Introduction to Valuing Oil Refineries

John Lifflander
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Mark Alexander
Assessor
Johnson County, Indiana

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FEATURE

22 Introduction to Valuing Oil Refineries
John Lifflander

COLUMNS

3 From the President
Chris Bennett

5 In the News
Chris Bennett

6 Legal Trends
Sandra Patterson

17 U40 Leadership Lab—Eight Ideas for Cleaning Data and Improving Values
Ryan DeLeon, RES, AAS

19 Know to Grow
Robert McGee

44 New Directions—Putting the ‘I’in IAAO
Margie Cusack

DEPARTMENTS

2 What’s Happening at IAAO

10 Congratulations New Designees

19 Calendar of Events

29 IAAO Library—New Materials Quarter 3, 2017

35 Where Do You Read F&E?

36 Education Calendar

39 Member Anniversaries

41 New Members

42 IAAO Career Center

INTERVIEW

8 New Member Profile: Alison Clarke
Kate Smith

SPOTLIGHTS

9 In Appreciation of Jewette Farley, CAE, RES
Jean Spiegel

32 Finding Statewide Comparable Sales Using GIS
Billy Burle and Patrick M. O’Connor

34 Make Your Own Ball Day: A Ball Can Change Lives
Carol Burgeson

40 NRAAO 2017 Conference Set Sail for a Whale of an Education
Donna Ralston, NRAAO President, and Marsha Standish, Conference Chair

SPECIAL SECTION

13 IAAO 2016 Financial Statements

The statements made or opinions expressed by authors in Fair & Equitable do not necessarily represent a policy position of the International Association of Assessing Officers.
IAAO is now accepting presentation proposals for the 12th International Research Symposium, April 5–6, 2018, in Prague, Czech Republic.

The two-day symposium will continue the exploration of mass appraisal valuation and innovation initiated during past symposiums. Expected topics include the following:

- Automated valuation models (AVMs)
- Innovations using geographic information system (GIS) technologies in valuation and land administration
- Updated industry guidelines for best practices
- Implementation challenges facing government and valuation administration
- Emerging issues in tax policy and the assessment industry spurred by the changing economy.

Submissions for presentations in other content areas are also welcome.

The deadline for submitting abstracts is August 14, 2017. Submissions will be reviewed by the IAAO Research Subcommittee, and presenters will be notified by September 18, 2017.

IAAO business partners are also encouraged to submit proposals for presentations. Submissions by IAAO partners that include jurisdictional implementations as case studies are preferred.

Presenters will be given a discounted registration rate of $300, but there is a limit to the number of discounted registrations for each session.

Presentations are expected to be about 30 minutes in length; however, opportunities for 1-hour sessions are also available. Submissions should include how the presentation relates to the assessment profession and specifically one of the topics areas in the bullet list.

Online abstract submission forms can be downloaded from the IAAO website. For any additional questions regarding abstract submissions, contact Margie Cusack at cusack@iaao.org or 816/701-8123.

There is still time to register for the 11th International Research Symposium in Madrid, Spain, October 30–31, 2017. For details and to register, visit www.iaao.org/irs2017.

Two recently completed projects will be the focus of sessions at IAAO meetings this fall.

The research and findings of the IAAO Big-Box Task Force will be the focus of a plenary session at the Annual Conference in Las Vegas on Tuesday, September 25. The revised Standard on Automated Valuation Models (AVMs) will be the focus of a program at the International Research Symposium in Madrid in October.

At the Annual Conference plenary, members of the IAAO Big-Box Task Force will walk the audience through the findings of their recently developed paper focusing on the key elements, including the “dark store” theory, that assessment officials consider when addressing the challenges of big-box store valuation.

The revised Standard on Automated Valuation Models (AVMs) at the International Symposium will be presented by Randy Ripperger, CAE, IAAO President and Assessor, Polk County, Iowa, and August Dettbarn, IAAO Technical Standards Subcommittee and Appraiser Manager for Douglas County, Kansas.

The first class of the online version of Course 101 is set for this summer, and there is currently a wait list that should fill the class. Future online classes are set for the fall and winter. Dates for the in-person offerings can be found on the website or in Fair & Equitable.

The six-week online course provides procedures and techniques required to estimate the market value of vacant and improved properties, with a focus on the cost and sales comparison approaches.

This six-week online course provides procedures and techniques required to estimate the market value of vacant and improved properties, with a focus on the cost and sales comparison approaches.

Online classes are limited to 25 students. The rate is $499 for IAAO members and $725 for nonmembers.

The initial classes were not approved by the International Distance Education Certification Center (ID ECC), but future classes are anticipated to be granted approval.
Dear IAAO Members,

I hope this finds each of you enjoying the summer! Many of you travel during this time of year and so do IAAO officers.

At the invitation of the Hawaii Chapter of IAAO, I attended the Real Property Assessment Board of Review Conference in Honolulu in late May. I presented “The Competent Appraiser—How IAAO Provides Resources for Appraisers to Develop their Appraisal Competency” to approximately 80 people from four counties. It was a pleasure to exchange information with managers, appraisers, mayors, clerical staff, legal counsel, and finance directors.

President-Elect Dorothy Jacks, AAS, Vice President Tim Boncoskey, and Executive Director Ron Worth, CAE, attended The Appraisal Foundation (TAF) Board of Trustees meeting in Florida in May. TAF meetings always provide interesting observations about the future of the assessment industry. This one included a meeting of the North American Council of Appraisal Organizations (NACAO). Ms. Jacks and Mr. Worth served as NACAO chairs and heard commentary from participants on the challenges posed by the retirement of many members. IAAO member Tim Wilmath presented a fascinating history of property valuation in Palm Beach.

Mr. Boncoskey also visited two Canadian affiliates to attend their conferences: the Alberta Assessors’ Association and the Association of Assessing Officers of Manitoba. Both conferences featured outstanding content, and it was a timely trip as he took part in discussions on important issues and changes taking place for IAAO Canadian members. He then attended the Northeastern Regional Association of Assessing Officers (NRAAO) meeting in Mystic, Connecticut, in May. A detailed report on the NRAAO meeting appears on page 40.

In early May, Mr. Worth and Research Manager Margie Cusack attended the Royal Institution of Chartered Surveyors (RICS) Summit of the Americas, which provided a strong picture of the economic forecast for America and the world. They met with RICS leaders and staff as well as members of the Ontario Chapter of IAAO, who want to work closely with IAAO on education and designations.

The IAAO Executive Board is meeting in Boston, Massachusetts, July 14–15, and we look forward to visiting with local chapters while there. Officers will then visit more chapters and affiliates until the IAAO Annual Conference in Las Vegas in September.

With that, make your hotel reservations for the Annual Conference. The city anticipates rooms in the area will sell out. Hotel information can be found on the IAAO website.

Thank you to everyone who has welcomed IAAO at chapter and affiliate events. I’m excited to meet with more of you over the next few months.

Sincerely,

Randy Ripperger, CAE
Call for Papers
Submissions due October 1, 2017

22nd GIS/CAMA Technologies Conference • March 19–22, 2018 • Houston, TX

The educational program is developed by reviewing submissions received through the Call for Presentations. The 2018 Conference Planning Committee welcomes the submission of individual papers, complete sessions, panels, and lightning talks. All abstracts will be reviewed and considered for the educational program. Suggested topics are provided for general reference only. We welcome topics of interest at all levels of expertise, from beginner to expert.

Suggested topics:
- GIS Technologies
- Parcel Fabric
- Tools for Appeals
- Parcel/Cadastral Mapping
- Mentoring the Next Generation
- Tax Policy Issues
- Integrating GIS and CAMA Data
- Data Aggregation and Sharing
- International Topics
- Case Studies of Assessment and Parcel Workflows
- Using Assessor’s CAMA Data & GIS for Emergency Planning and Disaster Response
- Automated Valuation Models
- Safety in the Field
- Mobile & Cloud Solutions
- Open Records Issues
- Next Generation 911
- Disaster Response
- Future-Looking Topics
- Property Valuation
- Special Property Types
- Oil & Gas Valuation
- State Assessed Value Allocation
- Management and Leadership

For more information, go to www.urisa.org and check on the GIS/CAMA logo.

Call for Workshop Proposals
Submissions due August 1, 2017

22nd GIS/CAMA Technologies Conference • March 19–22, 2018 • Houston, TX

Do you enjoy teaching/presenting? Want to help transfer knowledge to the greater GIS/CAMA community? The 2018 Conference Planning Committee is soliciting educational content and instructors for full-day and half-day preconference workshops, instructor honorariums available. All proposals submitted will be reviewed and considered by the Conference Planning Committee. Suggested topics are provided for general reference only. We welcome workshop topics of interest at all levels of expertise, from beginner to expert.

Suggested Workshop topics:
- Using Assessor’s Data for Disaster Management and Recovery
- CAMA Data Mining—Real Life Examples—Tips & Tricks
- Social Media for Assessor’s Offices
- ArcGIS Applications & Topics (Hands-On Workshops)
- Application Scripting and Development
- Data Quality Management/Metadata
- Model Development and Refinement
- Using Statistical Software with GIS Data
- Management Topics for Elected Officials
- Geostatistical Analysis
- Parcel/Cadastral Mapping
- IAAO One-Day Forums
- USPAP 7-Hour Update
- GIS/CAMA Integration
- What To Do When Things Don’t Go as Planned
- Data Aggregation and Sharing
- International Topics
- Case Studies of Assessment and Parcel Workflows
- Using Assessor’s CAMA Data & GIS for Emergency Planning and Disaster Response
- Automated Valuation Models
- Safety in the Field
- Mobile & Cloud Solutions
- Open Records Issues
- Next Generation 911
- Disaster Response
- Future-Looking Topics
- Property Valuation
- Special Property Types
- Oil & Gas Valuation
- State Assessed Value Allocation
- Management and Leadership

For more information, go to www.urisa.org and click on the GIS/CAMA logo.

“Houston, we have a solution!”
Ohio, United States
‘15 big year in property tax of gas companies
(published May 23, 2017)
by Tom Giambroni, Salem News

Article discusses property tax payments on production of oil and natural gas in Ohio. Increases in oil and gas production from fracking have significantly increased property tax revenues and increased revenue projections for the future.


Indiana, United States
Plotting impact of farm tax drop
(published May 14, 2017)
by Jacob Tellers, Daily Journal

Article discusses changes to the assessment cycle for Indiana agricultural properties, with reassessment every two years instead of every four years. This more accurately reflects economic factors affecting crop sales and income per acre.

http://www.dailyjournal.net/2017/05/15/plotting_impact_of_farm_tax_drop/

Melbourne, Victoria, Australia
Vacant property tax plan to cause ‘headache’ for Victorian homeowners, MPs say
(published May 14, 2017)
by Alex White, Herald Sun

Article discusses proposed legislation to add a vacancy tax for Melbourne properties unless they are occupied for at least six months per year. Concerns have arisen surrounding enforcement and interpretation of what constitutes a vacant property.


California, United States
Bill would expand property tax portability for older CA homeowners
(published May 12, 2017)
by Kathleen Pender, San Francisco Chronicle

Article discusses Proposition 90, a California law that allows home owners 55 years and older to transfer their property tax base from their current home to a replacement home of equal or lesser value within the same county or other counties that have an intercounty transfer agreement.


Ireland
Property tax take too low, says EU in warning over ‘volatile revenue’
(published May 23, 2017)
by Sarah Collins, Irish Independent

Article discusses annual budget recommendations from the European Commission to European Union member Ireland. Recommendations include gradually increasing the property tax to levels that are closer to the average in the European Union. An additional recommendation is to introduce a wider range of taxes.


Illinois, United States
Illinois must aim higher than property tax freeze
(published May 10, 2017)
by The Times

Editorial opinion criticizes support of plans to freeze local property taxes in the face of reduced state spending in support of local jurisdictions. The article advocates for clearer definitions of revenue resources and how they are spent.

http://www.mywebtimes.com/news/editorial/illinois-must-aim-higher-than-property-tax-freeze/article_49d9e6f5-50d7-5ca2-b0de-64ab98e4a3e0.html

Idaho, United States
Changes to property tax exemption incentive open it up to more businesses
(published May 6, 2017)
by Torrie Cope, Idaho Press-Tribune

Article discusses nonretail business property tax exemptions in Idaho that are attracting new businesses, retaining existing businesses, and creating jobs. Exemptions on 75 percent of property value for 5 years are approved at the discretion of the county commissioners. To qualify, manufacturing businesses must invest a minimum of $3 million. State tax reimbursement incentives also available and require a local match. Recent changes to the law open eligibility for the incentives to all nonretail commercial and industrial businesses and lower the initial investment requirement to $500,000, which may benefit more rural counties.

Equalization
The Nebraska Supreme Court has rejected an equalization panel’s order for an across-the-board reduction to residential assessments in a section of the city of Omaha. The court said the reduction would not solve the inequity that an examination of the assessments had revealed. To arrive at that conclusion, the court’s analysis relied heavily on the performance criteria published in IAAO’s Standard on Ratio Studies (2013).

Under Nebraska law, residential assessments in any area must fall within 92 to 100 percent of actual value as measured by “an established indicator of central tendency.” Areas that fall outside this range can be ordered to make an overall percentage adjustment as determined by the Tax Equalization and Review Commission (TERC), which has the statutory responsibility to ensure uniformity of assessments.

The state property tax administrator is responsible for providing analyses, including nonbinding recommendations, to TERC to inform its equalization decisions. These analyses are based on a comparison of the assessed value of properties that have sold during the year against their reported sale price. The sales data are obtained from transfer documents, which must be filed with the county recorder of deeds. Assessor’s offices also submit monthly reports flagging sales that are not arm’s-length transactions. The property tax administrator had recommended that no adjustment be made to this area.

IAAO Guidelines Govern
Certain TERC regulations governing this process adopt the guidelines put forth in IAAO’s ratio studies standard. The recognized measure of central tendency is the median. The test of the validity of the central tendency is the coefficient of dispersion (COD), and the results, to be acceptable, must fall within the IAAO-recommended range of 15 or less for residential properties. The test for uniformity between properties in various price ranges (vertical equity) is measured by the price-related differential (PRD), and once again, the acceptable range is determined by the IAAO standard, which is 0.98 to 1.03.

In the area in dispute, the median of the assessment-to-sale-price ratios was determined to be 104.82. The COD, however, was 48.43. According to testimony by the county’s deputy field assessor, the numbers were skewed because of an unusual volume of sales of low-value properties combined with a few sales of high-value properties. If property sales less than $15,000 were excluded, the median would fall to 100.45. If property sales less than $30,000 were excluded, the median would fall to 96.21, which would be within the acceptable range. Sales more than $30,000 represented 62 percent of all sales in that area.

The high COD score, the court stated, confirmed that there was no central tendency among the property assessments to measure. Therefore, applying a blanket equalization factor would not improve the overall accuracy of the assessments but merely shift the problems to different properties.

