

WHITEPAPER

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Digital Connectivity and the Evolving Office Sector

Technological, demographic, and economic factors have all led to a drop in office space usage intensity. Consequently, uncertainty surrounds the sector as remote work persists for the segment of the labor market that can perform their jobs effectively from home – or really, now, from anywhere.

Flexible work arrangements, whether hybrid or work from anywhere, is now one of the top features applicants seek in a new role.¹ Additionally, despite strong macroeconomic headwinds through decades-high inflation, negative real GDP growth, and a rising interest rate environment, the labor market remains quite tight, with better-than-expected monthly total nonfarm payroll employment growth, a 3.5% unemployment rate that is generally considered targeted full employment, and the ratio of the number of unemployed persons per job opening stands at approximately 1:2.²

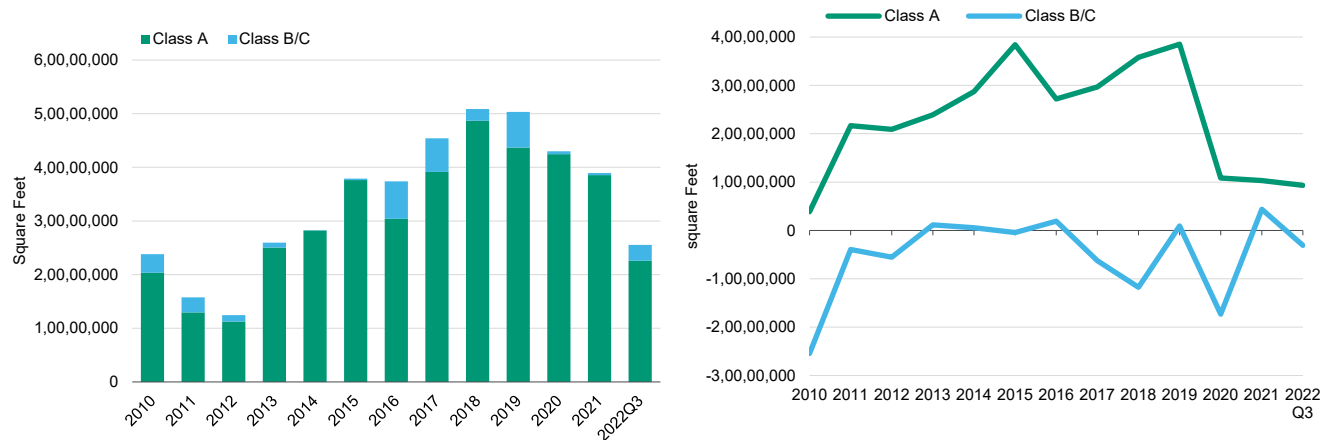
The strong labor market looms over the return-to-office conversation because employees are still in a comparatively strong position to make demands like remote work. Office spaces are progressively used for gathering rather than simply day-to-day work. Therefore, as companies reassess the square footage they lease in the face of changing needs, office landlords must attract corporate tenants and the employees that populate them by providing appealing properties and spaces.

One way to do this is to provide the technology platform that modern office tenants require. In this paper, the effects of a digitally well-connected office building on space market fundamentals will be explored using data from Moody's Analytics CRE and WiredScore, the company setting the global standard for technology in the built world.

Class Distinctions

Over the past decade, Class A office construction charged ahead of Class B/C throughout the US.³ Trophy office space with best-in-class amenities and technology to support growth are more sought after by companies to attract and retain top talent. Developers keep this in mind when planning their next projects – with digital connectivity top of mind. The highest-quality office spaces on the market, ones that are usually newly-constructed and have been outfitted with premium fixtures, amenities, HVAC, and digital systems are considered Class A, while Class B/C buildings are usually older and not as well maintained. Since 2010, Class A new construction has averaged 31.5 million square feet per year, while Class B/C construction only averaged 2.6 million square feet.⁴

Figure 1. Office Supply and Demand by Building Class



There is an ongoing flight to quality due to constantly evolving office market forces, resulting in fewer leases signed as the year has progressed. Offices are recalibrating with the hybrid work environment evolution.

Consequently, office vacancy has dipped slightly in B/C properties (down 0.1%). The renewed faith in offices after nationwide returns through the latter part of 2021 and into the start of 2022 was short lived. However, the uptick in vacancy has been very mild through the first three quarters of 2022, totaling 0.4%, and in part due to the new construction of almost exclusively Class A properties. Therefore, while vacancy is trending upward, there is no cause for alarm. This will play itself out over the next five to 10 years.

