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16. Abstract <p>In 1984, Section 21.042 of the Texas Property Code was amended to allow for the benefit to a remainder of property condemned for highway purposes to be subtracted from the compensation paid for the part taken. Prior to this time, special benefits were allowed to be offset against damages to the remainder, but not against the value of the land taken. The overall goal of this research was to examine the impacts of this amendment on highway land acquisition cases. The amendment was declared unconstitutional in 1987. As a result, the immediate usefulness of the research has been reduced. However, the information presented should be useful to other State Departments of Highways and, possibly, the Texas State Department of Highways and Public Transportation (SDHPT) in the future. This report presents an overview of the highway right-of-way appraisal process, the role of the principal actors involved, and key factors which affect appraised values in highway condemnation cases. Additionally, it describes the operational experiences of the appraisal section of the SDHPT under the amendment to Section 21.042 of the Property Code brought about during the 68th Texas Legislature. The analyses provide insights that are applicable to the assessment of the financial impacts of House Bill 101 on partial takings during the 1984-87 period. Finally, the preliminary investigations concerning the development of an indexing system to measure quantitatively the special benefit, by locational characteristic and improvement type, that result to real property in partial takings are summarized.</p> Right-of-way Appraisal, Highway Project Benefits,			
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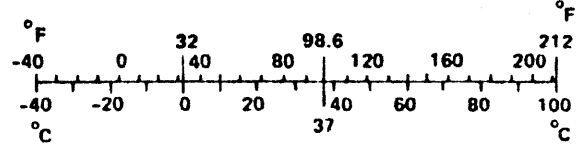
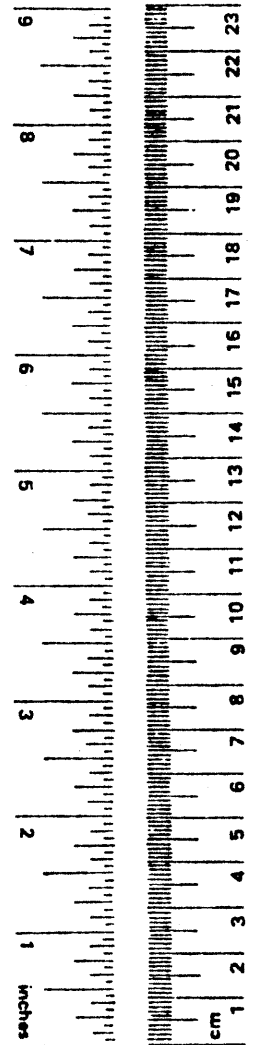
METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.09	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
mi ²	square miles	2.6	square kilometers	km ²
	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
VOLUME				
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
TEMPERATURE (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square inches	in ²
m ²	square meters	1.2	square yards	yd ²
km ²	square kilometers	0.4	square miles	mi ²
ha	hectares (10,000 m ²)	2.5	acres	
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³
TEMPERATURE (exact)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



* 1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price \$2.25, SD Catalog No. C13.10:286.

FACTORS AFFECTING APPRAISED VALUES IN HIGHWAY LAND ACQUISITION CASES

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Increased Land Accessibility Due to Highway Projects
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ABSTRACT

In 1984, Section 21.042 of the Texas Property Code was amended to allow for the benefit to a remainder of property condemned for highway purposes to be subtracted from the compensation paid for the part taken. Prior to this time, special benefits were allowed to be offset against damages to the remainder, but not against the value of the land taken. The overall goal of this research was to examine the impacts of this amendment on highway land acquisition cases. The amendment was declared unconstitutional in 1987. As a result, the immediate usefulness of the research has been reduced. However, the information presented should be useful to other State Departments of Highways and, possibly, the Texas State Department of Highways and Public Transportation (SDHPT) in the future. This report presents an overview of the highway right-of-way appraisal process, the role of the principal actors involved, and key factors which affect appraised values in highway condemnation cases. Additionally, it describes the operational experiences of the SDHPT under the amendment to Section 21.042 of the Property Code brought about during the 68th Texas Legislature. The analyses provide insights that are applicable to the assessment of the financial impacts of House Bill 101 on partial takings during the 1984-87 period. Finally, the preliminary investigations concerning the development of an indexing system to measure quantitatively the special benefit, by locational characteristic and improvement type, that result to real property in partial takings are summarized.

Keywords: Appraisal, Appraisal Process, Appraisal Value, Comparables, Cost Approach, Direct Sales Comparison Approach, Market Value, Income Approach, Partial Takings, Eminent Domain, Land Accessibility, Right-of-way Acquisition, Right-of-way Costs, Right-of-way Appraisal, Highway Project Benefits.

IMPLEMENTATION STATEMENT

The identification of distinctions between special and direct benefits from general benefits should be useful to right-of-way appraisers in assessing compensation for partial takings. The investigations concerning the development of an improvement index to estimate special benefits should also help appraisers negotiate equitable compensation for these partial takings.

DISCLAIMER

The contents of this report reflect the views of the authors who are responsible for the opinions, findings, and conclusions presented herein. The contents do not necessarily reflect the official views or policies of the Texas State Department of Highways and Public Transportation or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.

SUMMARY

In July 1984, during the special legislative session, House Bill 101 was introduced and passed by the Senate Finance Committee. This bill related to the treatment of the condemnation of real property for the use and construction of the state highway system. With the passage of this bill, Section 21.042 of the Property Code was amended to allow for the benefit to a remainder of condemned property to be subtracted from the compensation paid for the part taken. Prior to this time, special benefits were allowed to be offset against damages to the remainder, but not against the value of the land taken. The amendment was declared unconstitutional in 1987 (State of Texas versus the Enterprise Company).

This report reviews the factors affecting appraised values in highway land acquisition cases. The specific focus of this report was to investigate the development of an index system, or general guidelines, for use by appraisers to measure quantitatively the special benefit, by locational characteristics and improvement type, that results to real property in partial takings. Also presented are discussions on current practices, operational experiences of the appraisal section of the Texas State Department of Highways and Public Transportation (SDHPT) under the amendment, and a description of the appraisal process from three different perspectives: reviewing appraisers, independent fee appraisers, and special commissioners.

The United States can be grouped under five rules that describe how special and general benefits are handled in partial taking cases. Five states disallow consideration of benefits, whether special or general. Twenty-eight states allow special benefits to be offset against damages to the remainder but not against the value of the part taken. In five states special and general benefits are allowed to be offset against damages to the remainder but not against the value of the land taken. Thirteen states allow special benefits to be offset against both damages to the remainder and the value of the part taken.

In Texas, the appraisal process requires the interaction of three principal actors: 1) reviewing appraisers, 2) independent fee appraisers, and 3) special commissioners. Reviewing appraisers are usually state employees that are placed in the position of arbiter or judge of the many issues presented in the appraisal. The reviewing appraiser sets the stage which will ultimately reflect the state's image in the acquisition of private property. Fee appraisers are independent businessmen contracted by the State to conduct the field work, write the appraisal report, and make a valuation determination. Special commissioners are appointed by the county or district judge to resolve the differences between the property owners and the state when the initial negotiations breakdown. These commissioners are generally disinterested local property owners who bring experiences gained from various occupational backgrounds to these hearings.

Several problems were encountered in the analysis of recent highway land acquisition cases in Texas. These analyses were intended to identify the relationships between compensation to property owners and variables such as site, topography, negotiated versus commissioner hearings, etc. The primary obstacle encountered in the development of the index was the lack of clear relationships between the variables examined. Research efforts directed at developing an index system to measure special benefits may need to be either refocused or expanded. In addition to the problem of developing an index system robust enough to account for the many possible relationships between types and location of improvements, the legal issues surrounding the use of such a system will need to be resolved. For example, in court proceedings, the appraiser may need to validate the index with site specific information. This validation would be needed to confirm the applicability of the index to the site in question and to gain first-hand knowledge of the use of the index. Such first-hand knowledge may be needed to avoid having the result of applying the index dismissed as "hearsay." The results of this research indicate that the development of an index system, or general guidelines for use by appraisers, to measure quantitatively the special benefit, by locational characteristics and type of improvement, that results to real property in partial takings may not be possible at this time.

Despite the recent ruling declaring House Bill 101 unconstitutional, some positive impacts have resulted from its introduction. For example, appraisers have become more cognizant of enhancements and the valuation of remainders as separate property before and after the taking. Additionally, many or most cases pending resolution will probably be settled due to the new ruling. That is, all pending case awards have been recalculated and generally reflect an increased award. Still, some property owners will express dissatisfaction with the amount of the award and will exhaust the entire appellate process before a resolution is possible.

Evidence from the few cases settled during the implementation of the amendment suggest that the eventual savings to the state and taxpayers may have been overstated. Recent evidence suggests that the average annual savings may be in the range of \$4.5 to \$5.0 million, not the \$100 to \$150 million range originally suggested.

The bill is expected to be reintroduced during the next regularly scheduled biennial legislative session in January 1989. There is a possibility for additional research at or about the time of the next legislative session.

If, in fact, this bill is reintroduced as expected, the following suggestions are offered to expedite the development of the quantitative index:

- Random selection of the cases heard by the commissioners will allow the analyst to determine whether the trend of increased final awards for cases appealed to the commissioners displays a causal relationship.
- It is also recommended that another sample of cases be taken. If a large sample (several hundred) is possible given the resources available, a systematic sample would be appropriate. Otherwise, a smaller restricted sample could be taken. One geographic area could be selected to reduce the overall variability and allow examination of the factors of interest. The assumption that the same relationships held for other areas, however, would have to be made.

In connection with the latter suggestion, the feasibility of long-term monitoring of a select group of parcels, for example the beltway parcels in Houston, to track remainder sales and compare the amount paid on the open market versus the appraisal valuation should be explored. Continued monitoring of these parcels should provide a reasonable assessment of the variations between commissioners final awards and negotiated awards.

TABLE OF CONTENTS

	<u>Page</u>
ABSTRACT	iii
IMPLEMENTATION STATEMENT	v
DISCLAIMER	v
SUMMARY	vii
1. INTRODUCTION	1
1.1 Background	1
1.2 Study Objectives	2
1.3 Scope	3
2. SUMMARY OF CURRENT PRACTICES	5
3. THE APPRAISAL PROCESS	17
3.1 General	17
3.2 The Role of Reviewing Appraisers	17
3.3 The Role of Independent Fee Appraisers	18
3.3.1 Direct Sales Comparison Approach	20
3.3.2 Income Capitalization Approach	21
3.3.3 Cost Approach	22
3.3.4 Final Value Estimate	23
3.4 Special Commissioners Hearings	24
3.5 Summary	27

TABLE OF CONTENTS (Cont.)

	<u>Page</u>
4. FACTORS AFFECTING APPRAISED VALUES IN HIGHWAY CASES	29
4.1 General	29
4.2 Comparable Sales Data	29
4.3 Location of the Property	31
4.4 Succession of Land Uses	33
4.5 Summary	38
5. OPERATIONAL EXPERIENCES UNDER H.B. 101	43
6. ANALYSIS OF RECENT HIGHWAY LAND ACQUISITION CASES IN TEXAS	47
6.1 The Data Base	47
6.2 Results	47
7. CONCLUSIONS AND RECOMMENDATIONS	57
REFERENCES	59
GLOSSARY	61

1. INTRODUCTION

1.1 BACKGROUND

The interrelationships between transportation and land use have long been recognized. Commercial, industrial, and residential land development generate traffic and require transportation system capacity. When it is added, the additional transportation system capacity improves access to the surrounding area which increases property values and fosters additional development. These fundamental economic principles are clearly evident in practice as well. Concentration of commercial development along freeway corridors and principal street intersections illustrates the effect of good access on property values. Owners whose property abut the highway benefit from the transportation improvement. The 68th Texas Legislature sought to account for these special benefits in its 1984 amendment to the Property Code. In 1984, Section 21.042 of the Texas Property Code was amended to allow for the appraised benefit to a remainder of property condemned for highway purposes to be subtracted from the compensation paid for the part taken. Prior to this time, special benefits were allowed to be offset against damages to the remainder, but not against the value of the land taken. This provision, it was thought, would reduce the State's right-of-way cost by internalizing part of the value of the improved mobility and access resulting from the project.

The identification of special and direct benefits accruing to the remaining parcel because of the highway project is a complex yet crucial issue in accomplishing the legislative intent of this change in the property code. Distinction between general benefits and specific enhancements conferred on the property require definition for appraisers and attorneys. Moreover, these distinctions must be clear, measurable and useful to field appraisers, and must relate directly to the appraisal process.

In the Summer of 1987, House Bill 101 was declared unconstitutional by the Supreme Court of Texas. The basis of this declaration was derived from the Court of Appeals of Texas (14th District) interpretation of Article I Section 17 of the Texas Constitution. The first case interpreting "adequate compensation" was Buffalo Bayou, Brazos & Colorado Railroad Company versus Ferris (26 Texas 588, Texas Supreme Court 1863). That case held that the constitution requires compensation for the full market value of the land taken. The value of any benefits to the condemnee's remaining land may not offset the amount paid for the part taken (1). As a result of this judgement, this report focuses on experiences under the amendment which was in effect during the period 1984-1987. Specifically this report presents a summary of current practices, an overview of the appraisal process and the key factors affecting appraised values in highway cases, describes the operational experiences of the appraisal section of the SDHPT under House Bill 101, and presents the results of preliminary investigations directed at the development of an indexing system relating special benefits to the type and location of the improvement.

