



Investing for Health: Examining the ROI of Healthy Buildings



Introduction

Successful growth of organizations relies on their largest asset – their people. Healthy buildings have become a vehicle for organizations worldwide to invest in people’s well-being and help drive long-term performance. While the benefits of healthy buildings have been appreciated by the industry in past years, it is important to understand the financial indicators of healthy buildings, especially as healthy building practice is swiftly moving from a top line benefit to a mainstream strategy. This is a summary of the growing body of evidence connecting the investment in healthy buildings to organizational performance and return on investment (ROI) to present a more comprehensive picture of why health and well-being is material an organization’s long-term growth.

Background

Incorporating human health considerations into corporate policies as well as decisions about the design and operation of the workplace are rapidly becoming necessities for developers, real estate owners, and organizations. This stems in large part from simple exposure statistics; it is estimated that people in industrialized countries spend approximately 90% of their time indoors¹. However, the COVID-19 pandemic is serving as a dramatic accelerant of these trends by raising general awareness regarding how indoor environments impact our individual and collective human health and well-being. Employees, customers and other stakeholders increasingly expect workplaces that prioritize health and well-being. Put succinctly, high-performance organizations will soon be defined by their ability to put people at the center of every decision.

The value of meeting increasing consumer and employee demand for healthy, safe, and nurturing workplaces is self-evident. This summary of available research and information from diverse sources helps support critical and time-sensitive decisions facing global companies and organizations.

Definition: Healthy Building

“A space that supports the physical, psychological, and social health and well-being of people.”

- World Health Organization (WHO)

Methods

The goal of this paper is to provide a robust summary of available evidence for the ROI of healthy buildings as a whole. To this end, the review did not focus solely on the WELL Building Standard (WELL) as a measurement of a healthy building or healthy workplace.

A literature review was conducted of academic, industry and grey literature focused on healthy buildings, organizational health and well-being strategies and return on health investment. Additional input was received from leadership at the International WELL Building Institute (IWBI) on key industry studies.

Research studies on the impact of healthy buildings vary regarding operational definitions, scope, research design, and applicability of results across different building types and organizational contexts. For this reason, results from IWBI's literature review are presented according to broad outcome measure / application context along with relevant examples from WELL projects.

Combined ROI of Healthy Buildings

STOK published a report in 2019 quantifying the bottom line of high-performance buildings. They put forward calculations that estimated the benefit of upfront healthy building costs as compared to their long-term people benefits. Specifically, they focused on people benefits calculated on occupant productivity and wellness benefits (top line) and decreased turnover (bottom line). Results showed that the combined benefit per person/per high performance building/space can be as high asⁱⁱ \$3,395 annual profit per employee and \$18.56 annual profit per square foot. If these estimates were then projected over the long term, then the overall net present value (NPV) over 10 years is \$23,584 per employee (Figure 1), and \$129 per square foot (Figure 2).

FIGURE 1: 10-YEAR NPV PER EMPLOYEEⁱⁱ

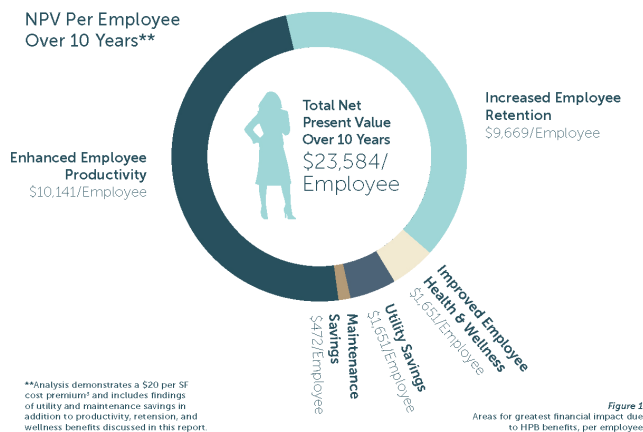
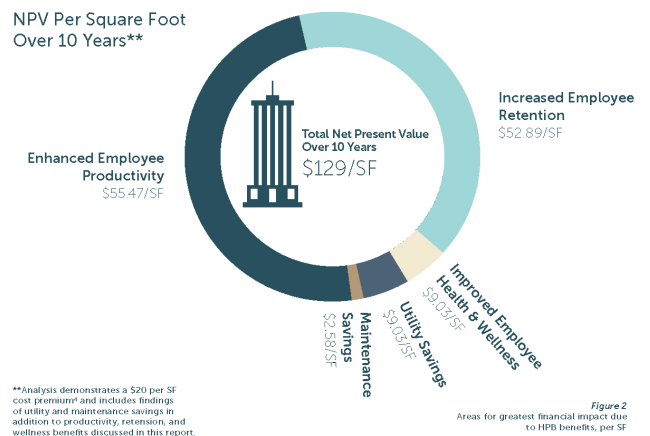


