

Cutting-edge Research That Has an Impact

2021 ANNUAL REPORT

Looking Ahead, Moving Forward in 2021

With 2020 in the rear view, the NAIOP Research Foundation is looking to the horizon to capture information and insights on what opportunities, challenges and transformations lie ahead for the industry.

Recurring research, such as the industrial and office space demand forecasts, always offers a valuable snapshot of various aspects related to commercial real estate, and will take on an increasing depth of importance and help shed light on the continued impacts from an unprecedented year.

New reports, including those on emergent construction technologies, wellness standards in industrial real estate, and tools for ranking real estate markets, will continue to explore topics most important to the people who work together to shape the experiences of individuals and where they live, work, shop and play.

There is a sense of underlying optimism among the Research Foundation's Trustees, Governors and Visionaries. Many have experienced at least one recession or market correction in their careers, and they know that patience and perseverance are the key to making it



through. The ship will right itself, some parameters will be reset, and an adaptable, imaginative and dedicated team will lead the commercial real estate industry in a new, changed world.

Join the NAIOP Research Foundation as we celebrate the accomplishments of 2020 and prepare for what's next, as new trends, technologies, and tenaciousness propel us forward.

“There is no doubt the coronavirus pandemic will continue to have a tremendous impact on commercial real estate, and you can count on the Foundation to move forward with new research and continued investment into the resources our industry needs to weather the storm.”

– Eva Stevens, 2021 Chair, NAIOP Research Foundation



The Latest in Innovative Research



Economic Impacts of Commercial Real Estate, 2021 U.S. Edition

Development and construction of commercial real estate across the United States – office, industrial, warehouse and retail – generates significant economic growth at the city, state and national levels. This study measures the contribution to GDP, salaries and wages generated, jobs supported, and more from the development and operations of commercial real estate in the United States.

In 2020, combined commercial, residential, institutional and infrastructure development and operations generated the following economic benefits:

- Contributed \$4.3 trillion – 21.0% of U.S. GDP
- Supported 28.5 million American jobs (a measure of both new and existing jobs)
- Significant personal earnings and state revenues, adding inventory to attract new businesses and jobs

naiop.org/econtributions21



The Evolution of the Warehouse: Trends in Technology, Design, Development and Delivery

This report provides the real estate development community with insight into current and future trends in building and logistics technologies and their implications for industrial real estate. Steve Weikal and James Robert Scott, researchers at the MIT Real Estate Innovation Lab, interviewed professionals specializing in industrial building design and automated systems to identify emerging trends that will be of interest to industrial developers, building owners and tenants.

naiop.org/evolutionofwarehouse

Looking Ahead

Recognize Sustainers
Fund donors who supported the Foundation with an annual gift

JAN



Economic Impacts of Commercial Real Estate, 2021 Edition (U.S.)

FEB

Development Approvals Index: A New Tool to Evaluate Local Approvals Processes

This Index will allow jurisdictions to be evaluated across several approvals-related metrics and quickly compared. Index results could be used as a benchmark for jurisdictions to improve their permit and entitlement processes and could empower developers to call for best practices in their local areas. The Index could also serve as a tool allowing developers to make more fully informed decisions about expanding into new markets.





A New Look at Market Tier and Ranking Systems

Dividing and grouping the major metropolitan regions of the United States into ranked groups or “tiers” is a frequently used method to evaluate, prioritize and rank markets for investment. This project provides an understanding of the origins, methodologies and uses of market tier models.

naiop.org/markettier

Midyear Economic Impacts of COVID-19 on Commercial Real Estate Development Industry

The NAIOP Research Foundation commissioned Steve Fuller, Ph.D., professor emeritus at George Mason University, to undertake a study of the 2020 mid-year economy and how second quarter shocks may influence commercial real estate development in the future. After examining government and private-sector data, Fuller found declines in expenditures and values across most building types.

naiop.org/midyear2020

CONTINUED ON PAGE 75

“Companies have learned how to function [during COVID-19] but often by downsizing and better management. These are really important lessons for the future because it will be a much more competitive economy going forward.”