1.2 STUDY OBJECTIVES

Specific study objectives were:

1. To identify practices used in other states to distinguish and measure special benefits and their use to offset damages in partial takings;
2. To develop criteria to distinguish special and direct benefits from general benefits accruing to real property from highway improvements; and
3. To investigate the development of an index system, or general guidelines for consideration by appraisers, to measure quantitatively the special benefit, by locational characteristics and type of improvement, that results to real property in partial takings.

1.3 SCOPE

An earlier research report (2) presented a review of the literature and a survey of current practices regarding the use of special benefits to offset damages in partial takings. The focus of this previous report was study objectives 1 and 2. The key findings of the literature review are summarized in Chapter 2 of this report. This report addresses study objective 3, which is the primary objective of the study.

The recent Texas Supreme Court decision declaring House Bill 101 unconstitutional prohibits the offsetting of benefits whether general or special. As a result, the immediate usefulness of this research has been reduced. However, the information presented should be useful to other State Departments of Highways and, possibly, the Texas SDHPT in the future.

2. SUMMARY OF CURRENT PRACTICES

Benefits of highway improvements fall under one of two classifications. They are either 1) general or 2) special. Many states have not made a clear distinction between the two and have allowed each case to be determined on its own merits. This practice results in more confusion in an already confusing situation.

In general, the literature suggests the following definitions.

General benefits are those that accrue to an entire neighborhood or community and have a beneficial effect on the values of properties where no taking or damage has occurred as well as the value of properties which have been taken or damaged (3).

... general benefits are those which arise from the fulfillment of the public object which justified the taking ... (4).

General benefits are societal benefits and are usually defined as user or non-user. They can also be divided as to environmental, social, and economic benefits. Examples of each include: wide rights-of-way provide areas for native fauna and flora to flourish undisturbed; increased accessibility breaks down physical barriers to the integration of regions, reduces congestion and travel time, allows for more effective comprehensive land use and transportation planning, and encourages economic development and growth (5).

In Texas, general benefits are not allowed to offset the compensation or damages due because of a partial taking. The legislature intended for HB 101 to allow special benefits to be used to offset the compensation for the part taken and remainder damages.

In Taylor v. State (4) the court continued with the following definition of special benefits:

... special benefits are those which arise from the peculiar relation of the land in question to the public improvement.

Another way of stating it is:

special benefits arise or accrue from the property's position or its relationship to the ... improvement (6).

Special benefits occur when a particular piece of land is affected in a definite physical or economic way different in kind from the general benefits accruing to everyone in the area or the community. Each citizen may benefit from improved access or convenience, but particular pieces of property abutting the improvement may receive a special benefit from increased frontage, for example, that was not available to everyone in the neighborhood or community.

Enfield and Mansfield (7) indicate several different ways to gain insight as to whether a benefit is general or special. These include:

- 1) market value increases;
- 2) geographical classification (proximity);
- 3) physical benefit vs. economic benefit; and
- 4) precedent in court cases.

The market value of the abutting land may be increased due to increased commercial frontage or improved drainage so that flooding does not occur. Also, improved access to a piece of property may change the property's highest and best use from agricultural land to land able to be developed as a residential subdivision or commercial business use.

A "geographical standard" classifies benefits as general or special "depending on the size of the area they affect" (7). This definition, however, may be confusing in that a special benefit is identified with only one individual tract of land. Special benefits of the same nature can accrue to several different parcels of land in the immediate vicinity of the improvement.

A physical benefit is more easily defined as a special benefit. A physical change actually takes place immediately.

Table 1 lists several types of improvements that have been considered general benefits and the court case that identified the benefit categorization. Table 2 lists the same information for special benefits. Under certain circumstances some of these benefits can be either general or special and only the individual facts of each case and the court can determine its classification.

Texas law mandates the responsibility of the jury to decide if the benefits are special or general and the amount of compensation for damages and offsetting benefits. The valuation is set through expert testimony. The jury is expected to have some expertise as a result of their own experiences which will enable them to make informed adjustments to the testimony offered.

The establishment of guidelines to assist in defining specific situations where benefits can be defined in a standardized manner could reduce the need for a jury to define benefits on a case-by-case basis. These guidelines would lend much more credibility to the decisions handed down.

As previously stated, a myriad of remedies exists, and variations exist from state to state. These remedies are summarized below.

The United States can be grouped under five rules that describe how special and general benefits are handled in partial taking cases. These rules, known as "benefit offset rules" (3), are:

- Rule 1: Benefits, whether special or general, cannot be considered;
- Rule 2: Special benefits only can be offset against damages to the remainder, but not against the value of the land taken;
- Rule 3: Special benefits and general benefits can be offset against damages to the remainder, but not against the value of the land taken;

Table 1. Typical General Benefits Resulting from Highway Improvements

Type of Benefit	Legal Precedent
1. Improved Drainage*	Portland, Oregon City Ry. Co. v. Penney (1916) 158 P. 404
2. Improved Road Gravel to Hard Surface*	Cook v. Eastland 260 S.W. 881 (Tex-1924)
	Hall v. Wilbarger County 37 S.W. 2d 1041 (Tex-1941)
3. Proximity to New Highway*	State of Texas v. Scarborough (Tex-1964) 383 S.W. 2d 839
	State of Missouri v. Parker (1965) 387 S.W. 2d 505
	Phoenix Title & Trust v. State of Arizona (1967) 425 P. 2d 434
4. Location of Railroad Depot	International & G.N.R. Co. v. Bell 130 S.W. 634 (Tex-1910)
5. Increased Vehicular Traffic*	Howe v. State Highway Bd. 187 A. 2d 342 (Vermont-62)
	Farrell v. State Highway Bd. 194 A. 2d 410 (Vermont-63)
	State of Missouri v. Parker 387 S.W. 2d 505 (1965)
	Phoenix Title & Trust Co. v. State of Arizona (1967) 425 p. 2d 434
6. Increased Convenience*	City of Corsicana v. Marino (Tex-1955) 282 S.W. 2d 720, 722
	Strickland v. City of Friona (Tex-1956) 294 S.W. 2d 254, 258
7. New Access*	Territory of Hawaii v. Mendonca (1962) 375 p. 2d 6

* Denotes benefits that may also be considered special benefits (see Table 2).

Source: Eaton (3) and TTI Surveys.

Table 2. Typical Special Benefits Resulting from Highway Improvements

Type of Benefit	Legal Precedent
1. Improved Drainage*	<p>State of Missouri v. Cady 400 S.W. 2d 481 (1965)</p> <p>Stappers v. State of Texas 410 S.W. 2d 470 (1966)</p>
2. Fencing-Public Maintained and Built	<p>Isenberg v. Gulf, T&W Ry. 152 S. 233 (Tex-1912)</p> <p>People v. Thomas (Calif.) 239 P. 2d 914 (1952)</p>
3. Increased Frontage - New Road*	<p>State of Missouri v. Jones 155 S.W. 2d 338 (1929)</p> <p>Louisiana Hwy. Comm. v. Grey 2 So. 2d 654 (1941)</p> <p>Hughes v. State of Texas 302 S.W. 2d 747 (1957)</p> <p>Tuttle v. State of Texas 381 S.W. 2d 330 (1964)</p> <p>MacGarrett v. State of Texas 441 S.W. 2d 305 (1969)</p>
4. Proximity to New Highway	<p>Maddox v. State of Texas 373 S.W. 2d 322 (1963)</p> <p>Taylor v. State of Arizona 467 P. 2d 251 (1970)</p>
5. Increased Convenience* (street widened)	<p>City of Dallas v. Firestone Tire and Rubber Co. 66 S.W. 2d 729 (Tex-1933)</p> <p>City of Dallas v. Priolo 242 S.W. 2d 176 (Tex-1951)</p>
6. Creation of lake made rural property more suitable for lakeside cottages Creation of a reservoir ... campsite development	<p>City of Waco v. Craven 54 S.W. 2d 883 (Tex-1932)</p> <p>Tarrant County Water Control & Improvement District No. 1 v. Hubbard 433 S.W. 2d 681 (Tex-1968)</p>

Table 2. Typical Special Benefits Resulting from Highway Improvements (Cont.)

Type of Benefit	Legal Precedent
7. Improved Available Advertising Space	Cuneo v. City of Chicago 81 N.E. 2d 451 (Ill-1948)
8. Increased Vehicular Traffic*	Cuneo v. City of Chicago 81 N.E. 2d 451 (Ill -1948)
	Vanech v. State of New York 270 N.Y.S. 2d 357 (NY-1966)
9. Construction of Sanitary Sewer, Storm Sewer, and Water Main	City of St. Louis Park v. Engell 168 N.W. 2d 3 (Minn-1969)
10. New Access - Improved Road	Currie v. Glasscock City 212 S.W. 533 (Tex-1919)
11. Hard Road Improved Market Value*	Dept. of Public Works & Bldgs. v. Keck 161 N.E. 55 (Ill-1928)
	Parish of E. Baton Rouge v. Edwards (La-1960) 119 So. 2d 175
12. Availability of Electricity	Arcola Sugar Mills v. Houston Lighting and Power Co. (Tex-1941) 153 S.W. 2d 628
	Aycock v. Houston Lighting and Power Co. (Tex-1943) 175 S.W. 2d 710
13. Corner Lot Creation	State of Louisiana, Dept. of Highways v. Mouldous 200 So. 2d 384 (La-1967)
14. Swamp Drainage	Taylor v. State of Arizona 467 P. 2d 251 (Az-1970)
15. Reduced Circuitous Route	MacGarrett v. State of Texas 441 S.W. 2d 305 (1969)
16. Improve Highest and Best use (pasture to farmland)	Kennedy, et al. v. Travis County 130 S.W. 844 (Tex-1910)
(farmland to residential)	State of Indiana v. Smith 143 N.E. 2d 666 (1957)

*Denotes benefits that may also be considered general benefits (See Table 1).

Source: Eaton (3) and TTI Surveys.

Rule 4: Special benefits can be offset against both the damages to the remainder and the value of the land taken; and

Rule 5: Special and general benefits can be offset against both damages to the remainder and value to the land taken (also referred to as "Federal Rule.")

In the recent past, Texas has used rules 2 and 4. Prior to the 68th legislature and the enactment of House Bill 101, Texas used rule 2 in partial taking cases. The provisions of the new legislation allowed the State to apply rule 4 in partial takings. The ruling by the Supreme Court and Court of Civil Appeals rendering the Amendment to the property code unconstitutional required a change back to rule 2.

Rules 4 and 5 are very similar except the latter holds that both general as well as special benefits may be offset against the taking and damages. Rule 5 does not appear to be applicable in any jurisdiction unless the position of the United States Justice Department prevails in a federal condemnation case.

Table 3 presents a summary of benefit offset rules currently used in the U.S. As shown in Table 3, only five states disallow consideration of benefits, whether special or general (Rule 1). Twenty-eight states follow Rule 2 which allows special benefits to be offset against damages to the remainder but not against the value of the part taken. In five states, Rule 3 is followed permitting special and general benefits to be offset to the residue, but not against the value of the land taken. Thirteen states follow Rule 4 which allows special benefits to be offset against both damages to the remainder and the value of the part taken. The existence of special benefits is generally measured by an appraiser through market data analysis. The appraiser may make detailed studies of real estate value trends in areas that are comparable to the area in which the property under appraisal is located, but not under the influence of the public project, in order to develop a sound and supportable basis for his determination. Such conclusions will often depend on the circumstances of the specific case.

Table 3. Summary of Benefit Offset Rules by State

Jurisdiction	Offset Rule Used				Comments
	Rule 1	Rule 2	Rule 3	Rule 4	
Alabama	x				Offset against damages allowed on highways, water conservation districts, and water management districts
Alaska		x			
Arizona		x			Market value support required
Arkansas				x	Case-by-case
California		x			
Colorado		x			Case-by-case
Connecticut				x	
Delaware				x	Case-by-case
Dist. of Columbia				x	
Florida		x			If more than one property involved the benefit becomes general and cannot be offset...
Georgia		x			
Hawaii				x	Offset against damage only when take is for road widening or re-alignment... If for highway, can offset damages and value taken.
Idaho		x			
Illinois		x			Special benefits have been defined so broadly that they include general benefits as typically defined.