¹ 'Americans are embracing flexible work – and they want more of it.' June 23, 2022. <https://www.mckinsey.com/industries/real-estate/our-insights/americans-are-embracing-flexible-work-and-they-want-more-of-it>.

² Bureau of Labor Statistics, as of August 2022.

³ Class A office buildings are defined by their prime central locations, easy accessibility, size, and amenities, all of which are superior not only for a company's employees but also as a show-piece for clients. Class B office properties provide the standard scope of conveniences expected to be found in a building but are typically smaller than class A properties, do not provide a full range of amenities, are less centrally located, and are also of less architectural significance. Class C office buildings provide only the essential elements of an office for tenants who are looking to lease basic space at a competitive price.

⁴ Moody's Analytics CRE.

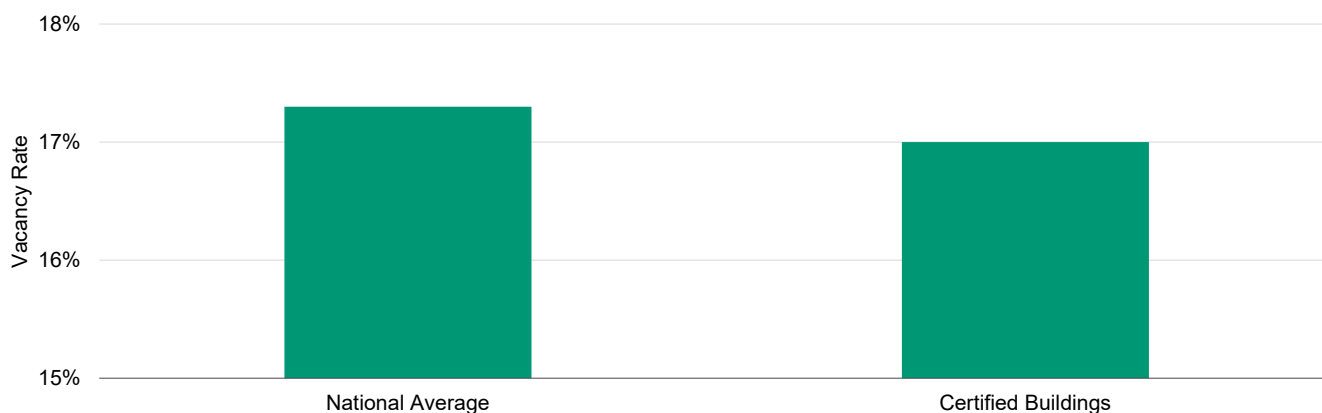
FIGURE 2. VACANCY RATES BY BUILDING CLASS (2019 Q1 – 2022 Q3)

YEAR/QTR	CLASS A VAC %	CLASS B/C VAC %
2019Q1	14.90%	18.90%
2019Q2	14.90%	19.00%
2019Q3	15.00%	19.10%
2019Q4	15.00%	19.00%
2020Q1	15.20%	19.10%
2020Q2	15.30%	19.20%
2020Q3	15.60%	19.60%
2020Q4	16.00%	19.90%
2021Q1	16.60%	20.30%
2021Q2	17.00%	20.50%
2021Q3	16.90%	19.90%
2021Q4	16.90%	19.70%
2022Q1	16.50%	20.00%
2022Q2	17.00%	20.00%
2022Q3	17.30%	19.90%

Most tenants are looking for the best space available and landlords are perhaps more willing to negotiate than they once were due to the pandemic, upending location rigidity and has offering tenants leverage.

As a result, office owners must create value in their properties. It comes as no surprise that Class A buildings that provide necessities that are truly in demand, such as the latest technology, also exhibit improved performance metrics. WiredScore-certified buildings boast higher occupancies than the national average. So far through the third quarter of 2022, properties holding certification posted a vacancy of 17.0%, while Class A's national average was 17.3%.

