



LIBRARIES

UNIVERSITY OF WISCONSIN-MADISON

Business 935: Seminar - Urban Land Economics (MBA and MS). 1966-1972

Graaskamp, James A.

[s.l.]: [s.n.], 1966-1972

<https://digital.library.wisc.edu/1711.dl/SW2HRXJFCRBJR8X>

<http://rightsstatements.org/vocab/InC/1.0/>

The libraries provide public access to a wide range of material, including online exhibits, digitized collections, archival finding aids, our catalog, online articles, and a growing range of materials in many media.

When possible, we provide rights information in catalog records, finding aids, and other metadata that accompanies collections or items. However, it is always the user's obligation to evaluate copyright and rights issues in light of their own use.

COMMERCE 935
Appraisal Seminar Part I

First Semester 1966-67

Instructor: J. A. Graaskamp

I. Objectives

The purpose of this course is to acquaint the student with the basic literature and historical development of appraisal theory and practice, with appraisal institutions, and with appraisal logic applicable to a variety of real estate appraisal problems.

The subject matter is divided into four basic sub-topics, traditional appraisal literature, a critique of current methods, the application of other disciplines to appraisal techniques, and student research reports on individual problems of appraisal technique as discussed in the literature. Field work application of technique to case problems is reserved to the second semester.

The broad objective of the course is to relate acceptable appraisal technique to the parameters of time, budget, data sources, and skill levels of the practitioner as well as to introduce the student to the theoretical implications of a contemporary appraisal theory consistent and compatible with real estate investment theory. It is best that the real estate investment seminar, 937, section 2 be taken simultaneously or prior to this appraisal seminar.

II. General Course Format

The first seven weeks will be given to development of traditional appraisal theory followed by two weeks of critique. Following a two hour evening essay exam approximately three weeks will be spent on readings in non-commercial disciplines on elements affecting real estate value. The balance of class room sessions will be devoted to student reports on appraisal techniques and rationales applicable to specific appraisal problems selected in conjunction with the instructor. (A partial list of suggested topics is offered on page 2.) Each student will be expected to provide approximately a 50 minute oral report and a written report on his subject. A second one hour exam will be given covering all the oral reports as presented in class.

III. The Written Report

Each student shall prepare a written report of not more than 20 typed pages, including possible diagrams and bibliography. Format, spelling, and general appearance shall be appropriate to a dry copy duplicating process so that each student's report may be distributed to fellow classmates by the end of the semester. The rough draft shall be shown to instructor prior to final typing. The paper and oral presentation will represent 50% of the semester grade.

IV. The Written Exams

The two-hour written exam will provide the student with an optional selection of essay questions in the style of a comprehensive exam at the master's level. The first exam will count 35% of the grade and cover appraisal theory as found in the literature and treated in lecture. The second exam of one hour duration will provide student with an optional selection of questions based on the oral reports of classmates (and not his own topic) and will count 15%. A habit of thorough outlining of reading assignments and classroom discussion will greatly facilitate preparation for these exams.

V. Reading Materials

There is no single text for this course. Reading assignments are available on the reserve shelf in the Business School Reading Room or in professional texts and periodicals that may also be available in the Madison Public Library or the University Memorial Library. As there may be a limited supply of some items, it is advisable to read assignments well in advance of exams lest pre-exam demand exceed supply. Any defacement or overextension of withdrawal times will adversely affect the grade of all classmates.

VI. Suggested Individual Topic Areas (partial list only)

The appraisal of vacant land acreage
The appraisal of farm land
The appraisal of church properties
The appraisal of trucking terminals
The appraisal of motels
Reuse appraisal for urban renewal
The appraisal of supermarket sites
The appraisal of 2-4 family rental units
The appraisal of downtown commercial frontage
The appraisal of multi-story loft buildings
Appraisal consideration of the influence of good management and good will of real estate value
Appraisal consideration of the influence of possible rezoning on value
Appraisal consideration of the influence on value of percentage lease overages
Appraisal systems for real estate tax assessment purposes
Appraisal of the single family residence
Appraisal for resale of a single family condominium unit
Appraisal of property for a date 20 years or more in the past
Appraisal of nursing homes

VII. Timetable

Week	Class Topic
Sept. 12-16	Introduction
Sept. 19-23	The appraisal process and traditional report
Sept. 26-30	Economic forecasting and the appraiser

Oct. 3-7	The cost approach
Oct. 10-14	The traditional capitalization approach
Oct. 17-21	The traditional market approach
Oct. 24-28	Synthesis and the appraisal report
Oct. 31-Nov. 4	The Ratcliff critique on traditional valuation methods
Nov. 7-11	Investor simulation and market analysis
Nov. 14-18	Time, risk, and decision making theory
Nov. 21-25	The anthropology and psychology of land ownership
Nov. 28-Dec. 2	Urban environment and value
Dec. 5-9	Political forecasting and real estate value
Dec. 12-16	Class reports
Jan. 3-6	Class reports
Jan. 9-13	Class reports

