

APPRAISER CERTIFICATION BOARD

November 9, 2023

Agenda Item 3

Meeting Minutes

APPRAISER CERTIFICATION BOARD

MEETING MINUTES

Nevada Department of Taxation
Carson City Large Conference Room
1550 College Parkway
Carson City, Nevada

&

Via Zoom

September 7, 2023
9:30 a.m.

Members Present:

Jayne Jacobs
Sorin Popa
Jana Seddon
Richard Ewell
Lorna Quisenberry
Chris Sarman

Members Absent:

1. Introductions of members and staff.

Jayne Jacobs opened the meeting at 9:35 a.m. Christina Griffith with the Department took roll call; all members were present.

2. Public Comment

There was no public comment.

3. **Review and Consideration for Approval of the May 11, 2023 Appraiser Certification Board Meeting Minutes (for possible action).**

Lorna Quisenberry moved to approve the minutes of May 11, 2023 with a correction to the ending time. Jana Seddon seconded the motion. Motion passed unanimously.

4. **Review and Consideration of Continuing Education Credit Hours (for possible action).**

- a) **McKissock – Market Disturbances, Hours on Certificate**
- b) **McKissock – Supporting Adjustments, Hours on Certificate**
- c) **McKissock – Learning from the Mistakes of Others, Hours on Certificate**
- d) **McKissock – Responding to a Reconsideration of Value, Hours on Certificate**
- e) **UNR – ACC 202 - Managerial Accounting, Hours on Certificate**
- f) **College of Southern NV – ACC 201 – Financial Accounting, Hours on Certificate**
- g) **Shasta College – ECON 1A, Hours on Certificate**
- h) **Shasta College – ECON 1B, Hours on Certificate**
- i) **Shasta College – MATH 14 – Introduction to Statistics, Hours on Certificate**
- j) **IAAO – 2023 GIS/Valuation Conference, Hours on Certificate**

Jana Seddon motioned to approve items “a”, “b”, “f”, “g”, “h”, and “i”. Chris Sarman seconded the motion. Motion passed unanimously.

Jana Seddon motioned to deny item “c”. Chris Sarman seconded the motion. Motion passed 4 to 2, Lorna Quisenberry and Sorin Popa voted nay.

Lorna Quisenberry motioned to approve item “e”. Sorin Popa seconded the motion. Motion passed unanimously.

Lorna Quisenberry motioned to approve item “d”. Chris Sarman seconded the motion. Motion passed unanimously.

Chris Sarman motioned to approve item “j”. Richard Ewell seconded the motion. Motion passed unanimously.

5. Discussion regarding the review for testing (for discussion only).

Jana Seddon discussed issues with the Department of Taxation’s testing review. She noted Mark Stafford is willing to do a class but would like him to have access to the test to build a class from it.

Hector Sepulveda provided the statistics of pass rates for 2018 through 2023.

Chris Sarman noted it falls on the assessors to study for the test and hopes Mark Stafford could review old tests.

Jana Seddon reiterated the State would have to approve someone having access to the test. Chris Sarman noted the test wouldn’t be needed, just the conceptuality of the test.

Hector Sepulveda stated the areas assessors are failing on the different tests.

Christina Griffith read the statute relating to State testing for Appraiser Certification.

6. Briefing to and from Appraiser Certification Board and Department Staff (for discussion only).

Hector Sepulveda informed the Board on the next testing dates. In Las Vegas on October 19, Ethics on October 3, and in Fallon on September 1, 2023.

7. **Schedule Date and Review Agenda Topics for the Next Appraiser Certification Board Meeting (for possible action).**

Christina Griffith suggested the next meeting be held November 2nd or November 9th.

8. Public Comment

There was no public comment.

9. **Adjournment.**

Meeting adjourned at 11:00 a.m.

APPRAISER CERTIFICATION BOARD

November 9, 2023

Agenda Item 4

(a) Clark County-Clark County Appraisal Class



**Nevada Department of Taxation
Property Tax Appraiser Continuing Education
New Course Application**

Return this form to:
Division of Local Government Services
1550 College Parkway
Carson City, Nevada 89706

Please Print or Type:

COURSE INFORMATION (A person who wishes to receive contact hours for a course of continuing education that has not been previously approved, must apply for such approval.)

<small>NAME OF REQUESTER</small> [Redacted]	<small>TITLE</small> [Redacted]
<small>TITLE OF COURSE</small> Clark County Appraisal Class	
<small>VENDOR/PROVIDER</small> Clark County	

1. Course Summary:

Using the Appraisal Institute's The Student Handbook to The Appraisal of Real Estate 15th Edition. The class consists of utilizing various chapters from the book to comprise of 36 hours of instruction. Topics include: Introduction to appraisal, the nature of value, site valuation, market analysis, sale comparison approach, and income approach. There will be open book quizzes throughout, but no graded final exam.

2. What are the hours of instruction? 36 hours

3. What is the completion date? This course will be given the first or second week of December 2023.

SUBJECT CLASSIFICATION - CHECK ALL THAT APPLY

- | | |
|--|--|
| <input checked="" type="checkbox"/> Mass Appraisal Concepts and Applications | <input type="checkbox"/> College or Professional Level Accounting, Finance, Statistics or Other Appraisal Subjects |
| <input type="checkbox"/> IAAO Standards | <input type="checkbox"/> GIS, Mapping, CAMA |
| <input checked="" type="checkbox"/> Residential, Commercial/Industrial Appraisal | <input type="checkbox"/> Laws Relating to Real Estate, Water or Mining |
| <input type="checkbox"/> Unitary/Centrally Assessed Property Appraisal | <input type="checkbox"/> Professional Ethics |
| <input type="checkbox"/> Legal Documents (Deeds, Titles, Leases, etc.) | <input type="checkbox"/> Other |
| <input checked="" type="checkbox"/> Nevada Statutes or Regulation, Appraisal or Assessment Standards | |

If other, please describe why the course is applicable to appraisal and/or property tax.

The course material is provided the Appraisal Institute, the students will purchase The Student Handbook. The course will cover real property appraisal. I have been authorized to use the materials by Appraisal Institute

REQUIRED MATERIALS TO BE SUBMITTED WITH APPLICATION INCLUDE:

- Detailed Course Outline
- Syllabus or Course Material

SIG

▶ [Redacted Signature] _____
Requestor Signature

10/3/2023

Date

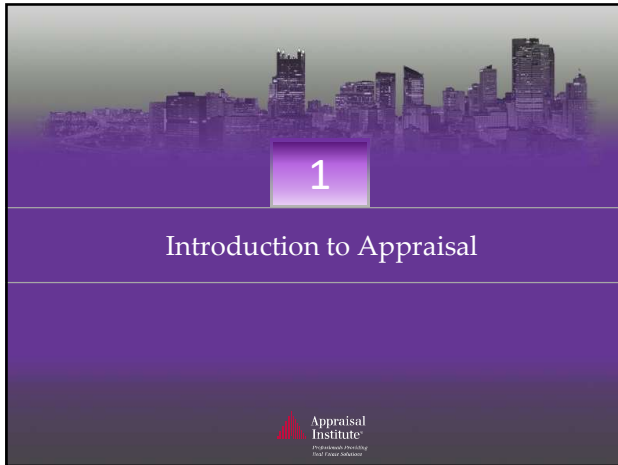
For Department Use Only

<small>NUMBER OF CREDIT HOURS GRANTED</small>	<small>NUMBER OF CREDIT HOURS APPEARING ON TRANSCRIPT</small>	<small>MILESTONE APPLIED TO</small>	<small>TOTAL HOURS FOR THIS MILESTONE</small>

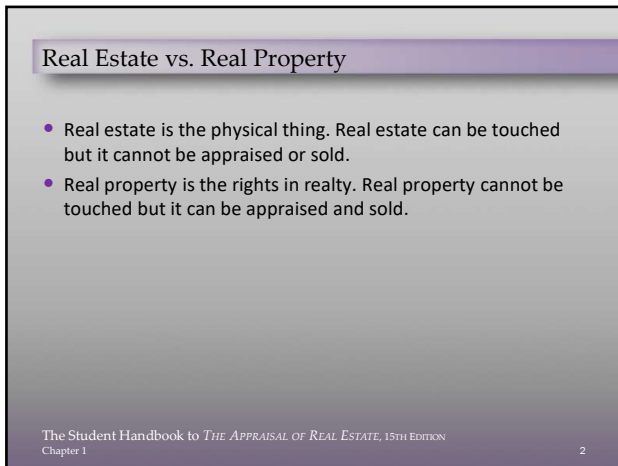
Verified by:

▶ _____ *Division of Local Government Services* _____ *Title* _____ *Date*

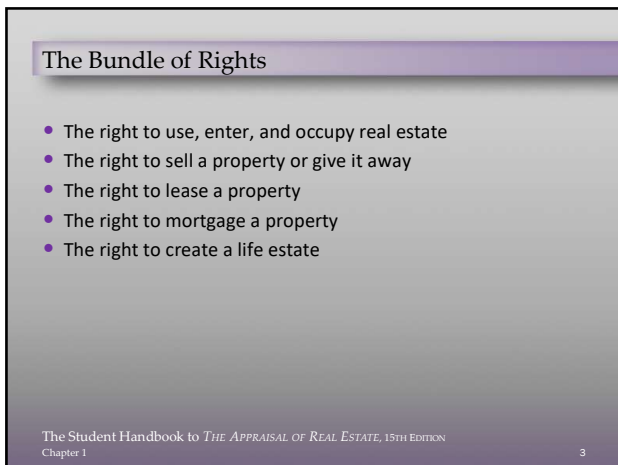
Clark County Appraisal of Real Estate		
using the Appraisal Institute, <i>Student Handbook to The Appraisal of Real Estate, 15th edition</i>		
Day	Minutes	Topics
1	30	Course regulations, instructor introduction, schedule, and goals
	60	Chapter 1: Introduction to Appraisal
	45	Chapter 2: Land, Real Estate, and Ownership of Real Property
	45	Chapter 3: The Nature of Value
	60	Chapter 4 : The Valuation Process
	60	Chapter 9: Data Collection
	60	Quiz and Review
	360	
2	90	Chapter 11: Neighborhoods, Districts, and Market Areas
	60	Chapter 12: Land and Site Description
	120	Chapter 13: Building Description
	60	Quiz and Review
	30	Start Chapter 14: Statistical Analysis in Appraisal
	360	
3	120	Finish Chapter 14: Statistical Analysis in Appraisal
	90	Chapter 15: Market Analysis
	90	Chapter 17: Highest and Best Use Analysis
	60	Quiz and Review
	360	
4	90	Chapter 19: Land and Site Valuation
	90	Chapter 20: The Sales Comparison Approach
	90	Chapter 21: Comparative Analysis
	90	Chapter 22: Applications of the Sales Comparison Approach
	360	
5	120	Chapter 23: The Income Capitalization Approach
	60	Chapter 24: Income and Expense Analysis
	30	Chapter 25: Direct Capitalization
	45	Chapter 27: Discounted Cash Flow Analysis and Investment Analysis
	45	Chapter 28: Applications of the Income Capitalization Approach
	60	Quiz and Review
	360	
	1,800	36 hours x 50 minutes per hour = 1,800 minutes
Total time	36 Hours	No graded final exam



1



2



3

Public Restrictions on Ownership

- Taxation
- Eminent domain
- Police power
- Escheat

The Student Handbook to *THE APPRAISAL OF REAL ESTATE, 15TH EDITION*
Chapter 1

4

Private Restrictions on Ownership

- Rights of way
- Party-wall agreements
- Deed restrictions
- Subdivision covenants and restrictions

The Student Handbook to *THE APPRAISAL OF REAL ESTATE, 15TH EDITION*
Chapter 1

5

Private Restrictions on Ownership, continued

- Easements
 - Affirmative easement
 - Appurtenant easement
 - Conservation easement
 - Easement by necessity
 - Easement by prescription
 - Easement in gross
 - Negative easement
 - Preservation easement

The Student Handbook to *THE APPRAISAL OF REAL ESTATE, 15TH EDITION*
Chapter 1

6

Non-Realty Assets

- Personal property is tangible but not affixed to the real estate.
- Financial assets consist of nonphysical assets.
 - Contracts
 - Franchises
 - Trademarks
 - Copyrights
 - Goodwill items

The Student Handbook to *THE APPRAISAL OF REAL ESTATE*, 15TH EDITION
Chapter 1 7

7

Why Appraisals Are Needed

- Ownership transfers
- Credit and financing
- Litigation
- Investment counseling
- Decision making
- Accounting

The Student Handbook to *THE APPRAISAL OF REAL ESTATE*, 15TH EDITION
Chapter 1 8

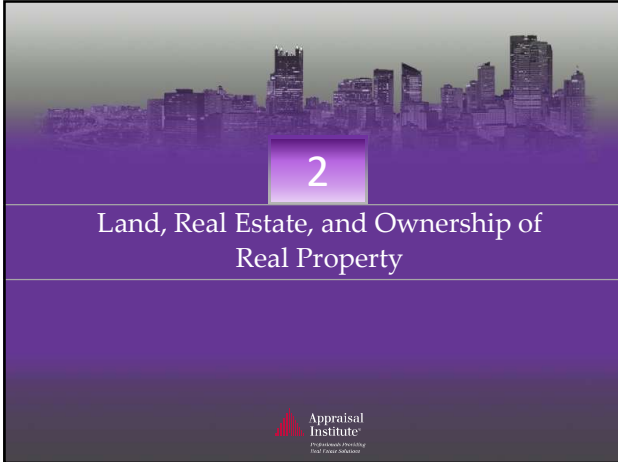
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Why Appraisals Are Needed, continued

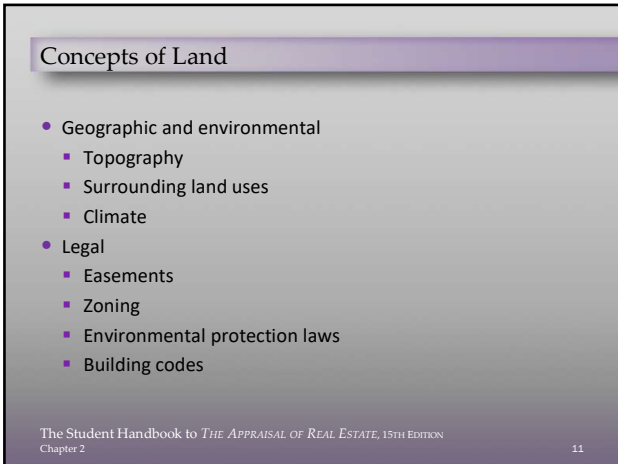
- Definition of value – Type of value appraised can affect the opinion of value
- Intended use and intended user

The Student Handbook to *THE APPRAISAL OF REAL ESTATE*, 15TH EDITION
Chapter 1 9

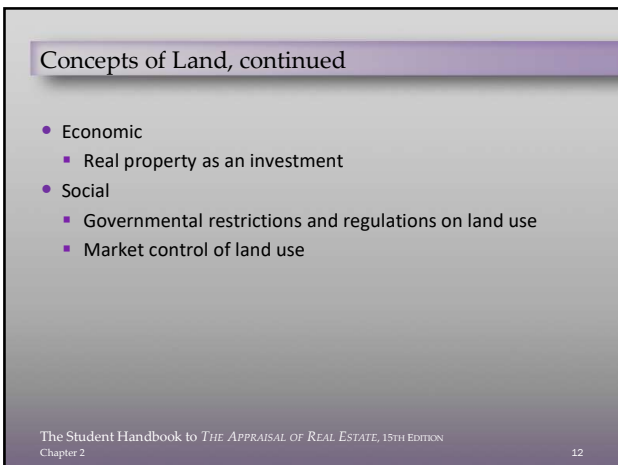
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Forms of Real Property Ownership

- Individual ownership
- Concurrent ownership
- Ownership by legal entities
 - Land trusts
 - Corporations
 - Partnerships
 - Syndications

The Student Handbook to *THE APPRAISAL OF REAL ESTATE, 15TH EDITION*
Chapter 2 13

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The Nature of Value

Appraisal Institute
Professional Standards
and Ethics Institute

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History of Value Theory

- The classical school
- Challenges to classical value theory
- The neoclassical synthesis
- Modern appraisal theory

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Chapter 3 15

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Agents of Production

- Land
- Labor
- Capital
- Entrepreneurial coordination

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Chapter 3 16

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Factors of Value

- Utility
- Scarcity
- Desire
- Effective purchasing power

The Student Handbook to *THE APPRAISAL OF REAL ESTATE, 15TH EDITION*
Chapter 3 17

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Supply and Demand

- Demand is created by the four factors of value
- Entrepreneurs create supply to satisfy demand
- Reading the market necessitates reading supply and demand factors

The Student Handbook to *THE APPRAISAL OF REAL ESTATE, 15TH EDITION*
Chapter 3 18

18

Distinctions Among Terms

- Price – Agreed-upon factual amount of a real estate transfer
- Cost – Required dollar amount to reproduce, build, or assemble
- Value – Describes worth

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Chapter 3 19

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Anticipation and Change

- Present worth of future benefits
- Anticipation creates demand and value
- Real estate markets change constantly

The Student Handbook to *THE APPRAISAL OF REAL ESTATE, 15TH EDITION*
Chapter 3 20

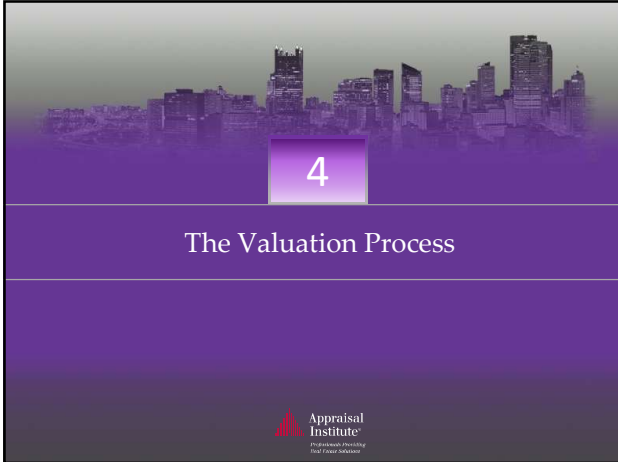
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Supply and Demand, Substitution, Balance, and Externalities

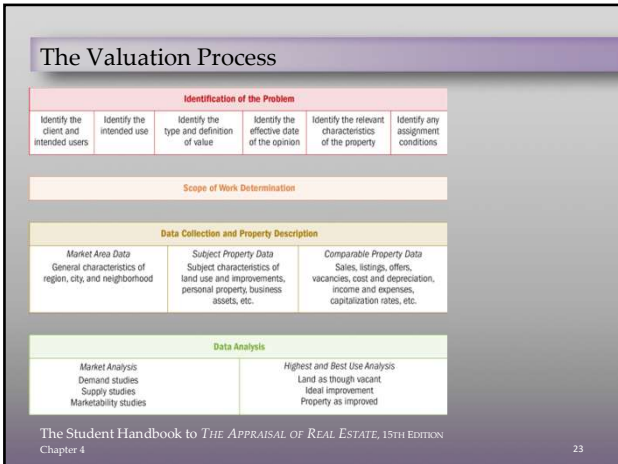
- Supply and demand control prices
 - Effective demand – demand and effective purchasing power
- Competition is the source of an item's value
- Substitution is needed for an open competitive market
- Balance
 - Diminishing returns
 - Contribution
 - Surplus productivity
 - Conformity
- Externalities affect real estate values

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Chapter 3 21

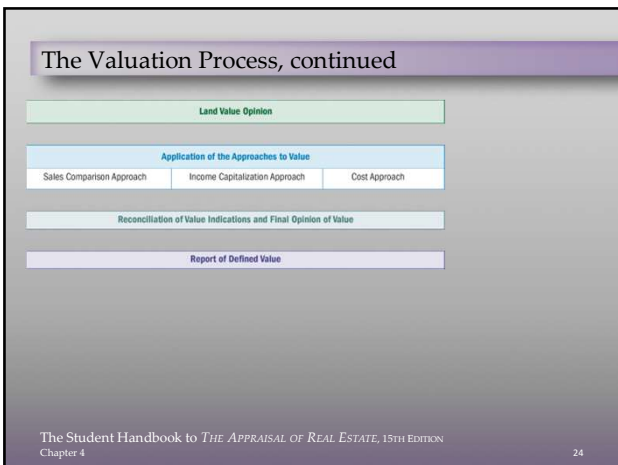
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23



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Identification of the Appraisal Problem

- Client
- Intended users
- Intended use
- Type of value and definition
- Effective date of opinions and conclusions
- Relevant property characteristics
- Assignment conditions
 - Extraordinary or special assumptions
 - Hypothetical conditions
 - Jurisdictional exceptions

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Chapter 4 25

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Scope of Work Determination

1. Identify the appraisal problem
2. Determine the scope of work necessary to solve the problem
3. Apply the scope of work to solve the problem

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Chapter 4 26

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Scope of Work Determination, continued

- What are you being asked to do?
- What is the required level of detail?
- How should you plan the appraisal?
- What type of research will you do?
- What type of property inspection will you need to do?
- How will you prepare the value opinion?