Table 3. Benefit Offset Rules (Continued)

Jurisdiction	Offset Rule Used				Comments
	Rule 1	Rule 2	Rule 3	Rule 4	
Indiana		x			Case-by-case
Iowa	x				
Kansas		x			
Kentucky				x	Case-by-case
Louisiana		x			Case-by-case
Maine				x	
Maryland		x			Constitution requires that state pay for part actually taken.
Massachusetts				x	
Michigan				x	
Minnesota	x				Benefits so narrowly defined, none have been applied in 10 years. Law allows for individual benefits at four corners of interchange.
Mississippi	x				
Missouri				x	Case-by-case
Montana		x			
Nebraska		x			Case-by-case
Nevada		x			Case-by-case
New Hampshire		x			
New Jersey		x			Case-by-case
New Mexico			x		Administrative settlement is now usual to avoid court case

Table 3. Benefit Offset Rules (Continued)

Jurisdiction	Offset Rule Used				Comments
	Rule 1	Rule 2	Rule 3	Rule 4	
New York			x		No distinction is made between special and general benefits
North Carolina			x		Strict before and after rule followed. Special and general included.
North Dakota		x			Case-by-case
Ohio		x			Special assessment may be imposed simultaneously with taking in local takings. Interchanges are considered general and benefit must be to one property alone -- not several at same time.
Oklahoma	x				
Oregon		x			
Pennsylvania				x	
Rhode Island		x			
South Carolina				x	Conflict in law exists -- highway cases are treated differently from local authority takings.
South Dakota		x			
Tennessee		x			
Texas		x			Case-by-case
Utah		x			Case-by-case
Vermont		x			Case-by-case
Virginia			x		Strict before and after

Table 3. Benefit Offset Rules (Continued)

Jurisdiction	Offset Rule Used				Comments
	Rule 1	Rule 2	Rule 3	Rule 4	
Washington				x	Optional deferment of benefits provided.
West Virginia			x		
Wisconsin		x			
Wyoming		x			

Source: Eaton (3) and TTI Surveys

The literature review and survey of current practices provide some useful insights into the problem of defining and quantifying special benefits. In this regard, previous work by TTI is particularly noteworthy (8, 9). However, defining and quantifying these benefits in a manner which can be applied in a uniform, systematic fashion remains a problem. Special benefits arise from the peculiar (or "special") relation of the land in question to the improvement. Hence, due to their nature, precise definitions of special benefits may have to be made on a case-by-case basis. Likewise, given the large variety of relationships that may exist between a parcel of land and a highway improvement, it may be very difficult to quantify special benefits in any general manner. In short, the general findings of the literature review suggest a number of issues which have a direct bearing on this research. Specifically, these issues suggest that research efforts directed at developing an indexing system to measure special benefits may need to be either re-focused or expanded. In addition to the problem of developing an indexing system robust enough to account for the many possible relationships between types and locations of improvements, the legal issues surrounding the use of such a system need to be resolved. For example, in court proceedings, the appraiser may need to validate the index with site-specific information. This validation would be needed to confirm the

applicability of the index to the site in question and to gain first-hand knowledge of the use of the index. Such first-hand knowledge may be needed to avoid having the results of applying the index dismissed as "hearsay." Hence, at this point in the research, the development of an indexing system to measure special benefits may produce only indirect benefits. The indexing system, for example, could prove helpful in quantifying and defining special benefits in a general way. Those phases of the research directed at developing the improvement index could be useful in developing general guidelines for use by appraisers in assessing special benefits on a case-by-case basis. The development of a standard, general methodology for identifying and quantifying special benefits may avoid many of the problems associated with a strict indexing system, while still providing a uniform, systematic approach for defining and quantifying special benefits. This approach could be useful despite the recent court decision declaring it unconstitutional in Texas to use special benefits accruing to the remainder to be used to offset the value of the part taken.

3. THE APPRAISAL PROCESS

3.1 GENERAL

The appraisal process is a systematic analysis of the factors that bear upon the value or utility of real estate. In Texas, this process requires the interaction of three principal actors: 1) reviewing appraisers, 2) independent fee appraisers, and 3) special commissioners. Reviewing appraisers are usually state employees that are placed in the position of arbiter or judge of the many issues presented in the appraisal. The reviewing appraiser sets the stage which will ultimately reflect the state's image in the acquisition of private property. Fee appraisers are independent experts contracted by the State to conduct the field work, write the appraisal report, and make a valuation determination. Special commissioners are appointed by county or district judges to resolve the differences between the property owners and the state when the initial negotiations break down. These commissioners are generally disinterested local property owners who bring experiences gained from various occupational backgrounds to these hearings. An overview of the specific responsibilities and considerations of each are outlined in the following paragraphs.

3.2 THE ROLE OF REVIEWING APPRAISERS

Within the State Department of Highways and Public Transportation, reviewing appraisers are categorized as either District or Right-of-Way Division reviewing appraisers. Each section performs its own distinct set of duties. The functions of the District reviewing appraisers are comparable in responsibility to other major functions of field work. District reviewing appraisers are responsible for appraisal work, fee appraisers' qualifications, assigning parcels to be appraised, advising fee appraisers, reviewing appraisal reports, recommending values, determining retention values, assisting in eminent domain cases, and furnishing appraisal support for acceptance of Commissioners' Awards and recommended settlements of eminent domain lawsuits. They also assist the engineering staff in highway location work by making studies for engineering consideration to better fit the highway to the community with a minimum of negative impacts on property

development. They prepare estimated right-of-way costs on possible alternate routes for programming purposes. They act in an advisory capacity where right-of-way costs relate to engineering matters, but final decisions remain an engineering function. In addition to the above, they collect basic data on the costs of new construction, fences and advertising signs, and maintain a file of comparable sales information on each right-of-way project (10).

The Appraisal Section of the Right-of-Way Division is concerned with the review and processing of appraisals, appraisal contracts, fee schedules and applications for appointment as fee and staff appraisers which have been submitted and recommended for approval by the District Offices. It is the responsibility of this section to review appraisal reports, to review the District's analysis of the appraisals and their recommended values, to prepare review comments, and to recommend for the Right-of-Way Engineer's approval all retention values and the values of all properties to be acquired for highway right-of-way purposes, or for building and warehouse sites, storage and other maintenance uses or borrow sources. Also, it is their responsibility to review all appraisal support for the District's recommendation of the acceptance of Commissioners' Awards and recommended settlements in eminent domain cases. Since proper documentation of appraised and approved values is required to substantiate reimbursement claims, it is a duty of the appraisal section to see that adequate documentation is received (10).

3.3 THE ROLE OF INDEPENDENT FEE APPRAISERS

Independent fee appraisers perform a substantial portion of the field work required in the typical appraisal. This field work includes the following elements (Figure 1):

1. Define the problem
2. Plan the appraisal
3. Data collection
4. Data analysis
5. Application of alternative approaches to value estimation
6. Reconciliation and final value estimate
7. Write appraisal report

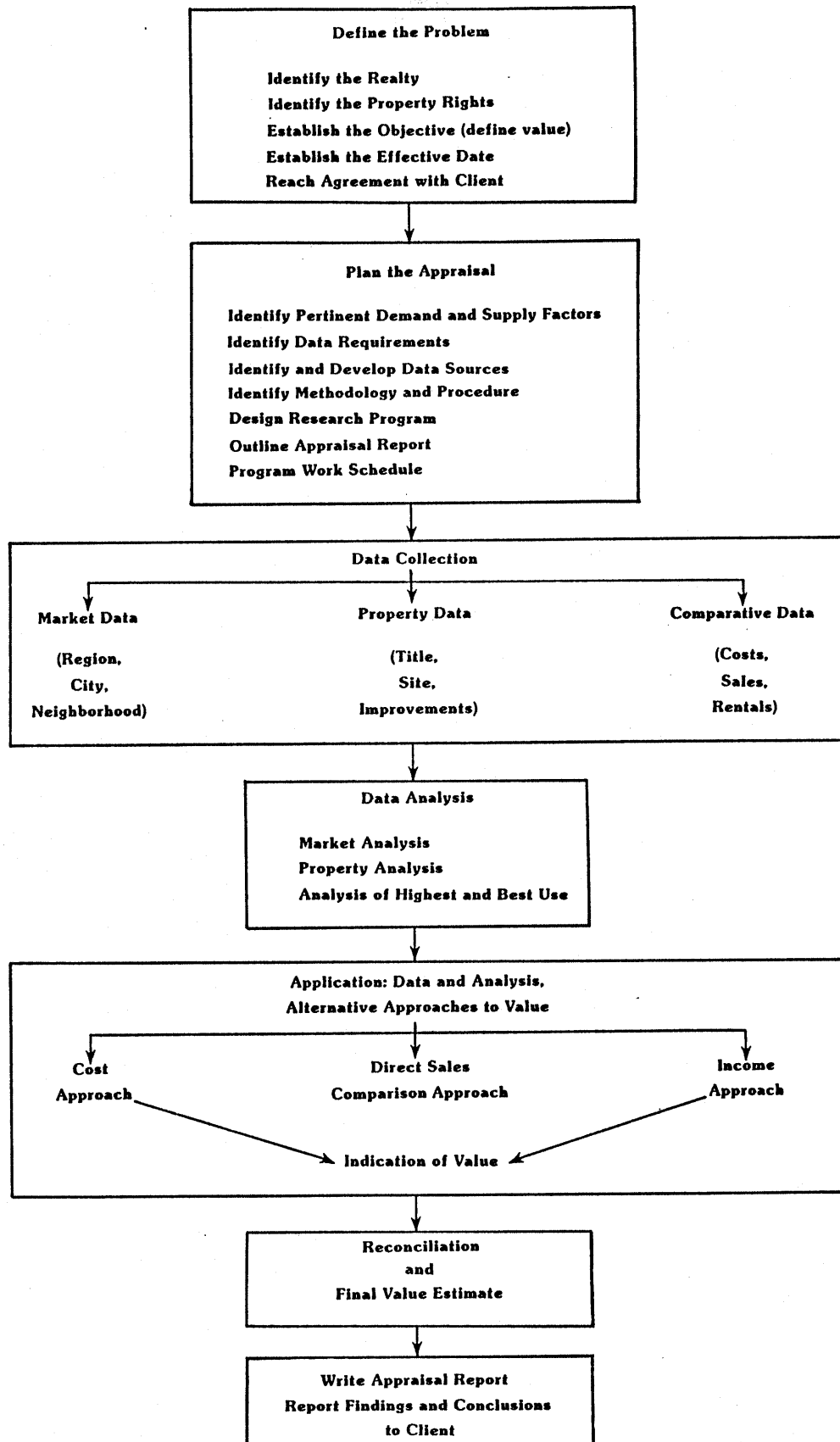


Figure 1. The Appraisal Process

Source: (11)

The components of an appraisal plan are: 1) the identification of pertinent demand and supply factors, 2) the identification of the data requirements, 3) identification and development of data sources, 4) the identification of appropriate methods and approaches, 5) design the research program, 6) outline the appraisal report, and 7) program the work schedule. These decisions are based on preliminary inspection of the subject property and competitive properties in its neighborhood, discussions with the client, and a preliminary review of pertinent market data in the appraiser's files (11).

The application of the data to arrive at a value estimate usually involves one of three common approaches: 1) direct sales comparison approach, 2) income capitalization approach, or 3) cost approach. The appraiser should consider each of these approaches in every appraisal, even though subsequent analysis may reveal that one or more of these approaches is inapplicable. Each approach offers insights into the factors affecting property value that the typical buyer may not appreciate. Each approach serves as a check on the others to aid in identifying and pinpointing any erroneous assumptions. The applicability of any approach in a given appraisal problem depends on the character of the problem, the type of property involved, the nature of the market, and the availability of required data of appropriate quality in sufficient quantity (11). A brief summary of these three basic techniques is provided below.

3.3.1 DIRECT SALES COMPARISON APPROACH

The direct sales comparison approach is based primarily on the principle of substitution; i.e., that informed purchasers would pay no more for property than the cost to them of obtaining comparable, competitive property with the same utility on the open market. When market data are available, the sales comparison approach is the best reflection of the way the informed purchaser reacts to the market.

The market behavior and reactions of typical purchasers to differences among properties provide the guide to whether an adjustment is to be made, in what direction it is to be made, and how much it should be. This is an

application of the principle of contribution. The appraiser must decide which technique of adjustment is appropriate to the particular case and must use it consistently throughout the adjustment process. An adjusted sales price is derived for each comparable sales property. These adjusted sales prices are reconciled to a final indication of the market value of the subject property. This figure is then rounded to an indication of market value of the subject property via the direct sales comparison approach (11).

3.3.2 INCOME CAPITALIZATION APPROACH

The income capitalization approach is a procedure in appraisal analysis which converts anticipated benefits (dollar income or amenities) to be derived from the ownership of property into a value estimate. The income approach is widely applied in appraising income producing properties. Anticipated future income and/or reversions are discounted to a present worth figure through the capitalization process. The rate of capitalization is frequently, but not necessarily, an overall rate, which expresses a direct relationship between net operating income and sales or value.

Income capitalization for income-producing real estate is always based on net income. The most frequently used measure of net property income is net operating income (NOI). This is the before-tax annual net income produced from operating the property as an investment. In determining NOI, the following factors are typically considered:

1. Gross Rental Income
2. Allowance for Vacancy and Credit Loss
3. Rent Collections
4. Non-rental Property Income
5. Operating Expenses of the Investment

The rate or rates of capitalization applied to forecast future net income in income capitalization are composites or weighted averages of the cash flow rates required by equity investors and mortgage lenders to induce them to commit investment funds to the property. Annual net income is divided by an annual rate of capitalization or multiplied by an annual capitalization multiplier to derive the estimate of value as defined for the subject property (11).

3.3.3 COST APPROACH

The cost approach reflects one alternative method available to a potential purchaser for acquiring a property with the same utility as the subject property. The cost approach to valuation involves making an estimate of what it would cost an informed purchaser to produce a replica of the subject property in its present condition. Site value is estimated separately as if the site were vacant and available to be put to its highest and best use. While cost does not create value and cost is not synonymous with value, cost of production may be an appropriate measure of value under certain conditions.

The indication of value via the cost approach is obtained by summing the following factors:

1. Value of the site as if vacant and available to be put to its highest and best use.
2. Estimated depreciated reproduction cost new (present worth) of improvements (buildings).
3. Estimated depreciated reproduction cost new (present worth) of site improvements.

The estimate of value via the cost approach depends heavily on the direct estimation of accrued depreciation charged against the reproduction cost when new of the improvements on the site. This is the chief limitation to the applicability of the cost approach.

The cost approach is most appropriately applied to the valuation of properties on which the improvements are new (or nearly so) and represent the highest and best use of the site. The starting point for estimating the present worth or contribution of the structure (or improvements) on the site to the value of the total property is to estimate its reproduction cost when new as of the date of the appraisal. Reproduction cost when new involves estimating the cost of producing a new replica of the subject structure. Cost when new is the cost to a typical purchaser. It includes both direct and indirect costs (which include contractor's profit and overhead, among many other items). Detailed improvements analysis, involving accurate description and measurement of the structure, is critical to successful estimation of reproduction cost new.