VIII. Assignments

Week	Reading
Sept. 12-16	Wendt, <u>Real Estate Appraisal</u> , Chap. 1-3 Weimer, <u>The Appraisal Journal</u> , October 1966, "History of Value Theory for the Appraiser," pp. 469-483 AIREA, <u>The Appraisal of Real Estate</u> (1964 edition), Chap. 3 Ring, TAJ, January 1965, "The Labyrinth of Value"
Sept. 19-23	Schmutz, <u>The Appraisal Process</u> , Chap. 1-3 Babcock, <u>The Valuation of Real Estate</u> (McGraw-Hill, 1932) Chap. or FHA <u>Appraisal Manual</u> , Part III, "The Valuation System" (written by Babcock)
Sept. 26-30	Schmutz, <u>The Appraisal Process</u> , Chap. 26 AIREA, <u>The Appraisal of Real Estate</u> (1964 edition), Chap. V Smith and Tschappat, TAJ, January 1966, "Monetary Policy and Real Estate Values," pp. 10-26 ---, <u>The New Housing Industry</u> , "The Federal Puppeteer," Chap. IV ASREC, Case Study #11, "Market and Land Use Study"

Business 935

Appraisal Seminar - Part I

First Semester 1972

Instructor - J. A. Graaskamp

I. Objectives

Purpose of this course is to provide the student with a thorough and critical review of the basic literature and historical development of appraisal theory and methodology, with appraisal institutions, and with topical appraisal reforms applicable to a variety of real estate appraisal problems.

II. Textbooks:

Income Property Valuation, by William Kinnard, Heath Lexington Books 1971
The Appraisal of Real Estate, 5th edition by the American Institute of Real Estate Appraisers, 1968 Chicago
Ellwood Tables, 2nd edition by the American Institute of Real Estate Appraisers 1968 Chicago

Many readings for this course will be from periodicals and real estate services and will be provided as mimeographs or found on reserve for this course number or Business 528 in the School of Business library.

III. General Course Format

There will be weekly reading assignments and one 2-hour written exam on this material. In addition there will be two property appraisals: a short form single family home appraisal and financial appraisal of a rental investment property. There will also be short written exercises which can only count as satisfactory or unsatisfactory. Exam equals 50%; income property 30%; single family 20%.

IV. Course Timetable

Week of August	8-28	Introduction to the Appraisal Process
September	9-11	Basic Premises and Assumptions of the Appraisal Report
	9-18	Market Comparison Approach
	9-25	Basic Income Capitalization Approach
October	10-2	The Ellwood System
	10-9	Appraising Income Properties
	10-16	The Cost Approach to Value
	10-23	Correlation, Synthesis, and the Appraisal Report
	10-30	Critical Review of Appraisal Theory by Ratcliff
November	11-6	Critical Review of Appraisal Theory by Others
	11-13	Implications of Value Inference by Simulation
	11-20	Income Property Appraisal Due
	11-27	Single Family Home Appraisal
December	12-4	Statistical Models for Market Comparison Approach

NOTE: ALL PAPERS AND EXERCISES TO BE HANDED IN SHOULD BE STAPLED AT UPPER LEFT HAND CORNER AND GIVEN A TITLE PAGE BUT LEFT WITHOUT PLASTIC BINDERS OR OTHER SIMILAR COVERS.

Business 935

Appraisal Seminar - Part I

First Semester 1972

Prof. J. A. Graaskamp

Week

8-28	INTRODUCTION TO THE APPRAISAL PROCESS	
	A. <u>AIREA, The Appraisal of Real Estate (1967 edition), Chap. 1-4</u>	BLR
	B. <u>Weimer, The Appraisal Journal, October 1960, "History of Value Theory for the Appraiser", pp. 469-483</u>	Mimeo
	C. <u>Kinnard, Income Property Valuation, Chapters 1-3</u>	Text
	D. <u>"How to Tell Value From Value From Value", Marshall & Stevens Incorporated</u>	Handout
9-11	BASIC PREMISES AND ASSUMPTIONS OF THE APPRAISAL REPORT	
	A. <u>Kinnard, An Introduction to Appraising Real Property Chapters 5, 6, & 7</u>	BLR
	B. <u>Crouch, William, "Highest and Best Use", The Appraisal Journal April 1966, pp. 166-176</u>	Mimeo
	C. <u>Wendt, "Highest and Best Use - Fact or Fancy, The Appraisal Journal, April 1972, pp. 165-174</u>	Mimeo
	D. <u>Tischler, "The Importance of the Highest and Best Use Analysis", The Real Estate Appraiser, May-June, 1972 pp. 35 & 36</u>	Mimeo
9-18	THE MARKET COMPARISON APPROACH	
	A. <u>Ring, The Valuation of Real Estate, 2nd edition, Chapters 8, 9, & 10</u>	BLR
	B. <u>Shenkel, "A Naive Theory of Sales Comparability", College of Business Administration, University of Georgia, February 1963</u>	Mimeo
	C. <u>Ratcliff, "Don't Underrate the Gross Income Multiplier", The Appraisal Journal, April 1971, pp. 264-271</u>	Mimeo
9-25	BASIC INCOME CAPITALIZATION APPROACH	
	A. <u>Kinnard, Income Property Valuation, Chapters 4-11</u>	Text
	B. <u>American Institute of Real Estate Appraisers, Capitalization Methods and Techniques</u>	Handout

Business 935 First Semester 1972

Week

10-2 THE ELLWOOD SYSTEM

- | | |
|--|---------|
| A. American Institute of Real Estate Appraisers,
<u>Mortgage-equity Capitalization: Ellwood Method</u> | Handout |
| B. Akerson, "Ellwood Without Algebra, <u>The Appraisal Journal</u> , July 1970, pp. 325-335 | Mimeo |
| C. Hodges, "Investment Market Valuation" worksheets | Mimeo |
| D. Ellwood, <u>Ellwood Tables</u> , 3rd edition Part I,
pp. 75-102, pp. 121-134 (scan for review 1-78,
particularly 17-50) | BLR |
| E. Ellwood, <u>Ellwood Tables</u> , 4rd edition, Part II, Tables C,
Ca, Cp, Cy, PLB4, PIB5 | BLR |
| F. Ellwood Problem Worksheet | |

NOTE: AN ADDITIONAL 2-HOUR LAB WILL BE SCHEDULED AS AN EVENING SESSION DURING THIS WEEK WITH ACCESS TO TERMINAL AND ELECTRONIC CALCULATOR.

