Biological Services Program

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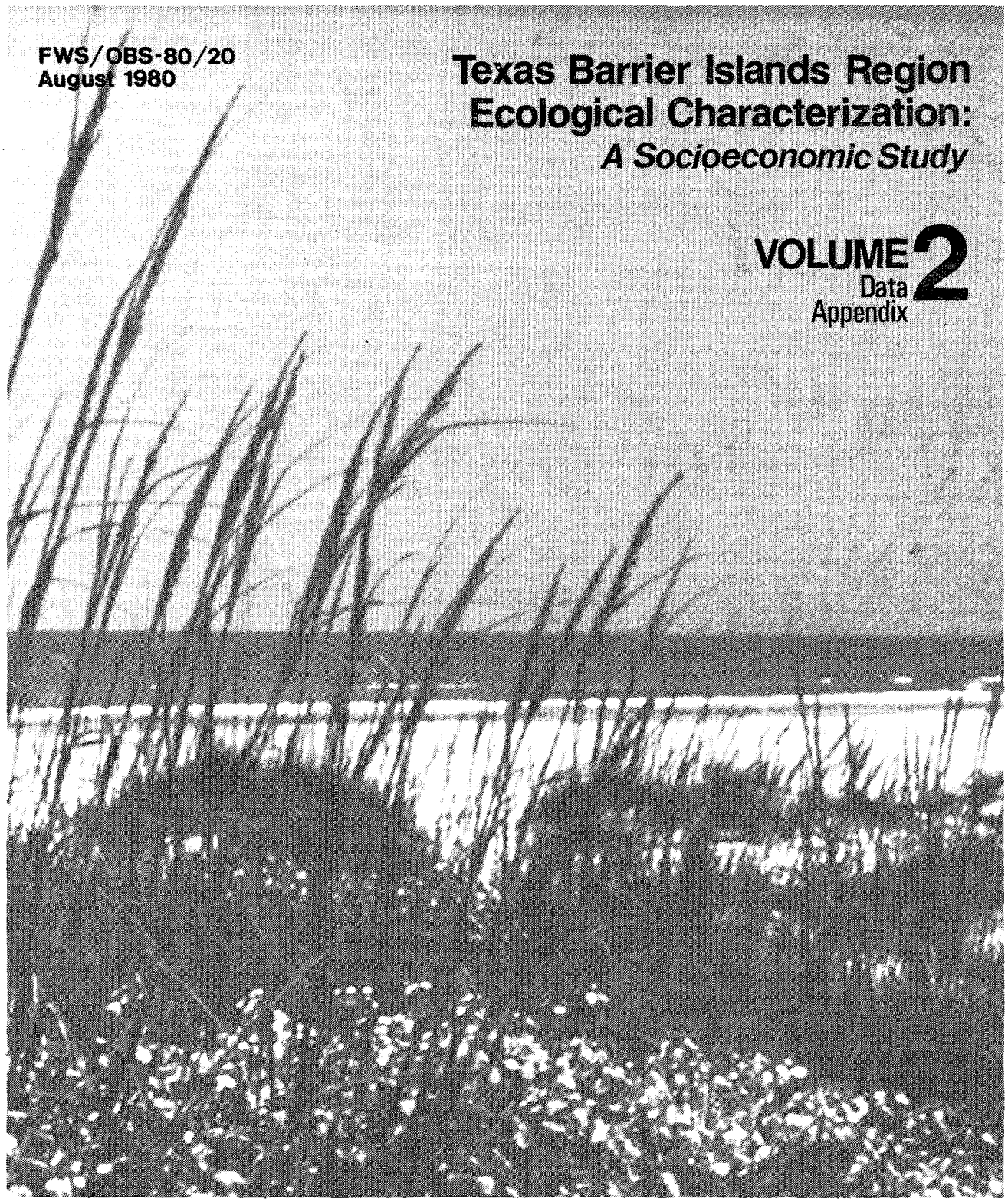
Texas Barrier Islands Region Ecological Characterization:
A Socioeconomic Study

VOLUME 2
Data Appendix



Bureau of Land Management
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- To provide better ecological information and evaluation for Department of the Interior development programs, such as those relating to energy development.

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TEXAS BARRIER ISLANDS REGION

ECOLOGICAL CHARACTERIZATION: A SOCIOECONOMIC STUDY

Volume 2: Data Appendix

by

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PREFACE

The purpose of the socioeconomic characterization study is to compile and synthesize information from existing sources concerning the natural, physical, and social components of the ecosystems within the Texas Barrier Islands Region. Decisionmakers, among others, should find this report and its data base useful for coastal planning and management. This is one of a series of characterizations of coastal ecosystems that is being produced by the U.S. Fish and Wildlife Service. This series describes the relationships between complex growth processes and the availability of natural resources in the Nation's coastal areas.

This project was conducted under Contract FWS 14-16-0009-79-103. Funding was provided by the Bureau of Land Management and the Fish and Wildlife Service. Any questions or suggestions regarding this publication should be directed to:

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The cover photograph was taken by Kent Butler, University of Texas at Austin.

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ABBREVIATIONS

BLM	Bureau of Land Management
CAMS	Continuous Air Monitoring Station
FWS	Fish and Wildlife Service
GIWW	Gulf Intracoastal Waterway
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NSTL	National Space Technology Laboratory
OBS	Office of Biological Services
OCS	Outer Continental Shelf
SIC	Standard Industrial Classification
SMSA	Standard Metropolitan Statistical Area
STCC	Standard Transportation Commodity Classification
TBIE	Texas Barrier Islands Ecosystems
TDWR	Texas Department of Water Resources
TOES	Texas Organization for Endangered Species
TORP	Texas Outdoor Recreation Plan
TPWD	Texas Parks and Wildlife Department
USGS	United States Geological Survey

bbl	barrel
(D)	data not shown to avoid disclosure of operations of individual firms
gal	gallon
GPD	gallons per day
M	thousand
MM	million
N.D.	no data
ppm	parts per million

METRIC AND ENGLISH UNITS OF MEASUREMENTS

Distance

1 cm = 0.39 in	1 in = 2.54 cm
1 m = 39.38 in	1 ft = 0.30 m
1 km = 0.62 mi	1 yd = 0.91 m
	1 mi = 1.61 km

Area

1 m^2 = 1.2 yd^2	1 ft^2 = 0.09 m^2
1 km^2 = 0.39 mi^2	1 yd^2 = 0.83 m^2
1 ha = 2.5 ac	1 ac = 0.40 ha
	1 mi^2 = 2.59 km^2

Weight

1 g = 0.035 oz	1 oz = 28.35 g
1 kg = 2.20 lb	1 lb = 453.60 g
1 mt (1000 kg) = 1.1 t (2,204.6 lb)	1 lb = 0.45 kg
	1 t = 0.91 mt

Volume

1 ml = 0.03 fl oz	1 fl oz = 29.57 ml
1 liter = 2.1 pt	1 pt = 0.47 liter
1 liter = 1.06 qt	1 qt = 0.95 liter
1 bbl = 42 gal	1 gal = 3.79 liter
1 m^3 = 35 ft^3	1 ft^3 = 0.03 m^3
1 m^3 = 1.3 yd^3	1 yd^3 = 0.76 m^3

Temperature

C^o = 5/9 F^o - 32	F^o = 9/5 C^o + 32

INTRODUCTION

The Texas Barrier Islands Ecosystems (TBIE) characterization study area comprises some of the Nation's more pristine coastal landscape and some of the more intensively developed urban industrial areas found in the United States (Figure INTR-1). Rapid development and public interests must be delicately balanced to manage coastal area resources and establish effective resource management policies for the future. Socioeconomic data collection and synthesis will be important tools equipping the public to identify what is known about the Texas Barrier Islands ecosystems, and the range of consequences attributable to alternative resource management practices in the area.

In 1953, the Outer Continental Shelf Lands Act (67 Stat. 62) was passed by Congress, establishing Federal jurisdiction over the submerged lands of the continental shelf seaward of state boundaries. The Act charged the Secretary of the Interior with the responsibility for administering Outer Continental Shelf (OCS) mineral exploration and development. The Secretary was empowered to formulate regulations so that the provisions of the Act might be met. In conjunction with this authority, the Department adopted three overall minerals management goals: 1) receipt of fair market value for the minerals leased; 2) orderly development of resources; and 3) protection of the environment.

Subsequent to the passage of the OCS Lands Act of 1953, the Secretary of the Interior designated the Bureau of Land Management (BLM) as the administrative agency for leasing submerged Federal lands, and the Geological Survey (USGS) as the supervising agency for exploration and production. The BLM was also designated by the Secretary as lead agency for all environmental actions pertaining to development of OCS mineral resources.

The Submerged Lands Act (67 Stat. 29) set the inner limit of authority of the Federal government by giving coastal states jurisdiction over mineral rights in the seabed and subsoil of submerged lands adjacent to their coastline out to a distance of three nautical miles (5.6 km). There are two exceptions, Texas and the Gulf coast of Florida, where State jurisdiction extends to nine nautical miles (16.7 km) based on terms for admission to statehood.

The National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4371 et seq.) requires that all Federal agencies utilize a systematic, interdisciplinary approach that will insure the integrated use of the natural and social sciences in any planning and decisionmaking that may have on impact on the human environment. Subsequent changes in the regulations guiding the implementation of NEPA procedures (40 CFR 1500-1508) call for a greater emphasis on issue identification and on "scoping" in the environmental planning process, to avoid the excessive informational burden that had characterized previous impact assessment efforts.

The U.S. Fish and Wildlife Service (FWS) has developed an ecological characterization approach for describing coastal areas of the United States and its territories, to assist in natural resource planning policy in conjunction with OCS oil and gas development. "Characterizations provide descriptions of the socioeconomic features, biological resources, and physical processes that comprise a particular coastal ecosystem. Descriptions, where possible, are both quantitative and qualitative in nature. This information is integrated into a functional framework to provide an understanding of the interrelationships of the ecosystems"

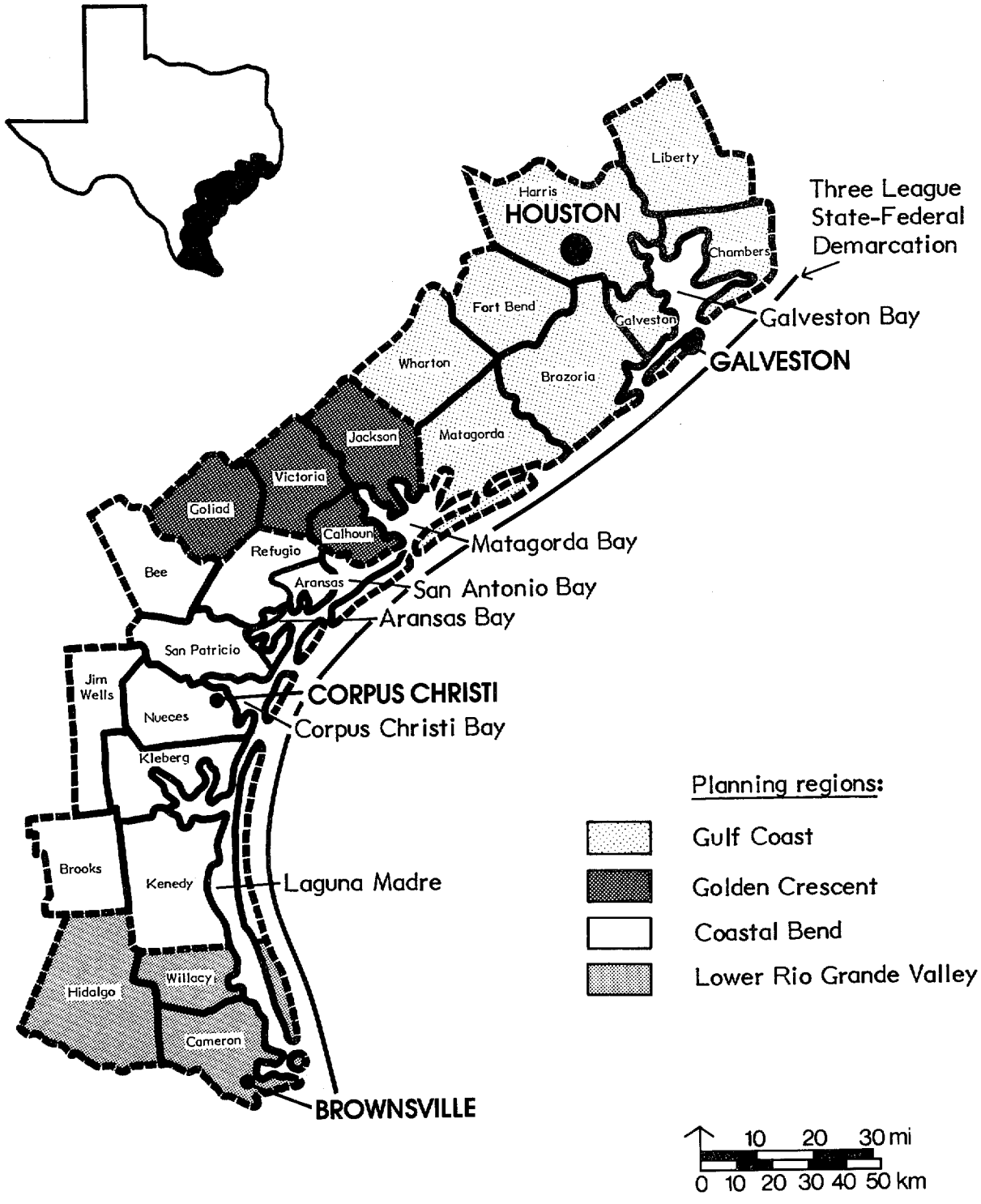


Figure INTR-1. Texas Barrier Islands Ecosystems study area and subregions (Lay and Culbertson 1978).

(Johnston 1978: 692). In an interagency memorandum of understanding, the BLM and the FWS agreed that in the course of the ecological characterization project for the Texas Barrier Islands, socioeconomic components of the ecosystems should receive special attention because of extensive oil and gas activities and their impact on the area (personal communication, Elaine Bunce, FWS, Memorandum of Understanding between BLM and FWS No. AA551-MU9-14).

STUDY ORGANIZATION

The TBIE Ecological Characterization project includes three concurrent studies to be synthesized into one major characterization for the study area. The FWS staff is conducting a literature search and compiling ecological synthesis papers on the major drainage basins in the study area. An ecological atlas of wetlands, uplands, and other coastal area resources is being developed by faculty and staff at Texas A&M University using aerial photography and the results of the literature search, ecological synthesis, and socioeconomic portions of the characterization studies. The socioeconomic characterization study has been conducted by Willdan Associates of Phoenix, Arizona, in conjunction with the University of Texas at Austin.

The results of the socioeconomic study are contained in a set of six socioeconomic synthesis papers and ten data appendices. The data appendices, described in greater detail below, are presented as companion documents to the synthesis papers for users who are interested in more detailed information.

Consistent with legislative intent and with the understanding reached by the BLM and the FWS, socioeconomic data collection and synthesis for the TBIE study area have been guided by four overriding considerations:

- Systematic data collection and evaluation procedures, as well as the uses to which data will be put, were established at the outset of the process.
- The uses to which the data will be put have been the basis for defining the study's data categories and the relative analytical emphasis that each data category has received.
- Criteria that have been used in evaluating the reliability and consistency of the study area's data base include the comparability of data sources in generating a time series, geographic relevance to the study area and its planning regions, and appropriateness of data source methodology.
- Data synthesis reflects an interdisciplinary team effort, with provisions for peer and agency review, to insure that characterizations of separate socioeconomic sectors contribute to a valid characterization of the ecosystem's complex interactive processes.

Four general tasks have been completed in the course of the TBIE Socioeconomic Characterization Study. The first task involved a series of meetings with Federal, State, regional, and local agency representatives to identify specific data requirements and to specify the form in which study results would be presented.

The second task involved data collection and evaluation. One of the critical objectives to be fulfilled as a result of the data collection and evaluation task was

to identify problems with data gaps and inconsistencies, and to recommend ways in which these problems could be resolved. The product of the data collection effort is the Data Appendix. Categories for which data have been compiled in the appendix include: population characteristics; employment and income; agricultural production; mineral production; fish and wildlife production; transportation; recreation and tourism industries; industrial and residential development and point source pollution discharge; public utilities; and land use practices.

The third and fourth tasks involved the data synthesis and final report production. Source documents, including maps, diagrams, statistical tables and other publications, have been used in preparing synthesis papers for each of six topics: (1) Oil and Gas Production; (2) Recreation/Tourism Industry; (3) Commercial Fishing Industry; (4) Industrial and Residential Development; (5) Transportation Systems; and (6) Agricultural Production.

POPULATION (POP)

Table POP-1. Historical population for selected years, 1950 through 1970, and projected range, 1977 through 2030 in the TBIE study area (U.S. Department of Commerce, Bureau of the Census 1953, 1963, 1973, 1978, Texas Department of Water Resources 1979).

Planning region/county	1950	1960	1970	Projected 1977	1980	1990	2000
GULF COAST							
Brazoria	46,549	76,204	108,312	135,400	140,300	176,900	218,400
Chambers	7,871	10,379	12,187	14,000	13,600	14,900	16,500
Fort Bend	31,056	40,527	52,314	86,600	98,400	148,600	237,100
Galveston	113,066	140,364	169,812	195,400	197,200	226,000	257,600
Harris	806,701	1,243,158	1,741,912	2,138,300	2,243,400	2,763,500	3,357,100
Liberty	26,729	31,595	33,014	40,300	41,700	49,900	60,500
Matagorda	21,559	25,744	27,913	30,600	29,200	30,500	32,400
Wharton	36,077	38,152	36,729	37,300	36,400	36,800	37,200
Total	1,089,608	1,606,123	2,182,193	2,677,900	2,800,200	3,447,100	4,216,800
GOLDEN CRESCENT							
Calhoun	9,222	16,592	17,831	18,100	18,100	18,800	19,800
Goliad	6,219	5,429	4,869	4,800	5,100	5,200	5,400
Jackson	12,916	14,040	12,975	13,000	13,200	13,500	14,000
Victoria	31,241	46,475	53,766	60,600	63,200	74,400	86,400
Total	59,598	82,536	89,441	96,500	99,600	111,900	125,600
COASTAL BEND							
Aransas	4,252	7,006	8,902	11,100	12,400	16,200	20,600
Bee	18,174	23,755	22,737	22,800	24,100	25,400	27,800
Brooks	9,195	8,609	8,005	7,700	7,700	7,200	6,900
Jim Wells	27,991	34,548	33,032	34,200	34,600	34,700	34,300
Kenedy	632	884	678	600	600	500	400
Kleberg	21,991	30,052	33,166	32,800	33,800	34,900	36,000
Nueces	165,471	221,573	237,544	250,700	261,300	288,400	322,400

(continued)

Table POP-1. (continued)

Planning region/county	1950	1960	1970	Projected 1977	1980	1990	2000
COASTAL BEND (cont.)							
Refugio	10,113	10,975	9,494	9,200	8,900	8,300	7,900
San Patricio	35,842	45,021	47,288	52,500	53,100	56,600	59,000
Total	293,661	382,423	400,846	421,600	436,500	472,200	515,300
LOWER RIO GRANDE VALLEY							
Cameron	125,170	151,098	140,368	176,500	199,400	248,900	306,700
Hidalgo	160,446	180,904	181,535	232,300	254,200	319,800	391,500
Willacy	20,920	20,084	15,570	16,800	18,200	19,900	21,100
Total	306,536	352,086	337,473	425,600	471,800	588,600	719,300
TBIE STUDY AREA	1,749,403	2,423,168	3,009,953	3,621,600	3,808,100	4,619,800	5,577,000
STATE	7,711,194	9,579,677	11,196,730	12,830,000	13,393,100	15,593,700	18,270,700

Planning region/county	Low series projections of the population 2010	2020	2030	High series projections of the population 2010	2020	2030
GULF COAST						
Brazoria	255,700	293,800	327,000	262,500	314,500	375,000
Chambers	18,100	20,100	22,400	18,600	21,500	25,700
Fort Bend	284,700	341,800	410,400	345,800	461,200	555,300
Galveston	284,100	311,600	335,500	291,600	333,500	384,800

(continued)

Table POP-1. (continued)

Planning region/county	Low series projections of the population			High series projections of the population		
	2010	2020	2030	2010	2020	2030
GULF COAST (cont.)						
Harris	3,902,000	4,434,300	4,883,600	4,005,300	4,746,200	5,601,300
Liberty	71,100	83,100	96,200	73,000	89,000	110,400
Matagorda	34,100	36,700	40,000	35,000	39,300	45,900
Wharton	38,900	40,600	42,400	40,300	46,600	57,400
Total	4,888,700	5,562,000	6,157,500	5,072,100	6,051,800	7,155,800
GOLDEN CRESCENT						
Calhoun	21,000	23,100	26,000	21,600	24,700	29,900
Goliad	5,600	6,000	6,500	5,700	6,400	7,500
Jackson	14,700	15,800	17,400	15,100	16,900	20,000
Victoria	97,400	109,900	122,300	100,000	117,700	140,200
Total	138,700	154,800	172,200	142,400	165,700	197,600
COASTAL BEND						
Aransas	25,400	30,900	36,800	26,000	33,000	42,200
Bee	31,400	36,700	44,300	32,300	39,200	50,800
Brooks	6,700	6,800	7,000	6,900	7,300	8,000
Jim Wells	33,800	33,600	33,000	34,700	36,000	37,800
Kenedy	300	300	200	300	300	300
Kleberg	39,800	44,000	48,700	41,200	49,500	62,800
Nueces	364,600	424,000	502,500	374,300	453,800	576,300
Refugio	7,400	7,000	6,600	7,600	7,500	7,500
San Patricio	59,400	59,900	60,400	61,600	64,600	67,600
Total	568,800	643,200	739,500	584,900	691,200	853,300

(continued)

Table POP-1. (concluded)

Planning region/county	Low series projections of the population			High series projections of the population		
	2010	2020	2030	2010	2020	2030
LOWER RIO GRANDE VALLEY						
Cameron	366,700	422,600	462,100	376,400	452,400	530,000
Hidalgo	468,600	543,000	601,600	481,000	581,200	690,000
Willacy	22,400	23,700	25,100	23,700	26,700	30,000
Total	857,700	989,300	1,088,800	881,100	1,060,300	1,250,000
TBIE STUDY AREA	6,453,900	7,349,300	8,158,000	6,680,500	7,969,000	9,456,700
STATE	20,789,900	23,541,900	26,285,200	21,540,600	25,548,400	30,464,900

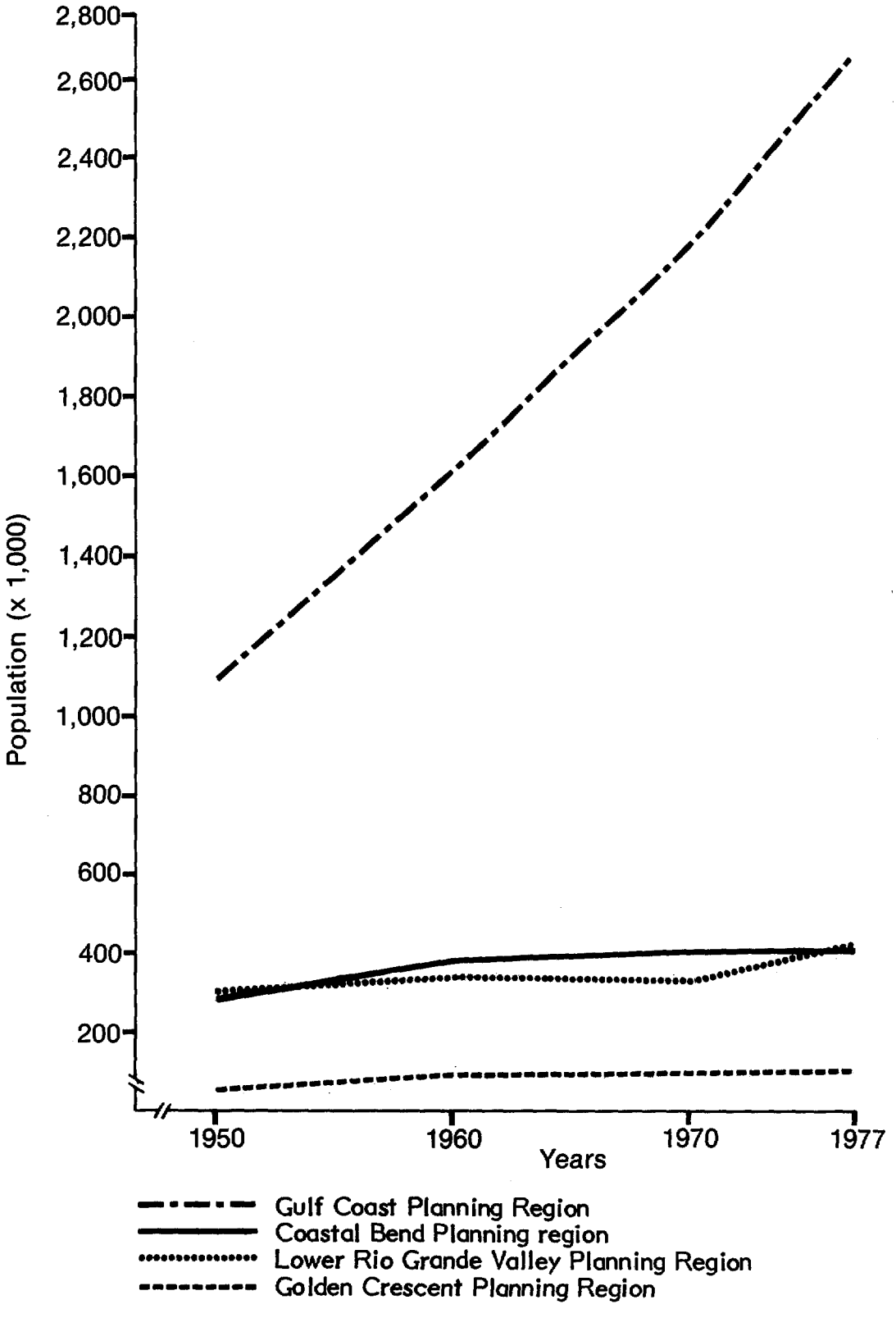


Figure POP-1. TBIE population size by planning region, 1950 to 1977 (U.S. Dept. of Commerce, Bureau of the Census 1953; 1963; 1973; 1978).

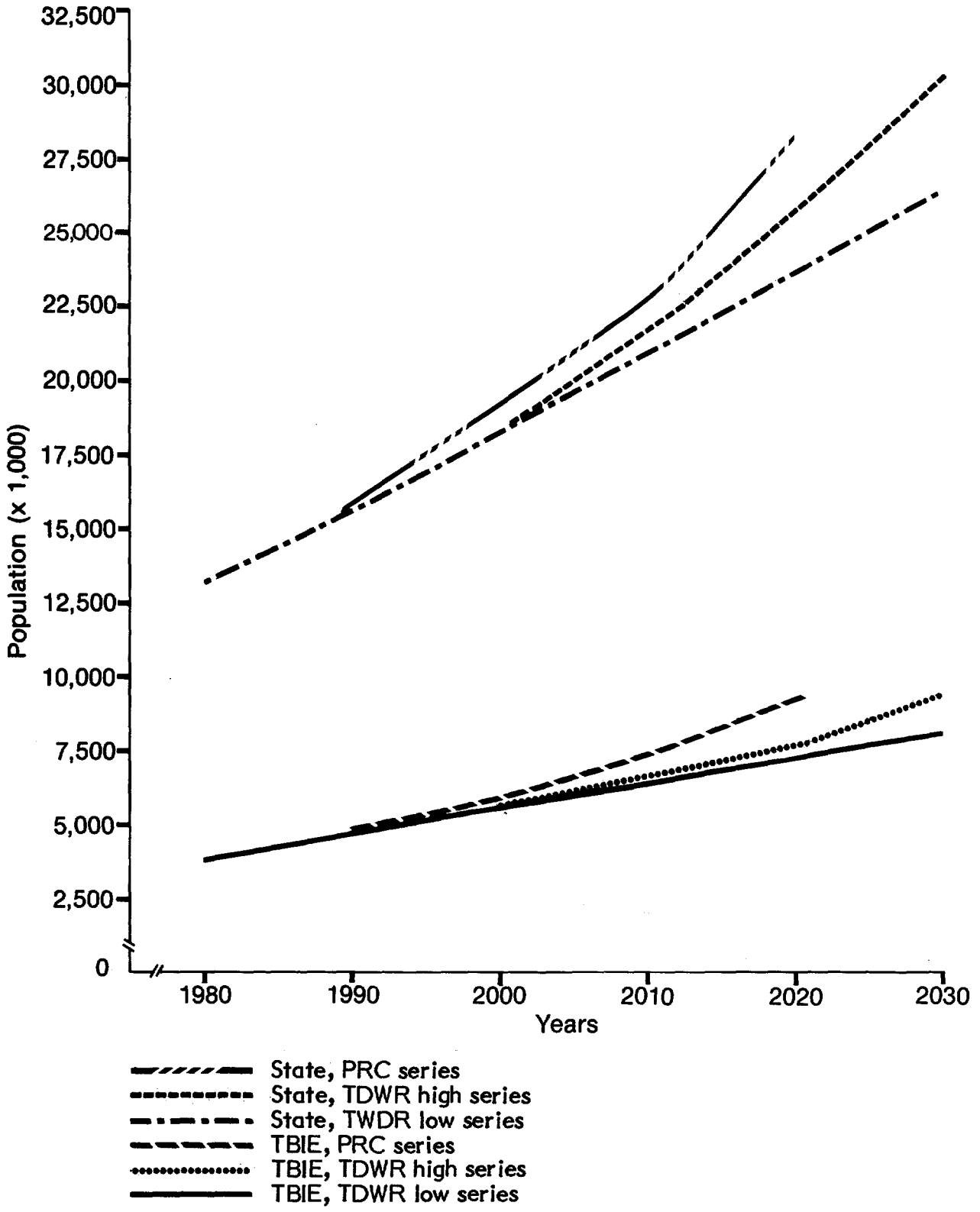


Figure POP-2. Projections of the TBIE population: study area and State totals, 1980 to 2030 (Poston 1973, Texas Dept. of Water Resources 1979).

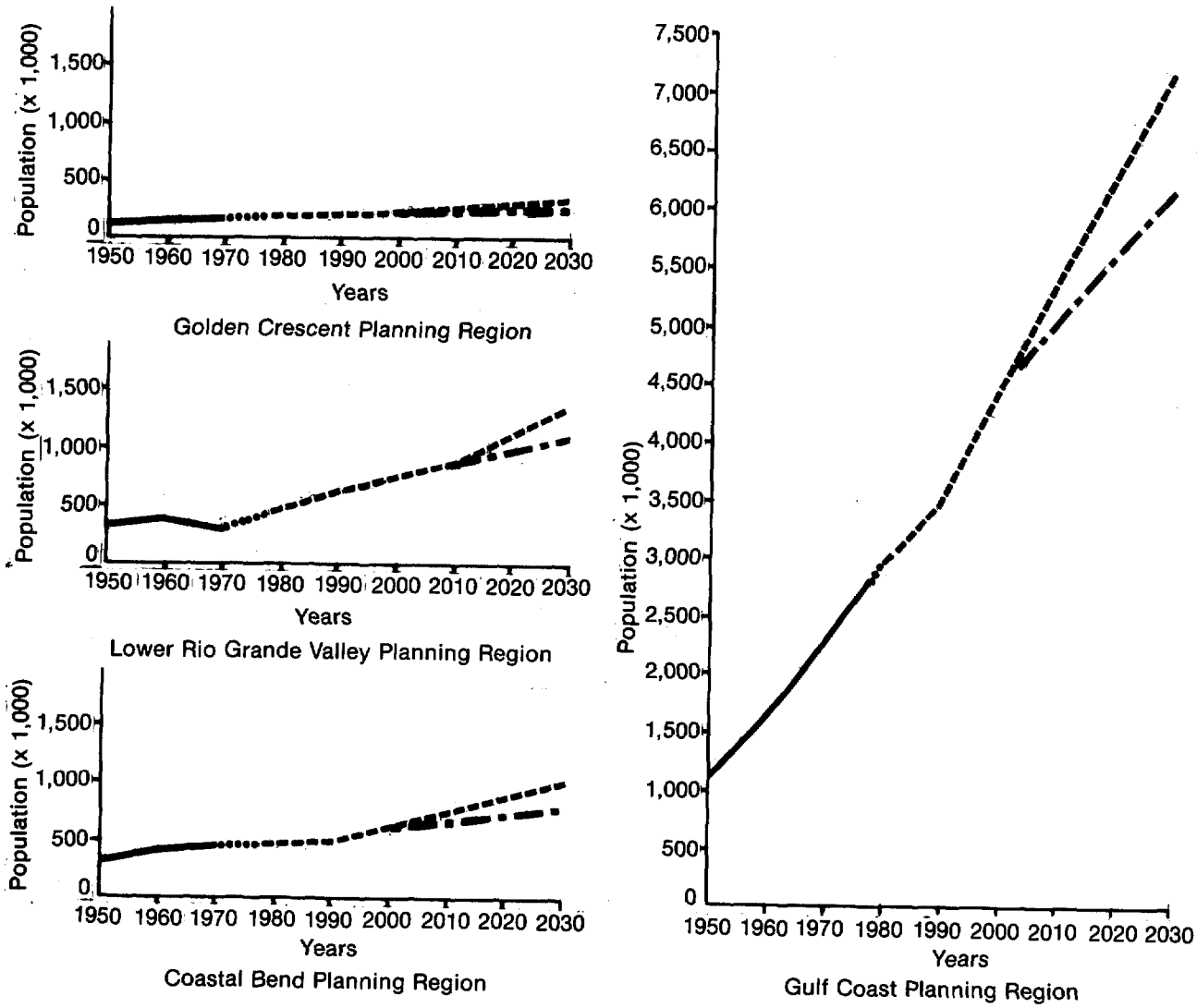
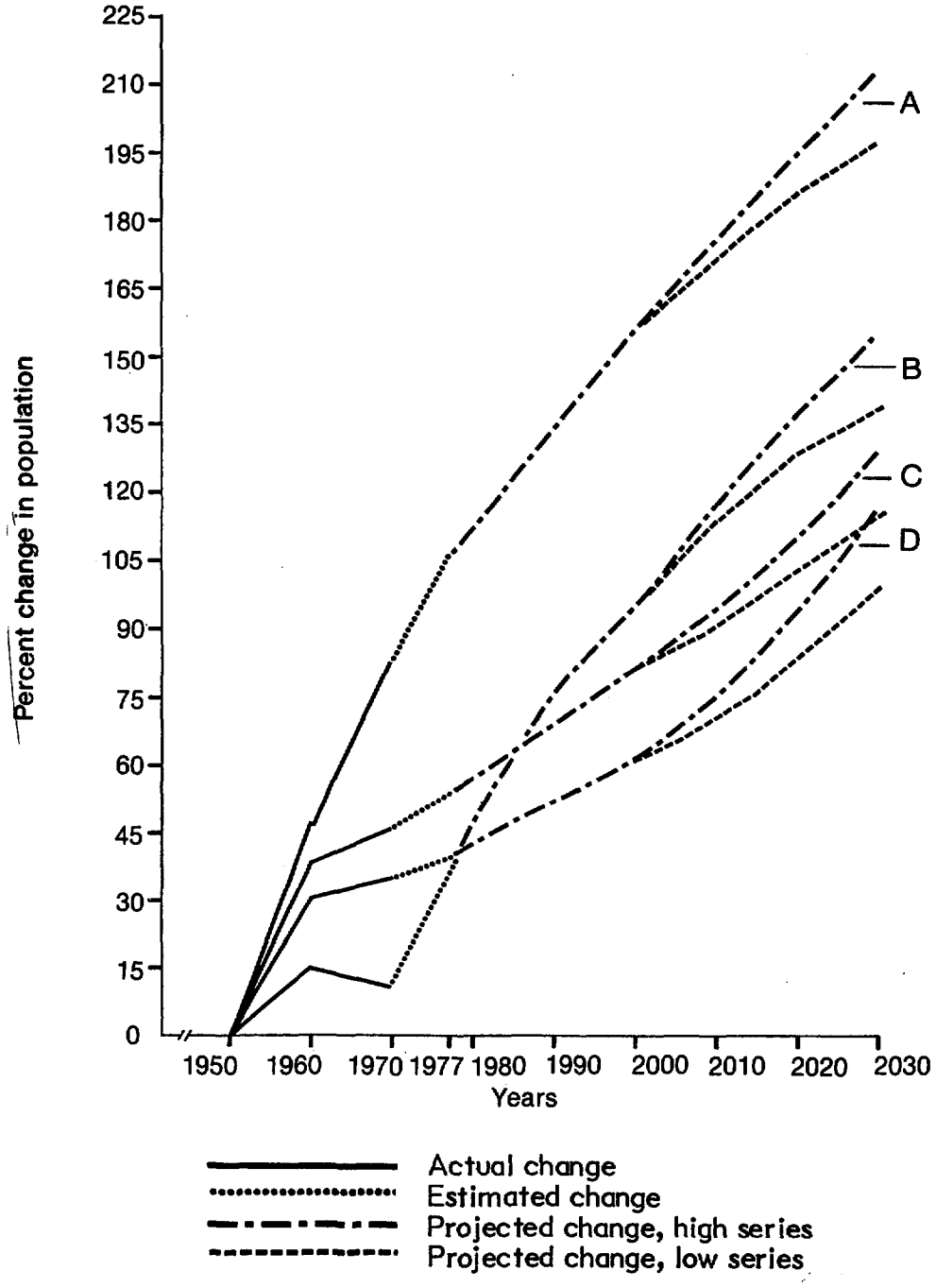


Figure POP-3. TBIE historical and projected population growth range by planning region, 1950 to 2030 (U.S. Dept. of Commerce, Bureau of the Census 1953; 1963; 1973; 1978; Texas Dept. of Water Resources 1979).



A. Gulf Coast Planning Region
B. Lower Rio Grande Valley Planning Region
C. Golden Crescent Planning Region
D. Coastal Bend Planning Region

Figure POP-4. Percent change in TBIE population size: historical and projected, 1950 through 2030 (U.S. Dept. of Commerce, Bureau of the Census 1953; 1963; 1973; 1978; Texas Dept. of Water Resources 1979).