FIGURE 2: 10-YEAR NPV PER SQUARE FOOTⁱⁱ



In 2020, Pacific Northwest National Lab published a study on estimated financial gains from improving indoor environmental quality including air quality, thermal comfort, and lighting (three of 10 concepts within WELL). Sampling two buildings, the study incorporates both the traditional energy savings projection as well as an analysis on productivity gains. The estimated 10-year **energy** net present value (NPV) for one of the buildings in the case study is \$44,000, whereas the estimated 10-year **productivity** NPV for the same building is \$2,163,000, a 50X multiplier.ⁱⁱⁱ (Figure 3)

FIGURE 3: 10-YEAR ENERGY NPV & 10-YEAR PRODUCTIVITY NPVⁱⁱⁱ

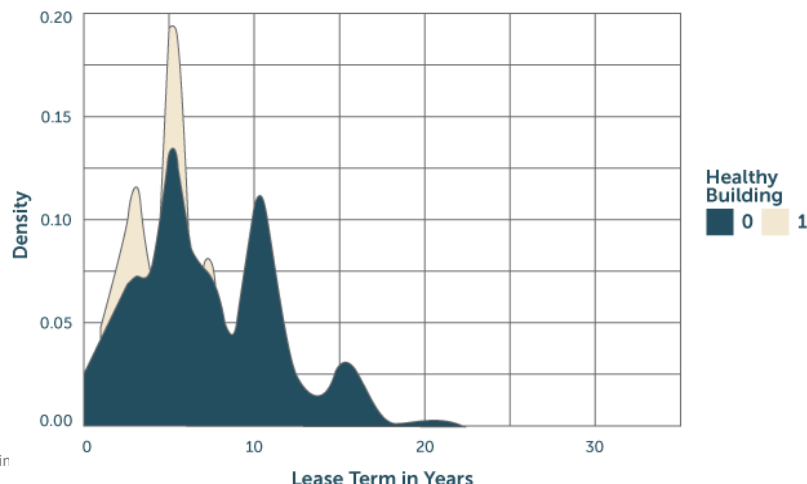
Category	Energy 10-Year NPV	Estimated Retrofit Cost	Productivity 10-Year NPV	Overall, 10-Year NPV	Cost/Benefit Ratio
Building A					
Indoor Air Quality	\$57k	\$0	\$0	\$57k	N/A
Thermal Comfort	\$-7k	\$-127k	\$2,133k	\$1,999k	16.7
Lighting	\$-1k	\$-26k	\$30k	\$3k	1.1
Combined	\$44k	\$-153k	\$2,163k	\$2,054k	14.4

Rent Premium and Lease Term

In a data analysis by MIT, researchers examined the relationship between healthy buildings and rental increases in the Boston market. Results showed that healthy buildings garnered higher effective rents of between 4.4% and 7.7% more per square foot compared to their nearby peers that didn't pursue a healthy building standard.^{iv} The premium for healthy spaces tested was independent of all other factors, such as building age, renovation, lease duration and submarket. These results indicate that buildings that support tenant well-being are in greater demand and renting at a premium, as demonstrated in the global real estate market over the last several years.

According to the internal data at the MIT Real Estate Innovation Lab, the adoption rate of healthy spaces is double that of spaces with less emphasis on health features, the result of which is also in line with an increasing trend of design interventions commanding higher rents and transaction costs on average with longer lease terms.^{v,vi,vii,viii} For the controlled spaces that do not have as many health focused features, the average lease term was 75.3 months. In comparison, spaces with health-focused attributes had an average lease term of 88.3 months.^{vi} (Figure 4)

FIGURE 4: LEASE TERM OF HEALTHY BUILDING IN COMPARISON WITH CONTROLLED SPACES^{vi}



Other evidence linking environmental conditions to rent premiums and increased property values includes:

- A 5-6% rent premium;^{vii} on NYC properties with good daylight
- A 5.6% to 7.8% rent premium;^{viii} on NYC properties with street-front greenery
- A 1-9%^{ix} increase in property values related to walkability scores