10-9 APPRAISING INCOME PROPERTIES

- | | |
|--|-------|
| A. Kinnard, <u>Income Property Valuation</u> , Chapter 12-16,
Chapter 18, 19 | Text |
| B. American Institute of Real Estate Appraisers,
<u>A Student's Appraisal Report on an Apartment House</u> | BLR |
| C. American Institute of Real Estate Appraisers,
<u>Ellwood Supplement to a Student's Appraisal Report</u> | Mimeo |
| D. Appraisal Staff of Bell Federal Savings & Loan Assoc.,
"A Demonstration of the Three Approaches to Value of a Low
Rise Apartment Building", <u>Real Estate Appraiser</u> July-August
1970, pp. 18-26 | Mimeo |

10-16 THE COST APPROACH TO VALUE

- | | |
|--|-------|
| A. Kinnard, <u>Income Property Valuation</u> , Chapter 17 | Text |
| B. Sackman, "The Limitations of the Cost Approach", <u>The Appraisal Journal</u> , January 1963, pp. 53-64 | Mimeo |
| C. Allison, "Fundamental Appraisal Thinking", <u>The Appraisal Journal</u> , October 1964, pp. 579-589 | Mimeo |
| D. <u>The Boeckh Service</u> , Problems to be assigned by Mr. Michael
Rooney | BLR |

10-23 CORRELATION, SYNTHESIS, AND THE APPRAISAL REPORT

- | | |
|--|---------|
| A. Ring, <u>The Valuation of Real Estate</u> , Chapters 23 & 24 | BLR |
| B. Dasso, "Economic Base Analysis for the Appraiser",
<u>The Real Estate Appraiser</u> , July 1969, pp. 374-385 | Mimeo |
| C. Kinnard, <u>Income Property Valuation</u> , Chapter 20 | Text |
| D. Society of Real Estate Appraisers, <u>A Guide to Narrative
Appraisal Reporting on Income Producing Properties</u> | Handout |

A

Business 935 First Semester 1972

<u>Week</u>	<u>Readings</u>	<u>Source</u>
10-30	CRITICAL REVIEW OF APPRAISAL THEORY BY RATCLIFF	
	A. Richard Ratcliff, <u>Valuation for Real Estate Decisions</u> , Chapters 1-5	Text or BLR
	B. Richard Ratcliff, <u>Valuation for Real Estate Decisions</u> , Chapters 8-10	Text or BLR
11-6	CRITICAL REVIEW OF APPRAISAL THEORY BY OTHERS	
	A. Paul Wendt, "Recent Developments in Appraisal Theory", <u>The Appraisal Journal</u> , Oct. '69	Mimeo
	B. Frederick Babcock, "The Three Approaches", <u>The Real Estate Appraiser</u> , July, Aug. '70	Mimeo
	C. M. B. Hodges, "Babcock Revisited: A Return to Fundamentals", SRA cassette script '71	Mimeo
	D. Smith and Racster, "Should the Traditional Appraisal Process be Restructured?", <u>The Real Estate Appraiser</u> , Nov.-Dec. '70	Mimeo
11-13	IMPLICATIONS OF VALUE INFERENCE BY SIMULATION	
	A. Wm Kinnard, "New Thinking in Appraisal Theory", <u>The Appraisal Journal</u> , Aug. '66	Mimeo
	B. Daniel Yankelovich, "New Criteria for Market Segmentation", <u>Harvard Business Review</u>	BLR
	C. Bauer & Buzzell, "Mating Behavioral Science and Simulation", <u>Harvard Business Review</u>	BLR
	D. Fred Case, "Computer Applications in Real Estate Appraisal" speech	Mimeo
11-20	KENNEDY HEIGHTS APARTMENT MARKET STUDY DUE	
11-27	STATISTICAL MODEL FOR MARKET COMPARISON APPROACH	
	A. Gene Dilmore, <u>The New Approach to Real Estate Appraising</u> , Chapters 14, 15, 16	BLR
	B. Robert Gustafson, "E.S.P. and the Appraiser", speech	Mimeo
	C. Robert Gustafson, "Data Banks and Computerized Annual Updating of Assessment Rolls", speech	Mimeo
	D. Jack Lessinger, "A 'Final' Word on Multiple Regression and Appraisal", <u>The Appraisal Journal</u> July '72	Mimeo
12-4	REVIEW	
12-11	FINAL EXAM	