– Stephen S. Fuller, Ph.D., Professor Emeritus, Schar School of Policy and Government, George Mason University; Author, “Midyear Economic Impacts of COVID-19 on Commercial Real Estate Development Industry.”

Emergent Construction Technologies Research Report

This report will provide an overview of emerging information technologies, building technologies and manufacturing processes related to commercial construction and will examine the barriers and opportunities that companies face to adopt these new technologies, including their utility during a viral outbreak like COVID-19.



Industrial Space Demand Forecast Q1

MAR

APR



COVID-19 Research Briefs



Working Together as a Team: Negotiating With Tenants and Leasing Space During COVID-19

This research brief draws from interviews with brokers and building owners, news sources, NAIOP webinars, and NAIOP survey data to identify best practices for triaging office and industrial tenant requests, offering reasonable accommodations to those tenants who need short-term assistance, and responding to uncooperative tenants. It also examines how owners are adapting the ways they show and lease space as well as new tenant preferences and safety expectations.

naiop.org/negotiatingwithtenants



Using Capital Improvements to Create Competitive Advantage in the COVID-19 Era

This brief evaluates the merits of frequently discussed capital investments and their potential to create durable competitive advantages. It draws from an analysis of recent coverage in commercial real estate trade publications, as well as conversations with seven industry practitioners that took place in June 2020.

naiop.org/capitalimprovements



Navigating a Safe Return to Work: Best Practices for U.S. Office Building Owners and Tenants

Measures to contain the coronavirus outbreak temporarily slowed economic activity and dramatically reduced occupancies at many commercial buildings. As state and local governments outline plans for a phased reopening of the economy, office building owners and employers are formulating plans that will allow employees to return safely to work.

naiop.org/safeofficereturn

New Governors and Visionaries inducted

Office Space Demand Forecast Q2

MAY

JUN

Governors, Trustees and Industry Trends Task Force meet at National Forums Symposium

Alternative to Market Tiers Research Report

This report will present a new method for analyzing and describing regional commercial real estate markets in the U.S., comparing markets' size to their risk/return characteristics and conveying this information on a two-dimensional grid. This tool will allow users to quickly compare the characteristics of different markets when identifying opportunities for investment or conducting due diligence reviews.





CONTINUED FROM PAGE 73. THE LATEST IN INNOVATIVE RESEARCH

Industrial and Office Space Demand Forecasts

These forecasts provide an outlook on current and future conditions in the U.S. commercial real estate market. The reports help to define linkages between economic and specific sector activity and the demand for office and industrial real estate.

The most recent Office Space Demand Forecast (Q4 2020) predicted that given the continued challenges facing the U.S. economy, office net absorption is forecast to be negative 18 million square feet in Q4 2020 and negative 10 million square feet in Q1 2021. However, growth in net absorption is forecast to resume in Q2 2021, and the total net absorption over the period from Q2 2021 to Q3 2022 will exceed negative absorption from the recession, resulting in overall gains in absorption over the next two years. (See Table 1)