WELL Project Highlights

Kilroy's Hollywood Proper Residences, WELL Certified at the Silver level, implemented key features including daylight/extensive glazing, ventilation/air quality, noise abatement, biophilic design and natural materials. This was linked to an **80%** leasing rate within **six** months after opening at **top-of-market rents**.^x

Healthcare Spending

An investment in employee health may lower health care costs and insurance claims. Employees with more risk factors, including being overweight, smoking and having diabetes, cost more to insure, and pay more for healthcare, than people with fewer risk factors.^{xi,xii} Although physical design interventions and workplace wellness policies and programs are not the same thing, both concepts aim for positive impact on human well-being and may overlap at organizational policy and operations level. Workplace health programs have the potential to keep employees in “lower-risk” categories healthier by promoting health maintenance, while also helping employees in the higher-risk categories, potentially lowering overall health insurance costs.

A systematic review of 22 published studies of workplace health programs showed that well-implemented programs can lead to an average of 24.5% savings in health care costs.^{xiii} A study published in the Rand Health Quarterly suggests that participation in a wellness program over five years is associated with a trend toward lower health care costs and decreasing health care use.^{xiv}

In a meta-analysis of the literature on costs and savings associated with workplace wellness programs, a group of Harvard scholars found that medical costs fall by about \$3.27 for every dollar spent on wellness programs.^{xv} Johnson & Johnson's Health and Wellness Program has seen a long-term impact on controlling health care costs (medical costs decreased by approximately \$225 per participating employee per year during a four-year study) through its policy, environmental and education components that address risks that lead to high blood pressure and high levels of cholesterol.^{xvi}

Absenteeism

According to a Gallup survey, full-time workers in the U.S. who display risk factors or have other chronic health conditions miss an estimated **450 million additional days of work** each year compared with workers that do not exhibit such risk factors, resulting in an estimated cost of more than **\$153 billion** in lost productivity annually.^{xvii} A research study using control groups has found relations between reduction in absenteeism and implementation of comprehensive health promotion programs.^{xviii}

In a study conducted in a major telecommunication company in Malaysia, researchers find that respondents who have attended workplace wellness programs have lower employee absenteeism than respondents who did not attend wellness programs.^{xix}

WELL Project Highlights:

The American Society of Interior Designers (ASID) headquarters in Washington, D.C., was designed for environmental sustainability, health and wellness with a focus on indoor air quality, employee satisfaction and productivity. WELL Certified at the Platinum level, the organization found employee absenteeism decreased by **19%** according to a comprehensive multi-year research study.^{xx}

Cundall's London office focused on improved indoor air quality, including continuous monitoring of carbon dioxide (CO₂) and volatile organic compounds (VOCs). WELL Certified at the Gold level, they found a reduction of **four** sick days per year per employee.^{xxi}

Presenteeism

Presenteeism is defined as employees being present at work but unable to be fully engaged in the work environment. This condition leads to measurable loss of productivity due to physical, mental and emotional health conditions or related to work, personal, social and emotional life issues. The economic costs related to presenteeism may exceed those of absenteeism and employer health costs.^{xxii}

WELL Project Highlights:

ASID also saw improvement in its presenteeism scores from 77.7 to 90. This indicates that on average, employees feel they are working at 90% of their possible job performance, an increase of **16%**.^{xxi}

Landsec's London workplace, WELL Certified at the Silver level, prioritizes in-person collaboration, health and well-being and indoor environmental quality within a green building. The percentage of employees feeling that the space allows them to work productively rose by **30%** after occupying the new space. This high level of project and employee performance was realized with a less than 3% increase in project cost.^{xxii}

Employee Turnover

Recruiting and retaining employees is costly for many businesses, particularly for those requiring top-tier or specialized talent. Replacing employees that leave requires significant staff time to recruit, interview and train new staff. New employees have long ramp-up times before they become as productive as their predecessors. In addition, retaining existing staff requires investment to maintain the firm's reputation, create an engaging culture in the workplace and maintain competitive compensation packages.

Workplace design has an impact to staff's overall satisfaction with their organizations. According to the Rocky Mountain Institute, a study led by Knoll and DYG Inc, "Employees planning to leave an organization were 25% less satisfied with their physical workplace than those who planned to stay."^{xxiii} According to a few WELL case studies cited below, WELL Certified workplaces that put human well-being in the center of the design were often linked to a decrease in employee turnover and increase in employee satisfaction.