Likewise, there was a lack of uniformity between lower-priced and higher-priced properties. A PRD of 1.22 indicated that lower-priced properties were significantly overassessed, while higher-priced properties were significantly underassessed. If the ordered 8 percent reduction were applied to all properties, the median sales ratio for mid- and higher-priced properties, those sold for $30,000 or more, would fall from 96.21 to 88.51, below the acceptable range. Meanwhile, the reduction would only bring the median of lower-priced properties, those priced under $30,000, from 149 to 137. Such a change would only make a small dent in the overassessment of these properties, the court said.

Reappraisal, not Equalization
Therefore, the equalization commission’s decision to reduce all assessments in the area was not “based on competent evidence” and was “arbitrary, capricious, and unreasonable,” the court said. The types of uniformity problems evidenced with these assessments cannot be improved by equalization orders, the court stated. The proper solution is model recalibration and/or reappraisal.

Adjustments to two other residential areas in the city also were in dispute in the case. The court found that the recommended increases—7 percent in both areas—were appropriate. The mediants for these areas were 89.77 and 90.08. The COD for the former was 15.27 and for the latter, 12.49. Since both CODs were within IAAO’s accepted range for residential properties, the court said, it validates that the median is an accurate indicator of the central tendency of the assessment-to-sale-price ratios in these areas. The PRDs were 1.0571 and 1.0347, respectively. Even though these numbers were a little over the accepted range, the court reasoned, the vertical inequity was minimal especially when compared to the PRD of 1.22 in the other area. For these reasons, the court upheld the 7 percent increase to the assessments in these two areas.

Proof of Mailing/Timely Filing
A law firm (and its client) were spared having a tax appeal tossed when a U.S. Court of Appeals ruled that the date on the Stamps.com postage provided proof of timely filing. The U.S. Tax Court had ruled that the paperwork was not timely filed.

The case involved a request for redetermination of an income tax payment deficiency. According to Internal Revenue Service regulations, to be timely filed, the required paperwork must be placed in a U.S. Postal Service collection box before the last pickup on the postmark date. The date stamp from certain courier services also is accepted. The law firm handling the appeal mailed the documents by certified mail on the last day of the 90-day filing period. The postage was paid by printing a Stamps.com label that showed the printing date.

The appeals court said it had no reason to believe that the envelope was not mailed on the date listed on the Stamps.com label. The court further found it plausible that a timely mailed envelope might take 8 days to travel from Salt Lake City, Utah, to the tax court in Washington, DC.

Moreover, the contention that the envelope could not have been timely mailed because the post office did not enter the certified mail tracking number until 2 days after the deadline also was rejected by the appeals court. There is nothing to indicate that the post office enters the tracking number on
Friends of the Paul V. Corusy Memorial Library

Matching Campaign

Benefactor
Peter Korpacz of Korpacz Realty Advisors
$2,500

The Friends of the Paul V. Corusy Memorial Library has set a fund-raising goal of $10,000 this year. Peter Korpacz of Korpacz Realty will match the first $2,500 in donations.

Make Korpacz turn loose his money!

Current Project in Progress: Digital Repository
Make a donation at the 2017 Annual Conference and register to win a Samsung Galaxy Tablet!

www.iaao.org

Receipt, the court stated. This presumption is supported by the fact that the tracking number was entered at a different postal facility than the claimed mailing location. Furthermore, there is nothing to indicate that the post office considers the tracking number entry date as the equivalent of a postmark, the court said.

Even though the law firm ultimately prevailed in its litigation, the court expressed “its astonishment” that the firm would risk its client’s money (and its own “in the malpractice lawsuit soon to follow”) when they just could have made a trip to the post office.


Senior Housing/Possessory Interests

Senior citizens, who paid a fee for the right to occupy a dwelling in a retirement community, were subject to ad valorem taxation on their living quarters even though the property’s owners, as charitable institutions, were tax-exempt. The Kentucky Court of Appeals ruled that residents had a possessory interest in their units and that interest was taxable. The court further ruled that the resident’s interest should be valued as a leasehold interest.

Residents paid an entrance fee of between $151,000 and $252,000 to live at the complex. The fee entitled residents to the exclusive use of their unit for their lifetime or until they terminated their resident agreement. Upon termination, the entrance fee was refunded minus any costs necessary to refurbish the unit beyond normal maintenance. If a new occupant could not be obtained within six months, an additional 18 percent was deducted from the refund. Residents also could receive a portion of any increase to the price of their unit.

The land was owned by a Masonic lodge. The lodge formed a separate nonprofit corporation for the purpose of providing “affordable housing to senior citizens.” The lodge leased the land to the corporation for 24 years with a renewal option of another 24 years. At the end of the lease term, the lodge had the right to purchase the housing units the corporation had built on the property.

Both organizations qualified as public charities under Kentucky law, so both were exempt from property taxes on any property they owned and occupied.

Providing seniors access to housing may be within the organizations’ charitable purpose, but neither the lodge nor the community developer could be said to occupy the housing units, the court explained. The resident agreement and the fee that granted exclusive use of a unit gave its occupant a possessory interest. That interest has a value to the unit’s resident and thus it is taxable to the resident, the court said. Kentucky statutes permit an otherwise exempt property to be taxed if it is occupied by a private individual or a business conducted for profit, the court said.

In terms of the proper valuation approach, the court opined that the possessory interest most closely resembled a leasehold interest. The court instructed that it was “well settled” that the appropriate method for valuing a leasehold interest was to subtract the fair market value of a unit as leased from the estimated fair market value without the lease.

(Grand Lodge of Kentucky Free and Accepted Masons v. City of Taylor Mills, Kentucky Court of Appeals, No. 2015-CA-001617-MR, February 10, 2017)
New Member Profile: Alison Clarke
Kate Smith

Alison Clarke
Property Valuation Analyst
Municipal Property Assessment Corporation (MPAC)
Hamilton, Ontario, Canada

Q. How did you start working in the property assessment profession?
I was formally admitted to the Appraisal Institute of Canada in 2004 as a candidate fee appraiser. In 2009, I was granted the Canadian Residential Appraiser (CRA) designation. In my term as a fee appraiser, I completed a variety of appraisals, for matrimonial, employee relocation, and mortgage financing purposes and for property types including single- and multifamily residential and waterfront and cottage properties. In 2014, ready for a new challenge and armed with experience as well as a Certificate of Real Property Assessment, I applied to the Municipal Property Assessment Corporation (MPAC) for a Property Inspector position and quickly moved up to Property Valuation Analyst in the commercial/industrial side. I am excited to be a new member of IAAO, and I am setting my sights high to obtain my CAE designation next.

Q. What about your role do you enjoy most?
I love the different work priorities, the collaboration with my peers, and the chance to continue to learn through on-the-job training.

Q. What about your role is the most challenging?
My experience has prepared me well for this role, and I never turn down any opportunity to challenge my mind.

Q. What would you be doing if you weren’t in a property valuation-related job?
I would probably be a paramedic or firefighter—not related at all to valuation—but these jobs would still allow me to challenge my mind and to work in the field and with the general public.

Q. If IAAO members visit your city, what should they do there and why?
Hamilton is a larger city perfectly situated between Toronto, Ontario, and Buffalo, New York. It is considered the waterfall capital of the world with more than 100 to explore. Hamilton also offers a grand stadium for Canadian Football League games and for large-scale concert and entertainment events. It has a well-developed art district and a delicious foody scene, and the views from the vast waterfront to the outstretching Niagara Escarpment are breathtaking. From the downtown urbanite hustle and bustle to the quieter conservation parks and world-class post-secondary schools and hospitals, there is something for everyone here.

Q. What are your main interests or hobbies outside of work?
I love my family time, baking, gardening, eating as much sushi as humanly possible, and boxing.

Fundamentals of Tax Policy eBook Available!

Fundamentals of Tax Policy is now available in digitally protected eBook format and in a soft cover print edition. This book explores the concepts and philosophy of taxation, the underlying systems for taxation, and the effects of taxation, thus offering insight into current tax policy debates. The book presents a broad overview of general tax policy with an emphasis on property tax policy.

Fundamentals of Tax Policy is the recommended text for IAAO Course 402 Tax Policy.

Soft cover: Member Price: $49.99, $38 through August 31, 2017
eBook: Member Price: $70.00, $38 through August 31, 2017

Nonmembers can join and save $32 on an eBook purchase (nonmember price $70) through June 31, 2017.

To order at this special price go to the IAAO Marketplace. IAAO.org⇒Store⇒E-Books or call 800-616-4226.
In Appreciation of Jewette Farley, CAE, RES

Jean Spiegel

To find joy in work is to discover the fountain of youth
—Pearl S. Buck

As Professional Development Operations Director, I work closely with all the IAAO instructors. Recently I heard through the assessor grapevine that one of the instructors had just turned 80 years old. It must be a retired instructor, I thought. I was wrong. IAAO instructor Jewette Farley had just turned 80 years young. I am in absolute awe of his youthful appearance and attitude.

Mr. Farley has been a member of IAAO since 1977. He earned his RES designation in 1988 and went on to achieve his CAE designation in 1990. Mr. Farley has contributed many hours to IAAO over his 40 years of membership, serving on the Education and Professional Development Committees, on the Executive Board, and as President in 1999.

I am most familiar with Mr. Farley the IAAO Instructor. He became an instructor in 1988 and is still going strong. He has taught more than 2,700 students from 17 states just since the year 2000. It is conceivable that he has helped more than 5,000 students succeed in the assessment profession in his time as an IAAO instructor.

With the recent IAAO compensation survey showing a large number of assessment professional retirements occurring in the next few years, however, will Mr. Farley be one of those? The table compare student evaluations from 1998 to those of 2016 to see if his utility and performance have declined.

On the basis of student comments in the table, it appears, if anything, that he is improving with age, and his students are still being treated to a great educational experience—one IAAO that would not like to lose!

Perhaps a look at Mr. Farley as a beautiful, well-seasoned house and use of the age-life method of depreciation can help determine how he is “holding up”:

- Actual age is 80 years.
- Effective age is 65 years based on excellent condition and ongoing utility.
- Economic life is 100 years since immortal is not an actual number.
- Remaining economic life is 35 years.

It appears that Mr. Farley will be sharing his many stories and experiences with other IAAO students for as long as he feels compelled or at least until he becomes a full-time collector of “treasures.”

He is an IAAO treasure, and the association is blessed to have him as a member.

Happy Birthday Jewette Farley from IAAO staff, fellow instructors, and many, many members who feel honored to call you friend.

Jean Spiegel is the Professional Development Operations Director at IAAO and Staff Liaison to the Instructor Relations Subcommittee.

Table. Student comments

<table>
<thead>
<tr>
<th>1998</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent Instructor—informative, knowledgeable, interesting and funny</td>
<td>Professional, entertaining, knowledgeable. Instructor did an excellent job and made the week go fast.</td>
</tr>
<tr>
<td>Jewette is a gifted instructor. He has a wealth of knowledge and experience that he imparts easily.</td>
<td>Presents material in easy to understand and memorable format. Relates topics to real world examples. Learned more than just class materials.</td>
</tr>
<tr>
<td>Jewette is an outstanding instructor who makes class interesting and informative by relating his personal experiences as an assessor.</td>
<td>Best instructor I have ever had. He not only knew his subject but he was able to use in real world situations and make subject relatable.</td>
</tr>
<tr>
<td>Mr. Farley is a gentleman and a terrific instructor. With his humorous stories and course explanations, he made the class enjoyable and I looked forward to coming to class.</td>
<td>Instructor was very well prepared and engaging. His personal illustrations were very helpful and appropriate.</td>
</tr>
<tr>
<td>Mr. Farley does a very good job of explaining very complicated problems and situations and making them simple.</td>
<td>This is my first class and the instructor set the bar high. Knows how to keep your attention. Taught in a way that was easy to learn and understand.</td>
</tr>
</tbody>
</table>
Melissa K-A Chandler, RES, fulfilled the requirements of the Residential Evaluation Specialist in May. Ms. Chandler is a Residential Real Estate Assessment Manager in the Orange County (Florida) Property Appraiser’s office, a position she has held for two and one-half years. Before joining this office in 2014, she performed fee appraisals as a certified residential real estate appraiser. As the market and government regulations changed, she moved to the private sector, managing large teams in performing high-level reviews for properties across the country. Ms. Chandler graduated from the University of Central Florida, Orlando, with a Bachelor of Science in business administration, majoring in real estate with a minor in sports business management. She holds the Certified Florida Evaluator designation from the Florida Department of Revenue and the Senior Residential Appraiser designation from the Appraisal Institute, for which she advises candidates for designation and will serve as director of the East Florida Chapter from 2018 to 2020. Ms. Chandler is a member of the Florida Chapter of IAAO and served as a volunteer at the 2016 IAAO Annual Conference in Tampa.

Vince McLaren, AAS, earned the Assessment Administration Specialist designation in May. Mr. McLaren is a Commercial Appraiser II with the Palm Beach County (Florida) Property Appraiser’s Office, an office he has served for 13 years. He began as a commercial building evaluator and was quickly promoted to appraiser, responsible for assessing commercial land. In 2010 he was given the responsibility of assessing golf and country clubs along with drugstores and medical office buildings throughout Palm Beach County. Prior to joining the assessment office, Mr. McLaren worked as a fee appraiser for one year. Before joining the profession, he spent 13 years in the golf business, working his way to Head Professional/General Manager for two golf clubs in Palm Beach County.

John H. Geier II, RES, earned the Residential Evaluation Specialist designation in May. For the past 12 years, Mr. Geier has been a Senior Appraiser, Real Property, for the County Assessor’s Office, Mecklenburg County, North Carolina. He began his assessment career in this office as a temp worker, assigned to measure and list new construction. He was hired full time in September 2004 and has since worked his way to his present position in the commercial division. Mr. Geier is a graduate of the U.S. Naval Academy, earning a Bachelor of Science in history. He also holds a Master of Science in Administration from Central Michigan University, Mount Pleasant. Prior to his assessment career, Mr. Geier served in the U.S. Marine Corps, where he taught the Security Supervisors Course at Marine Corps Security Forces Training Center– Atlantic; he was Second-in-Command for this school with an annual throughput of more than 2,000 students. For his service, he has been decorated with the Defense Meritorious Service Medal and Navy-Marine Corps Achievement Medal.