naiop.org/officedemand

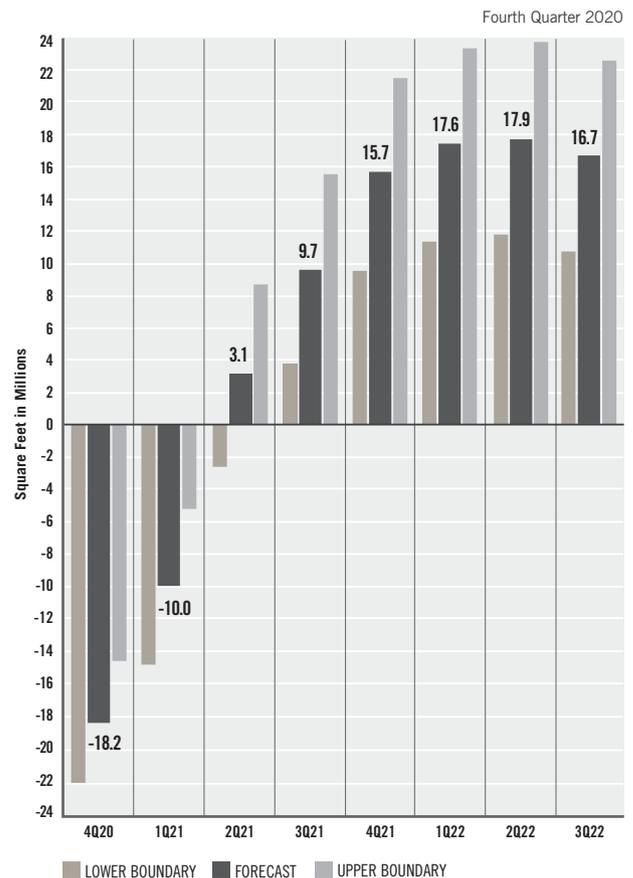
The most recent Industrial Space Demand Forecast (Q3 2020) predicted negative 141 million square feet of industrial space absorption in Q3 2020. Actual absorption proved to be positive 67.7 million square feet, due to a surge in demand for e-commerce distribution facilities that had not accompanied past recessions. The authors of the forecast are monitoring absorption and economic trends and will update the predictive model underlying the forecast as needed.

naiop.org/industrialdemand

TABLE 1

The NAIOP Office Space Demand Forecast with 70% Confidence Intervals

U.S. Markets, Quarterly Net Absorption



NAIOP hosted a series of webinars that explored these reports in greater detail throughout 2020. Listen on-demand at naiop.org/foundationwebinars.



Summer Research
Foundation E-newsletter

JUL

Wellness in the Industrial Workplace Report

This report will explore how warehouse and distribution center design can be improved to promote employee health and well-being and thereby improve recruitment and retention.

It will evaluate working conditions and workforce needs within distribution centers and recommend design features that optimize work environments to improve employee well-being.



Meet Our Distinguished Fellows

The Research Foundation’s Distinguished Fellows Program engages the nation’s foremost commercial real estate, economic and public policy experts. Distinguished Fellows are active participants in NAIOP and contribute articles to NAIOP’s Development magazine, present to the association’s leadership via the Board of Directors or National Forums, participate on corporate committees, and provide advice, feedback and information regarding research being conducted in commercial real estate.

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Associate Teaching Professor and Director of Undergraduate Studies, Department of Urban Studies and Planning
University of California, San Diego

Chris Caplice, Ph.D.

Silver Family Research Fellow Senior Research Scientist, The MIT Center for Transportation & Logistics
Massachusetts Institute of Technology

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Keven McGhan

Instructor, JR Shaw School of Business
The Northern Alberta Institute of Technology

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University of Denver

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Marquette University

Dustin Read, Ph.D.

Associate Professor of Property Management and Real Estate, William and Mary Alice Junior Faculty Fellow
Virginia Polytechnic Institute and State University