All methods of cost estimation involve some use of unit costs. The unit cost is multiplied by the number of units to derive the total cost of the particular structural component or of the entire structure. Several alternative methods of estimating reproduction cost when new are available to the appraiser. In decreasing order of detail, complexity, time, and expense, they are the quantity survey method, the unit-in-place method, the trade breakdown method (contractor's method, segregated method), and the comparative unit (cubic foot or square foot) method.

The selection of the appropriate method of cost estimation in any appraisal problem depends on the method to be used for estimating accrued depreciation, the degree of reliance to be placed on the estimate of value via the cost approach, and the time and money available to make the appraisal. Cost estimates can be developed via all methods except the quantity survey method with the use of data from cost services and manuals, provided that the data are applied with care and understanding. Site improvements are commonly valued at depreciated value or contribution as is, but they may be included in the estimate of reproduction cost new (11).

3.3.4 FINAL VALUE ESTIMATE

In the determination of the final value estimate, the data collection program, data analysis, and application of the appropriate approaches to

value estimation should all be reviewed by the appraiser. The estimates of market value from the several approaches applied are then reconciled into one final value estimate. Most appraisal assignments require the appraiser to indicate a single (most probable) market value figure. This is achieved by combining an evaluation of the applicability of the alternative approaches to the problem and to the property at hand with an evaluation of the quality and reliability of the data available and used (11).

The final estimate of market value may be rounded to an appropriate level. The final value estimate is never developed by averaging the value indications derived from each of the approaches utilized (11).

3.4 SPECIAL COMMISSIONER HEARINGS

In the event the valuation provided by the appraiser and approved by the State Department of Highways and Public Transportation is unacceptable to the property owner, the case is submitted to the special commissioners court. The Attorney General or county/city attorney initiates this action by filing a petition for eminent domain proceedings with the appropriate county or district judge who then appoints three special commissioners and schedules the Special Commissioners' Hearing. These Special Commissioners are generally disinterested property owners who rely on experiences gained from various occupational backgrounds (12).

At the appointed time and place, the Special Commissioners will conduct an informal hearing to determine the amount of compensation to be paid to the property owner(s) in connection with the taking. Both the State and the property owner(s) will be permitted to offer evidence as to the amount of compensation to which the property owner(s) is entitled according to appropriate legal principles. Following the hearing, the Special Commissioners will set the amount of compensation to be paid, and this amount is called the Commissioners' Award. The written Commissioners' Award is then prepared and after the appropriate dates and amounts have been entered each Commissioner will sign it. The award is then filed with the appropriate County or District Judge. Either the State or the property owner may appeal the commissioners' decision (12). When the commissioners' award is appealed by

either participant, it is placed on the docket of the county civil or district court of jurisdiction.

The following factors may be taken into consideration by the State when considering whether or not to appeal an award or enter into an agreed judgement (12):

1. Any legal deficiencies in the appraisals approved by the reviewing appraiser. An appraiser may not have had the benefit of legal advice as to the compensability of certain elements of value or damage, the offsetting of benefits, the identification of fixtures, the determination of what constitutes the remaining property for assessment of damages, or any number of other pertinent legal considerations.
2. Inadequacy of data upon which the appraisals are based, or improper application of legal principles to the appraisal processes.
3. The competency and effectiveness of an appraiser as a witness, to include:
 - a. ability and experience as an appraiser,
 - b. reputation in the area,
 - c. ability to persuasively and clearly explain his opinion of value and the reasons therefore to a court or jury, and
 - d. ability to stand-up under cross-examination.
4. Adjustment of appraisals to conform to the date of valuation under law. This rarely occurs in the State of Texas where testimony is restricted to the date of the hearing.
5. All available appraisals, including landowner's appraisals. This factor is commonly utilized in Texas. During the commissioners' hearing, the appraisal presented by the property owners appraiser as well as any other available appraisals are taken into consideration.

6. Interest or delayed damage payments to which an owner may be entitled under Texas law. Interest may be payable to a property owner when the commissioners' award is appealed and the county or district court of jurisdiction renders a higher valuation.
7. Serious doubt as to the highest and best use of the property at the time of the taking and, in appropriate instances, after the taking.
8. Extremely complex severance damage or other valuation problems that necessarily produce uncertainties as to value.
9. Uncertainty of Texas law relative to the measure or compensability of particular elements of value or damage, or the admissibility or adequacy of evidence necessary to prove facts in issue, where the circumstances or the evidence make it inadvisable to test the question in the case under consideration. Access control is an example of the most frequent form of uncertainty of Texas law relative to the compensability of elements of damage. When access is taken, the issue focuses on its materiality and substance. Each case is evaluated on the basis of its own merits.
10. Awards of commissioners or other administrative or quasi-judicial bodies, as the amount of the award or the testimony of individual commissioners, is admissible in evidence at a subsequent trial.
11. Recent court awards for eminent domain takings in the area.

In addition, the following items may be considered in conjunction with the items in the paragraph above as justification for settlements; however, they would not suffice as the sole justification (12).

1. Costs to the acquiring agency and its counsel for preparing and presenting the case at trial or in an appeal.
2. Costs to the public for impaneling a jury, maintaining the court, etc.

3. Alleged impossibility of obtaining an unbiased jury.
4. Likelihood of sympathy for the owner.

After filing the written award by the Special Commissioners with the appropriate county or district judge, the State is entitled to take immediate possession of the property after paying the commissioners' award into the court registry. Possession may be taken even though an appeal is filed by either or both parties (12).

3.5 SUMMARY

The appraisal process is a systematic analysis of the factors that bear upon the value or utility of real estate. Reviewing appraisers employed by the state and independent fee appraisers are the primary participants of the process. Special commissioners become involved in those instances where the negotiations between the property owner and the state break down.

While each element of the appraisal process is meaningful, emphasis should be placed on the data collection, data analysis, and analysis of alternative approaches to value phases of the process. The data collection consists of identifying the appropriate sources and gathering the information in accordance with the work plan. The data should be gathered in the order in which it is required for the analysis and in descending order of the best sources of information. Typical information sources include: 1) market data of the region, city, and neighborhood, 2) property data relating to the title, site, and improvements, and 3) comparative data on cost, sales, and rentals. It is imperative that knowledge of market information be firsthand; "hearsay" information is neither acceptable in court nor professionally defensible.

Combining the evaluation of area neighborhood influences with the salient features of the subject property, the appraiser must then analyze data on comparable sales, comparable costs, and comparable rentals. This analysis provides a basis for the application of all approaches to value estimation. Each approach requires comparative analysis with alternative properties. The background analysis and property analysis together provide

the basis for identifying what constitutes comparability in other properties for appraisal purposes.

The three common approaches to value in the appraisal process are: 1) direct sales comparison approach, 2) income capitalization approach, and 3) cost approach. The appraiser should consider each of these approaches in every appraisal. Each approach serves as a check on the others to aid in identifying any erroneous assumptions.

Special commissioners' hearings occur as a result of irreconcilable differences in the final estimate of value between the state and property owner. This informal hearing is usually initiated by the Attorney General or county/city attorney and consists of three appointed special commissioners. These appointees are generally disinterested local property owners who rely on experiences gained from various occupational backgrounds. During the hearing, both the State and property owner are permitted to offer evidence as to the amount of compensation due the property owner in accordance with appropriate legal principles. Following the hearing, the special commissioners will set the amount of compensation to be paid, and this amount is called the commissioners' award. The written commissioners' award is then prepared and after the appropriate dates and amounts have been entered, each commissioner will sign it. The award is then filed with the appropriate county or district judge. Either the State or the property owner may appeal the commissioners' decision.

Factors which influence the State's decision concerning whether or not to appeal an award include: a) issues relating to the legal deficiencies of the appraisal, b) adequacy of the data used in the appraisal, c) the competency and effectiveness of the appraiser, d) questionable analysis of future highest and best use, and e) recent court awards for eminent domain takings in the area.

4. FACTORS AFFECTING APPRAISED VALUES IN HIGHWAY CASES

4.1 GENERAL

The potential factors affecting the valuation process of parcels involved in highway condemnation cases are many. This section of the report focuses on three general classes of factors: 1) comparable sales data; 2) location of the property; and 3) changes in land use. These factors are discussed in detail in the following sections.

4.2 COMPARABLE SALES DATA

Comparable sales data may be the most significant factor affecting the valuation process in highway eminent domain cases. Comparable sales refers to the approach in appraisal analysis which is based on the proposition that an informed purchaser would pay no more for a property than the cost of acquiring an existing property with the same utility (commonly referred to as the principle of substitution). When adequate data of sufficient quality and quantity are available, the courts of most jurisdictions place a great deal of reliance and emphasis on evidence from authentic market sales of comparable properties in reaching judgments about market value and just compensation (11).

Information developed through the sales comparison approach provides both a basis and a support for judgments used in the application of other approaches to value estimation. It establishes, for example, the basis for measuring estimated depreciation charges in the cost approach. It also establishes standards for estimating the income approach and market rental in income valuation of residential or amenity properties (11).

It is difficult to use the direct sales comparison approach to estimate residential property value unless there are sufficient data of adequate quality to justify a market value conclusion. In the absence of market activity, or if the subject property is unique and there are no true comparisons, it may be impossible to apply this approach. It cannot be

applied readily or realistically if the subject property is not the type that is actively traded on the market (11).

The sales comparison approach is especially applicable to amenity properties, such as owner-occupied residences, when there is an active market with a substantial volume of good, reliable data. The appraiser typically uses the following steps in the analysis (11):

1. Identify the pertinent value-determining characteristics of the subject property.
2. Find comparable, competitive properties, with similar characteristics, that have sold recently on the local market.
3. Ascertain the sales price, date of sale, and terms and conditions of sale for each property. All such data must be verified.
4. Compare the comparables with the subject property in terms of the pertinent or salient characteristics of the subject property.
5. Measure the market difference for each characteristic on which the comparable properties differ from the subject property. Adjust the comparable sales to the subject property.
6. Estimate the adjusted sales price for each comparable property. This is the estimated price at which the comparable property would have sold if it had possessed the identical characteristics as the subject property at the time of sale.
7. Reconcile the adjusted sales prices of the comparable properties to an indication of the market value of the subject property via this direct sales comparison approach (11).

4.3 LOCATION OF THE PROPERTY

Location is another factor which influences appraised values in cases generated by highway condemnation proceedings. It is generally defined as an economic characteristic of real estate composed of immobility, constant change, dependence, and elements of spatial distribution. Location is an economic concept, even though it can be described in physical and legal terms.

Real estate produces services (i.e., amenities, income) at a fixed location and the uses that are appropriate, feasible, and most profitable are a direct function of that location. The uses of real estate are contingent upon its environment which is subject to continuous and occasional dramatic changes. Location generally determines the particular use and productivity of a parcel. The use and productivity of a location are the basic value determinants.

Factors influencing the valuation process of a particular location include the availability of man-made facilities, proper linkage systems, spatial distribution, convenience, degree of exposure to offensive influences, and accessibility. The relevant aspects of each component are described in the following paragraphs.

A location must be adequately served by man-made facilities that are appropriate for the use or uses proposed. Use depends on the availability and proper size of utilities, public services, and roads. Road and other transportation access is especially important to a good location. The free market creates the demand for particular types of locations, but the supply of proper locations depends on the willingness and ability of both public officials and private investors (or developers) to act.

Supporting facilities and related uses on which a particular use depends are termed linkages. Linkages are defined as the costs of overcoming friction in the urban real estate market. They involve the proximity of necessary and desirable supporting facilities. Time and distance, for example, are frictions of space. A location that is far removed from a major

employment center may be more desirable and appropriate for residential development if convenient and quick access is provided to a modern, high-speed highway or to a public transit system to that center of employment. The nearby transportation facility is then a part of the necessary linkage system for the site in question, because it overcomes or reduces travel time (a space friction). Supporting facilities must be both conveniently located and appropriate. A freight rail line may be an important linkage for industrial use in a given location, but it would be a deterrent to residential use.

The spatial distribution of the basic elements of location actively influences value. The influence may be positive or negative. Site characteristics that influence value (but still involve location) are those that can be enjoyed without leaving the site itself. These might include a view (e.g., the spatial relationship with a nearby lake and the absence of intervening structures), the prevailing breeze, favorable exposure, or the absence of highway noise.

Convenience is related to the proximity or access to desired or required supporting facilities. Convenience elements are measured by the disutilities of moving people or goods from the site in question to other points to which such movement is either necessary or desirable. The disutilities to be overcome are time, cost, and aggravation. The greater the convenience and linkages, the lower the disutilities are and thus the higher the value, all other factors being the same.

The degree of exposure to offensive or deterring influences that detract from the utility of the site (and hence its value) for the intended use is the final element of location to be considered. This exposure includes, but is not limited to, such items as unsightly and incompatible uses near a residential development; intruding noise and unpleasant odors, including smog and, perhaps, heavy through-traffic on a residential street.

In evaluating access, it is important to specify access to what. The "what" of access analysis varies considerably from one type of use to another and among different types of users. Locations that afford the maximum

economy of movement to and from related activities and places tend to draw urban activities. Each location tends to be occupied by the use and the improvements for which it is best suited. This is the result of the operation of the principle of highest and best use (11).