Table POP-2. Population in the TBIE study area by age group for selected years, 1950 through 1975 (U.S. Department of Commerce, Bureau of the Census 1953, 1963, 1973, 1978).

Planning region/county	1950 Age 0-9 years	% of total population	Age 10-19 years	% of total population	Age 20-34 years	% of total population
GULF COAST						
Brazoria	10,547	22.7	7,261	15.6	11,896	25.6
Chambers	1,784	22.7	1,296	16.5	1,814	23.0
Fort Bend	6,742	21.7	5,515	17.8	7,285	23.5
Galveston	23,822	21.1	14,817	13.1	30,086	26.6
Harris	165,886	20.6	105,512	13.1	223,937	27.8
Liberty	6,030	22.6	4,629	17.3	5,905	22.1
Matagorda	4,887	22.7	3,570	16.6	4,660	21.6
Wharton	8,429	23.4	6,518	18.1	7,365	20.4
Total	228,127	20.9	149,118	13.7	292,948	26.9
GOLDEN CRESCENT						
Calhoun	2,182	23.7	1,510	16.4	2,241	24.3
Goliad	1,365	21.9	1,062	17.1	1,192	19.2
Jackson	3,040	23.5	2,291	17.7	2,687	20.8
Victoria	7,119	22.8	4,826	15.4	7,518	24.1
Total	13,706	23.0	9,689	16.3	13,638	22.9
COASTAL BEND						
Aransas	927	21.8	680	15.0	833	19.6
Bee	4,534	24.9	3,131	17.2	3,848	21.2
Brooks	2,519	27.4	1,673	18.2	2,281	24.8
Jim Wells	7,709	27.5	5,075	18.1	6,561	23.4
Kenedy	160	25.3	151	23.9	138	21.8
Kleberg	5,387	24.5	3,988	18.1	5,716	26.0
Nueces	42,635	25.8	25,837	15.6	44,927	27.1
Refugio	2,493	24.6	1,786	17.7	2,095	20.7
San Patricio	10,144	28.3	6,604	18.4	7,794	21.7
Total	76,508	26.0	48,925	16.7	74,193	25.3
LOWER RIO GRANDE VALLEY						
Cameron	34,350	27.4	22,637	18.1	30,224	24.1
Hidalgo	44,561	27.8	29,935	18.7	38,896	24.2
Willacy	5,835	27.9	4,038	19.3	5,141	24.6

(continued)

Table POP-2. (continued)

Planning region/county	1950 Age 0-9 years	% of total population	Age 10-19 years	% of total population	Age 20-34 years	% of total population
LOWER RIO GRANDE VALLEY (cont.)						
Total	84,746	27.6	56,610	18.5	74,261	24.2
TBIE STUDY AREA	403,087	23.0	264,342	15.1	455,040	26.0
STATE	1,634,998	21.2	1,213,065	15.7	1,852,447	24.0

Planning region/county	1950 Age 35-64 years	% of total population	Age 65+ years	% of total population	Total	% of total population
GULF COAST						
Brazoria	14,609	31.4	2,236	4.8	46,549	100.0
Chambers	2,530	32.1	447	5.7	7,871	100.0
Fort Bend	9,641	31.0	1,873	6.0	31,056	100.0
Galveston	38,373	33.9	5,968	5.3	113,066	100.0
Harris	273,448	33.9	37,918	4.7	806,701	100.0
Liberty	8,397	31.4	1,768	6.6	26,729	100.0
Matagorda	6,843	31.7	1,599	7.4	21,559	100.0
Wharton	11,316	31.4	2,449	6.8	36,077	100.0
Total	365,157	33.5	54,258	5.0	1,089,608	100.0
GOLDEN CRESCENT						
Calhoun	2,784	30.2	505	5.5	9,222	100.0
Goliad	2,073	33.3	527	8.5	6,219	100.0
Jackson	4,007	31.0	891	6.9	12,916	100.0
Victoria	9,998	32.0	1,780	5.7	31,241	100.0
Total	18,862	31.6	3,703	6.2	59,598	100.0

(continued)

Table POP-2. (continued)

Planning region/county	1950 Age 35-64 years	% of total population	Age 65+ years	% of total population	Total	% of total population
COASTAL BEND						
Aransas	1,450	34.1	362	8.5	4,252	100.0
Bee	5,461	30.0	1,200	6.6	18,174	100.0
Brooks	2,342	25.5	380	4.1	9,195	100.0
Jim Wells	7,575	27.1	1,071	3.8	27,991	100.0
Kenedy	160	25.3	23	3.6	632	100.0
Kleberg	5,988	27.2	912	4.1	21,991	100.0
Nueces	46,258	28.0	5,814	3.5	165,471	100.0
Refugio	3,221	31.8	518	5.1	10,113	100.0
San Patricio	9,685	27.0	1,615	4.5	35,842	100.0
Total	82,140	28.0	11,895	4.0	293,661	100.0
LOWER RIO GRANDE VALLEY						
Cameron	32,355	25.8	5,604	4.5	125,170	100.0
Hidalgo	40,201	25.1	6,853	4.2	160,446	100.0
Willacy	5,146	24.6	760	3.6	20,920	100.0
Total	77,702	25.3	13,217	4.3	306,536	100.0
TBIE STUDY AREA	543,861	31.1	83,073	4.7	1,749,403	100.0
STATE	2,497,264	32.4	513,420	6.7	7,711,194	100.0

Planning region/county	1960 Age 0-9 years	% of total population	Age 10-19 years	% of total population	Age 20-34 years	% of total population
GULF COAST						
Brazoria	18,510	24.3	13,666	17.9	16,519	21.7
Chambers	2,400	23.1	1,974	19.0	1,875	18.1
Fort Bend	10,316	25.4	7,409	18.3	8,263	20.4
Galveston	32,692	23.3	23,820	17.0	26,690	19.0

(continued)

Table POP-2. (continued)

Planning region/county	1960 Age 0-9 years	% of total population	Age 10-19 years	% of total population	Age 20-34 years	% of total population
GULF COAST (cont.)						
Harris	305,345	24.5	200,437	16.1	267,502	21.5
Liberty	7,289	23.0	5,989	19.0	5,443	17.2
Matagorda	6,325	24.6	4,813	18.7	4,448	17.3
Wharton	9,150	24.0	7,475	19.6	6,290	16.5
Total	392,027	24.4	265,583	16.5	337,030	21.0
GOLDEN CRESCENT						
Calhoun	4,868	29.3	3,069	18.5	3,636	21.9
Goliad	1,157	21.3	965	17.8	807	14.9
Jackson	3,395	24.2	2,750	19.6	2,368	16.9
Victoria	12,184	26.2	8,489	18.3	9,015	19.4
Total	21,604	26.2	15,273	18.5	15,826	19.1
COASTAL BEND						
Aransas	1,665	23.8	1,184	16.9	1,296	18.5
Bee	6,123	25.8	4,857	20.4	5,023	21.1
Brooks	2,207	25.6	1,844	21.4	1,637	19.0
Jim Wells	9,468	27.4	7,126	20.6	6,660	19.3
Kenedy	264	29.9	170	19.2	204	23.1
Kleberg	7,623	25.4	6,052	20.1	7,774	25.9
Nueces	60,374	27.2	42,582	19.2	44,572	20.1
Refugio	2,816	25.7	2,147	19.6	1,871	17.0
San Patricio	12,916	28.7	9,421	20.9	8,143	18.1
Total	103,456	27.0	75,383	19.7	77,180	20.2
LOWER RIO GRANDE VALLEY						
Cameron	44,126	29.2	30,266	20.0	30,522	20.2
Hidalgo	53,498	29.6	37,489	20.7	34,473	19.1
Willacy	6,135	30.5	4,275	21.3	3,559	17.7
Total	103,759	29.5	72,030	20.5	68,554	19.4
TBIE STUDY AREA	620,846	25.6	428,269	17.7	498,590	20.6
STATE	2,236,530	23.3	1,682,133	17.6	1,901,724	19.8

(continued)

Table POP-2. (continued)

Planning region/county	1960 Age 35-64 years	% of total population	Age 65+ years	% of total population	Total	% of total population
GULF COAST						
Brazoria	23,781	31.2	3,728	4.9	76,204	100.0
Chambers	3,416	32.9	714	6.9	10,379	100.0
Fort Bend	11,693	28.8	2,846	7.0	40,527	100.0
Galveston	48,128	34.3	9,034	6.4	140,364	100.0
Harris	403,142	32.4	66,732	5.4	1,243,158	100.0
Liberty	10,125	32.0	2,749	8.7	31,595	100.0
Matagorda	7,982	31.0	2,176	8.4	25,744	100.0
Wharton	11,804	30.9	3,433	9.0	38,152	100.0
Total	520,071	32.4	91,412	5.7	1,606,123	100.0
GOLDEN CRESCENT						
Calhoun	4,350	26.2	669	4.0	16,592	100.0
Goliad	1,839	33.9	661	12.2	5,429	100.0
Jackson	4,404	31.4	1,123	8.0	14,040	100.0
Victoria	13,969	30.1	2,818	6.1	46,475	100.0
Total	24,562	29.8	5,271	6.4	82,536	100.0
COASTAL BEND						
Aransas	2,202	31.4	659	9.4	7,006	100.0
Bee	6,307	26.5	1,445	6.1	23,755	100.0
Brooks	2,407	28.0	514	6.0	8,609	100.0
Jim Wells	9,526	27.6	1,768	5.1	34,548	100.0
Kenedy	199	22.5	47	5.3	884	100.0
Kleberg	7,259	24.1	1,344	4.5	30,052	100.0
Nueces	63,801	28.8	10,244	4.6	221,573	100.0
Refugio	3,416	31.1	725	6.6	10,975	100.0
San Patricio	12,099	26.9	2,442	5.4	45,021	100.0
Total	107,216	28.0	19,188	5.0	382,423	100.0
LOWER RIO GRANDE VALLEY						
Cameron	38,091	25.2	8,093	5.4	151,098	100.0
Hidalgo	45,406	25.1	10,038	5.5	180,904	100.0

(continued)

Table POP-2. (continued)

Planning region/county	1960 Age 35-64 years	% of total population	Age 65+ years	% of total population	Total	% of total population
LOWER RIO GRANDE VALLEY (cont.)						
Willacy	5,086	25.3	1,029	5.1	20,084	100.0
Total	88,583	25.2	19,160	5.4	352,086	100.0
TBIE STUDY AREA	740,432	30.6	135,031	5.6	2,423,168	100.0
STATE	3,013,899	31.5	745,391	7.8	9,579,677	100.0

Planning region/county	1970 Age 0-9 years	% of total population	Age 10-19 years	% of total population	Age 20-34 years	% of total population
GULF COAST						
Brazoria	21,681	20.0	22,697	21.0	24,251	22.4
Chambers	2,320	19.0	2,570	21.1	2,188	18.0
Fort Bend	11,580	22.1	11,363	21.7	10,880	20.8
Galveston	32,445	19.1	34,482	20.3	33,303	19.6
Harris	356,197	20.4	345,713	19.8	406,711	23.3
Liberty	5,941	18.0	6,937	21.0	5,649	17.1
Matagorda	5,374	19.2	6,067	21.7	4,564	16.3
Wharton	6,824	18.6	8,186	22.3	6,039	16.4
Total	442,362	20.3	438,015	20.1	493,585	22.6
GOLDEN CRESCENT						
Calhoun	3,972	22.3	4,103	23.0	3,452	19.4
Goliad	806	16.5	1,014	20.8	642	13.2
Jackson	2,392	18.4	2,866	22.1	2,017	15.5
Victoria	11,136	20.7	12,023	22.4	10,411	19.4
Total	18,306	20.5	20,006	22.4	16,522	18.5
COASTAL BEND						
Aransas	1,550	17.4	1,732	19.5	1,244	14.0
Bee	4,491	19.7	4,859	21.4	5,430	23.9

(continued)

Table POP-2. (continued)

Planning region/county	1970 Age 0-9 years	% of total population	Age 10-19 years	% of total population	Age 20-34 years	% of total population
COASTAL BEND (cont.)						
Brooks	1,742	21.8	1,820	22.7	1,410	17.6
Jim Wells	7,097	21.5	7,510	22.7	6,034	18.3
Kenedy	149	22.0	158	23.3	123	18.1
Kleberg	6,213	18.7	7,193	21.7	10,267	31.0
Nueces	49,722	20.9	52,506	22.1	49,170	20.7
Refugio	1,792	18.9	2,146	22.6	1,470	15.5
San Patricio	10,573	22.4	11,144	23.6	8,333	17.6
Total	83,329	20.8	89,068	22.2	83,481	20.8
LOWER RIO GRANDE VALLEY						
Cameron	32,360	23.0	33,659	24.0	23,774	16.9
Hidalgo	42,718	23.5	44,794	24.7	32,173	17.7
Willacy	3,580	23.0	3,932	25.2	2,511	16.1
Total	78,658	23.3	82,385	24.4	58,458	17.3
TBIE STUDY AREA	622,655	20.7	629,474	20.9	652,046	21.7
STATE	2,145,759	19.2	2,275,461	20.3	2,365,605	21.1

Planning region/county	1970 Age 35-64 years	% of total population	Age 65+ years	% of total population	Total	% of total population
GULF COAST						
Brazoria	33,937	31.3	5,746	5.3	108,312	100.0
Chambers	4,185	34.3	924	7.6	12,187	100.0
Fort Bend	14,601	27.9	3,890	7.4	52,314	100.0
Galveston	56,620	33.3	12,962	7.6	169,812	100.0
Harris	530,950	30.5	102,341	5.9	1,741,912	100.0
Liberty	10,828	32.8	3,659	11.1	33,014	100.0
Matagorda	9,032	32.4	2,876	10.3	27,913	100.0
Wharton	11,567	31.5	4,113	11.2	36,729	100.0
Total	671,720	30.8	136,511	6.3	2,182,193	100.0

(continued)

Table POP-2. (continued)

Planning region/county	1970 Age 35-64 years	% of total population	Age 65+ years	% of total population	Total	% of total population
GOLDEN CRESCENT						
Calhoun	5,311	29.8	993	5.6	17,831	100.0
Goliad	1,644	33.8	763	15.7	4,869	100.0
Jackson	4,357	33.6	1,343	10.3	12,975	100.0
Victoria	16,350	30.4	3,846	7.1	53,766	100.0
Total	27,662	30.9	6,945	7.8	89,441	100.0
COASTAL BEND						
Aransas	3,162	35.5	1,214	13.6	8,902	100.0
Bee	6,102	26.8	1,855	8.2	22,737	100.0
Brooks	2,411	30.1	622	7.8	8,005	100.0
Jim Wells	9,889	29.9	2,502	7.6	33,032	100.0
Kenedy	195	28.8	53	7.8	678	100.0
Kleberg	7,564	22.8	1,929	5.8	33,166	100.0
Nueces	71,180	30.0	14,966	6.3	237,544	100.0
Refugio	3,197	33.7	889	9.4	9,494	100.0
San Patricio	13,877	29.3	3,361	7.1	47,288	100.0
Total	117,577	29.3	27,391	6.8	400,846	100.0
LOWER RIO GRANDE VALLEY						
Cameron	38,592	27.5	11,983	8.5	140,368	100.0
Hidalgo	47,657	26.2	14,193	7.8	181,535	100.0
Willacy	4,223	27.1	1,324	8.5	15,570	100.0
Total	90,472	26.8	27,500	8.1	337,473	100.0
TBIE STUDY AREA	907,431	30.1	198,347	6.6	3,009,953	100.0
STATE	3,417,848	30.5	992,059	8.9	11,196,730	100.0

(continued)

Table POP-2. (continued)

Planning region/county	1975 Age 0-9 years	% of total population	Age 10-19 years	% of total population	Age 20-34 years	% of total population
GULF COAST						
Brazoria	21,729	17.5	25,034	20.1	31,615	25.4
Chambers	2,280	17.3	2,499	19.0	2,829	21.5
Fort Bend	14,805	19.4	15,906	20.9	20,976	27.5
Galveston	29,398	16.0	36,984	20.2	42,352	23.1
Harris	352,937	18.1	377,367	19.4	511,087	26.3
Liberty	6,344	16.5	7,741	20.1	8,203	21.3
Matagorda	4,477	16.1	5,791	20.9	5,264	19.0
Wharton	5,489	15.1	7,705	21.3	7,283	20.1
Total	437,459	17.9	479,027	19.6	629,609	25.8
GOLDEN CRESCENT						
Calhoun	3,180	17.9	4,142	23.3	3,860	21.7
Goliad	740	15.3	985	20.3	847	17.5
Jackson	1,901	15.1	2,691	21.4	2,327	18.5
Victoria	9,872	17.0	12,506	21.5	13,529	23.3
Total	15,693	16.8	20,324	21.8	20,563	22.0
COASTAL BEND						
Aransas	1,647	15.7	2,015	19.2	1,592	15.2
Bee	4,111	17.4	5,157	21.9	6,173	26.2
Brooks	1,457	18.8	1,694	21.9	1,555	20.1
Jim Wells	6,357	18.7	7,374	21.7	7,301	21.5
Kenedy	84	13.8	143	23.4	135	22.1
Kleberg	5,624	17.1	6,940	21.1	10,573	32.2
Nueces	45,799	18.4	53,186	21.4	58,941	23.7
Refugio	1,173	13.0	1,982	21.9	1,733	19.1
San Patricio	9,666	19.2	11,351	22.5	10,284	20.4
Total	75,918	18.2	89,842	21.5	98,287	23.6
LOWER RIO GRANDE VALLEY						
Cameron	35,744	20.2	40,598	22.9	39,039	22.1
Hidalgo	49,012	21.5	52,605	23.1	52,374	23.0
Willacy	3,355	19.9	4,209	25.0	3,368	20.0

(continued)

Table POP-2. (continued)

Planning region/county	1975 Age 0-9 years	% of total population	Age 10-19 years	% of total population	Age 20-34 years	% of total population
LOWER RIO GRANDE VALLEY (cont.)						
Total	88,111	20.9	97,412	23.1	94,781	22.5
TBIE STUDY AREA	617,181	18.3	686,605	20.3	843,240	25.0
STATE	2,074,967	16.9	2,435,872	19.9	2,983,856	24.3

Planning region/county	1975 Age 35-64 years	% of total population	Age 65+ years	% of total population	Total	% of total population
GULF COAST						
Brazoria	38,508	31.0	7,491	6.0	124,377	100.0
Chambers	4,442	33.8	1,108	8.4	13,158	100.0
Fort Bend	20,002	26.2	4,555	6.0	76,244	100.0
Galveston	59,313	32.4	15,201	8.3	183,248	100.0
Harris	579,988	29.8	123,051	6.3	1,944,430	100.0
Liberty	11,861	30.8	4,294	11.2	38,443	100.0
Matagorda	8,878	32.0	3,310	11.9	27,720	100.0
Wharton	11,091	30.6	4,658	12.9	36,226	100.0
Total	734,083	30.0	163,668	6.7	2,443,846	100.0
GOLDEN CRESCENT						
Calhoun	5,441	30.6	1,164	6.5	17,787	100.0
Goliad	1,514	31.3	757	15.6	4,843	100.0
Jackson	4,089	32.5	1,560	12.4	12,568	100.0
Victoria	17,418	30.0	4,781	8.2	58,106	100.0
Total	28,462	30.5	8,262	8.8	93,304	100.0
COASTAL BEND						
Aransas	3,754	35.7	1,495	14.2	10,503	100.0
Bee	5,981	25.4	2,153	9.1	23,575	100.0
Brooks	2,258	29.2	777	10.0	7,741	100.0
Jim Wells	9,883	29.1	3,000	8.8	33,915	100.0

(continued)

Table POP-2. (concluded)

Planning region/county	1975 Age 35-64 years	% of total population	Age 65+ years	% of total population	Total	% of total population
COASTAL BEND (cont.)						
Kenedy	197	32.3	51	8.4	610	100.0
Kleberg	7,523	22.1	2,165	6.6	32,825	100.0
Nueces	72,269	29.1	18,233	7.3	248,428	100.0
Refugio	3,109	34.3	1,056	11.7	9,053	100.0
San Patricio	14,984	29.7	4,098	8.1	50,383	100.0
Total	119,958	28.8	33,028	7.9	417,033	100.0
LOWER RIO GRANDE VALLEY						
Cameron	46,543	26.3	14,996	8.5	176,920	100.0
Hidalgo	55,962	24.6	17,904	7.9	227,857	100.0
Willacy	4,414	26.2	1,499	8.9	16,845	100.0
Total	106,919	25.4	34,399	8.2	421,622	100.0
TBIE STUDY AREA	989,422	29.3	239,357	7.1	3,375,805	100.0
STATE	3,614,132	29.5	1,152,201	9.4	12,261,028	100.0

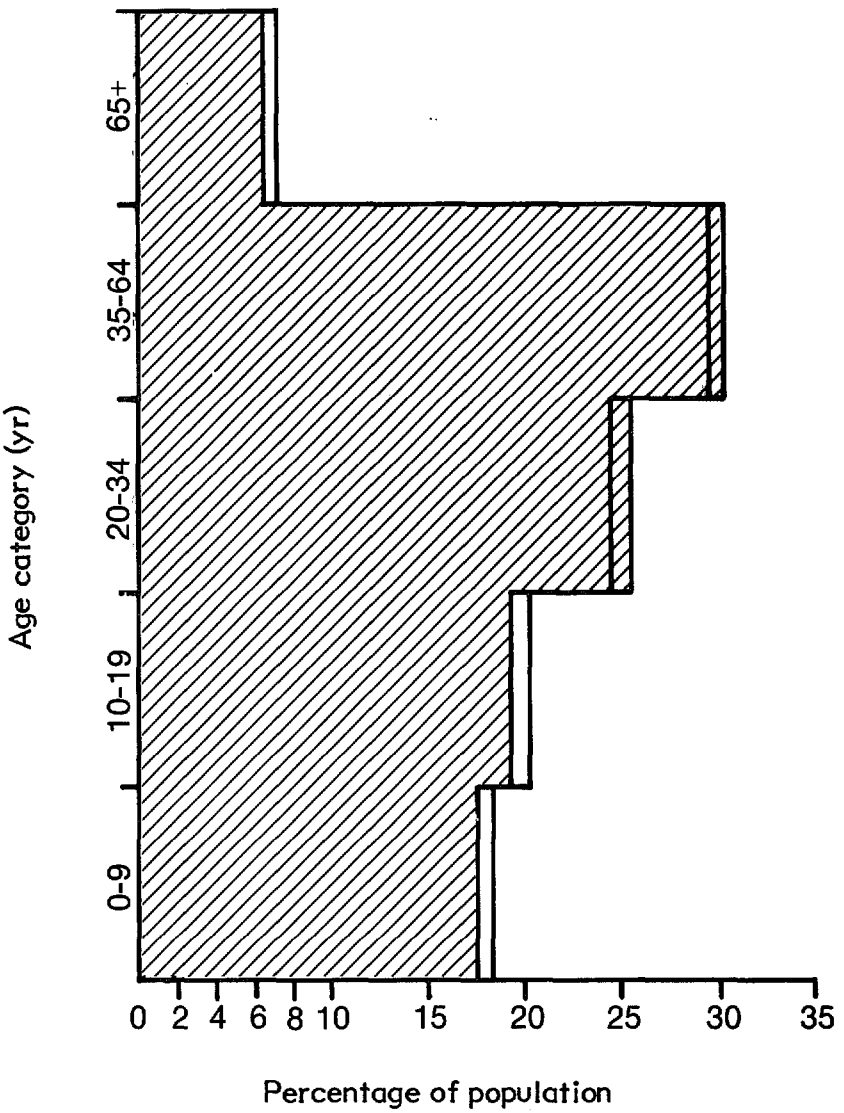


Figure POP-5a. Gulf Coast Planning Region and TBIE populations: age group as a percentage of total population, 1975 (U.S. Dept. of Commerce, Bureau of the Census 1978).

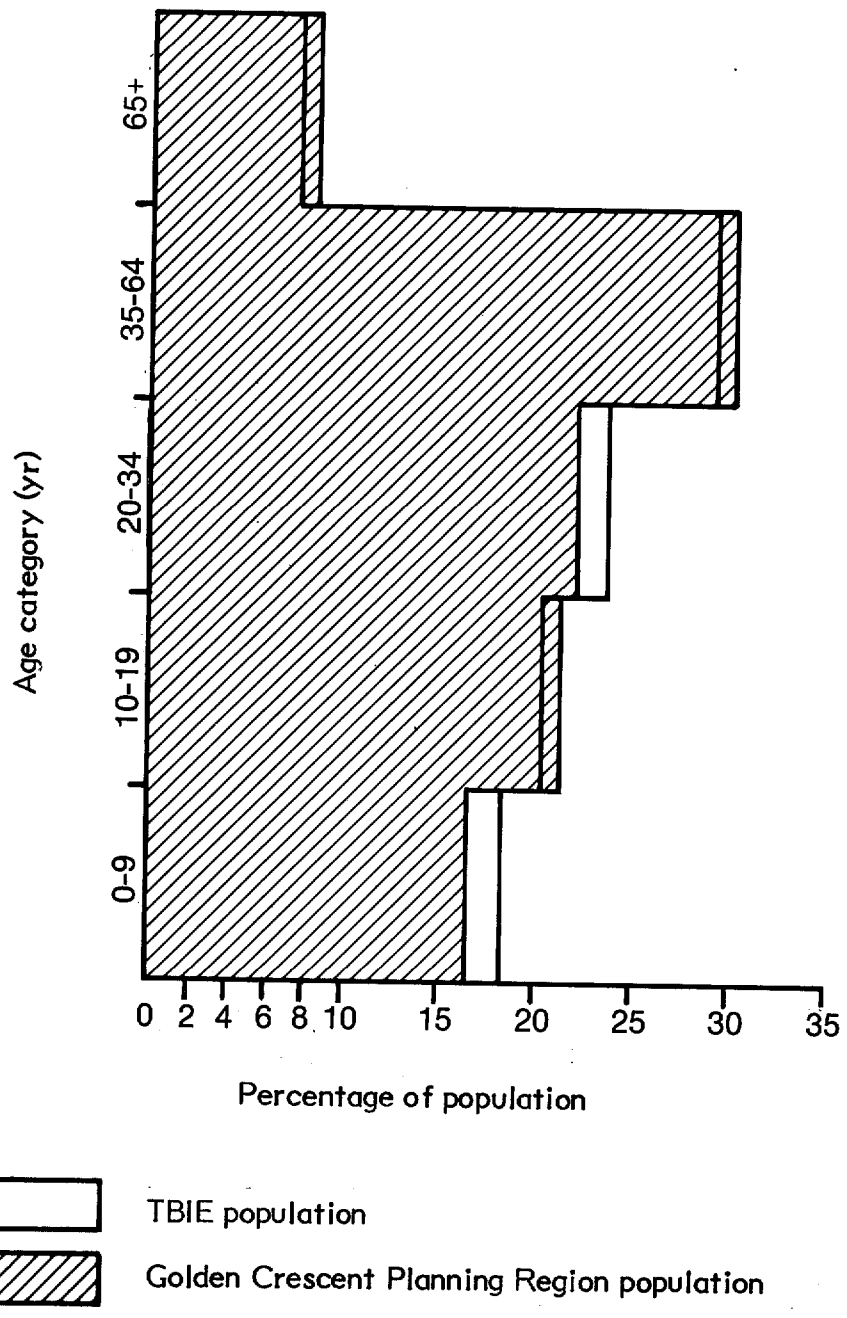


Figure POP-5b. Golden Crescent Planning Region and TBIE populations: age group as a percentage of total population, 1975 (U.S. Dept. of Commerce, Bureau of the Census 1978).

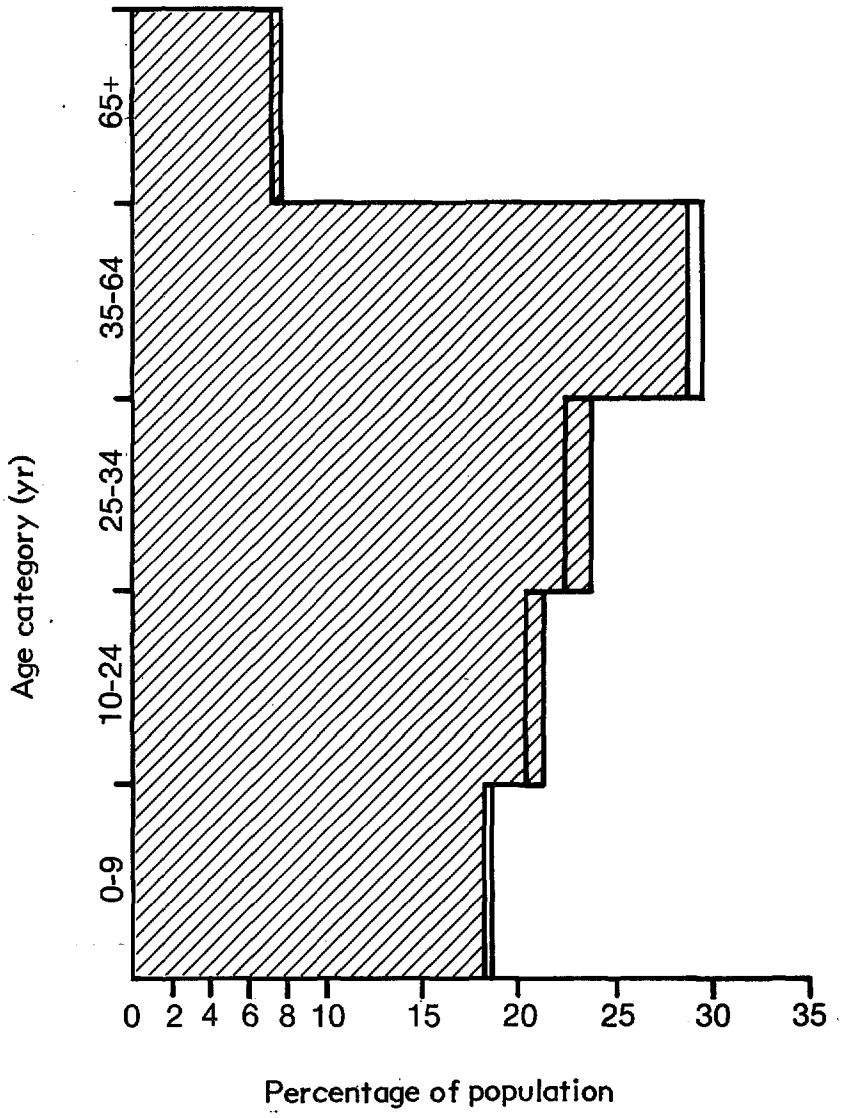


Figure POP-5c. Coastal Bend Planning Region and TBIE populations: age group as a percentage of total population, 1975 (U.S. Dept. of Commerce, Bureau of the Census 1978).

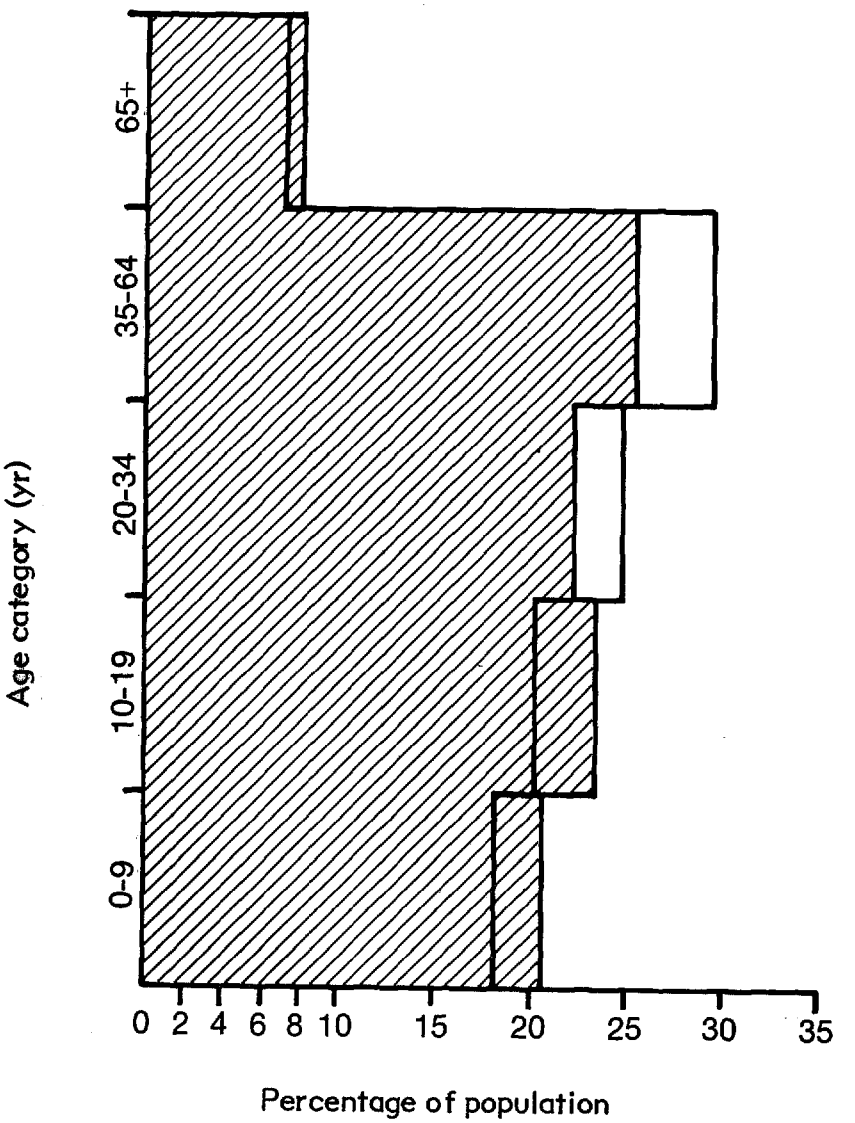


Figure POP-5d. Lower Rio Grande Valley Planning Region and TBIE populations: age group as a percentage of total population, 1975 (U.S. Dept. of Commerce, Bureau of the Census 1978).

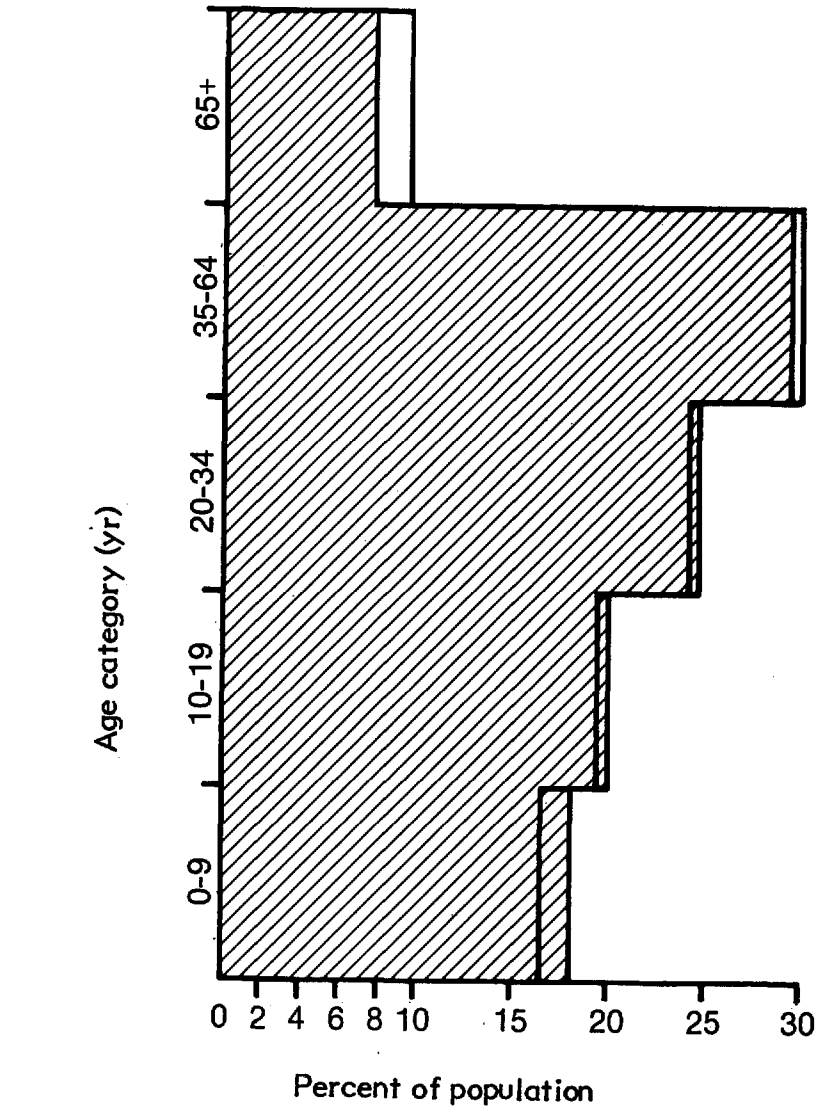


Figure POP-6. TBIE and Texas populations: age group as a percentage of total population, 1975 (U.S. Dept. of Commerce, Bureau of the Census 1978).

Table POP-3. Ethnic and racial composition of the TBIE study area population for selected years, 1950 through 1970 (U.S. Department of Commerce, Bureau of the Census 1953, 1963, 1973).