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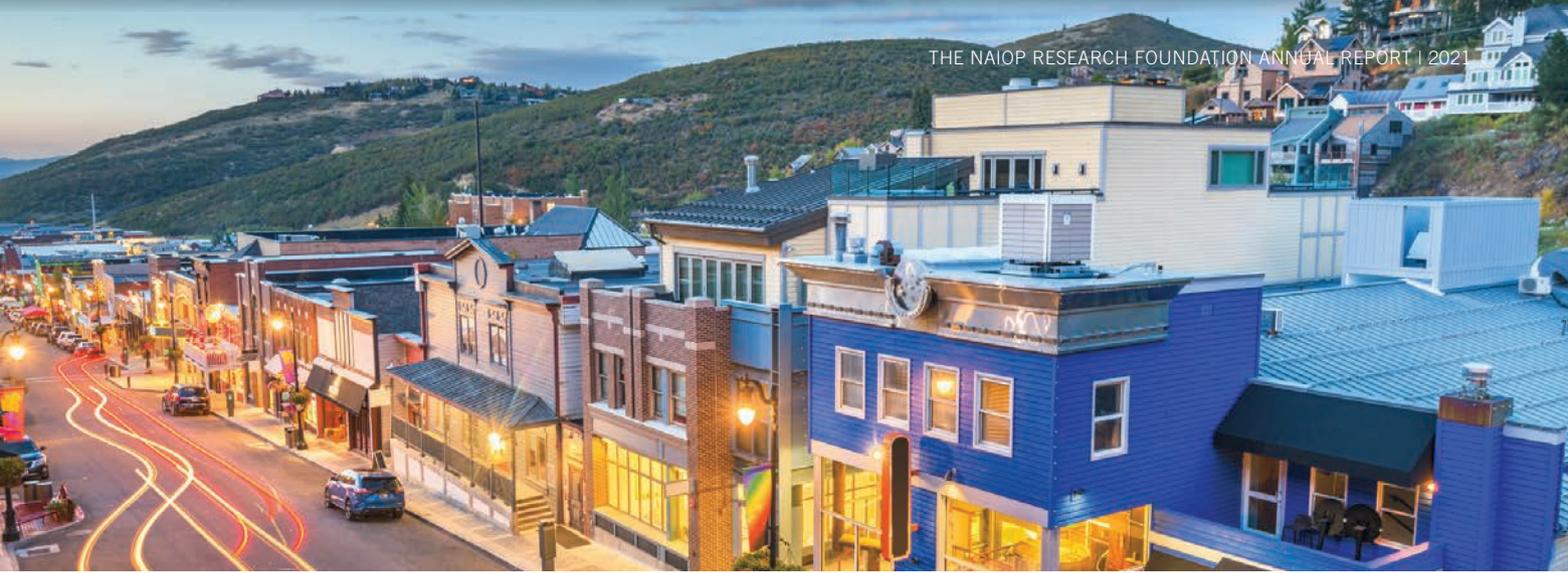
Zhou Yang, Ph.D.

Associate Professor of Economics
Robert Morris University

Read more about this elite group at naiop.org/distinguishedfellows.

★ Denotes new Distinguished Fellow





Research Foundation Thought Leaders Present to NAIOP National Forums

The Foundation's Distinguished Fellows, Research Directors and researchers delivered over 50 presentations to NAIOP National Forums members in 2020, helping to catalyze discussion and share insights during a time when Forums members were unable to meet in person. Topics ranged from reshoring to retail and more.

Distinguished Fellows

Chris Caplice, Ph.D.

Silver Family Research Fellow Senior Research Scientist, The MIT Center for Transportation and Logistics, Massachusetts Institute of Technology

Presentation: "Making Sense of an Uncertain Future: From a Supply Chain Perspective"

Jim Clayton, Ph.D.

Professor and Timothy R. Price Chair, Brookfield Centre in Real Estate & Infrastructure, Schulich School of Business, York University

Presentation: "Beyond Building Certification: The Impact of Environmental Interventions on Commercial Real Estate Operations"

Zhou Yang, Ph.D.

Associate Professor of Economics, Robert Morris University

Presentation: "The Differential Impacts of the Coronavirus Pandemic on Small Business Operations and Finances"

Garrick Brown

Director of Research, Cushman & Wakefield of California

Presentation: "COVID: The Great Retail Reckoning and Mixed-use Reimagining"

Adam Brueckner

Vice President, Research and Global Portfolio Management, Oxford Properties Group

Presentation: "Capital Allocation – A Global Perspective from a Pension Fund"

Jim Costello

Senior Vice President, Real Capital Analytics

Presentation: "Commercial Property Investment Trends in the Age of COVID"

Tejaswi Ponnada Parker

Managing Director, Barings Real Estate Advisors

Presentation: "Is the Return of Manufacturing to North America Inevitable and Imminent?"