4.4 SUCCESSION OF LAND USES

The succession of land uses (commonly referred to as transitional or interim uses) is another factor which influences the valuation process in partial takings generated by highway cases. It is generally defined as the temporary use to which a site or improved property is put until it is ready to be put to its highest and best use.

The appraiser must be concerned with transitional use as a factor of value for the following reasons:

- In some instances properties are purchased on the basis of future use (13).
- A major determinant of property value is based on the characteristics of the subject property itself and its use. Form largely determines function and function determines use within the context of market constraints. Value is always estimated in terms of highest and best use, which may or may not be either the actual or intended use (11).
- Highest and best use can change over time as external market forces change. These forces include effective demand and all its components, public taste and standards, land use regulations (especially zoning), and competition. Additionally, the character of the subject property itself may change, thereby changing its highest and best use (11).
- The question of the value of improvements on land that is in transitional use is of particular importance when a partial taking adversely affects the use value or rental income contributed by the improvements. Valuation of partial takings for street widenings and

openings, drainage channels, subsurface, surface, or overhead easements is further complicated in transitional use cases because severance damages must be considered. This fact necessitates an estimate of the contributory value of the land and improvements to the market value (13).

Examples of typical reasons for transitional use in residential subdivision land are:

1. An over supply of suitable and available land in relation to effective demand and rate of absorption.
2. The purchase of acreage ahead of the market by subdividers who, depending on an anticipated continuing income from agriculture, orchards, etc., carry the investment until the acreage is subdivided for residential use.
3. Lack of availability of sewer facilities which are a requirement before subdivision approval can be obtained.
4. The need for drainage channels, also a subdivision requisite, which will not be installed for several years.
5. The lack of adequate water supply so that development of the land must await the construction of a major trunk line.

Some examples of interim use as it pertains to improved properties are:

1. An old dwelling on a potential service station corner, with perhaps a secondary commercial use such as a medical office, beauty shop, etc., in combination with living quarters. The income from this latter use serves as a taxpayer and may bring some interest return, which provides incentive to keep the property in an interim use pending maturity to a more intense commercial use.

2. Old, small rental units on valuable land adaptable to high-rise, modern apartment use.
3. Temporary commercial structures of cheap construction, such as a farmer's market built for temporary use on commercial corner acreage pending growth of the district to the point where a commercial center could be supported.
4. Buildings that have become obsolete (13).

The best way to determine whether interim improvements (i.e., those incompatible with the land's ultimate highest and best use) actually contribute any value to the property as a whole is to analyze sales of comparable properties in the same economic position. Because such sales are seldom available, however, various methods of estimating an improvement's interim contributory value have been suggested.

One of these methods involves valuing the income that can be realized during the interim period as if it were income from a lease, and valuing the land as if it were a leased fee reversion. For example, assume a 50-acre farm, which has an ultimate highest and best use for subdivision purposes, can be leased for \$5,000 net per year during an estimated interim period of three years, at which time the land will be ready for development. Further assume that similar land currently ready for development is selling for \$6,000 per acre. Therefore, the property under appraisal, if it were ready for development, would have a value of \$300,000. The proper discount, (interest) rate applicable to this type of investment is 10%. The value of the property can then be estimated by computing the present value of the income stream and the present value of the reversion as follows (3):

Value of income stream (\$5,000 income x 2.486852 ^a)	\$12,434
Value of reversion (\$300,000 x .751315 ^b)	<u>225,395</u>
Present value of property	237,829
Rounded	\$238,000

^a Compound interest factor, present worth uniform series (periodic equal amounts) @ 10%, discount period = 3 years.

^b Present worth single amount factor @ 10%, discount period = 3 years.

Another way to estimate the contributory value of interim improvements is to use the building residual technique of capitalization. Assume a lot improved with a single-family dwelling, which has commercial potential and a current value, recognizing this potential, of \$30,000. The property will rent for \$300 net per month, or \$3,600 per year. In light of the lot's commercial potential, the improvements have a remaining economic life of only five years. An appropriate return rate is 8%. With this information, the contributory value of the improvements can be computed:

Annual net income	\$ 3,600
Income imputable to land (\$30,000 x .08)	\$ 2,400
Income residual to improvements	\$ 1,200
Value of improvements (\$1,200/.28 ^c)	\$ 4,286
Land value	\$30,000
Total indicated property value	\$34,286
Rounded	\$34,300

Although this methodology is widely used, it contains a flaw. Assume that the current value of the land, recognizing its commercial potential, is \$60,000, not \$30,000. The computation of the contributory improvement value would then be:

Net annual income	\$ 3,600
Less income imputable to land (\$60,000 x .08)	\$ 4,800
Income residual to improvements	\$ 0
Contributory value of improvements	\$ 0
Land value	\$60,000
Total property value	\$60,000

It is quite probable that the land, if vacant, could not be rented during the interim period. Although the property is capable of producing \$300 per month in net income, this capability is present only because of the existing

^c 8% interest rate plus 20% recapture rate.

dwelling; the above computations indicate that the improvements add nothing to the value of the property as a whole.

To correct this error, another method of estimating the contributory value of interim improvements has been developed. This procedure calls for adding the present value of the interim income stream created by the improvements to the current land value. Compare the preceding calculations with the computations used in this method (3):

Annual net income from property, as is	\$ 3,600
Annual net income from property, as if vacant	0
Income imputable to improvements (\$3,600 x 3.992710 ^d)	\$14,374
Land value	\$60,000
Total property value	\$74,374
Rounded	\$74,500

If the land, if vacant, could be rented to produce a net income, that income would be deducted from the net income produced by the property as improved. In the above example, the land, if vacant, could be leased as a parking lot during the interim period for a net rental of \$1,000 per year, the income imputable to the improvements would then be \$2,600, and the indicated contributory value of the interim improvements would be \$2,600 x 3.992710, or \$10,381.

The longer the estimated interim time period, the less valid is this procedure; to estimate an interim use period longer than five years can be considered speculation and conjecture. Because the property owner is not receiving any return on the land, this valuation method should be applied only in situations where the interim period is relatively short and, perhaps, where the land is appreciating relatively rapidly. The appraiser should not use this valuation procedure if comparable sales exist; the procedure is not intended to eliminate the need for market research. Also, the results of

^d Uniform series present worth factor @ 8%, for 5 years.

this procedure should not be adopted blindly, but must be correlated with the realities of the marketplace. Due to the simplicity of this procedure, it is often misused by the uninitiated appraiser and by the advocate.

At times, interim improvements will have a contributory value beyond that created by their income-producing capabilities. Many real estate lenders will not make loans on unimproved properties, but they will lend on improved properties regardless of the ratio of land to building value. This factor can sometimes affect market value, as can the fact that improvements can be depreciated for income tax purposes and give the purchaser an income tax write-off which would not exist otherwise.

In arriving at an estimate of highest and best use, the appraiser must remember the doctrine of reasonable probability. If the amount of time between the effective date of the appraisal and the time when the property is expected to reach its ultimate highest and best use is too great, the appraiser's conclusion of highest and best use becomes remote and speculative and will be rejected by the courts (3).

Because of their peculiar location, lease terms, or otherwise, certain properties are not strictly subject to conventional land valuation techniques. These properties usually are in an area of transition and are encumbered with improvements that are other than those which their ultimate highest and best use would warrant. There are several methods of estimating the value of these improvements for properties which are in transition from one use to another. The key to determining whether a specific highest and best use can be considered by the appraiser is whether the potential for that use has an effect on market value as of the date of the appraisal. If there is a recognized effect due to the potential use of the property in the market place, the appraiser must recognize that effect and consider it in the estimate of market value.

4.5 SUMMARY

This section of the report identified three general classes of factors which could affect the valuation process of parcels involved in highway

condemnation cases. The factors are: comparable sales data, 2) location of the property, and 3) changes in land use. The significant characteristics of each class of factors are presented in Table 4.

Comparable sales data may be the most significant factor affecting the valuation process in highway eminent domain cases. It is the approach in appraisal analysis which is based on the proposition that an informed purchaser would pay no more for a property than the cost of acquiring an existing property with the same utility. When data of sufficient quality and quantity are available, the courts of most jurisdictions place an emphasis on evidence from actual sales of comparable properties in making determinations on market value and just compensation. Additionally, it provides a basis for judgements used in the application of other valuation approaches. For example, it establishes the basis for measuring estimated depreciation charges in the cost approach. It may be difficult to use this approach to estimate residential property value without sufficient data of adequate quantity or quality to justify a market value.

Location of the property is another factor which influences the valuation process in highway condemnation proceedings. It is generally defined as an economic characteristic of real estate composed of immobility, constant change, and elements of spatial distribution.

Factors influencing the valuation process of a particular location include the availability of man-made facilities, proper linkage systems, spatial distribution, convenience, degree of exposure to offensive influences, and accessibility.

The succession of land uses (commonly referred to as transitional or interim uses) is another factor which influences the valuation process in partial takings generated by highway cases. It is generally defined as the temporary use to which a site or improved property is put until it is ready to be put to its highest and best use.

The appraiser must be concerned with transitional use as a factor of value because: 1) sometimes properties are purchased on the basis of a

Table 4. Characteristics of Factors Affecting Appraised Values in Highway Cases

Class of Factors	Characteristics
Comparable Sales Data	<p>Requires sufficient quantity and quality of data for comparisons.</p> <p>Provides support for judgements used in the application of other valuation approaches.</p> <p>This approach is especially applicable to owner-occupied residences, when there is an active market with a substantial volume of reliable data.</p>
Location of the Property	<p>Location is an economic characteristic of real estate composed of immobility, constant change, dependence, and elements of spatial distribution.</p> <p>Location generally determines the particular use and productivity of real estate. The use and productivity of a location are the basic value determinants.</p> <p>Factors influencing the valuation process of a particular location include the availability of man-made facilities, proper linkage systems, spatial distribution, convenience, degree of exposure to offensive influences, and accessibility.</p>
Succession of Land Uses	<p>Interim land uses are the temporary use to which a site or improved property is put until it is ready for its highest and best use.</p> <p>The appraiser is concerned with interim uses because: 1) sometimes properties are purchased on the basis of future use, 2) highest and best use can change over time as external market forces change, and 3) an estimate of the contributory value of the land and improvements is necessary when a partial taking occurs.</p>

Source: (3, 11, 13).

future use, 2) highest and best use can change over time as external market forces change, and 3) estimates of the contributory value of the land and improvements is necessary when a partial taking occurs.

In arriving at an estimate of highest and best use, the appraiser must remember the doctrine of reasonable probability. If the amount of time between the effective date of the appraisal and the time when the property is expected to reach its ultimate highest and best use is too great, the appraiser's conclusion of highest and best use becomes remote and speculative and will be rejected by the courts (3).

Because of their peculiar location, lease terms, or otherwise, certain properties are not strictly subject to conventional land valuation techniques. These properties usually are in an area of transition and are encumbered with improvements that are other than those which their ultimate highest and best use would warrant. There are several methods of estimating the value of these improvements for properties which are in transition from one use to another. The key to determining whether a specific highest and best use can be considered by the appraiser is whether the potential for that use has an effect on market value as of the date of the appraisal. If there is a recognized effect due to the potential use of the property in the market place, the appraiser must recognize that effect and consider it in the estimate of market value.

5. OPERATIONAL EXPERIENCES UNDER H.B. 101

In July 1984, during the special legislative session, House Bill 101 was introduced and passed by the Senate Finance Committee. This bill related to the treatment of the condemnation of real property for the use and construction of the state highway system or certain county toll projects. With the passage of this bill, Section 21.042 of the Property Code was amended by adding subsection (e) to read as follows:

If a portion of a tract or parcel of real property is condemned for the use, construction, operation, or maintenance of the state highway system or of a county toll project described by Chapter 304, Acts of the 50th Legislature, Regular session, 1947 (Article 6795b-1, Vernon's Texas Civil Statutes), that is eligible for designation as part of the state's highway system, the special commissioners shall determine the damage to the property owner regardless of whether the property owner makes a claim for damages to the remaining property. In awarding compensation or assessing the damages, the special commissioners shall consider any special and direct benefits that arise from the highway improvement that are peculiar to the property owner and that relate to the property owner's ownership, use, or enjoyment of the particular parcel or remaining real property.

Under this legislation the valuation of special benefits was to be used in offsetting the damages awarded because of the partial taking. In most cases the payment for the partial taking would be the difference between the value of the parcel before the project and the value of the remaining parcel improved by the specific and direct benefits provided to the property owner by the highway project. This provision, in addition to aggressive departmental right-of-way practices, was expected to save the State of Texas in excess of \$100,000,000 per year. The effective date of the Act was October 1, 1984.

During the three years in which the amendment was in effect, several hundred cases involving right-of-way acquisition were handled by the State Department of Highways and Public Transportation. From this, approximately 227 cases exhibited enhancements and were approved for acquisition either

through negotiations or the condemnation process. These approvals resulted in statewide acquisitions of about 793 acres, enhancement totals in excess of \$18 million, valuation of the part taken of \$66 million, and roughly \$43 million in property cost for the period. This translates into an average enhancement of \$23,518 per acre, \$83,407 per acre valuation of the part taken and, \$53,805 per acre property cost to the state.

The following examples, which were taken from recent land acquisition cases in Texas, provide an indication of the economic impacts of the legislation in highway land acquisition cases.