Robert Alan McCarty, RES, met the requirements of the Residential Evaluation Specialist designation in May. Mr. McCarty is a residential appraiser with the Travis Central Appraisal District in Austin, Texas, a position he has held since 2011. He began his assessment career as a commercial real estate appraiser in Houston, Texas, in 1990. He left in 1993 and returned to the profession in 1998 as a residential fee appraiser in San Antonio, Texas, through 2007. He then worked for Dallas County Public Works as a right-of-way appraiser through 2011 before starting his present position. Mr. McCarty holds a Bachelor of Business Administration from Baylor University, Waco, Texas. In addition to IAAO education, he has completed courses with the Appraisal Institute and the International Right of Way Association. Mr. McCarty has been a Texas Certified General Appraiser since 2003, a Senior Residential Appraiser of the Appraisal Institute since 2008, and a Registered Professional Appraiser since 2015 and is a Texas Real Estate Broker.
Don Horton, RES, completed the requirements of the Residential Evaluation Specialist designation in May. Mr. Horton is Vice President, Appraisal Services, for Arkansas CAMA Technology, Inc. (ACT). He joined ACT in 1996 as a project director, holding this position until 1999 when he became a regional appraisal manager; he assumed his present position in 2013. Prior to his work with ACT, he served as senior appraiser for Jefferson County, Arkansas, from 1990 to 1995 and one year as a property record auditor with the Arkansas Assessment Coordination Department. Mr. Horton attended Arkansas State University, Jonesboro, and is an active member of the Arkansas Chapter of IAAO, serving as a regional board member and currently as president. Mr. Horton began his assessment career in 1990 when he moved to a new city and went to the assessor’s office to have his vehicle assessed to renew the license plates. He noticed a sign advertising a real estate appraiser position and asked for an application. After 27 years in the business, he thinks it’s turned into a pretty good career decision.

Loren A. Williams, RES, fulfilled the requirements of the Residential Evaluation Specialist designation in May. Ms. Williams serves as a Residential Valuation Analyst for the Harris County (Texas) Appraisal District. She began with Harris County in December 2011 as a Residential Field Appraiser. In 2012, she accepted the role of Business Personal Property Valuation Analyst for two years before returning to the residential department in her present position. Ms. Williams holds a Master of Business Administration and a Bachelor of Business Administration in management and marketing from Sam Houston State University, Huntsville, Texas. She is a Certified Texas Property Tax Education Coalition course instructor and a Registered Professional Appraiser in the state of Texas.

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with your designation from the Appraisal Institute or American Society of Appraisers

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• AI’s MAI or SRA
• ASA’s Ad Valorem/Mass Appraisal-General or Ad Valorem/Mass Appraisal-Residential

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For more information on the IAAO Professional Designation Program, contact Jarron Paronto at 800-616-4226 or Paronto@iaao.org

www.iaao.org/designations
Are you missing tax revenue due to data issues? We can help.

With Assessment Analyst, you can quickly uncover omissions or data inaccuracies to ensure equity and uniformity while finding missing tax revenue. Reduce and mitigate your appeals with assessments that are based on accurate and factual data. This complete desktop review solution allows you to identify data anomalies, make corrections on demand and completely resolve your assessment file using one completely integrated application.

What’s more, Assessment Analyst can be extended with sketching (GeoSketch) and mobile (Assessment Analyst Mobile) capabilities to deliver a robust end-to-end solution for all your data creation and data maintenance needs.

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esri.ca/assessmentanalyst

38th Annual
IAAO Legal Seminar

December 7-8, 2017
Seattle Marriott Waterfront Hotel
Seattle, Washington

Registration now open!

Before $275,000
After $335,000

Are you missing tax revenue due to data issues? We can help.
INDEPENDENT AUDITORS' REPORT

Executive Board
International Association of Assessing Officers
Kansas City, Missouri

We have audited the accompanying financial statements of International Association of Assessing Officers (a nonprofit organization), which comprise the statements of financial position as of December 31, 2016 and 2015, and the related statements of activities and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements
Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility
Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion
In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of International Association of Assessing Officers as of December 31, 2016 and 2015, and the changes in its net assets and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

April 11, 2017
Kansas City, Missouri

Emerick & Company, P.C.

4520 Madison Avenue, Suite G, Kansas City, Missouri 64111 • 816-531-2822 • EmerickCPA.com
## ASSETS

<table>
<thead>
<tr>
<th>Description</th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and cash equivalents</td>
<td>$1,343,937</td>
<td>$2,004,211</td>
</tr>
<tr>
<td>Accounts receivable, net of allowance; 2016 and 2015- $2,600</td>
<td>330,514</td>
<td>238,403</td>
</tr>
<tr>
<td>Inventories, net of reserve for obsolescence; 2016 - $19,445, and 2015 - $19,480</td>
<td>40,865</td>
<td>45,648</td>
</tr>
<tr>
<td>Prepaid expenses</td>
<td>524,919</td>
<td>299,847</td>
</tr>
<tr>
<td>Investments</td>
<td>4,522,768</td>
<td>4,318,339</td>
</tr>
<tr>
<td>Property and equipment, net of accumulated depreciation</td>
<td>1,242,003</td>
<td>1,283,763</td>
</tr>
</tbody>
</table>

Total assets $8,005,006 $8,190,211

## LIABILITIES AND NET ASSETS

### Liabilities

<table>
<thead>
<tr>
<th>Description</th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts payable and accrued expenses</td>
<td>$305,081</td>
<td>$201,616</td>
</tr>
<tr>
<td>Deferred revenue</td>
<td>931,172</td>
<td>920,257</td>
</tr>
</tbody>
</table>

Total liabilities 1,236,253 1,121,873

### Net Assets

<table>
<thead>
<tr>
<th>Description</th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unrestricted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board designated</td>
<td>2,264,400</td>
<td>2,250,253</td>
</tr>
<tr>
<td>Undesignated</td>
<td>4,220,675</td>
<td>4,539,291</td>
</tr>
<tr>
<td>Total unrestricted</td>
<td>6,485,075</td>
<td>6,789,544</td>
</tr>
<tr>
<td>Temporarily restricted</td>
<td>283,678</td>
<td>278,794</td>
</tr>
</tbody>
</table>

Total net assets 6,768,753 7,068,338

Total liabilities and net assets $8,005,006 $8,190,211
## INTERNATIONAL ASSOCIATION OF ASSESSING OFFICERS

**STATEMENT OF ACTIVITIES**

**YEAR ENDED DECEMBER 31, 2016**

<table>
<thead>
<tr>
<th>Revenues</th>
<th>Unrestricted</th>
<th>Temporarily Restricted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership dues and fees</td>
<td>$1,346,179</td>
<td>$</td>
<td>$1,346,179</td>
</tr>
<tr>
<td>Annual conference</td>
<td>837,145</td>
<td>-</td>
<td>837,145</td>
</tr>
<tr>
<td>Publications and marketing</td>
<td>283,870</td>
<td>-</td>
<td>283,870</td>
</tr>
<tr>
<td>Research and information</td>
<td>91,248</td>
<td>-</td>
<td>91,248</td>
</tr>
<tr>
<td>Education and professionalism</td>
<td>1,950,175</td>
<td>-</td>
<td>1,950,175</td>
</tr>
<tr>
<td>Contributions</td>
<td>26,027</td>
<td>11,276</td>
<td>37,303</td>
</tr>
<tr>
<td>Interest and dividend income</td>
<td>69,300</td>
<td>1,756</td>
<td>71,056</td>
</tr>
<tr>
<td>Net realized and unrealized gains investments</td>
<td>152,015</td>
<td>-</td>
<td>152,015</td>
</tr>
<tr>
<td>Other</td>
<td>28,227</td>
<td>-</td>
<td>28,227</td>
</tr>
<tr>
<td>Net assets released from restrictions</td>
<td>8,148</td>
<td>(8,148)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total revenues</strong></td>
<td>4,792,334</td>
<td>4,884</td>
<td>4,797,218</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expenses</th>
<th>Unrestricted</th>
<th>Temporarily Restricted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual conference</td>
<td>839,417</td>
<td>-</td>
<td>839,417</td>
</tr>
<tr>
<td>Publications and marketing</td>
<td>613,690</td>
<td>-</td>
<td>613,690</td>
</tr>
<tr>
<td>Research and information</td>
<td>461,304</td>
<td>-</td>
<td>461,304</td>
</tr>
<tr>
<td>Education and professionalism</td>
<td>1,166,391</td>
<td>-</td>
<td>1,166,391</td>
</tr>
<tr>
<td>Membership services</td>
<td>861,540</td>
<td>-</td>
<td>861,540</td>
</tr>
<tr>
<td><strong>Total program services</strong></td>
<td>3,942,342</td>
<td>-</td>
<td>3,942,342</td>
</tr>
<tr>
<td>Management and general</td>
<td>1,154,461</td>
<td>-</td>
<td>1,154,461</td>
</tr>
<tr>
<td><strong>Total expenses</strong></td>
<td>5,096,803</td>
<td>-</td>
<td>5,096,803</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in Net Assets</th>
<th>Unrestricted</th>
<th>Temporarily Restricted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>(304,469)</td>
<td>4,884</td>
<td>(299,585)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Net Assets, Beginning of Year</th>
<th>Unrestricted</th>
<th>Temporarily Restricted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>6,789,544</td>
<td>278,794</td>
<td>7,068,338</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Net Assets, End of Year</th>
<th>Unrestricted</th>
<th>Temporarily Restricted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$6,485,075</td>
<td>$283,678</td>
<td>$6,768,753</td>
<td></td>
</tr>
</tbody>
</table>
Win Big with New and Returning Conference Events

- **Exhibit Hall Tour**
  Sunday, September 24, 2017 at 5:00 pm
  Register on-site for a sneak peak exclusive tour of the exhibit hall and what the vendors have to offer.

- **Welcome Reception**—Sponsored by Tyler Technologies
  Sunday, September 24, 2017 from 6:30–8:30 pm
  Don’t miss this event-to-be-remembered at the Omnia Nightclub at Caesars Palace, voted “Best New Nightclub” by *Las Vegas Review Journal*.

- **“Mix+Mingle” in the Exhibit Hall**—Sponsored by Spatialest
  Monday, September 25, 2017 from 5:15–6:30 pm
  Who says you can’t mix business with pleasure? Join us for the first IAAO Exhibit Hall “Mix+Mingle”. Just grab a drink and spend a little time with your exhibitor friends.

- **Associate Member Subcommittee Reception**
  Monday, September 25, 2017 from 6:30–7:30 pm
  This will provide an opportunity for all Associate Members to gather and meet one another and share like experiences.

- **Vendor Demo Lunches**
  Wednesday, September 27, 2017 at noon
  Vendors offer an in-depth look at their products and services.

- **President’s After Party**—Sponsored by CoreLogic
  Wednesday, September 27, 2017 from 9:00–11:00 pm
  In true Vegas style, the President’s After Party will be held at Beer Park at Paris Las Vegas. Overlooking the Fountains of Belagio, Beer Park brings a day at the park to Las Vegas Boulevard, providing an open-air atmosphere for guests to enjoy or simply relax and people-watch the iconic street below.

You will find complete details on these events and more in your Conference Program!

Everybody loves Vegas, so book early! Due to the popularity of Las Vegas for city-wide conventions, the hotel may sell out prior to the deadline so be sure to make your reservations early.

www.iaao.org
Accurate values start with accurate data. Mass appraisal is about valuing a universe of properties, not getting caught up in the 4’ × 4’ concrete slabs or which of the 10 codes on wood decks is most appropriate. An in-depth analysis is the only way to determine what factors are affecting values. Consider the following eight ideas to help streamline data collection and eliminate many errors. Entering the data into an Excel spreadsheet or SPSS data file allows users to query for specific results.

1. Total Basement Area Greater than Total Main Floor Living Area
There can be instances in which there is basement area under non-living areas such as porches or garages. It is important to capture the extra area to ensure accurate data. This situation is not common, but because it does occur, all instances should be reviewed.

2. Basement Finished Area Greater than Total Basement Area
This can happen during data entry when data are entered in the wrong field or are entered more than once. Some CAMA systems do not allow the finished area to exceed the total basement area. However, if the CAMA system does not have data validation features, errors could occur here. There may even be some instances of finished basement area being listed multiple times in different fields.

3. Garage Finished Area Greater than Garage Unfinished Area
In reality the garage finished area cannot exceed the garage unfinished area, so checking the data entry numbers is important. Finish in a garage indicates added drywall. Window treatments, custom cabinets or storage space, and custom floor treatments can also be noted. Not all jurisdictions track these data; however, the data should be checked to make sure the area data are entered in the correct field and that the total area of the garage is included.

4. Outliers
Sorting property characteristics by high and low values can identify data entry errors for almost everything—area measurements and numbers of bedrooms, bathrooms, fixtures, decks, porches, pools, and so on. The high values should examined and any errors corrected. If the area of a porch exceeds the area of the house, then a data entry error obviously has occurred. If the data indicate there are two pools, the data are most likely incorrect. Zero values for bedroom and bathroom counts indicate a data entry error. Excessive bedroom and bathroom counts (e.g., more than 5) also may indicate an error, so the data need to be verified. Notes and/or flags can be used to identify parcels that have atypical features. If a house has four fireplaces, for example, a note can be used to confirm that this is accurate information and not a data entry checklist error.

5. Depreciation
There are multiple ways of addressing depreciation, and they are not always done consistently. Look closely at effective age, adjusted year built, percent good, and so on. If it appears that rarely or never used methods were employed, convert them to the most commonly used approach as defined by a jurisdiction data collection manual or state statutes. Then make sure staff knows how to handle those situations consistently in the future.

6. Low Quality or Condition Ratings
Anything that will consistently show up in queries during review of data can be flagged. If a property is noted as being in low or poor condition year after year, it should be flagged for more frequent monitoring. A great deal of value is missed by not reviewing these properties on a regular basis. Low-quality
or -grade features typically do not change significantly, but they should be reviewed periodically to ensure they are accurate.

7. Overrides
 Overrides can be dangerous in the hands of a rogue appraiser. With one change, a value can be dramatically altered and could stay that way for years. Again, notes, flags, and lists should be utilized to identify data that have been changed outside normally expected parameters. Determine which data fields allow overrides and why; examples are percent good adjustments, market factors, economic factors, obsolescence adjustments, value overrides, and so on. A few long-standing adjustments may no longer be necessary and/or have no documentation to support them. Staff training is an effective way to ensure that overrides are properly documented.

8. Frequency Distribution
 Frequency distributions indicate the number of instances in which a variable takes each of its possible values, for example, the number of parcels in each quality or condition rating. Frequency distributions can be used to identify variable values that are seldom used and may not be necessary. For example, a frequency distribution analysis of HVAC type or roof type may indicate certain codes are rarely used, possibly because those variable values are extremely rare or the appraisers do not differentiate between similar values.

In a market regression analysis, if a particular variable occurs in only a few instances, the resulting coefficients will not be accurate. If there is a similar code value that is more widely used, multiple codes can be combined into one. For example, a variable may have concrete tile, tile, clay tile, and slate tile as choices for roof type. It is possible that appraisers are not differentiating between the types and several of those codes have very few instances. All the similar roof types could be combined into a single category, “tile.” If the data are not sufficient to determine whether one roof type is better than another and it’s unclear whether the codes are being used properly, then the categories should be consolidated and simplified. In mass appraisal, variables with overly specific codes are not necessarily better, and too many similar choices can affect data quality.

Frequency distribution can be used for any data with multiple options, such as arch style, property condition, fixture quality, and so on. If certain property characteristics codes are not being used correctly and consolidating them is not possible, additional training could be needed to ensure the codes are used correctly. Sometimes appraisers are uncomfortable using subjective codes such as high and low, even when it appears to be the right call. Again, depending on the method of valuation, underuse of certain values within variables or variables that are themselves underused can make it difficult to generate accurate values. A great deal of data validation features in a CAMA system may limit the occurrence of quantitative mistakes, but qualitative mistakes will always be present.