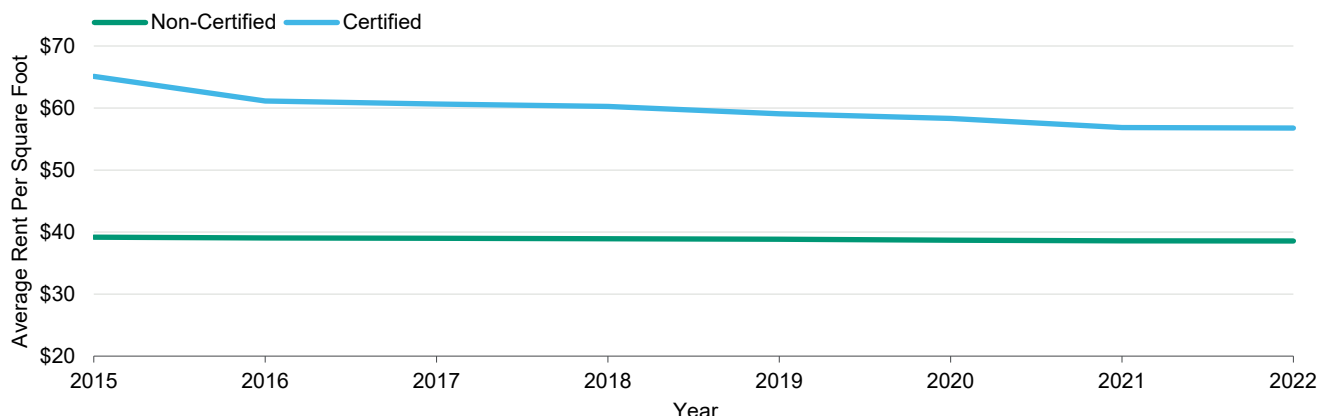
FIGURE 3. VACANCY RATES OF WIREScore CERTIFIED BUILDINGS VS. NATIONAL AVERAGE OF CLASS A (2022 Q3)



Turning to rents as another key performance metric, variations are explored between WiredScore-certified properties compared to the national average for non-certified properties. **In times of tremendous stress for the office market, certified Class A properties outperform the Class A national average in rent growth with a premium of 2.2% over the past two years.**

As expected, certified properties command higher average rent levels throughout the country than properties that do not. However, the gap has been closing in recent years, confirming underlying principles behind the theories for underwriting, where in a competitive market, properties converge to submarket growth rates. High-rent properties cannot keep raising rents forever because of market constraints. Therefore, while rents for premium properties can be a certain percentage higher than average in the submarket for some time, growth eventually reverts to the mean as the competitive advantage evaporates.

FIGURE 4. US OFFICE RENTS FOR WIREScore CERTIFIED VS. NON-CERTIFIED BUILDINGS



Do These Descriptive Results Hold Up to Econometric Testing?

The above demonstrates that, from a descriptive perspective, WiredScore certification provides a measurable benefit to office fundamentals – namely rents and vacancies; but this begs the question: does the benefit hold up to more rigorous statistical techniques? As it turns out, the answer is a resounding yes. The performance of rents, occupancies, and lease terms for WiredScore-certified buildings outperform those that are not certified, even when using widely-accepted econometric methods.

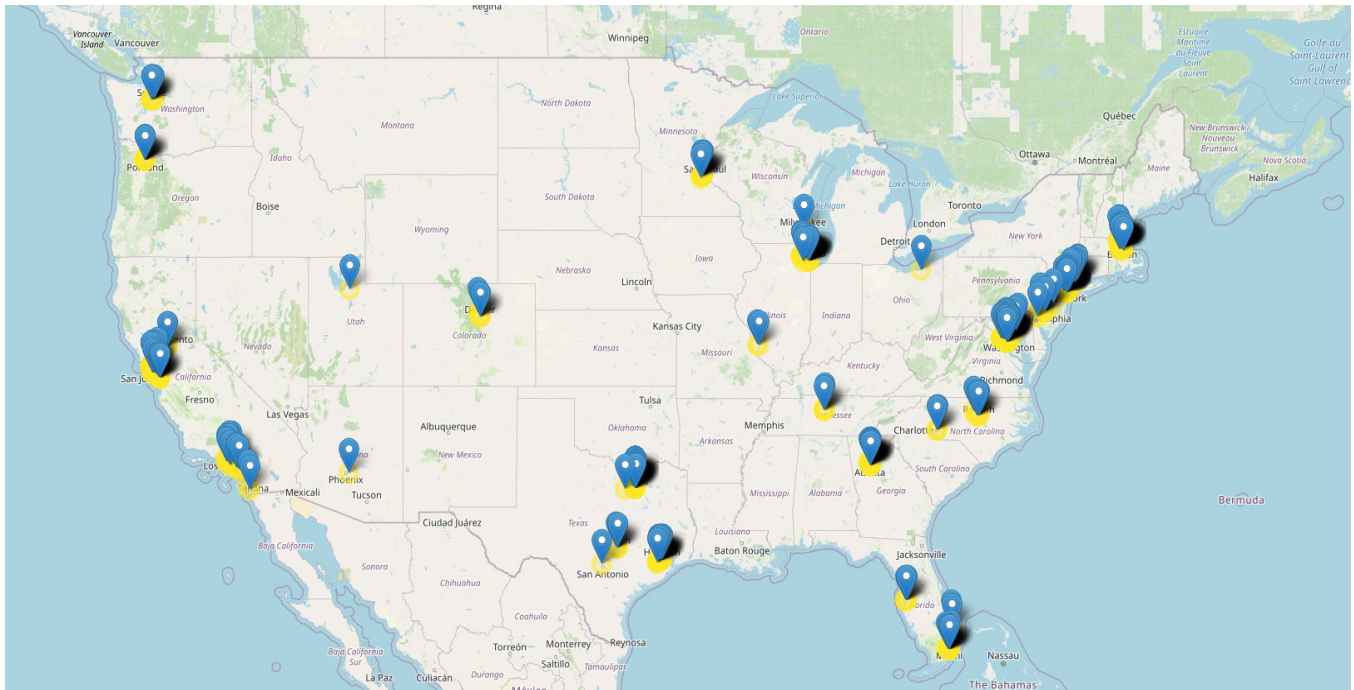
At this stage, it is important to note that the certification itself is not the cause of better performance. Rather, it is how the certification acts as a framework to measure, improve, and promote a building’s digital connectivity and, by default, how this connectivity acts as a basis for a better overall user experience. For the purposes of this study, the effect of a building holding WiredScore certification on rents and vacancies is examined, with no distinction being made between the varying levels of certification that WiredScore awards (Certified, Silver, Gold, Platinum).