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Chapter 4 27

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Data Collection and Property Description

- Market area data
- General characteristics of region, city, and neighborhood
- Subject property data
- Personal property
- Business assets

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Chapter 4 28

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Data Collection and Property Description, continued

- Comparable property data
 - Comparable sales
 - Comparable listings (offerings)
 - Vacancy rates
 - Cost and depreciation comparables
 - Income and expense comparables
 - Capitalization rates (R_o , *EGIM*, *GRM*)

The Student Handbook to *THE APPRAISAL OF REAL ESTATE, 15TH EDITION*
Chapter 4 29

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Data Analysis

- Market analysis
 - Demand studies
 - Supply studies
- Highest and best use analysis
 - Site as though vacant
 - Property as improved

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Chapter 4 30

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Techniques for Valuing Vacant Land

- Sales comparison
- Allocation
- Extraction
- Land residual technique
- Income capitalization techniques
 - Subdivision development analysis
 - Ground rent capitalization

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Chapter 4 31

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Application of the Three Approaches to Value

- Sales comparison approach
- Cost approach
- Income capitalization approach

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Chapter 4 32

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Final Steps of Valuation Process

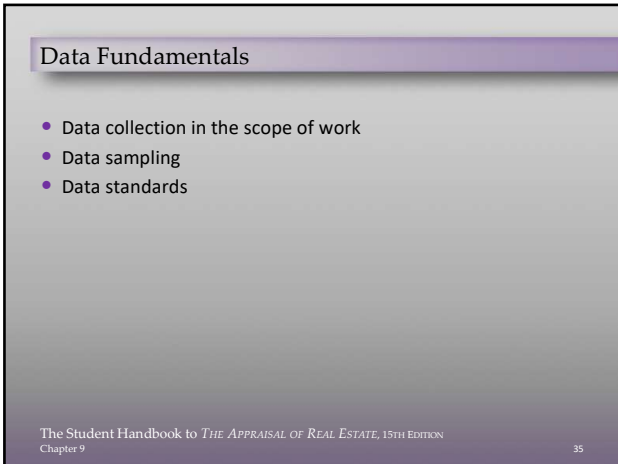
- Final reconciliation of value indications
- Report of defined value

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Chapter 4 33

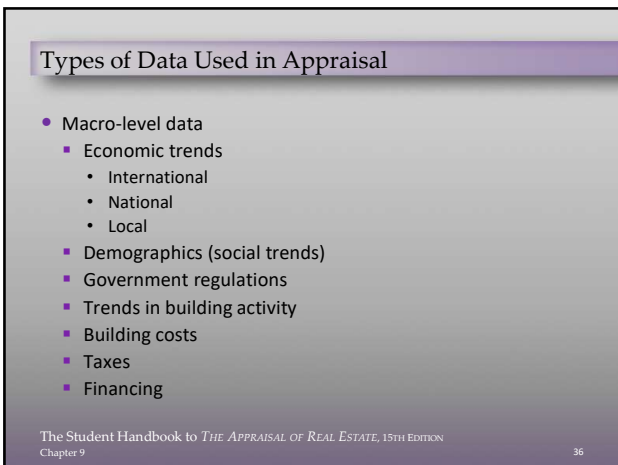
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Types of Data, continued

- Micro-level data
 - Competitive supply inventory
 - Measures of demand

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Data Sources

- Multiple listing services (MLS)
- Public records
- Listings and offerings
- Published news
- Market participants
- National property databases

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US Census Population Data by State – Sample

Annual Estimates of Housing Units for the United States, Regions, and States: April 1, 2010 to July 1, 2019

Geographic Area	April 1, 2010		Housing Unit Estimates (as of July 1)										
	Census	Estimate Base	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
United States	131,724,720	131,724,720	131,275,262	132,322,218	132,834,947	133,588,875	134,380,113	135,205,222	136,064,438	137,046,802	138,156,426	139,404,244	
Northwest Region	23,847,036	23,847,036	23,860,490	23,731,706	23,786,264	23,868,867	23,961,887	24,073,378	24,212,311	24,374,902	24,559,965	24,768,498	
Midwest Region	29,483,446	29,483,796	29,487,233	29,561,346	29,620,213	29,722,041	29,857,113	29,963,289	30,091,846	30,237,249	30,392,214	30,558,299	
South Region	49,933,629	49,933,187	50,039,223	50,233,224	50,520,451	50,961,443	51,538,136	52,191,221	52,989,996	53,930,254	55,029,400	56,282,453	
West Region	28,592,219	28,592,881	28,622,245	28,744,480	28,872,219	29,048,524	29,274,862	29,566,635	29,711,313	30,068,249	30,385,960	30,899,098	
Alabama	2,171,823	2,171,895	2,174,761	2,181,028	2,187,746	2,203,505	2,219,810	2,235,896	2,260,000	2,284,815	2,310,706	2,348,847	
Alaska	706,867	706,871	707,381	708,486	709,602	711,243	712,996	714,863	716,961	719,310	721,927	724,824	
Arizona	2,844,526	2,844,903	2,848,425	2,859,878	2,873,951	2,891,189	2,914,130	2,938,881	2,966,542	3,000,102	3,037,205	3,075,881	
Arkansas	1,216,799	1,216,260	1,216,071	1,214,828	1,205,857	1,208,840	1,205,392	1,201,889	1,206,401	1,208,522	1,219,710	1,236,129	
California	18,688,051	18,688,051	18,688,147	18,726,423	18,771,136	18,827,794	18,906,891	19,005,814	19,129,264	19,272,248	19,434,336	19,616,038	
Colorado	2,212,080	2,212,087	2,215,612	2,220,891	2,228,117	2,241,232	2,257,950	2,278,634	2,302,589	2,330,492	2,422,286	2,484,164	
Connecticut	1,407,091	1,407,825	1,408,465	1,409,903	1,409,837	1,408,157	1,402,887	1,407,299	1,412,028	1,417,251	1,423,029	1,429,892	
Delaware	406,320	406,391	406,496	406,597	411,192	414,587	418,886	423,137	427,867	432,713	438,017	443,751	
District of Columbia	706,119	706,128	706,065	706,365	706,822	707,485	708,366	707,266	711,251	714,702	718,482	722,793	
Florida	8,388,530	8,388,565	8,395,100	8,400,844	8,408,994	8,420,944	8,437,108	8,452,886	8,477,379	8,498,607	8,545,770	8,673,882	
Georgia	4,082,021	4,082,097	4,091,960	4,101,201	4,110,588	4,124,096	4,140,931	4,160,717	4,201,201	4,250,487	4,318,462	4,370,791	
Idaho	139,606	139,613	139,668	139,715	139,819	140,061	140,461	141,024	141,753	142,651	143,814	145,273	
Illinois	687,796	687,795	688,964	679,012	678,968	683,113	691,574	700,080	709,729	721,587	735,514	751,205	
Indiana	5,296,710	5,296,969	5,297,581	5,302,704	5,307,183	5,313,299	5,320,642	5,329,389	5,341,777	5,356,808	5,375,571	5,398,986	

Source: www.census.gov

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US Census Household Income Statistics – Sample

Median Household Income by State by Age of Householder

State	Under 25 Years	Margin of Error	25 to 44 Years	Margin of Error	45 to 64 Years	Margin of Error	65 Years and Over	Margin of Error
Alabama	\$23,802	± \$1,040	\$52,895	± \$474	\$57,911	± \$681	\$37,829	± \$379
Alaska	\$44,960	± \$2,348	\$78,936	± \$1,782	\$90,116	± \$1,989	\$69,827	± \$1,911
Arizona	\$31,167	± \$617	\$65,885	± \$503	\$66,961	± \$536	\$45,223	± \$421
Arkansas	\$27,196	± \$891	\$51,264	± \$601	\$53,243	± \$606	\$36,077	± \$404
California	\$39,449	± \$481	\$75,328	± \$389	\$84,245	± \$321	\$51,730	± \$236
Colorado	\$35,822	± \$744	\$74,554	± \$559	\$82,650	± \$596	\$50,058	± \$428
Connecticut	\$36,819	± \$1,923	\$78,299	± \$907	\$95,832	± \$995	\$52,631	± \$641
Delaware	\$32,882	± \$1,857	\$68,423	± \$1,468	\$79,693	± \$1,211	\$51,618	± \$903
District of Columbia	\$37,869	± \$3,714	\$97,800	± \$1,841	\$84,143	± \$2,386	\$53,580	± \$2,121
Florida	\$30,195	± \$598	\$51,241	± \$398	\$62,771	± \$310	\$42,639	± \$205
Georgia	\$29,139	± \$862	\$58,432	± \$662	\$67,235	± \$514	\$41,448	± \$367
Hawaii	\$40,591	± \$1,948	\$80,092	± \$1,109	\$91,022	± \$1,225	\$65,066	± \$1,180
Idaho	\$27,281	± \$1,369	\$58,254	± \$882	\$64,013	± \$899	\$49,881	± \$756
Illinois	\$29,488	± \$760	\$68,629	± \$395	\$78,339	± \$397	\$49,679	± \$268
Indiana	\$28,841	± \$660	\$60,070	± \$491	\$65,805	± \$559	\$49,599	± \$275
Iowa	\$31,430	± \$691	\$66,493	± \$652	\$72,184	± \$579	\$41,369	± \$368
Kansas	\$30,383	± \$981	\$63,233	± \$633	\$70,888	± \$629	\$42,618	± \$403
Kentucky	\$28,083	± \$852	\$55,744	± \$626	\$56,133	± \$481	\$36,617	± \$323
Louisiana	\$25,552	± \$1,026	\$53,554	± \$640	\$56,728	± \$744	\$35,363	± \$385

Source: www.census.gov

The Student Handbook to THE APPRAISAL OF REAL ESTATE, 15TH EDITION
Chapter 9 40

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Data Sources, continued

- Sources of competitive supply and demand data
 - Geographic information systems (GIS) and TIGER data
- Selecting comparable data and establishing comparability
- Verification

The Student Handbook to THE APPRAISAL OF REAL ESTATE, 15TH EDITION
Chapter 9 41

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Data Organization

- Units of comparison
 - Price per square foot of gross building area
 - Price per acre
 - Price per front foot

The Student Handbook to THE APPRAISAL OF REAL ESTATE, 15TH EDITION
Chapter 9 42

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Grid Analysis Example

Common Residential Sales Grid

SUBJECT	Comparable 1		Comparable 2		Comparable 3	
	8022 Lakeshore Blvd Springfield address	8683 Lakeshore Blvd. Springfield address	8689 Lakeview Road Springfield address	8333 600	8877 Beech Road Springfield address	8391 000
Address						
Property to subject						
Sale price	\$ 129,66	\$375,000	\$ 110,21	\$333,600	\$ 118,48	\$391,000
Sale price/GLA						
Data source/verification	Inspection	MLS 40037	MLS 198 16	MLS 33388	MLS 33388	
Value adjustments	Description	Description	Adjustment	Description	Adjustment	
Water-Financing concessions	Assume none	No concessions	\$ -	No concessions	\$ -	No concessions
Date of sale/age (in %)	None	1 month ago	\$ -	1 month ago	\$ -	1 month ago
Location	Lakeshore acres	Lakeshore acres	\$ -	Lakeshore acres	\$ -	Lakeshore acres
Location/View sample	Exp. garage	Exp. garage	\$ -	Exp. garage	\$ -	Exp. garage
View	0x117 lake frnt	90x160 lake frnt	\$ (3,800)	98x148 lake frnt	\$ (6,700)	86x170 lake frnt
2nd yr (est)	2 yr (est)	2 yr (est)	\$ -	2 yr (est)	\$ -	2 yr (est)
Actual age/effective age @ \$4,000 yr	11	8	\$ (8,000)	17	\$ 24,000	3
Condition	Average	Average	\$ -	Average	\$ -	Average
Above grade room count	10 4 3.5	10 4 3.5	\$ -	10 4 3.5	\$ -	10 4 3.5
Below grade room count	3.2	2.0	\$ 14,500	3.0	\$ 8,300	3.0
Basement (B.S.)	1500	1127	\$ 1,000	1708	\$ (7,800)	900
Basement below grade (B.B.G.)	1.00	1.00	\$ 0	1.00	\$ (2,000)	1.00
Basement below grade (B.B.G.)	GFAND AC	GFAND AC	\$ 2,000	GFAND AC	\$ 4,000	GFAND AC
Basement below grade (B.B.G.)	3 car garage	3 car garage	\$ -	3 car garage	\$ -	3 car garage
Basement below grade (B.B.G.)	Pool	Pool	\$ 5,000	Pool	\$ 5,000	Pool
Other	Pool	Pool	\$ (25,000)	None	\$ -	None
Net adjustment	\$ 6,200	\$ -	\$ 29,500	\$ -	\$ (23,600)	\$ (23,600)
Adjusted sale price of comparable	\$367,860	\$375,000	\$367,860	\$333,600	\$367,860	\$391,000

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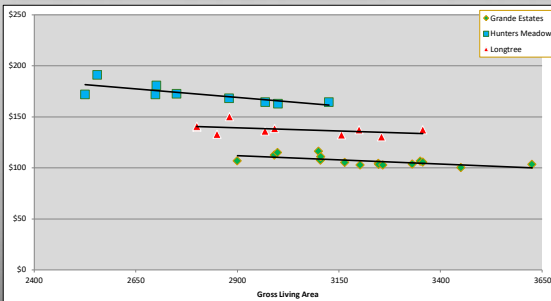
Address	Price	Sale Date	Bd	Bath	Legal	Garage	Level	Bas	G/LA	\$ per s.f.
13802 Washita CT	\$ 310,000	588 days ago	4	2 1/2	Grande Est.	3CarAtt	2 Levels	N	2900	\$106.90
13860 Willard DR	\$ 345,000	134 days ago	4	6/0	Grande Est.	2CarAtt	2 Levels	N	2891	\$119.25
13947 Willard DR	\$ 345,000	321 days ago	4	2 1/2	Grande Est.	3CarAtt	2 Levels	N	2959	\$115.04
8779 Orange DR	\$ 360,500	45 days ago	4	3/2	Grande Est.	3CarAtt	2 Levels	N	3100	\$116.29
14070 Fleming	\$ 333,000	11 days ago	4	3/0	Grande Est.	3CarAtt	2 Levels	N	3104	\$107.44
14071 Heather S. Dr	\$ 345,000	548 days ago	3	3 1/2	Grande Est.	3CarAtt	2 Levels	N	3105	\$111.11
13976 Willard DR	\$ 333,000	85 days ago	4	4/0	Grande Est.	3CarAtt	2 Levels	N	3164	\$105.25
13846 Willard DR	\$ 320,000	25 days ago	4	3 1/2	Grande Est.	3CarAtt	2 Levels	N	3002	\$102.75
1420 Willard DR	\$ 339,000	18 days ago	4	3 1/2	Grande Est.	3CarAtt	2 Levels	N	3247	\$104.40
14233 Lacey St	\$ 336,000	32 days ago	5	3/2	Grande Est.	3CarAtt	2 Levels	N	3248	\$103.45
14260 Timberhill CT	\$ 320,000	125 days ago	4	2 1/2	Grande Est.	3CarAtt	2 Levels	N	3258	\$102.82
8500 Oakview DR	\$ 345,600	111 days ago	4	3 1/2	Grande Est.	3CarAtt	2 Levels	N	3330	\$103.78
2716 Winy Knight LN	\$ 366,800	209 days ago	3	2 1/2	Grande Est.	3CarAtt	2 Levels	N	3350	\$106.51
8868 Heather S. Dr	\$ 350,000	45 days ago	3	2 1/2	Grande Est.	3CarAtt	2 Levels	N	3355	\$105.78
1031 Spring Highland	\$ 345,800	63 days ago	4	3/2	Grande Est.	2CarAtt	2 Levels	N	3450	\$100.23
8609 Woodlake Drive	\$ 375,000	211 days ago	5	4 1/2	Grande Est.	3CarAtt	2 Levels	N	3625	\$103.45
8733 Ashland Creek Ct.	\$ 430,000	8 days ago	3	3/0	Hunters Meadow	2CarAtt	2 Levels	N	3625	\$117.28
13682 Burke DR	\$ 489,000	45 days ago	3	3/0	Hunters Meadow	2CarAtt	1 Level	N	2555	\$191.39
8103 Hummingbird Ct	\$ 465,000	25 days ago	3	2/0	Hunters Meadow	3CarAtt	2 Levels	N	2698	\$172.35
1077 Spring Highland DR	\$ 450,000	402 days ago	3	3 1/2	Hunters Meadow	3CarAtt	2 Levels	N	2700	\$161.11
8714 Rockwood Pl.	\$ 475,000	14 days ago	4	4/0	Hunters Meadow	3CarAtt	2 Levels	N	2750	\$172.73
8981 Champions Drive	\$ 485,000	35 days ago	4	3 1/2	Hunters Meadow	3CarAtt	1 Level	N	2879	\$168.46
10008 Bluebird ST	\$ 480,000	65 days ago	3	2 1/2	Hunters Meadow	3CarAtt	2 Levels	N	2865	\$164.76
8771 Memo Dr	\$ 489,000	92 days ago	4	3 1/2	Hunters Meadow	2CarAtt	2 Levels	N	3000	\$163.00
10062 Ashcroft Pl.	\$ 515,000	369 days ago	4	3 1/2	Hunters Meadow	3CarAtt	2 Levels	N	3125	\$164.80
8782 Heartland CT	\$ 391,910	38 days ago	4	2 1/2	Longtree	3CarAtt	2 Levels	N	2800	\$133.97
8761 Branch Creek CT	\$ 394,400	37 days ago	4	2 1/2	Longtree	3CarAtt	1 Level	N	2800	\$140.86
8772 Heartland CT	\$ 379,000	125 days ago	4	2 1/2	Longtree	3CarAtt	2 Levels	N	2850	\$132.98
8746 Castle DR	\$ 432,000	354 days ago	5	3 1/2	Longtree	3CarAtt	1 Level	N	2851	\$150.12
11761 Sweeping Ridge	\$ 404,000	65 days ago	4	3 1/2	Longtree	3CarAtt	2 Levels	N	2908	\$136.12
8746 Branch Creek CT	\$ 415,000	188 days ago	4	2 1/2	Longtree	3CarAtt	2 Levels	N	2992	\$138.70
12089 Ashcroft Crossing	\$ 417,000	92 days ago	4	3 1/2	Longtree	3CarAtt	2 Levels	N	3105	\$132.25
12143 Team Lane	\$ 439,750	245 days ago	4	3 1/2	Longtree	3CarAtt	2 Levels	N	3200	\$137.42
8844 Royal Blvd.	\$ 425,000	45 days ago	5	4 1/2	Longtree	3CarAtt	2 Levels	N	3255	\$130.57
8770 Heartland CT	\$ 460,000	190 days ago	4	3 1/2	Longtree	3CarAtt	2 Levels	N	3365	\$137.26

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Graphic Analysis



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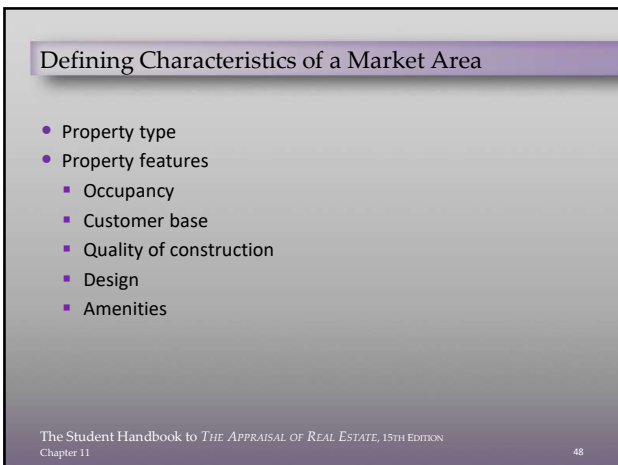
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Defining Characteristics of a Market Area, continued

- Location and geographical boundaries
- Supply of substitute properties
- Proximity of complementary properties
 - Support facilities

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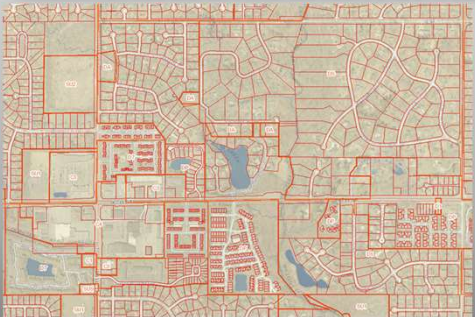
The Life Cycle of Real Estate Markets

- Growth
- Stability
- Decline
- Revitalization

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Defining Geographical Boundaries – Zoning Map



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Value Influences in Real Estate Markets

- 1. Social
 - Demographics
- 2. Economic
 - Employment
 - Supply and demand

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Value Influences in Real Estate Markets, continued

- 3. Governmental
 - Zoning
 - Services
 - Fiscal policies
- 4. Environmental
 - Climate
 - Location
 - Geography

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Characteristics of Real Estate Districts

- One-unit residential
- Multifamily residential
- Commercial
 - Office
 - Retail
 - Central business districts (CBDs)
 - Entertainment

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Characteristics of Real Estate Districts, continued

- Industrial
 - Flex space
 - Warehouse and distribution centers
 - Manufacturing
- Agricultural

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Characteristics of Real Estate Districts, continued

- Specialty
 - Medical
 - Research and development parks
 - High-technology parks
 - Life science and biotechnology parks
 - Education
 - Historic

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12

Land and Site Description

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Legal Descriptions of Land

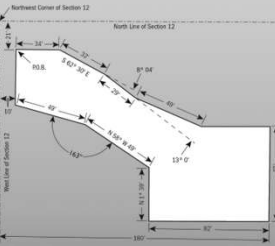
- Metes and bounds system
 - Monuments
 - Point of beginning (POB)
- Rectangular survey system (government survey system)
 - Township and range lines
 - Correction lines and guide meridians
 - Sections
- Lot and block system
 - Lot numbers

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Metes and Bounds Legal Description



Description of Tract: Commencing at the Northwest corner of Section 12 thence South along the section line 21 feet thence East 20 feet to a place of beginning thence continuing East 30 feet thence South 42 feet thence East 30 feet thence Southwesterly along a line forming an angle of 8 degrees, 54 minutes to the right with a prolongation of the last described course 20 feet thence South 12 feet, 0 minutes to the left with a prolongation of the last described line a distance of 49 feet thence East to a parallel with the West line of said Section and 180 feet distant thence South to the last described line a distance of 49 feet thence due West a distance of 42 feet thence North 1 degree West 30 feet thence North 58 degrees West a distance of 49 feet thence Northwesterly along a line forming an angle of 102 degrees as measured from right to left with the last described line a distance of 49 feet thence North to the place of beginning.

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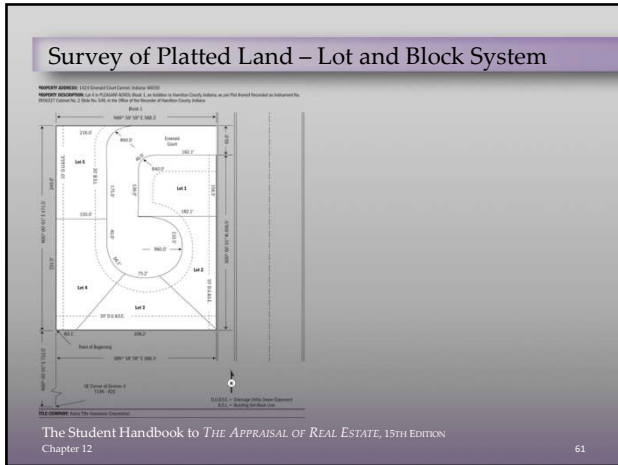
Subdivision of a Section – Rectangular Survey System



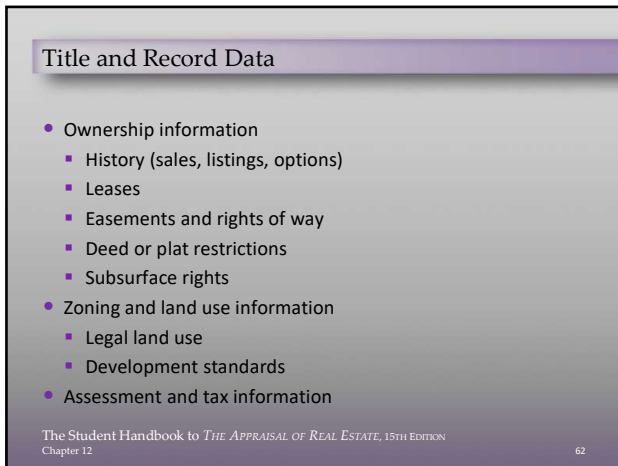
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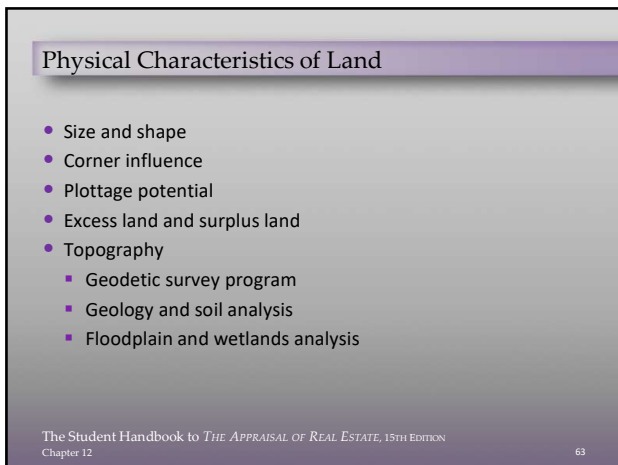
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Maps Available Online



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Physical Characteristics of Land, continued

- Utilities
- Site improvements
 - On-site improvements: Landscaping, curbs, paving, fences
 - Off-site improvements: Roads, drainage lines, utility hookups

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Physical Characteristics of Land, continued

- Accessibility
- Environment
 - Contamination and environmental risk issues
- Special characteristics of rural, agricultural, or resource land

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Building Description

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Site Visit

- Cause of litigation when the purpose of the appraiser's visit is misunderstood
- Depends on nature of assignment

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Elements of a Building Description

- Use classification
- Building codes and ordinances
- Size
- Format

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Measuring Buildings

- Gross living area
- Gross building area
- Gross leasable area

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Sample Floor Plan for Measurement

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Notes to Instructors

- Insert pictures in this section as needed.
- Photos of construction sites with houses or buildings in various stages of completion are useful. Such photos will allow the class to see the points of construction.
- Because construction is location-specific, local pictures are best.
- In most cases, pictures can be transferred to PowerPoint using copy-and-paste functions.