Frequency distributions can also be stratified by neighborhood or by subdivision. In homogenous areas, outliers within the neighborhood are discovered, and then it can be determined whether any changes are necessary. There may be one average-quality home in a neighborhood full of good-quality homes. While this is certainly possible, it is unlikely and should be reviewed.

As data are constantly being updated, these types of reviews should be conducted periodically to find any fresh mistakes.

Ryan DeLeon, RES, AAS, is the Compliance Analyst for Adams County Government in Westminster, Colorado. He is owner of DeLeon Consulting Solutions, LLC.

Be in the Know about IAAO!

Sign up for Assessing Info e-newsletter to stay informed about assessment-related topics and industry news. Assessing Info is a semi-monthly electronic newsletter providing news and information for IAAO members, chapter members, affiliates, and the assessment world at large. Published on the first and third Thursday of every month, Assessing Info provides general industry news about property tax policy, assessment administration, industry partners, and upcoming events.

Tell your friends about this free resource. Then they will be in the know too.

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Assessing Info is for everyone!
Submit event information with name, date, place, and contact information to bennett@iaao.org.

Calendar of Events
Local • Regional • International

**Georgia Association of Assessing Officers**
56th Annual GAAO Summer Conference
July 16–19, 2017
Jekyll Island, Georgia, United States
http://www.gao.org/newsandevents.htm

**National Association of Counties**
2017 NACo Annual Conference
July 21–24, 2017
Franklin County, Ohio, United States
http://www.naco.org/events/nacos-82nd-annual-conference-exposition

**Northern California Assessors’ Association**
2017 NCAA Regional Conference
July 31, 2017
Murphys, California, United States

**Michigan Assessors Association**
2017 Annual Summer Conference
July 30–August 2, 2017
Kalamazoo, Michigan, United States

**Minnesota Association of Assessing Officers**
2017 MAAO Fall Conference
September 10–13, 2017
Duluth, Minnesota, United States

**California Assessors’ Association**
2017—115th Annual CAA Conference
October 16–19, 2017
Buena Park, California, United States

**Kansas Association of Mappers**
2017 KAM Conference
October 17–20, 2017
Lawrence, Kansas, United States
https://www.kansasmappers.org/Conference/

**Northeastern Regional Association of Assessing Officers**
2018 NRAAO Conference
April 29 to May 3, 2018
Quincy, Massachusetts, United States
http://www.nraao.org/about/future-conference-locations/

Know to Grow
For IAAO Chapters and Affiliates

**A Communication App for Chapters and Affiliates**

*Robert McGee*

Communication is central to so many if not all parts of our lives. In-person, e-mail, texting, social apps—all we do is communicate. Finding an efficient way to communicate can be a daunting issue for a chapter or affiliate board. Down the hall, across town, across the state, or even over the ocean, how to communicate is an issue we all struggle with. The Arkansas Chapter of IAAO has adopted a communication app to deal with this issue.

The problem was the long e-mail “reply all” chains that developed in voting on various issues. It was not unusual for it to take hours of pinging to get a final vote. A search of the internet found a new communication app called *Slack*. *Slack* combines several modern communication methods—text, e-mail, and instant messaging. It is available on multiple desktop operating systems: Windows, Apple, and also via browser. It is also available on all current mobile operating systems.

It is easy to set up a free account and easy for users to log in. Channels can be open or private; for example, *Chapter Board, Christmas Party,* and *Meeting Minutes* can be open to everyone, but *Financials, Scholarship,* and *Awards* can be private, open only to specific board members. The chapter even utilizes a voting channel only for yes and no votes. Direct/private messages can be sent to one or several people. Users can upload and download documents in different formats, such as Word, Excel, pdf’s, photos, and more. The chapter board has even started using it as a document repository for easier access while still backing everything up on a cloud site.

In short, this app has made a huge difference in how the board operates. Fewer in-person meetings are needed to work through a series of votes on non-essential issues. Board members have become more involved because they can see the amount of work being done, volunteer to help, and stay more informed on what is going on. They spend less time digging through inboxes and text messages looking for information. Everything is in one spot.

If your chapter or affiliate is struggling with communication issues, take a look at *slack.com* or one of the other communication apps out there. Contact me at Robert.McGee@acd.statear.us for more information.

*Robert McGee* is an Agricultural Specialist in the Arkansas Assessment Coordination Department, a member of the IAAO Chapters and Affiliates Subcommittee, and an IAAO Rep for the Arkansas Chapter of IAAO.
Your Retirement Questions Answered

Q: When I retire, does IAAO offer a special membership for me?
Answer: Yes, IAAO offers a retirement rate of only $80 per year.

Q: Can I keep my IAAO designation when I retire?
Answer: Yes, IAAO has options available for your individual needs.

Find more information at www.iaao.org/retirement

Finding a Needle in a Haystack:
How to Research Like a Pro

WEBINAR
July 19, 2017

The IAAO Research Library is so much more than books. Join us for an all new hands-on training for the do-it-yourself researcher. You’ll learn to find benchmarking data, special property appraisal methods, easy shortcuts for researching assessment topics, practical tips for the novice researcher, and international resources for the not-so-faint-hearted.

Presented by Mary Odom, IAAO Director of Library Services

www.iaao.org/webinars
Are you positioned to advance your career?

Nearly half of employed assessment professionals plan to retire or leave the assessment industry within 10 years.

Timeline for Retirement/Leaving Industry
When do you plan to retire or leave the assessment industry?
Base: 2,998 employed respondents

<10 years: 48%

Mean: 11.0  
Median: 10


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Oil refinery appraisals are among the most complicated of all industrial valuations. However, oil refining is also an industry for which the U.S. Government has a huge amount of statistical information. Anyone valuing refineries should start with this information, because it provides an explanation of crude-oil-manufacturing processes, as well as a trove of data about the oil-refining business.

The figures on oil production and refineries in this article are from the U.S. Energy Information Administration (EIA), which is part of the U.S. Department of Energy and is responsible for collecting, analyzing, and disseminating energy information. EIA programs collect data on coal, petroleum, natural gas, electric, renewable, and nuclear energy; the website is www.eia.gov.

**Refinery Information from EIA**

In 1942, under the Petroleum Administration for War, the United States was divided into five districts to help organize the allocation of fuels derived from petroleum products. The goal was to track the production and delivery of gasoline and diesel fuel during World War II. Today these districts are called Petroleum Administration for Defense Districts (PADDs); see figure 1. Many other charts, diagrams, and illustrations are available from EIA. Figure 2 shows some of the petroleum products that can be made from a barrel of oil. Table 1 lists top producers and the amounts they produce. Figure 3 shows U.S. energy consumption for 2015. EIA also reports estimates for imports and exports for each PADD district, which can be important in understanding the economic aspects of a refinery for valuation. Figure 4 is a report from 2014; other import/export data are presented in figures 5 and 6.

**The Basics of Crude Oil**

The crude oil that refineries use varies according to the available supply and the type of crude the refinery can process. Crude oil is categorized as heavy or light according to its API...
Valuing Oil Refineries

Gravity and as sweet or sour according to its sulfur content. API stands for the American Petroleum Institute, and the API gravity is a measure of how heavy or light the petroleum liquid is compared to water. In an inverse to the number, if the API gravity is greater than 10, the crude is lighter and floats on water; if it is less than 10, it is heavier and sinks.

A rule of thumb for defining crude oil is that heavy crude is less than 30°API and light crude is greater than 30°API. Also, if crude contains a large amount of sulfur or sulfur compounds (1 to 5 percent), it is labeled sour crude, but if it has little or no sulfur (less than 1 percent), it is called sweet crude.

The Basics of Refinery Operations

An oil refinery might also be called a distillery because that is what actually takes place. Simply put, different boiling points allow hydrocarbons to be separated by distillation to produce various petroleum products such as gasoline, kerosene, and gas oil. These products are then further refined to make a variety of products.

### Table 1. Top 10 U.S. refineries* operable capacity (as of January 1, 2016)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Corporation</th>
<th>Company</th>
<th>State</th>
<th>Site</th>
<th>Barrels per Calendar Day</th>
</tr>
</thead>
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<tr>
<td>1</td>
<td>Motiva Enterprises, LLC</td>
<td>Motiva Enterprises, LLC</td>
<td>Texas</td>
<td>Port Arthur</td>
<td>603,000</td>
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<td>2</td>
<td>ExxonMobil Corp.</td>
<td>ExxonMobil Refining &amp; Supply Co.</td>
<td>Texas</td>
<td>Baytown</td>
<td>560,500</td>
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<td>3</td>
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<td>Marathon Petroleum Co., LLC</td>
<td>Louisiana</td>
<td>Garyville</td>
<td>539,000</td>
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<td>4</td>
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<td>ExxonMobil Refining &amp; Supply Co.</td>
<td>Louisiana</td>
<td>Baton Rouge</td>
<td>502,500</td>
</tr>
<tr>
<td>5</td>
<td>Marathon Petroleum Corp.</td>
<td>Marathon Petroleum Corp.</td>
<td>Texas</td>
<td>Galveston Bay</td>
<td>459,000</td>
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<tr>
<td>6</td>
<td>PDV America, Inc.</td>
<td>Citgo Petroleum Corp.</td>
<td>Louisiana</td>
<td>Lake Charles</td>
<td>427,800</td>
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<td>7</td>
<td>BP PLC</td>
<td>BP Products North America, Inc.</td>
<td>Indiana</td>
<td>Whiting</td>
<td>413,500</td>
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<tr>
<td>8</td>
<td>ExxonMobil Corp.</td>
<td>ExxonMobil Refining &amp; Supply Co.</td>
<td>Texas</td>
<td>Beaumont</td>
<td>344,600</td>
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<td>9</td>
<td>WRB Refining LP</td>
<td>WRB Refining LP</td>
<td>Illinois</td>
<td>Wood River</td>
<td>336,000</td>
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<tr>
<td>10</td>
<td>Carlyle Group</td>
<td>Philadelphia Energy Solutions</td>
<td>Pennsylvania</td>
<td>Philadelphia</td>
<td>335,000</td>
</tr>
</tbody>
</table>

* Only refineries with atmospheric crude oil distillation capacity

Source: Refinery Capacity Report

### Figure 3. U.S. energy consumption by energy source, 2015

Note: The sum of components may not equal 100% because of independent rounding.


### Figure 4. Petroleum product imports and exports (thousand barrels/day) by region, 2014

Source: U.S. Energy Information Administration
First, crude petroleum is delivered to the refinery and is heated and changed into a gas. Then the hot gases are pushed into the bottom of a distillation column, and they cool as they move up higher in the column. As they cool below their boiling point, condensation occurs and the gases become liquids. The liquids are siphoned off from the column at certain heights, leaving the heaviest at the bottom and the lightest at the top. Unprocessed gasoline goes to the top, diesel fuels are mid-range, and the heavier product goes to the bottom, which may be used for an asphalt plant or may go to a coker for more processing.

There is quite a variance in the temperatures needed in the distillation process. The crude oil comprises thousands of different chemical compounds called hydrocarbons, and the different boiling points range from about 90°F to 1,100°F, depending on the product being produced. Figure 7 shows how this first step is achieved. After this basic distillation is completed, more steps are necessary to make the final products, as shown in figure 8.

**Refineries and Complexity**

The simplest refineries are called topping refineries, and they have a distillation column and not much else. They are typically smaller refineries, account for a small percentage of the total, and require light sweet crude to operate. Most refineries are able to use heavier crude because they are more complex.
and have any combination of secondary processing units to process other products. Besides gasoline and blended stocks of gasoline, other products include various grades of diesel, jet and other aviation fuel, kerosene, fuel oil, solvents, sulfur, coke, asphalt, chemical feedstocks, and so on. The following information from the EIA website explains complexity.

A refinery’s level of complexity is often based on its secondary conversion capacity. The Nelson Complexity Index is one measure of refinery complexity. This index was developed in the 1960s by W.L. Nelson in a series of articles for the Oil & Gas Journal. The index measures the complexity and cost of each major type of refinery equipment. In forming the index, the distillation column is given a value of 1 and the other units are assigned a value based on conversion and cost relative to the distillation column. The larger the Nelson index of a refinery, the more complex it is.

As an example, Phillips 66 reports that its U.S. refineries range in Nelson complexity from 7.0 at its Ferndale refinery in Washington because it has a fluid catalytic cracker, alkylation, and hydrotreating units, to 14.1 at its Los Angeles refinery in California because it has a fluid catalytic cracker, alkylation, hydrocracking, reforming, and coking units. In addition to those two West Coast examples, the U.S. Gulf Coast has some of the world’s most sophisticated refineries.

Equivalent Distillation Capacity (EDC) is another metric used in comparing refinery costs. Using the EDC calculation, the atmospheric distillation capacity of a refinery is multiplied by its overall complexity rating.

Based on Nelson complexity, the simplest topping refineries may have a complexity factor of 1 to 3, whereas the most complex may reach factors of about 18. These complex refineries have the capability to process the heaviest, highest sulfur content crude, which is the most difficult to separate.

The secondary processes in a refinery may include various equipment such as a desulfurization unit to remove sulfur, a reformer unit to change the molecular structure of crude to produce high-octane gasoline, or an alkylation unit to use an acid catalyst to make alkylate, which has a high octane for producing gasoline blend stocks. Some refineries have a coker unit for thermal cracking to make butane, naphtha, and other products, or a fluid catalytic cracking unit to use heat to crack molecules to make low-quality diesel fuel.

Other treatments include hydrotreating, which removes impurities by using hydrogen to bind with sulfur and nitrogen. A hydrocracking process breaks down or cracks diesel stock material into gasoline blending stocks. Isomerization rearranges the atoms in a molecule to make butane and isobutene.

Crack Spread
An important term to understand in analyzing refineries is crack spread. Crack spread is a broad estimate used in the oil industry to estimate the differential between the price of crude oil and the petroleum products refineries produce. The name comes from the process that refineries use to make their final products. They crack a long chain of hydrocarbons of crude oil to make shorter chain products such as gasoline and diesel fuel.

An oil refinery might also be called a distillery because that is what actually takes place. Simply put, different boiling points allow hydrocarbons to be separated by distillation to produce various petroleum products such as gasoline, kerosene, and gas oil.

Another way of saying this is that a crack spread measures the difference between the cost paid by the refinery for crude oil and the selling price of finished products. A 3:2:1 crack spread would be the profit margin based on the purchase cost of 3 barrels of crude oil and the production of 2 barrels of gasoline and 1 barrel of diesel fuel. Crack spreads are continually changing, so they are only an indicator of the short-term profit margins of oil refineries. Moreover, they do not include variable costs and fixed costs incurred by a specific refinery. Figure 9 shows the variation in gasoline crack spreads from January 2013 to September 2016.