Foundation Researcher

Ed Klimek, AIA, NCARB

Partner, KSS Architects

Presentation: "Applying WELL to the Industrial Workplace" and "Mixed-use Industrial Development"

Office Space Demand
Forecast Q4

NOV

NOV

Winter Research
Foundation E-newsletter



Ways to Support the NAIOP Research Foundation

There are a number of ways that your financial support can help to underwrite the important work of the Research Foundation, including special occasion giving, memorial gifts, planned gifts and annual donations.



Sustainers Fund

Income raised through the Sustainers Fund helps the Research Foundation continue to fulfill its mission by providing a sustainable and flexible source of unrestricted income to be allocated where it is needed most. Funds raised allow the Foundation to be more responsive to industry-related issues that arise throughout the year.



Honor a Loved One or Colleague

Individuals, groups and organizations may make memorial gifts in support of the Research Foundation's mission to remember someone who has passed away, honor a living person, or mark a significant life event. Notification of a gift received, along with the donor's name, is sent to the person or persons being honored or memorialized. Those being honored or memorialized are recognized in Foundation materials and online.



Planned Gifts

Planned gifts are designed to help you meet your financial and charitable goals while supporting the Research Foundation in the long term. By making a planned gift, you can make a lasting impact by expanding the Research Foundation's capacity to address the industry's most pressing issues through its cutting-edge research, education and outreach activities. You can provide significant support through a gift that costs nothing in your lifetime through a charitable bequest in your will.

The *Legacy Society* recognizes those individuals who have made estate plans to benefit the Research Foundation.

Thank you to our founding Legacy Society members, **Ron Rayevich** and **Joan Woodard**, for their commitment to the Foundation's future.

Sustainers Fund – 2020 Donors

We are grateful to the donors who generously contributed to the Sustainers Fund in 2020. With their help, we exceeded our goal for the year.

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Please contact **Bennett Gray** at the Research Foundation for more information or to discuss giving options.

Foundation Leadership, Governors and Visionaries

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★ Denotes Former Visionary

CONTINUED ON PAGE 80

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HITT Contracting, Inc.



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Black Creek Group

Foundation Research in the News

Research by the Foundation has been cited in leading news publications:

NAIOP: How Landlords Can Reopen Buildings While Avoiding Liability Risk

“From implementing nonessential access bans to staggering arrival and departure times, a NAIOP brief highlights how building owners should adjust to occupants returning to the office.”

GlobeSt.com | June 11, 2020

Primary, Secondary, Gateway? NAIOP's Two-Dimensional System Brings Clarity to Market Tiers

“This is the situation that NAIOP sought to rectify when one of their reports introduced a new matrix-style market ranking system earlier this year.”

Promodo | June 30, 2020

Industrial Real Estate Will Need More AI and Robotics: NAIOP

“As the rapid growth in e-commerce continues to redefine last-mile delivery, new building uses and logistics technologies emerge.”

Commercial Property Executive | Oct. 15, 2020

NAIOP study examines how retail, office buildings will become part of the ‘last mile’

“The tech-fueled evolution of industrial real estate is creating opportunities for underused assets, large and small.”

Puget Sound Business Journal | Nov. 5, 2020

NAIOP report: Office leasing to rebound in 2021 with short-term leases

“A new report by NAIOP shows negative absorption rates in office leasing is expected to continue through the first quarter of 2021 and then possibly rebound.”

Baltimore Business Journal | Nov. 18, 2020

Industrial Real Estate Faces Short-Term Decline in NAIOP Report

“The resilience that e-commerce offers the industrial market is unlikely to overcome the powerful headwinds of a recessionary economy, according to the latest quarterly forecast from NAIOP.”

Commercial Property Executive | August 24, 2020

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