic Characteristics

MCS allows several inputs to be used at the same time to create the probability distribution of one or more outputs. Different types of probability distributions can be assigned to the inputs of the model. When the distribution is unknown, the one that represents the best fit could be chosen. The use of random numbers characterizes MCS as a stochastic method. The random numbers have to be independent; no correlation should exist between them.

Kurtosis And Reasoning

Kurtosis

It is sometimes referred to as the "volatility of volatility."

Kurtosis Explained

Used generally in the statistical field, kurtosis describes trends in charts. A high kurtosis portrays a chart with fat tails and a low, even distribution, whereas a low kurtosis portrays a chart with skinny tails and a distribution concentrated toward the mean.

Why use Monte Carlo Simulations?

MCS generates the output as a range instead of a fixed value and shows how likely the output value is to occur in the range. The following terms and definitions concerning the Monte Carlo Simulation are presented to aid the audience of this report in understanding the output of our market analysis. This analysis is applied to the pro forma for the potential renting of residential apartment units by using the entire stock of the area selected for this analysis as if one portfolio to indicate a Market IRR Range for 3-, 5-, 7- and 10-year hold periods for equity investments using prevailing mortgage loan terms. The location is then ranked based comparing its outcome with that of more 50 markets in the United States.


Wert-Berater, Inc.