Business 856 (935)
Appraisal Seminar - Semester I

First Semester 1973

Professor J.A. Graaskamp

<u>Week</u>	<u>Readings</u>	<u>Source</u>
8-31	#1 INTRODUCTION TO THE APPRAISAL PROCESS & ASSUMPTIONS	
	A. "History of Value Theory for the Appraiser," Arthur M. Weimer, <u>The Appraisal Journal</u> , Oct. 1960	Mimeo
	B. <u>Approaches to Value</u> , American Institute of R.E. Appraisers	Handout
	C. <u>Income Property Valuation</u> , William Kinnard, Chap. 1-3	Text
	D. "How to Tell Value From Value From Value," Marshall & Stevens Inc.	Mimeo
	E. "Appraisal: Is It Measurement or Prediction?" Richard U. Ratcliff, <u>The Real Estate Appraiser</u> , Nov.-Dec. 1972	Mimeo
9-7	#2 THE MARKET COMPARISON APPROACH (RESIDENTIAL)	
	A. <u>An Introduction to Appraising Real Property</u> , Wm. Kinnard, Chap. 5-14	BLR
	B. "Highest and Best Use," William Crouch, <u>The Appraisal Journal</u> , April 1966, pp. 166-176	Mimeo
	C. "Highest and Best Use - Fact or Fancy," Paul Wendt, <u>The Appraisal Journal</u> , April 1972, pp. 165-174	Mimeo
	D. "The Importance of the Highest and Best Use Analysis," Paul Tischler, <u>The Real Estate Appraiser</u> , May-June 1972	Mimeo
	E. Scan for examples: <u>The Valuation of Real Estate</u> , 2nd edition, Ring, Chap. 8-10	BLR
9-14	#3 THE COST APPROACH TO VALUE (RESIDENTIAL)	
	A. <u>Income Property Valuation</u> , William Kinnard, Chap. 17	Text
	B. "The Limitations of the Cost Approach," Sackman, <u>The Appraisal Journal</u> , January 1968, pp. 53-64	Mimeo
	C. "Fundamental Appraisal Thinking," Allison, <u>The Appraisal Journal</u> , October 1964, pp. 579-589	Mimeo
	D. "Building Cost Estimating," Arthur J. Washa and Michael A. Rooney	Mimeo
	E. <u>Kahn on the Entrepreneur</u> , Sanders A. Kahn	Mimeo
	F. Boeckh and Marshall Valuation Worksheet Form	Handout

Business 856 (935) Fall 1973

- 9-21 #4 SINGLE FAMILY HOME APPRAISAL PROBLEM
- A. Valuation for Real Estate Decisions, Richard U. Ratcliff, Chap. 1-7 Text
 - B. Single Family Home Appraisal Problem due
- 9-28 #5 REFINEMENTS OF THE MARKET COMPARISON APPROACH
- A. "Economic Base Analysis for the Appraiser," Jerome Dasso, The Appraisal Journal, July 1969 Mimeo
 - B. "A Naive Theory of Sales Comparability," William Shenkel, Univ. of Georgia, February 1968 Mimeo
 - C. "Appraising the Integrated Neighborhood: The Appraiser's Obligations in a Changing Environment," Roger D. Ritley, The Real Estate Appraiser, March 1973 Mimeo
 - D. Income Property Valuation, William Kinnard, Chap. 16 Text
 - E. "Don't Underrate the Gross Income Multiplier," Richard U. Ratcliff, The Appraisal Journal, April 1971 Mimeo
- 10-5 #6 BASIC INCOME CAPITALIZATION APPROACH
- A. Income Property Valuation, William Kinnard, Chap. 4-15 Text
 - B. Capitalization Methods and Techniques, American Institute of Real Estate Appraisers Handout
 - C. "Graphic Aids to Capitalization," Robert C. Cantwell, The Appraisal Journal, July 1968 Mimeo
 - D. "A Demonstration of the Three Approaches to Value of a Low Rise Apartment Building," Bell Federal Savings & Loan Assoc., The Real Estate Appraiser, July-Aug. 1970 Mimeo
 - E. "Capitalized Income is Not Market Value," Richard U. Ratcliff, The Appraisal Journal, January 1968 Mimeo
- 10-12 #7 THE ELLWOOD SYSTEM
- A. "Mortgage-equity Capitalization: Ellwood Method," James Gibbons, The Appraisal Journal Mimeo
 - B. "Ellwood Without Algebra," Akerson, The Appraisal Journal, July 1970, pp. 325-335 Mimeo
 - C. "Investment Market Valuation," Hodges worksheets & problem 4 Mimeo
 - D. Ellwood Tables, 3rd edition Part I, Ellwood, pp. 75-102, pp. 121-134 (scan for review 1-78, particularly 17-50) BLR
 - E. Ellwood Tables, 4th edition, Part II, Ellwood, Tables C, Ca, Cp, Cy, PLB4, PIB5 BLR