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Chapter 13 72

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Exterior Description

- Substructure
- Superstructure
 - Framing
 - Insulation
 - Ventilation
 - Exterior walls and doors
 - Windows, storm windows, and screens
 - Facade
 - Roof and drainage system
 - Chimneys, stacks, and vents

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Interior Description

- Interior walls, partitions, and doors
- Interior supports
 - Beams, columns, and trusses
 - Flooring system
 - Ceilings
- Stairs, ramps, elevators, escalators, and hoists
- Painting, decorating, and finishing
- Protection against decay and insect damage
- Miscellaneous and special features

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Equipment and Mechanical Systems

- Plumbing system
- Heating, ventilation, and air-conditioning systems
- Electrical systems
- Miscellaneous equipment
- Whole building approach

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Architectural Style

- Formal architecture
 - Follows historical patterns
- Vernacular architecture
 - Local style
 - Function over form

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Design and Functional Utility by Property Type

- Residential
- Commercial
- Industrial
- Buildings on agricultural properties
- Special-purpose buildings
- Mixed-use buildings

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Quality and Condition Survey

- Quality
 - Cost, durability, and efficiency
- Condition
 - Wear and tear
- Items in need of immediate repair
- Short-lived items
 - Will need replacement at least once
- Long-lived items
 - Will last full life of building

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Uniform Appraisal Dataset

- Condition ratings
 - C1 - C6
- Quality ratings
 - Q1 - Q6
- Definitions
 - Not updated
 - Updated
 - Remodeled


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Statistical Analysis in Appraisal



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Hierarchy of Data

1. Nominal
2. Ordinal
3. Interval
4. Ratio

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Fundamental Definitions

- Population
- Sample
- Parameter
- Statistics
 - Descriptive statistics
 - Inferential statistics

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Measures of Central Tendency

- Median
- Mean
 - Arithmetic mean
 - Geometric mean
- Mode

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Measures of Central Tendency

1	\$199,900	
2	\$200,000	
3	\$205,000	
4	\$205,000	
5	\$206,800	
6	\$209,000	
7	\$211,000	
8	\$213,000	← Median
9	\$215,900	
10	\$220,000	
11	\$225,000	
12	\$228,000	
13	\$231,000	
14	\$232,000	
15	\$265,000	
	\$217,773	← Mean
	\$205,000	← Mode

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Bimodal Data Set

1	\$356,900
2	\$400,000
3	\$420,000
4	\$420,000
5	\$427,200
6	\$436,000
7	\$444,000
8	\$452,000
9	\$463,600
10	\$480,000
11	\$500,000
12	\$500,000
13	\$524,000
14	\$528,000
15	\$660,000

← Median: \$452,000

← Mean: \$467,447

← Mode: \$420,000, \$500,000

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Measures of Dispersion

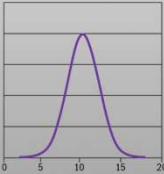
- Standard deviation
- Variance
- Coefficient of variation
- Range

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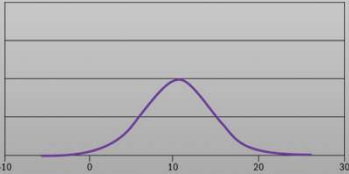
86

Little Variability and High Variability

Little Variability



High Variability



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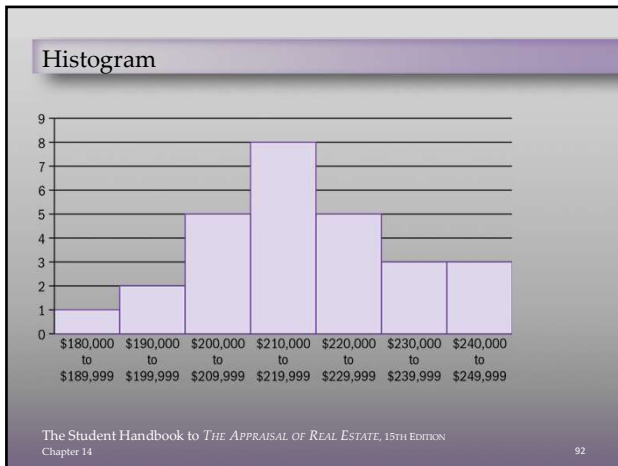
87

Categories

Price	Number of Properties	Proportion of Total Observations
\$180,000 to \$189,999	1	0.04
\$190,000 to \$199,999	2	0.08
\$200,000 to \$209,999	5	0.20
\$210,000 to \$219,999	8	0.32
\$220,000 to \$229,999	5	0.20
\$230,000 to \$239,999	3	0.12
\$240,000 to \$249,999	1	0.04

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Central Limit Theorem and Inference

- Confidence intervals
 - True value of a population measure falls within the range of values provided
 - Degree of confidence in first assertion can be set at a desired level

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Confidence Interval

Sale	Sale Price	GLA
1	\$600,000	8,500
2	\$650,000	7,000
3	\$650,000	5,500
4	\$660,000	6,000
5	\$690,000	7,000
6	\$700,000	7,500
7	\$700,000	8,750
8	\$700,000	7,750
9	\$700,000	11,000
10	\$710,000	8,500
11	\$710,000	11,500
12	\$720,000	9,000
13	\$720,000	9,500
14	\$720,000	9,000
15	\$735,000	9,000
16	\$745,000	10,000
17	\$750,000	10,000
18	\$750,000	9,500
19	\$752,500	10,000
20	\$760,000	10,250
21	\$760,000	10,500
22	\$790,000	12,000
23	\$795,000	12,000
24	\$800,000	13,000
25	\$810,000	13,000
26	\$810,000	12,000
27	\$840,000	13,500
28	\$850,000	15,500
29	\$850,000	15,000
30	\$860,000	14,500
Mean	\$742,916.70	10,141.67
SD	81,718	26,274
95% conf. int.	20,169	

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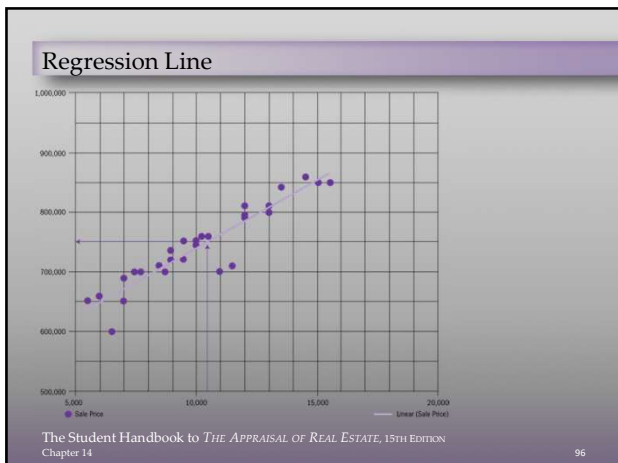
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Regression Analysis

- Simple linear regression
 - Coefficients $Y = a + bx + e$
 - t-values
- Multiple linear regression
 - Categorical variables

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Regression Analysis Output

Regression Analysis: C2 versus C1
 The regression equation is
 $C2 = 512694 + 22.7 C1$

Predictor	Coef	SE Coef	T	P
Constant	512694	17725	28.92	0.000
C1	22.701	1.692	13.41	0.000

S = 24278.7 R-Sq = 86.5% R-Sq(adj) = 86.1%

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Statistical Applications

- Automated valuation models (AVMs)
- Custom valuation models

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Review Exercise 20

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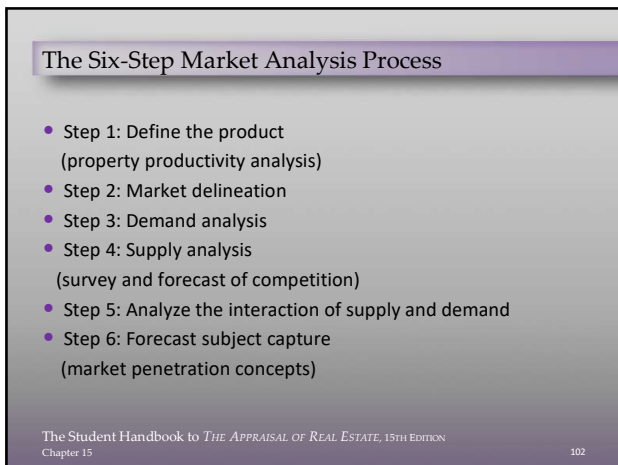
99



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Markets Can Be Identified By:

- Property type
- Property features
- Market area
- Substitute properties
- Complementary properties

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Highest and Best Use Analysis



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The Four Criteria of Highest and Best Use

- Legal permissibility
- Physical possibility
- Financial feasibility
- Maximum productivity

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Two Perspectives on Highest and Best Use Analysis

1. Highest and best use of the site as though vacant
2. Highest and best use of the property as improved

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Questions in the Highest and Best Use Analysis of Land as Though Vacant

- **Legal Permissibility**
 - Is the proposed use allowable?
- **Physical Possibility**
 - Does the proposed improvement fit on the site?
 - Do the topography, soil type, elevation, and location of utilities allow the building to be constructed?
- **Financial Feasibility**
 - Is the proposed use profitable?
- **Maximum Productivity**
 - Is the proposed use the best use available?

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Alternatives for the Property as Improved

- Keep the improvements as they are
- Modify the improvements in some way
- Demolish the improvements and redevelop the land for some other use

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Highest and Best Use Worksheet

Greenland Addition (residential/commercial zoning)

Lot 1	Lot 2 \$200,000	Lot 3	Lot 4 Subject	Lot 5	Lot 6 \$200,000	Lot 7	Lot 8
-------	--------------------	-------	------------------	-------	--------------------	-------	-------

State Road 47 (four lanes, high traffic)

Lot 20	Lot 21 \$200,000	Lot 22	Lot 23	Lot 24	Lot 25	Lot 26	Lot 27
Lot 28	Lot 29 \$220,000	Lot 30 \$220,000	Lot 31	Lot 32	Lot 33	Lot 34 \$220,000	Lot 35

Wagner Street (two lanes, asphalt)

Blue Lake Addition (residential zoning)

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Highest and Best Use Worksheet, continued

Blue Lake Addition (residential zoning)

Comparable Sales

1. Lot 2 in the Greenland Addition sold for \$200,000 to a family that moved in and still lives there.
2. Lot 6 in the Greenland Addition sold for \$200,000 to a family that moved in and still lives there.
3. Lot 21 in the Blue Lake Addition sold for \$200,000.
4. Lot 29 in the Blue Lake Addition sold for \$220,000.
5. Lot 30 in the Blue Lake Addition sold for \$220,000.
6. Lot 34 in the Blue Lake Addition sold for \$220,000.

Fill in the blanks in the table based on the lot descriptions and the land values given

Commercial Land Value	Residential Land Value	Commercial Land Value	Residential Land Value	Land Value of Subject Property	Residential Property Value	Building Value	Highest and Best Use As Vacant	Highest and Best Use As Improved
5.00/sq. ft.	2.00/sq. ft.							
6.00/sq. ft.	2.00/sq. ft.							
7.00/sq. ft.	2.00/sq. ft.							
8.00/sq. ft.	2.00/sq. ft.							
9.00/sq. ft.	2.00/sq. ft.							

See the Suggested Solutions section at the end of this chapter for the correct answers.

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Review Exercise 9

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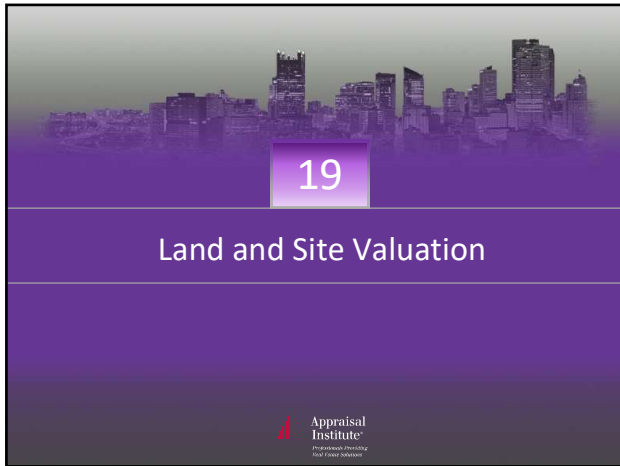
Highest and Best Use Worksheet

Suggested Solutions

Commercial Land Value	Residential Land Value	Commercial Land Value	Residential Land Value	Land Value of Subject Property	Residential Property Value	Building Value	Highest and Best Use As Vacant	Highest and Best Use As Improved
5.00/sq. ft.	2.00/sq. ft.	\$118,500	\$47,400	\$118,500	\$200,000	\$81,500	Com.	Res. improved
6.00/sq. ft.	2.00/sq. ft.	\$142,200	\$47,400	\$142,200	\$200,000	\$57,800	Com.	Res. improved
7.00/sq. ft.	2.00/sq. ft.	\$165,900	\$47,400	\$165,900	\$200,000	\$34,100	Com.	Res. improved
8.00/sq. ft.	2.00/sq. ft.	\$189,600	\$47,400	\$189,600	\$200,000	\$10,400	Com.	Res. improved
9.00/sq. ft.	2.00/sq. ft.	\$213,300	\$47,400	\$213,300	\$200,000	-\$13,300	Com.	Com. Land

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- ### Relation to Appraisal Principles
- Value concepts and principles
 - Property rights and public controls
 - Physical characteristics and site improvements
 - Highest and best use
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Applicability and Limitations of Valuation Techniques

- Sales comparison
- Market extraction
- Allocation
- Land residual analysis
- Income capitalization techniques
 - Ground rent capitalization
 - Subdivision development analysis (DCF analysis)

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Sales Comparison Technique

- Identify the highest and best use and other key characteristics of each potential comparable sale to choose the appropriate comparables to use
- Gather data on sales, listings, offers, and options
- Identify key similarities and differences between the subject and comparable properties
- Identify the units of comparison that explain market behavior to use in the analysis
- Adjust the unit prices of the comparable sales to account for the different characteristics of the land being appraised
- Form a conclusion of the value of the subject property

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Sales Comparison Grid

Subject	Comparable 1	Comparable 2	Comparable 3
Address	9999 E. US 40	8996 E. Backlot Street	888 E. Middle Street
	Bigtown	Bigtown	252 N. Jefferson
			Bigtown
Data source	Inspection	MLS # 123456	MLS # 987654
Sale price	\$550,000	\$126,263/acre	\$625,000
Rights transferred	fee simple	fee simple	fee simple
Financing	assume cash	cash to seller	cash to seller
Subtotal	\$625,000	\$625,000	\$444,000
Subtotal	—	—	—
Conditions of sale	arm's length	arm's length	arm's length
Subtotal	\$625,000	\$625,000	\$444,000
Subtotal	—	—	—
Expenditures after sale	none	none reported	none reported
Subtotal	\$625,000	\$625,000	\$444,000
Subtotal	—	—	—
Date of sale	Now	3 months ago	11 months ago
Subtotal	\$625,000	\$402,880	\$322,750
Subtotal	—	—	—
Topography	level	level	level
Location	East Industrial Park	East Industrial Park	East Industrial Park
Neighborhood	Washington	Washington	Washington
Visibility	main highway	back lot	main highway
Flood area	0.00%	0.00%	0.00%
Road frontage	375 linear feet	225 linear feet	155 linear feet
Site (acres)	3.45 acres	4.95 acres	6.75 acres
Zoning	Industrial I-5	Industrial I-5	Industrial I-5
Utilities	all public	all public	all public
Other	RR spur line adjacent	none	RR spur adjacent
Subtotal	32.50%	21.75%	34.50%
Subtotal	—	—	—
Overall indication	\$550,977	\$551,581	\$538,900

* Date of sale adjustment = 0.25% per month
† Lot size adjustment = 15% per acre

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Market Extraction

- Commonly used to estimate land values when comparable sales are not available
- Land value is the net result of subtracting the value of the improvements by the cost approach from the sale price of an improved property

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Land Value via Market Extraction

1234 N. Main Street			
Cash equivalent sale price			\$455,000
Residence	2,455 sq. ft. @ \$135.00 =	\$331,425	
Basement	1,202 sq. ft. @ \$45.00 =	\$54,090	
Garage	755 sq. ft. @ \$45.00 =	\$33,975	
Porch, patio, deck, etc.		\$35,000	
Landscaping, driveway, etc.		\$25,000	
Total cost of new improvements		\$479,490	
Total depreciation (all causes)		-\$167,822	
Depreciated value of building improvements	-35%	\$311,669	-\$311,669
Sale price - value of improvements			\$143,332
6565 N. Audobon Street			
Cash equivalent sale price			\$495,000
Residence	2,805 sq. ft. @ \$155.00 =	\$434,775	
Basement	1,122 sq. ft. @ \$60.00 =	\$67,320	
Garage	885 sq. ft. @ \$45.00 =	\$39,825	
Porch, patio, deck, etc.		\$55,000	
Landscaping, driveway, etc.		\$35,000	
Total cost of new improvements		\$631,920	
Total depreciation (all causes)		-\$284,364	
Depreciated value of building improvements	-45%	\$347,556	-\$347,556
Sale price - value of improvements			\$147,444

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Allocation

- Uses land-to-building or land-to-property-value ratios in improved areas to support a land value in the subject area when no land sales are available
- Subject and comparable properties must be improved to their highest and best use or this technique is less applicable
- The ratio from one area and price range is not necessarily transferable to another area or price range

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Land Value via the Allocation Method

	Sale 1	Sale 2	Sale 3	Sale 4
Sale price	\$400,000	\$400,000	\$420,000	\$440,000
Estimated land value	- 80,000	- 80,000	- 84,000	- 88,000
Estimated building value	\$320,000	\$320,000	\$336,000	\$352,000
Land/property ratio	20.00%	18.67%	20.45%	20.00%

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Land Residual Analysis

- As an income capitalization technique, land residual analysis isolates income to the land by segregating income from the building from overall income.
- As a cost-based technique, land residual analysis subtracts the cost of proposed improvements from the sale price of comparable properties.

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Income Capitalization in Land Residual Analysis

- Requires capitalization rates for both land and building, which are difficult to get with similar risk and income patterns

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Cost in Land Residual Analysis

- Compares the cost to construct hypothetical improvements with the market value of the proposed property
- Note that market extraction is similar but focuses on comparable properties in the market
- Commonly used in highest and best use analysis

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Income Capitalization Techniques

- Ground rent capitalization
 - Establishes a ratio of income to value in the comparable properties and then uses that ratio for the subject property
 - Can be an excellent method if the market thinks this way
 - Requires very similar expenses and upside potential to be accurate
 - Can be incorrect if the risk is not the same in comparable properties and the subject property

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Income Capitalization Techniques, continued

- Subdivision development analysis (DCF analysis)
 - Not used in some markets but applicable in others
 - Assumes land value is based on development potential, not on alternative properties

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Land Value by Discounted Cash Flow Analysis

Quarter	1	2	3	4	5	6	7	8	Total
Lots per quarter	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	60
Sale price per lot	\$147,500	\$147,500	\$147,500	\$147,500	\$147,500	\$147,500	\$147,500	\$147,500	\$147,500
Estimated PGI	1,106,250	1,106,250	1,106,250	1,106,250	1,106,250	1,106,250	1,106,250	1,106,250	\$8,850,000
Less estimated expenses									
Development costs	\$400,000	\$400,000	\$400,000	\$400,000	\$0	\$0	\$0	\$0	\$1,600,000
Real estate taxes	\$4,000	\$4,000	\$4,000	\$4,000	\$2,000	\$2,000	\$2,000	\$2,000	\$24,000
Sales commission (6%)	\$86,375	\$86,375	\$86,375	\$86,375	\$86,375	\$86,375	\$86,375	\$86,375	\$531,000
Advertising, etc. (4%)	\$44,250	\$44,250	\$44,250	\$44,250	\$44,250	\$44,250	\$44,250	\$44,250	\$354,000
Entrepreneurial incentive (20%)	\$221,250	\$221,250	\$221,250	\$221,250	\$221,250	\$221,250	\$221,250	\$221,250	\$1,770,000
Total expenses	\$735,875	\$735,875	\$735,875	\$735,875	\$333,875	\$333,875	\$333,875	\$333,875	\$4,279,000
Net cash flow	\$370,375	\$370,375	\$370,375	\$370,375	\$772,375	\$772,375	\$772,375	\$772,375	\$4,571,000
Discounted @ 12%	-97,023	-94,263	-91,513	-88,853	-86,203	-83,723	-81,313	-78,943	
Present value	\$339,387	\$349,114	\$338,946	\$329,073	\$666,257	\$646,852	\$628,012	\$609,720	\$3,927,561
Present value of land = sum of the present value amounts									

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Review Exercise 12.

	Subject Property	Comparable 1	Adjustment	Comparable 2	Adjustment	Comparable 3	Adjustment
Address	1234 W. 87th St.	9001 Kessel Road		1112 W. 91st Street		815 W. 86th Street	
Sale price			\$45,000		\$60,000		\$52,000
Rights transferred	fee simple	fee simple		fee simple		fee simple	
Subtotal							
Financing	assume cash	cash to seller		cash to seller		listing only	
Subtotal							
Conditions of sale	arm's-length	arm's-length		arm's-length		arm's-length	
Subtotal							
Market conditions	current	6 months ago		9 months ago		current listing	
Subtotal							
Topography	rolling	rolling		level		level	
Location	River Township	River Township		River Township		River Township	
Wooded	75%	25%		75%		25%	
Flood area	10.00%	equal		equal		equal	
Size (acres)	1.2500	1.0000		1.7500		1.0000	
Zoning	Residential R1	Residential R1		Residential R1		Residential R1	
Utilities	all public	all public		all public		all public	
Type (platted)	platted	platted		platted		platted	
Improved property	\$200,000	\$150,000		\$300,000		\$300,000	
Price range	\$300,000	\$250,000		\$400,000		\$400,000	
Other factors	none	none		none		none	
Net adjustment	N/A						
Indicated value	N/A						

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Review Exercise 12. Suggested Solution

	Subject Property	Comparable 1	Adjustment	Comparable 2	Adjustment	Comparable 3	Adjustment
Address	1234 W. 87th St.	9001 Kessel Road		1112 W. 91st Street		815 W. 86th Street	
Sale price			\$45,000		\$60,000		\$52,000
Rights transferred	fee simple	fee simple		fee simple		fee simple	
Subtotal							
Financing	assume cash	cash to seller		cash to seller		listing only	
Subtotal							
Conditions of sale	arm's-length	arm's-length		arm's-length		arm's-length	
Subtotal							
Market conditions	current	6 months ago	+1.50%	9 months ago	+2.25%	current listing	
Subtotal			\$45,675		61,350		52,000
Topography	rolling	rolling		level	+5%	level	+5%
Location	River Township	River Township		River Township		River Township	
Wooded	75%	25%	-5%	75%		25%	+5%
Flood area	10.00%	equal		equal		equal	
Size (acres)	1.25	1.0000	+5%	1.7500	-10%	1.0000	+5%
Zoning	Residential R1	Residential R1		Residential R1		Residential R1	
Utilities	all public	all public		all public		all public	
Type (platted)	platted	platted		platted		platted	
Improved property	\$200,000	\$150,000		\$300,000		\$300,000	
Price range	\$300,000	\$250,000	+5%	\$400,000	-10%	\$400,000	-10%
Other factors	none	none		none		none	
Net adjustment	N/A		15%		-15%		5%
Indicated value	N/A		52,926		52,148		54,600

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Review Exercise 13.

	Comparable Land Analysis (Qualitative Analysis)			
	Subject	Comparable 1		Comparable 2
Address	123 Nicole Street	505 Jeanine Drive		123 Eunice Lane
Data source	N/A	Co-op # 29761		Co-op # 29761
Sale price	\$0		\$560,960	\$350,000
Price per square foot	\$0		\$2.61	\$3.48
Rights transferred	fee simple	fee simple		fee simple
Financing	assume cash	cash sale		cash sale
Conditions of sale	arm's-length	arm's-length		arm's-length
Date of sale	current	12 months ago		18 months ago
Topography	level			level
Location	West Side	East Side		West Side
Access	1 point			2 points
Visibility	avg./industrial	equal		superior
Flood area	0.00%	0.00%		0.00%
Road frontage	166	341		305
Average depth	981	630		330
Size (square feet)	162,818	215,000		100,500
Size (acres)	3.7378	4.936		2.301
Zoning	Industrial IS	Industrial IS		Industrial IS
Utilities	all public	all public		all public
Other factors	none	none		none

Indicated value per sq. ft.