Planning region/county	1950 White	% white	Non-white	% non-white	Total population
GULF COAST					
Brazoria	39,701	85.3	6,848	14.7	46,549
Chambers	6,317	80.3	1,554	19.7	7,871
Fort Bend	23,529	75.8	7,527	24.2	31,056
Galveston	89,244	78.9	23,822	21.1	113,066
Harris	656,249	81.4	150,452	18.7	806,701
Liberty	20,653	77.3	6,076	22.7	26,729
Matagorda	16,741	77.7	4,818	22.4	21,559
Wharton	28,228	78.2	7,849	21.8	36,077
Total	880,662	80.8	208,946	19.2	1,089,608
GOLDEN CRESCENT					
Calhoun	8,508	92.3	714	7.7	9,222
Goliad	5,580	89.7	639	10.3	6,219
Jackson	11,202	86.7	1,714	13.3	12,916
Victoria	28,155	90.1	3,086	9.9	31,241
Total	53,445	89.7	6,153	10.3	59,598
COASTAL BEND					
Aransas	4,145	97.5	107	2.5	4,252
Bee	17,701	97.4	473	2.6	18,174
Brooks	9,155	99.6	40	0.4	9,195
Jim Wells	27,582	98.5	409	1.5	27,991
Kenedy	632	100.0	0	0.0	632
Kleberg	21,179	96.3	812	3.7	21,991
Nueces	157,399	95.1	8,072	4.9	165,471
Refugio	8,986	88.9	1,127	11.1	10,113
San Patricio	35,113	98.0	729	2.0	35,842
Total	281,892	96.0	11,769	4.0	293,661
LOWER RIO GRANDE VALLEY					
Cameron	124,227	99.3	943	0.8	125,170

(continued)

Table POP-3. (continued)

Planning region/county	1950 White	% white	Non-white	% non-white	Total population
LOWER RIO GRANDE VALLEY (cont.)					
Hidalgo	159,035	99.1	1,411	0.9	160,446
Willacy	20,802	99.4	118	0.6	20,920
Total	304,064	99.2	2,724	0.8	306,536
TBIE STUDY AREA	1,520,063	86.9	229,340	13.1	1,749,403
STATE	6,726,534	87.2	984,660	12.8	7,711,194

Planning region/county	1960 White	% white	Non-white	% non-white	Total population
GULF COAST					
Brazoria	67,054	88.0	9,150	12.0	76,204
Chambers	8,086	77.9	2,293	22.1	10,379
Fort Bend	32,400	80.0	8,127	20.1	40,527
Galveston	110,297	78.6	30,067	21.4	140,364
Harris	993,685	79.9	249,473	20.1	1,243,158
Liberty	24,182	76.5	7,413	23.5	31,595
Matagorda	20,417	79.3	5,327	20.7	25,744
Wharton	30,344	79.5	7,808	20.5	38,152
Total	1,286,465	80.1	319,658	19.1	1,606,123
GOLDEN CRESCENT					
Calhoun	15,770	95.1	822	5.0	16,592
Goliad	4,801	88.4	628	11.6	5,429
Jackson	12,347	87.9	1,693	12.1	14,040
Victoria	42,456	91.4	4,019	8.7	46,475
Total	75,374	91.3	7,162	8.7	82,536
COASTAL BEND					
Aransas	6,719	95.9	287	4.1	7,006
Bee	23,116	97.3	639	2.7	23,755

(continued)

Table POP-3. (continued)

Planning region/county	1960 White	% white	Non-white	% non-white	Total population
COASTAL BEND (cont.)					
Brooks	8,597	99.9	12	0.1	8,609
Jim Wells	34,151	98.9	397	1.2	34,548
Kenedy	884	100.0	0	0.0	884
Kleberg	28,918	96.2	1,134	3.8	30,052
Nueces	211,180	95.3	10,393	4.7	221,573
Refugio	9,943	90.6	1,032	9.4	10,975
San Patricio	44,163	98.1	858	1.9	45,021
Total	367,671	96.1	14,752	3.9	382,423
LOWER RIO GRANDE VALLEY					
Cameron	149,877	99.2	1,221	0.8	151,098
Hidalgo	180,228	99.6	676	0.3	180,904
Willacy	19,977	99.5	107	0.5	20,084
Total	350,082	99.4	2,004	0.6	352,086
TBIE STUDY AREA	2,079,592	85.8	343,576	14.2	2,423,168
STATE	8,376,937	87.4	1,204,571	12.6	9,581,508

(continued)

Table POP-3. (continued)

Planning region/county	1970[a] White	% white	Black	% black	Other	% other	Spanish surname	% Spanish surname[a]	Total population
GULF COAST									
Brazoria	97,685	90.2	10,137	9.4	490	0.5	10,769	9.9	108,312
Chambers	9,671	79.4	2,487	20.4	29	0.2	467	3.8	12,187
Fort Bend	43,168	82.5	8,876	17.0	270	0.5	13,890	26.5	52,314
Galveston	135,480	79.8	33,314	19.6	1,018	0.6	20,372	12.0	169,812
Harris	1,377,118	79.1	350,668	20.1	14,126	0.8	185,715	10.7	1,741,912
Liberty	26,053	78.9	6,861	20.8	100	0.3	432	1.3	33,014
Matagorda	22,352	80.1	5,371	19.2	190	0.7	5,162	18.5	27,913
Wharton	29,263	79.7	7,262	19.8	204	0.6	6,920	18.8	36,729
Total	1,740,790	79.8	424,976	19.5	16,427	0.7	243,727	11.2	2,182,193
GOLDEN CRESCENT									
Calhoun	16,874	94.6	785	4.4	172	1.0	5,963	33.4	17,831
Goliad	4,291	88.1	566	11.6	12	0.2	1,832	37.6	4,869
Jackson	11,393	87.8	1,539	11.9	43	0.3	2,301	17.7	12,975
Victoria	49,363	91.8	4,186	7.8	217	0.4	16,910	31.4	53,766
Total	81,921	91.6	7,076	7.9	444	0.5	27,006	30.2	89,441
COASTAL BEND									
Aransas	8,490	95.4	357	4.0	55	0.6	2,372	26.6	8,902
Bee	21,944	96.5	563	2.5	230	1.0	8,892	39.1	22,737
Brooks	7,968	99.5	17	0.2	20	0.2	6,399	79.9	8,005
Jim Wells	32,606	98.7	275	0.8	151	0.5	21,125	63.9	33,032
Kenedy	678	100.0	0	0.0	0	0.0	532	78.5	678
Kleberg	31,424	94.7	1,380	4.2	362	1.1	14,560	43.9	33,166
Nueces	223,836	94.2	11,023	4.6	2,685	1.1	103,543	43.6	237,544

(continued)

Table POP-3. (concluded)

Planning region/county	1970[a] White	% white	Black	% black	Other	% other	Spanish surname	% Spanish surname[a]	Total population
COASTAL BEND (cont.)									
Refugio	8,535	89.9	908	9.6	51	0.5	3,610	38.0	9,494
San Patricio	46,254	97.8	745	1.6	289	0.6	23,231	49.1	47,288
Total	381,735	95.2	15,268	3.8	3,843	1.0	184,264	46.0	400,846
LOWER RIO GRANDE VALLEY									
Cameron	138,862	98.9	623	0.4	883	0.6	107,000	76.2	140,368
Hidalgo	180,095	99.2	356	0.2	1,084	0.6	143,611	79.1	181,535
Willacy	15,381	98.8	68	0.4	121	0.8	11,961	76.8	15,570
Total	334,338	99.1	1,047	0.3	2,088	0.6	262,572	77.8	337,473
TBIE STUDY AREA	2,538,784	84.3	448,367	14.9	22,802	0.8	717,569	23.8	3,009,953
STATE	9,717,128	86.8	1,399,005	12.5	80,597	7.2	2,059,671	18.4	11,196,730

[a]1970 percentage figures do not add up to 100% due to inclusion of data on ethnicity as well as race.

Table POP-4. Population and components of change in the TBIE study area for selected years, 1950 through 1977 (U.S. Department of Commerce, Bureau of the Census 1953, 1963, 1973; Bowles and Tarver 1965; Bowles et al. 1975).

Planning region/county	Total population 1950	Total population 1960	Change in population 1950-60	% change in population 1950-60[a]	Net migration 1950-60	Net migration rate (%) 1950-60[a]	Natural increase 1950-60	Natural increase rate (%) 1950-60[a]
GULF COAST								
Brazoria	46,549	76,204	29,655	48.3	15,265	24.9	14,390	23.4
Chambers	7,871	10,379	2,508	27.5	848	9.3	1,660	18.2
Fort Bend	31,056	40,527	9,471	26.5	717	2.0	8,754	24.5
Galveston	113,066	140,364	27,298	21.5	3,120	2.5	24,178	19.1
Harris	806,701	1,243,158	436,457	42.6	212,683	20.8	223,774	21.8
Liberty	26,729	31,595	4,866	16.7	-1,049	-3.6	5,915	20.3
Matagorda	21,559	25,744	4,185	17.7	-789	-3.3	4,974	21.0
Wharton	36,077	38,152	2,075	5.6	-5,592	-15.1	7,667	20.7
Total	1,089,608	1,606,123	516,515	38.3	225,203	16.7	291,312	21.6
GOLDEN CRESCENT								
Calhoun	9,222	16,592	7,370	57.1	3,412	26.4	3,958	30.7
Goliad	6,219	5,429	-790	-13.6	-1.714	-29.4	924	15.9
Jackson	12,916	14,040	1,124	8.3	-1,698	-12.6	2,822	20.9
Victoria	31,241	46,475	15,234	39.2	4,565	11.7	10,669	27.5
Total	59,598	82,536	22,938	32.7	4,565	6.4	18,373	25.8
COASTAL BEND								
Aransas	4,252	7,006	2,754	48.9	1,896	33.7	858	15.2
Bee	18,174	23,755	5,581	26.6	338	1.6	5,243	25.0
Brooks	9,195	8,609	-586	-6.6	-2,773	-31.1	2,187	24.6
Jim Wells	37,991	34,548	6,557	21.0	-1,938	-6.2	8,495	27.2
Kenedy	632	884	252	33.3	49	6.5	203	26.8
Kleberg	21,991	30,052	8,061	31.0	-231	-0.9	8,292	31.9
Nueces	165,471	221,573	56,102	29.0	89	0.0	56,013	28.9

(continued)

Table POP-4. (continued)

Planning region/county	Total population 1950	Total population 1960	Change in population 1950-60	% change in population 1950-60[a]	Net migration 1950-60	Net migration rate (%) 1950-60[a]	Natural increase 1950-60	Natural increase rate (%) 1950-60[a]
COASTAL BEND (cont.)								
Refugio	10,113	10,975	862	8.2	-1,352	-12.8	2,214	21.0
San Patricio	35,842	45,021	9,179	22.7	-3,479	-8.6	12,658	31.3
Total	293,661	382,423	88,762	26.2	-7,401	-2.1	96,163	28.4
LOWER RIO GRANDE VALLEY								
Cameron	125,170	151,098	25,928	18.8	-23,177	-16.8	49,105	35.5
Hidalgo	160,446	180,904	20,458	12.0	-37,917	-22.2	58,375	34.2
Willacy	20,920	20,084	-836	-4.1	-7,861	-38.3	7,025	34.3
Total	306,536	352,086	45,550	13.8	-68,955	-20.9	114,505	34.8
TBIE STUDY AREA	1,749,403	2,423,168	673,765	32.3	153,412	7.3	520,353	24.9
STATE[c]	7,711,194	9,579,677	1,868,483	21.6	113,831	1.3	1,754,652	20.3

(continued)

Table POP-4. (continued)

Planning region/county	Total population 1970	Change in population 1960-70	% change in population 1960-70[a]	Net migration 1960-70	Net migration rate (%) 1960-70[a]	Natural increase 1960-70	Natural increase rate (%) 1960-70[a]
GULF COAST							
Brazoria	108,312	32,108	35.0	19,470	21.1	12,638	13.7
Chambers	12,187	1,808	16.0	666	5.9	1,142	10.1
Fort Bend	52,314	11,787	25.4	4,835	10.4	6,952	15.0
Galveston	169,812	29,448	19.0	10,786	6.9	18,662	12.0
Harris	1,741,912	498,754	33.4	268,927	18.0	229,827	15.4
Liberty	33,014	1,419	4.4	-1.735	-5.4	3,154	9.8
Matagorda	27,913	2,169	8.1	-1.471	-5.4	3,640	13.6
Wharton	36,729	-1,423	-3.8	-5.601	14.9	4,178	11.2
Total	2,182,193	576,070	30.4	295,877	15.6	280,193	14.8
GOLDEN CRESCENT							
Calhoun	17,831	1,239	7.2	-2,425	-14.1	3,664	21.3
Goliad	4,869	-560	-10.9	796	15.5	236	4.6
Jackson	12,975	-1,065	-7.9	-2,502	-18.5	1,437	10.6
Victoria	53,766	7,291	14.5	-912	-1.8	8,203	16.4
Total	89,441	6,905	8.0	-6,635	-7.7	13,540	15.7
COASTAL BEND							
Aransas	8,902	1,896	23.8	1,199	15.1	697	8.9
Bee	22,737	-1,018	-4.4	-5,420	-23.3	4,402	18.9
Brooks	8,005	-604	-7.3	-2,254	-27.1	1,650	19.9
Jim Wells	33,032	-1,516	-4.5	-7,548	-22.3	6,032	17.8
Kenedy	678	-206	-26.4	-350	-44.8	144	18.4
Kleberg	33,166	3,114	9.8	-3,493	-11.0	6,607	20.9
Nueces	237,544	15,971	6.9	-27,059	-11.8	43,030	18.7

(continued)

Table POP-4. (continued)

Planning region/county	Total population 1970	Change in population 1960-70	% change in population 1960-70[a]	Net migration 1960-70	Net migration rate (%) 1960-70[a]	Natural increase 1960-70	Natural increase rate (%) 1960-70[a]
COASTAL BEND (cont.)							
Refugio	9,494	-1,481	-14.5	-2,885	-8.2	1,404	13.7
San Patricio	47,288	2,267	4.9	-6,333	-13.7	8,600	18.6
Total	400,846	18,423	4.7	-54,143	-13.8	72,566	18.5
LOWER RIO GRANDE VALLEY							
Cameron	140,368	-10,730	-7.4	-44,961	-30.8	34,231	23.5
Hidalgo	181,535	631	0.3	-43,163	-23.8	43,794	24.2
Willacy	15,570	-4,514	-25.3	-8,470	-47.5	3,956	22.2
Total	337,473	-14,613	-4.2	-96,594	-28.0	81,981	23.8
TBIE STUDY AREA	3,009,953	586,785	21.6	138,505	5.1	448,280	16.5
STATE[c]	11,196,730	1,617,053	15.6	198,353	1.9	1,418,700	13.7

(continued)

Table POP-4. (continued)

Planning region/county	Total population 1977	Change in population 1970-77	% change in population 1970-77[a]	Net migration 1970-77	Net migration rate (%) 1970-77[a]	Natural increase 1970-77	Natural increase rate (%) 1970-77[a]
GULF COAST							
Brazoria	135,400	27,100	22.2	17,800	14.6	9,300	7.6
Chambers	14,000	1,800	13.7	1,200	9.2	600	4.6
Fort Bend	86,600	34,300	49.4	27,900	40.2	6,400	9.2
Galveston	195,400	25,600	14.0	15,500	8.5	10,100	5.5
Harris	2,138,300	396,300	20.4	227,000	11.7	169,300	8.7
Liberty	40,300	7,300	19.9	5,400	14.7	1,900	5.2
Matagorda	30,600	2,700	9.2	1,300	4.4	1,400	4.8
Wharton	37,300	600	1.6	-800	-2.2	1,400	3.8
Total	2,677,900	495,700	20.4	295,300	12.2	200,400	8.2
GOLDEN CRESCENT							
Calhoun	18,100	300[b]	1.7[b]	-1,200[b]	-6.7[b]	1,500[b]	8.3[b]
Goliad	4,800	[b]	[b]				
Jackson	13,000			-500	-3.8	500	3.8
Victoria	60,600	6,900	12.1	2,500	4.4	4,400	7.7
Total	96,500	7,200[b]	7.7[b]	800[a]	0.9	6,400	6.9[b]
COASTAL BEND							
Aransas	11,100	2,200	22.0	1,800	18.0	400	4.0
Bee	22,800	100	0.4	-2,500	-11.0	2,600	11.4
Brooks	7,700	-300	-3.8	-1,000	-12.7	700	8.9
Jim Wells	34,200	1,100	3.3	-1.800	-5.3	2,900[b]	8.6[b]
Kenedy	600	-100	-15.6	-100	-15.6		
Kleberg	32,800	-400	-1.2	-4,300	-13.0	3,900	11.8
Nueces	250,700	13,100	5.4	-12,900	-5.3	26,000	10.6

(continued)

Table POP-4. (concluded)

Planning region/county	Total population 1977	Change in population 1970-77	% change in population 1970-77[a]	Net migration 1970-77	Net migration rate (%) 1970-77[a]	Natural increase 1970-77	Natural increase rate (%) 1970-77[a]
COASTAL BEND (cont.)							
Refugio	9,200	-300	-3.2	-600	-6.4	300	3.2
San Patricio	52,500	5,200	10.4	500	1.0	4,700	9.4
Total	421,600	20,600	5.0	-20,900	-5.1	41,500	10.1[b]
LOWER RIO GRANDE VALLEY							
Cameron	176,500	36,100	22.8	12,200	7.7	23,900	15.1
Hidalgo	232,300	50,800	24.5	16,300	7.9	34,500	16.7
Willacy	16,800	1,200	7.4	-900	-5.6	2,100	13.0
Total	425,600	88,100	23.1	27,600	7.2	60,500	15.9
TBIE STUDY AREA	3,621,600	611,600	18.3	302,800	9.1	308,800	9.2
STATE[c]	12,830,000	1,632,000	13.6	769,000	6.4	863,000	7.7

[a]Percentages based on average decennial population.
[b]Less than 50 persons or less than 0.05 percent.
[c]State estimates shown to the nearest thousand, county estimates to the nearest hundred.

EMPLOYMENT AND INCOME CHARACTERISTICS (EMP)

Table EMP-1. Total employment in the TBIE study area for selected years, 1950 through 1977 (U.S. Department of Commerce 1975, U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System 1979a).

Planning region/county	Total employment 1950	Total employment 1960	% change 1950-60	Total employment 1970[a]
GULF COAST				
Brazoria	16,300	25,213	54.68	40,296
Chambers	2,695	3,491	29.54	4,337
Fort Bend	10,002	12,392	23.90	18,117
Galveston	45,174	51,442	13.88	66,359
Harris	328,108	471,615	43.74	719,922
Liberty	9,270	9,927	7.09	10,924
Matagorda	7,551	8,400	11.24	9,822
Wharton	12,191	12,190	0	13,271
Total	431,291	594,670	37.88	883,048
GOLDEN CRESCENT				
Calhoun	3,410	5,445	59.68	6,078
Goliad	2,059	1,814	-11.90	1,565
Jackson	4,681	4,551	-2.78	4,591
Victoria	11,640	15,740	35.22	19,550
Total	21,790	27,550	26.43	31,784
COASTAL BEND				
Aransas	1,369	2,362	72.53	2,883
Bee	5,789	8,237	42.29	8,631
Brooks	2,808	2,428	-13.53	2,240
Jim Wells	8,258	9,998	21.07	10,558
Kenedy	239	304	27.20	298
Kleberg	7,141	10,564	47.93	12,176
Nueces	59,537	73,277	23.08	87,094
Refugio	3,426	3,558	3.85	3,519
San Patricio	11,113	13,009	17.06	15,156
Total	99,680	123,737	24.13	142,555
LOWER RIO GRANDE VALLEY				
Cameron	39,439	47,195	19.67	40,812
Hidalgo	50,036	57,425	14.77	52,756
Willacy	6,942	6,272	-9.65	4,236
Total	96,417	110,892	15.01	97,804

(continued)

Table EMP-1. (continued)

Planning region/county	Total employment 1950	Total employment 1960	% change 1950-60	Total employment 1970[a]
TBIE STUDY AREA	649,178	856,849	31.99	1,155,191
STATE	2,860,272	3,480,858	21.70	4,347,999

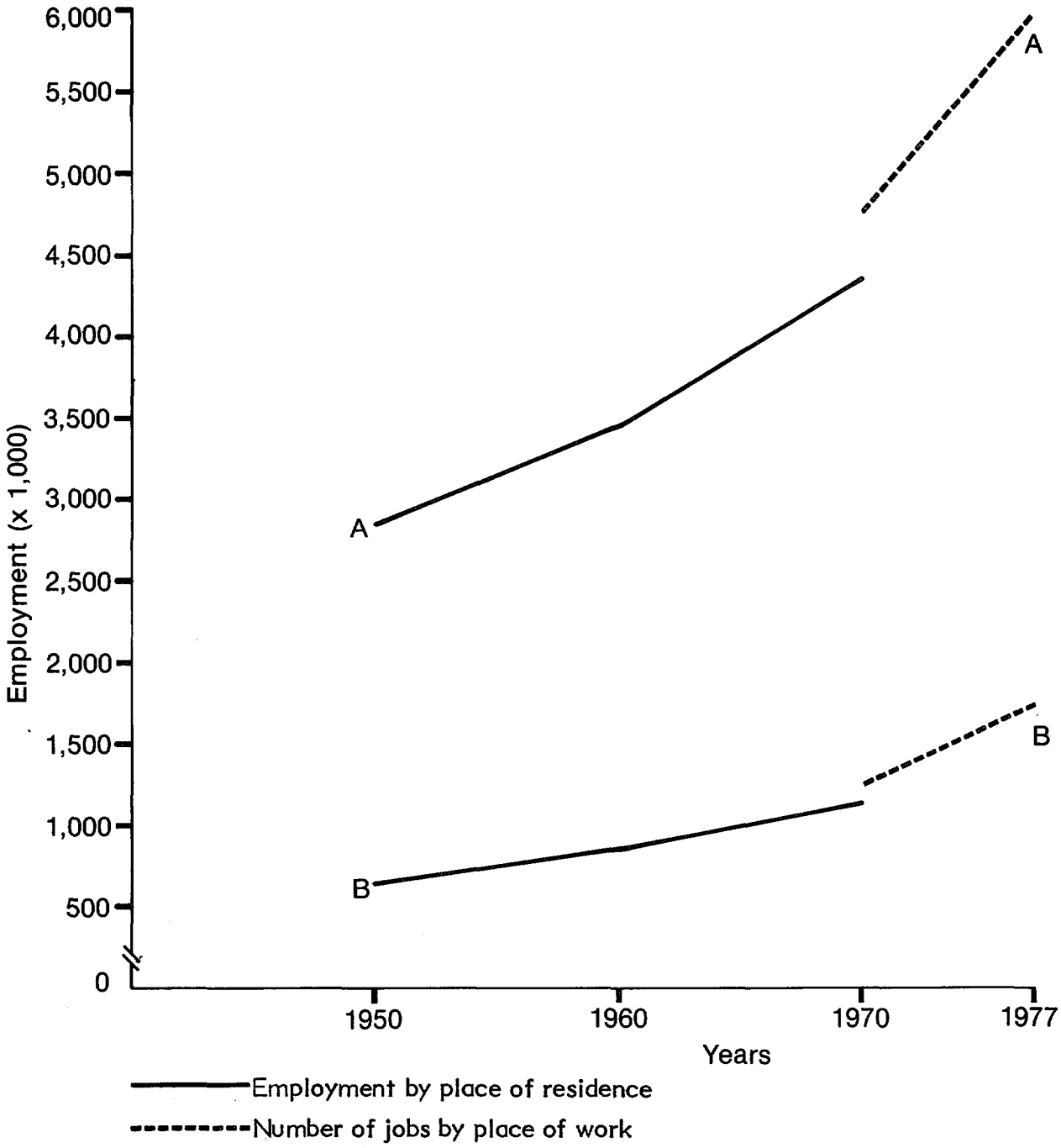
Planning region/county	% change 1960-70	Total employment 1970[b]	Total employment 1977[b]	% change 1970-77
GULF COAST				
Brazoria	59.8	37,847	55,761	47.3
Chambers	24.2	4,208	6,776	61.0
Fort Bend	46.2	17,319	31,982	84.7
Galveston	29.0	63,485	76,541	20.6
Harris	52.6	817,225	1,168,265	43.0
Liberty	10.0	9,971	12,714	27.5
Matagorda	16.9	10,412	15,087	44.9
Wharton	8.9	14,425	16,165	12.1
Total	48.5	974,892	1,383,291	41.9
GOLDEN CRESCENT				
Calhoun	11.6	8,973	9,402	4.8
Goliad	-13.7	1,856	1,938	4.4
Jackson	0.9	4,947	5,624	13.7
Victoria	24.2	19,860	27,032	36.1
Total	15.4	35,636	43,996	23.5
COASTAL BEND				
Aransas	22.0	3,373	4,194	24.3
Bee	4.8	9,790	10,168	3.9
Brooks	-7.7	2,294	2,341	2.0
Jim Wells	5.6	10,954	12,645	15.4
Kenedy	-2.0	321	245	-23.7
Kleberg	15.3	11,413	12,162	6.6

(continued)

Table EMP-1. (concluded)

Planning region/county	% change 1960-70	Total employment 1970[b]	Total employment 1977	% change 1970-77[b]
COASTAL BEND (cont.)				
Nueces	18.9	99,991	111,939	11.9
Refugio	-1.1	3,262	3,591	10.1
San Patricio	16.5	13,584	14,184	4.4
Total	15.2	154,982	171,469	10.6
LOWER RIO GRANDE VALLEY				
Cameron	-13.5	46,310	63,074	36.2
Hidalgo	-8.1	51,093	77,335	51.4
Willacy	-32.5	3,913	4,356	11.3
Total	-11.8	101,316	144,765	42.9
TBIE STUDY AREA	34.8	1,266,826	1,743,521	37.6
STATE	24.9	4,770,013	5,974,688	25.2

[a]Number of employed by place of residence.
[b]Number of jobs by place of work.



A. Texas total employment

B. TBIE total employment

Figure EMP-1. Texas and TBIE study area total employment, 1950 through 1970 by place of residence, and 1970 through 1977 by place of work (U.S. Dept. of Commerce, Bureau of the Census 1953; 1963; 1973; U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Economic Information System 1979a).

Table EMP-2. Size of total labor force in the TBIE study area and Texas for selected years, 1950 through 1978 (U.S. Department of Commerce, Bureau of the Census 1953, 1963, 1973; Texas Employment Commission, Economic Research and Analysis Department 1978a).

Planning region/county	1950 Labor force	1950 % unemployed	1960 Labor force	1960 % unemployed	1970 Labor force	1970 % unemployed	1978 Labor force	1978 % unemployed
GULF COAST								
Brazoria	16,687	2.3	26,129	3.5	41,063	2.9	70,998	4.0
Chambers	2,762	2.4	3,632	3.9	4,442	3.3	6,802	2.8
Fort Bend	10,355	3.4	12.959	4.4	18,373	2.5	43,697	2.0
Galveston	48,011	5.9	54,336	5.3	68,299	3.7	79,730	5.5
Harris	340,471	3.6	492,181	4.2	735,873	3.0	1,127,270	3.1
Liberty	9,596	3.4	10,426	4.8	22,584	2.0	21,048	3.3
Matagorda	7,861	3.9	8,685	3.3	18,464	2.0	12,581	4.7
Wharton	12,668	3.8	12,862	5.2	13,583	3.3	15,776	2.9
Total	448,411	3.8	621,210	4.3	922,681	3.0	1,377,902	3.3
GOLDEN CRESCENT								
Calhoun	3,516	3.0	5,600	2.8	6,233	3.4	6,810	4.2
Goliad	2,108	2.3	1,872	3.1	1,633	5.2	1,826	3.1
Jackson	4,730	1.0	4,683	2.8	4,640	2.4	5,537	1.8
Victoria	12,018	3.1	16,405	4.1	20,264	4.4	27,135	3.3
Total	22,372	4.4	28,560	3.5	32,770	3.9	41,308	3.3
COASTAL BEND								
Aransas	1,419	3.5	2,558	7.7	2,960	3.9	3,492	3.6
Bee	6,384	2.5	8,530	3.4	8,875	3.5	8,270	3.4
Brooks	3,081	8.9	2,584	6.0	2,341	4.6	2,666	5.0
Jim Wells	8,755	5.7	10,622	5.9	11,076	5.2	12,436	3.6
Kenedy	240	0.4	304	0.0	304	2.0	263	3.0
Kleberg	7,543	5.3	10,997	3.9	12,609	4.3	11,859	3.1
Nueces	63,072	5.6	77,964	6.0	89,934	4.0	108,501	4.8

(continued)

Planning region/county	1950 Labor force	1950 % unemployed	1960 Labor force	1960 % unemployed	1970 Labor force	1970 % unemployed	1978 Labor force	1978 % unemployed
COASTAL BEND (cont.)								
Refugio	3,549	3.5	3,779	5.8	3,625	4.1	4,336	2.1
San Patricio	12,039	1.3	14,081	7.6	15,708	4.5	22,059	3.9
Total	106,082	4.9	131,419	5.8	147,432	4.1	173,882	4.3
LOWER RIO GRANDE VALLEY								
Cameron	42,004	6.1	51,152	7.7	43,248	6.6	69,804	8.7
Hidalgo	54,512	8.2	61,246	6.2	55,403	5.9	85,593	9.2
Willacy	7,466	7.0	6,531	8.3	4,501	7.3	5,178	7.5
Total	103,982	7.3	118,929	7.0	103,152	6.2	160,575	9.0
TBIE STUDY AREA	680,847	4.5	900,118	4.8	1,206,035	3.4	1,753,667	3.9
STATE	2,972,434	3.8	3,635,871	4.3	4,509,942	3.6	5,904,100	3.9

Table EMP-3. Employment by economic sector in the TBIE study area and Texas for selected years, 1950 through 1977 (U.S. Department of Commerce, Bureau of the Census 1975; U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System 1979a).

Location/economic sector	1950[a]	1960[a]	1970[a]	1970[b]	1977[b]
GULF COAST					
Brazoria County					
Total employment	16,300	25,213	40,296	37,847	55,761
Agriculture, ag.svcs., for. & fish.	2,044	1,647	1,513	965	(D)
Mining	1,602	1,000	975	1,074	1,800
Contract construction	1,902	2,637	5,324	4,845	8,618
Manufacturing	4,054	7,233	11,826	9,943	13,104
Transportation, commun., & pub.util.	915	1,532	2,232	1,285	2,095
Wholesale & retail trade	2,461	4,669	6,858	4,690	(D)
Finance, insurance & real estate	241	657	1,103	672	1,293
Services	2,464	4,746	8,921	4,889	6,690
Total government	617	1,092	1,544	5,516	7,825
Industry not reported (distributed)	153	829	2,018	0	0
Proprietor	0	0	0	3,968	4,785
Machinery, except electrical	51	188	530	280	534
Petroleum refining & related industry	416	802	1,190	1,067	(G)
Fabricated & not specified metals	16	37	424	343	687
Chambers County					
Total employment	2,695	3,491	4,337	4,208	6,776
Agriculture, ag.svcs., for. & fish.	745	685	598	531	(D)
Mining	540	513	346	376	364
Contract construction	270	352	513	587	875
Manufacturing	179	397	521	36	1,875
Transportation, commun. & pub.util.	110	248	190	247	137
Wholesale & retail trade	357	485	995	512	(D)
Finance, insurance & real estate	13	51	79	35	91
Services	415	689	925	512	526
Total government	66	71	170	684	873
Industry not reported (distributed)	140	203	221	0	0
Proprietor	0	0	0	688	694
Machinery, except electrical	3	3	6	0	0
Petroleum refining & related industry	58	243	158	0	(C)
Fabricated & not specified metals	0	0	15	0	0

(continued)

Table EMP-3. (continued)

Location/economic sector	1950[a]	1960[a]	1970[a]	1970[b]	1977[b]
Fort Bend County					
Total employment	10,002	12,392	18,117	17,319	31,982
Agriculture, ag.svcs., for. & fish.	3,660	2,892	1,597	916	699
Mining	615	464	447	(D)	(D)
Contract construction	761	1,127	1,922	643	3,109
Manufacturing	1,120	1,783	4,183	3,876	9,903
Transportation, commun., & pub.util.	608	829	967	457	956
Wholesale & retail trade	1,414	2,256	3,804	(D)	(D)
Finance, insurance & real estate	125	288	549	315	619
Services	1,385	2,178	3,960	2,149	3,239
Total government	314	575	688	3,199	5,024
Industry not reported (distributed)	267	520	975	0	0
Proprietor	0	0	0	3,086	3,941
Machinery, except electrical	42	245	770	153	4,879
Petroleum refining & related industry	47	73	141	0	0
Fabricated & not specified metals	10	90	631	0	2,485
Galveston County					
Total employment	45,174	51,442	66,359	63,485	76,541
Agriculture, ag.svcs., for. & fish.	2,042	1,340	1,058	271	165
Mining	346	496	629	391	(D)
Contract construction	3,421	3,491	6,420	4,273	4,931
Manufacturing	8,936	10,699	13,212	11,451	11,822
Transportation, commun. & pub.util.	6,874	7,101	5,888	5,727	5,971
Wholesale & retail trade	9,303	9,945	12,507	9,589	(D)
Finance, insurance & real estate	2,256	2,775	3,291	3,215	4,659
Services	10,020	13,409	19,372	9,045	11,136
Total government	1,976	2,186	3,982	15,156	20,271
Industry not reported (distributed)	746	2,842	3,315	0	0
Proprietor	0	0	0	4,367	4,920
Machinery, except electrical	139	167	413	0	137
Petroleum refining & related industry	1,579	2,468	2,551	(D)	(H)
Fabricated & not specified metals	200	270	1,041	266	340

(continued)

Table EMP-3. (continued)

Location/economic sector	1950[a]	1960[a]	1970[a]	1970[b]	1977[b]
Harris County					
Total employment	328,108	471,615	719,922	817,225	1,168,265
Agriculture, ag.svcs., for. & fish.	5,009	6,282	5,866	2,798	4,314
Mining	7,166	12,624	20,259	25,900	45,859
Contract construction	33,639	37,657	63,655	62,845	111,341
Manufacturing	73,266	106,497	143,764	134,982	171,497
Transportation, commun., & pub.util.	36,361	45,500	56,846	62,913	81,484
Wholesale & retail trade	76,335	108,027	165,383	185,013	271,115
Finance, insurance & real estate	14,796	24,798	42,068	42,667	65,140
Services	69,710	115,261	195,354	157,029	231,215
Total government	11,826	14,969	26,727	93,323	123,782
Industry not reported (distributed)	3,848	26,964	50,793	0	0
Proprietor				49,755	62,518
Machinery, except electrical	10,672	19,218	24,093	23,479	38,814
Petroleum refining & related industry	20,033	17,131	16,358	8,917	8,590
Fabricated & not specified metals	5,775	10,275	19,251	21,301	25,586
Liberty County					
Total employment	9,270	9,927	10,924	9,971	12,714
Agriculture, ag.svcs., for. & fish.	1,394	1,012	785	573	569
Mining	1,347	1,368	1,056	920	1,662
Contract construction	721	888	1,528	321	503
Manufacturing	1,645	1,081	1,442	553	1,021
Transportation, commun. & pub.util.	645	590	704	386	558
Wholesale & retail trade	1,685	2,301	2,158	1,635	2,539
Finance, insurance & real estate	140	281	302	210	346
Services	1,509	2,182	2,602	1,650	1,706
Total government	184	224	347	1,372	1,644
Industry not reported (distributed)	88	387	567	0	0
Proprietor	0	0	0	2,096	2,166
Machinery, except electrical	58	84	75	0	68
Petroleum refining & related industry	114	107	195	0	0
Fabricated & not specified metals	5	18	90	0	101

(continued)

Table EMP-3. (continued)

Location/economic sector	1950[a]	1960[a]	1970[a]	1970[b]	1977[b]
Matagorda County					
Total employment	7,551	8,400	9,822	10,412	15,087
Agriculture, ag.svcs., for. & fish.	1,900	1,689	1,200	904	(D)
Mining	714	862	599	1,013	901
Contract construction	727	653	1,013	259	3,481
Manufacturing	584	778	1,305	685	1,022
Transportation, commun., & pub.util.	458	481	500	372	432
Wholesale & retail trade	1,336	1,521	2,042	1,727	(D)
Finance, insurance & real estate	122	226	232	253	276
Services	1,447	1,952	2,610	1,622	1,934
Total government	263	238	321	1,610	1,830
Industry not reported (distributed)	131	620	591	0	0
Proprietor	0	0	0	1,967	1,976
Machinery, except electrical	39	33	35	0	0
Petroleum refining & related industry	108	214	149	0	0
Fabricated & not specified metals	5	20	10	0	0
Wharton County					
Total employment	12,191	12,190	13,271	14,425	16,165
Agriculture, ag.svcs., for. & fish.	3,955	3,042	2,104	1,419	1,220
Mining	1,460	1,105	1,105	1,012	1,202
Contract construction	878	858	1,022	386	480
Manufacturing	506	641	1,174	867	908
Transportation, commun. & pub.util.	577	674	594	501	567
Wholesale & retail trade	2,142	2,710	2,733	2,177	2,156
Finance, insurance & real estate	176	265	387	292	400
Services	2,238	2,640	3,756	2,367	2,790
Total government	259	255	396	1,960	2,371
Industry not reported (distributed)	393	343	683	0	0
Proprietor	0	0	0	3,444	3,143
Machinery, except electrical	4	8	40	0	(B)
Petroleum refining & related industry	21	16	12	0	0
Fabricated & not specified metals	8	11	81	0	0

(continued)

Table EMP-3. (continued)

Location/economic sector	1950[a]	1960[a]	1970[a]	1970[b]	1977[b]
GULF COAST REGION TOTAL					
Total employment	431,291	594,670	883,048	974,892	1,383,291
Agriculture, ag.svcs., for. & fish.	20,749	18,589	14,721	8,414	9,516
Mining	13,790	18,432	25,416	31,239	53,434
Contract construction	42,319	47,663	81,397	74,159	133,338
Manufacturing	90,290	129,109	177,427	162,393	211,152
Transportation, commun., & pub.util.	46,548	56,955	67,921	71,888	92,200
Wholesale & retail trade	95,033	131,914	196,480	207,686	303,828
Finance, insurance & real estate	17,869	29,341	48,011	47,659	72,824
Services	89,188	143,057	237,500	179,263	259,236
Total government	15,505	19,610	34,175	122,820	163,620
Industry not reported (distributed)	5,766	32,708	59,163	0	0
Proprietor	0	0	0	69,371	84,143
Machinery, except electrical	11,008	19,946	25,962	23,912	44,432
Petroleum refining & related industry	23,376	21,054	20,754	9,984	8,590
Fabricated & not specified metals	6,019	10,721	21,543	21,910	29,199
GOLDEN CRESCENT					
Calhoun County					
Total employment	3,410	5,445	6,078	8,973	9,402
Agriculture, ag.svcs., for. & fish.	876	684	536	226	163
Mining	148	178	80	16	233
Contract construction	399	850	758	1,181	1,126
Manufacturing	576	1,126	1,589	3,300	3,285
Transportation, commun., & pub.util.	213	213	252	299	338
Wholesale & retail trade	621	938	1,049	1,123	898
Finance, insurance & real estate	44	79	150	85	156
Services	439	947	1,278	652	710
Total government	94	430	386	1,230	1,175
Industry not reported (distributed)	100	292	343	0	0
Proprietor	0	0	0	861	894
Machinery, except electrical	11	20	6	0	0
Petroleum refining & related industry	2	6	19	0	0
Fabricated & not specified metals	6	5	0	0	0