In addition to a property holding WiredScore certification or not, other explanatory variables include the age of the building, the building class (A versus BC), operating expenditures, and the building size. To control for the presence of heterogeneity in office sector data based on geographic idiosyncrasies, state and metro factors are also considered.

Based on the econometric modelling results as found in Tables 1,2, and 3 in the appendix, office buildings who hold WiredScore certification experience a noticeable boost to their performance. On a per-square-foot basis, rents in WiredScore certified properties are \$6.50 higher. This result is statistically significant. As for occupancy, WiredScore-certified buildings also outperform their non-certified counterparts. Holding all else constant, vacancy is on average 3.8% lower in buildings that are certified than those that are not. Again, the result is very promisingly statistically significant.

Another metric examined is the lease term length. Lease terms are measured by the of number of years. The results in Table 3 indicate that tenants are statistically significantly signing longer lease terms for square footage in office buildings that are WiredScore-certified, lengthening the lease by approximately nine months.

FIGURE 5. WIREScore PRESENCE THROUGHOUT THE UNITED STATES



Metro-Level Rent Variations

From a pricing perspective, WiredScore-certified buildings charge higher rents and are able to do so because certification signals to tenants and the market that the property focuses on delivering an exceptional, technologically enabled experience. The benefits of WiredScore certification for building owners are particularly visible in major metros:

When examining rents by building class in the Atlanta metro, the 2022 Q3 asking rent average for Class A properties was \$31.33 psf while Class B/C stood at \$21.26 psf. Delving into the variation between certified and non-certified buildings, Class A properties with a WiredScore certification posted an average asking rent of \$40.07 psf, an increase of 27.9%. This same trend also applied to Class B/C buildings, where WiredScore certifications increased a building's rent to \$27.36 psf, a 28.7% premium.

Not only is the same trend present in Houston, but the advantages to being certified – and therefore enhancing the buildings' credentials by implementing a sound digital infrastructure – are prominent, especially for perhaps otherwise less desirable office space (think Class B/C properties). The 2022 Q3 asking rent for the Houston metro area was \$33.72 psf for Class A and \$21.46 psf for Class B/C. However, Class A building rents increased to \$39.22 psf when certified and B/C rents increased to \$30.24. While the premium for Class A properties in this metro is in line with premiums seen in other metros and nationally (a 16.3% increase in rent), it is Class B/C office space that really benefits from the certification, with a 40.9% increase in rent versus other Class B/C office buildings that do not carry certification. The result for the latter holds for metros throughout the country.

FIGURE 6. HOUSTON RENTS BY BUILDING CLASS (2022 Q3)



When examining rents in the NY and LA metros, we can see a clear advantage in certified properties for both. The 2022 Q3 asking rent average for LA-certified properties is \$43.92 psf, while average rents for non-certified properties stood at \$42.89 psf, a premium of 2.4%. The same can be said in NY, as the 2021 Q3 asking rents for certified properties is \$75.85, while the average rents for non-certified properties was only \$73.85 psf (or a premium of 2.7%).