Example No. 1

	<u>With</u> <u>HB 101</u>	<u>Without</u> <u>HB 101</u>
Size of Parcel (acres)	4.04	4.04
Size of the Part Taken (acres)	0.12	0.12
Value Per Acre (\$)	96,733	96,733
Value of Part Taken (\$)	11,343	11,343
Value of Whole Parcel Before Taking (\$)	390,803	390,803
Value of Remainder Parcel After Taking (\$)	460,804	460,804
Enhancement (\$)	70,001	-
Award (\$)	-0-	11,343

Example No. 2

	<u>With</u> <u>HB 101</u>	<u>Without</u> <u>HB 101</u>
Size of Parcel (acres)	22.10	22.10
Size of the Part Taken (acres)	4.20	4.20
Value Per Acre (\$)	113,145	113,145
Value of Part Taken (\$)	869,500	869,500
Value of Whole Parcel Before Taking (\$)	2,500,500	2,500,500
Value of Remainder Parcel After Taking (\$)	2,729,000	2,729,000
Enhancement (\$)	228,500	-
Award (\$)	641,000	869,500

In these two examples, House Bill 101 would have saved the State about \$240,000 in land acquisition costs (\$11,343 in Example 1 and \$228,500 in Example 2). In the summer of 1987, the practices offered under House Bill

101 were declared unconstitutional by the Supreme Court of Texas (State of Texas versus the Enterprise Company (1)). For additional data concerning enhancements refer to Section 6 of this report.

One problem encountered by the State in its attempts to implement the provisions of H.B. 101 threatened to undermine the conceptual utility of the amendment. In a few situations, the property owners of would-be partial takings would deed-off the future remainder parcels to a separate legal entity. This exercise of changing ownership of the future remainder parcel necessitated another appraisal which reclassified would-be remainders as whole properties. By deeding off the remainder, the taking was no longer "partial." As a result, the appraiser could not consider enhancements or damages, as in a partial taking. This process generally spawned a substantial increase in the amount of the award. The following example, taken from recent land acquisition cases in Texas, provides an indication of the economic impacts of this action upon the original intent of House Bill 101.

	Before Ownership Change (Partial Taking)	After Ownership Change (Whole Taking)
Size of Parcel (acres)	20.870	4.552
Size of Part Taken (acres)	4.552	4.552
Value Per Acre (\$)	141,696	87,128
Value of Part Taken (\$)	645,000	396,600
Value of Whole Parcel		
Before Taking (\$)	2,955,000	396,600
Value of Remainder		
Parcel Before Taking (\$)	2,310,000	-0-
Value of Remainder Parcel		
After Taking (\$)	3,378,000	-0-
Enhancement (\$)	1,068,000	-0-
Award (\$)	-0-	396,600

In this example, alteration of ownership would require the State to expend an additional \$397,000 in land acquisition cost for the same parcel that would have been acquired as a partial taking without monetary compensation. The decision handed down by the Supreme Court of Texas declaring House Bill 101 unconstitutional removed the incentive to continue switching the parcel ownership between separate legal entities.

6. ANALYSIS OF RECENT HIGHWAY LAND ACQUISITION CASES IN TEXAS

6.1 THE DATA BASE

Eighty-five cases involving partial takings were extracted from the data files of the State Department of Highways and Public Transportation. These cases arose during 1984-1987. The cases are approximately evenly divided between negotiated cases (48) and commissioner hearing cases (37), and consist of municipalities ranging in size from rural to urban.

The intent of the analyses was to identify and quantify relationships between benefits (enhancements), site characteristics, and the type of highway improvement. In addition to parcel size, several variables were examined in the analysis. These variables included area or locational setting, roadway improvement type, nature of enhancements/damages, values of the part taken, and remainder before/after, land use classifications for before and after the taking and for adjoining parcels, size of parcel taken, configuration, location of taking/remainder, topography, and accessibility provisions. Tables 5 and 6 summarize the sample data used in the analyses (see Tables 7 and 8 for definitions of the variables).

6.2 RESULTS

The results of the analysis of the sample data are outlined below:

1. Evaluation of the final awards per acre revealed a general increase in payment for cases appealed to the Commissioners. The interpretation of this finding must be made with care, however. There is no reason to believe that a casual relationship is in effect. Since the cases heard by the commissioners were not randomly selected, one cannot conclude that appeal would increase the award. Additionally, it is not known whether the increased award is due to the commissioners increasing the value of the part taken or decreasing the value of the enhancement.

2. The awards per acre were examined by area, location of remainder, etc. No clear relationships were discovered. The probable reasons for this result is that the sample was highly variable, and there were many missing values for the independent variables. The analyses looked at both enhancements per acre, as determined from negotiations, and at awards per acre. Plots were examined and least squares regression analyses computed. However, no clear relationships were discovered. The extreme variability and lack of association is an issue that contributes to these inconclusive results.

In order to pursue this area of research further, it is recommended that another sample be taken. If a large sample (several hundred) is possible given the resources available, another systematic sample would be appropriate. Otherwise, a smaller restricted sample could be taken. One geographic area could be selected to reduce the overall variability and allow examination of the factors of interest. The assumption that the same relationships held for other areas would, of course, have to be made.

Table 5. Summary of Sample of Appraiser's Reports: Negotiated Awards

I D	L O C	A R R E A	I M P R O V E R E	N A T U R E	V A L T A K	V A L B E F	V A L T	U A F T	U B E F	U A T	U S F T	U S E J	S I Z E P A R	S I Z E K	C O N T R A C T M	L O C K M	L O C M O	T O P S	C O M M E N T S	E N H A N C E	A W A R D N	
85801216543	3280201	5	1	1	54937	1663628	1674616	0	0	6	17.93	0.46	2	1	1	1	1	1	1	9	10988	43949
85801216550	3280201	5	1	1	196673	8408478	8469565	0	5	6	65.20	1.04	2	2	1	1	1	1	1	9	61087	135586
86801816137	3420113	4	2	3	1913830	3027645	3090785	6	4	4	21.82	7.32	2	2	1	1	1	1	1	9	63140	1850690
85801217944B	3280201	4	1	2	110398	223144	251037	0	0	6	4.00	1.39	1	1	3	2	1	1	1	9	27893	82505
86007389617	6090029	5	14	6	37157	22343	56093	4	0	9	1.67	0.48	2	2	1	4	9	1	9	9	33750	3407
86007389614	6090029	5	14	3	10481	34519	30000	4	0	9	0.91	0.24	2	2	9	9	9	1	9	9	-4519	15000
86801816122	3420113	5	12	4	4026790	2528005	2559900	6	4	4	30.10	18.50	4	5	3	4	1	1	1	9	31895	3994895
86801816125	3420113	5	12	3	9846530	28421510	28459190	6	4	8	214.17	55.13	2	5	2	4	9	1	2	9	37680	9808850
85801216525	3280201	5	1	9	73852	1934274	1972201	7	7	8	4.83	0.47	1	1	1	1	9	1	9	9	37927	35925
85801216514	3280201	5	1	1	80920	774917	787508	0	0	9	1.82	0.36	1	1	1	1	9	1	9	9	12591	68329
85801216592	3280201	5	1	1	154184	1668314	1669905	0	0	9	14.44	1.24	2	9	9	9	9	1	2	9	1591	152593
86801217354	3280201	5	1	4	146879	112860	147586	1	1	9	4.50	2.50	2	9	9	9	9	9	9	9	34726	112153
85801216551	3280201	5	1	4	215091	11770995	11860800	0	5	9	100.00	1.03	2	1	1	1	1	9	9	9	89805	125286
86801217406	3280201	5	1	3	22124	1635516	1721434	0	2	9	5.91	0.06	3	1	1	2	1	1	9	9	85918	0
86801217514	3280201	5	1	6	984220	1318147	1557810	0	0	9	9.61	4.10	2	4	3	2	1	1	9	9	239663	744557
86801022371	2374423	4	12	9	10680	65220	67977	9	4	9	6.60	0.69	3	3	1	1	9	9	9	9	2757	7923
85801022362	2374423	4	12	9	10281	38019	40630	4	4	9	4.30	0.54	2	1	1	1	9	1	9	9	2611	7670
868010223140	7070423	4	12	9	3552	66448	67598	0	0	9	2.53	0.09	2	1	1	1	9	9	9	9	1150	2402
858010223127	7070423	4	12	6	3410	6382	6924	0	0	9	0.35	0.08	2	2	1	1	9	1	9	9	542	2868
858010223137	7070423	4	12	9	6383	77785	78802	9	0	9	2.63	0.09	2	1	1	1	9	9	9	9	1017	5366
858012153226	3280201	4	12	1	46800	14640	17568	8	8	6	10.24	7.80	2	9	9	9	9	9	9	9	2928	43872
85801115013	4160005	4	11	6	129	62371	66500	0	0	0	1.70	0.01	9	9	9	9	9	1	9	9	4129	0
86801022360A	2374423	4	12	1	5801	46896	48002	5	5	9	5.27	0.36	2	1	1	1	9	9	9	9	1106	4695
85801216513	3280201	5	1	1	76346	771793	798316	0	0	0	3.42	0.38	1	1	1	1	9	1	9	9	26523	49823
85801022355	2374423	4	12	1	16760	518656	527352	4	4	9	89.24	1.34	2	1	1	1	9	9	9	9	8696	8064
86800914917	9999027	4	12	3	5400	79450	85450	4	0	9	0.24	0.01	2	2	1	1	9	9	9	9	6000	0
86800213815B	2255439	4	12	9	277000	478000	553000	9	9	9	8.30	2.40	1	4	3	3	9	9	2	9	75000	202000
86800213818	2850439	4	12	6	369300	1813150	1936250	4	0	0	14.32	1.62	2	1	1	1	9	9	9	9	123100	246200
86800213819D	2255439	4	12	6	869500	2500500	2729000	4	5	4	22.10	4.20	3	2	1	1	9	9	9	9	228500	641000
85800914911	6810027	4	12	4	4300	135700	136000	0	0	9	0.30	0.03	3	1	1	4	9	1	9	9	300	4000
86801022360B	7070423	4	12	9	3553	48246	49212	4	4	9	4.45	0.17	2	2	1	1	9	9	9	9	966	2587
85801217951	3280201	4	1	6	606660	262536	294683	0	0	4	8.30	5.84	2	2	9	9	1	1	9	9	32147	574513
85801216520C	3280201	5	1	9	139873	2418287	2462204	2	2	1	5.60	0.56	2	2	9	9	9	9	9	9	43917	95956
85801314410	9999149	4	12	9	55925	460210	467900	0	0	9	9.93	1.03	2	2	1	1	9	9	9	9	7690	48235
85801216517B	3280201	5	1	9	153813	2515398	2565213	2	2	9	6.36	0.65	2	5	1	1	9	1	9	9	49815	103998
85801216517A	3280201	5	1	9	161452	2078163	2123413	2	0	0	5.84	0.65	2	1	1	1	9	1	9	9	45250	116202
85801314429	9999149	4	12	4	20330	125635	128505	9	0	9	1.68	0.36	2	2	1	1	9	9	9	9	2870	17460
85801514714B	9999029	9	12	9	220850	2657325	2822875	5	0	6	16.52	1.27	2	2	1	4	9	1	3	9	165550	55300
85801314432	3790149	4	12	6	17650	137015	139530	4	4	9	1.73	0.34	3	2	9	9	9	1	2	9	2515	15135
859005271534	4140303	4	12	9	631000	1182000	1189000	0	0	9	12.09	3.92	2	2	1	1	9	9	9	9	7000	624000
85900527145	4140303	4	14	9	340475	136525	182033	0	0	9	4.72	3.32	2	1	1	1	9	1	9	9	45508	294967
868010223124	7070423	4	12	9	6512	80088	81865	0	0	9	5.41	0.30	2	2	1	1	9	9	9	9	1777	4735
8580114467	9999387	4	19	6	6630	3755	6000	6	0	9	1.90	1.22	2	2	1	4	9	1	9	9	2245	4385
85801217949	3280201	5	12	3	11343	390803	460804	5	0	7	4.04	0.12	2	2	1	4	1	1	9	9	70001	0
85901272512	3280201	5	13	6	3691157	6457147	6569085	5	8	9	43.36	16.99	1	2	4	4	2	2	2	9	111938	3579219
85801915813B	1200365	4	12	9	5430	19035	21750	0	0	0	16.31	1.81	2	1	1	1	9	9	9	9	2715	2715
86801816145	3420113	4	12	9	3026625	2445530	2487815	0	0	9	19.85	11.20	2	2	9	9	9	1	2	9	42285	2984340
86801816144	3420113	4	12	9	454945	10495225	10537470	1	1	1	39.30	1.49	3	2	1	1	9	1	9	9	42245	412700