The Valuation Process
Because of the complexity of valuing a refinery, it is helpful for an appraiser to use all three approaches to value, but it is
not essential if there is enough evidence to produce a valid conclusion of value using two approaches. In some states an income approach, and particularly a discounted cash flow analysis (DCF), is not allowed, mostly because of forecasts and projections that are made to determine the value. In such cases, the cost approach and the sales comparison approach may provide an adequate understanding of the value, but they need to be carefully applied.

The Cost Approach
For assessment purposes, original costs are normally trended, and the result is a depreciated reproduction cost of the refinery. Another approach would be a replacement cost for the refinery, which would be derived from the cost to build a state-of-the-art refinery, with depreciation subtracted for physical, functional, and economic obsolescence. However, both methods can be problematic.

The problem with the reproduction trending method, particularly for an older refinery, is that the replacement for it might be significantly different from its original construction and the machinery and equipment may have less value due to technological progress that is not reflected in typical trends.

**Because of the complexity of valuing a refinery, it is helpful for an appraiser to use all three approaches to value, but it is not essential if there is enough evidence to produce a valid conclusion of value using two approaches.**

The problem with the replacement cost method is that estimating the various forms of depreciation is exceedingly subjective. This allows the appraiser to choose from a broad range of value, which can result in a questionable value conclusion.

Subjectivity is an issue because the methods and estimates used by the appraiser depend upon his or her experience and personal opinions, and those may vary drastically among appraisers. The estimates begin with a determination of how much the physical depreciation, or actual wear and tear, has diminished the value. Next, an estimate for functional obsolescence is made, which might include a calculation of the excess operating costs incurred to operate an older facility compared to a new one. This should also include a comparison of the existing layout compared to a state-of-the-art one.

The third estimate is for economic obsolescence, which may be applicable if, for instance, the refinery’s location is no longer proximate to the crude oil sources for which it was constructed. An example might be a refinery built to process light sweet crude in North Dakota to take advantage of the oil wells there that use hydraulic fracturing (fracking). When oil prices decline to the point that it is no longer cost-effective to draw from those wells, the refineries may lack the product necessary for profitable operation, which may significantly reduce their value, depending on the outlook for crude prices.

**Common Cost Approach Errors**

*Reproduction to Replacement Cost Differential*
Some appraisers think that subtracting the replacement cost from the reproduction cost (a modern plant compared to a replica of the original plant) yields the economic obsolescence for the facility. However, this does not apply to refineries, nor does it apply to a myriad of other properties. There are several reasons, but the main one is that a replacement facility may cost more or less to build than a reproduction of the original facility, depending on the technologies involved. A replacement facility may cost more to construct, but the larger investment may also increase production capacity and the efficiency of the operation. Consequently, this concept is not applicable to determining obsolescence for refineries as well as for many other industrial properties.

*Entrepreneurial Profit*
Entrepreneurial profit is generally an element of profit included in the cost approach for commercial properties such as apartment complexes and shopping malls. It is sometimes referred to as entrepreneurial incentive, meaning the economic reward required to induce an entrepreneur to incur the risk associated with taking on a project. This is not the same as contractor profit—it is in addition to the expense of paying a contractor.

For complex industrial facilities, entrepreneurial profit should not be included in the cost approach, for several reasons. First, these types of properties are not built on a speculative basis. An entrepreneur may build a strip center and expect a profit when it is fully rented and sold. Entrepreneurs do not build oil refineries, paper mills, semiconductor facilities, or food-processing facilities hoping they can sell them and make a profit, because there are no potential buyers—manufacturers build them for themselves because they are specialized.

In fact, complex industrial facilities are actually specialized in two ways. First, they are specialized in the type of product being made, which requires a certain type of structure and machinery and equipment. Second, they are specialized in that manufacturers employ different layouts and methods to make their products. In other words, two manufacturers may make the same product, but use different processes and equipment to achieve production. Moreover, the designs and
methods used by them are often proprietary and confidential. Consequently, it is obvious that no entrepreneur would attempt to construct such a specialized facility in the hopes of selling it and making a profit.

Nevertheless, in properties that do qualify for entrepreneurial profit, it must be quantified; a simple percentage cannot be attributed to this cost unless a survey of expected profits is conducted for similar properties. For an oil refinery, as with other specialized plants, this would be impossible to determine because, as previously stated, entrepreneurs do not build such facilities.

**The Use of Costing Services**

Costing services like Marshall & Swift may be a good starting point for an appraiser to calculate a replacement cost for a complex industrial facility, but it is up to the appraiser to determine whether the information provided is accurate. If the cost approach required only the assimilation of data from a costing service, then an appraiser would not be needed; a data entry person could determine the value. This is why it is so important for appraisers to do additional research, which may include analyzing costing data, talking to cost engineers if they are available, examining the costs to build similar refineries, and perhaps talking to other appraisers with experience in the industry.

**The Sales Comparison Approach**

There are often sales of refineries that can be used in the sales comparison approach, but the challenge is in adjusting the sales to bring them into parity with the refinery under valuation. In order to make the proper adjustments, a significant amount of research is required by the appraiser, as well as knowledge of the differences in refinery operations and equipment. The following are major considerations in choosing and adjusting comparable sales.

**What Is Included in the Sale?**

The sale of a refinery often includes a large amount of inventory (which also may be referred to as working capital in a business valuation) that is necessary to the operation but is also nontaxable in most states. This requires the appraiser to carefully examine each sale to make this deduction, which can often be worth as much or even more than the refinery is worth. In other words, the actual refinery may be worth $500 million and the inventory of crude may be worth $400 million for a combined purchase price of $900 million.

**Complexity Adjustments**

At first, it may seem that a refinery that is more complex has more value than one that is less complex, but this is a simplistic assumption that may prove to be erroneous. For instance, a refinery may be highly complex but is unable to utilize equipment that allows the refining of some products, because demand for those products has diminished. In such a situation, the cost of upkeep for the additional refining processes may be a financial drain on fixed operating costs and a detriment to the value of the refinery, causing the higher complexity to actually reduce the value of the refinery.

**Location**

The refinery’s proximity to pipelines, rails, waterways, oil fields, and the markets it serves must all be considered. In some states, such as California, the type of gasoline that can be sold requires more specialized refining, which might involve higher operating costs and/or special equipment. A refinery may lose value if the source of crude oil it was built for is no longer available. It is generally better to use sales in the same PADD as the subject property, if possible. Nevertheless, even sales within the same PADD may have geographical differences that may affect the value.

**Date of Sale**

As is the case with most industries that produce commodities, market swings occur in the refinery business. However, the price of crude oil, particularly in recent years, has been fluctuating so much that it has produced a roller coaster effect on the industry. Over a relatively short period, oil prices have increased to more than $100 a barrel and then dropped to about $40 a barrel, making the date of sale an important consideration.

Note, however, that an inverse correlation between oil production profits and refinery profits can exist. This can occur when lower oil prices diminish profits for production, but the lower price also increases demand for gasoline, causing the margins for refineries to increase and making them more profitable.

**Figure 10.** Change in prices ($/barrel) of crude oil, 2008–2016

![Image of crude oil price chart](http://www.macrotrends.net/1369/crude-oil-price-history-chart. Reproduced with permission.)
For example, if a refinery steps up production from 80 to 97 percent, profits increase because fixed costs stay the same and variable costs diminish with higher production. Increased demand also allows higher prices for refining. Consequently, it is quite possible for a company that is vertically integrated (by extracting oil and also refining it) to have profits from oil production fall, while profits in its refinery business simultaneously increase. Figure 10 shows the price changes in crude in the past 10 years.

**Age of the Refinery**

The original age of the refinery must be considered, as well as the age of the equipment. And, as with any industrial facility, the maintenance of the facility is a major issue in determining the value. However, the age can also be misleading, because one older refinery may have been upgraded with state-of-the-art equipment, whereas another of the same vintage may have made only the improvements necessary to comply with Occupational Safety and Health Administration, Environmental Protection Agency, and other governmental agency regulations.

Also, note that although statistics show that more refineries have been closing in recent years, actual production is increasing. This fact counters the argument that the refinery business is in a decline. Rather, advancements in technology allow increased production for most upgraded facilities, and the refineries that are closing are generally the ones for which modernizing is not cost-effective. Since the 1980s, total refinery production output has been increasing, inefficient plants have been closing down at a rate of about one per year, and capacity continues to increase for individual refineries.

Environmental requirements are constantly changing in the refinery business, and some refineries close rather than make the often large capital investments necessary to stay in business. When the appraiser is examining sales and closures, these transactional aspects should be carefully considered so appropriate adjustments can be made.

**Production Capacity**

Capacity is important in making comparisons. Smaller refineries are sometimes *boutique* operations and are not comparable to larger refineries. The production capacity has to be considered in light of the location and other capabilities of the refinery, because optimum capacity varies depending on these characteristics.

**International Sales**

Normally it is not advisable to use sales outside the country where the subject property is located. Refineries are much more highly regulated in some countries, such as those in Europe, but may have less regulation in less developed countries.

**Other Adjustments**

There are a myriad of other possible adjustments, depending on the characteristics of the subject property. Specific adjustments for equipment, loading and transportation logistics, and other issues may warrant consideration.

**The Income Approach**

Those familiar with how the income approach is used in the valuation of industrial properties know that a wide variance in values between two sides in a hearing is not uncommon. For instance, the value for one side may be $220 million and for the other side, $980 million. One reason values can be so divergent between two business valuation experts is that in an approach such as a DCF analysis projections are made for future earnings, which depend on the opinion of the appraiser. Many other estimates are used in income approaches, including discount rates, capitalization rates, risk factors, normalized earnings, maintenance and capital spending requirements, and so on.

**Summary**

For the best refinery valuation possible, it is important for the appraiser to have a working knowledge of refinery operations and utilize all the applicable approaches to value. If the industrial appraiser lacks finance experience, it can be helpful to hire a business valuation appraiser for the income approach to value. For litigation, an expert witness review appraiser is another option for an analysis of the opposition’s appraisal to give the assessor an idea of its validity and for potential court testimony.

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**John Lifflander, ASA**, is the author of the *Fundamentals of Industrial Valuation* (IAAO, 2007) and coauthor of *Analyzing Complex Appraisals for Business Professionals* (with S.P. Pratt, McGraw-Hill, 2016). He is a former administrative law judge for property tax hearings and industrial appraisal trainer for the Oregon Department of Revenue. His expert witness valuation work includes British Petroleum (BP), General Motors, Chrysler, Kimberly Clark, Microsoft, Hewlett Packard, and many others. He currently consults for assessors as an expert witness for complex industrial appraisals and can be contacted at John@ccitax.com.
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<td>Kendrick E. Webb and Joshua A. Willis</td>
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<td>Glenn Winfree</td>
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<td>Cityscape: A Journal of Policy Development and Research/2017, 19 (1)</td>
<td>Silda Nikaj and Joshua J. Miller</td>
<td>Given the importance of the tax burden in predicting default, this article summarizes state- and local-level property tax relief programs targeted toward seniors that could reduce property tax bills among Home Equity Conversion Mortgage (HECM) participants.</td>
</tr>
<tr>
<td>Here comes the sun: The value of residential solar</td>
<td>Tierra Grande/November 2016</td>
<td>Harold D. Hunt</td>
<td>Examines the solar photovoltaic sector and recent research involved in accurately estimating any market premium for the systems when existing solar homes are resold.</td>
</tr>
<tr>
<td>Impact of conservation easements on contiguous and surrounding property values</td>
<td>The Appraisers Research Foundation/2016</td>
<td>Wei Yi Zhang, Richard Mei, and Bob Izlar</td>
<td>The authors use the hedonic pricing model to estimate the values of sampled properties based on the attributes of surrounding conservation easements within the Metropolitan Atlanta area.</td>
</tr>
<tr>
<td>In defense of an opinion: when serving as an expert witness, credibility is front and center</td>
<td>Right of Way/March/April 2017, 64 (2)</td>
<td>Allen Dorin, Jr.</td>
<td>Discusses the role appraisers play as an expert witness during court cases and how to prepare for court and how to respond when one's credibility may be challenged.</td>
</tr>
<tr>
<td>The influence of public transportation on housing values: a hedonic estimation</td>
<td>Virginia Tech/2016</td>
<td>Erin A. Hopkins</td>
<td>Transit-oriented development is becoming an increasingly common development strategy with potential consequences on property values. This study explores the potential relationship between the proximity to public transportation and housing values.</td>
</tr>
<tr>
<td>International ethics standards: an ethical framework for the global property market</td>
<td>International Ethics Standards Coalition/2016</td>
<td>International Ethics Standards Coalition</td>
<td>These standards were created to be a shared international ethics standard and to serve as an anchor of appropriate behaviors. These standards will ensure consistency and clarity irrespective of changing factors such as the state of the economy or business practices in different marketplaces.</td>
</tr>
<tr>
<td>Property tax autonomy and tax mimicking in major metropolitan in Poland</td>
<td>Institute of Economic Research Working Papers No. 69/2017</td>
<td>Agnieszka Malkowska, Angieszka Telega, Michal Glusza, Bartlomiej Marona</td>
<td>The authors explore spatial dependences in property taxation. The authors identify clustering or dispersion of high and low values of the tax rates within major metropolitan areas in Poland. The effects can indicate presence of tax mimicking among municipalities in given metropolitan areas.</td>
</tr>
<tr>
<td>Property tax relief a possible solution for human-made earthquakes</td>
<td>Bloomberg BNA/2017</td>
<td>Stephanie E. Cangialosi</td>
<td>Discusses property tax relief in various states for damages due to natural disasters and the increasing possibility of including man-made disasters, such as earthquakes caused by fracking.</td>
</tr>
<tr>
<td>Public acceptability and land value taxation: an experimental economics investigation</td>
<td>Lincoln Institute of Land Policy/2017</td>
<td>Joshua M. Duke and Tianhang Gao</td>
<td>Seeks to use economic experiments to investigate how different property tax institutions affect homeowners’ investment behavior and whether land value taxation (LVT) is acceptable to homeowners and voters.</td>
</tr>
<tr>
<td>Tax or consequences</td>
<td>Tierra Grande/June 2016</td>
<td>Charles E. Gilliland</td>
<td>Discusses the impact a proposition similar to California’s Proposition 13 would have on Texas assessments and taxpayers.</td>
</tr>
<tr>
<td>Tennessee’s low income housing tax credit program, 1987-2013</td>
<td>Tennessee Housing Development Agency/2015</td>
<td>Laura Swanson</td>
<td>This report looks at the 28-year history of the Low Income Housing Tax Credit program in Tennessee and how the program may grow in the future. The report describes the relationship to state and federal policy priorities, the relationship to market and investment conditions, and lastly the relationship of the LIHTC program to other subsidized housing programs.</td>
</tr>
</tbody>
</table>
Towards property tax compliance: a case study of attitudes toward paying property taxes in Jamaica

Lincoln Institute of Land Policy/2016

Tina M.F. Beale, Rochelle A. Channer Miller, Amani Ishemo, and Cadien A. Murray-Stuart

Investigates property tax compliance in Jamaica over the financial years 2010–2011 to 2015–2016 using data from a survey. The survey was designed to address two issues, specifically: 1) Jamaicans’ attitude toward property tax, and 2) the effect of fairness, deterrence, and public shame on self-reported willingness to comply with the property tax.