FIGURE 7. WIREScore CERTIFIED VS. NON-CERTIFIED AVERAGE OFFICE RENTS FOR ALL PROPERTIES (2022 Q3)



For landlords and building owners, digital connectivity is where they can stand out from the rest when competing to attract and retain tenants and even generate extra revenue. Without the most up-to-date advancements, the potential tenant base becomes limited before the process even begins. This trend was already gaining momentum even before the pandemic, but with flexible work arrangements now having a greater presence than ever before⁵, it is now crucial to digitally connect with colleagues placed all around the globe. With all of this considered, it is no surprise that in major markets buildings that are Wirescore certified are showing a significant rent premium compared to buildings that are not.

As the year has progressed and the factors causing strain on the office sector persist, rent premiums for certified properties have shifted, most notably in New York: certified properties are now commanding a 2.7% uplift in rents versus non-certified properties as of Q3, up from a 1.5% premium in rents at the start of this year.

⁵ 'The Number of People Primarily Working From Home Tripled Between 2019 to 2021,' United States Census Bureau, September 15, 2022. <https://www.census.gov/newsroom/press-releases/2022/people-working-from-home.html#:~:text=SEPT.,by%20the%20U.S.%20Census%20Bureau>.

WiredScore in Sacramento

The value of the WiredScore certification is noticeable at the street level in Sacramento. 915 L St and 925 L St are both Class A buildings located adjacent to each other with generally similar profiles, but one building charges higher rents and maintains higher occupancy. These two buildings in Sacramento were selected for comparison because their proximity proves that any disparity in rents related to location choice is negligible and the buildings are truly like-for-like in the distinguishable characteristics (age, size, architecture).

Their main distinction is that one holds WiredScore certification and the other does not. 915 L St, which is a certified building, has an asking rent of \$42 psf and a vacancy of 2.5%, while 925 L St, non-certified, has an asking rent of \$39.90 psf and a vacancy of 5.3%. While the asking rent for space at 925 L St has largely stayed flat over the past three years, 915 L St increased theirs by providing a much higher quality space via a digitally advanced building.

FIGURE 9. WIREScore CERTIFIED PROPERTIES IN SACRAMENTO

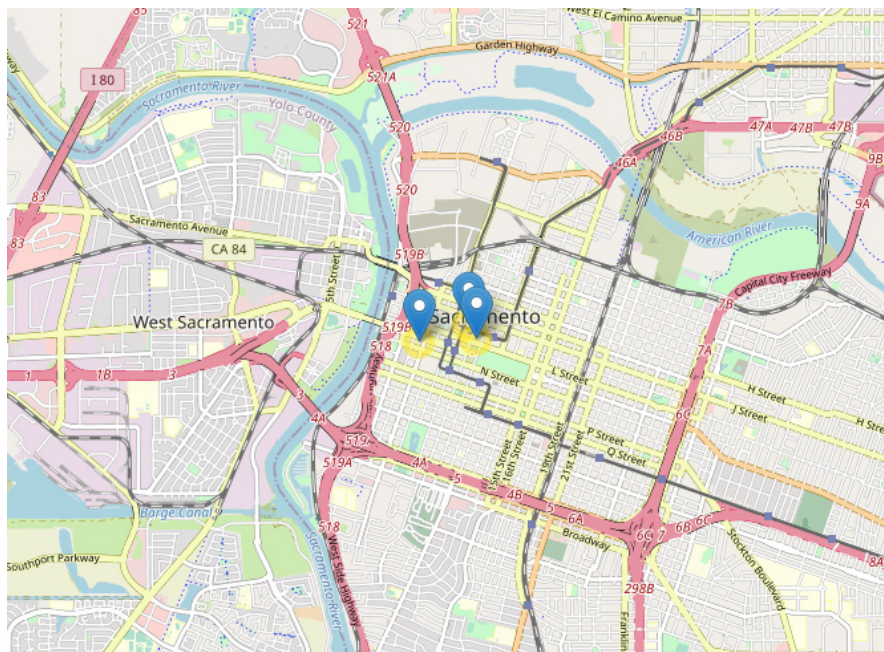
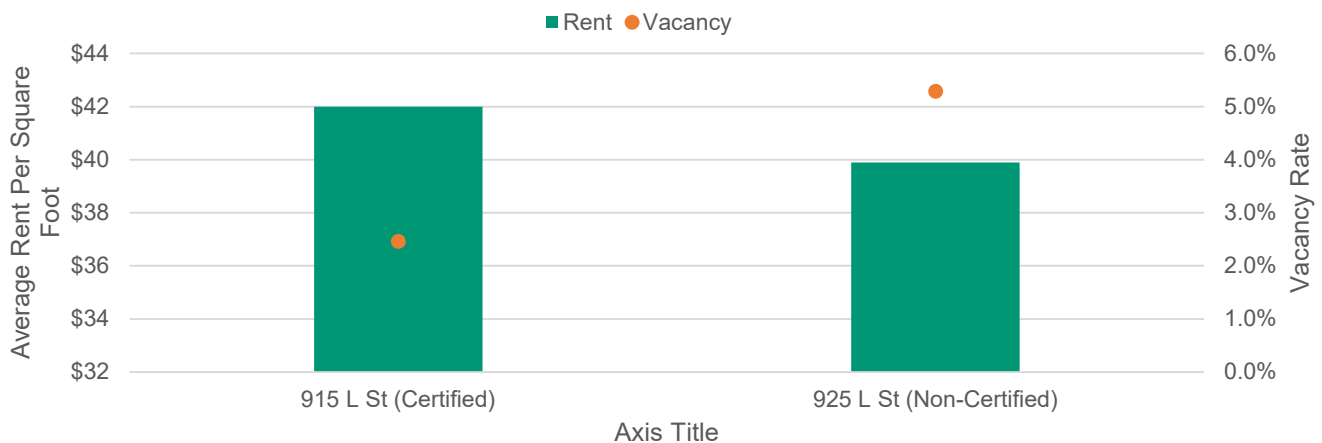