(continued)

Table EMP-3. (continued)

Location/economic sector	1950[a]	1960[a]	1970[a]	1970[b]	1977[b]
Goliad County					
Total employment	2,059	1,814	1,565	1,856	1,938
Agriculture, ag.svcs., for. & fish.	1,057	701	309	202	124
Mining	131	95	44	(L)	(L)
Contract construction	139	186	203	20	66
Manufacturing	31	24	40	0	(L)
Transportation, commun. & pub.util.	51	84	94	36	(D)
Wholesale & retail trade	283	262	290	177	204
Finance, insurance & real estate	19	19	54	22	37
Services	303	404	463	204	216
Total government	45	39	68	331	398
Industry not reported (distributed)	51	23	175	0	0
Proprietor	0	0	0	861	813
Machinery, except electrical	4	0	0	0	0
Petroleum refining & related industry	0	2	0	0	0
Fabricated & not specified metals	0	0	0	0	0
Machinery, except electrical	4	0	0	0	0
Petroleum refining & related industry	0	2	0	0	0
Fabricated & not specified metals	0	0	0	0	0
Jackson County					
Total employment	4,681	4,551	4,591	4,947	5,624
Agriculture, ag.svcs., for. & fish.	1,546	1,144	728	615	574
Mining	679	505	599	449	739
Contract construction	403	294	491	113	349
Manufacturing	213	310	399	22	148
Transportation, commun., & pub.util.	269	302	232	242	255
Wholesale & retail trade	700	924	813	599	494
Finance, insurance & real estate	64	118	77	76	109
Services	711	784	1,116	814	598
Total government	96	170	136	540	728
Industry not reported (distributed)	117	102	196	0	0
Proprietor	0	0	0	1,477	1,454
Machinery, except electrical	3	0	5	0	0
Petroleum refining & related industry	40	14	9	0	0
Fabricated & not specified metals	3	4	8	0	0

(continued)

Table EMP-3. (continued)

Location/economic sector	1950[a]	1960[a]	1970[a]	1970[b]	1977[b]
Victoria County					
Total employment	11,640	15,740	19,550	19,860	27,032
Agriculture, ag.svcs., for. & fish.	1,855	1,541	886	381	290
Mining	858	899	986	738	2,010
Contract construction	1,743	1,638	1,573	971	(D)
Manufacturing	752	1,999	3,211	2,225	2,960
Transportation, commun. & pub.util.	1,169	1,175	1,315	1,138	1,242
Wholesale & retail trade	2,446	3,444	4,515	3,910	4,773
Finance, insurance & real estate	287	596	891	803	989
Services	2,268	3,878	5,540	3,933	4,787
Total government	262	570	633	2,986	3,821
Industry not reported (distributed)	413	1,021	1,357	0	0
Proprietor	0	0	0	2,775	2,988
Machinery, except electrical	65	52	75	0	445
Petroleum refining & related industry	45	49	31	0	0
Fabricated & not specified metals	10	36	127	0	(E)
GOLDEN CRESCENT REGION TOTAL					
Total employment	21,790	27,550	31,784	35,636	43,996
Agriculture, ag.svcs., for. & fish.	5,334	4,070	2,459	1,424	1,305
Mining	1,816	1,677	1,709	1,206	2,987
Contract construction	2,684	2,968	3,025	2,285	3,542
Manufacturing	1,572	3,459	5,239	5,547	6,398
Transportation, commun., & pub.util.	1,702	1,774	1,893	1,715	1,881
Wholesale & retail trade	4,050	5,568	6,667	5,809	8,010
Finance, insurance & real estate	414	812	1,172	986	1,291
Services	3,721	6,013	8,397	5,603	6,311
Total government	497	1,209	1,223	5,087	6,122
Industry not reported (distributed)	681	1,438	2,071	0	0
Proprietor	0	0	0	5,974	6,149
Machinery, except electrical	83	72	86	(D)	445
Petroleum refining & related industry	87	71	59	0	0
Fabricated & not specified metals	19	45	135	0	(E)

(continued)

Table EMP-3. (continued)

Location/economic sector	1950[a]	1960[a]	1970[a]	1970[b]	1977[b]
COASTAL BEND					
Aransas County					
Total employment	1,369	2,362	2,883	3,373	4,194
Agriculture, ag.svcs., for. & fish.	258	245	223	205	389
Mining	121	146	129	(D)	(D)
Contract construction	153	240	273	332	322
Manufacturing	136	213	295	322	433
Transportation, commun., & pub.util.	73	104	202	123	217
Wholesale & retail trade	253	583	742	(D)	(D)
Finance, insurance & real estate	16	65	60	27	125
Services	318	501	827	661	653
Total government	41	265	132	360	494
Industry not reported (distributed)	29	116	465	0	0
Proprietor	0	0	0	473	537
Machinery, except electrical	4	0	7	0	0
Petroleum refining & related industry	4	3	23	0	0
Fabricated & not specified metals	2	4	10	0	0
Bee County					
Total employment	5,789	8,237	8,631	9,790	10,168
Agriculture, ag.svcs., for. & fish.	1,605	1,191	610	406	(D)
Mining	601	523	429	332	669
Contract construction	434	482	649	428	379
Manufacturing	255	294	216	116	142
Transportation, commun. & pub.util.	363	400	300	234	240
Wholesale & retail trade	1,174	1,577	1,466	(D)	(D)
Finance, insurance & real estate	102	191	203	100	163
Services	1,123	1,473	1,892	(D)	1,545
Total government	132	2,106	2,866	4,044	3,782
Industry not reported (distributed)	135	335	403	0	0
Proprietor	0	0	0	1,458	1,416
Machinery, except electrical	17	0	0	0	
Petroleum refining & related industry	100	107	7	0	0
Fabricated & not specified metals	5	4	0	0	0

(continued)

Table EMP-3. (continued)

Location/economic sector	1950[a]	1960[a]	1970[a]	1970[b]	1977[b]
Brooks County					
Total employment	2,808	2,428	2,240	2,294	2,341
Agriculture, ag.svcs., for. & fish.	608	396	337	204	162
Mining	546	241	130	116	(D)
Contract construction	170	247	241	(D)	39
Manufacturing	139	205	54	13	26
Transportation, commun., & pub.util.	126	118	135	(D)	(D)
Wholesale & retail trade	613	596	480	461	456
Finance, insurance & real estate	34	29	29	27	41
Services	480	515	670	353	352
Total government	92	81	164	532	626
Industry not reported (distributed)	59	107	164	0	0
Proprietor	0	0	0	464	448
Machinery, except electrical	7	0	8	0	0
Petroleum refining & related industry	13	68	27	0	0
Fabricated & not specified metals	1	0	0	0	0
Jim Wells County					
Total employment	8,258	9,998	10,558	10,954	12,645
Agriculture, ag.svcs., for. & fish.	1,548	1,449	935	761	475
Mining	1,256	1,452	1,624	1,387	2,188
Contract construction	985	1,119	883	699	573
Manufacturing	384	440	444	153	409
Transportation, commun. & pub.util.	701	857	651	594	567
Wholesale & retail trade	1,634	1,984	2,414	2,023	2,463
Finance, insurance & real estate	156	260	379	314	401
Services	1,371	2,113	2,785	1,942	2,063
Total government	223	324	443	1,440	1,740
Industry not reported (distributed)	224	616	935	0	0
Proprietor	0	0	0	1,641	1,766
Machinery, except electrical	66	41	44	0	127
Petroleum refining & related industry	61	88	74	(D)	0
Fabricated & not specified metals	24	22	11	0	0

(continued)

Table EMP-3. (continued)

Location/economic sector	1950[a]	1960[a]	1970[a]	1970[b]	1977[b]
Kenedy County					
Total employment	239	304	298	321	245
Agriculture, ag.svcs., for. & fish.	178	222	179	152	110
Mining	6	0	0	(D)	(L)
Contract construction	8	8	0	(D)	(D)
Manufacturing	0	4	9	0	0
Transportation, commun., & pub.util.	8	7	6	0	0
Wholesale & retail trade	4	8	13	(L)	18
Finance, insurance & real estate	0	0	0	0	0
Services	27	50	79	68	(D)
Total government	8	5	12	13	13
Industry not reported (distributed)	1	4	25	0	0
Proprietor	0	0	0	28	33
Machinery, except electrical	0	0	0	0	
Petroleum refining & related industry	0	2	0	0	0
Fabricated & not specified metals	0	0	0	0	0
Kleberg County					
Total employment	7,141	10,564	12,176	11,413	12,162
Agriculture, ag.svcs., for. & fish.	893	720	663	674	(D)
Mining	407	265	416	638	818
Contract construction	703	770	935	439	306
Manufacturing	547	759	849	132	211
Transportation, commun. & pub.util.	1,154	732	485	431	391
Wholesale & retail trade	1,311	1,846	1,941	1,805	(D)
Finance, insurance & real estate	95	193	215	138	255
Services	1,779	2,229	3,545	1,178	1,379
Total government	252	3,050	3,127	5,141	4,854
Industry not reported (distributed)	115	283	497	0	0
Proprietor	0	0	0	837	916
Machinery, except electrical	4	0	19	0	0
Petroleum refining & related industry	51	128	138	0	0
Fabricated & not specified metals	8	4	12	0	0

(continued)

Table EMP-3. (continued)

Location/economic sector	1950[a]	1960[a]	1970[a]	1970[b]	1977[b]
Nueces County					
Total employment	59,537	73,277	87,094	99,991	111,939
Agriculture, ag.svcs., for. & fish.	4,606	4,252	2,218	1,305	(D)
Mining	1,915	2,659	3,258	3,577	(D)
Contract construction	6,146	6,053	7,218	6,452	7,699
Manufacturing	6,288	9,764	9,068	9,145	11,280
Transportation, commun., & pub.util.	4,318	5,333	6,221	5,323	5,773
Wholesale & retail trade	13,548	17,074	19,189	20,847	(D)
Finance, insurance & real estate	1,929	3,044	4,116	3,753	4,676
Services	11,406	17,787	23,326	16,098	19,949
Total government	9,381	7,311	12,480	25,947	26,077
Industry not reported (distributed)	671	3,763	7,985	0	0
Proprietor	0	0	0	7,544	7,731
Machinery, except electrical	334	404	331	289	344
Petroleum refining & related industry	1,532	1,907	1,799	(D)	(G)
Fabricated & not specified metals	185	410	405	356	380
Refugio County					
Total employment	3,426	3,558	3,519	3,262	3,591
Agriculture, ag.svcs., for. & fish.	695	674	384	303	(D)
Mining	782	703	441	417	614
Contract construction	219	185	257	16	(D)
Manufacturing	67	159	204	26	16
Transportation, commun. & pub.util.	295	212	229	135	250
Wholesale & retail trade	578	637	820	470	581
Finance, insurance & real estate	38	93	122	37	81
Services	668	792	934	673	499
Total government	84	103	128	520	532
Industry not reported (distributed)	81	68	239	0	0
Proprietor	0	0	0	657	589
Machinery, except electrical	3	0	11	0	0
Petroleum refining & related industry	26	31	14	0	0
Fabricated & not specified metals	0	4	9	0	0

(continued)

Table EMP-3. (continued)

Location/economic sector	1950[a]	1960[a]	1970[a]	1970[b]	1977[b]
San Patricio County					
Total employment	11,113	13,009	15,156	13,584	14,184
Agriculture, ag.svcs., for. & fish.	4,315	2,981	1,764	1,193	(D)
Mining	702	721	959	365	(D)
Contract construction	886	1,288	1,553	859	1,464
Manufacturing	493	1,482	1,824	2,179	1,418
Transportation, commun., & pub.util.	783	969	911	771	530
Wholesale & retail trade	1,959	2,656	3,173	1,793	2,437
Finance, insurance & real estate	156	245	537	166	364
Services	1,561	2,319	3,703	1,989	1,737
Total government	258	348	732	2,034	2,490
Industry not reported (distributed)	175	495	1,262	0	0
Proprietor	0	0	0	2,235	2,296
Machinery, except electrical	23	7	58	0	(B)
Petroleum refining & related industry	60	125	133	0	0
Fabricated & not specified metals	6	13	70	0	0
COASTAL BEND REGION TOTAL					
Total employment	99,680	123,737	142,555	154,982	171,469
Agriculture, ag.svcs., for. & fish.	14,706	12,130	7,313	5,217	4,704
Mining	6,336	6,710	7,386	6,936	8,547
Contract construction	9,704	10,392	12,009	9,314	10,839
Manufacturing	8,309	13,320	12,963	12,086	13,935
Transportation, commun. & pub.util.	7,821	8,732	9,140	7,692	8,031
Wholesale & retail trade	21,074	26,961	30,238	29,486	34,730
Finance, insurance & real estate	2,526	4,120	5,661	4,562	6,106
Services	18,733	27,779	37,761	24,321	28,237
Total government	10,471	13,593	20,084	40,031	40,608
Industry not reported (distributed)	1,490	5,787	11,975	0	0
Proprietor	0	0	0	15,337	15,732
Machinery, except electrical	458	452	478	289	471
Petroleum refining & related industry	1,847	2,486	2,215	(D)	(G)
Fabricated & not specified metals	231	461	517	356	380

(continued)

Table EMP-3. (continued)

Location/economic sector	1950[a]	1960[a]	1970[a]	1970[b]	1977[b]
LOWER RIO GRANDE VALLEY					
Cameron County					
Total employment	39,439	47,195	40,812	46,310	63,074
Agriculture, ag.svcs., for. & fish.	11,104	7,742	4,817	(D)	(D)
Mining	58	97	103	(D)	73
Contract construction	3,477	2,699	2,822	2,07	2,626
Manufacturing	3,384	5,063	4,625	4,825	9,073
Transportation, commun., & pub.util.	3,471	3,384	2,824	2,149	2,888
Wholesale & retail trade	8,782	10,584	10,266	10,484	11,164
Finance, insurance & real estate	975	1,324	1,620	1,394	2,544
Services	6,803	9,805	11,284	7,658	9,854
Total government	1,385	6,497	2,451	8,727	12,128
Industry not reported (distributed)	458	1,107	3,195	0	0
Proprietor	0	0	0	5,387	6,178
Machinery, except electrical	175	198	187	(D)	164
Petroleum refining & related industry	351	105	28	0	0
Fabricated & not specified metals	45	72	185	275	276
Hidalgo County					
Total employment	50,036	57,425	52,756	51,093	77,335
Agriculture, ag.svcs., for. & fish.	19,789	16,729	9,588	4,843	(D)
Mining	752	1,078	1,044	882	1,044
Contract construction	2,734	2,981	3,190	1,675	3,730
Manufacturing	3,374	4,556	3,825	3,387	7,634
Transportation, commun. & pub.util.	2,777	2,867	2,918	1,628	2,105
Wholesale & retail trade	10,952	14,508	14,818	10,806	(D)
Finance, insurance & real estate	919	1,226	1,399	1,094	1,993
Services	7,640	11,404	13,637	6,985	9,615
Total government	1,099	2,076	2,337	11,153	16,229
Industry not reported (distributed)	797	1,462	5,214	0	0
Proprietor	0	0	0	8,640	9,338
Machinery, except electrical	234	153	154	180	536
Petroleum refining & related industry	67	74	89	0	0
Fabricated & not specified metals	42	47	108	0	(C)

(continued)

Table EMP-3. (continued)

Location/economic sector	1950[a]	1960[a]	1970[a]	1970[b]	1977[b]
Willacy County					
Total employment	6,942	6,272	4,236	3,913	4,356
Agriculture, ag.svcs., for. & fish.	3,544	2,831	1,471	807	637
Mining	119	88	63	(D)	12
Contract construction	339	235	165	(D)	(D)
Manufacturing	248	195	112	158	327
Transportation, commun., & pub.util.	253	263	178	147	148
Wholesale & retail trade	1,316	1,280	980	531	(D)
Finance, insurance & real estate	87	126	79	50	75
Services	896	1,093	1,086	391	394
Total government	140	161	102	822	1,041
Industry not reported (distributed)	75	147	164	0	0
Proprietor	0	0	0	961	926
Machinery, except electrical	9	23	4	0	0
Petroleum refining & related industry	15	11	10	0	0
Fabricated & not specified metals	1	0	0	0	0
LOWER RIO GRANDE REGION TOTAL					
Total employment	96,417	110,892	97,804	101,316	144,765
Agriculture, ag.svcs., for. & fish.	34,437	27,302	15,876	9,244	11,870
Mining	929	1,263	1,210	977	1,129
Contract construction	6,550	5.915	6,177	3,718	6,405
Manufacturing	7,006	9,814	8,562	8,370	17,034
Transportation, commun. & pub.util.	6,501	6,514	5,920	3,924	5,141
Wholesale & retail trade	21,050	26,372	26,064	21,821	24,360
Finance, insurance & real estate	1,981	2,676	3,098	2,538	4,612
Services	15,339	22,302	26,007	15,034	19,863
Total government	2,624	8,734	4,890	20,702	29,398
Industry not reported (distributed)	1,330	2,716	8,573	0	0
Proprietor	0	0	0	14,988	16,442
Machinery, except electrical	418	374	345	243	700
Petroleum refining & related industry	433	190	127	0	0
Fabricated & not specified metals	88	119	293	275	276

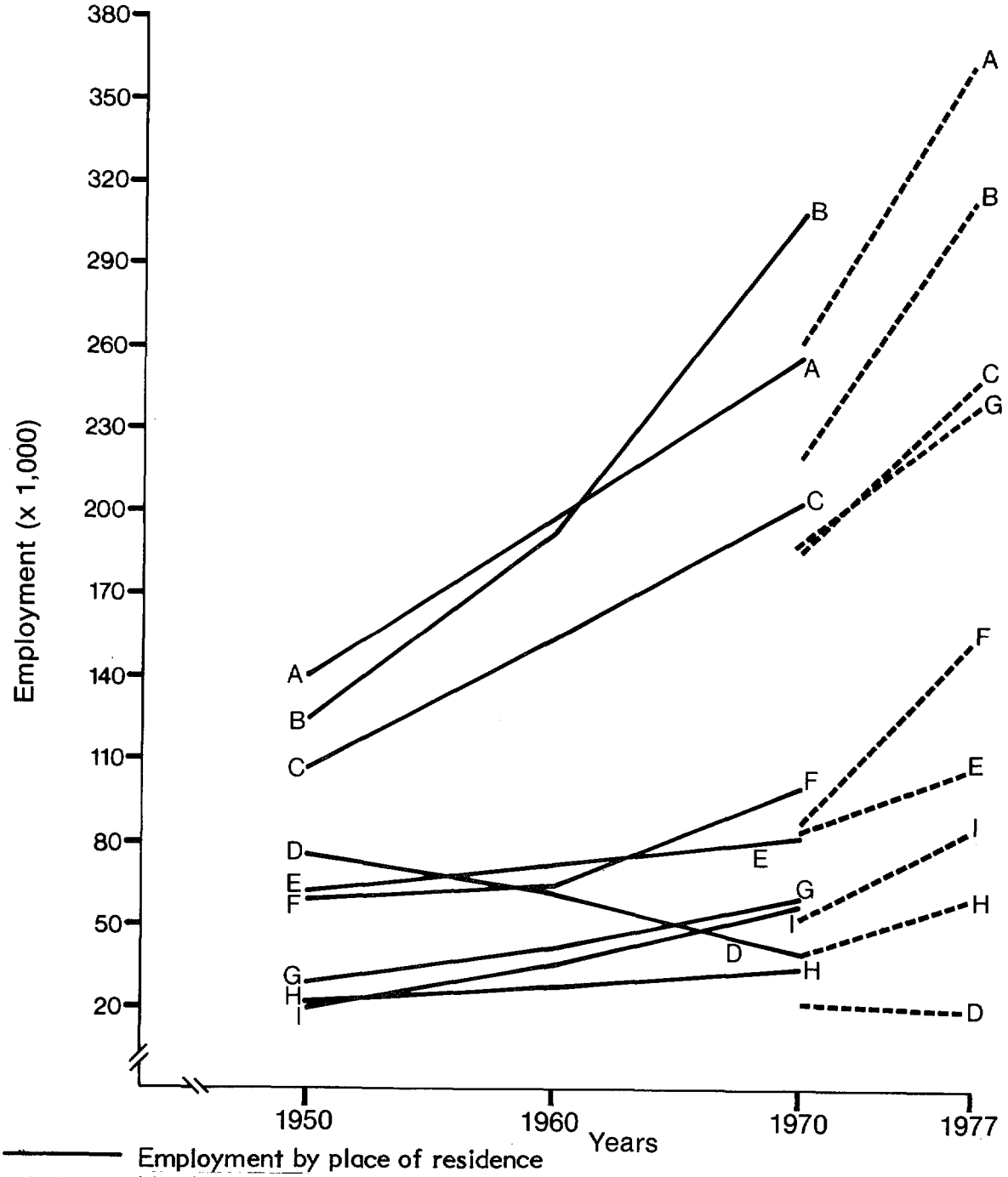
(continued)

Table EMP-3, (concluded)

Location/economic sector	1950[a]	1960[a]	1970[a]	1970[b]	1977[b]
TBIE STUDY AREA					
Total employment	649,178	856,849	1,155,191	1,266,826	1,743,521
Agriculture, ag.svcs., for. & fish.	75,226	62,091	40,369	22,684	27,395
Mining	22,871	28,082	35,721	39,603	66,097
Contract construction	61,257	66,938	102,608	89,351	154,124
Manufacturing	107,177	155,702	204,191	188,396	248,514
Transportation, commun. & pub.util.	62,572	73,975	84,874	85,138	107,253
Wholesale & retail trade	141,207	190,815	259,449	262,817	379,439
Finance, insurance & real estate	22,790	36,949	57,942	55,745	84,833
Services	126,981	199,151	309,665	222,862	313,587
Total government	29,097	43,146	60,372	188,640	239,748
Industry not reported (distributed)	9,267	42,649	81,782	0	0
Proprietor	0	0	0	105,670	122,466
Machinery, except electrical	11,967	20,844	26,871	24,444	46,048
Petroleum refining & related industry	25,743	23,801	23,155	9,984	8,590
Fabricated & not specified metals	6,357	11,346	22,488	22,541	29,855
STATE OF TEXAS					
Total employment	2,860,272	3,480,858	4,347,999	4,770,013	5,974,688
Agriculture, ag.svcs., for. & fish.	455,750	304,607	198,508	117,100	112,884
Mining	91,125	103,041	103,276	103,799	154,228
Contract construction	240,693	266,024	319,197	233,888	347,659
Manufacturing	376,952	560,262	770,964	743,518	900,341
Transportation, commun., & pub.util.	233,141	255,529	286,975	255,137	310,788
Wholesale & retail trade	598,801	733,052	934,728	899,411	1,220,492
Finance, insurance & real estate	89,728	142,693	213,848	194,857	271,442
Services	552,606	787,293	1,127,571	756,795	971,734
Total government	221,476	328,357	392,932	897,386	1,065,339
Industry not reported (distributed)	42,467	133,987	265,004	0	0
Proprietor	0	0	0	568,122	619,781
Machinery, except electrical	26,227	48,766	73,169	65,826	112,960
Petroleum refining & related industry	54,787	60,784	45,848	28,101	(K)
Fabricated & not specified metals	15,424	32,533	60,094	57,536	77,658

[a]U.S. Department of Commerce, Bureau of the Census 1975. Employment by place of residence .
[b]U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information system 1979a. Number of jobs by place of work.

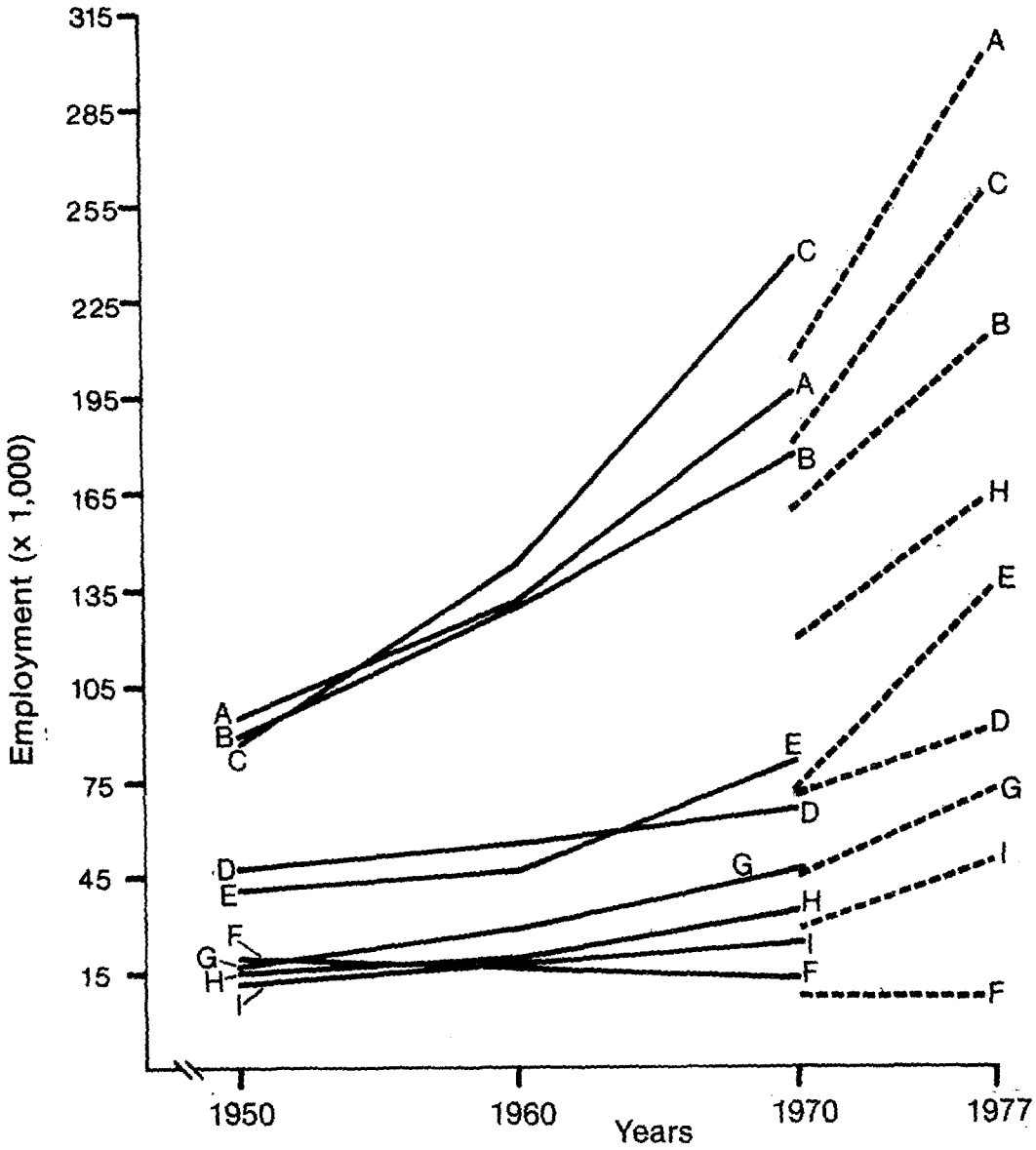
(A) = Less than 10
(B) = 20 to 99
(C) = 100 to 249
(D) = Data not shown to avoid disclosure of operations to individual firms
(E) = 250 to 499
(F) = 500 to 999
(G) = 1,000 to 2,499
(H) = 2,500 to 4,999
(K) = 25,000 to 49,999



——— Employment by place of residence
- - - - - - - - Number of jobs by place of work

A. Whole & retail trade
B. Services
C. Manufacturing
D. Agriculture, agricultural services, forestry & fishing
E. Transportation, communication, & public utilities
F. Contract construction
G. Government
H. Mining
I. Finance, insurance & real estate

Figure EMP-2. TBIE employment by economic sector, 1950 through 1970 by place of residence, and 1970 through 1977 by place of work (U.S. Dept. of Commerce, Bureau of the Census 1975; U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Economic Information System 1979a).

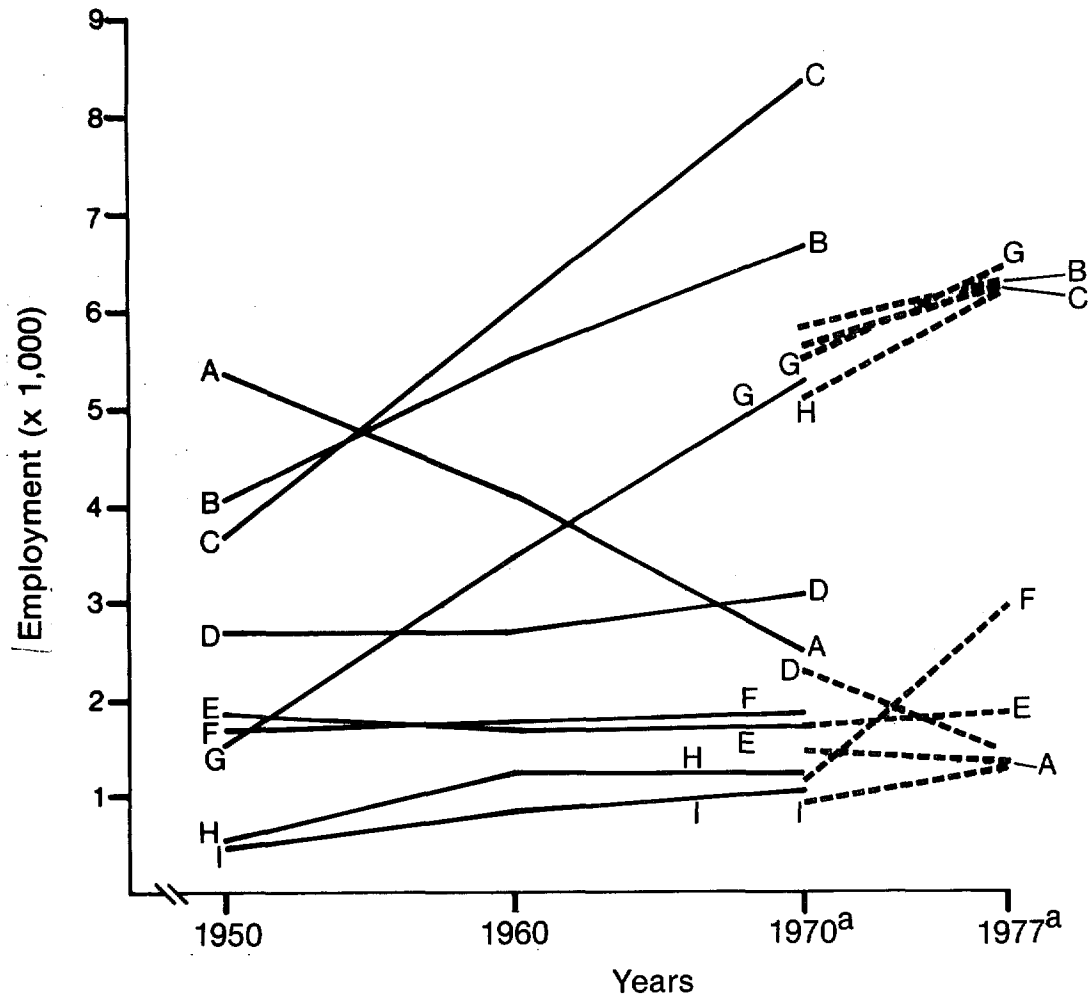


——— Employment by place of residence

- - - - - - - - - - - Number of jobs by place of work

A. Wholesale & retail trade
B. Manufacturing
C. Services
D. Transportation, communication & public utilities
E. Contract construction
F. Agriculture, agricultural services, forestry & fishing
G. Finance, insurance, & real estate
H. Government
I. Mining

Figure EMP-3. Gulf Coast Planning Region employment by economic sector, 1950 through 1970 by place of residence, and 1970 through 1977 by place of work (U.S. Dept. of Commerce, Bureau of the Census 1975; U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Economic Information System 1979a).



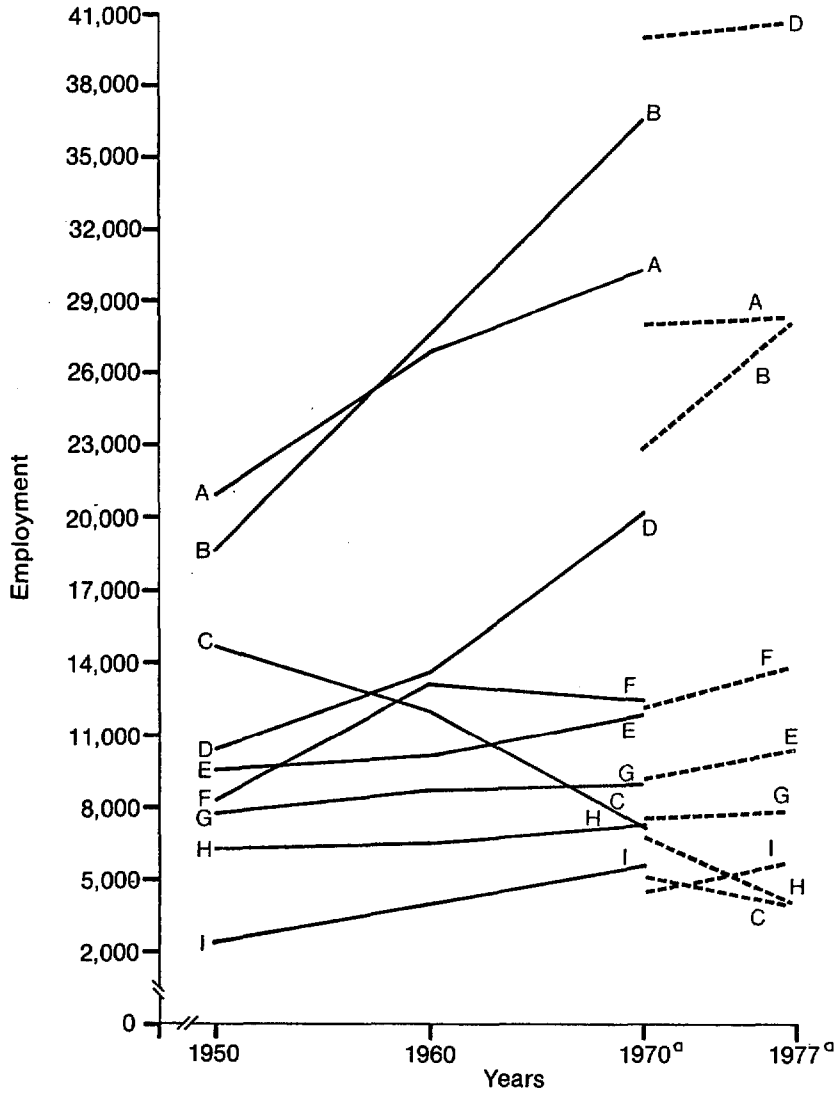
[a]Some 1970 and 1977 employment totals are underestimated due to disclosure problems.

——— Employment by place of residence

- - - - - - Number of jobs by place of work

A. Agriculture
B. Wholesale & retail trade
C. Services
D. Contract construction
E. Mining
F. Transportation, communication, & public utilities
G. Manufacturing
H. Government
I. Finance, insurance, & real estate

Figure EMP-4. Golden Crescent Planning Region employment by economic sector, 1950 through 1970 by place of residence, and 1970 through 1977 by place of work (U.S. Dept. of Commerce, Bureau of the Census 1975; U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Economic Information System 1979a).



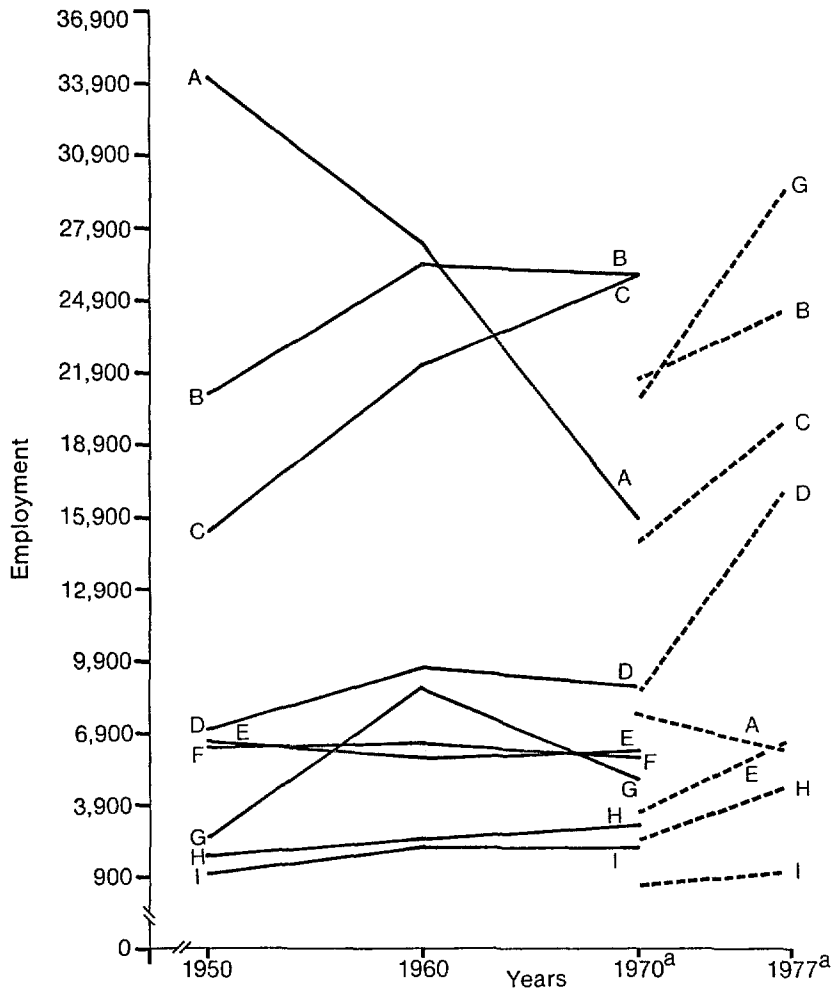
[a]Some 1970 and 1977 totals may be underestimated due to disclosure problems.

——— Employment by place of residence

---------- Number of jobs by place of work

A. Wholesale & retail trade
B. Services
C. Agriculture, agricultural services, forestry & fishing
D. Government
E. Contract construction
F. Manufacturing
G. Transportation, communication, & public utilities
H. Mining
I. Finance, insurance & real estate

Figure EMP-5. Coastal Bend Planning Region employment by economic sector, 1950 through 1970 by place of residence, and 1970 through 1977 by place of work (U.S. Dept. of Commerce, Bureau of the Census 1975; U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Economic Information System 1979a).