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Review Exercise 13. Suggested Solution

	Comparable Land Analysis (Qualitative Analysis)			
	Subject	Comparable 1		Comparable 2
Address	123 Nicole Street	505 Jeanine Drive		123 Eunice Lane
Data source	N/A	Co-op # 29761		Co-op # 29761
Sale price	\$0		\$560,960	\$350,000
Price per square foot	\$0		\$2.61	\$3.48
Rights transferred	fee simple	fee simple		fee simple
Financing	assume cash	cash sale		cash sale
Conditions of sale	arm's-length	arm's-length		arm's-length
Date of sale	current	12 months ago	inferior	18 months ago inferior
Topography	level	level		level
Location	West Side	East Side	inferior	West Side
Access	1 point		superior	2 points superior
Visibility	avg./industrial	equal		superior superior
Flood area	0.00%	0.00%		0.00%
Road frontage	166	341	superior	305 superior
Average depth	981	630		330
Size (square feet)	162,818	215,000		100,500
Size (acres)	3.7378	4.936	inferior	2.301 superior
Zoning	Industrial IS	Industrial IS		Industrial IS superior
Utilities	all public	all public		all public
Other factors	none	none		none

Indicated value per sq. ft. A little more than \$2.61 Much less than \$3.48

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The Sales Comparison Approach

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The Sales Comparison Approach

- The historical approach to value. The value of the subject property is derived by comparing it with prior sales of similar properties.
- This analytical tool can be difficult to prepare but is easily understood.
- Common sales comparison grids will be introduced and explored.

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Relation to Appraisal Principles

- Supply and demand
- Substitution
- Balance
- Externalities
- Market analysis and highest and best use

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Applicability and Limitations

- Nearly always applicable in appraisals of market value of real property
- Valid even when buyers are paying for income potential
- Focuses on sales of comparable properties, but prior sales of the subject property are also evidence of value

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Procedure

1. Research the market for sales, listings, offerings, and pending sales.
2. Verify that information per the scope of work of the appraisal assignment.
3. Select relevant units of comparison.
4. Look for relevant differences in the comparable properties and make adjustments.
5. Reconcile the value conclusions into a single point opinion or range of values.

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Researching Transactional Data

- Appraisers need to use discretion when relying on data from a multiple listing service (MLS) or third-party data provider.
- To keep bad data from affecting the analysis, using more data is better than using less.

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Common Units of Comparison

- Price per square foot of gross living area
- Price per square foot of gross building area
- Price per bedroom
- Price per room

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Comparable Land Sales

These sales do not seem comparable when the gross sale prices are compared. When a unit of comparison (price per acre) is applied, the data shows consistency.

	Subject	Sale 1	Sale 2	Sale 3	Sale 4	Sale 5
Sale price	—	\$1,000,000	\$750,000	\$550,000	\$750,000	\$750,000
No. of acres	120	175	125	85	105	80
Price per acre	—	\$5,714	\$6,000	\$6,470	\$7,142	\$9,375

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Analyzing and Adjusting Comparable Sales

- Identification and measurement of adjustments
- Elements of comparison
- Sequence of adjustments

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Suggested Order of Transactional Adjustments

- Real property rights conveyed
- Financing terms
- Conditions of sale
- Expenditures made immediately after purchase
- Market conditions (time)

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Questions to Ask in Reconciliation

- How much evidence of value is available and how much is included?
- Should comparable listings, pending sales, or expired listings be considered?
- Should a history of market exposure of the subject property be considered?
- How many of the available comparable sales are truly comparable?
- Do the adjustments to the sales or listings represent market reactions?
- Are the comparable properties used legitimate alternatives to the subject property?

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Comparative Analysis

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Quantitative Adjustments

- Paired data analysis
 - Sales with and without a specific feature
- Types of adjustments
 - Dollar adjustments
 - Percentage adjustments
- Statistical analysis
 - Many sales with and without a feature
- Graphic analysis
 - Many sales presented in a graphic presentation

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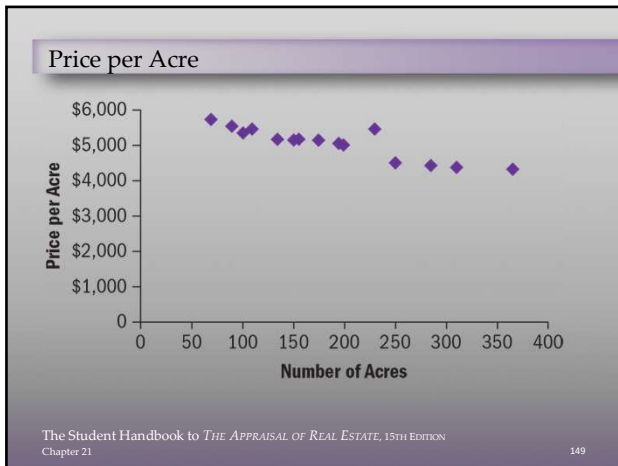
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Agricultural Land Sales

Sale	Price	Acres	Price per Acre
1	\$400,000	70	\$5,714
2	\$500,000	90	\$5,556
3	\$550,000	103	\$5,340
4	\$600,000	110	\$5,455
5	\$700,000	135	\$5,185
6	\$775,000	150	\$5,167
7	\$805,233	155	\$5,195
8	\$896,543	175	\$5,123
9	\$985,700	195	\$5,055
10	\$1,000,000	200	\$5,000
11	\$1,256,500	230	\$5,463
12	\$1,125,890	250	\$4,504
13	\$1,258,900	285	\$4,417
14	\$1,358,000	310	\$4,381
15	\$1,580,000	366	\$4,317

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Cost Analysis

Depreciated cost can be used to support adjustment rates in the sales comparison approach.

Area	Size (sq. ft.)	Cost per sq. ft.	Cost	% Deprec.	\$ Deprec.	Net Value	\$ per sq. ft.
Screened porch	300	\$45.00	\$13,500	6%	\$810	\$12,690	\$42.30
Basement	2,000	\$45.00	\$90,000	15%	\$13,500	\$76,500	\$38.25
Finishing	1,000	\$50.00	\$50,000	15%	\$7,500	\$42,500	\$42.50

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Capitalization of Income Differences

- Gross rent multipliers (GRMs)
- Direct capitalization of a single year's income

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Qualitative Analysis

- Relative comparison analysis
 - Narrative discussion of issues, usually just listing the data
 - Discussion of what is inferior and what is superior
- Ranking analysis
 - Placing data in an ordered array
- Personal interviews

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Ranking Analysis

Address	Bdr.	(F/H)	Description	Acres	Garage	Levels	Bsmt.	Fin. Bsmt.	GLA sq. ft.	Price	\$ per sq. ft.
1 773 Coventry Way	5	2/1	Brookshire	0.35	3-car att.	2	yes	yes	2,540	490,000	192.91
2 2429 Windsor Drive	4	2/2	Brookshire	0.38	3-car att.	2	yes	yes	2,584	485,000	187.69
3 2795 Brookshire Parkway	4	3/2	Brookshire	0.35	2-car att.	2	yes	yes	2,254	469,800	208.43
4 2207 Windsor Drive	4	2/1	Brookshire	0.35	3-car att.	2	yes	no	2,677	440,000	164.36
5 888 Duchess Drive	4	3/2	Brookshire	0.38	2-car att.	2	yes	no	2,268	435,000	191.8
6 890 Windsor Drive	3	2/1	Brookshire	0.30	2-car att.	2	yes	no	2,612	400,000	153.14
7 895 Brookshire Court	4	3/2	Brookshire	0.25	2-car att.	2	no	no	2,479	382,000	157.27
8 795 Kent Parkway	4	2/1	Brookshire	0.28	2-car att.	2	no	no	2,156	359,800	166.88
9 795 Hampshire Drive	2	2/1	Brookshire	0.23	2-car att.	1	no	no	2,122	356,000	167.77
10 695 Brookshire Parkway	3	2/1	Brookshire	0.22	2-car att.	1	no	no	1,822	340,000	186.61
11 555 Brookshire Parkway	3	3/2	Brookshire	0.21	2-car att.	1	no	no	2,016	335,000	166.17
Subject	4	2/1	Brookshire		2-car att.	2	yes	no	2,400	n/a	

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Sequence of Adjustments

1. Property rights conveyed
2. Financing terms
3. Conditions of sale
4. Expenditures immediately after purchase
5. Market conditions
6. Property adjustments

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Sequence of Adjustments

	\$100,000	\$100,000	
+ (\$100,000 × 0.10)	+ 10,000		Adjustment 1
- (\$100,000 × 0.10)	- 10,000		Adjustment 2
+ (\$100,000 × 0.10)	+ 10,000		Adjustment 3
- (\$100,000 × 0.10)	- 10,000		Adjustment 4
	\$100,000	\$100,000	

	\$100,000		
+ (\$100,000 × 0.10)		× 1.10	Adjustment 1
	\$110,000		
- (\$110,000 × 0.10)		× 0.90	Adjustment 2
	\$99,000		
+ (\$99,000 × 0.10)		× 1.10	Adjustment 3
	\$108,900		
- (\$108,900 × 0.10)		× 0.90	Adjustment 4
	\$98,010		

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Transactional Adjustments

- Real property rights conveyed
 - Life estates
 - Leased fee, leasehold, subleasehold
 - Mineral rights
- Financing terms: cash equivalency
 - Low interest rate mortgage assumptions
 - Conditional sales contracts
 - Purchase-money mortgages
 - Seller-paid concessions

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Transactional Adjustments, continued

- Conditions of sale
 - Motivated sellers
 - Motivated buyers
- Expenditures made immediately after purchase
 - Razing a building
 - Replacing a roof covering
 - Replacing carpeting
 - Repainting

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Transactional Adjustments, continued

- Market conditions
 - Compensate for changes in the market from the date of sale to the effective date of appraisal
 - Make the value opinion equal to the effective date
 - Analyze sales and resales of the same properties

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Property Adjustments

- Location
 - Compensate for differences in the locational attributes of the subject property and the comparables
 - Adjustment can be based on land values
- Physical characteristics
 - Size of site and building
 - Condition, quality, and age of improvements
 - Property amenities
 - Functional utility

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Property Adjustments, continued

- Economic characteristics
 - More or less rent
 - Higher or lower expenses
- Legal characteristics
- Non-realty components of value
 - Personal property
 - Intangible property

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Review Exercise 10.

	Sale Price	Frontage	Lot Depth	Gross Building Area (sq. ft.)	Price per Front Foot	Price per Sq. Ft. of Land	Price per Sq. Ft. of GBA
1	\$1,597,530	335	489	45,000			
2	\$1,358,987	300	410	38,500			
3	\$1,258,963	400	400	35,000			
4	\$1,112,598	245	333	32,000			
5	\$1,000,000	275	405	29,000			
6	\$987,654	370	415	28,700			
Subject		444	455	28,000			

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Review Exercise 10. Suggested Solution

	Sale Price	Frontage	Lot Depth	Gross Building Area (sq. ft.)	Price per Front Foot	Price per Sq. Ft. of Land	Price per Sq. Ft. of GBA
1	\$1,597,530	335	489	45,000	\$4,768.75	\$9.75	\$35.50
2	\$1,358,987	300	410	38,500	\$4,529.96	\$11.05	\$35.30
3	\$1,258,963	400	400	35,000	\$3,147.41	\$7.87	\$35.97
4	\$1,112,598	245	333	32,000	\$4,541.22	\$13.64	\$34.77
5	\$1,000,000	275	405	29,000	\$3,636.36	\$8.98	\$34.48
6	\$987,654	370	415	28,700	\$2,669.34	\$6.43	\$34.41
Subject		444	455	28,000		Rounded to	\$35.00

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Review Exercise 11.

	Sale Price	Frontage	Lot Depth	Gross Building Area (sq. ft.)	Price per Front Foot	Price per Sq. Ft. of Land	Price per Sq. Ft. of GBA
1	\$125,987	200	246	15,000			
2	\$135,897	210	250	18,000			
3	\$145,800	200	285	22,000			
4	\$99,000	195	200	20,000			
5	\$128,589	200	255	24,500			
6	\$175,000	200	339	25,000			
Subject		200	275	18,000			

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Review Exercise 11, Suggested Solution

	Sale Price	Frontage	Lot Depth	Gross Building Area (sq. ft.)	Price per Front Foot	Price per Sq. Ft. of Land	Price per Sq. Ft. of GBA
1	\$125,987	200	246	15,000	\$629.94	\$2.56	\$8.40
2	\$135,897	210	250	18,000	\$647.13	\$2.59	\$7.55
3	\$145,800	200	285	22,000	\$729.00	\$2.56	\$6.63
4	\$99,000	195	200	20,000	\$507.69	\$2.54	\$4.95
5	\$128,589	200	255	24,500	\$642.95	\$2.52	\$5.25
6	\$175,000	200	339	25,000	\$875.00	\$2.58	\$7.00
Subject		200	275	18,000		Rounded to	\$2.55

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Applications of the Sales Comparison Approach

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Quantitative Adjustment Example

- Three different grids are presented to show how the rate of adjustment can be extracted. The first grid shows a rate of \$10 per square foot, the second shows \$40 per square foot, and the third shows \$30 per square foot.

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Matched Pair Analysis

Subject	Comparable 1	Comparable 2
Price	\$510,000	\$400,000
Property rights	fee simple	below market lease —\$600
Subtotal	\$510,500	\$399,400
Financing	cash to seller	cash to seller —\$200
Subtotal	\$513,500	\$399,200
Conditions of sale	typical motivations	motivated seller —\$600
Subtotal	\$515,100	\$398,600
Needed repairs	none	minor repairs —\$200
Subtotal	\$562,500	\$398,400
Market conditions	current	one month ago —\$600
Current, cash equivalent price	\$565,900	\$399,800
Location adjustment	northwest side	northeast side
zoning	Commercial-1	Commercial-1
Site size	20,000 sq. ft.	20,000 sq. ft.
Building design	one story/eng.	one story/eng.
Construction quality	mass/prof. eng.	mass/prof. eng.
Improvement age	14 years	14 years
Improvement Condition	average	average
First floor area (sq. ft.)	11,000	12,000
Second floor area (sq. ft.)	0	0
1st building area (sq. ft.)	9,000	12,000
Roofed area	75%	75%
Basement (sq. ft.)	0	0
Functional obsolescence	typical only	typical only
Defect	none	none
Net adjustment	- \$10,000	+ \$10,000
Indicated value	\$555,900	\$419,800

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Revised Matched Pair Analysis Using a Sensitivity Analysis for Sales

	Subject	Comparable 1	Comparable 2
Current, cash equivalent price		\$565,409	\$389,500
First floor area (sq. ft.)	\$40	9,000 12,000	- \$120,000 6,000 + \$120,000
Indicated value		\$445,409	\$509,500

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Second Revised Matched Pair Analysis Using a Sensitivity Analysis for Sales

	Subject	Comparable 1		Comparable 2	
Current, cash equivalent price			\$565,409		\$389,500
First floor area (sq. ft.)	\$30	9,000	12,000	-90,000	6,000
indicated value			\$475,409		\$479,500

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Qualitative Analysis

	Subject	Comparable 1	Comparable 2	Comparable 3
Address	597 E. North St.	579 E. Hill St.	593 N. Webb Ave.	571 E. Oak St.
Sale price		\$500,000	\$550,000	\$625,000
Rights transferred	fee simple	fee simple	fee simple	fee simple
Financing	cash to seller	contract	superior	cash to seller
Conditions of sale	typical motivations	typical motivations	typical motivations	typical motivations
Depend. after purch.	none needed	none needed	none needed	minor repairs, inferior
Date of sale	today	July	January	June
Location/site/view	\$80,000 site	\$65,000 site	inferior \$80,000 site	\$85,000 site superior
Building design	one story/avg.	one story/avg.	one story/avg.	one story/avg.
Const. quality	steel/average	brick/equal	frame/inferior	inferior steel/equal
Improvement age	8 years	12 years	inferior 9 years	inferior 5 years superior
Impr. condition	average	equal	equal	equal
Net-gri. bldg. area	6,086 sq. ft.	5,000 sq. ft.	inferior 6,000 sq. ft.	8,000 sq. ft. superior
Basement area	3,500 sq. ft.	2,000 sq. ft.	inferior 3,500 sq. ft.	4,500 sq. ft. superior
Finished basement	2,600 sq. ft.	unfinished	inferior 2,000 sq. ft.	2,000 sq. ft.
Functional utility	average	average	average	average
Garage	2-car att.	2-car att.	2-car att.	2-car att.
Other	none	none	in-ground pool	superior none
Overall comparison		much inferior	nearly equal	much superior

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Quantitative Adjustment and Qualitative Analysis

	Subject	Sale 1	Sale 2	Sale 3
Address	12345 N. Main Street	209 S. Main Street	1209 S. Ellet Street	1985 James Street
Gross sale price	\$0	\$425,000	\$458,000	\$473,000
Price/sq. ft. & area	\$3.35	\$146,059	\$3.59	\$156,474
Rights transferred	fee simple	fee simple	fee simple	fee simple
Subtotal		\$146,059	\$156,474	\$168,919
Financing	assume cash	contract sale	cash sale	cash sale
Subtotal		-5,025	0.025	0.025
Conditions of sale	typical motivations	typical motivations	typical motivations	typical motivations
Subtotal		\$138,756	\$156,474	\$168,919
Expenditures after	none assumed	none	demolition cost	none
Subtotal		\$138,756	\$161,482	\$168,919
Date of sale 0.25%	now	4 mos. ago	6 mos. ago	8 mos. ago
Subtotal		1,025	1,205	2,025
		\$140,144	\$163,904	\$172,297
Topography	level	level	difficult	inferior
Location	Smallburg	Smallburg	Smallburg	Hessville
Access	3 points	2 points	inferior 3 points	3 points superior
Viability	avg./industrial	isolated	inferior equal	highway visibility superior
Flood area	0.00%	0.00%	0.00%	0.00%
Road frontage	300	325	300	350
Average depth	400	390	425	350
Site (square feet)	130,680	126,750	127,500	122,500
Site (acres)	2.91	2.91	2.927	2.812
Zoning	industrial	industrial	industrial	industrial
Utilities	all public	all public	all public	all public
Other factors	none	none	rail siding	superior none
Indicated value/acre	more than	\$140,144 per acre	similar to	\$163,904 less than \$172,297 per acre

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Review Exercise 4.

	Subject	Comparable 1	Comparable 2	
Address	12345 N. Main St.	11232 West St.	1233 East St.	
Price per sq. ft. GBA/price	\$163.79	\$475,000	\$125,000	\$525,000
Rights transferred	fee simple	fee simple	0.00% fee simple	0.00%
Financing	cash to seller	cash to seller	0.00% cash to seller	0.00%
Conditions of sale	arm's-length	arm's-length	0.00% arm's-length	0.00%
Post-purchase repairs	none assumed	none reported	0.00% none reported	0.00%
Date of sale	current	6 months ago	-0.0% 9 months ago	-0.0%
Current, cash-equivalent price		\$475,000		\$525,000
Location	Greenlake Addn.	Greenlake Addn.	Greenlake Addn.	
Site size (acres)	1.25	1	0.75	
Site view	golf course	golf course	residential	
Building design	2-story/average	2-story/average	2-story/average	
Construction quality	wood/frame/avg.	masonry/frame	frame/masonry	
Improvement age	23	18	23	
Improvement condition	average	average	average	
Room count	9/4/2½	11/4/3½	12/4/4½	
Abv. ground building area @45	2,943	2,900	4,200	
Basement area @20	756	1,200	1,500	
Basement finish area @20	650	1,000	500	
Functional obsolescence	average	average	average	
Garage/parking	3-car att. garage	3-car att. garage	4-car att. garage	
Miscellaneous	irrigation	equal	equal	
Porch(es), patios, etc.	enclosed porch/deck	none	equal	
Features	standard	standard	standard	
Fireplaces	1 fireplace	1 fireplace	1 fireplace	
Net adjustment				
Indicated value				

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Review Exercise 4. Suggested Solution

	Subject	Comparable 1	Comparable 2	
Address	12345 N. Main St.	11232 West St.	1233 East St.	
Price per sq. ft. GBA/price	\$163.79	\$475,000	\$125,000	\$525,000
Rights transferred	fee simple	fee simple	0.00% fee simple	0.00%
Financing	cash to seller	cash to seller	0.00% cash to seller	0.00%
Conditions of sale	arm's-length	arm's-length	0.00% arm's-length	0.00%
Post-purchase repairs	none assumed	none reported	0.00% none reported	0.00%
Date of sale	current	6 months ago	-0.0% 9 months ago	-0.0%
Current, cash-equivalent price		\$475,000		\$525,000
Location	Greenlake Addn.	Greenlake Addn.	Greenlake Addn.	
Site size (acres)	1.25	1	+ 10,000 0.75	+ 15,000
Site view	golf course	golf course	residential	+ 10,000
Building design	2-story/average	2-story/average	2-story/average	
Construction quality	wood/frame/avg.	masonry/frame	- 10,000 frame/masonry	- 10,000
Improvement age	23	18	- 10,000 23	
Improvement condition	average	average	average	
Room count	9/4/2½	11/4/3½	- 5,000 12/4/4½	- 10,000
Abv. ground building area @45	2,943	2,900	- 10,000 4,200	- 55,000
Basement area @20	756	1,200	- 10,000 1,500	- 15,000
Basement finish area @20	650	1,000	- 5,000 500	+ 5,000
Functional obsolescence	average	average	average	
Garage/parking	3-car att. garage	3-car att. garage	4-car att. garage	- 10,000
Miscellaneous	irrigation	equal	equal	
Porch(es), patios, etc.	enclosed porch/deck	none	+ 20,000 equal	
Features	standard	standard	standard	
Fireplaces	1 fireplace	1 fireplace	1 fireplace	
Net adjustment		- 10,000	- 70,000	
Indicated value		\$465,000		\$455,000

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Review Exercise 6.

Sale Date	Price	Annual Appreciation Rate
1 Price 1 month ago =	\$200,000	
Price 3 years and 1 month ago =	\$195,000	
2 Price 3 months ago =	\$195,000	
Price 2 years and 4 months ago =	\$187,000	
3 Price 1 month ago =	\$210,000	
Price 2 years and 4 months ago =	\$210,000	
4 Sale 2 months ago =	\$192,000	
Sale 1 year ago =	\$187,000	

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Review Exercise 6. Suggested Solution

Sale Date	Price	Annual Appreciation Rate
1 Price 1 month ago =	\$200,000	
Price 3 years and 1 month ago =	\$195,000	0.855%
2 Price 3 months ago =	\$195,000	
Price 2 years and 4 months ago =	\$187,000	2.054%
3 Price 1 month ago =	\$210,000	
Price 2 years and 4 months ago =	\$210,000	0.000%
4 Sale 2 months ago =	\$192,000	
Sale 1 year ago =	\$187,000	3.209%

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Review Exercise 7.

