
The Appraisal Journal

Published by the Appraisal Institute

Jefferson L. Sherman, MAI, AI-GRS, President

Rodman Schley, MAI, SRA, President-Elect

Pledger M. "Jody" Bishop III, MAI, SRA, AI-GRS, Vice President

Stephen S. Wagner, MAI, SRA, AI-GRS, Immediate Past President

Jim Amarin, CAE, MAI, SRA, AI-GRS, Chief Executive Officer

Stephen T. Crosson, MAI, SRA, Editor-in-Chief

Ken Chitester, APR, Director of Communications

Nancy K. Bannon, Managing Editor

Justin Richards, Senior Communications Coordinator

The Appraisal Journal (ISSN 0003-7087) is published quarterly (Winter, Spring, Summer, and Fall). © 2020 by the Appraisal Institute, an Illinois Not-for-Profit Corporation at 200 W. Madison, Suite 1500, Chicago, Illinois 60606. www.appraisalinstitute.org. All rights reserved. No part of this publication may be reproduced, modified, rewritten, or distributed, electronically or by any other means, without the expressed written permission of the Appraisal Institute.

Periodical postage paid at Chicago, Illinois, and at additional mailing offices. **Annual Subscription Rates: Domestic**—\$60 standard rate, \$120 library rate, \$38 AI rate, \$30 student rate, \$35 single copy. **International**—\$120 standard rate, \$175 library rate, \$75 student rate. **Telephone orders:** 888-756-4624.

Online Store: <http://www.appraisalinstitute.org>. Postmaster: Send address changes to Order Fulfillment Department, *The Appraisal Journal*, 200 W. Madison, Suite 1500, Chicago, Illinois 60606. Allow six weeks for changes. To opt out of print copy delivery, email taj@appraisalinstitute.org.

Design and production services provided by Grayton Integrated Publishing: www.graytonpub.com.

Mission Statement: *The Appraisal Journal* is published to provide a peer-reviewed forum for information and ideas on the practice and theory of valuation and analyses of real estate and related interests. *The Appraisal Journal* presents ideas, concepts, and possible appraisal and analytical techniques to be considered; some articles are for the development and expansion of appraisal theory while others are useful in the evolution of practice.

Disclaimer: The materials presented in this publication represent the opinions and views of the authors. Although these materials may have been reviewed by members of the Appraisal Institute, the views and opinions expressed herein are not endorsed or approved by the Appraisal Institute as policy unless adopted by the Board of Directors pursuant to the Bylaws of the Appraisal Institute. While substantial care has been taken to provide accurate and current data and information, the Appraisal Institute does not warrant the accuracy or timeliness of the data and information contained herein. Further, any principles and conclusions presented in this publication are subject to court decisions and to local, state, and federal laws and regulations and any revisions of such laws and regulations.

This publication is for educational and informational purposes only with the understanding that the Appraisal Institute is not engaged in rendering legal, accounting, or other professional advice or services. Nothing in these materials is to be construed as the offering of such advice or services. If expert advice or services are required, readers are responsible for obtaining such advice or services from appropriate professionals.

Nondiscrimination Policy: Organized in 1932, the Appraisal Institute advocates equal opportunity and nondiscrimination in the appraisal profession and conducts its activities in accordance with applicable federal, state, and local laws.

The Appraisal Institute advances professionalism and ethics, global standards, methodologies, and practices through the professional development of property economics worldwide.

The Appraisal Journal Editorial Board

Stephen T. Crosson, MAI, SRA,* *Chair*, Dallas, Texas
Larry T. Wright, MAI, SRA, AI-GRS, *Vice Chair*, Houston, Texas
Julie Friess, SRA, AI-RRS, Sedona, Arizona
Walter E. Gardiner, SRA, AI-RRS, Hammond, Louisiana
Kerry M. Jorgensen, MAI, Sandy, Utah
David C. Lennhoff, MAI, SRA, AI-GRS, Darnestown, Maryland
Mark R. Linné, MAI, SRA, AI-GRS, Lakewood, Colorado
James H. Martin, MAI, Mt. Pleasant, South Carolina
Stephen D. Roach, MAI, SRA, AI-GRS, San Diego, California

The Appraisal Journal Review Panel

Gregory J. Accetta, MAI, AI-GRS, Providence, Rhode Island
Anthony C. Barna, MAI, SRA, Pittsburgh, Pennsylvania
C. Kevin Bokoske, MAI, AI-GRS, AI-RRS, Ft. Lauderdale, Florida
George Dell, MAI, SRA,* San Diego, California
Stephen F. Fanning, MAI, AI-GRS,* Denton, Texas
Kenneth G. Foltz, MAI, SRA, Wilmington, North Carolina
Jack P. Friedman, PhD, MAI, SRA, Chicago, Illinois
Brian L. Goodheim, MAI, SRA, Boulder, Colorado
Robert M. Greene, PhD, MAI, SRA, AI-GRS, Olympia, Washington
John A. Kilpatrick, PhD, MAI, Seattle, Washington
S. Warren Klutz III, MAI, SRA, AI-GRS, Bristol, Tennessee
Douglas M. Laney, MAI, Tucson, Arizona
Mark E. Mitchell, MAI, AI-GRS, Louisville, Kentucky
Dan P. Mueller, MAI, St. Paul, Minnesota
Nathan Pomerantz, MAI, Rehovot, Israel
Rudy R. Robinson III, MAI, Austin, Texas
David J. Sangree, MAI, Cleveland, Ohio
John A. Schwartz, MAI, Denver, Colorado
Melanie Sieger, MAI, AI-GRS, Chevy Chase, Maryland
Dan L. Swango, PhD, MAI, SRA, Tucson, Arizona
James D. Vernor, PhD, MAI, Atlanta, Georgia

The Appraisal Journal Academic Review Panel

Tim Allen, PhD, Florida Gulf Coast University
Anjelita Cadena, PhD, University of North Texas
Peter F. Colwell, PhD, University of Illinois
François Des Rosiers, PhD, Laval University

Barry A. Diskin, PhD, MAI, AI-GRS, Florida State University
Donald R. Epley, PhD, MAI, SRA, University of South Alabama
Jeffrey D. Fisher, PhD, Indiana University
Terry V. Grissom, PhD,* University of Missouri–Kansas City
Thomas W. Hamilton, PhD, MAI,* Roosevelt University
William G. Hardin III, PhD, Florida International University
Lonnie W. Hendry Jr., Texas Tech University
Mark Lee Levine, PhD, JD, MAI, University of Denver
Kenneth M. Lusht, PhD, MAI, SRA,* Florida Gulf Coast University,
Penn State University
Mark E. Moore, PhD, Texas Tech University
Barrett A. Slade, PhD, MAI, Brigham Young University
Brent C Smith, PhD, Virginia Commonwealth University
Mark A. Sunderman, PhD, University of Memphis
Grant I. Thrall, PhD, University of Florida
Alan Tidwell, PhD, University of Alabama
H. Shelton Weeks, PhD, Florida Gulf Coast University
John E. Williams, PhD, Morehouse College
Elaine M. Worzala, PhD, College of Charleston

*Statistics Work Group member