Table 6. Summary of Sample of Appraiser's Reports: Commissioners' Awards

I D	L O C	A R E A	I M P A R T O U R E	V A L K	V A L F	V A L T	V A L U E			S I Z E	S I Z E	S I Z E	S I Z E	S I Z E	S I Z E	S I Z E	S I Z E	S I Z E	S I Z E	S I Z E	S I Z E	S I Z E	S I Z E	S I Z E	S I Z E	S I Z E	S I Z E
							A	B	C																		
85801216531	3280201	5	1	7	34946	1967660	1967660	0	0	0	9	5.83	0.15	2	2	1	1	9	9	9	0	0	34946				
86801115012	4160005	4	12	3	4643	59357	68000	300	0	0	9	1.03	0.09	3	1	1	1	9	2	9	8643	300	0				
85901532925	6090029	5	14	3	59175	16425	17500	95980	0	0	9	0.14	0.02	1	2	1	1	9	9	9	1075	95980	58100				
85801415517	330453	5	13	9	1171253	621716	753594	1350000	0	0	0	4.99	3.25	1	1	1	1	9	1	9	131878	1350000	1039375				
86801216532	3280201	5	1	1	478840	4218128	4472220	425032	0	0	0	35.32	2.71	2	2	1	1	9	9	9	254092	425032	224748				
86801217403	3280201	5	1	9	174940	167640	202325	274156	6	0	9	1.81	0.92	2	2	1	1	1	9	9	34685	274156	140255				
86801216520H	3280201	5	1	9	175676	3530091	3581727	118540	2	2	9	6.66	0.73	1	1	1	1	9	9	9	51636	118540	124040				
85801216523	3280201	5	1	8	92806	1345147	1393023	75000	7	2	7	6.07	0.57	9	9	9	9	9	9	9	47876	75000	44930				
86801216520G	3280201	5	1	8	142500	3734685	3782865	153800	5	5	5	6.21	0.69	2	1	1	1	9	9	9	48180	153800	94320				
86801915918	6850037	4	13	9	85230	1019870	1086885	18215	0	3	9	793.16	9.98	2	2	1	1	9	9	9	67015	18215	18215				
86802013425	5100361	4	12	9	11155	195044	197520	0	0	0	9	46.53	1.53	9	9	9	1	9	9	9	2476	0	8679				
86801915902A	6850037	4	13	9	67450	431180	478190	20440	0	3	9	284.93	7.98	4	2	1	1	9	9	3	47010	20440	20440				
858019158110	1200365	4	13	1	22555	71695	71715	25000	0	0	9	5.37	0.47	9	9	9	9	9	9	9	20	25000	22535				
86801815944	6830257	4	12	6	1350	12150	14000	3200	6	4	9	2.05	0.21	2	2	9	9	9	9	9	1850	3200	0				
85801815943	3590257	4	12	9	500	22500	23000	750	4	4	9	0.29	0.01	9	9	9	9	9	9	9	500	750	0				
85801815928	6830257	4	12	1	1350	28850	29100	2000	4	4	4	0.25	0.03	9	9	9	9	9	9	9	250	2000	1100				
86801712535	1440041	4	12	3	253413	242978	364467	131924	5	5	9	11.20	5.62	2	2	9	9	9	9	9	121489	131924	131924				
86801712533	1440041	4	12	8	134289	930145	1077010	140900	0	0	0	111.60	13.69	2	1	1	1	3	1	9	146865	140900	0				
86801712532	1440041	4	12	6	86296	3646685	4571294	200000	8	8	8	745.83	14.63	1	1	1	1	1	1	9	924609	200000	0				
85801216520B	3280201	5	1	7	127302	1855072	1890429	127302	2	2	0	8.22	0.51	2	1	1	1	9	9	9	35357	127302	91945				
86801216520F	3280201	5	1	9	7611	61258	64971	12500	7	9	9	0.96	0.10	1	2	1	1	9	9	9	3713	12500	3898				
85901612523	1550355	5	14	6	41500	23500	37300	130000	4	0	8	0.64	0.35	3	3	1	1	9	9	9	13800	130000	27700				
85901612521	1550355	5	14	3	3550	50950	52000	12000	4	0	8	0.22	0.05	1	1	1	1	9	1	9	1050	12000	2500				
869005271518	4140303	5	14	4	4864	129032	139784	5270	4	0	9	1.02	0.04	3	2	1	1	9	1	9	10752	5270	0				
869005271587	4140303	5	14	9	101444	105747	149155	130000	9	0	9	2.60	1.28	2	1	1	1	9	1	9	43408	130000	58036				
84801113136	6820419	4	13	1	31969	534571	536413	58775	3	3	8	430.48	19.32	9	9	9	9	9	2	1842	58775	30127					
86801022367	2374423	4	12	9	2310	60150	64019	1000	4	0	8	6.25	0.15	1	1	1	1	9	9	9	3869	1000	0				
858008123110	6570253	4	13	9	4977	775	1321	0	6	4	6	5.67	5.00	9	9	9	9	9	2	546	0	4431					
858008123112	6570253	4	13	3	490	720	1010	200	0	0	9	1.00	0.40	1	1	1	1	9	9	9	290	200	200				
85801022333	7070423	4	12	9	5440	135060	136455	6000	4	9	9	13.64	0.53	2	3	1	1	9	9	9	1395	6000	4045				
85801114902	6940419	4	13	1	3044	95560	96651	0	4	4	3	72.50	1.50	2	3	1	1	9	9	9	1091	0	1953				
85801114903	6940419	4	13	1	1200	109770	110250	975	4	4	9	74.00	0.48	2	2	1	1	2	9	9	480	975	720				
85801114911	6940419	4	13	6	3531	132487	133965	2500	4	4	4	66.35	1.05	4	4	9	4	3	9	3	1478	2500	2053				
85801216515	3280201	5	1	8	185248	1472308	1524819	186398	0	0	0	7.36	1.10	1	1	1	1	9	1	9	52511	186398	132737				
858012153204	3280201	5	13	1	66100	125032	126780	72000	6	5	9	24.39	7.00	2	2	1	2	1	1	9	1748	72000	64352				
86801115014	4160005	4	13	6	263776	617749	718316	488537	0	0	9	8.43	2.20	2	2	1	4	9	2	100567	488537	163209					
858008123113	9999999	9	13	9	665	545	1030	0	0	0	9	1.00	0.51	1	1	9	9	9	9	9	485	0	180				

Table 7. Abbreviations Used in Summary Tables

Abbreviation	Definition
ID	<p>The individual case identification.</p> <p>Year - Two Digits Case Number - Seven Digits Parcel Number - Three Digits</p>
LOC	<p>The place (city and county) where the parcels of land for each case are found. (See Table 8).</p> <p>City Code - Four Digits County Code - Three Digits</p>
AREA	<p>The area designation representing the locational setting of the proposed improvement.</p> <p>1 = Central Business District 2 = Fringe 3 = Suburban 4 = Rural 5 = Urban 6 = Other 9 = Missing Data</p>
IMPROVE	<p>The identification of the type of roadway improvement (leading digit 0 represents a new facility, leading digit 1 represents an upgrade to an existing facility).</p> <p>01 = Beltway 02 = State Highway 03 = US Highway 04 = Interstate Highway 09 = Missing Data 11 = Beltway 12 = State Highway 13 = US Highway 14 = Interstate Highway 19 = Missing Data</p>
NATURE	<p>The nature of the enhancement or damages.</p> <p>1 = Paper Enhancement 2 = Reduced Depth to Frontage 3 = Upgraded Best Use of Land 4 = Provides New or Better Access 5 = Better Drainage 6 = Increased or New Frontage 7 = Second Taking, Enhancements Negated 8 = Project Influence 9 = Missing Data</p>

Table 7. Abbreviations Used in Summary Tables (Cont.)

Abbreviation	Definition
VAL TAK	The approved valuation of the part taken for the highway improvement. (Dollars)
VAL BEF	The approved valuation of the remainder parcel before the taking. (Dollars)
VAL AFT	The approved valuation of the remainder after the taking. (Dollars)
COM AWARD	The amount awarded by the commissioners hearings.
USE BEF	<p>The type of land use for the entire parcel before the taking.</p> <ul style="list-style-type: none"> 0 = Commercial 1 = Industrial 2 = Offices 3 = Ranching/Agri culture 4 = Residential 5 = Speculative Investment 6 = Vacant 7 = Warehouses/Storage 8 = Mixed Use Development 9 = Missing Data
USE AFT	<p>The land use classification considered the best for the remainder parcel after the taking.</p> <ul style="list-style-type: none"> 0 = Commercial 1 = Industrial 2 = Offices 3 = Ranching/Agri culture 4 = Residential 5 = Speculative Investment 6 = Vacant 7 = Warehouses/Storage 8 = Mixed Use Development 9 = Missing Data
USE ADJ	<p>The land use classification of the adjoining parcels.</p> <ul style="list-style-type: none"> 0 = Commercial 1 = Industrial 2 = Offices 3 = Ranching/Agri culture 4 = Residential 5 = Speculative Investment 6 = Vacant

Table 7. Abbreviations Used in Summary Tables (Cont.)

Abbreviation	Definition
USE ADJ (Cont.)	7 = Warehouses/Storage 8 = Mixed Use Development 9 = Missing Data
SIZE PAR	The size of the entire parcel (in acres) prior to the taking.
SIZE TAK	The size (in acres) of the part taken.
CON TAK	The configuration or shape of the part taken. 1 = Rectangular 2 = Elongated-Irregular 3 = Triangular 4 = Other 9 = Missing Data
CON REM	The configuration or shape of the remainder parcel. 1 = Rectangular 2 = Elongated-Irregular 3 = Triangular 4 = Split-Squares 5 = Other 9 = Missing Data
LOC TAK	The location of the part taken within the whole parcel. 1 = Edge/Front 2 = Diagonal 3 = Center 4 = Other 9 = Missing Data
LOC REM	The location of the remainder within the whole parcel. 1 = Backland 2 = Split-Corners 3 = Split-Squares 4 = Other 9 = Missing Data
TOPO	Topography of the whole parcel. 1 = Level 2 = Sloped 3 = Rolling 4 = Other

Table 7. Abbreviations Used in Summary Tables (Cont.)

Abbreviation	Definition
TOPO (Cont.)	9 = Missing Data
ACCESS	<p>Provision for identifying whether or not access was provided to the remainder parcel.</p> <p>1 = Yes 2 = No 9 = Missing Data</p>
COMMENTS	<p>Provision for coding pertinent variables not otherwise accounted for.</p> <p>1 = Damages Due to Remainder Shape 2 = Remainder Split Into Two or More Individual Parts 3 = Taking Involves Two or More Individual Parts 9 = Missing Data</p>
ENHANCE	<p>Enhancement or damage resulting from the highway improvement (ENHANCE = VAL AFT - VAL BEF).</p>
COMPENSATION	<p>Compensation paid to the property owner. In negotiated cases, AWARD = VAL TAK - ENHANCE (if AWARD ≤ 0, then AWARD = 0). For commissioner hearing cases, AWARD = compensation awarded by the commissioners (See Section 5 for discussion).</p>

Table 8. Listing of City and County Codes

<u>City Name</u>	<u>City Code</u>
Austin	0330
Carthage	1200
Clarksville	1350
College Station	1440
Corpus Christi	1550
Eules	2255
Flint	2374
Grapevine	2850
Houston	3280
Irving	3420
Kaufman	3590
La Grange	3790
Lufkin	4160
Lubbock	4140
Navasota	4830
Orange	5100
San Antonio	6090
Stamford	6570
Temple	6810
Tenaha	6820
Terrell	6830
Texarkana	6850
Timpson	6940
Tyler	7070
Missing Data	9999
<u>County Name</u>	<u>County Code</u>
Angelina	005
Bell	027
Bexar	029
Bowie	037
Brazos	041
Dallas	113
Fayette	149
Harris	201
Jones	253
Kaufman	257
Lubbock	303
Nueces	355
Orange	361
Panola	365
Red River	387
Shelby	419
Smith	423
Tarrant	439
Travis	453
Missing Data	999

Source: Federal Information Processing Standards (FIPS)

7. CONCLUSIONS AND RECOMMENDATIONS

The results of this research indicate that the development of an index system, or general guidelines for consideration by appraisers to measure quantitatively the special benefit, by locational characteristics and type of improvement, that results to real property in partial takings may not be possible at this time. In any event, the decision by the appellate courts declaring House Bill 101 unconstitutional has negated much of the significance of such an index in Texas. Despite the recent ruling, some positive impacts have resulted from the introduction of the amendment. For example, appraisers have become more cognizant of enhancements and the valuation of remainders as separate property before and after the taking. Additionally, many or most cases pending resolution will probably be settled due to the new ruling. During the administration of the amendment very few cases were settled. As a result of the Texas Supreme Court's affirmation of the lower court's decision declaring House Bill 101 unconstitutional, all affected case awards with deducted enhancements have been recalculated and generally reflect an increased compensation.

It should be noted, that evidence from the few cases settled during the implementation of House Bill 101 suggest that the initial estimates of savings to the State and taxpayers may have been overstated. Roughly ten to twenty percent of the settled cases revealed significant or material enhancements. From this it is estimated that the legislation saved an average of \$4.5 to \$5.0 million per year, not the \$100 to \$150 million per year originally suggested.

The bill is expected to be reintroduced during the next regularly scheduled biennial legislative session in January 1989. There is a possibility for additional research at or about the time of the next legislative session.

If in fact, this bill is reintroduced as expected, the following suggestions are offered to expedite the development of the quantitative index:

- Random selection of the cases heard by the commissioners will allow the analyst to determine whether the trend of increased final awards for cases appealed to the commissioners displays a causal relationship.
- It is also recommended that another sample be taken, if a large sample (several hundred) is possible given the resources available, another systematic sample would be appropriate. Otherwise, a smaller restricted sample could be taken. One geographic area could be selected to reduce the overall variability and allow examination of the factors of interest. The assumption that the same relationships held for other areas would, however, have to be made.

In connection with the latter suggestion, the feasibility of long term monitoring of a select group of parcels, for example the beltway parcels in Houston, to track remainder sales and compare the amount paid on the open market versus the appraisal valuation should be explored. Continued monitoring of these parcels should provide a reasonable assessment of the variations between commissioners' final awards and negotiated awards.

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GLOSSARY*

ACCESS - The path by which a property is approached through a neighborhood; the means of physical entrance into or upon a property.

ACCESSIBILITY - The relative degree of effort, i.e., time and cost, required to reach a site; indicates ease of entrance into or upon a property.