WELL Project Highlights:

CBRE Toronto and Vancouver offices are WELL Certified, having both incorporated key WELL features such as proper daylight and circadian lighting, optimized ventilation rates and air quality, increased collaborative space, active staircase, and sit-to-stand desks. Since moving into their WELL Certified offices, total employee turnover rate has fallen by almost **a third**.^{xi}

In Cundall's new WELL Certified Gold office, the staff turnover rate was reduced by **27%**.^{xxii}

Genentech Building 34 - The Hub in San Francisco achieved WELL Certification, implementing key features including proper daylight, optimized ventilation rates and air quality, on-site primary health care center, marketplace services and a Zen garden, reported improved recruitment and retention, higher employee engagement and satisfaction.^{xi}

“Well-being is one of the driving factors for creating the best precincts where people want to work, and our tenants see wellness as a way to attract and retain the very best people.”

- Andrew Cole,
Group Head of ESG, *Charter Hall*

ESG Performance

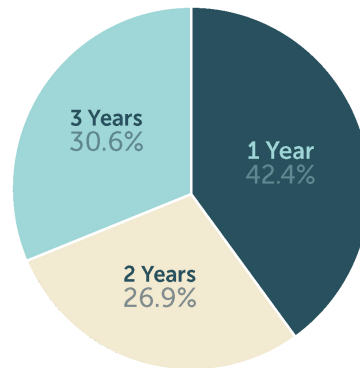
Several peer-reviewed studies, using simulation and past market performance, support that businesses with strong employee health and well-being programs outperform the S&P 500 significantly. For example, portfolios composed of companies that scored high on Corporate Health Achievement Awards (CHAA) appreciated by 204% to 333% compared to the overall S&P 500 Index appreciation of 105%.^{xxiv} A different study, comparing 45 companies who received high scores in a health and wellness assessment, appreciated by 235% compared to an overall S&P 500 Index appreciation of 159% over a 6-year simulation period.^{xxv} Although the correlations in these studies do not necessarily confirm that health promotion is the sole cause of increased corporate financial value, it is clear that companies who have invested in their employees' health and well-being are consistently yielding better value for their investors.

“Generating sustainable returns over time requires a sharper focus not only on governance, but also on environmental and social factors facing companies today. Over the long-term, environmental, social and governance (ESG) issues – ranging from climate change to diversity to board effectiveness – have real and quantifiable financial impacts. At companies where ESG issues are handled well, it is often a signal of operational excellence.”

- Larry Fink,
CEO, *Blackrock*

The annual GRESB Real Estate Assessment benchmarks the ESG performance of real estate companies and in 2016, GRESB worked with the Green Health Partnership to release the GRESB Health and Well-being module,^{xxvi} which assesses the presence of processes to promote the health and well-being of employees, tenants, customers and communities. From 2016-2018, 399 real estate funds participated in the GRESB Health & Wellbeing Module at least once.^{xxvii} (Figure 5) This move reflects an institutional and fund-level interest in health-centered real estate assets, signaling positive growth for healthy initiatives moving forward.

FIGURE 5:
2018 GRESB Health & Well-being Participants
by years of participation (N=399)^{xxvii}



WELL and GRESB

For GRESB 2021 reporting, **WELL Certification was upgraded to a full point and the WELL Health-Safety Rating was added as partial + (.6 points)**, further demonstrating the value of pursuing WELL strategies. As GRESB is one of the key references that real estate investors use in investment due diligence and decision making, we believe the achievements under the WELL Building Standard can lead to more tangible financial impact to companies in the future.

Conclusion

There is a growing body of evidence quantifying the financial benefits and ROI of healthy buildings, key indicators of which include increase in rent premium and lease terms; decrease in healthcare spending, absenteeism, presenteeism, and employee turnover; and improvement in overall ESG performance. Multiple WELL Certified spaces are reporting higher employee productivity, engagement, satisfaction and recruitment rate, further demonstrating the value of healthy buildings, and in particular, the value of using WELL to implement evidence-backed strategies at an enterprise scale. The healthy building movement is young, and project-level data for comparison and analysis is only now becoming available. As steady interest in healthy buildings turns into exponential adoption in the face of the COVID-19 pandemic, more complete data from research, industry and client case studies supporting the business case for healthy building design, operation and maintenance will be a welcome outcome.

About the International WELL Building Institute

The International WELL Building Institute (IWBI) is a public benefit corporation and the world's leading organization focused on deploying people first places to advance a global culture of health. IWBI mobilizes its community through the administration of the WELL Building Standard (WELL) and the WELL Health-Safety Rating, management of the WELL AP credential, the pursuit of applicable research, the development of educational resources, and advocacy for policies that promote health and well-being everywhere. More information on WELL can be found at www.wellcertified.com.

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