Uncommon ground

Valuation: Insights and Perspectives/Quarter 1 2017, 22 (1)

Peter Haapaniemi

The valuation of ground leases presents appraisers with significant opportunities and challenges. Their expertise can provide input for the initial lease, for the later lease renegotiation and for the resolution of disagreements through arbitration. But this niche market is not always well understood, and appraisers may discover a dearth of quality data.

The value of a view: quantifying the damages of a view once seen

Right of Way/March/April 2017, 64 (2)

Orell Anderson and Alexander Wohl

Focuses on what happens to property values when a property once with a view loses said view.

The value of property taken: appraising real estate acquired through eminent domain

Right of Way/March/April 2017, 64 (2)

Kenneth Cantrell

A typical appraisal provides an opinion of market value and is required for lending and other real estate purposes. However, in cases where eminent domain is involved, the market value is essentially an interim step leading to the final conclusion of just and adequate compensation.

Want to see how America is changing?: property taxes hold the answer

MarketWatch/April 10, 2017

Andrea Riquier

Younger people are flocking to cities in the Northeast - but it’s not enough to offset retirees and those in search of lower taxes. This article ranks each state and explains how they compare to other states when considering average property tax bill and effective tax rates.
Assessment jurisdictions are limited by a lack of data and sales for large commercial properties because they have immediate access to data only from within their jurisdictions. When looking outside local jurisdictions, most commercial providers supply listings of only the sales information. New tools are emerging to fill this gap by providing web-based access to more complete and reliable data and sales of commercial properties throughout an entire state.

For example, CourthouseUSA, a private company with a 100-million-parcel database for third-party app developers, offers ValueArmor, a web-based geographic information system (GIS) application for this purpose. This app permits users to filter by several variables to find the recorded sales within their states that may be valid as comparable sales. It provides a quick way to find potential comparable sales, reducing the research time for developing an appraisal and preparing a defense in tax appeal cases. Having statewide data is especially beneficial in the valuation of large retail or big-box stores as jurisdictions may only have one comparable sale, making it more difficult to justify value.

ValueArmor, which is available in the Hexagon Geospatial Marketplace, has been loaded with commercial data and sales from the Florida Department of Revenue and the Maryland State Department of Assessment and Taxations for use in defending 2017 appeals. The incident analyzer shows the sales of buildings larger than a specified size in Maryland and Florida (figures 1 and 2, respectively). Because there are so many data points, more than 100,000 in each state, the data are clustered for easier visualization.

A major benefit of this type of software is the ability to filter sales by property or economic feature and to display them in graphic form on a GIS map. These maps can be saved so a picture of the property and the property’s surroundings is available when needed. The appraiser can then easily obtain the comparable sales applicable for any appraisal assignment. By selecting specific features, appraisers reduce their research time for finding the most similar comparable sales.

With a simple user interface, filtering data can be easy and straightforward. The example in figure 3 shows how clickable charts can...
be used for this purpose. Users simply click on a section or sections on each of the charts around the screen, for example, retail properties of a certain size and age that have sold in the last two years.

Once the appraiser has selected a group of potentially comparable sales for the subject property, the appraiser may choose to export the attributes from those properties and produce an electronic spreadsheet of the best potential sales (figure 4). The appraiser can then use this list to contact the local chief appraiser in the geographic location of each property.

This process of using GIS to search for statewide data reduces the time needed to find potential comparable sales for any appraisal for the assessment roll, for defense of the assessment roll, or for preparation of single-property appraisal reports. Reducing research time while improving the quality of the search for sold properties in the state is valuable not only to government appraisers/assessors but also to private-sector appraisers, and real estate brokers or salespersons.

**Billy Burle** represents CourthouseUSA, which provides the appraisal industry with mobile and web-based apps using leading-edge technologies to help increase productivity and improve valuations.

**Patrick O’Connor, ASA,** is the principal of O’Connor Consulting. He provides consulting services in real estate valuation and CAMA and AVM modeling.

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**Figure 2.** Incident analyzer showing sales of buildings larger than a specified size in Florida

**Figure 3.** Clickable filters simplify the search for comparable sales.

**Figure 4.** Filtered data and contacts can be exported.
The Las Vegas Local Host Committee has designated Make Your Own Ball Day (MYOBD) as the charitable organization for the Annual Conference in Las Vegas September 24–27. The committee’s decision was motivated by the story of Mark Spiegel (“How My Son and Soccer Got Me Out of My Comfort Zone,” F&E, May 2016, p. 43) and the work of MYOBD. IAAO is teaming up with MYOBD to raise money for soccer fields for underserved kids in Malawi, Africa, and in Gary, Indiana.

Mark Spiegel started MYOBD in 2013 with a vision that a not-for-profit could bring the game of soccer to kids not only as a sport but also as a platform for change. Students and players participating in a MYOBD make homemade soccer balls and play barefoot to feel what it is like to be a kid in a developing country. The conversation that MYOBD is starting revolves around thankfulness, perspective, and giving back. Its mission is to use a ball to help kids create, connect, give, appreciate, and play. It goes beyond the field and into discussions on the challenges that daily life brings to kids all over the world.

In 2015, MYOBD road-tripped to Tijuana, Mexico, to deliver more than 700 soccer balls and 250 pairs of cleats to underserved kids and to partner with a group that is using soccer to keep the kids out of gangs and to develop mentoring relationships. Then in 2016, the not-for-profit started building soccer fields in the underserved communities where they traveled for their giving trips. MYOBD is working with the Banda Bola Sports Foundation in Malawi, Africa, to not only donate soccer gear but also construct a soccer field in order to inspire kids to attend school and get an education. The other project is working with the Men of Vision & Excellence (MOVE, http://myobd.org/donate/) group in Gary, Indiana, which is using sport to teach responsibility and conflict resolution to kids in the inner city.

IAAO is excited to jump on board to help make the third and fourth safe soccer fields a reality and truly effect a difference in and impact on the young lives of so many both domestically and abroad.

MYOBD will have a booth at the Annual Conference, and MYOBD crew members will be there. Attendees can donate, play a little soccer, and possibly win some great prizes. The annual IAAO Charity Golf Tournament on Sunday, September 24, at the Las Vegas Paiute Golf Course will also be raising money for MYOBD.

In addition, a bubble ball soccer tournament will be held on Sunday afternoon at Las Vegas Indoor Soccer; transportation will be provided. Bubble ball is the latest spin on the soccer
field. Just imagine yourself in a giant, soft inflatable ball running around trying to kick a soccer ball while bouncing off your opponents and fellow team members.

Registration forms for the golf tournament and the bubble ball soccer tournament can be found on the IAAO website, www.iaao.org/wcm/events, under Annual Conference⇒ Make Your Own Ball Day. For more information on the bubble ball soccer tournament, contact Carol Burgeson at 702-455-4982.

Bill Neal, RES, reads *Fair & Equitable*, while enjoying the Mediterranean breezes of the Cote d’Azur (October 2016).

Recently he and his wife celebrated their 25th wedding anniversary in St. Jean-Cap-Ferrat, France, and this photo was taken on the balcony at their hotel (Grand-Hotel du Cap-Ferrat) while taking a break between sightseeing in nearby Monte Carlo, Eze, Nice, Antibes, and Cannes.

As an appraiser, specializing in high-end residential properties in Johnson County, Kansas, Bill was intrigued to learn of the world’s most expensive home listing within walking distance of their hotel. The home, owned by Grand Marnier heiress Alexandra Marnier Lapostolle, is subject to future acquisition by Italian spirits company Gruppo Campari as part of a buyout agreement to acquire the Grand Marnier holdings.

Mr. Neal is a member of IAAO and has been working in Residential Appraisal for Johnson County, Kansas, for more than 18 years. He is currently a Senior Residential Regional Coordinator.

**Carol Burgeson** is a Senior Property Appraiser at the Clark County Assessor’s Office in Las Vegas, Nevada.

IAAO accepts photo submissions for “Where Do You Read F&E?” and local jurisdiction activities and meetings. Send to bennett@iaao.org and provide contact information.
BY LOCATION

**Alabama**

101—Fundamentals of Real Property Appraisal
Auburn, September 11—15, 2017
The Center for Governmental Services sponsor the offerings listed above. For more details, contact Leslie Hamby 334/844-4782 or register at www.auburn.edu/propertytax.

**Arkansas**

311—Residential Modeling Concepts
Fayetteville, October 9–13, 2017
The Arkansas Chapter of IAAO sponsor the offerings listed above. For more details, contact Farah Matthews 870/679-0693 or fmatthews@totalassessments.com

102—Income Approach to Valuation
Little Rock, July 24–28, 2017
300—Fundamentals of Mass Appraisal
Little Rock, August 28—September 1, 2017
The Assessment Coordinator Department sponsor the offerings listed above. For more details, contact Cleta Sample-Hardy 501/324-9104 or cleta.sample@acld.state.ar.us

**Connecticut**

101—Fundamentals of Real Property Appraisal
Rocky Hill, September 11–15, 2017
The Connecticut Chapter of IAAO sponsors the offerings listed above. For more details, contact Melinda Fonda 203-988-0883 or mfonda@townofstratford.com

**Florida**

102—Income Approach to Valuation
Lake Mary, August 7–11, 2017
112—Income Approach to Valuation II
Lake Mary, August 7–11, 2017
333—Residential Modeling Applications
Lake Mary, August 7–11, 2017
601—Cadastral Mapping: Methods and Applications
Lake Mary, August 7–11, 2017
The Florida DOR sponsors the offering listed above. For more details, contact PTOTraining@floridarevenue.com

101—Fundamentals of Real Property Appraisal
West Palm Beach, July 17–21, 2017
The Palm Beach County Property Appraiser’s Office sponsors the offering listed above. For more details, contact Mike Pratt 561-355-4021 or mpratt@pcgov.org

**Idaho**

101—Fundamentals of Real Property Appraisal
Boise, July 24–28, 2017
102—Income Approach to Valuation
Boise, July 24–28, 2017
201—Appraisal of Land
Boise, July 24–28, 2017
300—Fundamentals of Mass Appraisal
Boise, July 24–28, 2017
400—Assessment Administration
Boise, July 24–28, 2017
402—Tax Policy
Boise, July 24–28, 2017
600—Principles and Techniques of Cadastral Mapping
Boise, July 24–28, 2017
155—Depreciation Analysis Workshop
Boise, July 26–27, 2017
The Idaho State Tax Commission sponsors the offering listed above. For more details, contact Jan Barnard 208-334-7733 or jan.barnard@tax.idaho.gov.

**Illinois**

155—Depreciation Analysis
East Peoria, August 9–10, 2017
The Illinois Property Assessment Institute sponsors the offering listed above. For more details, contact Kelli Chambers 309-862-0300.

**Indiana**

101—Fundamentals of Real Property Appraisal
Columbus, July 17–21, 2017
102—Income Approach to Valuation
Columbus, August 14–18, 2017
151—National USPAP
Indianapolis, August 28–30, 2017
400—Assessment Administration
Fort Wayne, September 11–15, 2017
311—Residential Modeling Concepts
Columbus, September 18–22, 2017
151—National USPAP
Fort Wayne, October 3–5, 2017
102—Income Approach to Valuation
Valparaiso, October 9–13
102—Income Approach to Valuation
Indianapolis, October 16–20, 2017
300—Fundamentals of Mass Appraisal
Indianapolis, October 30—November 3, 2017
151—National USPAP
Indianapolis, November 14–16, 2017
400—Assessment Administration
Indianapolis, December 4–8
The Indiana Chapter of IAAO sponsors the offering listed above. For more details, contact Ginny Whipple 812/593-5308 or gwhipple@assessmentprofessionals.com

**Iowa**

102—Income Approach to Valuation
Cedar Rapids, September 11–15, 2017
The Institute of Iowa Certified Assessors sponsors the offering listed above. For more details, contact John Freese 319-824-6216.

**Kansas**

400—Assessment Administration
Wichita, July 17–21, 2017
400—Assessment Administration
Topeka, August 21–28, 2017
102—Income Approach to Valuation
Topeka, August 28–September 1, 2017
311—Residential Modeling Concepts
Wichita, December 4–8, 2017
The Kansas County Appraisers Association sponsors the offering listed above. For more details, contact Cindy Brenner 620/873-7449 or kcao@sbcglobal.net.

**Louisiana**

300—Fundamentals of Mass Appraisal
New Orleans, October 16–20, 2017
The Orleans Parish Assessor’s Office sponsors the offering listed above. For more details, contact Reba Johnson (504) 658-1399 or rjohnson@orleansassessors.com

**Massachusetts**

300—Fundamentals of Mass Appraisal
Wilmington, October 2–6, 2017
The Massachusetts Chapter of International Association of Assessing Officers (IAAO) sponsor the offering listed above. For more details, contact Gary McCabe (617) 730-2065 or gmccabe@brooklinema.gov.
North Dakota
101—Fundamentals of Real Property Appraisal
Lake of the Ozarks, September 11–15, 2017
The North Dakota State Assessors Association the offering listed above. For more details, contact Wendy Nordwald 636-456-8885 (Ext 350) or wnordwald@warrencountymo.org

Nebraska
300—Fundamentals of Mass Appraisal
Kearney, August 7–11, 2017
332—Modeling Concepts
Lincoln, October 2–6, 2017
The Nebraska Department of Revenue the sponsor the offerings listed above. For more details, contact Grace Willnerd 402/471-5982 or grace.willnerd@nebraska.gov or register at http://www.revenue.nebraska.gov/PAD/assessor/educ_cert.html.

New Hampshire
201—Appraisal of Land
Concord, November 6–10, 2017
931—Reading and Understanding Leases
Concord, November 17, 2017
311—Residential Modeling Concepts
Concord, November 27–December 1, 2017
The New Hampshire Association of Assessing Officers sponsor the offering listed above. For more details, contact James Rice 603-868-8064 or jrice@ci.durham.nh.us

North Dakota
102—Income Approach to Valuation
Bismarck, November 13–17, 2017
300—Fundamentals of Mass Appraisal
Bismarck, November 13–17, 2017
The North Dakota Association of Assessing Officers sponsor the offerings listed above. For more details, contact Kim Vietmeier or Marc Gilstad (701) 328-3127 or kmvietmeier@nd.gov

Ohio
400—Assessment Administration
North Canton, July 24–28, 2017
331—Mass Appraisal Practices and Procedures
Columbus, August 21–25, 2017
101—Fundamentals of Real Property Appraisal
North Canton, September 18–22, 2017
300—Fundamentals of Mass Appraisal
Columbus, November 13–17, 2017
The Ohio Ad Valorem School sponsor the offerings listed above. For more details, contact Melissa Graham-Perkins 330/232-1059 or Melissa.OhioAdValorem@hotmail.com.