APPRAISAL

1. An estimate or opinion of value.
2. An evaluation of the nature, quality or utility of any parcel of real estate, or any interest in or aspect of real property.
3. The solution or conclusion concerning any real estate problem.
4. The act or process of estimating value or conducting an evaluation study. The resulting opinion or conclusion derived from the appraisal may be informal, transmitted orally; or it may be formal, presented in written form. Usually it is a written statement setting forth the opinions or conclusions of the appraiser concerning an adequately described property as of a specified date, supported by the presentation and analysis of relevant data (see appraisal report).

APPRAISAL DATE - The date as of which the conclusion or opinion rendered in an appraisal is applicable and valid. The date of appraisal identifies the market conditions that existed when the appraisal was made.

APPRAISAL PROCESS - A systematic analysis of the factors that bear upon the value or utility of real estate. An orderly program by which the problem is defined, the work necessary to solve the problem is planned, and the data involved are acquired, classified, analyzed, and interpreted into a final opinion or conclusion.

* Unless noted otherwise, the glossary comes from Boyce (11).

APPRAISAL REPORT - Although abbreviated forms of appraisal reports (including verbal) may be acceptable depending upon the requirements of the client, the type of property, and the nature of the appraisal assignment, the narrative appraisal report is a formal written document which contains (a) the purpose of the appraisal, (b) the result of the appraisal (the opinion of value or other estimate or conclusion formed by the appraiser), (c) the effective date of the appraisal, (d) the certification and signature of the appraiser, (e) the qualifying conditions, (f) an adequate description of the neighborhood and identification of the property and its ownership, (g) the factual data, (h) an analysis and interpretation of the data, (i) the processing of the data, and (j) other descriptive supporting material (maps, plans, charts, photographs).

APPRAISED VALUE - An opinion of an appraiser which is based upon an interpretation of facts and judgments and their processing into an estimate of value, as of a stated date. While the term "appraised value" is general in nature, it is precisely defined in the statement of purpose. The value most commonly sought is market value, although there are other types of value, depending on the use for which the client requires the appraisal.

APPRAISER - One who conducts appraisals; specifically, one who possesses the necessary qualifications, ability, and experience to execute or direct the appraisal of real or personal property.

AREA - The surface extent of a building, a site, a neighborhood, a section of a city, a tract, or a region, measured in square units.

BUILDING RESIDUAL TECHNIQUE - The process of estimating the contribution of improvements to the present worth or value of the entire property, over and above the value of the site, in which

1. Return attributable to the land, valued independently of the building, is deducted from Net Operating Income;
2. The residual income, representing return to the building (including recapture) is capitalized to indicate building value.

BUNDLE OF RIGHTS THEORY - Ownership of a parcel of real estate may embrace a great many rights, such as the right to its occupancy and use; the right to sell it in whole or in part; the right to bequeath; the right to transfer, by contract, for specified periods of time, the benefits to be derived by occupancy and use of the real estate. These rights of occupancy and use are called beneficial interests.

CAPITALIZATION

1. The process of converting into present value (or obtaining the present worth of) a series of anticipated future periodic installments of net income. In real estate appraising, it usually takes the form of discounting.

2. The accountant sometimes uses the word "capitalization" to mean, in effect, what appraisers call an addition to capital. In the broadest sense, the capital of a business is measured by the total of the resources available to carry on its operations. Capital so defined comprehends a creditor interest as well as the entire proprietary equity. Excluding the liabilities, corporate capital consists of the amount of funds specifically contributed by the stockholders plus the undistributed profits.

Acquisitions of assets are capitalized when their value extends beyond the current accounting period, which is usually twelve months either on the calendar basis or on the fiscal year basis. Assets are classified as current, fixed, and often, intangible assets. Current assets are valued at cost or market, whichever is lower. Fixed assets are valued at cost less depreciation. The accepted theory by the accounting profession is that the cost of these assets should be distributed over their useful life.

Intangible assets are usually valued by capitalizing earning power. In business this value is called goodwill, and, while it is not considered good practice to carry the value on the books unless purchased directly as such, it is necessary in determining the real value of a going business and is necessary in the sale or purchase of a business. After the profits have been normalized, there is deducted from the average net profit a fair rate of

return on the tangible assets. The balance is then capitalized at an agreed upon percentage.

CAPITALIZATION RATE - The sum of a Discount Rate and a Capital Recapture Rate. It is applied to any income stream with a finite term over which the invested principal is to be returned to the investor or lender.

A rate which represents the relationship between future income and value. Except for Capitalization in Perpetuity (where capital value remains intact), the capitalization rate contains, either implicitly or explicitly, provision for return on and full recovery of capital invested.

The term "Capitalization Rate" (Cap Rate) has been traditionally used colloquially in reference to overall rate. Proper terminology would distinguish between these two terms and avoid the colloquial usage of the term "Cap Rate."

CAPITALIZE - To convert future incomes into current value. It involves discounting future incomes into present value.

CAPITALIZED VALUE - A value indication resulting from a capitalization process. The present worth of anticipated future benefits usually in the form of income.

COMPARABLES - An abbreviation for comparable property sales, rentals, incomes, etc., used for purposes of comparison in the appraisal process.

CONTRIBUTION, PRINCIPLE OF - A valuation principle which states that the value of an agent of production or of a component part of a property depends upon how much it contributes to the value of the whole; or how much its absence detracts from the value of the whole. The Principle of Contribution is sometimes known as the Principle of Marginal Productivity.

COST APPROACH - That approach in appraisal analysis which is based on the proposition that the informed purchaser would pay no more than the cost of producing a substitute property with the same utility as the subject

property. It is particularly applicable when the property being appraised involves relatively new improvements which represent the highest and best use of the land or when relatively unique or specialized improvements are located on the site and for which there exist no comparable properties on the market.

DIRECT SALES COMPARISON APPROACH - That approach in appraisal analysis which is based on the proposition that an informed purchaser would pay no more for a property than the cost of acquiring an existing property with the same utility. This approach is applicable when an active market provides sufficient quantities of reliable data which can be verified from authoritative sources. The direct sales comparison approach is relatively unreliable in an inactive market or in estimating the value of properties for which no real comparable sales data are available. It is also questionable when sales data cannot be verified with principals to the transaction. Also referred to as the Market Comparison or Market Data Approach.

EMINENT DOMAIN - The right of the government to take property for public use upon the payment of just compensation.

FINAL VALUE ESTIMATE - The appraiser's opinion or conclusion resulting from the application of appraisal analysis, including reconciliation of findings, to the appraisal problem at hand. The resultant conclusion derived from an analysis of the indications developed in the approaches to value as utilized in the appraisal. This estimate will reflect the definition of value sought.

FIXTURE

1. A tangible thing, which previously was personal property, and which has been attached to or installed in land or a structure thereon in such a way as to become a part of the real property. The legal interpretation of what constitutes a fixture varies among states.

2. Any nonportable lighting device which is more or less permanently built-in or attached securely to the walls and/or ceiling.

3. The permanent parts of a plumbing system such as toilets, bathtubs, etc.

FREEHOLD

1. An estate of inheritance, an estate for life, or an estimate during the life of a third person.

2. In appraising, the unencumbered property; that is free of mortgage.

FUNCTION OF THE APPRAISAL - The reason for which the appraisal is made or is intended to be used. Relates to the character of the decision to be based on the appraisal, e.g., price at which to buy or sell, amount of mortgage to be made. Not the same as purpose.

GENERAL BENEFITS - In eminent domain takings, the benefits that accrue to the community at large, to the area adjacent to the improvement, or to other property situated near the taken property.

HEARSAY EVIDENCE - Testimony as to an event or fact about which the witness does not have firsthand knowledge; he or she relates what was reported by a person purporting to have direct knowledge.

HIGHEST AND BEST USE - The reasonable and probable use that supports the highest present value of vacant land or improved property, as defined, as of the date of appraisal; the reasonably probable and legal use of land or sites as though vacant, found to be physically possible, appropriately supported, financially feasible, and that results in the highest present land value; and the most profitable use. Implied in these definitions is that the determination of highest and best use takes into account the contribution of a specific use to the community and community development goals as well as the benefits of that use to individual property owners. Hence, in certain situations the highest and best use of land may be for parks, greenbelts, preservation, conservation, wildlife habitats, and the like.

IMPROVEMENTS - Buildings or other relatively permanent structures or developments located on, or attached to, land.

INCOME APPROACH - That procedure in appraisal analysis which converts anticipated benefits (dollar income or amenities) to be derived from the ownership of property into a value estimate. The income approach is widely applied in appraising income-producing properties. Anticipated future income and/or reversions are discounted to a present worth figure through the capitalization process.

INTERIM USE - That existing and relatively temporary use where the transition to highest and best use is deferred. A building or other improvement may have a number of years of remaining life yet may not enhance the value of the land which has a higher use, except as an interim-use taxpayer while the land is in transition.

JUST COMPENSATION - In condemnation, the amount of the loss for which a property owner has established a claim to compensation. It is the payment of the market value of the real estate which was taken.

LOCATION - The time-distance relationship, or linkage, between a property or neighborhood and all possible origins and destinations of residents coming to or going from the property or neighborhood.

MARKET DATA APPROACH - Traditionally, an appraisal procedure in which the market value estimate is predicated upon prices paid in actual market transactions and current listings, the former fixing the lower limit of value in a static or advancing market (price wise), and fixing the higher limit of value in a declining market; and the latter fixing the higher limit in any market. It is a process of analyzing sales of similar recently sold properties in order to derive an indication of the most probable sales price of the property being appraised. The reliability of this technique is dependent upon (a) the availability of comparable sales data, (b) the verification of the sales data, (c) the degree of comparability or extent of adjustment necessary for time differences, and (d) the absence of non-typical conditions affecting the sales price.

In essence, all approaches to value (particularly when the purpose of the appraisal is to establish market value) are market data approaches since the data inputs are presumably market derived.

MARKET VALUE - The most probable price in terms of money which a property should bring in competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus.

Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated.
2. Both parties are well informed or well advised, and each acting in what they consider their own best interest.
3. A reasonable time is allowed for exposure in the open market.
4. Payment is made in cash or its equivalent.
5. Financing, if any, is on terms generally available in the community at the specified date and typical for the property type in its locale.
6. The price represents a normal consideration for the property sold unaffected by special financing amounts and/or terms, services, fees, costs, or credits incurred in the transaction.

PRINCIPLE OF SUBSTITUTION - A valuation principle that states that a prudent purchaser would pay no more for real property than the cost of acquiring an equally desirable substitute on the open market. The Principle of Substitution presumes that the purchaser will consider the alternatives available and will act rationally or prudently on the basis of the information about those alternatives, and that reasonable time is available

for the decision. Substitution may assume the form of the purchase of an existing property, with the same utility, or of acquiring an investment which will produce an income stream of the same size risk as that involved in the property in question.

PURPOSE OF THE APPRAISAL - The type of value being sought. Not the same as Function.

RECAPTURE OF PURCHASE CAPITAL - Recovery by an owner of money invested in real estate generally by a combination of mortgage amortization, annual dividend, and the resale of the equity. The recapture of the mortgage component occurs according to the terms of the periodic installment contract (mortgage) without regard to fluctuations in the market value.

RECAPTURE RATE - The annual amount which can be recaptured (or allocated for future recapture), divided by the amount of the original investment.

REMAINDER

1. A future possessory interest in real estate that is given to a third party and matures upon the termination of a limited or determinable fee; e.g., A gives B a life estate in A's farm for B's lifetime. A also gives C an interest in the farm to take effect upon B's demise. C has a remainder interest.

2. Property remaining in possession of the owner after a partial taking in eminent domain.

RENTAL VALUE - The monetary amount reasonably expectable for the right to the agreed use of real estate. It may be expressed as an amount per month or other period of time; per dollar of sales; or per room, per front foot, or other unit of property. Usually, it is established by competitive conditions.

RETENTION VALUE - The amount to be deducted from the amount to be paid the owner when he chooses to retain any or all of his improvements. Usually the saleable value to the State.

REVERSION - The return of rights in real estate to the grantor, such as the return of the full use of real estate to a lessor at the expiration of a lease; the estate returned or due to be returned; in mortgage equity analyses synonymous with proceeds of resale at end of the ownership projection period.

REVERSIONARY RIGHT - The right to repossess and resume the full and sole use and proprietorship of real property which temporarily has been alienated by lease, easement, etc. According to the terms of the controlling instrument, the reversionary right becomes effective at a stated time or under certain conditions, such as the termination of leasehold, abandonment of a right-of-way, or at the end of the estimated economic life of the improvements.

REVERSION FACTOR - That factor (present worth of one) which is used to discount a single future payment to a present worth figure, given the appropriate discount rate and discount period.

REVERTER CLAUSE - A clause providing that title reverts to grantor upon violation of restriction set forth in deed. Effect of such reverter would affect marketability of title of mortgage and thus the value of the property.

RIGHT-OF-WAY - A general term denoting land, property or interest therein, usually in a strip, acquired for or devoted to transportation purposes.

SPECIAL BENEFITS - Specific, i.e., not general, benefits that accrue to the property remaining after a partial taking.

TAXPAYER - An interim improvement which allegedly does not represent the ultimate most profitable use of the land, usually a one-story commercial building.

TOPOGRAPHY - The relief features or surface configurations of an area, as hills, valleys, slopes, lakes, rivers. Surface gradations are classified as: compound slope, gently sloping land, hilly land, hogwallows, hummocks, rolling land, steep land, undulating land, very steep land.

VALUATION - The act or process of estimating value. The amount of estimated value.