Business 856 (935) Fall 1973

- | | | | |
|-------|-----|--|-------|
| | F. | Ellwood Problem Worksheet | BLR |
| | G. | Scan: "A Student's Appraisal Report on an Apartment House,"
American Institute of Real Estate Appraisers | BLR |
| 10-19 | #8 | THE INCOME APPROACH BY CASH FLOW SIMULATION | |
| | A. | <u>Income Property Valuation</u> , William Kinnard, Chap. 18-19 | Text |
| | B. | <u>Valuation for Real Estate Decisions</u> , Richard U. Ratcliff,
Chap. 8-10 | Text |
| | C. | "Monetary Policy and Real Estate Values," Halbert Smith
and Carl J. Tschappat, <u>The Appraisal Journal</u> , Jan. 1966 | Mimeo |
| | D. | Investment Market Value Analysis Data Input Form | Mimeo |
| | E. | "Development Analysis for the Valuation of Vacant Land,"
Paul Fullerton, <u>The Appraisal Journal</u> , April 1965 | Mimeo |
| | F. | "A Basic Methodology for Estimating the Market Value of a
Subdivision Land Development," Dan L. Swango, <u>The Real
Estate Appraiser</u> , Nov.-Dec. 1971 | Mimeo |
| 10-26 | #9 | CORRELATION, SYNTHESIS, AND THE APPRAISAL REPORT | |
| | A. | <u>Income Property Valuation</u> , William Kinnard, Chap. 20 | Text |
| | B. | <u>Writing Appraisal Reports</u> , William C. Himstreet | BLR |
| | C. | "How to Write a Poor Report," Charles B. Smith,
<u>The Appraisal Journal</u> , April 1973 | Mimeo |
| | D. | "The Appraisal Report: Is There A Better Way?" T. C.
Hitchings, Jr., <u>The Appraisal Journal</u> , April 1972 | Mimeo |
| | E. | "Appraisal Review Committee: Its Purpose and Function,"
Laurence Sando, <u>The Appraisal Journal</u> , April 1966 | Mimeo |
| 11-2 | #10 | CRITICAL REVIEW OF APPRAISAL THEORY BY RATCLIFF AND OTHERS | |
| | A. | <u>Valuation for Real Estate Decisions</u> , Richard U. Ratcliff,
Chap. 11-15 | Text |
| | B. | "Recent Developments in Appraisal Theory," Paul Wendt,
<u>The Appraisal Journal</u> , Oct. 1969 | Mimeo |
| | C. | "The Three Approaches," Frederick Babcock, <u>The Real Estate
Appraiser</u> , July-Aug. 1970 | Mimeo |
| | D. | "Babcock Revisited: A Return to Fundamentals," M.B. Hodges | Mimeo |
| 11-9 | #11 | RECONSTRUCTION OF APPRAISAL THEORY AND METHODOLOGY | |
| | A. | "Should the Traditional Appraisal Process be Restructured?"
H.C. Smith and R.L. Racster, <u>The Real Estate Appraiser</u> ,
Nov.-Dec. 1970 | Mimeo |

Business 856 (935) Fall 1973

- B. "New Thinking in Appraisal Theory," William Kinnard, Mimeo
The Appraisal Journal, August 1966

- C. "Is There a 'New School' of Appraisal Thought?" Richard U. Ratcliff, *The Appraisal Journal*, October 1972 Mimeo

11-16 #12 NARRATIVE INCOME PROPERTY APPRAISAL REPORT DUE

11-23 THANKSGIVING VACATION

11-30 #13 STATISTICAL APPRAISAL TECHNIQUES

- 2- A. "Multiple Regression Analysis and The Appraisal Process," Mimeo
Jerome Dasso, The Real Estate Appraiser, Mar.-April 1973

- 1 - B. The New Approach to Real Estate Appraising, Gene Dilmore, BLR
Chap. 14-16

- 3 - C. "E.S.P. and the Appraiser," Robert H. Gustafson Mimeo

- 4 - D. "Data Banks and Computerized Annual Updating of Assessment Rolls," Robert H. Gustafson Mimeo

- 6- E. "A 'Final' Word on Multiple Regression and Appraisal," Mimeo
Jack Lessinger, The Appraisal Journal, July 1972

- F. "FHA 236 Housing Projects; Some Thoughts on Valuation," William B. Jackson Mimeo

- 5 - G. "A Case Study in Regression Analysis," Robert L. Foreman Mimeo

12-7 EXAM

NOTE: ALL PAPERS AND EXERCISES TO BE HANDED IN SHOULD BE STAPLED AT UPPER LEFT HAND CORNER AND GIVEN A TITLE PAGE BUT LEFT WITHOUT PLASTIC BINDERS OR OTHER SIMILAR COVERS.

- I. Market comparison problem--prices in file
- II. Hand out Ellwood problem sheet, due on Monday, Oct. 16
- III. Hodges Ellwood worksheet forms
- IV. Hodges IMV computer form
- V. Graphing market trends--Benedict
- VI. MKTCOMP--hand out manual sheets

- I. As you will recall Ratcliff sees 2 broad areas for computing market value V_p - essentially inference from past market transactions or

Simulation of investor decision systems. Recently he argued in the October 1972 issue of the Appraisal Journal that the "new school" evolutionary modifications of long held appraisal theory rather than radical change.

- A. Within the "new school" one group focuses on the mechanisms of appraisal analysis - such as discounted cash flow and computer applications of various sorts.
 - B. The other faction within the "new school" is concerned with appraisal as behavioral science - to develop inputs without which the formulas and machines lose reality.
 - C. Both of these elements are present in Ratcliff. You will note some of your readings are designed to suggest the application of marketing techniques in other fields to the whole problem of inference and simulation.
 - D. Ratcliff now emphasizes 3 types of value:
 1. V_s - subjective value to the owner or investor
 2. V_c - cost of production
 3. V_p - market value
 - E. V_s is the value of feasibility analysis and has no direct relationship to appraisal as it represents the investment judgment from the viewpoint of a specific individual, the owner, an investor, the expert. (Chapter 8)
 - F. V_c represents the cost estimates such as Beck plus land value but should include the opportunity cost of delay and indirect costs of construction. (Chapter 9)
- II. Appraisal is concerned with prediction of a transaction price. Market value is not intrinsic in the property but rather are determined by the public's reaction to the qualities of the property. These reactions are extrinsic and represent the demand side. The competitive supply of these qualities play a role in setting price. The trick for the appraiser is identification of the qualities to which consumers are responding and maintaining accurate information as to the supply.
 - A. Since appraisal is predicting under conditions of uncertainty, price cannot be measured like temperature on the thermometer or board feet in a stick of lumber. Ratcliff fears that over concern with measurement leads to preoccupation with the static attributes of the property rather than the dynamic forces which establish price.
 - B. Market value is a compromise between what the buyer would have paid if necessary and what the seller would have accepted as a minimum.