[a]Some 1970 and 1977 totals may be underestimated due to disclosure problems.

——— Employment by place of residence
---------- Number of jobs by place of work

A. Agriculture, agricultural services, forestry & fishing
B. Wholesale & retail trade
C. Services
D. Manufacturing
E. Contract construction
F. Transportation, communication & public utilities
G. Government
H. Finance, insurance & real estate
I. Mining

Figure EMP-6. Lower Rio Grande Valley Planning Region employment by economic sector, 1950 through 1970 by place of residence, and 1970 through 1977 by place of work (U.S. Dept. of Commerce, Bureau of the Census 1975; U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Economic Information System 1979a).

Table EMP-4. Percent change in TBIE manufacturing employment for selected years, 1972 through 1978 (Texas Employment Commission, 1977c, 1979b).

Industry	Texas		
	Average annual employment (1,000) 1972	Average annual employment (1,000) 1978	% change 1972-78
Manufacturing - Total	738.7	954.1	29.2
Durable goods	396.6	543.1	36.9
Lumber & wood products, exc. furniture	31.3	38.0	21.4
Furniture & fixtures	17.9	18.3	2.2
Stone, clay & glass products	32.5	42.3	30.1
Primary metal industries	33.1	42.8	29.3
Fabricated metal products	67.0	86.5	29.1
Machinery, except electrical	76.5	132.1	72.7
Electrical machinery	50.5	86.1	70.5
Transportation equipment	65.1	68.4	5.1
Instruments & related products	13.0	16.9	30.0
Other durable goods	9.7	11.7	20.6
Nondurable goods	342.1	411.0	20.1
Food & kindred products	83.5	96.3	15.3
Textile mill products	7.4	6.4	-13.5
Apparel & finished textile products	68.5	73.1	6.7
Paper & allied products	17.4	21.4	23.0
Printing, publishing & allied industries	42.5	55.2	29.9
Chemicals & allied products	61.8	78.7	27.3
Petroleum refining & related industries	37.9	42.9	13.2
Rubber & misc. plastic products	0.0	0.0	0.0
Leather & leather products	6.2	7.9	27.4
Other nondurable goods	16.9	29.1	72.2

(continued)

Table EMP-4. (continued)

Industry	Galveston Average annual employment 1972	Galveston Average annual employment 1978	Galveston % change 1972-78
Manufacturing - Total	10,800	11,890	10.1
Durable goods	2,560	3,130	22.3
Lumber & wood products, exc. furniture	0	0	0.0
Furniture & fixtures	0	0	0.0
Stone, clay & glass products	190	600	215.8
Primary metal industries	(D)	290	N.D.
Fabricated metal products	270	580	114.8
Machinery, except electrical	(D)	300	N.D.
Electrical machinery	0	0	0.0
Transportation equipment	(D)	1,220	N.D.
Instruments & related products	0	0	0.0
Other durable goods	2,100	140	-93.3
Nondurable goods	8,240	8,760	6.3
Food & kindred products	990	820	-17.2
Textile mill products	0	0	0.0
Apparel & finished textile products	0	0	0.0
Paper & allied products	0	0	0.0
Printing, publishing & allied industries	370	340	-8.1
Chemicals & allied products	4,560	4,800	5.3
Petroleum refining & related industries	2,250	2,730	21.3
Rubber & misc. plastic products	0	0	0.0
Leather & leather products	0	0	0.0
Other nondurable goods	70	70	0.0

(continued)

Table EMP-4. (continued)

Industry	Houston Average annual employment (1,000) 1972	Houston Average annual employment (1,000) 1978	% change 1972-78
Manufacturing - Total	154.8	208.6	34.8
Durable goods	85.9	123.5	43.8
Lumber & wood products, exc. furniture	2.4	2.9	20.8
Furniture & fixtures	2.1	1.5	-28.6
Stone, clay & glass products	7.2	8.1	12.5
Primary metal industries	7.3	11.7	23.3
Fabricated metal products	23.1	31.1	34.6
Machinery, except electrical	23.1	47.8	106.9
Electrical machinery	3.4	10.5	208.8
Transportation equipment	3.2	4.0	25.0
Instruments & related products	2.0	3.6	80.0
Other durable goods	2.1	2.3	9.5
Nondurable goods	68.9	85.1	23.5
Food & kindred products	13.5	13.2	-2.2
Textile mill products	0.4	1.7[a]	-10.5[a]
Apparel & finished textile products	1.5		
Paper & allied products	3.5	4.2	20.0
Printing, publishing & allied industries	3.7	12.5	237.8
Chemicals & allied products	24.4	32.5	33.2
Petroleum refining & related industries	13.0	15.3	17.7
Rubber & misc. plastic products	0.0	0.0	0.0
Leather & leather products	0.0	0.0	0.0
Other nondurable goods	3.9	5.7	46.2

(continued)

Table EMP-4. (continued)

Industry	Corpus Christi SMSA Average annual employment 1972	Average annual employment 1978	% change 1972-78
Manufacturing - Total	10,800	14,000	29.6
Durable goods	3,800	4,600	21.1
Lumber & wood products, exc. furniture	150	200[b]	N.D.
Furniture & fixtures	(D)	(D)	(D)
Stone, clay & glass products	500	550	10.0
Primary metal industries	1,750	950	-45.7
Fabricated metal products	400	450	12.5
Machinery, except electrical	700	1,950	178.6
Electrical machinery	0	0	0.0
Transportation equipment	0	0	0.0
Instruments & related products	0	0	0.0
Other durable goods	300	500	66.7
Nondurable goods	7,000	9,400	34.3
Food & kindred products	1,650	2,200	33.3
Textile mill products	0	0	0.0
Apparel & finished textile products	0	0	0.0
Paper & allied products	0	0	0.0
Printing,publishing & allied industries	650	850	30.8
Chemicals & allied products	2,600	3,250	25.0
Petroleum refining & related industries	1,400	2,150	53.6
Rubber & misc. plastic products	0	0	0.0
Leather & leather products	0	0	0.0
Other nondurable goods	700	950	35.7

(continued)

Table EMP-4. (continued)

Industry	Brownsville Average annual employment 1972	Brownsville Average annual employment 1978	Brownsville % change 1972-78
Manufacturing - Total	7,420	10,850	46.2
Durable goods	2,800	4,720	68.6
Lumber & wood products, exc. furniture	0	0	0.0
Furniture & fixtures	0	0	0.0
Stone, clay & glass products	310	690	22.6
Primary metal industries	0	0	0.0
Fabricated metal products	(D)	200	N.D.
Machinery, except electrical	0	0	0.0
Electrical machinery	(D)	1,220	N.D.
Transportation equipment	210	830	295.2
Instruments & related products	0	0	0.0
Other durable goods	2,280	1,780	-21.9
Nondurable goods	4,620	6,130	32.7
Food & kindred products	3,020	1,700	-43.7
Textile mill products	0	0	0.0
Apparel & finished textile products	(D)	2,970	N.D.
Paper & allied products	0	0	0.0
Printing, publishing & allied industries	300	380	26.7
Chemicals & allied products	(D)	360	N.D.
Petroleum refining & related industries	0	0	0.0
Rubber & misc. plastic products	0	0	0.0
Leather & leather products	0	0	0.0
Other nondurable goods	1,300	720	-44.6

(continued)

Table EMP-4. (concluded)

Industry	McAllen Average annual employment 1972	McAllen Average annual employment 1978	McAllen % change 1972-78
Manufacturing - Total	4,570	8,330	82.3
Durable goods	510	1,290	152.9
Lumber & wood products, exc. furniture	0	0	0.0
Furniture & fixtures	20	(D)	N.D.
Stone, clay & glass products	120	220	83.3
Primary metal industries	0	0	0.0
Fabricated metal products	0	0	0.0
Machinery, except electrical	230	630	173.9
Electrical machinery	0	0	0.0
Transportation equipment	0	0	0.0
Instruments & related products	0	0	0.0
Other durable goods	140	440	214.3
Nondurable goods	4,060	7,040	73.4
Food & kindred products	1,830	2,890	57.9
Textile mill products	0	0	0.0
Apparel & finished textile products	(D)	2,350	N.D.
Paper & allied products	0	0	0.0
Printing, publishing & allied industries	290	320	60.0
Chemicals & allied products	280	300	7.1
Petroleum refining & related industries	0	0	0.0
Rubber & misc. plastic products	0	0	0.0
Leather & leather products	0	0	0.0
Other nondurable goods	1,750	1,180	-32.6

N.D. = No data.
(D)=Data not shown to avoid disclosure of operations of individual firms.
[a]Textile mill products combined with apparel and finished textile products in 1978 for Houston.
[b]Lumber, wood products combined with furniture & fixtures in 1978, for Corpus Christi.

Table EMP-5. Actual and projected employment in coastal Standard Metropolitan Statistical Areas (SMSA's) and Texas for selected years, 1974 through 1985 (Texas Employment Commission, Economic Research and Analysis Department 1977a, 1977b, 1977c, 1978a, 1978b, 1979a, 1979b).

Location/economic sector	1974[a]	1978[a]	1985[b]
Galveston-Texas City SMSA			
Agriculture, ag. svcs., for. & fish.	1,050	1,000	850
Mining	500	700	950
Contract construction	4,650	5,650	7,550
Manufacturing	11,250	13,950	18,650
Transportation, commun., & pub. util.	6,700	7,950	10,100
Wholesale & retail trade	11,900	14,200	18,050
Finance, insurance & real estate	3,850	4,700	6,200
Services	22,050	27,700	37,900
Total government	3,600	4,500	6,050
Total	65,550	80,350	106,300
Brownsville-Harlingen San Benito SMSA			
Agriculture, ag. svcs., for. & fish.	4,500	4,150	3,600
Mining	0	0	0
Contract construction	4,600	5,750	7,750
Manufacturing	9,550	10,450	12,000
Transportation, commun., & pub. util.	3,550	3,950	4,600
Wholesale & retail trade	14,300	15,100	16,500
Finance, insurance & real estate	2,800	3,100	3,650
Services	14,150	16,450	20,450
Total government	2,600	3,000	3,750
Total	56,150	62,050	72,450

(continued)

Table EMP-5. (continued)

Location/economic sector	1974[a]	1978[a]	1985[b]
Houston SMSA			
Agriculture, ag. svcs., for. & fish.	9,600	9,200	8,400
Mining	40,600	47,000	58,100
Contract construction	102,500	115,300	137,800
Manufacturing	173,100	187,100	211,700
Transportation, commun., & pub. util.	86,500	90,400	97,300
Wholesale & retail trade	244,800	268,900	311,300
Finance, insurance & real estate	63,000	73,800	92,700
Services	278,300	331,600	424,800
Total government	31,800	38,000	48,700
Total	1,030,200	1,161,300	1,390,800
Corpus Christi SMSA			
Agriculture, ag. svcs., for. & fish.	3,400	3,200	2,750
Mining	3,600	3,600	3,600
Contract construction	11,000	12,100	14,000
Manufacturing	12,250	13,050	14,500
Transportation, commun., & pub. util.	7,000	7,750	9,050
Wholesale & retail trade	25,400	29,100	36,650
Finance, insurance & real estate	5,150	5,800	6,850
Services	28,050	32,050	39,050
Total government	8,400	10,000	12,850
Total	104,250	116,650	138,300

(continued)

Table EMP-5. (concluded)

Location/economic sector	1974[a]	1978[a]	1985[b]
McAllen SMSA			
Agriculture, ag. svcs., for. & fish.	9,000	8,450	7,450
Mining	1,100	1,200	1,400
Contract construction	5,600	5,950	6,600
Manufacturing	6,100	6,650	7,600
Transportation, commun., & pub. util.	3,000	3,150	3,500
Wholesale & retail trade	18,350	19,350	21,150
Finance, insurance & real estate	2,100	2,300	2,600
Services	16,150	17,650	20,200
Total government	2,900	3,500	4,500
Total	64,300	68,200	75,000
State of Texas			
Agriculture, ag. svcs., for. & fish.	227,500	216,000	196,000
Mining	125,500	144,000	175,700
Contract construction	405,200	440,900	508,300
Manufacturing	848,200	923,200	1,072,300
Transportation, commun., & pub. util.	335,000	352,400	386,700
Wholesale & retail trade	1,186,900	1,257,400	1,389,000
Finance, insurance & real estate	273,000	308,000	373,500
Services	1,362,100	1,547,500	1,881,900
Total government	252,600	278,600	324,100
Total	5,016,000	5,468,000	6,307,500

[a]Actual employment, less the secondary jobs of multi-jobholders.
[b]Projected employment based on relationship to national employment.

Table EMP-6. Per capita personal income in the TBIE study area and Texas for selected years, 1950 through 1977 (U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System 1979b).

Planning region/county	Per capita personal income (dollars) 1950	% of Texas per capita income 1950	Per capita personal income (dollars) 1962	% of Texas per capita income 1962
GULF COAST				
Brazoria	1,499	111.1	2,104	102.5
Chambers	1,163	86.2	2,072	101.0
Fort Bend	903	66.9	1,555	75.8
Galveston	1,586	117.6	2,312	112.7
Harris	1,958	145.1	2,546	124.1
Liberty	958	71.0	1,513	73.7
Matagorda	1,318	97.7	1,823	88.8
Wharton	1,098	81.4	1,732	84.4
Per capita income for region	1,310	97.1	1,957	95.4
GOLDEN CRESCENT				
Calhoun	1,535	113.8	1,870	91.1
Goliad	839	62.1	1,566	76.3
Jackson	1,089	80.7	1,818	88.6
Victoria	1,177	87.2	1,934	94.2
Per capita income for region	1,160	86.0	1,797	87.6
COASTAL BEND				
Aransas	1,047	77.6	2,025	98.7
Bee	880	65.2	1,454	70.9
Brooks	894	66.3	1,288	62.8
Jim Wells	997	73.9	1,387	67.6
Kenedy	1,821	135.0	3,199	155.9
Kleberg	1,217	90.2	1,489	72.6
Nueces	1,427	105.8	2,004	97.7
Refugio	1,127	83.5	1,829	89.1
San Patricio	873	64.7	1,688	82.3
Per capita income for region	1,142	84.7	1,818	88.6

(continued)

Table EMP-6. (continued)

Planning region/county	Per capita personal income (dollars) 1950	% of Texas per capita income 1950	Per capita personal income (dollars) 1962	% of Texas per capita income 1962
LOWER RIO GRANDE VALLEY				
Cameron	907	67.2	1,218	59.4
Hidalgo	733	54.3	1,131	55.1
Willacy	916	67.9	1,418	69.1
Per capita income for region	852	63.1	1,256	61.2
TBIE STUDY AREA	1,165	86.4	1,791	87.3
STATE	1,349	100.0	2,052	100.0

Planning region/county	Per capita personal income (dollars) 1972	% of Texas per capita income 1972	Per capita personal income (dollars) 1977	% of Texas per capita income 1977
GULF COAST				
Brazoria	3,843	94.8	7,331	106.4
Chambers	3,521	86.9	7,018	101.8
Fort Bend	3,599	88.8	6,922	100.4
Galveston	4,240	104.6	7,075	102.7
Harris	4,932	121.7	8,527	123.7
Liberty	3,231	79.7	6,561	95.2
Matagorda	3,311	81.7	7,402	107.4
Wharton	3,338	82.4	6,289	91.3
Per capita income for region	3,752	92.6	7,141	103.6
GOLDEN CRESCENT				
Calhoun	3,488	86.1	6,464	93.8
Goliad	2,854	70.4	6,604	95.8
Jackson	3,208	79.1	6,698	97.2
Victoria	3,873	95.6	6,871	99.7

(continued)

Table EMP-6. (continued)

Planning region/county	Per capita personal income (dollars) 1950	% of Texas per capita income 1950	Per capita personal income (dollars) 1962	% of Texas per capita income 1962
LOWER RIO GRANDE VALLEY				
Cameron	907	67.2	1,218	59.4
Hidalgo	733	54.3	1,131	55.1
Willacy	916	67.9	1,418	69.1
Per capita income for region	852	63.1	1,256	61.2
TBIE STUDY AREA	1,165	86.4	1,791	87.3
STATE	1,349	100.0	2,052	100.0

Planning region/county	Per capita personal income (dollars) 1972	% of Texas per capita income 1972	Per capita personal income (dollars) 1977	% of Texas per capita income 1977
GULF COAST				
Brazoria	3,843	94.8	7,331	106.4
Chambers	3,521	86.9	7,018	101.8
Fort Bend	3,599	88.8	6,922	100.4
Galveston	4,240	104.6	7,075	102.7
Harris	4,932	121.7	8,527	123.7
Liberty	3,231	79.7	6,561	95.2
Matagorda	3,311	81.7	7,402	107.4
Wharton	3,338	82.4	6,289	91.3
Per capita income for region	3,752	92.6	7,141	103.6
GOLDEN CRESCENT				
Calhoun	3,488	86.1	6,464	93.8
Goliad	2,854	70.4	6,604	95.8
Jackson	3,208	79.1	6,698	97.2
Victoria	3,873	95.6	6,871	99.7

(continued)

Table EMP-6. (concluded)

Planning region/county	Per capita personal income (dollars) 1972	% of Texas per capita income 1972	Per capita personal income (dollars) 1977	% of Texas per capita income 1977
GOLDEN CRESCENT (cont.)				
Per capita income for region	3,356	82.8	6,659	96.6
COASTAL BEND				
Aransas	3,495	86.2	5,996	87.0
Bee	3,097	76.4	5,138	74.6
Brooks	1,993	49.2	4,097	59.4
Jim Wells	2,736	67.5	5,203	75.5
Kenedy	8,910	219.8	12,166	176.5
Kleberg	2,873	70.9	4,977	72.2
Nueces	3,674	90.6	6,314	91.6
Refugio	3,043	75.1	5,885	85.4
San Patricio	2,964	73.1	5,198	75.4
Per capita income for region	3,643	89.9	6,108	88.6
LOWER RIO GRANDE VALLEY				
Cameron	2,649	65.4	4,253	61.7
Hidalgo	2,249	55.5	3,859	56.0
Willacy	2,187	54.0	3,915	56.8
Per capita income for region	2,362	58.3	4,009	58.2
TBIE STUDY AREA	3,471	85.6	6,282	91.2
STATE	4,053	100.0	6,891	100.0

Table EMP-7. Personal income by economic sector ($1,000) in the TBIE study area, Texas and the United States for selected years, 1950 through 1977 (U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System 1979b).

Location/economic sector	1950	1962	1972	1977
GULF COAST				
Brazoria County				
Agriculture, ag. svcs., for. & fish.	6,097[c]	5,761[c]	7,605[d]	[b,d]
Mining	6,725	9,569	11,573	37,272
Contract construction	3,138	19,666	35,376	148,364
Manufacturing	21,138	64,402	145,839	289,045
Transportation, commun., & pub.util.	2,300	5,143	15,946	34,696[b]
Wholesale & retail trade	6,120	16,375	34,965	
Finance, insurance & real estate	865	3,117	7,371	16,323
Services	4,002	11,471	31,852	75,516
Total government	4,227	16,364	40,251	80,521
Industry not reported	394	681	0	0
Total	55,006	152,549	330,778	779,054
Chambers County				
Agriculture, ag.svcs., for. & fish.	3,444[c]	4,655[c]	4,808[d]	[b,d]
Mining	1,703	5,788	2,777	9,575
Contract construction	208[a]	1,279	2,443	14,745
Manufacturing		88	2,953	42,597
Transportation, commun., & pub.util.	106	1,320	1,519	2,224[b]
Wholesale & retail trade	496[a]	1,568	5,038	
Finance, insurance & real estate		148	380	1,010
Services	407	906	3,271	4,461
Total government	559	2,085	4,960	8,599
Industry not reported	80	156	0	0
Total	7,072	17,993	28,149	96,974
Fort Bend County				
Agriculture, ag.svcs., for. & fish.	13,808[c]	8,634[c]	[b,d]	18,751[d]
Mining	1,872	4,890	[b]	[b]

(continued)

Table EMP-7. (continued)

Location/economic sector	1950	1962	1972	1977
Fort Bend County (cont.)				
Contract construction	693	3,764	6,495	55,581
Manufacturing	2,385	10,095	46,516	167,799
Transportation, commun., & pub.util.	972	1,999	5,313	15,595[b]
Wholesale & retail trade	3,415	7,912	16,545	
Finance, insurance & real estate	228	1,096	5,126	8,904
Services	1,722	4,322	15,180	28,761
Total government	2,418	8,159	22,574	46,147
Industry not reported	103	304	0	0
Total	20,857	51,175	134,833	396,029
Galveston County				
Agriculture, ag.svcs., for. & fish.	1,548[c]	1,698[c]	864[d]	1,423[d,b]
Mining	1,066	3,633	3,480	
Contract construction	8,644	30,935	34,718	91,791
Manufacturing	33,945	79,903	153,477	253,396
Transportation, commun., & pub.util.	17,836	28,780	48,913	84,051[b]
Wholesale & retail trade	23,831	31,982	63,411	
Finance, insurance & real estate	25,316	15,750	32,862	57,808
Services	15,322	29,374	63,742	112,067
Total government	16,235	42,911	120,007	202,894
Industry not reported	922	747	0	0
Total	144,665	265,713	521,474	927,870
Harris County				
Agriculture, ag.svcs., for. & fish.	7,603[c]	5,471[c]	23,132[d]	31,539[d]
Mining	154,997	205,444	442,802	1,137,324
Contract construction	139,339	271,556	786,267	2,005,496
Manufacturing	274,633	688,641	1,566,894	3,116,884
Transportation, commun., & pub.util.	157,459	311,010	716,561	1,463,874
Wholesale & retail trade	299,654	672,089	1,647,555	3,385,940

(continued)

Table EMP-7. (continued)

Location/economic sector	1950	1962	1972	1977
Harris County (cont.)				
Finance, insurance & real estate	63,491	176,021	520,257	993,407
Services	160,907	427,243	1,378,887	2,875,899
Total government	92,491	284,465	801,950	1,383,802
Industry not reported	1,104	3,288	0	0
Total	1,351,678	3,045,228	7,884,305	16,444,165
Liberty County				
Agriculture, ag.svcs., for. & fish.	3,238[c]	4,146[c]	7,144[d]	5,110[d]
Mining	3,784	7,207	9,699	30,668
Contract construction	645	1,701	3,801	7,197
Manufacturing	2,231	1,891	3,729	16,131
Transportation, commun. & pub.util.	1,184	2,418	4,063	10,300
Wholesale & retail trade	4,653	6,695	14,067	25,903
Finance, insurance & real estate	285	842	2,256	4,170
Services	1,962	3,960	9,089	15,021
Total government	1,634	4,301	8,517	14,073
Industry not reported	55	131	0	0
Total	19,731	33,292	62,365	128,573
Matagorda County				
Agriculture, ag.svcs., for. & fish.	9,085[c]	10,623[c]	8,869[d]	[b,d]
Mining	2,456	6,503	6,802	16,583
Contract construction	953	1,930	3,787	52,608
Manufacturing	513	1,217	6,923	15,951
Transportation, commun., & pub.util.	1,392	1,708	3,733	6,973[b]
Wholesale & retail trade	4,165	6,506	10,375	
Finance, insurance & real estate	278	881	2,181	3,567
Services	2,456	4,129	7,369	15,583
Total government	1,783	4,591	9,891	16,580
Industry not reported	356	204	0	0
Total	23,437	38,292	59,930	174,355

(continued)

Table EMP-7. (continued)

Location/economic sector	1950	1962	1972	1977
Wharton County				
Agriculture, ag.svcs., for. & fish.	11,357[c]	14,171[c]	16,087[d]	[b,d]
Mining	6,172	7,456	10,658	24,624
Contract construction	1,116	1,348	3,279	6,701
Manufacturing	688	1,700	5,301	10,369
Transportation, commun. & pub.util.	1,563	2,902	4,676	8,902[b]
Wholesale & retail trade	4,881	8,838	16,276	
Finance, insurance & real estate	488	1,234	2,953	4,876
Services	3,679	5,410	12,867	20,732
Total government	2,432	5,757	11,948	19,769
Industry not reported	64	232	0	0
Total	32,440	49,048	84,045	142,758
GULF COAST REGION TOTAL				
Agriculture, ag.svcs., for. & fish.	52,559[d]	60,902[d]	79,210[d]	123,265[d]
Mining	178,775	250,490	494,174	1,286,799
Contract construction	154,736	332,179	876,166	2,382,483
Manufacturing	335,533	847,937	1,931,632	3,962,172
Transportation, commun. & pub.util.	182,812	355,280	800,724	1,626,615
Wholesale & retail trade	347,215	751,965	1,808,232	3,697,954
Finance, insurance & real estate	90,951	199,089	573,386	1,090,065
Services	190,457	486,815	1,522,257	3,148,040
Total government	121,779	368,633	1,020,098	1,772,385
Industry not reported	69	0	0	0
Total	1,654,886	3,653,290	9,105,879	19,089,778
GOLDEN CRESCENT				
Calhoun County				
Agriculture, ag.svcs., for. & fish.	2,620[c]	2,130[c]	2,686[d]	[b,d]
Mining	338	735	211	4,742

(continued)

Table EMP-7. (continued)

Location/economic sector	1950	1962	1972	1977
Calhoun County (cont.)				
Contract construction	2,412	4,413	9,934	18,116
Manufacturing	4,765	19,918	39,667	75,834
Transportation, commun., & pub.util.	265	583	3,089	4,983[b]
Wholesale & retail trade	1,562	3,633	6,505	
Finance, insurance & real estate	219	870	1,052	1,760
Services	542	1,388	3,616	5,256
Total government	605	4,161	7,094	9,452
Industry not reported	596	201	0	0
Total	13,924	38,032	73,854	133,371
Goliad County				
Agriculture, ag.svcs., for. & fish.	2,591[c]	1,656[c]	1,624[a,d]	9,213[d]
Mining	293	490	[b]	489
Contract construction	131[b]	226[b]	511[a]	757
Manufacturing	[b]	[b]		66[b]
Transportation, commun. & pub.util.			455[b]	[b]
Wholesale & retail trade	489[a]	716		
Finance, insurance & real estate		86	238	405
Services	267	398	868	1,056
Total government	298[a]	702	2,115	3,049
Industry not reported		55	0	0
Total	4,228	4,522	7,360	17,315
Jackson County				
Agriculture, ag.svcs., for. & fish.	6,032[c]	7,081[c]	5,494[d]	[b,d]
Mining	1,461	3,109	4,025	13,434
Contract construction	461	260	1,351	5,626
Manufacturing	103	398	412	1,778
Transportation, commun., & pub.util.	400	998	2,498	4,113[b]
Wholesale & retail trade	985	1,852	3,049	
Finance, insurance & real estate	122	331	866	1,334

(continued)

Table EMP-7. (continued)

Location/economic sector	1950	1962	1972	1977
Jackson County (cont.)				
Services	631	1,655	3,237	4,000
Total government	781[a]	2,268	4,213	6,687
Industry not reported		62	0	0
Total	11,008	18,014	25,145	52,843
Victoria County				
Agriculture, ag.svcs., for. & fish.	5,147[c]	4,465[c]	8,005[d]	6,276[d]
Mining	2,393	5,811	8,486	39,545[b]
Contract construction	2,492	10,227	13,918	
Manufacturing	1,916	9,749	28,825	52,744
Transportation, commun. & pub.util.	2,777	6,056	11,781	20,321[b]
Wholesale & retail trade	6,492	13,291	27,465	
Finance, insurance & real estate	811	3,177	8,304	12,011
Services	4,186	9,085	27,802	46,392
Total government	1,752	8,047	20,466	35,424
Industry not reported	79	248	0	0
Total	28,045	70,156	155,052	294,254
GOLDEN CRESCENT REGION TOTAL				
Agriculture, ag.svcs., for. & fish.	17,065[d]	15,898[d]	17,843[d]	28,796[d]
Mining	4,485	10,145	12,949	58,210
Contract construction	5,496	15,126	25,714	52,021
Manufacturing	6,784	30,065	68,930	130,422
Transportation, commun. & pub.util.	3,442	7,637	17,823	30,206
Wholesale & retail trade	9,528	19,492	38,281	71,302
Finance, insurance & real estate	1,152	4,464	10,460	15,510
Services	5,626	12,526	35,523	56,704
Total government	3,436	15,178	33,888	54,612
Industry not reported	191	193	0	0
Total	57,205	130,724	261,411	497,783

(continued)

Table EMP-7. (continued)

Location/economic sector	1950	1962	1972	1977
COASTAL BEND				
Aransas County				
Agriculture, ag.svcs., for. & fish.	299[c]	124[c]	2,461[d]	7,225[d]
Mining	396	839	[b]	[b]
Contract construction	202	462	3,589	4,029
Manufacturing	267	1,411	2,626	4,740
Transportation, commun., & pub.util.	173	805	1,364[b]	2,904[b]
Wholesale & retail trade	1,053[a]	2,663	[a]	[a]
Finance, insurance & real estate	[a]	183	655	1,269
Services	504	1,290	3,550	5,025
Total government	235	1,398	2,313	4,152
Industry not reported	378	795	0	0
Total	3,548	9,970	22,409	39,885
Bee County				
Agriculture, ag.svcs., for. & fish.	3,851[c]	3,571[c]	5,035[d]	[b,d]
Mining	1,795	4,091	2,943	12,900
Contract construction	650	1,374	3,549	4,768
Manufacturing	173	767	776	1,243
Transportation, commun., & pub.util.	605	1,404	2,380[b]	3,830[b]
Wholesale & retail trade	2,425	3,989	[a]	[a]
Finance, insurance & real estate	193	463	1,215[b]	1,849
Services	1,617	3,099	[a]	10,333
Total government	1,170[a]	11,578	31,344	38,677
Industry not reported	[a]	120	0	0
Total	12,516	30,456	60,916	89,000
Brooks County				
Agriculture, ag.svcs., for. & fish.	2,004[c]	1,236[c]	[b,d]	2,679[d]
Mining	934	2,417	1,097[b]	[b]
Contract construction	410	381	[a]	1,022

(continued)

Table EMP-7. (continued)

Location/economic sector	1970	1975	1980
Brooks County (cont.)			
Manufacturing	[p]345	[p]	[p]
Transportation, comm., & pub.util.	2,762	2,762	1,020
Wholesale & retail trade	118	167	131
Finance, insurance & real estate	252	247	67
Services	1,345	[p]478	[p]729
Total government	3,372	3,372	1,749
Industry not reported	0	0	0
Total	11,121	8,721	5,312
Jim Wells County			
Agriculture, ag.svcs., for. & fish.	[c]4,345	[c]5,345	[c]4,345
Mining	2,525	1,203	2,525
Contract construction	333	333	222
Manufacturing	818	[c]1,144	818
Transportation, comm., & pub.util.	1,844	[c]1,080	[c]1,844
Wholesale & retail trade	444	963	185
Finance, insurance & real estate	88	98	111
Services	1,211	1,811	1,211
Total government	1,211	[c]1,211	1,211
Industry not reported	0	0	0
Total	12,772	12,912	12,772
Kenedy County			
Agriculture, ag.svcs., for. & fish.	[c]796	[c]1,345	[p]2,288,3
Mining	[p]	[p]	[p]
Contract construction	0	0	0
Manufacturing	[p]	[p]	[p]
Transportation, comm., & pub.util.	[p]	[p]	[p]502
Wholesale & retail trade	0	0	0
Finance, insurance & real estate	0	0	0
Services	121	121	[p]0

(continued)

Table EMP-7. (continued)

Location/economic sector	1950	1962	1972	1977
Kenedy County (cont.)				
Total government	38[a]	114[a]	82	122
Industry not reported			0	0
Total	1,119	2,140	4,318	4,141
Kleberg County				
Agriculture, ag.svcs., for. & fish.	6,222[c]	1,542[c]	1,792[d]	[b,d]
Mining	3,350	4,712	7,603	18,707
Contract construction	869	1,227	4,263	4,656
Manufacturing	179	461	1,184	1,833
Transportation, commun., & pub.util.	3,467	2,922	3,651	5,930[b]
Wholesale & retail trade	3,152	4,766	10,195	
Finance, insurance & real estate	319	638	1,870	3,124
Services	1,696	2,966	5,783	10,108
Total government	2,617	16,837	37,884	51,896
Industry not reported	75	73	0	0
Total	21,946	36,144	74,225	117,212
Nueces County				
Agriculture, ag.svcs., for. & fish.	11,414[c]	19,133[c]	12,727[d]	[b,d]
Mining	18,032	36,966	36,652	[b]
Contract construction	16,248	25,853	66,985	112,532
Manufacturing	21,316	55,442	93,081	195,994
Transportation, commun., & pub.util.	19,191	25,337	54,161	96,604[b]
Wholesale & retail trade	39,591	67,236	148,490	
Finance, insurance & real estate	6,248	15,700	38,068	58,159
Services	20,932	46,514	118,232	200,832
Total government	40,288	68,924	195,867	280,611
Industry not reported	582	888	0	0
Total	193,842	362,013	764,263	1,291,481

(continued)

Table EMP-7. (continued)

Location/economic sector	1950	1962	1972	1977
Refugio County				
Agriculture, ag.svcs., for. & fish.	3,288[c]	3,060[c]	768[d]	[b,d]
Mining	2,049	4,809	4,533	13,637[b]
Contract construction	129[a]	416[a]	401	
Manufacturing			117	125
Transportation, commun., & pub.util.	430	1,231	2,341	3,577
Wholesale & retail trade	1,019	1,698	2,882	4,355
Finance, insurance & real estate	84	207	515	984
Services	769	1,242	2,719	2,799
Total government	694	1,914[a]	3,150	4,961
Industry not reported	55		0	0
Total	8,538	14,674	17,426	32,305
San Patricio County				
Agriculture, ag.svcs., for. & fish.	9,789[c]	13,590[c]	11,209[d]	[b,d]
Mining	1,854	3,239	2,902	[b]
Contract construction	2,066	4,915	8,997	23,880
Manufacturing	1,076	14,038	25,269	29,040
Transportation, commun., & pub.util.	1,268	3,119	7,855	8,864
Wholesale & retail trade	4,677	7,208	12,749	22,697
Finance, insurance & real estate	311	956	2,262	3,807
Services	2,280	4,384	12,075	13,746
Total government	1,601	5,210	12,794	21,814
Industry not reported	836	1,173	0	0
Total	25,758	57,832	96,112	161,308
COASTAL BEND REGION TOTAL				
Agriculture, ag.svcs., for. & fish.	44,709[d]	52,632[d]	45,408[d]	64,884[d]
Mining	33,972	65,104	70,443	198,615
Contract construction	21,910	36,772	92,470	160,086
Manufacturing	23,234	72,937	124,597	237,533
Transportation, commun. & pub.util.	26,737	39,180	77,694	131,319

(continued)

Table EMP-7. (continued)

Location/economic sector	1950	1962	1972	1977
COASTAL BEND REGION TOTAL (cont.)				
Wholesale & retail trade	57,231	95,546	204,002	334,106
Finance, insurance & real estate	7,803	19,621	47,249	74,347
Services	30,700	65,038	160,308	262,147
Total government	48,858	112,264	296,041	422,286
Industry not reported	1,007	803	0	0
Total	296,161	559,897	1,118,212	1,885,323
LOWER RIO GRANDE VALLEY				
Cameron County				
Agriculture, ag.svcs., for. & fish.	25,551[c,b]	20,787[c,b]	[b,d]	[b,d]
Mining	[b]	[b]	[b]	1,799
Contract construction			19,416	33,716
Manufacturing	7,786	17,087	44,697	85,853
Transportation, commun., & pub.util.	14,133	12,179	23,936	42,097[b]
Wholesale & retail trade	21,861	33,540	64,512	
Finance, insurance & real estate	3,180	6,155	13,677	28,619
Services	9,705	17,471	46,200	82,687
Total government	9,024[b]	25,319[b]	61,310	109,792
Industry not reported			0	0
Total	97,977	143,377	306,525	543,456
Hidalgo County				
Agriculture, ag.svcs., for. & fish.	42,296[c]	35,955[c]	[b,d]	[b,d]
Mining	2,249[b]	6,300[b]	[b]	21,664
Contract construction			20,234	39,465
Manufacturing	5,850	10,358	23,957	70,372
Transportation, commun., & pub.util.	4,964	7,299	15,844	30,737[b]
Wholesale & retail trade	22,265	34,835	83,321	
Finance, insurance & real estate	2,132	5,092	10,670	22,172

(continued)

Table EMP-7. (continued)

Location/economic sector	1950	1962	1972	1977
Hidalgo County (cont.)				
Services	8,154	17,346	45,292	87,151
Total government	9,118[b]	30,742[b]	81,710	152,248
Industry not reported			0	0
Total	103,092	155,272	324,228	634,200
Willacy County				
Agriculture, ag.svcs., for. & fish.	11,140[c]	15,077[c]	[b,d]	[b,d]
Mining	188	80	[b]	
Contract construction	622[b]	185[b]	[b]	615[b]
Manufacturing			577	2,269
Transportation, commun., & pub.util.	332	463	982	2,198[b]
Wholesale & retail trade	1,781	2,273	4,286	
Finance, insurance & real estate	200	327	578	880
Services	955	1,185	1,819	2,953
Total government	947[b]	2,379[b]	4,686	8,302
Industry not reported			0	0
Total	17,417	22,827	23,562	38,496
LOWER RIO GRANDE VALLEY REGION TOTAL				
Agriculture, ag.svcs., for. & fish.	78,987[d]	71,819[d]	78,300[d]	108,205[d]
Mining	2,437	6,380	7,706	24,078
Contract construction	622	185	40,255	74,029
Manufacturing	13,636	27,445	69,231	158,494
Transportation, commun. & pub.util.	19,429	19,941	40,762	75,032
Wholesale & retail trade	45,907	70,648	152,119	281,510
Finance, insurance & real estate	5,512	11,574	24,925	51,671
Services	18,814	36,002	93,311	172,791
Total government	19,089	58,440	147,706	270,342
Industry not reported	14,053	19,042	0	0
Total	218,486	321,476	654,315	1,216,152

(continued)

Table EMP-7. (continued)

Location/economic sector	1950	1962	1972	1977
TBIE STUDY AREA				
Agriculture, ag.svcs., for. & fish.	193,320	201,251	220,761	325,150
Mining	219,669	332,119	585,272	1,567,702
Contract construction	182,764	384,262	1,034,605	2,668,619
Manufacturing	379,187	978,384	2,194,390	4,488,621
Transportation, commun. & pub.util.	232,420	422,038	937,003	1,863,172
Wholesale & retail trade	459,881	937,651	2,202,634	4,384,872
Finance, insurance & real estate	105,418	234,748	1,811,399	1,231,593
Services	245,597	600,381	656,020	3,639,682
Total government	193,162	554,515	1,497,733	2,519,625
Industry not reported	15,320	20,038	0	0
Total	2,226,738	4,665,387	11,150,009	22,689,036
STATE OF TEXAS				
Agriculture, ag.svcs., for. & fish.	1,229,000	1,006,000	1,365,000	1,688,000
Mining	584,000	877,000	1,211,000	3,401,000
Contract construction	616,000	1,079,000	2,741,000	5,613,000
Manufacturing	1,226,000	3,119,000	7,199,000	13,590,000
Transportation, commun., & pub.util.	763,000	1,344,000	2,942,000	5,545,000
Wholesale & retail trade	1,760,000	3,185,000	7,123,000	13,005,000
Finance, insurance & real estate	349,000	861,000	2,151,000	3,941,000
Services	931,000	2,125,000	5,673,000	10,471,000
Total government	1,185,000	2,840,000	7,006,000	11,245,000
Industry not reported	23,000	0	0	0
Total	8,666,000	16,436,000	37,411,000	68,499,000
UNITED STATES				
Agriculture, ag.svcs., for. & fish.	16,279,000	15,773,000	24,247,000	30,822,000
Mining	3,717,000	4,467,000	7,499,000	17,556,000
Contract construction	11,138,000	21,563,000	48,060,000	68,886,000
Manufacturing	54,136,000	105,389,000	195,717,000	306,582,000

(continued)

Table EMP-7. (concluded)

Location/economic sector	1950	1962	1972	1977
UNITED STATES (cont.)				
Transportation, commun., & pub.util.	15,252,000	26,346,000	55,270,000	88,730,000
Wholesale & retail trade	35,344,000	62,121,000	124,239,000	193,985,000
Finance, insurance & real estate	7,889,000	18,758,000	41,323,000	66,548,000
Services	20,868,000	49,116,000	115,436,000	194,692,000
Total government	21,244,000	52,513,000	132,984,000	200,174,000
Industry not reported	727,000	0	0	0
Total	186,594,000	356,046,000	744,775,000	1,167,975,000

[a]Less than $50,000. Data are included in totals.
[b]Data not shown to avoid disclosure of operations of individual firms. Data included in totals.
[c]Includes farm income only.
[d]Includes farm, ag.svcs., for. & fish. income.