Item	Subject	Comparable 1	Comparable 2	Comparable 3	Comparable 4
Sale price/GA		\$250,000	\$625,000	\$220,113	\$138,250
Value adjustments	Description	Description	Adjustment	Description	Adjustment
Sales financing concessions	Assume none	\$7,500 concessions	_____	No concessions	_____
Date sale/time/market conditions	2.00% now	_____	8 months ago	4 months ago	_____
Location	Salty Creek	Salty Creek	_____	Salty Creek	_____
Site (acres)	5.00 acres	1.00 acres	_____	0.75 acres	_____
View	residential/pond	residential	_____	residential	_____
Design/appeal	2-story/avg.	2-story/avg.	_____	2-story/avg.	_____
Construction quality	bricks/good	bricks/average	_____	bricks/good	_____
Age	\$7,000 5 years old	1 year old	_____	13 years old	_____
Condition	average	average	_____	average	_____
NO room count	10 4 3.5	10 4 2.5	_____	11 4 2.5	_____
NO living area	\$10 6,000 sq. ft.	2,500 sq. ft.	_____	2,300 sq. ft.	_____
Basement area	\$25 2,000 sq. ft.	1,200 sq. ft.	_____	2,000 sq. ft.	_____
Finished basement	\$25 1,500 sq. ft.	900 sq. ft.	_____	1,400 sq. ft.	_____
Functional utility	average	average	_____	average	_____
HVAC	GFA/vent. AC	GFA/vent. AC	_____	GFA/vent. AC	_____
Garage/carport	\$7,500 3-car att. garage	2-car att. garage	_____	2-car att. garage	_____
Pool/spa	no pool	no pool	_____	no pool	_____
Fireplace	\$3,500 2 fireplaces	1 fireplace	_____	2 fireplaces	_____
Kitchen	standard kitchen	standard kitchen	_____	standard kitchen	_____
Net adjustment	_____	_____	_____	_____	_____
Adjusted sale price of comparable	_____	_____	_____	_____	_____

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Review Exercise 7. Suggested Solution

Item	Subject	Comparable 1	Comparable 2	Comparable 3	Comparable 4
Sale price/GA		\$250,000	\$239,133	\$550,000	\$815,650
Value adjustments	Description	Description	Adjustment	Description	Adjustment
Sales financing concessions	Assume none	\$7,500 concessions	_____	No concessions	_____
Date sale/time/market conditions	2.00% now	_____	4 months ago	8 months ago	_____
Location	Salty Creek	Salty Creek	_____	Salty Creek	_____
Site (acres)	5.00 acres	1.00 acres	_____	0.75 acres	_____
View	residential/pond	residential	_____	residential	_____
Design/appeal	2-story/avg.	2-story/avg.	_____	2-story/avg.	_____
Construction quality	bricks/good	bricks/average	_____	bricks/good	_____
Age	\$7,000 5 years old	1 year old	_____	\$21,000 13 years old	_____
Condition	average	average	_____	average	_____
NO room count	10 4 3.5	10 4 2.5	_____	\$2,000 10 4 2.5	_____
NO living area	\$10 6,000 sq. ft.	2,500 sq. ft.	_____	\$20,000 2,300 sq. ft.	_____
Basement area	\$25 2,000 sq. ft.	1,200 sq. ft.	_____	\$25,000 2,000 sq. ft.	_____
Finished basement	\$25 1,500 sq. ft.	900 sq. ft.	_____	\$37,500 1,400 sq. ft.	_____
Functional utility	average	average	_____	average	_____
HVAC	GFA/vent. AC	GFA/vent. AC	_____	GFA/vent. AC	_____
Garage/carport	\$7,500 3-car att. garage	2-car att. garage	_____	\$7,500 3-car att. garage	_____
Pool/spa	no pool	no pool	_____	no pool	_____
Fireplace	\$3,500 2 fireplaces	1 fireplace	_____	\$3,500 2 fireplaces	_____
Kitchen	standard kitchen	standard kitchen	_____	standard kitchen	_____
Net adjustment	_____	\$324,200	_____	\$385,800	_____
Adjusted sale price of comparable	_____	\$948,700	_____	\$939,800	_____

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Review Exercise 8.

Item	Subject	Comparable 1	Comparable 2	Comparable 2	
Sale Price		\$375,000	\$191,44	\$425,000	
Sale price/GLA		\$375.00	\$191.44		
Value adjustments	Description	Description	Adjustment	Description	Adjustment
Sales/Financing concessions	Assume none	No concessions		No concessions	
Date of sale/time	3.00% now	2 months ago		4 months ago	
Location	Palmer Addition	Palmer Addition		Palmer Addition	
Site (acres)	0.33 acres	0.33 acres		0.33 acres	
View	residential	residential		residential	
Design/appeal	bi-level/avg.	1-story/avg.		2-story/avg.	
Construction quality	brick/average	brick/average		brick/average	
Age	\$2,500 32	40		24	
Condition	average	average		average	
AG room count	5 3 2	6 3 2		9 4 2	
AG living area	\$25 1,000 sq. ft.	1,000 sq. ft.		2,220 sq. ft.	
Basement area	\$20 1,000 sq. ft.	1,000 sq. ft.		0 sq. ft.	
Finished basement	\$22 1,000 sq. ft.	0 sq. ft.		0 sq. ft.	
Functional utility	average	average		average	
HVAC	GFA/cent. AC	GFA/cent. AC		GFA/cent. AC	
Energy efficiency	standard	standard		standard	
Garage/carport	2-car att. garage	2-car att. garage		2-car att. garage	
Porch/patio	deck	deck		deck	
Fireplace	1 fireplace	1 fireplace		1 fireplace	
Kitchen	standard kitchen	standard kitchen		standard kitchen	
Fence/pool	none	none		none	
Net adjustment					
Adjusted sale price of comparable					

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Review Exercise 8. Suggested Solution

Item	Subject	Comparable 1	Comparable 2	Comparable 2	Comparable 2
Sale Price		\$375,000	\$191,44	\$425,000	
Sale price/GLA		\$375.00	\$191.44	\$425.000	
Value adjustments	Description	Description	Adjustment	Description	Adjustment
Sales/Financing concessions	Assume none	No concessions		No concessions	
Date of sale/time	3.00% now	2 months ago	\$1,900	4 months ago	\$4,300
Location	Palmer Addition	Palmer Addition		Palmer Addition	
Site (acres)	0.33 acres	0.33 acres		0.33 acres	
View	residential	residential		residential	
Design/appeal	bi-level/avg.	1-story/avg.		2-story/avg.	
Construction quality	brick/average	brick/average		brick/average	
Age	\$2,500 32	40	\$20,000	24	-\$20,000
Condition	average	average		average	
AG room count	5 3 2	6 3 2		9 4 2	
AG living area	\$25 1,000 sq. ft.	1,000 sq. ft.		2,220 sq. ft.	-\$30,500
Basement area	\$20 1,000 sq. ft.	1,000 sq. ft.		0 sq. ft.	\$20,000
Finished basement	\$22 1,000 sq. ft.	0 sq. ft.		0 sq. ft.	\$22,000
Functional utility	average	average		average	
HVAC	GFA/cent. AC	GFA/cent. AC		GFA/cent. AC	
Energy efficiency	standard	standard		standard	
Garage/carport	2-car att. garage	2-car att. garage		2-car att. garage	
Porch/patio	deck	deck		deck	
Fireplace	1 fireplace	1 fireplace		1 fireplace	
Kitchen	standard kitchen	standard kitchen		standard kitchen	
Fence/pool	none	none		none	
Net adjustment			-\$13,900	-\$14,200	
Adjusted sale price of comparable			\$418,900	\$420,800	

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Review Exercise 9.

Item	Subject	Comparable 1	Comparable 2	Comparable 3	Comparable 3
Address	1200 W. 400 W	1500 W. 350 N	500 N. 150 W	150 S. 50 W	
Sale price	\$485,000	\$525,000	\$555,000	\$498,000	
Sale price/GLA	\$242.50	\$268.95	\$264.29	\$218.52	
Days on market	334	49	4	4	
Value adjustments	Description	Description	Adjustment	Description	Adjustment
Financing	assume conv.	new mortgage	construct sale	new mortgage	
Concessions	mortgage or cash	no concessions	favorable terms	no concessions	
Date of sale/time	3.00% now	6 months ago	500 N. 150 W	4 months ago	
Location	1200 W. 400 W	1500 W. 350 N	500 N. 150 W	150 S. 50 W	
Leashtalk/fee simple	fee simple	fee simple	fee simple	fee simple	
Site (acres)	27.00 acres	12.00 acres	12.00 acres	8.00 acres	
View	wooded/tropical	wooded	wooded	wooded	
Design/appeal	2-story/avg.	1-story/avg.	2-story/avg.	2-story/avg.	
Construction quality	log construction	wood/brick/avg.	wood/brick/avg.	wood/sh./avg.	
Age	\$6,000 10	6	7	9	
Condition	average	average	average	average	
AG room count	8 3 2	7 3 2	9 3 2	8 4 3	
AG living area	\$85 2,000 sq. ft.	1,952 sq. ft.	2,100 sq. ft.	2,300 sq. ft.	
Basement area	\$30 1,400 sq. ft.	0 sq. ft.	1,000 sq. ft.	1,000 sq. ft.	
Finished basement	\$30 0 sq. ft.	0 sq. ft.	0 sq. ft.	0 sq. ft.	
Functional utility	average/fgd	average	average	average	
HVAC	GFA/cent. AC	GFA/cent. AC	GFA/cent. AC	GFA/cent. AC	
Garage/carport	2-car att. garage	2-car att. garage	2-car att. garage	2-car att. garage	
Porch/patio	scr. porch	fence, shed, porch	scr. porch	porch	
Fireplaces	1 fireplace	1 fireplace	1 fireplace	1 fireplace	
Fence, pool, etc.	None	Shed	528 sq. ft. barn	None	
Net adjustment					
Adjusted sale price of comparable					

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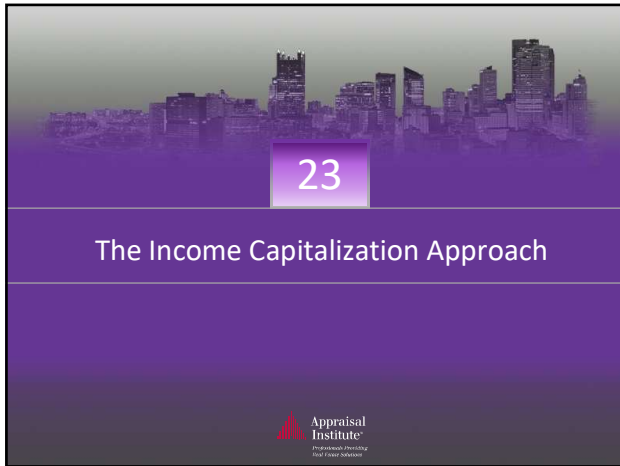
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Review Exercise 9. Suggested Solution

	Subject	Comparable 1	Comparable 2	Comparable 3	
Address	1200 W. 400 W	1500 W. 350 N	500 N. 150 W	150 S. 50 W	
Sale price	\$485,000		\$525,000	\$555,000	\$498,000
Sale price/GLA	\$242.50	\$268.95	\$264.29	\$218.52	
Days on market		334	49	4	
Value adjustments					
Financing	Description: assume conv. mortgage or cash	Description: new mortgage	Description: contract sale	Description: new mortgage	Description: no concessions
Concessions	3.00%	new	\$7,900	\$5,600	\$5,000
Date of sale/time	6 months ago	6 months ago	4 months ago	4 months ago	8 months ago
Location	1200 W. 400 W	1500 W. 350 N	500 N. 150 W	150 S. 50 W	
Leasehold/fee simple	fee simple	fee simple	fee simple	fee simple	fee simple
Site (acres)	27.00 acres	12.00 acres	12.00 acres	8.00 acres	
View	wooded/school	wooded	wooded	wooded	
Design/appeal	2-story/avg.	1-story/avg.	2-story/avg.	2-story/avg.	
Construction quality	log construction	wood/brick/avg.	wood/brick/avg.	wood/rtb/avg.	
Age	\$6,000	10	6	\$24,000	7
Condition	average	average	average	average	
NO room count	8 3 2	7 3 2	9 3 2	8 4 3	
NO living area	\$85	2,000 sq. ft.	1,952 sq. ft.	\$4,100	2,100 sq. ft.
Basement area	\$30	1,400 sq. ft.	0 sq. ft.	\$42,000	1,000 sq. ft.
Finished basement	\$30	0 sq. ft.	0 sq. ft.	0 sq. ft.	0 sq. ft.
Functional utility	average/log	average	average	average	
HVAC	GFA/cont. AC	GFA/cont. AC	GFA/cont. AC	GFA/cont. AC	
Drivage/carport	2-car att. garage	2-car att. garage	2-car att. garage	2-car att. garage	
Porch/patio	sq. porch	fence, shed, porch	sq. porch	sq. porch	
Fireplaces	1 fireplace	1 fireplace	1 fireplace	1 fireplace	
Fence, pool, etc.	None	Shed	\$900	\$28 sq. ft. bam	None
Net adjustment			-\$3,500	-\$42,300	-\$5,500
Adjusted sale price of comparable		\$518,500	\$487.50	\$488,500	

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- ### The Income Capitalization Approach
- Relation to appraisal principles
 - Anticipation and change
 - Supply and demand
 - Applicability and limitations
 - Most applicable when a property's income potential is the primary consideration of buyers
 - Less applicable when income estimates are weak, capitalization rates are difficult to support, or income potential is not the primary consideration of buyers
- The Student Handbook to *THE APPRAISAL OF REAL ESTATE*, 15TH EDITION
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Leases

- Types of leases
 - Flat rental lease
 - Variable rate lease
 - Step-up or step-down lease
 - Lease with annual increase
 - Revaluation lease
 - Percentage lease
- Expenses in leases
 - Gross lease
 - Net lease
 - Triple net lease

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Rent

- Common rent types
 - Market rent
 - Contract rent
 - Effective rent
 - Excess rent
 - Deficit rent
 - Percentage rent
 - Overage rent

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Future Benefits

- Potential gross income (*PGI*)
 - Starting point
 - As if full and without collection losses
- Effective gross income (*EGI*)
 - *PGI* less vacancy and collection losses
- Net operating income (*I_o* or *NOI*)
 - *EGI* less fixed expenses and variable expenses
 - Less replacement allowance

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Future Benefits, continued

- Equity income – Also called *equity dividend*, *equity cash flow rate*, or *cash-on-cash return rate*
 - Income to the equity after debt service (I_e) divided by equity holder's investment (V_e)
- Reversion – Return of the investment
 - Sometimes it is nothing
 - Sometimes it is a meaningful amount

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Reconstructed Operating Statement

Potential gross income (PGI)	25,000 sq. ft. @ \$19.00	\$475,000
Vacancy and collection loss	5%	(23,750)
Effective gross income (EGI)		\$451,250
Estimated annual expenses		
Property taxes	\$45,000	
Property insurance	8,500	
Repairs & maintenance	35,000	
Management	22,500	
Utilities	49,000	
Reserve for new roof covering (\$25,000 @ 1/20)	1,250	
Reserve for parking lot resurface (\$12,000 @ 1/15)	+ 800	
Total expenses	\$162,050	(162,050)
Net operating income		\$289,200

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Operating Expenses

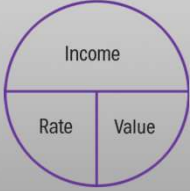
- Necessary to maintain the property
- Debt service not included
- Fixed expenses – do not vary with occupancy
- Variable expenses – vary with occupancy
- Replacement allowance – accounts for large expenditures in the future

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IRV Relationships

- $\text{Income} = \text{Rate} \times \text{Value}$
- $\text{Rate} = \text{Income}/\text{Value}$
- $\text{Value} = \text{Income}/\text{Rate}$



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Rates of Return

- Return *on* and return *of* capital
 - Return *on* an investment is like the interest on a mortgage
 - Return *of* an investment is like the principal payments on a mortgage
- Income rates
 - Overall capitalization rate (R_o) – Ratio of a single year's income (periodic) to the sale price or value (lump sum)
 - Net income multiplier – Reciprocal of overall capitalization rate; known in the stock market as *price-earnings ratio*

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Rates of Return, continued

- Discount rates
 - Internal rate of return (*IRR*) – Rate of return on the investment considering the price paid for the investment, periodic cash flows, and the reversion
 - Overall yield rate – Rate of return including debt and equity
 - Equity yield rate – Rate of return from the perspective of the equity investor, i.e., the rate of return on the amount paid as a down payment from periodic income after debt service and including the reversion after debt has been paid off

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Capitalization Rate Extraction Worksheet

	Subject	Sale 1	Sale 2	Sale 3	
Reported sale price		\$1,985,000	\$1,458,000	\$3,258,000	
PGI for next year	\$510,000	\$369,000	\$253,680	\$601,000	
Vacancy and collection loss	<u>- 25,500</u>	<u>- 25,830</u>	<u>- 15,221</u>	<u>- 48,080</u>	
EGI for next year	\$484,500	\$343,170	\$238,459	\$552,920	
Operating expense for next year					
Taxes	\$56,000	\$44,258	\$26,000	\$72,000	
Insurance	10,600	9,600	4,500	14,500	
Management (5%)	24,225	17,159	11,923	27,646	
Maintenance—building	22,050	16,055	10,700	26,500	
Maintenance—grounds	11,000	8,000	4,900	13,800	
Utilities	67,000	55,000	34,000	76,800	
Reserve fund—roof covering	5,000	4,200	2,600	4,200	
Reserve fund—parking lot	4,500	3,900	2,500	7,500	
Reserve fund—HVAC	3,200	2,500	2,900	6,200	
Reserve fund—elevator	1,500	1,200	1,800	3,600	
Tenant improvements	<u>5,500</u>	<u>4,400</u>	<u>3,500</u>	<u>12,600</u>	
Total expenses	\$210,575	\$166,272	\$105,323	\$265,346	
Net operating income	\$273,925	\$176,898	\$133,136	\$287,574	
Extracted capitalization rates		8.90%	9.10%	8.80%	
	\$273,925	/	\$0.09	=	\$3,043,611.11

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Cash Flow Projection

	Year 1	Year 2	Year 3	For reversion value only ↓		
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Tenant 1	\$72,000	\$72,000	\$72,000	\$84,000	\$84,000	\$84,000
Tenant 2	66,144	66,144	66,144	66,144	66,144	66,144
Tenant 3	51,600	53,000	60,000	60,000	60,000	60,000
Tenant 4	14,400	18,000	19,200	19,200	19,200	19,200
Tenant 5	27,780	27,780	27,780	27,780	27,780	30,558
Tenant 6	<u>28,800</u>	<u>24,000</u>	<u>33,600</u>	<u>33,600</u>	<u>33,600</u>	<u>33,600</u>
Potential gross income	260,724	260,924	278,724	290,724	290,724	\$293,502
Vacancy and collection (4%)	<u>- 10,429</u>	<u>- 10,431</u>	<u>- 11,149</u>	<u>- 11,629</u>	<u>- 11,629</u>	<u>- 11,740</u>
Effective gross income	\$250,295	\$250,493	\$267,575	\$279,095	\$279,095	\$281,762
All expenses	<u>- 55,000</u>	<u>- 56,650</u>	<u>- 58,350</u>	<u>- 60,100</u>	<u>- 61,903</u>	<u>- 63,760</u>
Net operating income	\$195,295	\$193,843	\$209,225	\$218,995	\$217,192	\$218,002
Reversion (10%)	Last year's income divided by the capitalization rate			\$2,158,366		
Cash flow	\$195,295	\$193,837	\$209,225	\$218,995	\$2,375,558	
Discounted at 9%	× <u> .9174%</u>	× <u> .8417%</u>	× <u> .7722%</u>	× <u> .7084%</u>	× <u> .6492%</u>	Total
Present values	\$179,164	\$163,153	\$161,564	\$155,136	\$1,543,875	\$2,202,891

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Estimating Rates

- Risk
 - A significant factor because risk is a primary component of the yield rate
 - A risky investment requires a higher return than a less risky investment
 - Investment-specific

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Estimating Rates, continued

- Inflation
 - Also a factor in the yield rate.
 - The change in the buying power of the currency will affect the investment criteria.
 - Unfortunately, almost all competing investments suffer under the same inflation rate. Therefore, competition will not allow the investor to adjust for this factor.
 - Investors may want higher yields during high inflation periods, but the alternatives may not allow it.

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Capitalization Procedures

- Direct capitalization
 - Uses a single year's income
 - Based on the ratio of property income to sale price
- Yield capitalization
 - Uses multiple years' income
 - Based on the assumption that all investments are the present value of future cash flows

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Direct Capitalization, Yield Capitalization, and Discounting Compared

- If income is level and the data is good, direct capitalization is easy and accurate.
- If income is irregular or data is hard to obtain, yield capitalization will work better.
- The discounted cash flow model (i.e., yield capitalization) essentially asks, "How much do I get and when do I get it?"

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Review Exercise 10. Suggested Solution

Tenant	PGI
1	\$60,000
2	\$75,000
3	\$65,000
4	+ \$75,000
PGI	\$275,000
Vacancy and collection loss	- \$13,750
EGI	\$261,250
Expenses	- \$100,000
NOI	\$161,250

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Income and Expense Analysis

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Income and Expense Analysis

When converting periodic income into a lump-sum value estimate, you can estimate value from:

1. PGI using a PGI multiplier
2. EGI using an EGI multiplier
3. NOI using a capitalization rate
4. Equity income using an equity capitalization rate and adding back the mortgage value
5. Analysis of income estimates for several years using a DCF model

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Estimating and Adjusting Market Rent

- Lessee and lessor are typically motivated
- Both parties are well-informed
- A reasonable time is allowed for exposure
- The rent is in terms of cash in US dollars
- The rental amount represents normal consideration for the property leased, unaffected by special fees

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Income and Expense Data

- Rent
- Rent concessions
- Division of expenses
- Expense stop and expense cap clauses
- Escalation and expense recovery clauses
- Purchase options
- Escape, kick-out, cotenancy, and buyout clauses
- Continued occupancy clauses
- Tenant improvements
- Noncompete, empty store, and exclusive use clauses

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Lease Terms

- Date of lease
- Description of the leased premises
- Lease terms, rental rate, and payment
- Tenant-installed trade fixtures
- Revaluation clauses
- Signage

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Lease Summary Grid					
	Subject	Comparable 1	Comparable 2	Comparable 3	Comparable 4
Annual rent		\$145,000	\$155,000	\$75,866	\$52,500
Rate per sq. ft.		\$9.67	\$7.75	\$10.12	\$9.55
Expenses included	net lease	net lease	net lease	net lease	taxes and insurance
Conditions of sale	arm's-length	arm's-length	arm's-length	arm's-length	arm's-length
Date of lease	now	13 months ago	20 months ago	6 months ago	20 months ago
Lot size (acres)	5	3	7	3	3
Access/visibility	adequate/interior	superior	equal	equal	equal
Rail siding	no	yes	no	yes	yes
Design	1-story/detached	1-story/detached	1-story/detached	1-story/detached	2-story/detached
Construction quality	masonry/avg.	masonry	masonry	steel	masonry
Improvement age	31	12	22	15	25
Improvement condition	fair	superior	superior	superior	superior
Total AGLA	14,628	15,000	20,000	7,500	5,500
Finished %	6%	5%	5%	10%	20%
Basement area	0	0	0	0	0
Wall height	16-ft. ceilings	18-ft. ceilings	20-ft. ceilings	20-ft. ceilings	20-ft. ceilings

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Developing Reconstructed Operating Statements	
<ul style="list-style-type: none"> • Estimating <i>PGI</i> <ul style="list-style-type: none"> ▪ From comparable leases ▪ From the current leases on the subject property ▪ From the subject property's history • Estimating vacancy and collection loss <ul style="list-style-type: none"> ▪ From comparable properties ▪ From the subject property's history 	

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Developing Reconstructed Operating Statements, continued	
<ul style="list-style-type: none"> • Estimating operating expenses <ul style="list-style-type: none"> ▪ From comparable properties ▪ From subject's history • Estimating replacement allowance using contractors' estimates • Estimating tenant improvement expenses 	

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Developing Reconstructed Operating Statements, continued

- Calculating net operating income
- Additional calculations
 - Estimating mortgage debt service
 - Estimating equity income
 - Estimating expense and income ratios

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Review Exercise 1.

Property	I_0	Fixed Expenses	Variable Expenses	Total Expenses	Expense Ratio
1	\$555,666	\$111,000	\$125,898		
2	\$535,000	\$107,000	\$124,589		
3	\$505,000	\$100,000	\$120,000		
4	\$443,598	\$95,000	\$100,000		
5	\$425,657	\$85,000	\$95,000		
6	\$398,756	\$78,900	\$90,000		

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Review Exercise 1. Suggested Solution

Property	I_0	Fixed Expenses	Variable Expenses	Total Expenses	Expense Ratio
1	\$555,666	\$111,000	\$125,898	\$236,898	42.63%
2	\$535,000	\$107,000	\$124,589	\$231,589	43.29%
3	\$505,000	\$100,000	\$120,000	\$220,000	43.56%
4	\$443,598	\$95,000	\$100,000	\$195,000	43.96%
5	\$425,657	\$85,000	\$95,000	\$180,000	42.29%
6	\$398,756	\$78,900	\$90,000	\$168,900	42.36%

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Review Exercise 2.