- C. Market value has nothing to do with "fairness" of the predicted transaction but only with the actuality. Even in condemnation it is the course and not the appraiser who determine just compensation.
- D. Since it is behavior relative to attributes of a subject property, people make values and determine prices. Thus appraisal is a behavioral science.
- E. Ratcliff makes the point that the best practicing appraisers rely mainly on market behavior, employ qualifying terms such as estimate, central tendency or even range of value.
- F. While pragmatism has been the guiding spirit of practitioners a real gap exists between conventional appraisal textbooks and the tenets of the "new School"
- G. Reference to Chapter 10 in Ratcliff strengthens his view that cash flow models per se do not produce market value directly unless research is provided on probable investor motivations, decision rules, and attitudes toward risk. Thus, there must be careful market segmentation to identify most probable buyer and to isolate his investment decisions, as much as possible, from subjective trade-offs as to locational preference, deviations from the norm, or special managerial intuitions and satisfactions.
 - 1. Babcock revisited and Hodges Cart of returns is an attempt to make IMV a statement about market value while Mini-Mod or AIP represents Vs.
 - 2. The Wendt article emphasizes the failure of appraisal to relate investor behavior to the larger forces of national and regional economics as they affect behavior.
 - 3. In chapter 9 Ratcliff makes reference to (216-222) models as a way of communicating behavior of market segments.
 - 4. In Chapter 10 Ratcliff provides a simple linear regression as a means of converting a weighted matrix to a conclusion. Note that the regression is negative as the worst rated features receive the highest scores. Real estate is just beginning to borrow techniques for multi-variable analysis which are "old hat" in other disciplines for application to real estate. Appraisers are great gatherers of information but have never successfully communicated how they synthesize and correlate.
 - 5. To synthesize and correlate requires that you first edit the information to retain that which is reliable and relevant. The second problem is to structure the information into a common denominator so that interrelationships can be revealed. The market approach relates sales prices to attributes of the property. The income approach converts space-time units to cash-time units.

III Ratcliff would reorganize the appraisal report so that it is inductive rather than deductive, moving from the property interest to the ~~buyers~~ probable buyer to the institutional setting in which the buyer and the seller must operate. The outline of an appraisal report ala Ratcliff will suggest the process.

2116 University Avenue

22-Unit Income Expense Statement

Submitted by Appraisal Class 935

2 x \$150 x 12 x .90	=	\$ 3,240.00
12 x \$160 x 12 x .95	=	21,888.00
4 x \$165 x 12 x .95	=	7,524.00
4 x \$170 x 12 x .98	=	7,996.80
13 x \$750 x 12 x .100	=	<u>1,170.00</u>
		\$ 41,818.80 effective gross rent

Expenses:

Real Estate Taxes

Land: 14,600 x 50	=	\$ 840.00
Building: 165,100 x 50	=	8,255.00
Furniture: p.p. 11,000 x 50	=	<u>550.00</u>
		\$ 9,645.00 rounded \$9,650

<u>Insurance:</u>	\$ 500
<u>Management: at 6%</u>	2,500
<u>Repairs & maintenance (\$50 per apartment)</u>	1,100
<u>Janitorial contract (\$90 per month)</u>	1,080
<u>Reserve for painting (\$75 per unit every 3 years)</u>	550
<u>Utilities</u>	175
<u>Scavenger service & pest control</u>	130
<u>Supplies & incidentals</u>	200
Reserve for furnishing replacement $\frac{600 \times 22}{6}$	<u>2,200</u>
Net income before recapture	\$23,715 or rounded \$23,700

As of December 1, 1967

Schedule II

UNIVERSITY HOUSE

2116 University Avenue

MORTGAGEE

A. Name	First Federal - Milwaukee
B. When Placed	3/64
C. When Due	25 Years
	(Mortgage includes properties at 2118, 2116 & 2122)

MORTGAGE

A. Original Amount	\$ 247,500.00
B. Present Balance	\$ 230,383.31
C. Interest Charges	6 %

ASSESSED VALUATION

A. Amount for Land	\$ 14,600.00
B. Amount for Building	\$ 165,100.00
Tax Rate - State Tax Credit	.4438

PROPERTY INFORMATION

2116 University Avenue - 22 units, Purchase Price	\$275,000
2118 University Avenue (Erickson property) 3 units, Purchase Price	38,087 (paid)
2122 University Avenue (Garvoille property) 3 units Purchase Price	42,500 (paid)
Rear of 2116 University Avenue (M. Starr Nichols) Vacant Land Purchase Price	<u>55,000</u> (paid)
TOTAL ORIGINAL PURCHASE PRICE	\$407,587

UNIVERSITY HOUSE
2116 University Avenue

October 31, 1968

INCOME

Gross Effective Income	\$ 4,493.00
Washer and Dryer Income	12.53
Miscellaneous Income	<u>2.42</u>
Total Income	\$ 4,507.95

EXPENSES

Real Estate Taxes & Insurance	\$ 828.00
Management	343.91
Repairs and Maintenance	368.60
On-Site Management (Deducted in Nov.)	
Electricity and Gas	379.75
Commissions (Taken in November)	
Miscellaneous	<u>25.00</u>
Total Expenses	<u>1,945.26</u>
Net Income	\$ 2,562.69