Table EMP-8. Personal income location quotients[a] in Texas and the TBIE study area for selected years, 1950 through 1977 (U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System 1979b).

Economic sector	1950		1962	
	% of total income	Location quotient	% of total income	Location quotient
Percentage of total income	100.00	b	100.01	b
Agriculture, ag.svcs., for. & fish.	14.28	1.63	6.12	1.38
Mining	6.74	3.39	5.34	4.27
Contract construction	7.11	1.19	6.56	1.08
Manufacturing	14.15	0.49	18.98	0.64
Transportation, commun., and pub. util.	8.80	1.08	8.18	1.11
Wholesale and retail trade	20.31	1.07	19.38	1.11
Finance, insurance, and real estate	4.03	0.95	5.24	0.99
Services	10.74	0.96	12.93	0.94
Total government	13.67	1.20	17.28	1.17
Industry not reported	0.27	0.00	0.00	0.00

(continued)

Table EMP-8. (concluded)

Economic sector	1972 % of total income	1972 Location quotient	1977 % of total income	1977 Location quotient
Percentage of total income	100.00	[b]	100.01	[b]
Ag., ag. svcs., for. and fish.	3.65	1.12	2.46	0.93
Mining	3.24	3.21	4.97	3.31
Contract construction	7.33	1.14	8.19	1.39
Manufacturing	19.24	0.73	19.84	0.76
Transportation, commun., and pub. util.	7.86	1.06	8.10	1.07
Wholesale and retail trade	19.04	1.14	18.99	1.14
Finance, insurance, and real estate	5.75	1.04	5.75	1.01
Services	15.16	0.98	15.29	0.92
Total government	18.73	1.05	16.42	0.96
Industry not reported	0.00	0.00	0.00	0.00

[a]TBIE region and State in relation to United States.
[b]Does not apply.

Table EMP-9. Location quotients derived from personal income,[a] TBIE study area for selected years, 1950 through 1977 (U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System 1979b).

Economic sector	1950		1962	
	% of total income	Location quotient	% of total income	Location quotient
Percentage of total income	100.00	b	100.01	b
Ag., ag. svcs., for. and fish.	8.68	1.00	4.31	0.97
Mining	9.87	4.96	7.12	5.70
Contract construction	8.21	1.38	8.24	1.36
Manufacturing	17.093	0.59	20.97	0.71
Transportation, commun., and pub. util.	10.44	1.28	9.05	1.22
Wholesale and retail trade	20.65	1.09	20.10	1.15
Finance, insurance, and real estate	4.73	1.12	5.03	0.95
Services	11.03	0.99	12.87	0.93
Total government	8.67	0.76	11.89	0.81
Industry not reported	0.69	0.00	0.43	0.00

(continued)

Table EMP-9. (concluded)

Economic sector	1972 % of total income	1972 Location quotient	1977 % of total income	1977 Location quotient
Percentage of total income	99.99	b	100.00	b
Agriculture, ag. svcs., for. & fish.	1.98	0.61	1.43	0.54
Mining	5.25	5.20	6.91	4.61
Contract construction	9.29	1.44	11.76	1.99
Manufacturing	19.70	0.75	19.78	0.75
Transportation, commun., and pub. util.	8.41	1.13	8.21	1.08
Wholesale and retail trade	19.77	1.18	19.33	1.16
Finance, insurance, and real estate	5.89	1.06	5.43	0.95
Services	16.26	1.05	16.04	0.96
Total government	13.44	0.75	11.11	0.65
Industry not reported	0.00	0.00	0.00	0.00

[a]TBIE region and State in relation to United States.
[b]Does not apply.

Table EMP-10. Location quotients derived from personal income,[a] Gulf Coast Planning Region for selected years, 1950 through 1977 (U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System 1979b).

Economic sector	1950		1962	
	% of total income	Location quotient	% of total income	Location quotient
Percentage of total income	100.01	b	100.00	b
Agriculture, ag. svcs., for. & fish.	3.18	0.36	1.67	0.38
Mining	10.80	5.43	6.86	5.49
Contract construction	9.35	1.57	9.09	1.50
Manufacturing	20.28	0.70	23.21	0.78
Transportation, commun., and pub. util.	11.05	1.35	9.72	1.31
Wholesale and retail trade	20.98	1.11	20.58	1.18
Finance, insurance, and real estate	5.50	1.30	5.45	1.03
Services	11.51	1.03	13.33	0.97
Total government	7.36	0.65	10.09	0.68
Industr· ·ot reported	0.00	0.00	0.00	0.00

(continued)

Table EMP-10. (concluded)

Economic sector	1972 % of total income	1972 Location quotient	1977 % of total income	1977 Location quotient
Percentage of total income	100.00	b	100.00	b
Agriculture, ag. svcs., for. & fish.	0.87	0.27	0.65	0.25
Mining	5.43	5.38	6.74	4.49
Contract construction	9.62	1.49	12.48	2.12
Manufacturing	21.21	0.81	20.76	0.79
Transportation, commun., and pub. util.	8.79	1.18	8.52	1.12
Wholesale and retail trade	19.86	1.19	19.37	1.17
Finance, insurance, and real estate	6.30	1.14	5.71	1.00
Services	16.72	1.08	16.49	0.99
Total government	11.20	0.63	9.28	0.54
Industry not reported	0.00	0.00	0.00	0.00

[a]TBIE region and State in relation to United States.
[b]Does not apply.

Table EMP-11. Location quotients derived from personal income,[a] Golden Crescent Planning Region for selected years, 1950 through 1977 (U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System 1979b).

Economic sector	1950		1962	
	% of total income	Location quotient	% of total income	Location quotient
Percentage of total income	100.00	b	99.99	b
Agriculture, ag. svcs., for. & fish.	29.83	3.42	12.16	2.74
Mining	7.84	3.94	7.76	6.21
Contract construction	9.61	1.61	11.57	1.91
Manufacturing	11.86	0.41	23.00	0.78
Transportation, commun., and pub. util.	6.02	0.74	5.84	0.79
Wholesale and retail trade	16.66	0.88	14.91	0.85
Finance, insurance, and real estate	2.01	0.48	3.41	0.65
Services	9.83	0.88	9.58	0.69
Total government	6.01	0.53	11.61	0.79
Industry not reported	0.33	0.00	0.15	0.00

(continued)

Table EMP-11. (concluded)

Economic sector	1972 % of total income	1972 Location quotient	1977 % of total income	1977 Location quotient
Percentage of total income	100.00	b	99.99	b
Agriculture, ag. svcs., for. & fish.	6.83	2.10	5.78	2.19
Mining	4.95	4.90	11.69	7.79
Contract construction	9.84	1.53	10.45	1.77
Manufacturing	26.37	1.00	26.20	1.00
Transportation, commun., and pub. util.	6.82	0.92	6.07	0.80
Wholesale and retail trade	14.64	0.88	14.32	0.86
Finance, insurance, and real estate	4.00	0.72	3.12	0.55
Services	13.59	0.88	11.39	0.68
Total government	12.96	0.73	10.97	0.64
Industry not reported	0.00	0.00	0.00	0.00

[a]TBIE region and State in relation to United States.
[b]Does not apply.

Table EMP-12. Location quotients derived from personal income,[a] Coastal Bend Planning Region for selected years, 1950 through 1977 (U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System 1979b).

Economic sector	1950		1962	
	% of total income	Location quotient	% of total income	Location quotient
Percentage of total income	100.01	b	100.00	b
Agriculture, ag. svcs., for. & fish.	15.10	1.73	9.40	2.12
Mining	11.47	5.76	11.63	9.30
Contract construction	7.40	1.24	6.57	1.08
Manufacturing	7.85	0.27	13.03	0.44
Transportation, commun., and pub. util.	9.03	1.11	7.00	0.95
Wholesale and retail trade	19.32	1.02	17.06	0.98
Finance, insurance, and real estate	2.63	0.62	3.50	0.66
Services	10.37	0.93	11.62	0.84
Total government	16.50	1.45	20.05	1.36
Industry not reported	0.34	0.00	0.14	0.00

(continued)

Table EMP-12. (concluded)

Economic sector	1972 % of total income	1972 Location quotient	1977 % of total income	1977 Location quotient
Percentage of total income	100.01	b	99.99	b
Agriculture, ag. svcs., for. & fish.	4.93	1.51	3.44	1.30
Mining	6.24	6.18	10.53	7.02
Contract construction	8.19	1.27	8.49	1.44
Manufacturing	11.04	0.42	12.60	0.48
Transportation, commun., and pub. util.	6.89	0.93	6.97	0.92
Wholesale and retail trade	18.08	1.08	17.72	1.07
Finance, insurance, and real estate	4.19	0.75	3.94	0.69
Services	14.21	0.92	13.90	0.83
Total government	26.24	1.47	22.40	1.31
Industry not reported	0.00	0.00	0.00	0.00

[a]TBIE region and State in relation to United States.
[b]Does not apply.

Table EMP-13. Location quotients derived from personal income,[a] Lower Rio Grande Valley Planning Region for selected years, 1950 through 1977 (U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System 1979b).

Economic sector	1950		1962	
	% of total income	Location quotient	% of total income	Location quotient
Percentage of total income	99.99	b	100.00	b
Agriculture, ag. svcs., for. & fish.	36.15	4.15	22.34	5.04
Mining	1.12	0.56	1.98	1.58
Contract construction	0.28	0.05	0.06	0.01
Manufacturing	6.24	0.22	8.54	0.29
Transportation, commun., and pub. util.	8.89	1.09	6.20	0.84
Wholesale and retail trade	21.01	1.11	21.98	1.26
Finance, insurance, and real estate	2.52	0.60	3.60	0.68
Services	8.61	0.77	11.20	0.81
Total government	8.74	0.77	18.18	1.23
Industry not reported	6.43	0.00	5.92	0.00

(continued)

Table EMP-13. (concluded)

Economic sector	1972 % of total income	1972 Location quotient	1977 % of total income	1977 Location quotient
Percentage of total income	100.00	b	100.01	b
Agriculture, ag. svcs., for. & fish.	11.97	3.67	8.90	3.37
Mining	1.18	1.17	1.98	1.32
Contract construction	6.15	0.95	6.09	1.03
Manufacturing	10.58	0.40	13.03	0.50
Transportation, commun., and pub. util.	6.23	0.84	6.17	0.81
Wholesale and retail trade	23.25	1.39	23.15	1.39
Finance, insurance, and real estate	3.81	0.69	4.25	0.75
Services	14.26	0.92	14.21	0.85
Total government	22.57	1.26	22.23	1.30
Industry not reported	0.00	0.00	0.00	0.00

[a]TBIE region and State in relation to United States.
[b]Does not apply.

AGRICULTURAL PRODUCTION (AGR)

Table AGR-1. Number of farms for selected years, 1954 through 1974 (U.S. Department of Commerce, Bureau of the Census 1957a, 1962, 1967, 1972, 1977a, 1977b).

Planning region/ county	1954	1959	1964	1969	1974
GULF COAST					
Brazoria	1,669	1,276	1,425	1,299	1,038
Chambers	491	483	409	325	284
Fort Bend	2,407	2,002	1,713	1,742	1,251
Galveston	715	518	374	415	295
Harris	3,869	2,414	2,122	2,156	1,478
Liberty	1,361	1,189	900	839	649
Matagorda	1,220	1,037	839	902	753
Wharton	2,466	2,103	1,921	2,005	1,413
Total	14,198	11,022	9,703	9,683	7,161
GOLDEN CRESCENT					
Calhoun	303	259	244	297	253
Goliad	708	560	478	669	546
Jackson	1,074	946	876	925	757
Victoria	1,232	1,118	1,071	1,115	868
Total	3,317	2,883	2,669	3,006	2,424
COASTAL BEND					
Aransas	99	80	52	55	27
Bee	861	727	677	788	631
Brooks	283	181	231	251	216
Jim Wells	720	729	669	766	672
Kenedy	16	13	16	16	23
Kleberg	281	246	209	221	213
Nueces	1,157	1,096	838	993	798
Refugio	270	260	263	294	250
San Patricio	888	816	676	737	598
Total	4,575	4,148	3,631	4,121	3,428
LOWER RIO GRANDE VALLEY					
Cameron	2,836	2,338	1,754	1,750	1,324
Hidalgo	4,072	3,575	2,868	4,124	2,827
Wallacy	865	673	547	550	406
Total	7,773	6,586	5,169	6,424	4,557
TBIE STUDY AREA	29,863	24,639	21,172	23,234	17,570
STATE	292,947	227,071	205,110	213,550	174,068

Table AGR-2. Land area in farms (acres) for selected years, 1954 through 1974 (U.S. Department of Commerce, Bureau of the Census 1957a, 1962, 1967, 1972, 1977a, 1977b).

Planning region/ county	1954	1959	1964	1969	1974
GULF COAST					
Brazoria	673,923	633,166	697,775	598,874	545,048
Chambers	357,120	350,064	347,335	359,001	309,141
Fort Bend	513,196	545,759	506,545	470,932	440,425
Galveston	114,676	125,677	120,645	129,528	103,576
Harris	690,046	667,255	562,295	551,056	483,310
Liberty	350,396	532,575	448,205	457,451	351,859
Matagorda	592,588	727,574	642,495	600,186	602,387
Wharton	658,961	710,574	706,365	701,482	672,636
Total	3,950,906	4,292,644	4,031,660	3,868,510	3,508,382
GOLDEN CRESCENT					
Calhoun	218,690	158,054	162,965	208,361	210,728
Goliad	377,273	332,862	345,165	447,641	387,941
Jackson	419,880	561,188	522,965	506,195	483,094
Victoria	550,559	551,046	589,525	473,867	538,858
Total	1,566,402	1,603,150	1,620,620	1,636,064	1,620,621
COASTAL BEND					
Aransas	68,052	62,060	51,972	51,247	23,980
Bee	477,031	472,491	468,275	562,091	462,792
Brooks	799,983	796,388	731,365	516,606	545,522
Jim Wells	506,908	554,492	562,865	570,477	509,048
Kenedy	652,526	534,707	533,425	545,168	545,071
Kleberg	918,608	947,441	921,685	934,663	931,038
Nueces	554,093	628,263	648,235	485,837	502,329
Refugio	436,660	498,301	567,925	392,785	481,861
San Patricio	433,200	549,114	542,395	434,685	395,429
Total	4,847,061	5,043,257	5,028,142	4,493,559	4,397,070
LOWER RIO GRANDE VALLEY					
Cameron	550,119	486,198	426,215	452,285	403,822
Hidalgo	1,018,819	810,422	736,715	772,792	848,528
Willacy	369,328	373,751	378,715	377,182	309,392
Total	1,938,266	1,670,371	1,541,645	1,602,259	1,561,742
TBIE STUDY AREA	12,302,635	12,609,422	12,222,067	11,600,392	11,087,815
STATE	145,812,733	143,217,559	141,706,309	142,566,826	134,185,289

Table AGR-3. Average farm size, 1954 and 1974 (U.S. Department of Commerce, Bureau of the Census 1957a, 1977a, 1977b).

Planning region/ county	1954 (acres)	1974 (acres)
GULF COAST		
Brazoria	404	525
Chambers	727	1,089
Fort Bend	213	352
Galveston	160	351
Harris	178	327
Liberty	257	542
Matagorda	486	800
Wharton	267	476
Regional Average	474	490
GOLDEN CRESCENT		
Calhoun	722	833
Goliad	533	711
Jackson	391	638
Victoria	447	621
Regional Average	163	669
COASTAL BEND		
Aransas	687	888
Bee	554	733
Brooks	2,827	2,526
Jim Wells	704	758
Kenedy	40,783	23,699
Kleberg	3,269	4,371
Nueces	479	630
Refugio	1,617	1,927
San Patricio	488	661
Regional Average	1,059	1,283
LOWER RIO GRANDE VALLEY		
Cameron	194	305
Hidalgo	250	300
Willacy	427	762
Regional Average	249	343
TBIE STUDY AREA	340	631
STATE	498	771

Table AGR-4. Average value of farms (dollars) for selected years, 1954 through 1974 (U.S. Department of Commerce, Bureau of the Census 1957a, 1962, 1967, 1972, 1977a, 1977b).

Planning region/ county	1954	1959	1964	1969	1974
GULF COAST					
Brazoria	31,540	64,842	117,345	164,803	364,809
Chambers	53,966	80,700	161,995	276,202	431,091
Fort Bend	29,898	52,883	98,558	170,591	284,402
Galveston	27,797	68,114	123,995	215,135	254,684
Harris	39,162	109,677	169,065	213,894	325,000
Liberty	17,150	40,370	75,422	115,476	277,160
Matagorda	36,359	66,746	111,055	139,106	292,448
Wharton	26,313	51,604	82,436	107,784	215,177
Region	45,273	66,867	117,484	175,374	305,596
GOLDEN CRESCENT					
Calhoun	75,942	90,924	135,325	136,905	237,519
Goliad	37,105	48,103	88,400	102,803	184,922
Jackson	25,878	47,960	92,802	118,084	212,044
Victoria	28,276	46,543	77,373	85,540	174,108
Region	41,800	58,383	98,475	110,833	202,148
COASTAL BEND					
Aransas	31,021	70,607	55,349	106,570	179,256
Bee	29,488	44,747	77,091	99,912	174,500
Brooks	46,753	90,338	133,105	127,344	317,984
Jim Wells	41,293	62,953	88,178	118,790	166,720
Kenedy	440,955	229,867	1,208,150	1,373,448	1,158,078
Kleberg	62,493	208,372	203,695	278,809	428,096
Nueces	87,600	140,684	205,215	203,602	293,769
Refugio	93,406	115,207	172,025	171,028	352,665
San Patricio	71,419	126,711	187,375	182,576	274,511
Region	100,492	121,054	258,909	295,787	371,731
LOWER RIO GRANDE VALLEY					
Cameron	44,258	60,765	71,689	87,910	183,667
Hidalgo	49,872	60,126	80,559	65,274	172,756
Willacy	80,203	111,748	132,625	207,654	241,664
Region	58,111	77,546	94,958	120,279	199,361
TBIE STUDY AREA	61,419	80,963	142,457	175,568	269,709
STATE	29,278	48,379	77,756	99,133	187,073

Table AGR-5. Machinery and equipment values and number of farms, 1974 (U.S. Department of Commerce, Bureau of the Census 1977a, 1977b).

Planning region/ county	Estimated market value of all machinery & equipment ($1,000)	Number of farms	Average value per farm ($1,000)
GULF COAST			
Brazoria	17,914	1,038	17.3
Chambers	11,000	284	38.7
Fort Bend	19,644	1,251	15.7
Galveston	2,810	295	9.5
Harris	19,655	1,478	13.3
Liberty	14,835	649	22.8
Matagorda	18,916	753	25.1
Wharton	39,131	1,413	27.7
Total	143,905	7,161	20.1
GOLDEN CRESCENT			
Calhoun	5,931	253	23.4
Goliad	4,833	546	8.9
Jackson	18,007	757	23.8
Victoria	9,836	868	11.3
Total	38,607	2,424	15.9
COASTAL BEND			
Aransas	387	27	14.3
Bee	9,307	631	14.8
Brooks	2,985	216	13.8
Jim Wells	10,251	672	15.2
Kenedy	764	23	33.2
Kleberg	10,524	213	49.4
Nueces	22,095	798	27.7
Refugio	6,627	250	26.5
San Patricio	17,584	598	29.4
Total	80,524	3,428	23.5
LOWER RIO GRANDE VALLEY			
Cameron	28,128	1,324	21.2
Hidalgo	54,101	2,827	19.1
Willacy	13,940	406	34.3
Total	96,169	4,557	21.1
TBIE STUDY AREA	359,205	17,570	20.4
STATE	2,749,766	174,068	15.8

Table AGR-6. Market value of agricultural products sold for selected years, 1954 through 1974: field crops from commercial farms ($1,000) (U.S. Department of Commerce, Bureau of the Census 1957a, 1962, 1967, 1972, 1977a, 1977b).

Planning region/ county	1954	1959	1964	1969	1974
GULF COAST					
Brazoria	14,029	7,452	1,256	8,366	22,780
Chambers	7,436	6,130	9,542	9,644	19,930
Fort Bend	13,213	10,119	14,329	8,116	20,629
Galveston	905	597	887	1,641	2,741
Harris	9,404	6,850	8,241	7,445	19,792
Liberty	5,725	4,726	6,690	8,011	21,046
Matagorda	10,149	9,552	13,754	12,436	35,166
Wharton	19,023	17,100	28,225	22,547	66,407
Total	79,884	62,508	92,924	78,206	208,491
GOLDEN CRESCENT					
Calhoun	4,569	2,669	4,654	4,049	9,708
Goliad	847	516	696	637	1,721
Jackson	6,103	5,966	10,224	9,999	30,566
Victoria	4,411	4,000	5,807	4,079	8,474
Total	15,930	13,151	21,381	18,764	50,469
COASTAL BEND					
Aransas	122	49	60	157	249
Bee	2,290	2,544	3,755	3,516	8,776
Brooks	177	519	58	138	373
Jim Wells	4,163	3,371	2,715	3,483	8,659
Kenedy	2	48	0	(D)	12
Kleberg	1,885	1,448	962	1,451	2,972
Nueces	29,979	20,494	17,128	16,350	42,867
Refugio	3,636	2,141	4,903	3,573	10,891
San Patricio	20,647	15,054	19,199	13,768	31,464
Total	62,901	45,222	48,780	42,436	106,263
LOWER RIO GRANDE VALLEY					
Cameron	33,463	25,695	23,713	16,718	37,899
Hidalgo	30,505	33,584	25,665	19,779	61,939
Willacy	17,158	18,276	14,264	9,335	27,662
Total	81,126	77,555	63,642	45,832	126,500
TBIE STUDY AREA	239,841	198,436	226,727	185,238	491,723
STATE	1,034,778	1,069,961	1,105,169	402,503	659,042

(D) = Data withheld to avoid disclosure of information for individual farms.

Table AGR-7. Market value of agricultural products sold for selected years, 1954 through 1974: livestock from commercial farms ($1,000) (U.S. Department of Commerce, Bureau of the Census 1957a, 1962, 1967, 1972, 1977a, 1977b).

Planning region/ county	1954	1959	1964	1969	1974
GULF COAST					
Brazoria	3,442	4,101	3,497	6,344	3,532
Chambers	646	1,827	1,241	1,758	1,521
Fort Bend	2,564	4,010	3,233	4,835	4,279
Galveston	1,320	3,229	2,597	1,938	1,076
Harris	8,178	11,960	10,624	13,466	9,141
Liberty	941	2,333	1,978	3,162	3,247
Matagorda	1,725	3,399	2,679	4,822	5,610
Wharton	2,272	5,366	3,906	6,274	6,642
Total	21,089	36,225	29,755	42,599	34,848
GOLDEN CRESCENT					
Calhoun	651	802	464	1,225	1,231
Goliad	1,716	3,040	3,551	7,070	4,693
Jackson	1,878	3,761	2,328	4,696	2,925
Victoria	3,119	3,564	3,026	4,566	4,864
Total	7,364	11,167	9,369	17,557	13,713
COASTAL BEND					
Aransas	174	311	58	260	214
Bee	1,595	2,538	1,614	3,423	3,749
Brooks	1,418	1,971	2,603	2,902	4,282
Jim Wells	3,827	5,232	4,601	7,980	8,083
Kenedy	1,147	1,970	869	2,044	2,488
Kleberg	2,462	3,666	2,765	3,880	7,018
Nueces	1,468	2,505	2,259	1.842	4,019
Refugio	1,549	1,938	2,089	1,949	2,706
San Patricio	1,010	2,510	5,543	7,739	7,699
Total	14,650	22,641	22,401	32,019	40,236
LOWER RIO GRANDE VALLEY					
Cameron	1,743	4,045	3,915	4,968	8,668
Hidalgo	3,731	8,029	7,544	9,377	26,716
Willacy	590	1,315	1,308	2,224	702
Total	6,064	13,389	12,767	16,569	36,086
TBIE STUDY AREA	49,167	83,422	74,292	108,744	124,883
STATE	554,516	971,495	973,554	2,204,582	3,387,056

Table AGR-8. Market value of agricultural products sold for selected years, 1954 through 1974: vegetables from commercial farms ($1,000) (U.S. Department of Commerce, Bureau of the Census 1957a, 1962, 1967, 1972, 1977a, 1977b).

Planning region/ county	1954	1959	1964	1969	1974
GULF COAST					
Brazoria	183	217	44	41	(D)
Chambers	5	10	1	0	0
Fort Bend	168	34	53	33	92
Galveston	152	147	132	109	185
Harris	548	505	634	751	794
Liberty	5	18	25	(D)	1
Matagorda	27	21	18	22	7
Wharton	35	30	74	109	128
Total	1,123	928	981	1,065	1,207
GOLDEN CRESCENT					
Calhoun	7	11	4	1	8
Goliad	2	1	1	0	0
Jackson	9	4	3	0	0
Victoria	26	15	12	3	1
Total	44	31	20	4	9
COASTAL BEND					
Aransas	1	2	0	0	0
Bee	96	90	10	(D)	(D)
Brooks	68	85	204	267	268
Jim Wells	207	187	192	145	176
Kenedy	0	0	0	0	0
Kleberg	88	101	62	285	236
Nueces	231	131	190	42	42
Refugio	0	0	0	0	0
San Patricio	442	370	691	250	(D)
Total	1,133	966	1,349	989	722
LOWER RIO GRANDE VALLEY					
Cameron	3,220	2,378	23,713	2,331	2,853
Hidalgo	7,853	8,210	8,766	16,312	35,519
Willacy	586	825	793	314	1,925
Total	11,659	11,413	33,272	18,957	40,297
TBIE STUDY AREA	13,959	13,338	35,622	21,015	42,235
STATE	30,678	31,740	41,000	55,269	101,261

(D) = Data withheld to avoid disclosure of information for individual farms.

Table AGR-9. Market value of agricultural products sold for selected years, 1954 through 1974: fruits and nuts from commercial farms ($1,000) (U.S. Department of Commerce, Bureau of the Census 1957a, 1962, 1972, 1977a, 1977b).

Planning region/ county	1954	1959	1964	1969	1974
GULF COAST					
Brazoria	24	200	23	56	103
Chambers	1	4	0	2	0
Fort Bend	42	151	61	3	32
Galveston	67	44	82	21	0
Harris	6	37	9	11	12
Liberty	1	13	2	10	0
Matagorda	2	198	3	9	28
Wharton	23	167	26	19	32
Total	166	814	207	131	207
GOLDEN CRESCENT					
Calhoun	0	5	0	0	0
Goliad	0	1	4	0	0
Jackson	0	7	2	0	2
Victoria	1	4	2	7	13
Total	1	17	8	7	15
COASTAL BEND					
Aransas	0	0	0	0	0
Bee	0	0	0	0	0
Brooks	8	5	0	0	0
Jim Wells	1	4	0	(D)	(D)
Kenedy	0	0	0	0	0
Kleberg	0	0	4	0	0
Nueces	2	1	1	0	0
Refugio	0	0	0	0	0
San Patricio	0	0	0	0	0
Total	11	10	5	(D)	(D)
LOWER RIO GRANDE VALLEY					
Cameron	117	1,311	389	1,864	4,418
Hidalgo	3,013	8,115	3,129	9,377	26,716
Willacy	19	254	15	319	733
Total	3,149	9,680	3,533	11,560	31,867
TBIE STUDY AREA	3,327	10,521	3,753	11,698	32,089
STATE	7,019	15,674	8,887	16,554	42,697

(D) = Data withheld to avoid disclosure of information for individual farms.

Table AGR-10. Total market value of agricultural products sold from commercial farms for selected years, 1954 through 1974 ($1,000) (U.S. Department of Commerce, Bureau of the Census 1957a, 1962, 1967, 1972, 1977a, 1977b).

Planning region/ county	1954	1959	1964	1969	1974
GULF COAST					
Brazoria	17,826	12,107	17,991	15,150	27,439
Chambers	8,099	7,976	10,877	11,441	21,453
Fort Bend	16,008	14,345	19,835	13,604	26,716
Galveston	2,712	4,654	4,096	4,272	4,009
Harris	19,226	21,184	21,677	23,053	31,685
Liberty	6,706	7,191	9,018	11,216	24,378
Matagorda	11,924	13,171	16,682	18,009	42,078
Wharton	21,356	22,671	32,615	29,401	73,904
Total	103,853	103,299	132,791	126,146	251,662
GOLDEN CRESCENT					
Calhoun	5,227	3,497	5,178	5,276	10,947
Goliad	2,566	3,559	4,464	7,712	6,466
Jackson	7,998	9,751	12,809	14,697	33,494
Victoria	7,567	7,614	9,263	8,658	13,397
Total	23,358	24,421	31,714	36,343	64,304
COASTAL BEND					
Aransas	297	364	139	419	490
Bee	3,991	5,172	5,580	7,061	12,881
Brooks	1,672	2,134	2,975	3,347	5,188
Jim Wells	8,223	8,846	7,773	11,719	17,295
Kenedy	1,149	2,018	877	2,078	2,499
Kleberg	4,436	5,217	3,870	5,616	9,991
Nueces	31,764	23,179	19,713	18,291	47,542
Refugio	5,187	4,082	7,042	5,524	13,597
San Patricio	22,099	17,944	25,528	21,768	39,297
Total	78,818	68,956	73,497	75,823	148,690
LOWER RIO GRANDE VALLEY					
Cameron	38,964	34,360	32,296	26,951	59,395
Hildago	46,120	58,595	46,705	52,200	134,546
Willacy	18,366	20,699	16,491	12,248	31,071
Total	103,450	113,654	95,492	91,399	225,012
TBIE STUDY AREA	309,479	310,330	333,494	329,711	689,668
STATE	1,642,069	2,108,881	2,153,404	3,269,821	5,638,180

Table AGR-11. Farm production expenses by expense category for all farms, 1974 ($1,000) (U.S. Department of Commerce, Bureau of the Census 1977a, 1977b).

Planning region/ county	Livestock & poultry purchased	Feeds	Commercial mixed feeds
GULF COAST			
Brazoria	1,261	1,974	1,431
Chambers	299	604	521
Fort Bend	1,406	1,457	1,065
Galveston	598	554	190
Harris	2,096	4,006	3,154
Liberty	898	1,293	1,033
Matagorda	1,907	1,510	1,061
Wharton	1,531	2,162	1,650
Total	9,996	13,560	10,105
GOLDEN CRESCENT			
Calhoun	165	336	255
Goliad	1,537	1,467	855
Jackson	730	1,004	761
Victoria	642	1,625	1,301
Total	3,074	4,432	3,172
COASTAL BEND			
Aransas	34	94	91
Bee	1,024	1,049	618
Brooks	647	1,333	1,185
Jim Wells	1,085	2,863	2,086
Kenedy	864	378	312
Kleberg	491	4,683	2,084
Nueces	602	1,199	1,036
Refugio	431	597	335
San Patricio	3,233	3,590	759
Total	8,411	15,768	8,506
LOWER RIO GRANDE VALLEY			
Cameron	3,282	3,578	1,375
Hidalgo	2,696	2,469	1,051
Willacy	307	178	126
Total	6,285	6,225	2,552
TBIE STUDY AREA	27,786	39,985	24,335
STATE	1,344,068	1,317,088	558,287

(continued)

Table AGR-11. (continued)

Planning region/ county	Seeds, bulbs, plants, trees	Fertilizer	Other chemicals
GULF COAST			
Brazoria	1,280	2,738	923
Chambers	949	1,941	780
Fort Bend	999	2,751	875
Galveston	119	222	60
Harris	1,233	2,719	720
Liberty	1,085	1,705	872
Matagorda	1,394	3,987	1,269
Wharton	2,772	8,024	2,837
Total	9,831	24,087	8,336
GOLDEN CRESCENT			
Calhoun	383	1,417	356
Goliad	84	299	80
Jackson	1,342	3,748	1,310
Victoria	343	1,536	300
Total	2,152	7,000	2,046
COASTAL BEND			
Aransas	4	31	7
Bee	358	1,304	189
Brooks	60	139	44
Jim Wells	388	876	309
Kenedy	7	4	6
Kleberg	223	368	135
Nueces	1,309	3,104	1,479
Refugio	217	1,714	399
San Patricio	721	3,319	1,223
Total	3,287	10,859	3,791
LOWER RIO GRANDE VALLEY			
Cameron	1,568	3,189	3,880
Hidalgo	3,197	8,474	9,383
Willacy	796	1,016	1,801
Total	5,561	12,679	15,064
TBIE STUDY AREA	20,831	54,625	29,237
STATE	101,472	285,918	89,312

(continued)

Table AGR-11. (concluded)

Planning region/ county	Fuels & oil	Hired labor	Contract labor, machine hire, & custom work	Other expenses
GULF COAST				
Brazoria	1,178	2,085	610	8,906
Chambers	772	1,536	608	5,987
Fort Bend	1,184	2,100	812	7,734
Galveston	201	288	90	1,257
Harris	1,213	2,566	758	9,296
Liberty	916	1,822	556	6,195
Matagorda	1,553	2,605	1,363	11,179
Wharton	2,793	4,346	2,275	19,361
Total	9,810	17,348	7,072	69,915
GOLDEN CRESCENT				
Calhoun	495	578	531	3,400
Goliad	321	400	223	1,845
Jackson	1,471	2,042	1,041	8,099
Victoria	659	735	616	3,771
Total	2,946	3,755	2,411	17,115
COASTAL BEND				
Aransas	22	61	19	140
Bee	753	991	556	3,803
Brooks	235	528	132	1,703
Jim Wells	874	1,548	788	5,359
Kenedy	71	393	27	986
Kleberg	456	2,302	365	3,767
Nueces	2,047	3,049	2,308	12,609
Refugio	586	1,239	713	3,567
San Patricio	1,435	2,468	1,618	8,961
Total	6,479	12,579	6,526	40,895
LOWER RIO GRANDE VALLEY				
Cameron	2,439	6,017	2,842	16,342
Hidalgo	4,459	14,212	11,247	37,188
Willacy	1,433	2,269	2,584	7,871
Total	8,331	22,498	16,673	61,401
TBIE STUDY AREA	27,566	56,180	32,682	189,326
STATE	226,295	300,700	160,989	1,158,789

Table AGR-12. Total farm production expenses and average per farm, 1974 (all farms) (U.S. Department of Commerce, Bureau of the Census 1977a, 1977b).

Planning region/ county	Expenses ($1,000)	Number of farms	Average per farm ($1,000)
GULF COAST			
Brazoria	20,954	1,038	20.2
Chambers	13,477	284	47.5
Fort Bend	19,468	1,251	15.6
Galveston	3,388	295	11.5
Harris	24,607	1,478	16.6
Liberty	15,344	649	23.6
Matagorda	26,767	753	35.5
Wharton	46,101	1,413	32.6
Region	170,106	7,161	23.8
GOLDEN CRESCENT			
Calhoun	7,661	253	30.3
Goliad	6,257	546	11.5
Jackson	20,787	757	27.5
Victoria	10,227	868	11.8
Region	44,932	2,424	18.5
COASTAL BEND			
Aransas	412	27	15.3
Bee	10,026	631	15.9
Brooks	4,821	216	22.3
Jim Wells	14,089	672	20.9
Kenedy	2,736	23	118.9
Kleberg	12,789	213	60.0
Nueces	27,706	798	34.7
Refugio	9,463	250	37.9
San Patricio	26,568	598	44.4
Region	108,610	3,428	31.7
LOWER RIO GRANDE VALLEY			
Cameron	43,137	1,324	32.6
Hidalgo	93,326	2,827	33.0
Willacy	18,256	406	45.0
Region	154,719	4,557	33.9
TBIE STUDY AREA	478,367	17,570	27.2
STATE	4,984,611	174,068	28.6

Table AGR-13. Farm operator debt, 1974 (farms with sales of $2,500 and over) (U.S. Department of Commerce, Bureau of the Census 1977a, 1977b).