9568 S. Greenway Street

	5 years ago	4 years ago	3 years ago	2 years ago	1 year ago
Income					
Apartment rental income	\$228,800	\$230,880	\$227,200	\$227,040	\$221,760
Laundry income	720	619.00	740.00	611.00	576.00
Carport income	1,800	1,800	1,800	1,800	1,800
Total income	\$231,320	\$233,299	\$229,740	\$229,451	\$224,136
Expenses					
Management expense	\$13,879	\$13,998	\$13,784	\$13,767	\$13,448
Real estate taxes	21,258	22,555	23,001	23,456	23,698
Insurance (for the real estate)	1,850	1,900	1,900	1,900	2,900
Electricity (common areas)	1,500	1,538	1,576	1,615	1,656
Water and sewer (incl. in rent)	8,064	8,266	8,472	8,684	8,901
Bad check (loss in income and fee)	800	1,650	1,650	1,640	2,460
Bank service charge	197	368	98	491	29
Mowing service	2,880	2,880	3,040	3,040	3,040
Site maintenance: parking lot	-	3,900	-	-	3,900
Site maintenance: lawn care	1,225	1,350	1,350	1,450	1,600
Bldg. apt. cleaning	916	1,016	916	450	1,112
Bldg. apt. painting	2,550	2,125	1,700	2,550	2,975
Bldg. maintenance (HVAC)	1,320	2,565	1,895	2,966	3,654
Bldg. maintenance (other)	7,895	8,855	8,658	4,500	3,800
Bldg. plumbing/electrical	555	1,750	598	985	2,588
Misc. expenses	3,900	1,000	708	210	989
Total expenses	\$68,789	\$75,716	\$69,346	\$67,704	\$76,750
Net operating income					
Expense ratio					

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Review Exercise 2. Suggested Solution

9568 S. Greenway Street

	5 years ago	4 years ago	3 years ago	2 years ago	1 year ago
Income					
Apartment rental income	\$228,800	\$230,880	\$227,200	\$227,040	\$221,760
Laundry income	720	619.00	740.00	611.00	576.00
Carport income	1,800	1,800	1,800	1,800	1,800
Total income	231,320	233,299	229,740	229,451	224,136
Expenses					
Management expense	13,879	13,998	13,784	13,767	13,448
Real estate taxes	21,258	22,555	23,001	23,456	23,698
Insurance (for the real estate)	1,850	1,900	1,900	1,900	2,900
Electricity (common areas)	1,500	1,538	1,576	1,615	1,656
Water and sewer (incl. in rent)	8,064	8,266	8,472	8,684	8,901
Bad check (loss in income and fee)	800	1,650	1,650	1,640	2,460
Bank service charge	197	368	98	491	29
Mowing service	2,880	2,880	3,040	3,040	3,040
Site maintenance: parking lot	-	3,900	-	-	3,900
Site maintenance: lawn care	1,225	1,350	1,350	1,450	1,600
Bldg. apt. cleaning	916	1,016	916	450	1,112
Bldg. apt. painting	2,550	2,125	1,700	2,550	2,975
Bldg. maintenance (HVAC)	1,320	2,565	1,895	2,966	3,654
Bldg. maintenance (other)	7,895	8,855	8,658	4,500	3,800
Bldg. plumbing/electrical	555	1,750	598	985	2,588
Misc. expenses	3,900	1,000	708	210	989
Total expenses	\$68,789	\$75,716	\$69,346	\$67,704	\$76,750
Net operating income	\$162,531	\$157,583	\$160,394	\$161,747	\$147,386
Expense ratio	29.70%	32.50%	30.20%	29.50%	34.20%

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Direct Capitalization

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Capitalization Rates

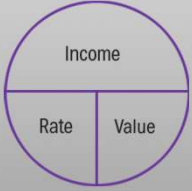
- The ratio of the sale price to the expected net income for the next year
- May be extracted from comparable sales
- Other methods can be used to support capitalization rates

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IRV Relationships

- $\text{Income} = \text{Rate} \times \text{Value}$
- $\text{Rate} = \text{Income}/\text{Value}$
- $\text{Value} = \text{Income}/\text{Rate}$



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Derivation of Overall Capitalization Rates

- From comparable sales
 - $R_O = NIR / EGIM$
- By band of investment
 - Mortgage and equity
 - Land and building
- Debt coverage formula (mortgage underwriter's method)
 - $DCR = I_O / I_M$
 - $R_O = M \times R_M \times DCR$
 - $DCR = I_O / \text{Annual Debt Service}$

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Band of Investment—Mortgage and Equity

$$M \times R_M = \text{Weighted Mortgage Amount}$$

$$(1 - M) \times R_E = + \text{Weighted Equity Amount}$$

$$R_O$$

* Mortgage ratio

Keystrokes	Output
25 [I] [n]	300.000000
10 [I] [i]	0.833333
1 [PV]	1.000000
0 [FV]	0.000000
[PMT]	-0.009087
$R_M = \text{PMT} \times 12:$	
[CHS] 12 [X]	0.109040
$0.75 \times 0.10904 =$	0.08178
$0.25 \times 0.13000 = +$	0.03250
	0.11428 or 11.428%

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Band of Investment—Land and Building

$$L \times R = \text{Weighted Mortgage Amount}$$

$$B \times R_B = + \text{Weighted Equity Amount}$$

$$R_O$$

$$0.75 \times 0.1300 = 0.0975$$

$$0.25 \times 0.0900 = + 0.0225$$

$$0.1200 \text{ or } 12\%$$

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Debt Coverage Formula

$$R_O = M \times R_M \times DCR$$

$$R_O = 0.75 \times 0.10797 \times 1.2$$

$$R_O = 0.09717 \text{ or } 9.717\%$$

$$\text{\$100,000} / 0.09717 = \text{\$1,029,124}$$

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Residual Techniques

- Building residual technique
- Land residual technique
- Equity residual technique
- Mortgage residual technique
- Leased fee and leasehold residual technique

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Residual Techniques

The subject has a *NOI* of \$45,000/year. The V_L is \$95,000. The R_L is 9%, and the R_B is 12%. What is the property value?

$$\begin{aligned} \$95,000 (V_L) \times 0.09 (R_L) &= \$8,550 (I_L) \\ \$45,000 (NOI) - \$8,550 (I_L) &= \$36,450 (I_B) \\ \$36,450 (I_B) / 0.12 (R_B) &= \$303,750 (V_B) \\ \$303,750 (V_B) + \$95,000 (V_L) &= \$398,750 (V_O) \end{aligned}$$

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Gross Income Multipliers and Gross Rent Multipliers

- Conditions
 - Buyers think this way
 - Similar expense ratios
 - Similar upside potential

The Student Handbook to *THE APPRAISAL OF REAL ESTATE, 15TH EDITION*
Chapter 25 222

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Suggested Solutions, continued

9. a) 0.0514
 $R_e = 35,000/400,000 = 0.0875$
 $R_e = PMT \times 12$
 Term: 25 (g) (n)
 Mortgage rate: 9.75 (g) (i)
 Present value of \$1: 1 (CHS) (PV)
 Future value of \$0: 0 (FV)
 Solve for (PMT) = 0.008908
 $R_e = PMT \times 12 = 0.1069$
 $R_o = (R_e - (M \times R_e))(1 - M)$
 $= (0.0875 - (0.65 \times 0.1069))(1 - 0.65)$
 $= 0.0515$
 Pages 463-464

10. d) \$1,590,000
 $0.75 \times 0.10484 = 0.07863$
 $0.25 \times 0.055 = 0.01375$
 0.09238
 $140,000 \times 0.09238 = \$1,515,480$
 $\$1,500,000$ (rounded)
 Pages 463-465

3. a) \$1,300,000
 NOI = \$150,000
 $550,000 (V) \times 0.0975 = 53,625 (I)$
 $96,375 (I)$
 $96,375 \times 0.1225 = 786,735 (V)$
 $786,735 + 550,000 = \$1,336,735$
 $\$1,300,000$ (rounded)
 Pages 468-469

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Review Exercise 11. Suggested Solution

	PGI	EGI	NOI	Sale Price	R _o
Sale 1	\$69,120	\$65,664	\$43,464	\$525,000	8.28%
Sale 2	\$60,840	\$57,798	\$37,548	\$450,000	8.34%
Sale 3	\$59,940	\$56,943	\$37,143	\$435,000	8.54%
Sale 4	\$59,400	\$56,430	\$37,080	\$465,000	7.97%

Again, this is one solution, not the only solution. There is some room for interpretation in the income and expense estimates. You should have an answer similar to this, but there will be some variations due to judgment calls.

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 Chapter 25 227

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Review Exercise 11.

Reconstructed Operating Statement

Estimated PGI	_____	_____
Unit 1	_____	_____
Unit 2	_____	_____
Unit 3	_____	_____
Unit 4	_____	_____
Monthly estimated rent	_____	_____
Annual potential gross income	_____	_____
Vacancy and collection loss	_____	_____
Effective gross income	_____	_____
Expenses		
Taxes	_____	_____
Insurance	_____	_____
Variable expenses	_____	_____
Reserves for replacement	_____	_____
Total expenses	_____	_____
Net operating income	_____	_____
Capitalized value	_____	_____

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Discounted Cash Flow Analysis of a Small Retail Center

Tenant	Sq. Ft.	Leased	Rate	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Estimated market (takeover) rate =			2.00%	\$20,000	\$20,400	\$20,811	\$21,222	\$21,635	\$22,048
Tenant A	1,500	1,500	\$19.00	28,500	28,500	28,500	31,836	32,473	33,122
Tenant B	1,500	0	vacant	30,000	30,600	31,212	31,836	32,473	33,122
Tenant C	1,500	1,500	\$19.50	29,250	30,600	31,212	31,836	32,473	33,122
Tenant D	1,500	1,500	\$19.25	28,875	30,600	31,212	31,836	32,473	33,122
Tenant E	1,500	0	vacant	30,000	30,600	31,212	31,836	32,473	33,122
Tenant F	1,500	0	vacant	30,000	30,600	31,212	31,836	32,473	33,122
Tenant G	1,500	1,500	\$18.50	27,750	27,750	27,750	31,386	32,473	33,122
Totals	10,500	6,000	57%						
Other income and pass-throughs =				10,000	10,200	10,404	10,162	10,924	11,041
Potential gross income =				\$214,375	\$219,450	\$222,714	\$233,014	\$238,135	\$242,898
Vacancy loss		Decrease	7.00%	-42.9%	-35.9%	-28.9%	-21.9%	-14.9%	-7.9%
Collection loss				-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%
Total vacancy and collection loss				-43.9%	-36.9%	-29.9%	-22.9%	-15.9%	-8.9%
Effective gross income				\$170,356	\$178,567	\$192,210	\$211,102	\$222,176	\$233,889

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Discounted Cash Flow Analysis of a Small Retail Center, continued

Item	Rate of increase in expenses =	Rate	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Expense Items									
Administrative		\$0.02	\$210	\$216	\$223	\$229	\$236	\$243	
All utilities (adjusted for occupancy)		\$1.50	9,000	10,406	11,877	13,415	15,019	16,689	
Management expense		5.0% of EGI	6,018	6,928	7,811	9,005	10,019	11,089	
Advertising, promotion		\$0.04	420	433	446	459	473	487	
Salaries and commissions		\$0.25	2,625	2,704	2,785	2,868	2,954	3,043	
Insurance		\$0.25	2,625	2,704	2,785	2,868	2,954	3,043	
Lease and licenses		\$1.25	13,125	13,319	13,504	14,342	14,772	15,215	
Maintenance		\$1.35	14,175	14,600	15,038	15,489	15,954	16,433	
Contract cleaning (est. for occupancy)		\$1.00	-6,000	-6,120	-7,218	-8,243	-10,013	-11,126	
Total operating expenses			\$54,198	\$58,448	\$62,907	\$67,620	\$72,395	\$77,306	
Operating expenses per square foot			\$5.16	\$5.57	\$5.98	\$6.44	\$6.89	\$7.37	
Buildout and leasing expenses									
Leasing commissions (leasing)		\$4.00	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$0	
New space buildout		735 \$20.00	14,700	14,700	10,000	10,000	10,000	0	
Leasing commissions		735 \$4.00	2,940	2,940	2,000	2,000	2,000	0	
Reserves for HVAC, etc.		2.50% of EGI	3,059	3,464	3,965	4,563	5,029	0	
Total capital items			\$24,649	\$25,104	\$19,905	\$20,563	\$21,009	\$0	
Capital items total per square foot			\$2.35	\$2.39	\$1.90	\$1.95	\$2.00	\$0.00	
Total all expenses			\$78,847	\$83,552	\$82,712	\$88,183	\$93,404	\$77,306	
Net operating income			\$41,510	\$55,016	\$73,505	\$81,979	\$106,969	\$144,034	
The reversion of the property is estimated via a terminal capitalization rate of: 10.00% of the last year's income less selling expenses (7%)									
Reversion of property =								\$1,335,520	
Cash flow with reversion		10.00%	\$41,510	\$55,016	\$73,505	\$91,979	\$1,446,490		
Discounted @			0.90991	0.82666	0.751315	0.683013	0.620921	Value	
Present value of cash flow			\$37,736	\$45,468	\$55,226	\$62,823	\$898,156	\$1,099,409	

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Case Study

Item	Sq. Ft.	Leased	Rate	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6*
Subj 100	2,500	2,500	26.00	65,000					
Subj 101	3,000	3,000	26.00	78,000					
Subj 112	4,000	0	26.00	104,000					
Subj 114	4,000	4,000	26.00	104,000					
Subj 202	5,000	5,000	24.00	120,000					
Subj 210	5,000	5,000	26.00	130,000					
Subj 212	5,000	5,000	26.00	130,000					
Total subj	30,000	25,400	84.67%						
Pass-through =				\$60,000					
Potential gross income =				\$165,000					
Collection loss (est. based on 1.00%)				-1,650					
Operating expenses				\$722,719					
Effective gross income				\$163,350					
Other income									
Management expense			5.0% of EGI	8,167.50					
Maintenance salaries			\$0.50/sq. ft.	12,500					
Lease, insurance and licenses			\$1.25/sq. ft.	15,625					
Maintenance (lease, trash, etc.)			\$0.75/sq. ft.	11,250					
Contract cleaning, etc.			\$1.20/occupied sq. ft.	12,000					
Supplies (HVAC, janitorial, etc.)			\$0.50/sq. ft.	6,250					
Total operating expenses				\$722,719					
Buildout and leasing expenses									
New space buildout				\$92,000					
Leasing commissions				\$25,000					
Capital improvements (HVAC, earth)				\$125,000					
Subj buildout/leasing expense				\$3,300					
Total all expenses				\$248,300					
Net operating income				\$115,050					
Reversion of property =									\$1,335,520
Cash flow with reversion				\$115,050					
Discounted @ 10%				\$104,590					
Present value				\$394,744					
Discounted @ 8%				\$143,741					
Present value				\$453,379					

The Student Handbook to THE APPRAISAL OF REAL ESTATE, 15TH EDITION
Chapter 28 240

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APPRAISER CERTIFICATION BOARD

November 9, 2023

Agenda Item 4

(b) Nevada Chapter Appraisal Institute-2024 LV
Market Symposium



**Nevada Department of Taxation
Property Tax Appraiser Continuing Education
New Course Application**

Return this form to:
Division of Local Government Services
1550 College Parkway
Carson City, Nevada 89706

Please Print or Type:

COURSE INFORMATION (A person who wishes to receive contact hours for a course of continuing education that has not been previously approved, must apply for such approval.)

<small>NAME</small> [REDACTED]	<small>TITLE</small> [REDACTED]
<small>TITLE OF COURSE</small> 2024 Las Vegas Market Symposium	
<small>VENDOR/PROVIDER</small> Nevada Chapter Appraisal Institute	

1. Course Summary: The 2024 Las Vegas Market Symposium will bring together experienced real estate market participants for a dialogue with appraisers on past and projected changes in the southern Nevada region. Panel discussions will generate discussion of the trends involving all types of real estate. Projection for vacancy rates, property values and trends regarding ownership, pricing, construction and the changing dynamics in southern NV.

2. What are the hours of instruction? 8 Hours

3. What is the completion date? Thursday - January 25, 2024

SUBJECT CLASSIFICATION - CHECK ALL THAT APPLY

- | | |
|---|--|
| <input type="checkbox"/> Mass Appraisal Concepts and Applications | <input type="checkbox"/> College or Professional Level Accounting, Finance, Statistics or Other Appraisal Subjects |
| <input type="checkbox"/> IAAO Standards | <input type="checkbox"/> GIS, Mapping, CAMA |
| <input checked="" type="checkbox"/> Residential, Commercial/Industrial Appraisal | <input type="checkbox"/> Laws Relating to Real Estate, Water or Mining |
| <input type="checkbox"/> Unitary/Centrally Assessed Property Appraisal | <input type="checkbox"/> Professional Ethics |
| <input type="checkbox"/> Legal Documents (Deeds, Titles, Leases, etc.) | <input checked="" type="checkbox"/> Other |
| <input type="checkbox"/> Nevada Statutes or Regulation, Appraisal or Assessment Standards | |

If other, please describe why the course is applicable to appraisal and/or property tax.

The Las Vegas Market Symposium allows local experts in the related real estate fields to discuss market trends in southern Nevada.

REQUIRED MATERIALS TO BE SUBMITTED WITH APPLICATION INCLUDE:

- Detailed Course Outline
 Syllabus or Course Material

SIGNATURE

[REDACTED SIGNATURE]

Requestor Signature

October 12, 2023

Date

For Department Use Only

<small>NUMBER OF CREDIT HOURS GRANTED</small>	<small>NUMBER OF CREDIT HOURS APPEARING ON TRANSCRIPT</small>	<small>MILESTONE APPLIED TO</small>	<small>TOTAL HOURS FOR THIS MILESTONE</small>

Verified by:

Division of Local Government Services

Title

Date

2024 Las Vegas Market Symposium

ALL DAY Schedule & Topics

CE Time	7:30-8:30 a.m.	Continental Breakfast / Registration
60	8:30-9:30 am	Land
		Moderator
		Matthew J. Nelson, CCIM, CLS - J.A. Kennedy Real Estate Company
		Panelists
		Chris Armstrong - Olympia Companies
		Jennifer Lewis - Lewis Companies
		John Restrepo - RCG Economics
		Vince Schettler - Mosaic Companies
		Panel Discussion
		What is the balance of buyers? More investors or more end-users? How has this changed in the last two years?
		Where will land for future growth come from?
		The Clark County Lands Bill stalled in the Senate this summer? What now?
		What segment has the most interest (Multi-family, commercial, industrial?)
		What are the biggest challenges facing the land market in the next year?
		Discuss recent deals, what was purchased, who the buyer was and why?
		West Henderson is booming, what are your thoughts?
		What is the level of interest for Las Vegas Boulevard south of I-215
		Where do you anticipate growth in the valley?
		Discuss redevelopment in downtown Las Vegas, downtown Henderson and downtown NLV.
		Las Vegas is going for more density, especially around the downtown and medical district. Will this spill over into Clark County or Henderson?
		What is going on around the Raiders stadium? What's redevelopment look like?
		Is there any update to legislative land issues in Clark County?
		Are Sloan and/or Apex poised for major development?
	9:30-9:40 am	Break

		Single Family Residential
55	9:40-10:35 am	Moderator
		Mark W. Sivek GRI, RRG – Realty One Group
		Panelists
		Norbert Gyorfi - LeaderOne Financial Corporation
		Brian Gordon - Applied Analysis
		John P. McLaury – KB Home Nevada
		Panel Discussion
		Current & Projected Inventory trends
		Local market conditions
		How and where are investors and typical home buyers competing?
		If your kids were buying now.....what would you tell them?
		What types of financing trends (Conventional, FHA, VA, Cash) have you seen since the rates have increased?
		What is the best loan product out there right now?
		Discuss current interest rates and how that has impacted the market
		What are typical terms for standard conventional loans vs. jumbo loans?
		First time home loan programs through the state or federal gov't?
		Any recent laws/ regulations that have impacted the home loan market?
		Are we in a housing bubble? Why or why not?
		Is California migration still affecting the local market?
		Where are prices going from here?
		What is the dominant type of homebuyer?
		How are investors in SF changing the market versus a typical homebuyer?
		Are you dealing with more SF rentals now than before?
		What are entry level buyers looking at?
		What are move up buyers looking at?
		2024 forecast for new construction and existing housing market overview
		Any foreclosure or short sale activity with mortgage rate increases?
		Builders? New Home Construction?
		What has been the most restrictive new policy/regulation in home building?
		What are the major challenges in getting new home developments approved / finished?
		What is the coolest design element you have seen? All price levels?
		Builders and Realtors....what are the design trends that have good or even great market acceptance?
		How has the tech industry changed the residential market?
		For the builders: What are you currently offering to new home buyers?
		For the brokers: What are the buyers looking for? More square footage, more land, flexible floor plans, etc?
		Time element in the Short Sale and Foreclosure process and other trends; how has it changed?
		Is there a product out there (across the entire US) that is not being offered here....that should be?
		What is the biggest challenge facing the Single Family market in 2024?
	10:35-10:45 am	Break

55	10:45-11:40 am	Multi-Family
		Moderator
		Devin Lee, CCIM - Northcap
		Panelists
		Curtis R. Allsop - Newmark
		Jonathan Fore - Fore Property
		Brian Plaster - Signature Management
		Taylor Sims - Cushman Wakefield
		Panel Discussion
		Provide update and understanding of what is going on in the apartment markets
		Who and where are the buyers?
		Who are the lenders and what types of loans are available?
		What are the cap rate trends?
		How does Las Vegas cap rates compare to LA, Phoenix, San Diego?
		How has the renter profile changed over the last several years? Or has it?
		What is the new construction forecast?
		How has inflation impacted current construction costs and development pipelines?
		What are the trends in rents & vacancies?
		How have the changes in the SF market impacted the MF market?
		A vast majority of new developments are Class A. How does that impact the vacancy rates and rent levels at competing properties?
		Are Class B and C properties being upgraded to keep up with market changes?
		How is new construction impacting some of the older product?
		Discuss recent deals, what was purchased, who the buyer was and why?
		How do new products stand out? What are they offering to attract tenants?
		What is a typical lease for a new complex? How many units per month?
		What are the biggest challenges facing the apartment market in the next year?
		What are the changes and trends in the affordable housing market?
		Have we seen more government subsidies/incentives to develop LIHTC projects?
		Several builders are looking inward to the downtown / medical district / Strip adjacent area. Is higher density in the core areas gaining steam?
		Will there be any conversions from extended stays to typical apartment properties?
		What impacts might a recession have on the multi-family market?
		What is the biggest challenge facing the MF market in 2024?
	11:40-11:50 am	Break
60	12-1 p.m.	Lunch Speaker
		Tom Burns, Governor's Office of Economic Development (GOED)
		Topic: <i>Economic Development in Nevada</i>
		Outline for Topics
		Governor's Office of Economic Development (GOED)
		- Leadership & Vision
		- Strategic Growth Opportunities
		- Approved Incentives
		- Explain the benefits of offering incentives (i.e. jobs, wages, capital investment, tax revenue)

		- Describe what tax incentives are made available or considered
		- Are there deadlines and what is the process
		- What is the follow-up for compliance?
		- Discuss the eligibility for incentives
		- How have incentives impacted Nevada
		Explain Transferrable Tax Credit (TTC) programs?
		Nevada Economic Overview
		- Unemployment rates
		- Most impacted industries
		- Nevada's Industry Base
		- Southern Nevada's Industry Base
		- Northern Nevada's Industry Base
		- Diversity Index by County
		- Strategy for the Electric, Innovative & Connected Nevada
		General Topics
		Population and how has it changed in the last decade?
		How do we compare to peer regions?
		What age group has increased and what are the driving factors for this?
		What cities or areas of the US are people migrating from/to Nevada?
		Challenges for Nevada? (i.e., water, public transportation, healthcare access, crime)
	1:00-1:10 pm	Break
60	1:10-2:10 pm	Office
		Moderator
		Taber A. Thill, SIOR - Colliers
		Panelists
		Cathy Jones, CPA, SIOR, CCIM - Logic Commercial Real Estate
		Darren L. Lemmon - Colliers
		Hayim Mizrachi, CCIM - MDL Group
		Daniel Palmeri, SIOR - CBRE
		Panel Discussion
		How has the LV market changed this year?
		Discuss rent levels, vacancies & current state of the investment market
		Where is the office market in this recovery?
		Discuss current supply and demand trends including concessions being granted
		Who and where are the buyers?
		Where are rents compared to a year ago? Which areas are increasing/decreasing/stable?
		From a national perspective, how does the Las Vegas market stack up for investors and owner/users?
		What is the current state of the office market in terms of who is buying and what loans are available?
		Demand for leasing office products, which submarkets are strong, and which are not?
		Other than the Southwest submarket, are any other areas seeing new products?
		Can you discuss the East submarket and its office product? Has it changed any over the past year?
		Discuss equity rates of return on all of the investment type properties

		Discuss recent deals, what was purchased, who the buyer was and why?
		What are some significant lease deals? What do you see on the horizon?
		What are the cap rate trends?
		How does Las Vegas cap rates compare to LA, Phoenix, San Diego?
		Discuss current pricing on TIs
		How is the Hughes Center stacking up versus all the new office competition along the Beltway?
		How is new technology affected the office market? ie new building systems, EV charging, self-driving cars, walkable development or technology tenants need to operate
		How has inflation impacted current construction costs and development pipelines?
		What impacts might a recession have on the office market?
		With the office market most impacted with the work-from-home model, how has that impacted buyers, sellers, investors and tenants?
		What is the biggest challenge facing the office market in 2024?
	2:10-2:20 pm	Break
60	2:20-3:20	Industrial
		Moderator
		Michael G. DeLew, SIOR - RealComm Advisors
		Panelists
		Amy Ogden, SIOR - Logic Commercial Real Estate
		Doug Roberts - Panattoni Development
		Lisa Brady - ProLogis
		Sean Zaher - CBRE
		Panel Discussion
		Discuss rent levels, vacancies, current pricing and who the buyers are
		Which submarkets are outperforming?
		Are investors interested in more than large buildings?
		What is the supply and demand of for sale properties versus last year?
		What is the supply and demand for vacant industrial land?
		If a large developer wanted to build a new project, where can they go?
		How has Apex changed over the past year?
		With medical marijuana development in Apex, is development there now feasible for other users?
		If you had no projects in Las Vegas and wanted to enter the market, would you build or buy? What product would you be interested in?
		Have you seen any co-warehousing projects in Southern NV? Does it have a place in this market?
		Discuss equity rates of return on all of the investment type properties
		What impacts have you seen from the recent increase in interest rates?
		Is there going to be a loss of inventory around the Raider's stadium?
		Is there anything that you are seeing from prospective tenants that has changed your development or expenditure plans?
		Discuss current pricing on TIs
		How is new technology affected the industrial market? ie EV charging, self-driving cars, new building systems or technology tenants need to operate
		There is limited small space available? Any development on that front?
		Is e-commerce still outperforming the rest of the market?