DEBT SERVICE

Principal	\$ 466.65
Interest	<u>1,129.35</u>
Total Debt Service	<u>1,596.00</u>
CASH FLOW	\$ 966.69

From 101
Share of Revenue

UNIVERSITY HOUSE

INCOME

2116 University Avenue

22 units - one bedrooms @ \$160
Parking - 13 @ \$7.50

\$ 42,240
1,170

\$ 43,410

2118 University Avenue

3 units - one bedrooms @ \$60, \$75, \$110

2,940

2122 University Avenue

3 units - two bedrooms & one bedrooms
Total \$540

6,480

Gross Income

\$ 52,830

Less 5% vacancy allowance

2,641

Gross Effective Income

\$ 50,189

EXPENSES

Real Estate & P.P. Taxes \$ 8,600
Insurance 450
Management 2,000
Repairs & Maintenance 1,400
Reserve for Painting & Decorating 400
Utilities ~~3,000~~ 1848
Scavenger Service 175
Pest Control 80
Advertising 350
Supplies & Incidentals 200
Reserve for Furniture & Furnishings ~~2,500~~

\$ 8,600

450

2,000

1,400

400

~~3,000~~ 1848

175

80

350

200

~~2,500~~

15,403

Net Income Before Debt Service

DEBT SERVICE

2116 & 2118 University Avenue

Original - \$247,050 @ 6%

Balance - \$227,232 - \$2,449 per mo. 29,388

Total loan

\$ 26,007

\$ 223,000

CASH FLOW

~~2,449~~

(3,381)

Ellwood Problems - 935

Fall, 1972

Due date October 16, 1972

Prof. J. A. Graaskamp

- I. Construct an overall rate and provide arithmetic proof for the following case assumptions:
 - a. 75% mortgage at 6% annual interest, 25 year term, level monthly installments.
 - b. A projection period of 10 years
 - c. 10% depreciation
 - d. An equity yield rate of 9%
 - e. An annual net income before debt service of \$75,500

II. Test of Appraisal for Market Attractiveness:

An apartment house has a gross rent roll of \$62,500 per year. Comparable sales indicate a multiplier of 6.4.

Value by comparison; $\$62,500 \times 6.4$ \$400,000

Average expenses and allowances are budgeted at \$28,900 per year in a 10 year projection leaving net average income at \$33,600 per year.

Mortgage money is available up to 75% of appraisal at 6% interest with 25 year amortization.

Test the \$400,000 valuation for market attractiveness by calculating 10 year value changes which would produce equity yields ranging from 8% to 16%.

- III. A super market lease providing a net annual income of \$24,000 will expire in 13 years, mortgage money is available at 70% of appraised value on an 9% annual constant basis with interest at 7%. Allow for 20% property value decline in 13 years and appraise to yield 12% on equity.
- IV. Compute the overall capitalization rate for a 12% equity yield in the following situation:

First mortgage at 50% of value at 6 1/4% interest to be amortized in 20 years.

Second mortgage at 25% of value before discount at 8% interest to be amortized in 12 years. This mortgage will be subject to a 15% discount or 15 points at the outset. Allow for 15% depreciation and a 10 year projection.

- V. A property is purchased subject to a 20 year net lease which will fully amortize the investment at 7%. The lessee wants an option for an additional 20 years at a reduced rental. The lessor is willing to grant such an option at a price which will yield 8 1/4% investment yield with no allowance with residual value at the end of 40 years. Compute the extension in rent as a percentage of original investment.

I. Processing:

Basic Rate (see table): .0689
 Depreciation (.10 x .0658) + .0066
 Overall Rate: .0755

Then \$75,500 + .0755 = \$1,000,000

Arithmetical Proof:

Resale Price (@ 90% of present value after 10 yrs.): \$900,000
 Mortgage Balance (\$750,000 x .7624): - 571,800
 Equity Reversion: \$328,200

Net Income: \$75,500

Finance Charge (\$750,000 x .07740 (constant): -58,050

Equity Net Income: \$17,450

Stream: \$17,450 x 6.417658 (Present Worth of \$1 per annum for 10 yrs. @ 9%): \$111,994

Reversion: \$328,200 x .422411 (Present Worth of \$1 deferred 10 yrs @ 9%): + 138,631

Total Equity Value: \$250,625

II. Solution:

Indicated overall cap. rate; $\frac{\$33,600}{\$400,000} = .0840$

Basic cap. rate from 75% mtg. Table @ 8%; .0658 @ 16%; .0898 ~~26.4%~~

O.A. Value decline to yield 8%; $\frac{.0840 - .0658}{.0690} = \frac{.0182}{.0690} = \frac{26.4\%}{27.66\%}$

Value would have to decline; \$400,000 x .2766, \$110,640

O.A. Value increase to yield 16%; $\frac{.0898 - .0840}{.0469} = \frac{.0058}{.0469} = 12.37\%$

Value would have to increase \$400,000 x .1237 - \$49,480

III. $(f/(1-i)) (S_p - 1) = P$

Equity Yield, "Y" .12000
 Plus $P \frac{1}{S_{\overline{n}|i}}$.01506
.013506
 - .0900