Planning region/ county	$1,000	Number of farms	Average per farm ($1,000)
GULF COAST			
Brazoria	11,254	1,038	10.8
Chambers	5,739	284	20.2
Fort Bend	13,905	1,251	11.1
Galveston	1,493	295	5.0
Harris	13,868	1,478	9.4
Liberty	10,038	649	15.5
Matagorda	7,736	753	10.3
Wharton	15,979	1,413	11.4
Total	80,012	7,161	11.2
GOLDEN CRESCENT			
Calhoun	3,570	253	14.1
Goliad	4,254	546	7.8
Jackson	6,451	757	8.5
Victoria	3,120	868	3.6
Total	17,395	2,424	7.2
COASTAL BEND			
Aransas	(D)	27	(D)
Bee	5,412	631	8.6
Brooks	1,568	216	7.3
Jim Wells	7,205	672	10.7
Kenedy	621	23	27.0
Kleberg	1,659	213	7.8
Nueces	12,351	798	15.5
Refugio	5,070	250	20.3
San Patricio	7,829	598	13.1
Total	41,715	3,428	12.2
LOWER RIO GRANDE VALLEY			
Cameron	15,363	1,324	11.6
Hidalgo	43,276	2,827	15.3
Willacy	6,352	406	15.6
Total	64,991	4,557	14.3
TBIE STUDY AREA	204,113	17,570	11.6
STATE	2,196,465	174,068	12.6

(D) = Data withheld to avoid disclosure of information for individual farms.

Table AGR-14. Census of livestock on commercial farms for selected years, 1954 through 1974: cattle and calves (U.S. Department of Commerce, Bureau of the Census 1957a, 1962, 1967, 1972, 1977a, 1977b).

Planning region/ county	1954	1959	1964	1969	1974
GULF COAST					
Brazoria	96,801	66,158	75,518	60,192	53,854
Chambers	48,114	45,062	41,307	36,184	28,866
Fort Bend	73,000	62,583	59,953	40,236	27,460
Galveston	23,457	23,898	12,085	12,911	12,973
Harris	113,426	89,923	69,490	73,880	60,591
Liberty	37,892	39,795	32,779	32,824	29,385
Matagorda	76,526	72,134	67,825	69,480	76,626
Wharton	82,286	86,672	80,955	77,533	67,382
Total	485,802	486,125	439,912	403,240	357,137
GOLDEN CRESCENT					
Calhoun	20,677	13,127	11,952	19,257	19,314
Goliad	38,245	38,512	37,133	55,899	42,022
Jackson	51,899	59,389	50,120	55,173	45,209
Victoria	63,544	52,681	56,803	48,574	51,689
Total	174,365	163,709	156,013	178,903	158,234
COASTAL BEND					
Aransas	5,183	4,355	1,751	4,212	3,241
Bee	34,351	29,760	30,455	45,449	45,609
Brooks	43,616	40,053	36,841	29,813	32,987
Jim Wells	40,266	46,598	45,518	54,894	54,293
Kenedy	37,633	34,299	26,669	41,382	45,038
Kleberg	44,061	65,412	70,237	71,822	90,429
Nueces	23,085	21,649	20,718	15,148	24,254
Refugio	35,004	36,042	38,145	30,444	39,813
San Patricio	20,788	23,209	35,435	29,517	33,643
Total	283,987	301,377	305,769	322,681	369,307
LOWER RIO GRANDE VALLEY					
Cameron	28,995	28,668	27,334	27,456	27,780
Hidalgo	62,384	44,668	61,914	44,509	55,998
Willacy	12,783	15,102	17,426	14,025	6,473
Total	104,162	88,438	106,674	85,990	90,251
TBIE STUDY AREA	1,048,316	1,039,649	1,008,368	990,814	974,929
STATE	8,268,112	7,598,367	8,342,931	11,139,658	11,882,023

Table AGR-15. Census of livestock on commercial farms for selected years, 1954 through 1974: hogs and pigs (U.S. Department of Commerce, Bureau of the Census 1957a, 1962, 1967, 1972, 1977a, 1977b).

Planning region/ county	1954	1959	1964	1969	1974
Brazoria	6,243	2,134	829	2,767	721
Chambers	1,439	929	223	112	82
Fort Bend	7,486	4,763	2,260	1,510	812
Galveston	918	250	163	434	438
Harris	10,287	9,467	3,077	3,626	1,897
Liberty	4,338	2,440	507	877	60
Matagorda	2,286	1,708	821	355	591
Wharton	6,048	5,609	1,699	1,171	282
Total	39,045	27,300	9,579	10,852	4,883
GOLDEN CRESCENT					
Calhoun	774	476	72	222	9
Goliad	4,504	7,330	5,532	4,992	2,252
Jackson	2,691	2,080	1,173	834	223
Victoria	4,608	4,946	2,253	2,819	2,719
Total	32,577	14,832	9,030	8,867	5,203
COASTAL BEND					
Aransas	240	339	66	23.	8
Bee	2,360	3,081	1,302	1,744	348
Brooks	243	75	31	60	0
Jim Wells	1,639	1,926	1,197	2,255	2,346
Kenedy	13	0	4	0	0
Kleberg	1,012	5,991	4,555	2,290	144
Nueces	3,215	4,673	1,809	510	3,100
Refugio	817	1,196	776	282	289
San Patricio	2,685	2,996	1,176	849	172
Total	12,224	20,277	10,916	8,013	6,407
LOWER RIO GRANDE VALLEY					
Cameron	3,688	4,361	860	2,308	978
Hidalgo	4,892	7,179	3,479	3,508	2,077
Willacy	1,522	56,323	1,134	2,787	113
Total	10,102	67,863	5,473	8,603	3,168
TBIE STUDY AREA	93,948	130,272	34,998	36,335	19,661
STATE	930,314	936,710	869,661	911,628	752,114

Table AGR-16. Census of livestock on commercial farms for selected years, 1954 through 1974: horses and/or mules (U.S. Department of the Census 1957a, 1962, 1967, 1972, 1977a, 1977b).

Planning region/ county	1954	1959	1964	1969	1974
GULF COAST					
Brazoria	3,173	2,306	N.D.	N.D.	681
Chambers	1,511	1,059	N.D.	N.D.	363
Fort Bend	2,400	1,219	N.D.	N.D.	644
Galveston	901	762	N.D.	N.D.	546
Harris	4,141	1,975	N.D.	N.D.	1,962
Liberty	2,095	1,318	N.D.	N.D.	531
Matagorda	1,855	1,496	N.D.	N.D.	619
Wharton	2,225	1,378	N.D.	N.D.	688
Total	18,301	11,513	N.D.	N.D.	6,034
GOLDEN CRESCENT					
Calhoun	344	211	N.D.	N.D.	122
Goliad	1,134	646	N.D.	N.D.	435
Jackson	1,234	856	N.D.	N.D.	455
Victoria	1,719	1,211	N.D.	N.D.	385
Total	4,431	2,924	N.D.	N.D.	1,397
COASTAL BEND					
Aransas	162	24	N.D.	N.D.	34
Bee	1,132	938	N.D.	N.D.	771
Brooks	1,177	672	N.D.	N.D.	224
Jim Wells	788	714	N.D.	N.D.	369
Kenedy	1,036	286	N.D.	N.D.	629
Kleberg	1,832	4,165	N.D.	N.D.	2,078
Nueces	513	625	N.D.	N.D.	256
Refugio	951	825	N.D.	N.D.	447
San Patricio	436	572	N.D.	N.D.	304
Total	8,027	8,821	N.D.	N.D.	5,112
LOWER RIO GRANDE VALLEY					
Cameron	1,031	681	N.D.	N.D.	400
Hidalgo	1,670	1,145	N.D.	N.D.	357
Willacy	640	396	N.D.	N.D.	92
Total	3,341	2,222	N.D.	N.D.	849
TBIE STUDY AREA	34,100	25,480	N.D.	N.D.	13,392
STATE	301,604	181,412	N.D.	N.D.	108,933

Table AGR-17 Census of poultry on commercial farms for selected years, 1954 through 1974 (U.S. Department of the Census 1957a, 1962, 1967, 1972, 1977a, 1977b).

Planning region/ county	1954	1959	1964	1969	1974
GULF COAST					
Brazoria	61,525	42,587	91,568	83,294	4,943
Chambers	13,515	49,704	13,938	802	2,143
Fort Bend	160,787	113,574	71,108	56,841	13,881
Galveston	31,853	146,876	206,514	119,647	1,185
Harris	184,610	370,282	322,269	202,882	42,921
Liberty	43,465	34,625	44,245	50,301	64,568
Matagorda	48,025	51,674	8,902	10,413	4,191
Wharton	144,741	95,961	54,395	36,070	99,587
Total	688,521	905,283	812,939	560,250	233,419
GOLDEN CRESCENT					
Calhoun	17,697	5,332	4,883	1,403	132
Goliad	57,082	27,575	9,617	8,285	5,509
Jackson	63,613	42,808	16,833	7,729	4,068
Victoria	109,608	96,998	34,724	14,738	5,868
Total	248,000	172,713	66,057	32,155	15,577
COASTAL BEND					
Aransas	4,290	4,475	741	254	202
Bee	43,747	37,730	25,017	8,359	6,243
Brooks	5,994	6,363	43,454	7,081	(D)
Jim Wells	40,955	25,246	36,121	55,670	59,870
Kenedy	116	20	43	0	0
Kleberg	16,518	18,864	16,019	43,111	650
Nueces	54,771	63,289	57,829	29,175	(D)
Refugio	12,670	8,277	2,880	2,743	836
San Patricio	38,054	14,613	48,583	84,968	(D)
Total	217,115	178,877	230,687	231,361	67,801
LOWER RIO GRANDE VALLEY					
Cameron	62,601	218,764	61,207	20,781	(D)
Hidalgo	96,598	196,115	104,800	65,853	32,914
Willacy	25,420	56,326	84,644	4,459	2,710
Total	184,619	471,205	250,651	91,093	35,624
TBIE STUDY AREA	1,338,255	1,728,078	1,360,334	914,859	352,421
STATE	15,214,631	14,697,037	13,877,527	15,341,765	13,776,937

(D) = Data withheld to avoid disclosure of information for individual farms.

Table AGR-18. Land use (acres) 1964, 1969, and 1974: irrigated land (U.S. Department of Commerce, Bureau of the Census 1967, 1972, 1977a, 1977b).

Planning region/ county	1964	1969	1974
GULF COAST			
Brazoria	56,938	59,541	58,911
Chambers	48,568	63,610	52,653
Fort Bend	23,728	30,395	25,552
Galveston	12,923	14,655	5,371
Harris	39,572	40,796	37,526
Liberty	34,807	47,451	49,435
Matagorda	46,474	57,168	61,487
Wharton	86,098	104,490	95,386
Total	349,108	599,302	386,321
GOLDEN CRESCENT			
Calhoun	7,332	7,868	9,322
Goliad	2,657	2,249	1,324
Jackson	28,066	38,208	43,855
Victoria	5,799	9,938	5,933
Total	43,854	58,263	60,434
COASTAL BEND			
Aransas	0	0	0
Bee	2,835	3,633	4,406
Brooks	2,695	8,277	1,948
Jim Wells	4,779	5,501	4,762
Kenedy	60	0	0
Kleberg	878	518	771
Nueces	8,124	3,518	5,665
Refugio	638	105	200
San Patricio	22,061	11,167	113,809
Total	42,070	32,719	131,561
LOWER RIO GRANDE VALLEY			
Cameron	181,196	205,278	170,971
Hidalgo	294,630	282,317	269,490
Willacy	35,972	22,992	23,857
Total	511,798	510,587	464,318
TBIE STUDY AREA	946,830	1,200,871	1,042,634
STATE	6,299,856	6,824,130	6,544,117

Table AGR-19. Land use (acres) 1964, 1969, and 1974: woodland (U.S. Department of Commerce, Bureau of the Census 1967, 1972, 1977a, 1977b).

Planning region/ county	1964	1969	1974
Brazoria	52,149	66,348	38,493
Chambers	15,953	15,192	3,499
Fort Bend	63,975	29,477	36,984
Galveston	779	5,728	694
Harris	55,407	37,509	43,248
Liberty	110,723	82,788	35,997
Matagorda	50,694	35,205	31,430
Wharton	76,457	45,589	39,897
Total	426,137	317,836	230,242
GOLDEN CRESCENT			
Calhoun	768	2,199	1,118
Goliad	10,734	24,868	25,878
Jackson	24,915	38,169	26,683
Victoria	29,689	18,162	10,903
Total	66,106	83,398	64,582
COASTAL BEND			
Aransas	0	13	0
Bee	38,505	50,256	57,539
Brooks	240	1,966	9,274
Jim Wells	29,838	26,601	26,636
Kenedy	609	(D)	152
Kleberg	9,592	7,775	3,787
Nueces	38,229	4,995	6,266
Refugio	10,149	9,097	5,020
San Patricio	6,070	9,474	7,632
Total	133,232	110,177	116,306
LOWER RIO GRANDE VALLEY			
Cameron	3,214	3,160	2,787
Hidalgo	21,675	36,599	23,690
Willacy	1,485	10,069	842
Total	26,374	49,828	227,319
TBIE STUDY AREA	651,849	561,239	638,449
STATE	6,846,898	6,387,902	4,962,109

(D) = Data withheld to avoid disclosure of information for individual farms.

Table AGR-20. Land use (acres) 1964, 1969, and 1974: cropland on which all crops failed (U.S. Department of Commerce, Bureau of the Census 1967, 1972, 1977a, 1977b).

Planning region/ county	1964	1969	1974
GULF COAST			
Brazoria	355	1,790	3,091
Chambers	190	372	105
Fort Bend	336	3,060	847
Galveston	288	35	56
Harris	202	1,571	2,867
Liberty	35	523	1,315
Matagorda	656	2,595	1,219
Wharton	521	7,023	733
Total	2,583	16,969	10,233
GOLDEN CRESCENT			
Calhoun	111	342	2,717
Goliad	97	324	793
Jackson	76	948	1,351
Victoria	469	5,437	1,604
Total	753	7,051	6,465
COASTAL BEND			
Aransas	82	210	0
Bee	426	2,027	(D)
Brooks	542	1,677	126
Jim Wells	2,749	1,245	1,087
Kenedy	100	10	0
Kleberg	179	112	2,410
Nueces	1,090	1,179	1,552
Refugio	120	405	2,331
San Patricio	694	1,050	847
Total	5,982	7,915	8,353
LOWER RIO GRANDE VALLEY			
Cameron	2,722	8,722	6,393
Hidalgo	6,283	8,131	2,933
Willacy	497	8,199	1,637
Total	9,502	25,052	10,963
TBIE STUDY AREA	18,820	56,987	36,014
STATE	1,073,134	628,412	2,727,323

(D) = Data withheld to avoid disclosure of information for individual farms.

Table AGR-21. Land use (acres) 1964, 1969, and 1974: pastureland (U.S. Department of Commerce, Bureau of the Census 1967, 1972, 1977a, 1977b).

Planning region/ county	1964	1969	1974
GULF COAST			
Brazoria	316,990	225,876	225,876
Chambers	149,074	166,506	167,653
Fort Bend	188,136	191,358	183,775
Galveston	63,423	55,331	43,091
Harris	196,820	222,688	222,298
Liberty	85,186	106,609	113,466
Matagorda	334,109	307,469	301,950
Wharton	219,286	249,816	221,188
Total	1,553,024	2,525,653	1,479,297
GOLDEN CRESCENT			
Calhoun	96,450	113,162	121,394
Goliad	227,327	307,550	253,096
Jackson	28,066	250,564	217,050
Victoria	383,409	262,985	379,846
Total	735,252	934,261	971,386
COASTAL BEND			
Aransas	42,580	41,821	19,341
Bee	234,067	306,975	228,715
Brooks	670,640	456,095	487,600
Jim Wells	303,658	314,037	281,866
Kenedy	484,519	504,273	503,186
Kleberg	825,538	837,386	852,455
Nueces	219,159	60,042	120,006
Refugio	462,374	283,892	361,258
San Patricio	243,415	137,021	113,809
Total	3,485,950	2,941,542	2,968,236
LOWER RIO GRANDE VALLEY			
Cameron	92,319	95,550	67,415
Hidalgo	190,054	194,650	314,924
Willacy	159,074	136,725	119,367
Total	441,447	426,925	501,706
TBIE STUDY AREA	6,215,673	6,828,381	5,920,625
STATE	85,391,497	86,590,162	85,262,232

Table AGR-22. Land use (acres) 1964, 1969, and 1974: idle cropland (U.S. Department of Commerce, Bureau of the Census 1967, 1972, 1977a, 1977b).

Planning region/ county	1964	1969	1974
GULF COAST			
Brazoria	14,437	66,348	9,348
Chambers	5,677	15,192	11,689
Fort Bend	4,900	29,477	3,391
Galveston	2,807	5,728	2,217
Harris	6,956	37,509	8,030
Liberty	3,801	82,788	4,557
Matagorda	8,159	35,205	6,508
Wharton	9,542	45,589	20,913
Total	56,279	317,836	66,661
GOLDEN CRESCENT			
Calhoun	853	2,199	2,101
Goliad	886	24,868	780
Jackson	6,870	38,169	22,727
Victoria	2,562	18,162	1,518
Total	11,168	83,398	27,126
COASTAL BEND			
Aransas	177	13	30
Bee	1,315	50,256	3,306
Brooks	341	1,966	233
Jim Wells	2,164	26,601	1,664
Kenedy	40	(D)	0
Kleberg	2,028	7,775	336
Nueces	23,292	4,999	2,355
Refugio	2,273	9,097	1,621
San Patricio	6,107	9,474	2,246
Total	37,737	110,181	11,791
LOWER RIO GRANDE VALLEY			
Cameron	9,064	3,160	5,378
Hidalgo	13,697	36,599	15,846
Willacy	1,802	10,069	3,537
Total	24,563	49,828	24,761
TBIE STUDY AREA	129,747	561,243	130,339
STATE	1,176,216	2,353,540	1,414,354

(D) = Data withheld to avoid disclosure of information for individual farms.

Table AGR-23. Land use (acres) 1964, 1969, and 1974: harvested cropland (U.S. Department of Commerce, Bureau of the Census 1967, 1972, 1977a, 1977b).

Planning region/ county	1964	1969	1974
GULF COAST			
Brazoria	80,487	75,487	82,389
Chambers	58,892	68,842	59,140
Fort Bend	120,890	125,309	119,173
Galveston	11,074	19,620	15,144
Harris	75,383	74,278	71,432
Liberty	48,085	71,739	72,899
Matagorda	83,740	104,869	133,460
Wharton	207,382	247,366	260,364
Total	685,933	787,510	814,001
GOLDEN CRESCENT			
Calhoun	42,650	55,882	60,406
Goliad	22,560	20,101	19,888
Jackson	82,016	99,007	123,589
Victoria	72,286	76,934	69,344
Total	219,512	251,924	273,227
COASTAL BEND			
Aransas	8	3,258	2,074
Bee	77,404	90,734	93,394
Brooks	8,157	8,277	10,053
Jim Wells	91,997	120,789	112,969
Kenedy	300	475	654
Kleberg	24,832	38,015	53,004
Nueces	303,786	329,389	330,564
Refugio	63,880	68,902	78,992
San Patricio	224,311	229,157	226,903
Total	794,675	888,996	908,607
LOWER RIO GRANDE VALLEY			
Cameron	230,415	244,165	232,755
Hidalgo	361,829	386,378	403,191
Willacy	181,771	175,265	169,117
Total	774,015	805,808	805,063
TBIE STUDY AREA	2,474,135	2,734,238	2,800,898
STATE	17,985,965	19,043,528	18,475,459

Table AGR-24. Changes in agricultural land area by land use category, 1964, 1969, and 1974 (acres) (U.S. Dept. of Commerce, Bureau of the Census 1967, 1972, 1977a,1977b).

Land use	1964	Percent of 1964 total	1969	Percent of 1969 total	1974	Percent of 1974 total
Irrigated land	946,830	7.7	1,200,871	10.4	1,042,634	9.4
Woodland	651,849	5.3	561,239	4.8	638,449	5.8
Failed cropland	18,820	0.2	56,987	0.5	36,014	0.3
Pasture land	6,215,673	50.5	6,828,381	58.9	5,920,625	53.4
Idle cropland	129,747	1.1	561,243	4.8	130,339	1.2
Harvested cropland	2,474,135	20.1	2,134,238	18.4	2,800,898	25.3
All other uses	1,865,581	15.2	257,433	2.2	518,856	4.7
Total	12,302,635	100.0	11,600,392	100.0	11,087,815	100.0

MINERAL PRODUCTION AND OIL AND GAS ACTIVITIES (OAG)

Table OAG-1. Oil and gas production statistics for selected years, 1965 through 1978.

Planning region/county	Crude oil (bbl)			
	1965[a]	1970[b]	1975[b]	1978[b]
GULF COAST				
Brazoria	16,135,400	27,234,730	33,604,225	28,458,983
Chambers	15,931,100	16,116,946	19,312,441	13,852,852
Fort Bend	7,953,300	16,002,736	16,901,763	11,409,356
Galveston	13,360,200	8,651,939	6,970,354	6,206,675
Harris	16,890,700	26,620,051	32,189,459	23,992,846
Liberty	9,969,700	8,222,185	5,654,585	4,485,563
Matagorda	7,013,400	7,455,442	4,212,416	2,631,523
Wharton	5,012,200	6,740,918	4,198,057	3,487,645
Total	92,266,000	117,044,947	123,043,300	94,525,443
GOLDEN CRESCENT				
Calhoun	1,783,200	2,197,631	832,629	928,227
Goliad	1,520,200	1,640,418	960,354	1,062,512
Jackson	12,741,100	28,476,955	19,351,044	13,995,261
Victoria	4,618,600	4,278,485	3,031,415	2,383,230
Total	20,393,100	36,593,489	24,175,442	18,369,230
COASTAL BEND				
Aransas	1,464,400	2,085,053	414,697	442,921
Bee	1,515,900	1,726,465	1,036,613	811,466
Brooks	2,835,200	6,586,633	1,641,103	788,341
Jim Wells	12,016,300	12,756,789	4,626,319	2,028,089
Kenedy	1,733,000	2,279,687	542,865	317,896
Kleberg	15,457,300	18,401,681	5,032,427	3,122,630
Nueces	10,632,000	8,719,008	4,669,700	3,203,718

(continued)

Table OAG-1. (continued)

Planning region/county	Crude oil (bbl) 1965[a]	1970[b]	1975[b]	1978[b]
Refugio	18,534,200	35,396,743	36,424,184	34,705,410
San Patricio	10,254,200	8,546,018	4,313,376	2,922,264
Total	74,442,500	96,498,077	58,701,284	48,342,735
LOWER RIO GRANDE VALLEY				
Cameron	7,800	9,078	6,504	4,574
Hidalgo	544,200	914,377	132,692	103,240
Willacy	2,227,100	2,913,899	1,757,130	1,220,553
Total	2,779,100	3,837,354	1,896,326	1,328,367
TBIE STUDY AREA	189,880,700	253,973,867	207,816,352	162,565,775
STATE	1,000,749,000	1,249,697,000[c]	1,185,682,816	1,040,965,995

Planning region/county	Gas (well gas Mft^3)[e] 1965[a,c]	1970[b,c]	1975[b]	1978[b]
GULF COAST				
Brazoria	331,846,000	330,052,187	203,609,225	222,740,347
Chambers	113,211,300	152,833,064	51,993,405	59,566,112
Fort Bend	19,275,500	26,064,921	15,083,618	11,601,621
Galveston	61,573,100	135,624,881	97,903,898	166,435,666
Harris	70,140,000	85,353,082	30,684,503	34,423,916

(continued)

Table OAG-1. (continued)

Planning region/county	Gas (well gas Mft^3)[e] 1965[a,c]	1970[b,c]	1975[b]	1978[b]
Liberty	30,954,500	21,797,873	4,473,296	7,057,223
Matagorda	175,980,700	222,635,605	125,564,815	108,312,348
Wharton	95,050,600	143,234,180	41,639,727	46,479,889
Total	898,031,700	1,117,595,593	570,952,487	656,617,122
GOLDEN CRESCENT				
Calhoun	83,188,000	89,424,380	27,152,630	27,307,440
Goliad	44,233,200	39,140,981	24,202,720	21,427,286
Jackson	105,730,000	89,219,343	32,656,958	30,565,978
Victoria	73,457,900	55,838,878	39,425,743	27,265,950
Total	306,609,100	273,623,582	123,438,051	106,566,654
COASTAL BEND				
Aransas	38,468,800	41,832,796	21,478,173	11,718,602
Bee	103,978,600	73,490,723	46,724,675	33,505,591
Brooks	169,252,900	239,706,110	139,328,083	124,128,969
Jim Wells	181,109,800	255,994,064	149,874,157	134,383,902
Kenedy	48,558,300	116,317,323	81,954,624	54,266,822
Kleberg	249,295,300	521,464,696	385,740,515	391,684,430
Nueces	247,046,100	330,311,560	180,422,473	137,109,915
Refugio	155,667,200	142,822,401	43,255,015	55,127,105
San Patricio	78,791,500	60,407,764	33,224,144	32,405,183
Total	1,272,168,500	1,782,347,437	1,082,001,859	974,330,519
LOWER RIO GRANDE VALLEY				
Cameron	10,151,000	22,631,966	11,809,510	6,657,955

(continued)

Table OAG-1. (continued)

Planning region/county	Gas (well gas Mft^3)[e] 1965[a,c]	1970[b,c]	1975[b]	1978[b]
Hidalgo	208,059,300	200,796,584	119,788,756	109,627,087
Willacy	27,886,900	40,635,175	12,868,326	13,568,766
Total	246,097,200	264,063,725	144,466,592	129,853,808
TBIE STUDY AREA	2,722,906,500	3,437,630,337	1,920,858,989	1,867,368,103
STATE	6,636,555,000	8,357,716,000[a]	6,498,393,638	5,690,601,922

Planning region/county	Casinghead gas (Mft^3)[e] 1965[d]	1970[b]	1975[b]	1978[b]
GULF COAST				
Brazoria		55,660,278	22,335,361	22,637,598
Chambers		66,629,009	72,590,641	59,877,234
Fort Bend		311,351	16,021,048	11,093,028
Galveston		58,972,276	9,678,839	17,763,445
Harris		31,660,405	41,434,024	53,598,173
Liberty		9,350,724	4,156,624	3,253,958
Matagorda		25,844,736	16,023,606	9,874,172
Wharton		23,590,753	24,999,821	20,896,449
Total		272,019,532	207,239,964	198,994,057

(continued)

Table OAG-1. (continued)

Planning region/ county	Casinghead gas (Mft^3)[e] 1965[d]	1970[b]	1975[b]	1978[b]
GOLDEN CRESCENT				
Calhoun		9,108,260	5,294,090	5,477,862
Goliad		2,783,951	1,340,464	1,281,692
Jackson		45,565,677	26,725,798	16,716,510
Victoria		8,203,380	4,955,378	3,954,501
Total		65,661,268	38,315,730	27,430,565
COASTAL BEND				
Aransas		6,130,253	1,205,219	1,063,900
Bee		3,343,835	1,673,565	1,540,204
Brooks		39,524,384	11,057,664	5,165,855
Jim Wells		95,781,583	39,405,993	15,530,706
Kenedy		17,353,810	1,814,159	924,029
Kleberg		250,471,504	41,463,380	9,632,545
Nueces		24,562,987	11,974,769	6,807,835
Refugio		39,866,948	48,828,785	62,529,730
San Patricio		13,213,687	9,455,687	7,265,134
Total		490,248,991	166,879,221	110,459,938
LOWER RIO GRANDE VALLEY				
Cameron		219	196	12
Hidalgo		1,224,978	352,617	474,606
Willacy		14,267,640	7,609,821	9,007,876
Total		15,492,837	7,962,634	9,482,494
TBIE STUDY AREA		843,422,628	420,397,549	346,367,054
STATE		2,196,753,437	1,534,010,709	1,386,499,376

(continued)

Table OAG-1. (continued)

Planning region/county	Liquid condensate (gal) 1965[a]	1970[b]	1975[b]	1978[b]
GULF COAST				
Brazoria	372,745,931	68,441,100	21,439,866	34,936,776
Chambers	13,287,109	41,756,232	27,626,928	33,273,996
Fort Bend	6,018,680	3,297,378	2,292,696	2,324,364
Galveston	92,339,354	38,472,336	33,632,676	75,878,922
Harris	275,090,817	12,325,236	6,881,910	9,419,046
Liberty	7,010,227	6,451,074	2,049,516	4,460,946
Matagorda	83,072,200	28,127,652	11,635,092	29,056,104
Wharton	5,917,399	6,671,322	4,297,566	5,286,834
Total	855,481,717	205,542,330	109,856,250	194,636,988
GOLDEN CRESCENT				
Calhoun	65,098,686	8,226,834	5,514,306	4,051,236
Goliad	2,534,093	6,858,684	3,613,428	4,104,618
Jackson	35,599,008	3,594,570	3,120,642	6,770,778
Victoria	16,472,231	5,465,670	7,615,608	5,213,922
Total	119,704,018	24,145,758	19,863,984	20,140,554
COASTAL BEND				
Aransas	22,682,635	29,136,492	13,373,010	11,664,030
Bee	94,233,672	3,892,518	8,857,254	8,292,732
Brooks	45,705,579	14,628,138	6,925,338	7,513,506
Jim Wells	205,075,865	8,824,914	9,427,278	24,983,700
Kenedy	18,179,618	2,091,642	3,396,666	2,867,760
Kleberg	517,205,497	5,159,028	22,680,882	22,683,990
Nueces	239,008,748	45,842,790	26,248,488	24,860,640

(continued)

Table OAG-1. (concluded)

Planning region/county	Liquid condensate (gal)			
	1965[a]	1970[b]	1975[b]	1978[b]
Refugio	24,909,552	3,864,084	2,137,842	3,477,138
San Patricio	68,931,502	23,577,666	45,350,592	37,494,576
Total	1,235,932,668	137,017,272	138,397,350	143,838,072
LOWER RIO GRANDE VALLEY				
Cameron	0	16,296	49,644	2,982
Hidalgo	86,507,605	25,090,716	61,012,434	73,812,060
Willacy	313,636	6,582,492	4,841,802	3,055,668
Total	86,821,241	31,689,504	65,903,880	76,870,710
TBIE STUDY AREA	2,314,411,875	398,394,864	334,021,464	435,486,324
STATE	11,564,588,000	14,381,094,000	1,070,846,910	1,092,011,256

[a]U.S. Department of the Interior, Bureau of Mines 1967.
[b]Texas Railroad Commission, Oil and Gas Division 1971, 1976, 1979a.
[c]Includes casinghead gas.
[d]Production statistics not available by county.
[e]Thousand ft^3.

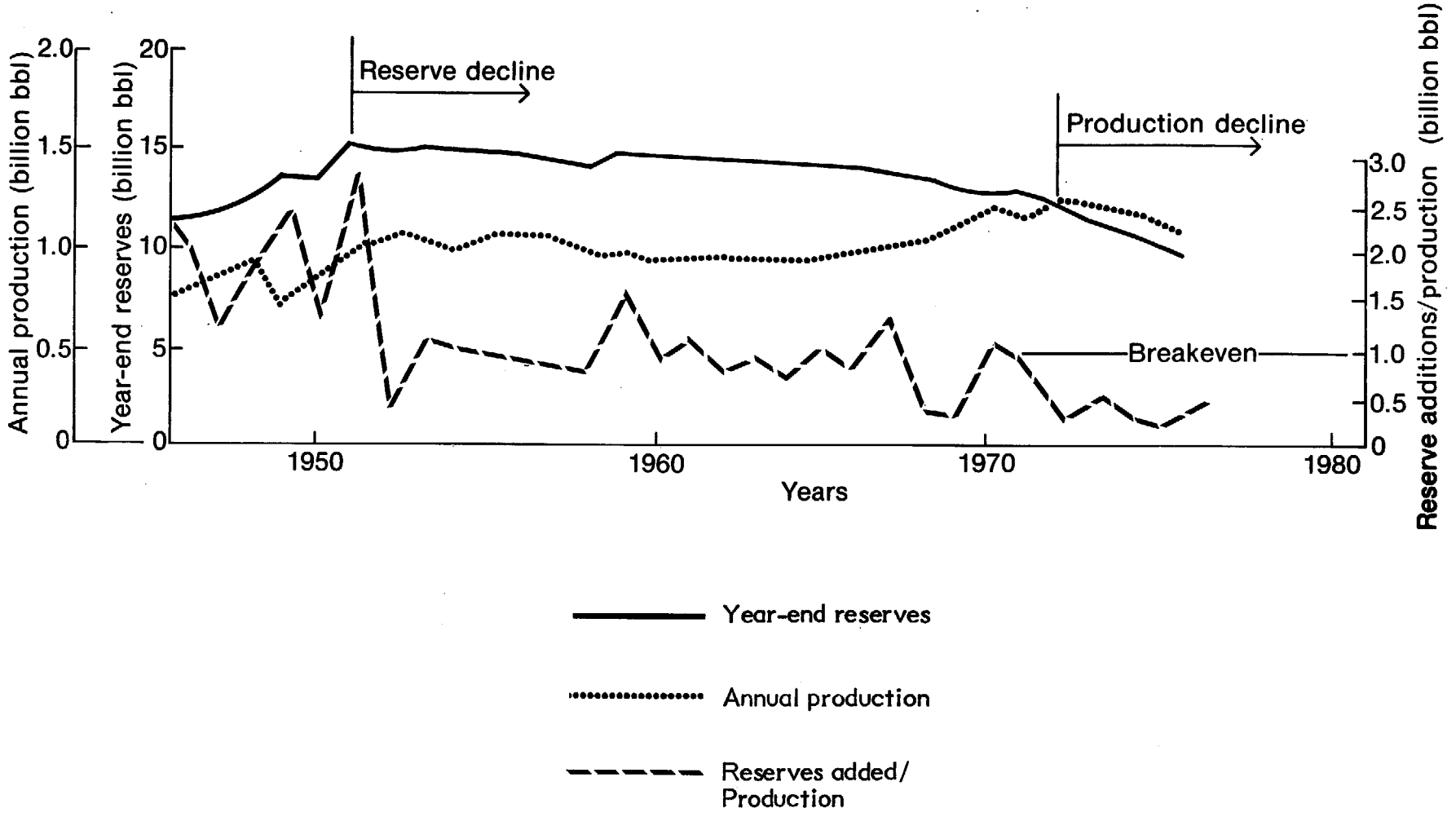


Figure OAG-1. Texas crude oil production and reserve trends (Fisher 1978).

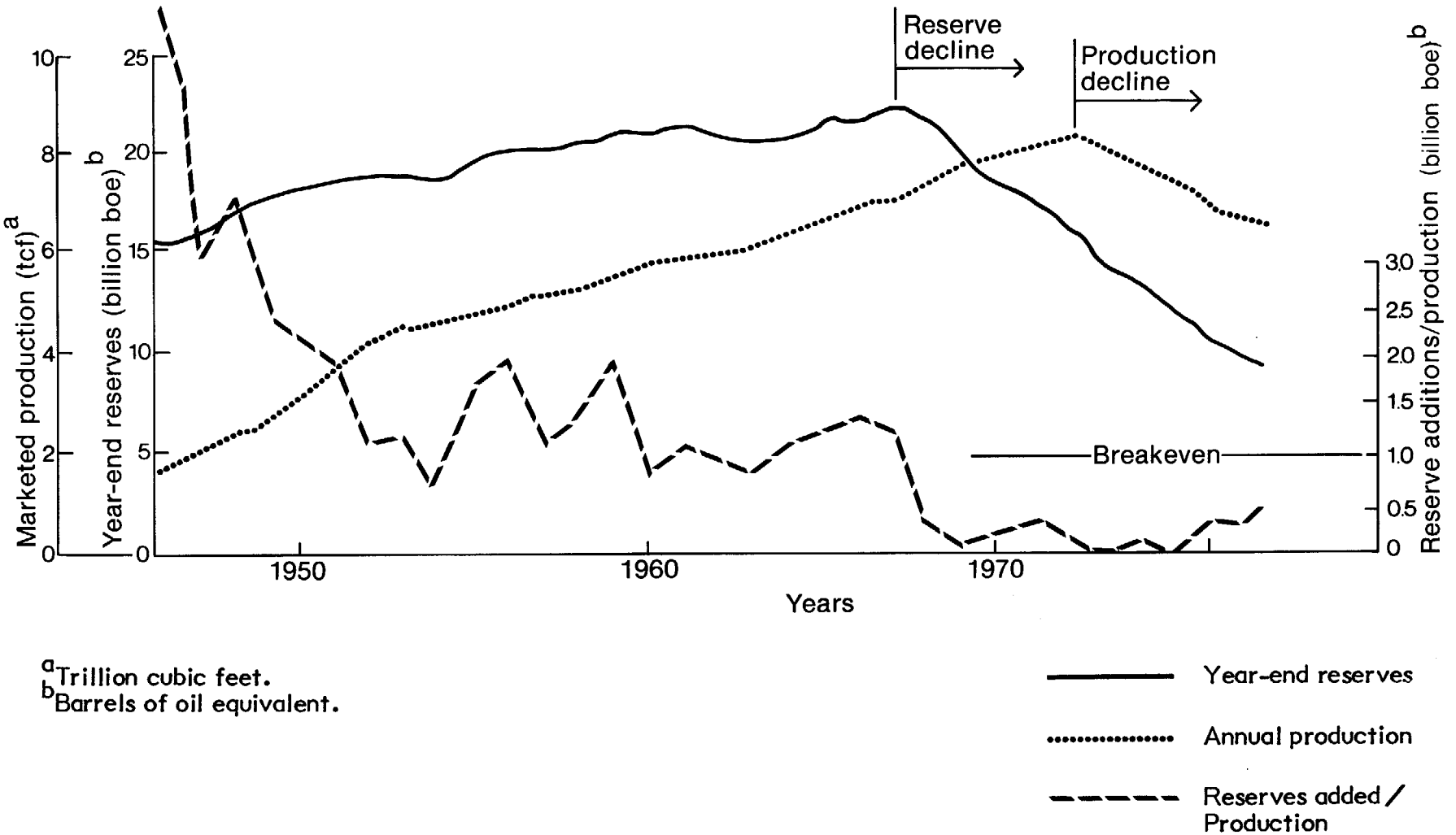


Figure OAG-2. Texas natural gas production and reserve trends (Fisher 1978).