		How has inflation impacted current construction costs and development pipelines?
		What impacts might a recession have on the office market?
		What is the biggest challenge facing the industrial market in 2024?
	3:20-3:30 pm	Break
60	3:30-4:30 pm	Retail
		Moderator
		Daniel R. Adamson - ROI Commercial Real Estate
		Panelists
		David A. Grant – Colliers
		Adam Malan - Colliers
		Jeffrey Mitchell, CCIM, CLS - Mountain West Commercial Real Estate
		Rob Moore - Green Valley Grocery
		Jennifer Ott, CCIM - CBRE
		Panel Discussion
		How has the retail market changed this year?
		Discuss rent levels, vacancies & current retail pricing.
		Is there any submarket that is not seeing growth or positive absorption?
		Are the national retailers retreating, retrenching or reinvigorating the centers they occupy?
		How has changes in the big box segment affected shopping centers and the retail market overall?
		Any of these big boxes being considered for last mile facilities, storage, medical or other purposes?
		What are the impacts of the potential Kroger / Albertson's merger?
		What do you see happening in the capital markets and retail property investment sales
		Discuss rates of return for all retail properties
		Where is there demand for retail land?
		Discuss recent deals, what was purchased, who the buyer was and why they purchased?
		Is Las Vegas being considered by more national investors? Why or why not?
		Any regional / national retailers/ store closures coming that you're aware of?
		Discuss current supply and demand trends including concessions
		Are there any value-add properties left in the market?
		Will the Raiders Stadium and-or practice facility effect retail investment or leasing in those surrounding areas?
		Are lenders still actively lending on retail projects and is there anything they are avoiding?
		Live/Work/Play developments are popular, but it seems the retail portions aren't as successful. Symphony Park, developments near UNLV and on Fremont Street have vacant retail elements. As more are being constructed, what future do you see for this type of development?
		What are you seeing on rates of return for investment properties
		What are retail property owners doing to attract tenants?
		How is new technology affecting the retail market? i.e. EV charging, self-driving cars, walkable developments
		Discuss current pricing on TIs
		We are all aware of the short term changes that occurred due to pandemic, but how has the pandemic changed the retail landscape on a long-term basis?
		Any new or sustainable patterns emerge after COVID?
		How has inflation impacted current construction costs and development pipelines?

		What impacts might a recession have on the office market?
		What is the biggest challenge facing the retail market in 2023?
		What has changed in the foot traffic and buying patterns in the convenience market space since COVID

APPRAISER CERTIFICATION BOARD

November 9, 2023

Agenda Item 4

(c) Nevada Chapter Appraisal Institute- 2023
Northern NV Real Estate Overview



**Nevada Department of Taxation
Property Tax Appraiser Continuing Education
New Course Application**

Return this form to:
Division of Local Government Services
1550 College Parkway
Carson City, Nevada 89706

Please Print or Type:

COURSE INFORMATION (A person who wishes to receive contact hours for a course of continuing education that has not been previously approved, must apply for such approval.)

NAME [REDACTED]	TITLE [REDACTED]
TITLE OF COURSE 2023 Northern Nevada Real Estate Overview	
VENDOR/PROVIDER Nevada Chapter Appraisal Institute	

1. Course Summary: The 2023 Northern Nevada Real Estate Overview will bring together experienced real estate market participants for a dialogue with appraisers on past and projected changes in the northern Nevada region. Panel discussions will generate discussion of the trends involving all types of real estate. Projection for vacancy rates, property values and trends regarding ownership, pricing, construction and the changing dynamics in northern NV.

2. What are the hours of instruction? 7 Hours

3. What is the completion date? Thursday - November 2, 2023

SUBJECT CLASSIFICATION - CHECK ALL THAT APPLY

- | | |
|---|--|
| <input type="checkbox"/> Mass Appraisal Concepts and Applications | <input type="checkbox"/> College or Professional Level Accounting, Finance, Statistics or Other Appraisal Subjects |
| <input type="checkbox"/> IAAO Standards | <input type="checkbox"/> GIS, Mapping, CAMA |
| <input checked="" type="checkbox"/> Residential, Commercial/Industrial Appraisal | <input type="checkbox"/> Laws Relating to Real Estate, Water or Mining |
| <input type="checkbox"/> Unitary/Centrally Assessed Property Appraisal | <input type="checkbox"/> Professional Ethics |
| <input type="checkbox"/> Legal Documents (Deeds, Titles, Leases, etc.) | <input checked="" type="checkbox"/> Other |
| <input type="checkbox"/> Nevada Statutes or Regulation, Appraisal or Assessment Standards | |

If other, please describe why the course is applicable to appraisal and/or property tax.

The Northern Nevada Real Estate Overview allows local experts in the related real estate fields to discuss market trends in northern Nevada.

REQUIRED MATERIALS TO BE SUBMITTED WITH APPLICATION INCLUDE:

- Detailed Course Outline
 Syllabus or Course Material

SIGNATURE

[REDACTED SIGNATURE]

Requestor Signature

October 10, 2023

Date

For Department Use Only

NUMBER OF CREDIT HOURS GRANTED	NUMBER OF CREDIT HOURS APPEARING ON TRANSCRIPT	MILESTONE APPLIED TO	TOTAL HOURS FOR THIS MILESTONE

Verified by:

Division of Local Government Services

Title

Date

Course Outline

2023 Northern Nevada Real Estate Overview

	7:30-8:30 a.m.	Continental Breakfast / Registration
		Nicholas W. Bennett, MAI - Nevada Chapter President, Moderator
50	8:30-9:20 a.m.	Land
		Moderator
		Bruce Hahn, MAI, SRA
		Panelists
		Adam Carlson - Stark Accelerators
		Rex Massey - Industrial Realty Group
		Brett Edwards - CBRE
		Panel Discussion
		What is the balance of buyers? More investors or more end-users? How has this changed in the last two years?
		Where will land for future growth come from?
		What segment has the most interest (Multi-family, commercial, industrial?)
		What are the biggest challenges facing the land market in the next year?
		Discuss recent deals, what was purchased, who the buyer was and why?
		Where do you anticipate growth in the valley?
		What are we seeing as far as development in the outer lying areas? (Carson, Fernley, Dayton, Minden/Gardnerville, Fallon, etc.)
	9:20-9:25 a.m.	Break

50	9:25-10:15 a.m.	Single Family Residential
		Moderator
		Daniel R. Brauning, SRA, AI-RRS
		Panelists
		Nick Abe - RE/MAX Professionals
		Kim Petrie - Axia Home Loans
		Mike Wood - RE/MAX Professionals
		Panel Discussion
		Current & Projected Inventory trends
		Local market conditions
		Financing type (CONV, FHA, VA, CASH) trends since the hike in Mortgage interest rates in 2022/2023
		Any recent laws/ regulations that have impacted the home loan market?
		Regarding interest rates of today - Discuss residential lending & lenders
		What types of homebuyers are driving the market in Northern Nevada?
		What are typical terms for standard conventional loans vs. jumbo loans?
		Financing new home purchases (i.e., subdivisions) – is this market competitive and/or do most builders have their own priority lenders,
		Are there any first time home loan programs through the State of Nevada or other gov't programs
		How and where are investors and typical home buyers competing?
		2024 forecast for new construction and existing housing market overview
		New Home construction trends
		For the builders: What are you currently offering to new home buyers?
		For the brokers: What are the buyers looking for? More SF, more land, flexible floor plans, etc.?
		Foreclosure activity
		How has the tech industry changed the residential market?
		What types of homebuyers are driving the market in Northern Nevada?
		What are major challenges in getting future developments approved considering added traffic of many projects?
		Relative to above, what has impact been on fees charged by jurisdictions for new housing developments?
		What is the pipeline of potential available new subdivisions?
		What areas in Northern Nevada are seeing the newest subdivision growth?
	10:15-10:20 a.m.	Break

50	10:20-11:10 a.m.	Industrial
		Moderator
		Benjamin W. Gregg, MAI - Newmark Valuation & Advisory
		Panelists
		Bradley J. Elgin - Stark Accelerators
		Paul Kinne - Panattoni Development
		Panel Discussion
		Discuss rent levels, vacancies, current pricing and who the buyers are
		Are any submarkets lagging in absorption and rental rate growth?
		Are investors interested in more than large buildings?
		What is the supply and demand of for sale properties versus last year
		Is there a noticeable change in demand for industrial land and where is it located?
		What special ways will technology companies incorporate technology into build-to-suits?
		Is there anything that you are seeing from prospective tenants that has changed your development or expenditure plans?
		If you had no projects in Reno/Northern NV and wanted to enter the market, would you build or buy? What product would you be interested in?
		Discuss equity rates of return on all of the investment type properties
		What impacts have you seen from the recent increase in interest rates?
		Are supply chain issues corrected?
		How have construction costs impacted the Industrial market?
		Have you seen any co-warehousing projects in Northern NV? Does it have a place in this market?
		How had the pandemic changed the Northern NV Industrial market?
	11:10-11:15 a.m.	Break

50	11:15 a.m.-12:05 p.m.	Multi-Family
		Moderator
		Sarah K. Fye - Johnson Perkins Griffin
		Panelists
		Kenneth Blomsterberg - Marcus & Millichap
		Ben Galles - LOGIC Commercial Real Estate
		Jessie Greer, MSRE, CCIM, CPM, CEPA - Avison Young
		Panel Discussion
		Provide update and understanding of what is going on in the multi-family market
		What are the trends in rents & vacancies? Briefly discuss impact of the pandemic on the multi-family market.
		With such low vacancies and constantly growing rents, when do you expect the market to stabilize? Or, perhaps see rents decline & vacancies increase?
		Discuss recent sales--What was purchased, who were the buyers, etc.?
		Where are cap rates at (Class A vs. Class B vs. Class C)?
		How do the recent cap rate trends in the Reno-Sparks market compared to larger markets? (Sacramento, Bay Area, etc.)
		Who are the current lenders and what types of loans are available?
		What is the new construction forecast?
		What is the current impact from lenders on financing for new development?
		With the current construction costs, how has development been impacted?
		With the supply of Class A apartments under construction and planned, how do you see this impacting the vacancy rates and rent levels for competitive apartments and how is this trickling down to older Class B/C properties?
		What are we seeing with some of the larger projects or higher density development areas? (Reno Experience District, Ballpark Apartments, etc.)
		What are we seeing as far as development & rent/vacancy trends in the outer lying areas? (Carson, Fernley, Dayton, Minden/Gardnerville, Fallon, etc.)
		What are the changes and trends in the affordable housing market?
		Have we seen more government subsidies/incentives to develop LIHTC projects?
		What are the biggest challenges facing the apartment market in the next year?
		What impacts might a recession have on the multi-family market?
	12:05-12:15 p.m.	Break

50	12:15-1:05 p.m.	Lunch Speaker
		Doug Wiele, President and Founding Partner, Foothill Partners
		Topic: <i>Bringing Failed Real Estate Back to Life</i>
		Discussion:
		Explain the foundation of Foothill Partners and your commitment to healthy communities
		How do you decide to acquire and develop properties?
		Explain what commercial renovation is and the benefit (and pitfalls) with a project
		What are features in a property that you consider when repurposing (i.e. local family history, size of property, parking availability)?
		Where there any challenges relative to the zoning ordinances?
		Do you find that the buildings require updating to current codes?
		Give examples of what are "under-utilized" buildings
		Speaking locally, discuss projects - the Reno Public Market, the Truckee projects and the Oddie District in Sparks
		What is the history of each of these projects?
		The "community centric" of the projects feel innovative - how do you decide what businesses will work well with your vision?
		Tell us the variety of types of space within each of the projects (i.e. business, arts, tech, restaurants, outdoor)
		Discuss the variety of suites available for business
		How has local jurisdiction assisted with improvements (i.e. utilities, parking, etc.)?
		What have been the challenges to complete a project?
	1:05-1:10 p.m.	Break

50	1:10-2:00 p.m.	Office
		Moderator
		Jonathan Wenthe - Cushman Wakefield
		Panelists
		Michael Keating, SIOR - Logic RE
		Todd Collins, CCIM - Cushman Wakefield
		Panel Discussion
		Provide update and understanding of what is going on in the office markets
		Who and where are the buyers?
		What were some of the notable (buyer/investor) transactions that took place?
		What markets (i.e. downtown, South Meadows, Sparks, etc.) do you see expansion in the office space sector?
		Is there new construction in the office market? If so, what areas?
		Who are the lenders and what types of loans are available?
		What are the cap rate trends?
		How has the renter profile changed over the last several years? Or has it?
		What are the trends in rents & vacancies?
		Where there any significant lease deals in 2023? What do you see on the horizon?
		What impact is inflation and rising interest rates having on the office market segment?
		Is hybrid work schedule impacting the office market?
		What are the biggest challenges facing the office market in the next year?
	2:00-2:05 p.m.	Break

50	2:05-2:55 p.m.	Retail
		Moderator
		Julie Ott, MAI - Carter-Ott Appraisal, Ltd.
		Panelists
		Ian Cochran, CCIM - Logic Commercial Real Estate
		Amanda Lavi, CCIM, Senior Associate, Colliers - Northern NV Retail Services
		Shawn Smith, CCIM, CRRP, Executive Vice President - Kidder Matthews OR
		Sean Retzloff Executive Vice President - Kidder Matthews
		Panel Discussion
		We are all aware of the short term changes that occurred due to pandemic, but how has the pandemic changed the retail landscape on a long-term basis?
		Related to the above, any new and sustainable retail patterns that have emerged due to pandemic?
		Delineating retail to "In town" and Suburban, what has been most heavily impacted retail sector - both positive and negative?
		Discuss current rent levels, vacancies, concessions & current retail pricing. Any recent deals that you can provide? (i.e. typical parameters or extraordinary pricing)?
		Where do you see rent levels, pricing and cap rates going over the next few years?
		From an investor/developer viewpoint, what are your return targets now as opposed to 6 months to a year ago?
		What is the "appetite" for local retailers, regional retailers and national retailers for the Northern Nevada market?
		How have changes in the big box segment affected shopping centers and the retail market overall?
		Of big box properties that have been vacant for years in Reno/Sparks, is there anything planned for these? - i.e. Sports Authority, Circuit City, Mervyns, etc? Last Mile facilities residential, storage, medical, etc.
		Discuss recent deals and/or trends for repositioned centers - Reno Public Market; Oddie District; Others?
		Live/Work/Play developments was a "buzz" before the pandemic - do you see continued viability for retail within this type of development and why? Can you comment on the Reno Experience District?
		Can anyone comment about Victorian Square?
		Any regional / national retailers/ store closures coming that you're aware of?
		Where is the demand for retail land?
		For developers, what is the biggest challenge that is being seen in developing within new or repurposed centers and leasing new spaces?
		Relative to above, what are the biggest entitlement hurdles right now for development? Perhaps comment on lag time for permitting, other entitlement hurdles? Tenant/User delays in decision-making?
		How are increasing construction costs for TI's (that would be borne by either landlord or tenants) impacting the market and overall lease negotiations?
		What are retail property owners doing to attract tenants?
		Are lenders still actively lending on retail projects and is there anything they are avoiding?
		Are you seeing any innovative and green construction technique/ trends for retail?
		Finally, and if we haven't covered already – what are most recent impacts to the Northern NV retail real estate market with inflation and increasing interest rates.
350		Time Calculations: 350 minutes divided by 50 minute hour = 7 hours CE

APPRAISER CERTIFICATION BOARD

November 9, 2023

Agenda Item 4

(d) Various sessions in the 2013 IAAO Annual
Conference



**Nevada Department of Taxation
Property Tax Appraiser Continuing Education
New Course Application**

Return this form to:
Division of Local Government Services
1550 College Parkway
Carson City, Nevada 89706

Please Print or Type:

COURSE INFORMATION (A person who wishes to receive contact hours for a course of continuing education that has not been previously approved, must apply for such approval.)

<small>NAME OF REQUESTER</small> [REDACTED]	<small>TITLE</small> [REDACTED]
<small>TITLE OF COURSE</small> Various sessions in the 2023 IAAO Annual Conference - see attached	
<small>VENDOR/PROVIDER</small> IAAO	

1. Course Summary:

See attached

2. What are the hours of instruction? 20.5 hours

3. What is the completion date? 8/28/23 - 8/30/23

SUBJECT CLASSIFICATION - CHECK ALL THAT APPLY

- | | |
|---|---|
| <input checked="" type="checkbox"/> Mass Appraisal Concepts and Applications | <input checked="" type="checkbox"/> College or Professional Level Accounting, Finance, Statistics or Other Appraisal Subjects |
| <input type="checkbox"/> IAAO Standards | <input type="checkbox"/> GIS, Mapping, CAMA |
| <input checked="" type="checkbox"/> Residential, Commercial/Industrial Appraisal | <input checked="" type="checkbox"/> Laws Relating to Real Estate, Water or Mining |
| <input type="checkbox"/> Unitary/Centrally Assessed Property Appraisal | <input type="checkbox"/> Professional Ethics |
| <input type="checkbox"/> Legal Documents (Deeds, Titles, Leases, etc.) | <input type="checkbox"/> Other |
| <input type="checkbox"/> Nevada Statutes or Regulation, Appraisal or Assessment Standards | |

If other, please describe why the course is applicable to appraisal and/or property tax.

REQUIRED MATERIALS TO BE SUBMITTED WITH APPLICATION INCLUDE:

- Detailed Course Outline
 Syllabus or Course Material Descriptions

SIGNATURE

▶ [REDACTED] _____ 10/3/23 _____
Requestor Signature Date

For Department Use Only

<small>NUMBER OF CREDIT HOURS GRANTED</small>	<small>NUMBER OF CREDIT HOURS APPEARING ON TRANSCRIPT</small>	<small>MILESTONE APPLIED TO</small>	<small>TOTAL HOURS FOR THIS MILESTONE</small>

Verified by:

▶ _____ Title _____ Date _____
Division of Local Government Services

Below is a copy of the education sessions in the 89th IAAO Annual conference. Highlighted sessions are the ones being requested for new course approval. Descriptions for each session are included after the session schedule.



Schedule 2023

Monday, August 28th

10:30 AM

Comparing Sold and Unsold Properties: The Ultimate Test for Assessed Values

Luc Hermans, *Netherlands Council for Real Estate Assessment*
Marco Kuijper, *Netherlands Council for Real Estate Assessment*
Ballroom I
10:30 AM - 11:30 AM

From the Boots Up: Building a Better Manager

Kara Endicott CAE, RES, *Johnson County Appraiser's Office, Kansas*
Brad B. Eldridge CAE, MAI, *Douglas County Appraiser's Office, Kansas*
Ballroom J
10:30 AM - 11:30 AM

Getting Mass Appraisal Models Up and Running in Serbia

Russ Thimgan, *Thimgan Associates, Inc., Arizona*
Room 251AB
10:30 AM - 11:30 AM

Increasing Appraisal Capacity in the Big Apple With Mobile Technology

Daniel Anderson, *Data Cloud Solutions, a Woolpert Company, Ohio*
Howard Wong, *New York City Department of Finance*
Room 250AB
10:30 AM - 11:30 AM

Making Marijuana Personal

Bryan K. Shuck, *Cleveland County, Oklahoma*
Ballroom H
10:30 AM - 11:30 AM

The Future of Technology: Empowering Assessors Through Business Intelligence (Strategic Partner Thought Leader Session)

Stefani Zimmerman, Moderator, *Farragut*

Sanjay Chouhan, *Farragut*

Ed Parker, *Farragut*

Brad Fowler RES, AAS, *Mecklenburg County, NC*

John Burgiss RES, *Forsyth County, NC*

Room 150G

10:30 AM - 11:30 AM

The Unbearable Need for Massive Talent

Burt Garfield, *Utah County, Utah*

Room 250DE

10:30 AM - 11:30 AM

Using Google Maps for Field Inspections

Michael P. Mills CAE, RES, MAS, *Travis County Appraisal District, Texas*

Glenn Rodgers, *Travis County Appraisal District, Texas*

Ballroom G

10:30 AM - 11:30 AM

1:00 PM

Climate Change and Property Assessment Practices

Laura MacLean, *Property Valuation Services Corporation, Nova Scotia, Canada*

Room 250AB

1:00 PM - 2:30 PM

Cost Approach for Special Use Properties (Computer Data Centers)

Edward L. Martinez, *CoreLogic, California*

Ballroom H

1:00 PM - 2:30 PM

GIS 101

Brent Jones PE, PLS, *Esri, California*

Lauren Voelker, *Esri, California*

Linda Foster, *Esri, California*

Ballroom G

1:00 PM - 2:30 PM

Improve Your Odds for Success in Tax Appeal Hearings

Shawn E. Wilson MAI, IAAO, *Compass Real Estate Consulting, Inc., Florida*

Peter Korpacz MAI, CRE, FRICS, *Korpacz Realty Advisors, Inc., Maryland*

Ballroom J

1:00 PM - 2:30 PM

Racial and Social Equity in Assessments

Kevin Keene, *Keene Mass Appraisal Consulting, Pennsylvania*

Ballroom I

1:00 PM - 2:30 PM

[Ratio Study Practices in North America and Beyond](#)

Alan S. Dornfest AAS, FIAAO, *Idaho State Tax Commission, Idaho*
Melissa Baer CAE, *Melissa Baer Consulting, North Carolina*
Lloyd Funk CAE, *Assessment Services of Manitoba, Manitoba, Canada*
Joe Hapgood CAE, *Oklahoma Tax Commission, Oklahoma*
Marco Kuijper, *Dutch Council for Real Estate Assessment, The Netherlands*
Luc D. Hermans, *Netherlands Council for Real Estate Assessment*
Room 250DE
1:00 PM - 2:30 PM

[See More From the Air: Commercial Property Assessment Becomes Easier With High-Resolution Aerial Imagery \(Strategic Partner Thought Leader Session\)](#)

Doug Tonnemacher, Moderator, *EagleView*
Megan Reilly, *EagleView*
John Wilson, *King County, WA*
Room 150G
1:00 PM - 2:00 PM

[#SocialGov?! Using Social Media to Amplify Your Message](#)

Jennifer Sanchez, *Cook County Assessor's Office, Illinois*
Room 250AB
1:00 PM - 2:30 PM