FIGURE 10. CASE STUDY FOR TWO NEIGHBORING BUILDINGS ON L STREET IN SACRAMENTO, CA



Even in this microcosm, the rent growth dynamics of WiredScore certification - as mentioned earlier - are in high relief. Rent growth rates for the certified building are positive during times of office sector growth and maintain value during times of stress. Despite uncertainty in the office sector over the past two years, the certified building did not experience rent declines.

Conversely, the non-certified building's rents plummeted as the future of the office remains unclear. The presence of the WiredScore certification is indeed a signal to the wider market and also directly between the landlord and tenant, that a technologically-advanced building carries a much higher value and has a stronger positive impact on the end user. Furthermore, the certification is able to act as a universally recognized benchmark for the landlord to demonstrate their commitment to delivering a digitally-optimized building via a tried and tested framework.

The Tech Future of the Office

Despite the office sector's ongoing state of flux, high-quality office space still commands a premium. Availability and ease of digital connectivity in an office building powers the new office landscape where companies now blend in-person, hybrid, and completely remote workers who need to communicate with each other effectively on a daily basis. Buildings that demonstrate a high standard of digital connectivity by being WiredScore certified position themselves well to not only attract tenants but also improve their building's fundamentals in an office sector environment whose future remains uncertain.

Appendix

Table 1. Regression Analysis of Impact of Certification on Rents

	Performance Metric:
	rent
cert	6.496*** (0.363)
age	0.026*** (0.001)
bldgclass	7.086*** (0.081)
opex	2.181*** (0.011)
Observations	62,517
R2	0.918
Adjusted R2	0.918
Residual Std. Error	8.618 (df = 62466)
F Statistic	13,745.780*** (df = 51; 62466)
Note:	*p<0.1; **p<0.05; ***p<0.01

Table 2. Regression Analysis of Impact of Certification on Vacancy

	Performance Metric:
	vacancy
cert	-0.038*** (0.012)
age	0.003*** (0.00003)
bldgclass	0.085*** (0.003)
size	0.000 (0.000)
Observations	37,510
R2	0.281
Adjusted R2	0.281
Residual Std. Error	0.269 (df = 37506)
F Statistic	3,661.159*** (df = 4; 37506)
Note:	*p<0.1; **p<0.05; ***p<0.01

Table 3. Regression Analysis of Impact of Certification on Lease Term

	Performance Metric:
	lease term
cert	0.729*** (0.076)
age	-0.004*** (0.0003)
bldgclass	0.432*** (0.018)
renx	0.033*** (0.001)
Observations	62,517
R2	0.874
Adjusted R2	0.874
Residual Std. Error	1.808 (df = 62466)
F Statistic	8,467.234*** (df = 51; 62466)
Note:	*p<0.1; **p<0.05; ***p<0.01

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