Ontario
112—Income Approach to Valuation II
Hamilton, September 11–15, 2017
312—Commercial/Industrial Modeling Concepts
Hamilton, December 4–8, 2017
The Municipal Property Assessment Corporation (MPAC) sponsor the offerings listed above. For more details, contact Kristy Robbins 289/315-1166 or kristy.robbins@mpac.ca.

Tennessee
312—Commercial/Industrial Modeling Concepts
Mt. Juliet, July 24–28, 2017
101—Fundamentals of Real Property Appraisal
Mt. Juliet, July 31–August 4, 2017
500—Assessment of Personal Property
Mt. Juliet, August 7–11, 2017
101—Fundamentals of Real Property Appraisal
Mt. Juliet, August 28–September 1, 2017
201—Appraisal of Land
Mt. Juliet, October 23–27, 2017
102—Income Approach to Valuation
Mt. Juliet, November 6–10, 2017
The State of TN, Comptroller of the Treasury sponsor the offerings listed above. For more details, contact Cristi Moore 615/401-7774 or cristi.moore@ct.tn.gov

Texas
331—Mass Appraisal Practices and Procedures
Austin, August 28–September 1, 2017
101—Fundamentals of Real Property Appraisal
Austin, October 9–13, 2017
151—National USPAP
Houston, October 16–17, 2017
102—Income Approach to Valuation
Austin, October 16–20, 2017
331—Mass Appraisal Practices and Procedures
Houston, October 23–27, 2017
332—Modeling Concepts
Houston, October 23–27, 2017
332—Modeling Concepts
Houston, October 30–November 3, 2017
112—Income Approach to Valuation II
Austin, November 13–17, 2017
201—Appraisal of Land
Austin, December 4–8, 2017
151—National USPAP
Austin, December 11–12, 2017

Wisconsin
300—Fundamentals of Mass Appraisal
Cheyenne, August 14–18, 2017
155—Depreciation Analysis
Cheyenne, September 20–21, 2017
112—Income Approach to Valuation II
Cheyenne, October 2–6, 2017
The Wyoming Department of Revenue sponsor the offerings listed above. For more details, contact Scott Winter 414-233-3350, scottwinter626@gmail.com.

Wyoming
150—Mathematics for Assessors
Cheyenne, September 11–15, 2017
601—Cadastral Mapping: Methods and Applications
Lander, October 1–5, 2017
The Wyoming Department of Revenue sponsor the offerings listed above. For more details, contact Alan Lemaster 307/777-3450, alan.lemaster@wyo.gov or Justin McNamara 307/777-5232, justin.mcnamara@wyo.gov.

BY COURSE
Course 101—Fundamentals of Real Property Appraisal
July 17–21, 2017, Indiana (Columbus)
July 17–21, 2017, Florida (West Palm Beach)
July 24–28, 2017, Idaho (Boise)
Education Calendar (continued)

To sponsor IAAO classes contact Professional Development Operations Director Jean Spiegel, spiegel@iaao.org. Contact individual coordinators for each state’s offerings for enrollment/registration information.

IAAO Conferences, Seminars, Meetings, and Webinars

<table>
<thead>
<tr>
<th>Event</th>
<th>Location</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library and Designations</td>
<td>Online Webinar</td>
<td>July 19, 2017</td>
</tr>
<tr>
<td>Executive Board Meeting</td>
<td>Boston, Massachusetts</td>
<td>July 14–15, 2017</td>
</tr>
<tr>
<td>IAAO 83rd Annual International Conference on Assessment Administration</td>
<td>Las Vegas, Nevada</td>
<td>September 24–27, 2017</td>
</tr>
<tr>
<td>Fall Leadership Days</td>
<td>Kansas City, Missouri</td>
<td>October 20–21, 2017</td>
</tr>
<tr>
<td>International Research Symposium</td>
<td>Madrid, Spain</td>
<td>October 30–31, 2017</td>
</tr>
<tr>
<td>Executive Board Meeting</td>
<td>San Francisco, California</td>
<td>November 17–18, 2017</td>
</tr>
<tr>
<td>38th Annual Legal Seminar</td>
<td>Seattle, Washington</td>
<td>December 7–8, 2017</td>
</tr>
<tr>
<td>Spring Leadership Days</td>
<td>Kansas City, Missouri</td>
<td>February 9–10, 2018</td>
</tr>
</tbody>
</table>

July 31—August 4, 2017, Tennessee (Mt. Juliet)  
August 14–18, 2017, Vermont (White River Junction)  
August 28—September 1, 2017, Wyoming (Casper)  
August 28—September 1, 2017, Tennessee (Mt. Juliet)  
September 11–15, 2017, Alabama (Auburn)  
September 11–15, 2017, Missouri (Lake of the Ozarks)  
September 18–22, 2017, Ohio (North Canton)  
October 9–13, 2017, Texas (Austin)  
Course 102—Income Approach to Valuation  
July 24–28, 2017, Arkansas (Little Rock)  
July 24–28, 2017, Idaho (Boise)  
August 7–11, 2017, Florida (Lake Mary)  
August 7–11, 2017, Kansas (Olathe)  
August 14–18, 2017, Indiana (Columbus)  
August 28—September 1, 2017, Kansas (Topeka)  
September 11–15, 2017, Iowa (Cedar Rapids)  
September 18–22, 2017, Minnesota (Chanhassen)  
September 18–22, 2017, Texas (Waco)  
October 9–13, Indiana (Valparaiso)  
October 16–20, 2017, Texas (Austin)  
October 16–20, 2017, Indiana (Indianapolis)  
November 6–10, 2017, Tennesse (Mt. Juliet)  
November 13–17, 2017, North Dakota (Bismarck)  
Course 112—I Income Approach to Valuation II  
August 7–11, 2017, Florida (Lake Mary)  
September 11–15, 2017, Ontario (Hamilton)  
October 2–6, 2017, Vermont (White River Junction)  
November 13–17, 2017, Texas (Austin)  
Workshop 150—Mathematics for Assessors  
August 14–16, 2017, Wyoming (Cheyenne)  
Workshop 151—National USPAP  
August 28–30, 2017, Indiana (Indianapolis)  
October 3–5, 2017, Indiana (Fort Wayne)  
October 16–17, 2017, Texas (Houston)  
November 14–16, 2017, Indiana (Columbus)  
December 11–12, 2017, Texas (Austin)  
Workshop 155—Depreciation Analysis  
July 26–27, 2017, Idaho (Boise)  
August 9–10, 2017, Illinois (East Peoria)  
September 20–21, 2017, Vermont (White River Junction)  
158—Highest and Best Use  
August 16–18, 2017, Wisconsin (Greenfield)  
Course 201—Appraisal of Land  
July 24–28, 2017, Idaho (Boise)  
October 23–27, 2017, Tennessee (Mt. Juliet)  
November 6–10, 2017, New Hampshire (Concord)  
December 4–8, 2017, Texas (Austin)  
Course 300—Fundamentals of Mass Appraisal  
July 24–28, 2017, Idaho (Boise)  
July 31–August 4, 2017, Kansas (Wichita)  
August 7–11, 2017, Nebraska (Kearney)  
August 28–September 1, 2017, Arkansas (Little Rock)  
October 2–6, 2017, Massachusetts (Wilmington)  
October 30–November 3, 2017, Indiana (Indianapolis)  
November 13–17, 2017, Ohio (Columbus)  
November 13–17, 2017, North Dakota (Bismarck)  
Course 311—Residential Modeling Concepts  
September 18–22, 2017, Indiana (Columbus)  
October 2–6, 2017, Texas (El Paso)  
October 9–13, Arkansas (Fayetteville)  
October 16–20, 2017, Louisiana (New Orleans)  
November 27–December 1, 2017, Texas (El Paso)  
December 4–8, 2017, Indiana (Indianapolis)  
Course 312—Commercial/Industrial Modeling Concepts  
July 24–28, 2017, Idaho (Boise)  
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September 20–21, 2017, Vermont (White River Junction)  
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December 4–8, 2017, Texas (Austin)  
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October 30–November 3, 2017, Indiana (Indianapolis)  
November 13–17, 2017, Ohio (Columbus)  
November 13–17, 2017, North Dakota (Bismarck)  
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September 18–22, 2017, Indiana (Columbus)  
October 2–6, 2017, Texas (El Paso)  
October 9–13, Arkansas (Fayetteville)  
October 16–20, 2017, Louisiana (New Orleans)  
November 27–December 1, 2017, New Hampshire (Concord)  
December 4–8, 2017, Kansas (Wichita)  
Course 312—Commercial/Industrial Modeling Concepts  
August 21–25, 2017, Kentucky (Frankfort)  
August 21–28, 2017, Kansas (Topeka)  
September 11–15, 2017, Indiana (Fort Wayne)  
November 27–December 1, 2017, Texas (El Paso)  
December 4–8, 2017, Indiana (Indianapolis)  
Course 402—Property Tax Policy  
July 17–21, 2017, Kansas (Wichita)  
July 24–28, 2017, Ohio (North Canton)  
July 24–28, 2017, Idaho (Boise)  
August 21–25, 2017, Kentucky (Frankfort)  
August 21–28, 2017, Kansas (Topeka)  
September 11–15, 2017, Indiana (Fort Wayne)  
November 27–December 1, 2017, Texas (El Paso)  
December 4–8, 2017, Indiana (Indianapolis)  
Course 500—Assessment of Personal Property  
August 7–11, 2017, Tennessee (Mt. Juliet)  
September 11–15, 2017, Kentucky (Frankfort)  
Course 600—Principles and Techniques of Cadastral Mapping  
July 24–28, 2017, Idaho (Boise)  
Course 601—Cadastral Mapping, Methods & Applications  
August 7–11, 2017, Florida (Lake Mary)  
October 2–6, 2017, Wyoming (Lander)  
One-Day Forum 931—Reading and Understanding Leases  
November 17, 2017, New Hampshire (Concord)
**5 Years**

Nancy Greer, Augusta Richmond County Board of Assessors, Augusta, GA  
Jonathan K. Harris, Tulsa County Assessor’s Office, Tulsa, OK  
Sidney Bruce Kelley, North Slope Borough Assessing Division, Barrow, AK  
Sarah Lief, DeKalb County, Sycamore, IL  
Bridget B. Nodurft, DeKalb County Government, Dekalb, IL  
Pat A. Poston, Palm Beach County Property Appraiser’s Office, West Palm Beach, FL  
Diane S. Rypkema, Minnehaha County Assessor’s Office, Sioux Falls, SD  
Lori A. Stangeland, Minnehaha County Assessor’s Office, Sioux Falls, SD  
Teri A. Wodzisz, Augusta Richmond County Board of Assessors, Augusta, GA

**10 Years**

Shelly L. Borland, Douglas County, Lawrence, KS  
Andrea K. Burch, Greene County, Springfield, MO  
Christian N. Cao, Alachua County Property Appraiser’s Office, Gainesville, FL  
Roberta Coleman, Dawes County Assessor, Chadron, NE  
Will Denami, Tennessee Association of Assessing Officers, Nashville, TN  
Nicholas A. Elmore, RES, AAS, Jackson County, Pascagoula, MS  
Reed D. Heidelberger, City of Alexandria, Alexandria, MN  
Otway B. Hill, Cheverly, MD  
Stacy D. Howard, Jefferson County, Pine Bluff, AR  
Scott Kirby, Murray County, Sulphur, OK  
Charles G. Marion, Randolph County Tax Department, Asheboro, NC  
Jeneen M. McSkimming, Town of Evans, Angola, NY  
Dean Paul, Athens-Clarke County, Athens, GA  
Teresa F. Pulley, RES, AAS, Duval County Property Appraiser’s Office, Jacksonville, FL  
Ruth A. Scott, Jackson County, Jackson, MI  
Dawn Smith, Logan County PVA Office, Russellville, KY  
Steven H. Takara, City & County of Honolulu, Honolulu, HI  
Fred A. Tomlinson, RES, Duval County Property Appraiser’s Office, Jacksonville, FL  
Jo Ann Vecera, Board County Appraisal, Crowell, TX  
Eric R. Wynings, City of Hampton Assessor’s Office, Hampton, VA

**15 Years**

Marcia L. Barker, CAE, City of Edmonton, Edmonton, AB, Canada  
Michael R. Benavidez, Bernalillo County Assessor’s Office, Albuquerque, NM  
Colette R. Black, Clark County Assessor’s Office, Las Vegas, NV, United States  
Henry Brigham, II, Fulton County Board of Assessors, Atlanta, GA  
Katherine K. Briney-Wagner, Wyandotte County Appraiser’s Office, Kansas City, KS  
David Scott Bryant, Lincoln County Tax Department, Lincolnton, NC  
William H. Ford, Pierce County, Tacoma, WA  
Thomas R. Hays, Gregg County Appraisal District, Longview, TX  
Glenda S. Mills, Harvey County, Newton, KS  
Darren G. Mire, Orleans Parish Assessor’s Office, New Orleans, LA  
Robert Mosely, Bernalillo County Assessor’s Office, Albuquerque, NM  
Carol A. Neihardt, Tyler Technologies, Eudora, KS  
Robin E. Nolan, Town of Ipswich, Ipswich, MA  
Rhonda R. Novak, County of Will, Joliet, IL  
Darrell E. Prawalsky, RES, Clark County Assessor’s Office, Las Vegas, NV  
Debra K. Reason, City of Hopewell, Hopewell, VA  
Karl L. Rutledge, Washington County Assessor’s Office, Saint George, UT  
Stan Walker, Arkansas Public Service Commission, Little Rock, AR  
Dwain S. Weeks, CAE, City of Regina, Regina, SK, Canada

**20 Years**

Steve Ellington, City & County of Denver, Denver, CO  
Michael R. Galligan, Equalization Department, West Olive, MI  
Rhonda K. Graves, Taylor County Central Appraisal District, Abilene, TX  
William R. Middleton, III, Shelby County Assessor of Property, Memphis, TN  
Sharon P. Outland, St Augustine, FL  
Penny Wells LaValle, Suffolk County Real Property, Riverhead, NY  
Andrew J. Wulf, Lake County, Waukegan, IL

**25 Years**

Tammy G. Carroll, CAE, Retired, Stafford, VA  
Shelby P. Jackson, III, Town of Wallingford, Wallingford, CT  
Karen K. Oppenner, City of Wyoming, Wyoming, MI  
Andrea Raila, Raila & Associates, P.C., Chicago, IL  
David R. Whiterell, RES, Maricopa County Assessor’s Office, Peoria, AZ

**30 Years**

Thomas H. Ball, City of Boston Assessing Department, Boston, MA  
Marvin F. Hahn, Tax Appraisal District of Bell County, Belton, TX  
Will E. Leonard, III, CAE, Henrico County Assessment Division, Henrico, VA  
Doreen C. Pehrson, CAE, Saint Peter, MN  
Jane B. Powers, Town Of Pierrepont, Canton, NY  
Stephen M. Snyder, CAE, Douglas County, Castle Rock, CO  
Allen D. Vogt, Morgan County, Jacksonville, IL

**35 Years**

Brent J. Balduf, RES, AAS, Story County Assessor’s Office, Nevada, IA  
Catherine A. Creighton, Dallas County Assessor, Adel, IA  
Darryl L. McKenney, Town of Waldoboro, Waldoboro, ME  
Carla R. Thompson, Cerro Gordo County, Mason City, IA

**40 Years**

Gary E. Bilyeu, AAS, Johnson County Assessor’s Office, Iowa City, IA  
Jewette Farley, CAE, J. Farley Consulting, Ruston, LA

**45 Years**

David J. Chitlik, CAE, Altus Group, Alexandria, VA  
Maurice Douglas, CAE, Germantown, VA

**50 Years**

Otho C. W. Fraher, CAE, Amelia Court House, VA  
Robert C. Taggart, CAE, Robert C Taggart & Associates, Topeka, KS
The 53rd Annual Conference of the Northeastern Regional Association of Assessing Officers (NRAAO) was held in Mystic, Connecticut, May 21–24, 2017, and organized by Connecticut assessors. NRAAO members are from 12 northeast states—Maine to the District of Columbia—and 6 Canadian provinces.