[The Appraisal Foundation](#)

David Bunton, *The Appraisal Foundation, Washington D.C.*
Room 251AB
1:00 PM - 2:30 PM

[Truth In Taxation is Not Prop 13.](#)

John L. Valentine, *Utah State Tax Commission, Utah*
Room 250AB
1:00 PM - 2:30 PM

3:00 PM

[Basic Principles of Data Science for Assessors and Managers](#)

Ed Parker, *Farragut, North Carolina*
Ballroom I
3:00 PM - 4:00 PM

[Can Technology Eliminate the Need for Physical Inspections?](#)

Stephen Skirkanich SRA, *Loudoun County, Virginia*
Ballroom J
3:00 PM - 4:00 PM

[Mapping the Road to Trust: Leveraging GIS Technology to Reduce and Settle Tax Appeals and Build Public Confidence](#)

James Werner, *Tippecanoe County Assessor's Office, Indiana*
Samantha Steele AAS, *Cook County Board of Review, Illinois*
Christopher Coakes, *Tippecanoe County, Indiana*

Room 251AB
3:00 PM - 4:00 PM

Maximum Efficiency - Mass Appraisal Tools in Fast-Growing County

Erin M. Brady, *Ada County Assessor's Office, Idaho*
Mark J. Southard, *Ada County Assessor's Office, Idaho*
Kelly G. Cumming, *Ada County Assessor's Office, Idaho*
Ballroom G
3:00 PM - 4:00 PM

Multifamily Repurposing: Trend or Craze & How It Makes Sense

Kelby L. Collier AAS, *Osceola County Property Appraiser, Florida*
Room 250AB
3:00 PM - 4:00 PM

**That's a Farm? Ontario's Experience with Controlled Environment
Agriculture (CEA)**

Jason Wilson BA, MRICS, *Municipal Property Assessment Corporation, Ontario, Canada*
Jamie Stata BA, MRICS, *Municipal Property Assessment Corporation, Ontario, Canada*
Ballroom H
3:00 PM - 4:00 PM

The Impact of Government Policies on Valuation in Korea

Su-Yeon Jung, *Jeju National University, Republic of Korea*
Room 250DE
3:00 PM - 4:00 PM

Tuesday, August 29th

9:30 AM

**Assessing in 2023 and Beyond: What's Next for the Assessing World?
(Strategic Partner Thought Leader Session)**

Michael McFarlane, *Moderator, Tyler Technologies*
Robert Gloudemans FIAAO, *Robert Gloudemans, Mass Appraisal Consultant*
Stephen White, *Cobb County, GA*
Gary Townsend, *EKA Government Advocacy & Public Affairs*
Monica Williams, *Philadelphia, PA*
150 G
9:30 AM - 10:30 AM

Mapping (In)Equity: Using ArcGIS for Oversight and Fairness

Benjamin Bedard, *City of Minneapolis*
Benjamin Nelsen, *City of Minneapolis*
Rachel Crews, *City of Minneapolis*
Room 251AB
9:30 AM - 10:30 AM

Mass Appraisal is a TEAM Sport

Derrick D. Niederklein AAS, *MIPS, Multi-County Information and Programming Services, Nebraska*
Ballroom J
9:30 AM - 10:30 AM

Property Tax Valuations - Quality Audit Framework

Paul Sanderson, *International Property Tax Institute*
Room 250DE
9:30 AM - 10:30 AM

Retail Space Trends, Valuing Lifestyle Centers, and Mixed-Use Villages

Vision Government Solutions, Inc.
R. Lane Partridge MAA, *Town of Barnstable, Massachusetts*
Mike Tarello, *Vision Government Solutions, Inc., Massachusetts*
Ballroom H
9:30 AM - 10:30 AM

Supercharge Your Power BI Reports by Using DAX (Data Analysis Expressions)

David M. Cornell CAE, MAI, *Cornell Consultants, New Hampshire*
Ballroom G
9:30 AM - 10:30 AM

Truth in Taxation - An Alternative to Assessment and Levy Caps

Joan Youngman, *Lincoln Institute of Land Policy, Massachusetts*
Gary C. Cornia, *Brigham Young University, Utah*
Nathan Seegert, *University of Utah*
Room 250AB
9:30 AM - 10:30 AM

Using New GIS Tools for Non-GIS Users

Lauren Voelker, *Esri, California*
Ballroom I
9:30 AM - 10:30 AM

11:00 AM

The Status and Outlook of the U.S. Economy and Monetary Policy

Dr. LaVaughn Henry Ph.D., CBE, *Formerly of the Council of Economic Advisers, The White House*
Grand Ballroom A-F
11:00 AM - 12:30 PM

1:30 PM

Anticipating the Biggest Changes in the Future for the Property Assessment Industry (Strategic Partner Thought Leader Session)

Michael Lomax MBA, RI, *Esri Canada Assessment Analyst*
Room 150G
1:30 PM - 2:30 PM

Effective Language for Essential Conversations

Max Hunsaker MPA, *Arena Mail & Design, Utah*
Room 250DE

1:30 PM - 2:30 PM

Embracing Neurodiversity in the Workplace

Tiffany A. Opheikens RES, *Plain City, Utah*

Chesney Leafblad CIAO-M, *Warren Township, Illinois*

Ballroom G

1:30 PM - 2:30 PM

External Use of Assessment Data

Phillip Walters, *Urban3, North Carolina*

Ballroom H

1:30 PM - 2:30 PM

Get with the Times - Upgrade your Calculator to the TI84

Michael P. Mills CAE, RES, MAS, *Travis Central Appraisal District, Texas*

Lance Briner CAE, *Alachua County Property Appraiser's Office, Florida*

Ballroom I

1:30 PM - 2:30 PM

IAAO Ethics: An Overview and Recent Changes

Joel Cuthbert, *Arapahoe County, Colorado*

Stuart Topliff, *Town of Rocky Hill, Connecticut*

Room 251AB

1:30 PM - 2:30 PM

Insights on the Turkish Real Estate Market

Habibe Iyimaya Kayaaslan Ph.D. Can., *Ankara University, Turkey*

Ballroom H

1:30 PM - 2:30 PM

The State of the Commercial and Residential Real Estate Markets

Dr. LaVaughn M. Henry Ph.D., CBE, *Formerly of the Council of Economic Advisers, The White House*

Room 250AB

1:30 PM - 2:30 PM

Updating Valuation Neighborhood Boundaries: The Good the Bad and the Ugly

Daniel J. Fasteen, *Tyler Technologies, Inc., Ohio*

Paul Bidanset, *Center for Appraisal Research and Technology, Virginia*

Ballroom J

1:30 PM - 2:30 PM

3:30 PM

Building High Performing Teams

Dr. Judy Favor Ph.D., *Kansas State University*

Room 251AB

3:30 PM - 4:30 PM

Changing the Culture through Patience, Trust, and Recognition

Cregg E. Dalton MBA, CFA, *Citrus County Property Appraisers Office, Florida*
Room 250DE
3:30 PM - 4:30 PM

Need for Post COVID Property Tax Revaluation/Reappraisal in an Economic Crisis

Gary Watson, *Institute of Revenues Rating and Valuation, London*
Carla-Maria Heath, *Institute of Revenues Rating and Valuation, London*
Ballroom H
3:30 PM - 4:30 PM

Small Mixed-Use and Residential Investment Appraisal and Appeal

Bruce Witt, *Tyler Technologies, Ohio*
Ballroom J
3:30 PM - 4:30 PM

The PRB: An Unbiased Approach to Measuring Vertical Equity

Robert Gloudemans FIAAO, *Almy, Gloudemans, Jacobs & Denne, Arizona*
Ballroom G
3:30 PM - 4:30 PM

Tools for Achieving Uniformity in Property Data

Daniel Hagen, *Skagit County, Washington*
Ballroom I
3:30 PM - 4:30 PM

Understanding and Improving the Quality of our Property Data

Andy Grayson, *Valuation Office Agency, United Kingdom*
Rob Dickinson, *Valuation Office Agency, United Kingdom*
Room 250AB
3:30 PM - 4:30 PM

Wednesday, August 30th

9:00 AM

PAVE: The Connection Between Eliminating Bias and An Assessor's Work

Melody Taylor, *US Dept of Housing and Urban Development, Washington D.C.*
Grand Ballroom A-F
9:00 AM - 10:00 AM

10:30 AM

Cyberattacks: Understanding Your Organizational Resiliency

Tim Walsh, *Tyler Technologies, Ohio*
Room 250AB
10:30 AM - 11:30 AM

IAAO Town Hall

Patrick Alesandrini CAE, RES, *IAAO President, Hillsborough County Property Appraiser's Office, Florida*
Rebecca Malmquist CAE, *IAAO President Elect, City of Minneapolis*

Room 251AB
10:30 AM - 11:30 AM

Innovating Your Workplace

Lloyd Funk CAE, *Manitoba Assessment Services, Manitoba, Canada*
Patty Freeman, *Manitoba Assessment Services, Manitoba, Canada*
Ballroom G
10:30 AM - 11:30 AM

Legislative Impacts on Accessory Dwelling Units

Craig W. Handsor, *Wilfrid Laurier University, Waterloo, Ontario, Canada*
Jamie Stata, *MRICS, Municipal Property Assessment Corporation, Ontario, Canada*
Ballroom H
10:30 AM - 11:30 AM

Leveraging Technology to Improve Accuracy and Efficiency

Chris Connelly CAE, AAS, RPA, *Williamson Central Appraisal District, Texas*
Matt Thomas, *Cyclomedia, Wisconsin*
Room 250DE
10:30 AM - 11:30 AM

No Sales, No Problem

Jake Parkinson, *Tooele County, Utah*
Ballroom J
10:30 AM - 11:30 AM

Transforming "Accidental" into "Intentional"

Kevin Prine MPA, RES, AAS, *Suffolk City Assessor, Virginia*
Ballroom I
10:30 AM - 11:30 AM

1:00 PM

Addressing Appraisal Myths and Market Realities in Appeals

Peter F. Korpacz, *Korpacz Realty Advisors, Inc.*
Richard Marchitelli, *Cushman & Wakefield*
Ballroom I
1:00 PM - 2:30 PM

An Analytical Take on Mass Appraisal in the UK

Andy Grayson, *Valuation Office Agency, United Kingdom*
Rob Dickinson, *Valuation Office Agency, United Kingdom*
Room 250AB
1:00 PM - 2:30 PM

Demonstration of the Lincoln Institute Vertical Equity App

Ron Rakow, *Lincoln Institute of Land Policy, Massachusetts*
Paul Bidanset, *Center for Appraisal Research and Technology, Virginia*
Room 250DE
1:00 PM - 2:30 PM

Evaluating Appeal Bias

Brad Fowler RES, AAS, *Mecklenburg County, North Carolina*

Ken Joyner RES, AAS, PPS, *Mecklenburg County Assessor, North Carolina*

Ballroom J

1:00 PM - 2:30 PM

How to Implement Regression Modeling in a Small Jurisdiction

Joshua Myers, *Josh Myers Valuation Solutions, Virginia*

Stephenie Love RES, *City of Poquoson, Virginia*

Room 250DE

1:00 PM - 2:30 PM

Pre-Trials and Tribulations

John Valente, *Safeground Analytics, Inc., Massachusetts*

Michael McFarlane, *Tyler Technologies, Inc., Ohio*

Ballroom G

1:00 PM - 2:30 PM

Understanding and Navigating the Current Cyber Threat Landscape

Mike Wright, *Excellent Training, Tennessee*

Room 251AB

1:00 PM - 2:30 PM

Valuation of Renewable Energy

Bradley A. Eldridge CAE, MAI, *Douglas County Appraiser's Office, Kansas*

Kara Enidcott CAE, RES, RMA, *Johnson County Appraiser's Office, Kansas*

Ballroom H

1:00 PM - 2:30 PM

3:00 PM

Bringing Market Analytics to Life

Brent C. Hudson, *Municipal Property Assessment Corporation, Ontario, Canada*

Ballroom H

3:00 PM - 4:00 PM

Case Management System: Investigate Exemption Compliance

Manish Bhatt, *Osceola County Property Appraiser's Office, Florida*

Katrina Scarborough, *Osceola County Property Appraiser's Office, Florida*

Room 250AB

3:00 PM - 4:00 PM

County Authority and Assessment: Why County Governance Matters to the Assessing Profession

Teryn Zmuda, *National Association of Counties (NACo), Washington D.C.*

Room 251AB

3:00 PM - 4:00 PM

Damage Assessment: Automation Tools and Techniques

Terry R. Taylor CAE, RES, AAS, FIAAO, *Orange County Property Appraiser, Florida*

Ballroom I

3:00 PM - 4:00 PM

Keep 'Em with Culture

Stacey Haynes, *Palm Beach County, Florida*

Ballroom G

3:00 PM - 4:00 PM

Portability of Regression Models

Kevin Keene, *Keene Mass Appraisal Consulting, Pennsylvania*

Room 250DE

3:00 PM - 4:00 PM

The Assessment Jurisdiction of the 21st Century in Ireland and Ontario, Canada

Greg Martino, *Municipal Property Assessment Corporation, Ontario, Canada*

Liam Butler, *Tailte Eireann, Ireland*

Ballroom J

3:00 PM - 4:00 PM

1. Comparing Sold and Unsold Properties: The Ultimate Test for Assessed Values (1 hour)

Comparing Sold and Unsold Properties: The Ultimate Test for Assessed Values

[Luc Hermans](#), *Netherlands Council for Real Estate Assessment*

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[Marco Kuijper](#), *Netherlands Council for Real Estate Assessment*

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Speaker Website

www.waarderingskamer.nl

Presentation Category

08 OVERSIGHT AND COMPLIANCE REVIEW

Session Description

The Netherlands Council for Real Estate Assessment calculates several key figures to analyze differences between sold and unsold properties. In the presentation we show how we use these indicators in evaluation of the newly estimated values.

2. Increasing Appraisal Capacity in the Big Apple With Mobile Technology (1 hour)

Increasing Appraisal Capacity in the Big Apple With Mobile Technology

[Daniel Anderson](#), *Data Cloud Solutions, a Woolpert Company, Ohio*

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[Howard Wong](#), *New York City Department of Finance*

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Presentation Category

02 COLLECTING AND MAINTAINING PROPERTY DATA

Session Description

This session will discuss how New York City increased appraisal capacity and data integrity by utilizing mobile technology used by 100 field appraisers across 5 borough offices. The city utilizes a variety of highly configurable appraisal technologies for streamlining field and office tasks—from collecting property data to verifying, analyzing, and improving it.

3. Cost Approach for Special Use Properties (Computer Data Centers) (1.5 hours)

Cost Approach for Special Use Properties (Computer Data Centers)

[Edward L. Martinez](#), *CoreLogic, California*

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Speaker Website

www.corelogic.com

Presentation Category

BACK TO BASICS

Session Description

Today's world of technology places a greater demand on special use properties like Computer Data Centers, Mega Warehouses, Distributions Warehouse and more. This presentation will discuss key points that will help support your opinion of value when assessing these type structures.

4. Improve Your Odds for Success in Tax Appeal Hearings (1.5 hours)

Improve Your Odds for Success in Tax Appeal Hearings

[Shawn E. Wilson MAI, IAAO](#), *Compass Real Estate Consulting, Inc., Florida*

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[Peter Korpacz MAI, CRE, FRICS](#), *Korpacz Realty Advisors, Inc., Maryland*

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Speaker Website

www.shawnwilson.com

Presentation Category

06 MANAGING COMPLAINTS AND APPEALS

Session Description

Improve your chances for success in tax appeals by learning forensic techniques for expert testimony. Learn to better defend your single property value opinion by creating persuasive evidence packets and planning a focused outline for direct testimony.

5. Maximum Efficiency - Mass Appraisal Tools in Fast-Growing County (1 hour)

Maximum Efficiency - Mass Appraisal Tools in Fast-Growing County

[Erin M. Brady](#), *Ada County Assessor's Office, Idaho*

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[Mark J. Southard](#), *Ada County Assessor's Office, Idaho*

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[Kelly G. Cumming](#), *Ada County Assessor's Office, Idaho*

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Presentation Category

04 APPRAISING PROPERTY

Session Description

Idaho leads the nation in population growth and market appreciation. How does the CEAA-awarded Ada County Assessor's Office manage the increasing workloads rapid growth brings? Join us for a review of the powerful tools we've developed to get the job done, maintain standards and staff size, and save taxpayer money!

6. Multifamily Repurposing: Trend or Craze & How It Makes Sense (1 hour)

Multifamily Repurposing: Trend or Craze & How It Makes Sense

[Kelby L. Collier AAS](#), *Osceola County Property Appraiser, Florida*

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Presentation Category

04 APPRAISING PROPERTY

Session Description

With the multifamily market booming, increasing rents have had a significant effect when it comes to affordability. It has put pressure on the need for developers to find a creative way to supply multifamily housing that is affordable in an industry with rising land and construction costs.

7. Retail Space Trends, Valuing Lifestyle Centers, and Mixed-Use Villages (1 hour)

Retail Space Trends, Valuing Lifestyle Centers, and Mixed-Use Villages

[Vision Government Solutions, Inc.](#)

[R. Lane Partridge MAA](#), *Town of Barnstable, Massachusetts*

[Mike Tarello](#), *Vision Government Solutions, Inc., Massachusetts*

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Speaker Website

<http://vgsi.com>

Presentation Category

04 APPRAISING PROPERTY

Session Description

This session will enhance the attendee's knowledge of the trends of the standard shopping centers and malls migrating into lifestyle centers and mixed-use villages, as well as more on the latest retail concepts. Valuation concerns will be addressed, and examples given of real-life scenarios including cost and income approaches.

8. The Status and Outlook of the U.S. Economy and Monetary Policy (1.5 hours)

The Status and Outlook of the U.S. Economy and Monetary Policy

[Dr. LaVaughn Henry Ph.D., CBE](#), *Formerly of the Council of Economic Advisers, The White House*

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Presentation Category

PLENARY

Session Description

This presentation will provide an detailed discussion of the current status, and projected changes, of the primary sectors and factors in the U.S. economy. Namely, it will detail trends in U.S. production and consumption patterns, the labor market, and consumer inflation. It will also delve into the Federal Reserve's monetary policy and the effects/implications of the Fed's actions to date and projected actions in the near term future.

9. The State of the Commercial and Residential Real Estate Markets (1 hour)

The State of the Commercial and Residential Real Estate Markets

[Dr. LaVaughn M. Henry Ph.D., CBE](#), *Formerly of the Council of Economic Advisers, The White House*

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Presentation Category

04 APPRAISING PROPERTY

Session Description

Dr. Henry will discuss the current state of both the commercial and residential real estate market.

10. Small Mixed-Use and Residential Investment Appraisal and Appeal (1 hour)

Small Mixed-Use and Residential Investment Appraisal and Appeal

[Bruce Witt](#), *Tyler Technologies, Ohio*

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Presentation Category

04 APPRAISING PROPERTY

Session Description

This session will cover the challenging appraisal of small mixed-use and residential investment properties. We will be reviewing how an investor looks at real estate, using the sales comparison, cost, and income approaches on these properties, using the gross rent multiplier and gross income multiplier, and exploring income approach examples.

11. The PRB: An Unbiased Approach to Measuring Vertical Equity (1 hour)

The PRB: An Unbiased Approach to Measuring Vertical Equity

Robert Gloudemans FIAAO, *Almy, Gloudemans, Jacobs & Denne,*
Arizona

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Speaker Website

agjd.com

Presentation Category

08 OVERSIGHT AND COMPLIANCE REVIEW

Session Description

All jurisdictions are facing increased scrutiny of assessment accuracy and uniformity, particularly as it relates to price-related bias (PRB). This session will explain use, interpretation, advantages, and limitations of the coefficient of PRB, which is contained in IAAO courses and literature and provides a balanced, unbiased approach to measuring vertical equity.

12. PAVE: The Connection Between Eliminating Bias and An Assessor's Work (1 hour)

PAVE: The Connection Between Eliminating Bias and An Assessor's Work

[David Berenbaum](#), *US Dept of Housing and Urban Development, Washington D.C.*

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Presentation Category

PLENARY

Session Description

Appraisal bias is a pervasive issue that contributes to the widening wealth gap in many communities of color across America. The average Black and Latino families have, respectively, one tenth and one-eighth of the wealth of the average White family. On June 1, 2021, the centennial of the Tulsa Race Massacre, President Biden announced the creation of the Interagency Task Force on Property Appraisal and Valuation Equity (PAVE) to address this issue head on by establishing a transformative set of actions to root out racial and ethnic bias in home valuations. During its initial phase, the Task Force heard from several tax assessors, many of whom emphasized the need for enhanced data sharing. Since that time, thirteen federal cabinet-level and independent agencies have released the PAVE Action Plan which, when enacted, represents the most wide-ranging set of reforms ever put forward to advance equity in the home appraisal process. Join this session to learn about appraisal bias, the work of PAVE, and the federal achievements already delivered and underway to increase the availability and diversity of appraisers, make federal appraisal data available, and to ensure that every American who buys a home has the same fair and impartial opportunities to build generational wealth through homeownership.

13. No Sales, No Problem (1 hour)

No Sales, No Problem

[Jake Parkinson](#), *Tooele County, Utah*

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Presentation Category

04 APPRAISING PROPERTY

Session Description

Instruct assessors with real-world data how to value properties in areas with limited sales data using trending techniques.

14. An Analytical Take on Mass Appraisal in the UK (1.5 hour)

An Analytical Take on Mass Appraisal in the UK

[Andy Grayson](#), *Valuation Office Agency, United Kingdom*

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[Rob Dickinson](#), *Valuation Office Agency, United Kingdom*

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Presentation Category

04 APPRAISING PROPERTY

Session Description

Find out how analysts are approaching mass appraisal in the UK. This session will give an overview of the work of a new team of analysts and valuers that has been established at the Valuation Office Agency, focussing on the different modelling methodologies utilised and our experiences of these.

15. Valuation of Renewable Energy (1.5 hours)

Valuation of Renewable Energy

[Bradley A. Eldridge CAE, MAI](#), *Douglas County Appraiser's Office, Kansas*

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[Kara Enidcott CAE, RES, RMA](#), *Johnson County Appraiser's Office, Kansas*

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Presentation Category

04 APPRAISING PROPERTY

Session Description

This session explores the valuation concepts and issues in this growing field. Initially, these types of properties received tax incentives that exempted the property from property taxes. These facilities are now transitioning to the tax roll and many states are revising their treatment of this property type. This workshop will review the various types of renewable energy facilities, how to handle listing them on the tax roll, and strategies for developing accurate valuations.

16. Bringing Market Analytics to Life (1 hour)

Bringing Market Analytics to Life

[Brent C. Hudson](#), *Municipal Property Assessment Corporation, Ontario, Canada*

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Presentation Category

02 COLLECTING AND MAINTAINING PROPERTY DATA

Session Description

Market activity in many jurisdictions continues to present challenges in monitoring and forecasting. During this session, learn about the experience in Ontario, Canada with building a customized Market Trends Dashboard to support valuation staff across the organization. Providing the assessor with an interactive dashboard that leverages Amazon Web Services facilitates market research and stakeholder engagement through sales trends analysis of a number of property types.

17. Portability of Regression Models (1 hour)

Portability of Regression Models

[Kevin Keene](#), *Keene Mass Appraisal Consulting, Pennsylvania*

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Speaker Website

keenemac.com

Presentation Category

04 APPRAISING PROPERTY

Session Description

An examination of the use of model specifications, transformations or coefficients from one market to another. Much of the discussion is around the uniqueness of each market, and the need to understand how the relative importance of attributes, market dynamics and the relationship between model constants and adjustments make present difficulties in using model written for one market in a different market.

18. The Assessment Jurisdiction of the 21st Century in Ireland and Ontario, Canada (1 hour)

The Assessment Jurisdiction of the 21st Century in Ireland and Ontario, Canada

[Greg Martino](#), *Municipal Property Assessment Corporation, Ontario, Canada*

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[Liam Butler](#), *Tailte Eireann, Ireland*

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Presentation Category

05 LEADING AND MANAGING THE ASSESSMENT OFFICE

Session Description

A tale of best practices and shared experiences from jurisdictions in Ireland and Ontario, Canada.