$P = \frac{.09}{(.07-1)} (2.477763-1) p. 965$

$P = .422196$

$P \times \text{sinking fund } (.4222 \times .035677) p. 148$
.01506

Mtge coefficient "C" .04506

Equity yield "Y" .12000

Less MC .03154

Basic rate "r" .08846

Plus $x_2 \times .035677$.0071354

.0955954

$\frac{\$24,000}{.0956} = 25.1046$ 251,046 or 250,000 rounded

IV. $C = y - \frac{f-1/S_{\overline{n}|i}}{1-k} CP-k)$

$M(1-k) = \text{adjusted "M"}$

$OAR = Y - (M_1 C_1 + M_2 (1-k) C_2) + .15 (.056984$

$(.5 \times .052175) .00854760)$

$[.026 + .25 (.85) (.03344)]$

.00284240

.026

.02884240

$OAR = .12 - .02884 + .0085476$

$OAR = .0997$

$$C = Y - f + P$$

$$.12 - \frac{(.010825 \times 12)}{.129900} - \frac{2.21964-1}{2.603389-1} \times .056984$$

$$\frac{1.21964}{1.60339}$$

$$.7606$$

$$C = -.0099 + .04334$$

$$\frac{.04334}{.03344} \quad \frac{.0099}{.03344} \quad .0433420304$$

V. $V [(1+i)S_n] = \text{Required Reversion}$

V = Purchase Price

$(1+i)$ = The base; i.e., 1 plus effective yield rate or "Y" divided by
n number of rent installments per year.

n = Number of rent installments in lease term

d = Periodic rent per dollar of purchase price

S_n = Future worth of \$1 per period at rate "i" for "n" periods
(Col. 2, compound interest table).

PP. 133-134

$V [(1+i)^n - d(1+i)s_-] = \text{Required Reversion}$

$$V = (1 + \frac{.0825}{12})^{240} - ^n .007753 (1 + \frac{.0825}{12})^{607.66}$$

$$V = 51.753 - .007753 \times 1.006875 \times 607.66$$

$$V = 51.753 - 6.1183766250$$

$$V = 45.635 \times .007753 \times 12$$

Rents equal .042457 of original investment

Alternative p. 429

$$.0820 = .4399$$

$$.0860 = .6211$$

$$.0040 = .1812$$

$$.4399 = 1/8 \times .1812 = .$$

$$.0226$$

$$.4625 \times .0925 = .042758$$

- #1 a) The Peabody Building has a gross income of \$850,000 this year, operating expenses of \$191,000 and taxes of 24% of effective gross income. Vacancies in the office building market are 6% currently and are expected to be reduced to $5\frac{1}{2}\%$ next year. The land, if vacant, has an estimated value of \$900,000. The remaining economic life of the building is 25 years. The discount rate is $7\frac{1}{2}\%$, and the sinking fund rate is $4\frac{1}{2}\%$.

Determine the indicated value of the property using the building residual approach assuming

- 1) straight capitalization with straight line recapture
 - 2) straight capitalization with annuity recapture
- b) Now, assume that the Peabody Building was built in 1928, is 15 stories high and has four manual elevators in operation. How would this additional fact modify your appraisal?

- #2 Mr. Smith owns 20,000 ft.² of vacant land one mile north of the Milwaukee C.B.D., where the demand for both office space and apartments is strong. His first option is to build an office building which is described as follows:

- 1) 30 stories, land coverage 90%, building efficiency 81%
- 2) Average rental rate \$8.25 per ft.² MRA, operating expenses 48% of effective gross income.
- 3) Building cost $\overset{28.00}{\cancel{50.00}}$ per ft.², economic useful life 45 years

His second option is to build an apartment building which is described as follows:

- 1) 40 stories, land coverage 95%, building efficiency 86%
- 2) Average rental rate \$5.10/ft.² MRA, operating expenses 42% of effective gross income
- 3) Building cost $\overset{23}{\cancel{40.00}}$ /ft.², economic useful life 40 years

Assume an 8% discount rate.

Using the traditional land residual approach to value, determine the highest and best use of the site.

- #3 A supermarket is leased to a national chain for 10 years at a rent which produces an average net annual income of \$21,000. Mortgage money is available up to 80% of value ~~at~~ 7% for a twenty-year term. What is the market value of the property if market equity yield rate is 10% and we may expect a 20% decline in value at the end of ~~two~~ years?

- #4 Assume net income of \$30,000 per year for an older apartment building. A bank is willing to make an 8%, 20 year loan for 80% of value. Assuming 15% depreciation over 10 years, what is the value of the investment property priced to yield 14% to equity?
- #5 Assume the same building as above. However, a real estate investment trust is willing to make a 9%, 25 year loan for 80% of value. With the 10 year forecast allowing for 15% depreciation, what is the maximum price the investor could pay to yield 18% on his equity?
- #6 Assume Charlie paid \$200,000 for a building with \$20,000 net income subject to \$120,000 mortgage at 7-3/4% with a 20 year term. He anticipated no depreciation over a 5 year forecast. What yield did he expect on his equity? If he wanted to improve his yield to equity 4% by refinancing with a new 20 year mortgage at 9% interest, how much would he have to borrow in a new loan?
- #7 Assume the buyer of the building above paid \$220,000 for it. How far could the price decline in 5 years and still give him an 8% return on his money if he could obtain \$180,000 at 9% for 20 years?
- #8 On the other hand, on the same deal as in #6, how far must resale price increase in 5 years to give him 20% on his equity? How much in 10 years?

~~ELLWOOD PROBLEM~~

- #9 Assume that an investor demands an equity yield of .100 and a given property is available for purchase in which the overall rate of return is estimated at .081. Assume that a mortgage ratio of 75% is available at 7½% for a 20 year term.

What depreciation can the property sustain to yield 10% for 10 years?

What depreciation can the property sustain to yield 9% for 10 years?