The educational programs were a great success. The high attendance in the classrooms was an indication and reflection of the efforts to present timely and current issues to attendees. Thanks to the exceptional efforts of Melinda Fonda and Shelby Jackson.

Registration was a shared effort with Betsy Quist, treasurer extraordinaire, accounting for all the registrations, and Chris Kelsey placing and updating all the conference materials on the website. Pam Deziel and her assistants diligently staffed the registration booth.

Program booklets, developed by Larry Labarbera, provided direction for and history of all the activities as well as a wonderful revenue source for the conference. The special conference art logo was developed by Linda Tajirian.

The Aquarium setting was relaxing for all in attendance and provided a new format to meet the supportive vendors. Mary Huda added a new way of meeting and greeting the vendors through puzzle pieces. Robin O’Loughlin organized and protected the buckets and puzzle pieces. Assessors enjoyed this new adventure as we thrive on problem-solving.

The opening session clearly set the mood for the conference with welcoming remarks from First Selectman Robert R. “Rob” Simmons.

Monday evening was the special seaport tour with Seaport Educational Staff; the rain could not dampen the enthusiasm of the docents in conveying the seaport’s rich history. Following the tour was the Assessors’ Appreciation Night dinner sponsored by Quality Data Service and eQuality Valuation, with music by Connecticut’s own Manifestly Excessive Band.

Tuesday the weather held for the golfers. John Chaponis, Sue Altieri, and all their sponsors made this a perfect day of golf. The Mystic Village Stroll was a big success. The venue was relaxing and scenic, and those who participated expressed their pleasure with the event both verbally and in song while competing for prizes. Donna Ralston organized and led the way through the village.

The conference concluded with the banquet on Wednesday night, which was sponsored by Vision Governmental Solutions. Music was provided by the Paul Lussier Band. The band was marvelous as reflected in the number of persons on the dance floor. This was a culmination of the efforts of many dedicated individuals and sponsors.

The committee is gratified by the turnout of so many people and their positive responses. We thank you for your participation in this year’s conference. We also acknowledge the

NRAAO members from Rhode Island: front (from left) Viviane Valentine and Elaine Mondillo. Back (from left) Karen Beattie, RES, Linda Cwiek, Ray Beattie, Patricia Moreau, and Christine Brochu.

IAAO Vice-President Tim Boncoskey speaks at the morning breakfast.
Mystic Hilton and Ocean Blue Catering staff for all their assistance.

The 2018 NRAAO Conference will be held at the Boston–Quincy Marriott, April 29–May 2, 2018. The theme for 2018 is, “Leaders Start Here,” in recognition of Quincy’s notoriety as the City of Presidents (John Adams and John Quincy Adams). According to Ginny Thompson, 2018 NRAAO President, “Quincy and Boston have a lot to offer—theater, restaurants, sports, golf, shopping, harbor cruises, JFK Library & Museum. We’re excited to host NRAAO in Massachusetts and promise awesome educational choices and some great entertainment.”

Donna Ralston, CCMA II, is Assessor for the City of Norwich, Connecticut, and president of NRAAO. She is a long-time member of the Connecticut Association of Assessing Officers and a 30-year member of NRAAO.

Marsha Standish is Director of Assessment for the Town of Stonington, Connecticut, and NRAAO 2017 Conference Chair.

### New Members

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CHIEF FIELD DEPUTY
Douglas County Assessor/Register of Deeds Office, Omaha, NE

The Douglas County, NE, Assessor/Register of Deeds Office is hiring to fill the position of Chief Field Deputy. This combined office, with its 81 employees, is located in Omaha, NE, the state’s largest city. Douglas County is the state’s largest county, containing more than 216,000 parcels. We are seeking a leader who possesses the technical skills to ensure assessment accuracy and uniformity, with a focus on providing exceptional customer service. Salary: $90K to 110K (DOQ)

Primary function
Under the direction of the Douglas County Assessor/Register of Deeds, the Chief Field Deputy manages and coordinates all mass-appraisal activities; supervises, trains and evaluates the performance of assigned personnel; and administers the Assessor/Register of Deeds’ programs, policies and procedures in accordance with established goals and objectives. In addition, the Chief Field Deputy has a hands-on role in many appraisal and assessment administration activities; and guides and participates in the technical and statistical work of setting values. The Chief Field Deputy reports directly to the Assessor/Register of Deeds.

Job Requirements
Primary duties and responsibilities
1. Oversees and coordinates daily division operations pertaining to appraisal, revaluation and data analysis;
2. Monitors and ensures the accurate and equitable appraisal of property located within Douglas County;
3. Develops, implements and reviews procedures involving the compilation and analysis of valuation data;
4. Develops, implements and reviews cost, sales comparison and income models used in valuing residential and commercial property;
5. In consultation with the Assessor/Register of Deeds, analyzes and calculates the appraisal annual budget for review and presentation to the county board;
6. Works directly with the Property Assessment Division of the Department of Revenue regarding the Assessor’s abstract and assessment procedures;
7. Communicates with the board of equalization, TERC, real estate professionals, taxpayers, and county personnel regarding appraisal-related matters;
8. Participates in performing appraisals, conducts appraisal investigations, authorizes appraisal corrections and value adjustments as required;
9. May attend and participate in hearings, defend appraisals to property owners, representatives, attorneys and others before the board of equalization, TERC and/or other courts of law;
10. Conducts or supervises regular physical reviews of Douglas County property within a six-year cycle to determine changes in property that might impact appraisal value;
11. Analyzes trends in sales prices, construction costs and rents to assess property values or determine the accuracy of assessments;
12. Directs the management of record-keeping and assessment-roll preparation, and complies with state regulations as they apply to assessment of real property.

Other duties and responsibilities
1. Reviews complex appraisals of vacant land, single-family residences, multi-unit dwellings, commercial, and industrial properties using generally-accepted mass-appraisal techniques;
2. Establishes the appraised value of real or personal residential, commercial, agricultural, historic or industrial property using a cost, income or comparative-sales approach, as appropriate; provides the treasurer’s office with split parcel values after roll close on parceled properties; prepares an appraisal report detailing the process used to establish the value of the property;
3. Issues notices of assessments.
4. Performs other duties as assigned.

Training, education and/or work experience requirements
1. A bachelor’s degree in business or public administration, statistics, land management or a related field; and a minimum of five years’ experience in assessment administration;
2. A current Nebraska state assessor certification, or the ability to obtain the certification as soon as possible;
3. Note: An appraisal license and/or professional designation are not essential, but are highly desirable.

Note: Experience beyond the five years required may be substituted for educational requirements beyond high school—on a year-for-year basis.

Basic skills and abilities required
1. A working knowledge of databases, CAMA, assessment system software, and analytical software, such as Access or Excel;
2. A working knowledge of Nebraska laws and regulations pertaining to property appraisal and tax assessment;
3. Thorough knowledge of the Uniform Standards of Professional Appraisal Practice;
4. Thorough knowledge of ad valorem tax process;
5. Thorough knowledge of sales ratio study and adjustment analyses;
6. Thorough knowledge of accounting practices and mathematical computations associated with the calculation of real and personal property assessments;
7. Ability to problem-solve, using analysis and mathematics;
8. Ability to work with and apply mathematical concepts, such as percentages, ratios and proportions to practical situations;
9. Ability to effectively communicate, orally and in writing;
10. Ability to effectively supervise and direct the activities of staff;
11. Ability to write reports, business correspondence; complete accurate records of appraisals;
12. Ability to interact with local officials and professionals, coworkers and the public in a courteous, tactful manner.

Equipment operation includes: telephone, copier, calculator, facsimile machine, personal computer and mobile devices. Note: Any position might not use all of the tools and equipment listed.

Physical demands and typical working conditions
The physical demands and work-environment characteristics described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Work might be performed indoors or outdoors during standard day-shift hours. However, work hours will include varied hours and/or additional hours, as needed. Noise level is usually moderate. Work requires interaction with the general public, and might be stressful when dealing with irate citizens and/or time constraints.

The work requires some physical activity, including extended periods of sitting and reaching, frequent standing, walking, kneeling, bending and crouching.

An incumbent must have the ability to transport himself/herself to and from various locations throughout the Assessor/Register of Deeds Office and other locations in Douglas County.

An incumbent must have the ability to frequently lift and/or carry files and other materials weighing up to 25 pounds, and must possess the hand-eye coordination and manual dexterity necessary to handle documents, and operate computers and other equipment necessary to perform the essential functions of this job.

Required sensory abilities include vision, hearing and touch. Visual abilities, correctable to normal ranges, include close vision, distance vision, and the ability to focus. Communication abilities include talking, and hearing within normal ranges.

To be considered for this position, please submit the following no later than July 31, 2017:
—Letter of interest
—Resume

Submit application package to:
Diane Battiato, Douglas County Assessor/Register of Deeds
Omaha-Douglas Civic Center
1819 Farnam St., H-09
Omaha, NE 68183-0009

Applicants selected for interviews normally will be called, or otherwise notified within one week of selection.

APPLY FOR THIS JOB
Contact Person: Diane L. Battiato
E-mail Address: diane.battiato@douglascounty-ne.gov
Phone: 402-444-7457
Fax: 402-996-8015
Over the past two years IAAO has been working tirelessly to expand its international scope and reach. The goal is to be at the forefront of valuation innovation and assist in the development of good governance across the globe.

The most tangible effort in this regard is the International Research Symposium, which was revived last year with a successful event in Amsterdam. This year, the International Research Symposium (actually the 11th), is set for October 30–31, in Madrid, Spain, and planning is already underway for the 2018 symposium in April in Prague, Czech Republic.

**2017 Symposium**

The focus of the symposium is the exchange of knowledge and emerging technology trends for continuous improvement of land administration and property tax systems worldwide. The symposium and the half-day forum on automated valuation models (AVMs) will be held at the Meliá Madrid Princesa.

The International Research Symposium is being sponsored by IAAO, Esri, and Thomson Reuters, along with assistance from partners the Professional Association of Valuation Companies of Spain (ATASA), Institute of Revenues Ratings and Valuation (IRRV), Royal Institute of Chartered Surveyors (RICS), the World Bank, and Ulster University.

“The symposium brings together leading world speakers who will present cutting-edge research on topics such as property tax policy and automated valuation methodologies,” said William McCluskey, Ph.D., Professor, Ulster, University, Northern Ireland. “For those seeking to hear about new developments in the world of property tax, participation at this event will be an engaging and rewarding experience.”

“ATASA is pleased to be working with IAAO to bring this symposium to Spain,” said Leandro S. Escobar-Torres, Secretary General of ATASA. “IAAO standards are important to valuers in Spain and AVMs have become a major focus of many offices.”

The international application of IAAO standards will be demonstrated in wide-ranging presentations offering both practical applications and practitioner lessons learned in the implementation of sound tax policy and global governance.

“Effective valuation and assessment of land and property is an essential element of a stable economy. This event is an opportunity to gather information on the latest developments in techniques and practice,” said David Magor, OBE, Executive Director, IRRV.

The symposium will include presentations on the recently revised IAAO Standard on Automated Valuation Models (AVMs), emerging technologies in the development of land administration systems, treatment of unique commercial properties, and the latest innovations in mass appraisal modeling.

**Half-Day Forum on AVMs**

On Sunday, October 29, IAAO will present a half-day forum on developments in valuation modeling. Students will participate in interactive discussions on AVMs and geographic information systems (GIS).

An AVM is a mathematical model used to analyze comparable sold properties in order to derive valuations for unsold properties. AVMs, along with GIS, which can be used to capture and understand spatial relationships, can be used together to provide insights and improve performance in deriving estimates of market value.

**Registration Fees**

Symposium fees are $650 for members and $800 for nonmembers until August 28 and then increase to $750 for members and $900 for nonmembers. Fees for the half-day forum are $100 for members and $125 for nonmembers. Attendees will earn 12.5 hours of IAAO recertification credit for the symposium and 3.0 hours for the half-day forum.

Registration and information on fees, hotel, and agenda are available at www.iaao.org. Registration forms can also be downloaded.

**Margie Cusack** is Research Manager at IAAO. She has 30 years of experience in management, property tax administration, GIS system development, and valuation in Cook County, Illinois. She has master’s degrees in public policy and political science from the University of Chicago. She has served on the IAAO Executive Board and numerous IAAO committees.
Meet colleagues from across the world and discuss immediate industry challenges such as succession planning.

Exchange ideas and experiences featuring recent advancements in Spain to improve day-to-day valuation operations throughout the industry.

Learn more about innovative automated valuation modeling being developed globally, even with a limited amount of data!

Discover how unique property types are valued, such as theme parks located in the theme park capital of the world, Orlando, Florida!

Learn more on how to develop a state- or country-wide model for apartment value estimation.

Hear about practical applications of industry standards through common experiences and lessons learned.

Hear how IAAO, diverse countries, and our industry partners are promoting good governance through the development of local land and property tax systems all striving to improve living conditions across the world.

Symposium sponsor representative, Brent Jones of ESRI, will explain how GIS can facilitate data sharing, build land administration systems, and connect us all.

Discover the recent economic development projects and impact of the World Bank in shaping tax policy.

Symposium sponsor representative, Christopher Barlow of Thomson Reuters will describe innovative research in quantifying benefits of modernizing valuation technology.

Attend a half-day forum, “Automated Valuation Models and GIS: Methods, Applications, and Standards in Valuation,” presented by IAAO U40 leaders Daniel Fasteen, Ph.D. and Paul Bidanset. The forum will explore basic concepts and demonstrate applications of methodologies used in building valuation models using industry best practices.
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Tyler can also help you bring together more people the old-fashioned way. Enter to win an office pizza party at tylertech.com/has-a-solution-for-that. While you’re there, learn how our industry-leading Appraisal & Tax Solutions can transform the way you do business.

Contact us at 800.800.2581 or at.sales@tylertech.com.