Table OAG-2. Cumulative oil production statistics (through 1978) and date of discovery (Texas almanac 1979).

Planning region/county	Cumulative oil production to date (bbl)	Date of discovery
GULF COAST		
Brazoria	1,117,431,887	1902
Chambers	796,152,594	1916
Fort Bend	568,516,705	1919
Galveston	385,389,679	1922
Harris	1,218,827,122	1905
Liberty	455,150,430	1905
Matagorda	231,865,339	1904
Wharton	256,334,471	1925
Total	5,029,668,227	
GOLDEN CRESCENT		
Calhoun	76,351,598	1935
Goliad	62,805,559	1930
Jackson	579,043,423	1934
Victoria	213,761,332	1931
Total	931,961,912	
COASTAL BEND		
Aransas	69,332,057	1936
Bee	87,385,820	1930
Brooks	141,406,152	1936
Jim Wells	441,697,402	1933
Kenedy	24,099,512	1947
Kleberg	293,729,170	1926
Nueces	502,191,692	1930

(continued)

Table OAG-2. (concluded)

Planning region/county	Cumulative oil production to date (bbl)	Date of discovery
COASTAL BEND (cont.)		
Refugio	1,007,705,065	1928
San Patricio	432,434,470	1930
Total	2,999,981,340	
LOWER RIO GRANDE VALLEY		
Cameron	385,853	1944
Hidalgo	37,311,552	1934
Willacy	85,615,991	1936
Total	123,313,396	
TBIE STUDY AREA	9,084,924,875	
STATE	43,724,695,223	1866

Table OAG-3. Natural gas production in Texas offshore waters through 1978 (U.S. Department of the Interior, Geological Survey 1979).

Year	Texas			Gulf of Mexico
	($MMft^3$)[a]	% State	% Federal	($MMft^3$)
Pre-1954	0	0	0	91,675
1954	3,440	100	0	84,765
1955	6,880	100	0	128,159
1956	6,880	100	0	143,407
1957	13,765	100	0	174,237
1958	24,080	100	0	258,047
1959	24,080	100	0	353,360
1960	30,960	100	0	439,348
1961	13,760	100	0	472,241
1962	41,280	100	0	629,641
1963	30,960	100	0	737,505
1964	30,960	100	0	814,834
1965	27,520	100	0	898,644
1966	59,259	29	71	1,325,158
1967	127,473	22	78	1,782,696
1968	154,631	29	71	2,211,922
1969	240,212	47	53	2,718,957
1970	264,420	50	50	3,064,524
1971	387,245	67	33	3,606,445
1972	156,772	6	94	3,637,603
1973	250,338	41	59	3,865,230
1974	254,338	37	63	4,126,302
1975	332,862	63	37	4,154,608
1976	206,043	55	45	4,209,851
1977	354,531	75	25	4,449,315
1978	402,000	58	42	5,311,206
Total	3,444,689	53	47	49,689,280

[a]Million ft^3.

Table OAG-4. Crude oil production in Texas offshore waters (U.S. Department of the Interior, Geological Survey 1979).

Year	Texas (1,000 bbl)	Texas % State	Texas % Federal	Gulf of Mexico (1,000 bbl)
Pre-1954	0	0	0	54,803
1954	10	100	0	15,936
1955	156	99	1	25,887
1956	140	90	10	41,046
1957	256	98	2	53,091
1958	470	100	0	57,851
1959	499	100	0	73,292
1960	567	100	0	88,689
1961	292	100	0	103,489
1962	803	100	0	127,604
1963	669	92	8	149,756
1964	578	99	1	174,287
1965	557	99	1	199,850
1966	1,246	29	71	244,326
1967	3,400	16	84	287,433
1968	3,400	9	91	333,322
1969	3,109	11	89	368,800
1970	3,046	26	74	401,424
1971	2,885	42	58	447,248
1972	3,035	43	57	455,619
1973	2,285	29	71	431,750
1974	1,869	26	74	391,545
1975	2,136	37	63	355,396
1976	1,761	40	60	341,119
1977	4,035	77	23	328,621
1978	4,565	54	46	315,064
Total	41,769	43	57	5,867,142

Table OAG-5. Drilling completions (number) for selected years, 1955 through 1978 (Texas Mid-continent Oil and Gas Association 1955, 1960, 1965, 1970, 1975, 1978).

Planning region/ county	Proved fields - oil					
	1955	1960	1965	1970	1975	1978
GULF COAST						
Brazoria	76	32	18	37	28	24
Chambers	28	20	20	14	21	20
Fort Bend	13	32	46	12	18	18
Galveston	34	51	23	3	9	11
Harris	137	71	29	10	50	33
Liberty	123	57	76	37	52	21
Matagorda	27	36	8	6	3	2
Wharton	26	8	27	10	20	13
Total	464	307	247	129	201	142
GOLDEN CRESCENT						
Calhoun	20	1	3	2	0	4
Goliad	29	2	12	3	9	15
Jackson	43	14	42	18	6	18
Victoria	19	6	6	4	11	15
Total	111	23	63	27	26	52
COASTAL BEND						
Aransas	12	5	5	2	2	2
Bee	51	3	18	15	8	11
Brooks	22	2	11	7	5	8
Jim Wells	19	8	10	13	13	10
Kenedy	2	0	2	5	1	3
Kleberg	10	11	82	54	3	24
Nueces	49	30	33	15	21	21
Refugio	58	58	23	26	29	51
San Patricio	62	16	9	28	18	11
Total	285	133	193	165	100	141
LOWER RIO GRANDE VALLEY						
Cameron	0	0	0	0	0	1
Hidalgo	10	4	5	0	0	0
Willacy	15	0	8	6	1	1
Total	25	4	13	6	1	2
TBIE STUDY AREA	885	467	516	328	334	337
STATE	12,945	7,255	5,803	3,881	5,763	6,543

(continued)

Table OAG-5. (continued)

Planning region/ county	Exploratory wells - oil					
	1955	1960	1965	1970	1975	1978
GULF COAST						
Brazoria	3	4	4	11	7	1
Chambers	4	1	1	4	6	1
Fort Bend	2	1	0	0	0	0
Galveston	4	1	0	1	3	2
Harris	13	1	0	4	2	0
Liberty	8	4	0	0	0	1
Matagorda	5	11	0	7	3	0
Wharton	1	4	1	1	0	0
Total	40	27	6	28	21	5
GOLDEN CRESCENT						
Calhoun	6	0	2	2	2	2
Goliad	8	2	1	0	0	0
Jackson	4	11	2	1	6	0
Victoria	4	3	0	0	4	1
Total	22	16	5	3	12	3
COASTAL BEND						
Aransas	1	3	1	0	1	0
Bee	10	3	0	2	1	1
Brooks	6	2	0	0	1	0
Jim Wells	8	9	0	0	1	0
Kenedy	1	1	0	0	0	0
Kleberg	3	9	3	1	4	0
Nueces	12	16	1	1	3	0
Refugio	3	7	0	2	8	0
San Patricio	14	12	1	0	0	0
Total	58	62	6	6	19	1
LOWER RIO GRANDE VALLEY						
Cameron	0	0	0	0	0	0
Hidalgo	1	4	0	1	0	0
Willacy	3	3	2	0	0	
Total	4	7	2	1	0	0
TBIE STUDY AREA	126	113	19	41	52	9
STATE	936	606	297	256	311	396

(continued)

Table OAG-5. (continued)

Planning region/ county	Proved fields - gas					
	1955	1960	1965	1970	1975	1978
GULF COAST						
Brazoria	10	6	9	3	11	18
Chambers	7	8	6	1	5	18
Fort Bend	4	2	2	0	5	9
Galveston	2	4	2	1	4	9
Harris	15	3	9	8	6	28
Liberty	5	4	2	0	2	5
Matagorda	10	24	12	5	3	19
Wharton	16	18	37	21	20	58
Total	69	69	79	39	56	164
GOLDEN CRESCENT						
Calhoun	6	30	13	8	3	23
Goliad	19	16	18	4	16	58
Jackson	22	57	16	4	26	54
Victoria	25	25	24	4	25	104
Total	72	128	71	20	70	239
COASTAL BEND						
Aransas	12	2	14	7	2	6
Bee	22	25	6	4	27	30
Brooks	1	6	11	9	12	37
Jim Wells	20	11	21	11	22	58
Kenedy	3	0	2	8	4	21
Kleberg	6	9	12	3	19	49
Nueces	16	7	81	28	17	55
Refugio	10	18	27	1	16	31
San Patricio	11	6	21	14	29	37
Total	101	84	195	85	148	324
LOWER RIO GRANDE VALLEY						
Cameron	0	2	1	3	1	1
Hidalgo	48	41	29	32	15	48
Willacy	1	0	9	9	0	10
Total	49	43	39	44	16	59
TBIE STUDY AREA	291	324	390	196	292	786
STATE	868	1,203	1,221	595	1,564	3,712

(continued)

Table OAG-5. (continued)

Planning region/ county	Exploratory wells - gas					
	1955	1960	1965	1970	1975	1978
GULF COAST						
Brazoria	3	5	1	4	9	1
Chambers	2	3	1	3	5	4
Fort Bend	3	1	2	1	5	0
Galveston	1	6	1	0	8	0
Harris	14	1	3	3	3	1
Liberty	1	0	0	0	5	1
Matagorda	5	18	3	15	8	2
Wharton	7	8	3	13	14	5
Total	36	42	14	39	57	14
GOLDEN CRESCENT						
Calhoun	4	0	3	2	6	4
Goliad	3	12	2	5	22	3
Jackson	5	15	3	3	16	2
Victoria	2	11	5	5	28	6
Total	14	38	13	15	72	15
COASTAL BEND						
Aransas	2	0	2	0	2	0
Bee	10	12	0	4	18	1
Brooks	1	6	1	3	4	2
Jim Wells	2	12	0	0	4	3
Kenedy	0	1	3	0	3	1
Kleberg	1	15	0	0	4	1
Nueces	2	9	5	5	2	2
Refugio	2	11	0	0	6	0
San Patricio	10	17	3	1	9	2
Total	30	83	14	13	52	12
LOWER RIO GRANDE VALLEY						
Cameron	1	3	0	0	1	0
Hidalgo	19	24	2	1	11	1
Willacy	0	2	1	2	0	0
Total	20	29	3	3	12	1
TBIE STUDY AREA	106	192	44	80	200	42
STATE	214	480	189	179	571	780

(continued)

Table OAG-5. (continued)

Planning region/ county	Proved fields - dry					
	1955	1960	1965	1970	1975	1978
GULF COAST						
Brazoria	48	28	16	17	12	21
Chambers	17	15	13	1	10	26
Fort Bend	13	18	9	5	8	12
Galveston	11	21	10	1	6	23
Harris	55	41	20	7	13	26
Liberty	46	25	25	19	12	19
Matagorda	24	29	9	7	7	20
Wharton	32	19	19	20	26	69
Total	246	196	121	77	94	216
GOLDEN CRESCENT						
Calhoun	8	9	5	1	7	17
Goliad	23	7	10	4	14	48
Jackson	30	29	13	14	25	33
Victoria	20	11	20	7	16	61
Total	81	56	48	26	62	159
COASTAL BEND						
Aransas	12	3	3	6	3	5
Bee	27	8	14	5	14	40
Brooks	13	11	5	5	12	16
Jim Wells	31	9	12	8	15	31
Kenedy	0	1	2	4	5	8
Kleberg	4	4	17	8	7	17
Nueces	44	11	40	21	11	37
Refugio	9	17	9	4	15	20
San Patricio	43	12	5	18	22	22
Total	183	76	107	79	104	196
LOWER RIO GRANDE VALLEY						
Cameron	0	2	1	0	1	2
Hidalgo	20	16	13	8	7	18
Willacy	2	1	1	3	1	0
Total	22	19	15	11	9	20
TBIE STUDY AREA	532	347	297	193	274	591
STATE	4,578	2,435	2,323	1,150	1,556	3,382

(continued)

Table OAG-5. (continued)

Planning region/ county	Exploratory wells - dry					
	1955	1960	1965	1970	1975	1978
GULF COAST						
Brazoria	47	21	41	18	21	18
Chambers	33	19	26	14	16	14
Fort Bend	28	9	9	7	8	7
Galveston	8	8	5	7	8	14
Harris	67	8	5	6	10	6
Liberty	18	24	14	10	5	8
Matagorda	36	49	21	31	12	18
Wharton	28	18	35	33	39	28
Total	265	156	156	126	119	113
GOLDEN CRESCENT						
Calhoun	22	6	20	24	17	17
Goliad	17	14	23	7	16	17
Jackson	38	49	51	20	39	23
Victoria	15	13	40	18	28	27
Total	92	82	134	69	100	84
COASTAL BEND						
Aransas	11	5	12	6	4	6
Bee	28	30	19	15	14	15
Brooks	9	3	10	6	10	6
Jim Wells	23	29	24	14	16	18
Kenedy	10	6	12	3	25	7
Kleberg	2	7	11	6	10	10
Nueces	17	29	40	20	16	11
Refugio	22	11	20	9	13	8
San Patricio	30	24	28	21	27	24
Total	152	144	176	100	135	105
LOWER RIO GRANDE VALLEY						
Cameron	6	9	9	10	8	9
Hidalgo	13	22	12	9	13	11
Willacy	3	7	4	4	2	3
Total	22	38	25	23	23	23
TBIE STUDY AREA	536	430	491	356	532	325
STATE	3,832	2,922	2,526	1,663	2,321	2,708

(continued)

Table OAG-5. (concluded)

Planning region/ county	Total drilling completions					
	1955	1960	1965	1970	1975	1978
GULF COAST						
Brazoria	187	96	89	90	88	83
Chambers	91	66	67	37	63	83
Fort Bend	63	63	68	25	44	46
Galveston	60	91	41	13	38	59
Harris	301	125	66	38	84	94
Liberty	201	114	117	66	76	55
Matagorda	107	167	53	71	54	61
Wharton	110	75	122	98	119	173
Total	1,120	797	623	438	566	654
GOLDEN CRESCENT						
Calhoun	66	90	46	39	35	23
Goliad	99	53	66	23	77	141
Jackson	142	175	127	60	118	130
Victoria	85	69	90	38	112	214
Total	392	387	329	160	342	508
COASTAL BEND						
Aransas	50	18	37	21	14	19
Bee	148	81	57	45	82	98
Brooks	52	30	38	30	44	69
Jim Wells	103	78	67	46	71	120
Kenedy	16	9	21	20	24	40
Kleberg	26	55	125	72	37	101
Nueces	140	102	200	90	70	126
Refugio	104	122	79	42	87	110
San Patricio	170	87	67	82	105	96
Total	809	582	691	448	534	779
LOWER RIO GRANDE VALLEY						
Cameron	7	16	11	13	11	11
Hidalgo	111	111	61	51	46	78
Willacy	24	13	25	24	4	14
Total	142	140	97	88	61	103
TBIE STUDY AREA	2,476	1,917	1,740	1,194	1,675	2,044
STATE	23,373	14,901	12,741	7,724	12,086	17,521

Table OAG-6. History of Texas drilling completions, 1889 through 1978 (Texas almanac 1979).

Year	Total wells completed	Oil wells	Gas wells	Dry holes
1889-1900[a]	97	71	2	24
1901-1910[a]	692	462	9	221
1911-1920[a]	2,451	1,682	66	703
1921-1930[a]	6,352	3,745	306	2,301
1931	6,381	4,411	244	1,726
1932	9,133	7,242	167	1,724
1933	6,559	4,745	140	1,674
1934	9,310	6,860	291	2,159
1935	11,235	8,421	276	2,538
1936	12,024	9,120	388	2,516
1937	14,275	11,030	425	2,820
1938	11,810	8,892	341	2,577
1939	9,325	6,683	314	2,328
1940	9,094	6,632	289	2,173
1941	9,827	7,258	295	2,274
1942	4,688	3,041	186	1,461
1943	4,421	2,373	140	1,908
1944	5,729	3,526	268	1,935
1945	7,195	4,036	714	2,445
1946	7,804	4,720	499	2,582
1947	9,301	5,814	537	2,932
1948	12,251	7,619	542	4,011
1949	13,665	8,613	746	4,260
1950	16,585	10,665	647	5,197
1951	16,655	10,086	726	5,803
1952	16,845	9,682	778	6,352
1953	17,003	9,380	978	6,593
1954	18,865	11,068	912	6,863
1955	19,981	12,476	603	6,891
1956	21,519	13,082	894	7,484
1957	21,352	12,629	881	7,663
1958	18,065	10,401	855	6,465
1959	18,526	10,891	779	6,453
1960	15,581	8,687	732	5,755
1961	14,597	8,035	1,072	5,152
1962	14,736	7,934	1,544	4,819
1963	13,468	6,682	1,308	4,910
1964	13,152	6,747	1,328	4,650
1965	12,741	6,183	1,343	4,814
1966	11,109	5,521	1,170	4,057
1967	9,470	4,701	946	3,425
1968	8,743	3,779	763	3,072
1969	9,233	4,256	903	3,497

(continued)

Table OAG-6. (concluded)

Year	Total wells completed	Oil wells	Gas wells	Dry holes
1970	8,114	4,137	774	2,811
1971	7,728	3,880	810	2,581
1972	8,088	3,963	943	2,760
1973	8,494	3,686	1,475	2,937
1974	9,808	4,402	1,843	3,284
1975	12,483	6,074	2,135	3,877
1976	12,740	5,779	2,443	4,188
1977	14,759	6,533	3,064	4,682
1978	15,037	6,086	3,292	5,218
Total	675,618	398,203	46,577	220,834

[a]Annual averages.

Table OAG-7. Texas Federal OCS oil and gas production, 1973 through 1975 (Texas Railroad Commission, Oil and Gas Division 1979a).

Year	Gas & casinghead gas (Mft^3)[a]	Oil & condensate (bbl)
1973	124,219,217	727,983
1974	141,338,180	493,602
1975	101,434,765	426,508

[a]Thousand ft^3.

Table OAG-8. Texas offshore drilling, 1954 to 1980: State and Federal jurisdictions (American Petroleum Institute 1979, Beck 1980).

Year	Exploratory	Development	Total
1954-1966	199	175	374
1967	61	41	102
1968	40	13	53
1969	103	11	114
1970	51	9	60
1971	38	6	44
1972	47	6	53
1973	66	6	72
1974	150	13	163
1975	162	10	172
1976	147	79	226
1977	195	143	338
1978	147	143	290
1979	129	173	302
All time to January 1980	1,479	874	2,353

Table OAG-9. Average annual rotary drilling rig activity in Texas and the United States, 1970 through 1979 (Beck 1980).

Year	Railroad Commission Districts 2[a], 3[b], 4[c]	Offshore[d]	State	United States
1970	73	6	302	1,028
1971	79	5	291	976
1972	95	6	338	1,107
1973	109	9	376	1,194
1974	128	21	508	1,471
1975	142	21	637	1,660
1976	160	36	653	1,658
1977	175	42	779	2,001
1978	197	47	855	2,259
1979	141	50	770	2,177

[a]Aransas, Bee, Calhoun, DeWitt, Goliad, Jackson, Karnes, Lavaca, Live Oak, Refugio, and Victoria Counties.

[b]Austin, Brazoria, Brazos, Burleson, Chambers, Colorado, Fayette, Fort Bend, Galveston, Grimes, Hardin, Harris, Jasper, Jefferson, Lee, Liberty, Madison, Matagorda, Montgomery, Newton, Orange, Polk, San Jacinto, Trinity, Tyler, Walker, Waller, Washington, and Wharton Counties.

[c]Brooks, Cameron, Duval, Hidalgo, Jim Hogg, Jim Wells, Kenedy, Kleberg, Nueces, San Patricio, Starr, Webb, Willacy, and Zapata Counties.

[d]State and Federal waters.

Table OAG-10. Texas Federal Outer Continental Shelf lease sales, 1954 through 1979 (Research and Planning Consultants, Inc. 1977; U.S. Department of the Interior, Bureau of Land Management 1980).

Date[a]	Tracts offered	Acres offered	Tracts leased	Acres leased	Bonus paid (dollars)	Average price per acre (dollars)
November 9, 1954	93	125,090	93	125,090	0	0
July 12, 1955	38	111,788	19	67,149	23,357,029	348
January 26, 1960	39	216,000	27	149,760	8,437,462	56
March 16, 1962	0	90,720	10	28,800	557,720	19
May 21, 1968	169	728,551	110	541,304	593,899,046	1,097
June 19, 1973	124	672,643	96	527,173	1,537,495,671	2,321
May 29, 1974	245	1,355,678	102	565,112	1,471,851,831	2,605
July 30, 1974	143	787,821	10	53,253	22,264,900	418
February 4, 1975	515	2,870,344	113	626,587	274,690,955	378
May 28, 1975	36	192,660	9	51,840	25,337,000	489
July 29, 1975	176	963,832	23	132,480	44,852,318	339
February 18, 1976	30	157,269	12	63,427	37,382,176	589
November 16, 1976	7	28,828	4	17,308	31,111,244	1,798
June 23, 1977	35	207,360	26	150,723	356,102,428	2,363
April 25, 1978[b]	145	709,727	90	438,756	733,656,893	1,672
December 19, 1978[b]	128	643,987	81	412,416	874,464,998	2,113
July 31, 1979[c]	123	577,517	81	391,183	1,247,489,022	3,189
November 27, 1979[c]	124	588,601	90	421,519	1,913,337,938	4,539
Total[d]	1,777	8,946,344	702	3,340,486	4,463,071,811	1,336

[a]Between 1947 and 1954, leases were awarded by the State, prior to Federal jurisdiction.

[b]Figures are for lease sales in both Texas and Louisiana outer continental shelf (Sales 45 and 51).

[c]Figures are for lease sales in the Gulf of Mexico outer continental shelf (Sales 58 and 58A).

[d]Totals are for Texas Federal outer continental shelf lease sales through June 23, 1977.

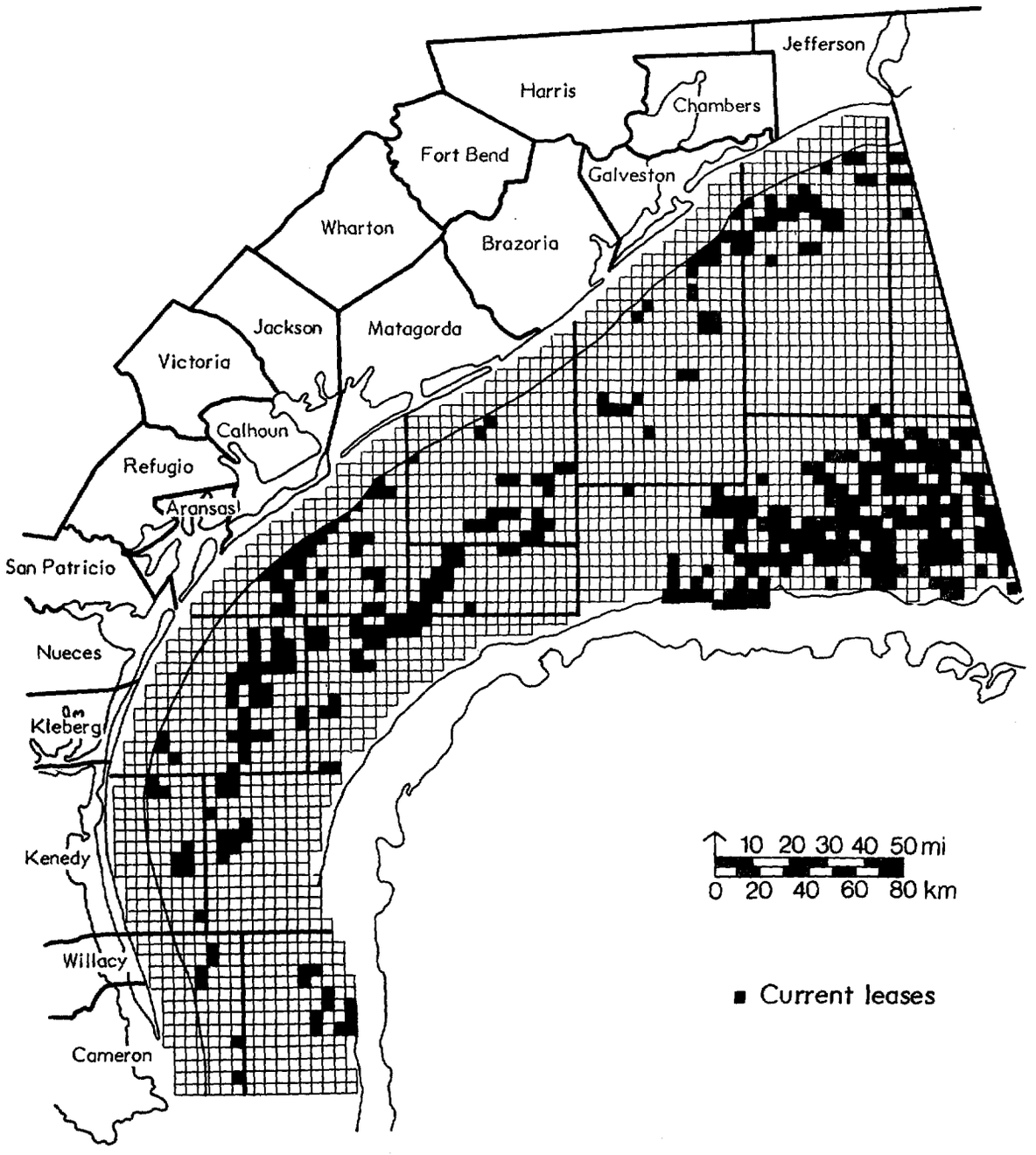


Figure OAG-3. Leased tracts in Texas Federal Outer Continental Shelf (Research and Planning Consultants, Inc. 1977).

Table OAG-11. Receipts by Texas from tidelands, 1922 through 1978 (Texas almanac 1979).

Date		Total (dollars)	Bonus (dollars)	Rental (dollars)	Royalty (dollars)
From	To				
6- 9-1922	9-28-1945	924,363.81	814,055.70	61,973.75	48,334.36
9-29-1945	6-23-1947	296,400.30	272,700.00	7,680.00	16,020.30
6-24-1947	6- 5-1950	7,694,112.22	7,231,755.48	375,915.00	86,441.74
6- 6-1950	5-22-1953	55,095.04	0	9,176.00	45,919.04
5-23-1953	6-30-1958	54,264,553.11	49,788,639.03	3,852,726.98	623,187.10
7- 1-1958	8-31-1959	771,064.75	0	143,857.00	627,207.75
9- 1-1959	8-31-1960	983,335.32	257,900.00	98,226.00	627,209.32
9- 1-1960	8-31-1961	3,890,800.15	3,228,639.51	68,578.00	593,582.64
9- 1-1961	8-31-1962	1,121,925.09	297,129.88	127,105.00	697,690.21
9- 1-1962	8-31-1963	3,575,888.64	2,617,057.14	177,174.91	781,656.59
9- 1-1963	8-31-1964	3,656,236.75	2,435,244.36	525,315.00	695,677.39
9- 1-1964	8-31-1965	54,654,576.96	53,114,943.63	755,050.12	784,583.21
9- 1-1965	8-31-1966	22,148,825.44	18,223,357.84	3,163,475.00	761,992.60
9- 1-1966	8-31-1967	8,469,680.86	3,641,414.96	3,711,092.65	1,117,173.25
9- 1-1967	8-31-1968	6,305,851.00	1,251,852.50	2,683,732.50	2,370,266.00
9- 1-1968	8-31-1969	6,372,268.28	1,838,118.33	1,491,592.50	3,042,557.45
9- 1-1969	8-31-1970	10,311,030.48	5,994,666.32	618,362.50	3,698,001.66
9- 1-1970	8-31-1971	9,969,629.17	4,326,120.11	726,294.15	4,917,214.91
9- 1-1971	8-31-1972	7,558,327.21	1,360,212.64	963,367.60	5,234,746.97
9- 1-1972	8-31-1973	9,267,975.68	3,701,737.30	920,121.60	4,646,116.78
9- 1-1973	8-31-1974	41,717,670.04	32,981,619.28	1,065,516.60	7,670,534.16
9- 1-1974	8-31-1975	27,318,656.62	5,319,762.85	2,932,415.60	19,066,478.17
9- 1-1975	8-31-1976	38,747,074.09	6,197,853.00	3,222,535.84	29,326,685.25
9- 1-1976	8-31-1977	84,196,228.27	41,343,114.81	2,404,988.80	40,448,124.66
9- 1-1977	8-31-1978	117,719,120.79	49,807,750.45	4,484,064.52	63,427,305.82
Total		521,992,130.07	296,045,645.12	34,591,777.62	191,354,707.33

(continued)

Table OAG-11. (concluded)

Recapitulation	Total (dollars)	Bonus (dollars)	Rental (dollars)	Royalty (dollars)
Recapitulation:				
Inside three-mile line	132,231,876.59	74,385,190.25	9,399,125.34	48,447,561.00
Between three-mile line & three marine-league line	386,934,887.90	219,008,370.48	25,019,371.09	142,907,146.33
Outside three marine-league line	2,825,365.58	2,652,084.39	173,281.19	0.00
Totals	521,992,130.07	296,045,645.12	34,591,777.62	191,354,707.33

Table OAG-12. Oil and gas producing fields in Texas tidelands, 1979 (Texas Gulf coast...1979).

Nearest county[a]	Bay systems		Gulf to three-league line	
	oil	gas	oil	gas
Aransas	9	16	0	3
Brazoria	1	3	0	13
Calhoun	15	25	0	5
Cameron	0	4	0	0
Chambers	14	28	0	1
Galveston	6	20	4	14
Harris	1	1	0	0
Jackson	2	5	0	0
Kenedy	2	8	0	0
Kleberg	2	13	2	7
Matagorda	3	8	0	23
Nueces	14	26	2	6
Refugio	1	1	0	0
San Patricio	3	3	0	0
Willacy	0	0	0	3
Total	73	161	8	75

[a]Fields that overlap county boundaries are tabulated for both jurisdictions. Fields confined to barrier islands are not tabulated. Onland fields that extend into State waters are tabulated. Fields that overlap three-league boundary are tabulated.

Table OAG-13. Estimated proved reserves of hydrocarbons in Texas Railroad Commission districts for selected years, 1955 through 1978 (U.S. Department of the Interior, Bureau of Mines 1978; American Petroleum Institute 1979).

Year	Crude oil (Mbbl)[a]	Natural gas liquids (Mbbl)[a]	Natural gas (Mft^3)[b]
1955	14,933,502	3,045,361	108,287,548
1960	14,758,492	3,596,174	119,489,393
1965	14,303,058	4,059,557	120,616,760
1970	13,195,476	3,330,159	106,352,993
1975	10,080,035	2,660,668	71,036,854
1978	7,689,991	2,268,284	54,600,235

[a]Thousand barrels.
[b]Thousand ft^3.

Table OAG-14. Estimated proved and unproved natural gas resources and reserves in Texas, 1977 (in trillion ft^3) (Grow 1977).

Region	Proved reserves	Probable reserves	Possible resources	Speculative resources
South Texas and Coastal Plains Region[2]				
0-15,000 ft	N.D.	17	9	2
15,000-30,000 ft.	N.D.	2	5	2
Offshore (State and Federal jurisdiction)	N.D.	20	26	0
State	62	N.D.	N.D.	N.D.
United States	209	215	363	370

[a]Potential natural gas committee district, representing about one-fourth of the State.

Table OAG-15. Oil and gas support services and suppliers (Research and Planning Consultants, Inc. 1977).

1.	Moving the rig	3.	Completion
	Tug boats		Supply boats
	Supply boats		Crew boats
	Fabricators		Helicopters
	Helicopters		Catering services
	Service boats		Cement supply
			Cementing services
			Tool rental
			Welders
			Perforating services
2.	Drilling	4.	Pipelines
	Supply boats		Pipe suppliers
	Crew boats		Pipe laying barges
	Helicopters		Helicopters
	Catering services		Welders
	Mud supply		Pipe burying services
	Divers		Supply boats
	Tool rental		Pipe coating
	Well logging		
	Drill pipe suppliers	5.	Production
	Drill bit suppliers		
	Welders		Helicopters
	Oil well supplies		Crew boats
			Supply boats
			Fabricators
			Welders
			Catering services

Table OAG-16. Locations of oil and gas support industries, 1977 (Research and Planning Consultants, Inc. 1977).

Planning region/ county	Tug boats	Supply boats	Fabricators	Helicopters
GULF COAST				
Brazoria	X	X		X
Chambers				
Fort Bend				
Galveston	X	X	X	X
Harris	X	X	X	X
Liberty				
Matagorda				
Wharton				
GOLDEN CRESCENT				
Calhoun				X
Goliad				
Jackson				
Victoria				
COASTAL BEND				
Aransas				X
Bee				
Brooks				
Jim Wells				
Kenedy				
Kleberg				
Nueces			X	X
Refugio				
San Patricio	X	X		
LOWER RIO GRANDE VALLEY				
Cameron		X	X	X
Hidalgo				
Willacy				

Planning region/ county	Crew boats	Mud supply	Divers	Tool rental
GULF COAST				
Brazoria	X	X	X	
Chambers				
Fort Bend				
Galveston	X	X	X	
Harris	X	X	X	X

(continued)

Table OAG-16. (continued)

Planning region/ county	Crew boats	Mud supply	Divers	Tool rental
Liberty				
Matagorda				
Wharton				
GOLDEN CRESCENT				
Calhoun		X		
Goliad				
Jackson				
Victoria		X		
COASTAL BEND				
Aransas		X		
Bee				
Brooks				
Jim Wells				
Kenedy				
Kleberg				
Nueces		X	X	X
Refugio				
San Patricio	X	X		
LOWER RIO GRANDE VALLEY				
Cameron	X	X	X	
Hidalgo		X		X
Willacy				

Planning region/ county	Well logging	Drill pipe suppliers	Drill bit suppliers	Welders
GULF COAST				
Brazoria				
Chambers				
Fort Bend				
Galveston	X			
Harris	X	X	X	X
Liberty				
Matagorda	X			
Wharton				
GOLDEN CRESCENT				
Calhoun	X			
Goliad				

(continued)

Table OAG-16. (continued)

Planning region/ county	Well logging	Drill pipe suppliers	Drill bit suppliers	Welders
Jackson				
Victoria	X		X	
COASTAL BEND				
Aransaas	X	X		X
Bee				
Brooks				
Jim Wells				
Kenedy				
Kleberg				
Nueces	X	X	X	X
Refugio		X	X	
San Patricio	X			
LOWER RIO GRANDE VALLEY				
Cameron		X	X	X
Hidalgo	X			X
Willacy				

Planning region/ county	Oil well equipment supply	Cement supply and services	Perforating services
GULF COAST			
Brazoria		X	
Chambers			
Fort Bend			
Galveston		X	
Harris	X	X	X
Liberty			
Matagorda			X
Wharton			
GOLDEN CRESCENT			
Calhoun	X		
Goliad			
Jackson			
Victoria		X	X
COASTAL BEND			
Aransas	X		
Bee			
Brooks			

(continued)

Table OAG-16. (continued)

Planning region/ county	Oil well equipment supply	Cement supply and services	Perforating services
Jim Wells			
Kenedy			
Kleberg			
Nueces	X	X	X
Refugio	X		X
San Patricio			
LOWER RIO GRANDE VALLEY			
Cameron	X		
Hidalgo	X	X	X
Willacy			

Planning region/ county	Pipeline suppliers	Pipeline laying barges, burying services, coating
GULF COAST		
Brazoria		
Chambers		
Fort Bend		
Galveston		
Harris	X	X
Liberty		
Matagorda		
Wharton		
GOLDEN CRESCENT		
Calhoun		
Goliad		
Jackson		
Victoria		
COASTAL BEND		
Aransas		
Bee		
Brooks		
Jim Wells		
Kenedy		
Kleberg		
Nueces	X	X

(continued)

Table OAG-16. (concluded)

Planning region/ county	Pipeline suppliers	Pipeline laying barges, burying services, coating
Refugio		
San Patricio		
LOWER RIO GRANDE VALLEY		
Cameron		
Hidalgo		
Willacy		

Table OAG-17. Current shortages of mariners in the offshore minerals support industry (January 1, 1979) (U.S. Department of Commerce, Maritime Administration 1979).

Job classification	Shortages in terms of mariners	Shortages as a percentage of demand
Masters and mates	3,039	51%
Operators	2,075	28%
Able seamen	2,137	53%
Engine officers	227	54%
Oilers	1,089	54%
Total	8,567	43%

Table OAG-18. Projected total billet requirements for the U.S. offshore minerals exploration support industry[a] (U.S. Department of Commerce, Maritime Administration 1979).

	Deck department					
Forecast year	Operators	Limited[b] licenses	Unlimited licenses	Deck hands	Ordinary[c] seamen	Able[d] seamen
1979	3,706	2,979	20	3,706	1,008	2,016
1980	3,832	3,080	20	3,832	1,042	2,084
1981	3,962	3,184	20	3,962	1,078	2,155
1982	4,096	3,292	20	4,096	1,114	2,228
1983	4,235	3,404	20	4,235	1,152	2,304
1984	4,378	3,519	20	4,378	1,191	2,382
1985	4,527	3,639	20	4,527	1,231	2,462
1986	4,680	3,762	20	4,680	1,273	2,546
1987	4,839	3,890	20	4,839	1,316	2,632
1988	5,003	4,021	20	5,003	1,361	2,721

	Engine department				
Forecast year	Limited licenses	Unlimited licenses	Oilers	Firemen watertenders	Total
1979	210	20	1,008	15	14,688
1980	217	20	1,042	15	15,184
1981	224	20	1,078	15	15,698
1982	232	20	1,114	15	16,227
1983	240	20	1,152	15	16,777
1984	248	20	1,191	15	17,342
1985	257	20	1,231	15	17,919

(continued)

Table OAG-18. (concluded)

Forecast year	Engine department				
	Limited licenses	Unlimited licenses	Oilers	Firemen watertenders	Total
1986	265	20	1,273	15	18,534
1987	274	20	1,316	15	19,161
1988	283	20	1,361	15	19,808

[a]Assumes a constant 3.39% proportionate fleet growth rate and a single crew requirement.
[b]Limited either as to tonnage or as to route.
[c]Ordinary seaman is an entry level position for the offshore marine industry.
[d]Able seaman is a person who has spent a minimum of one year of seatime and then has passed an examination given by the U.S. Coast Guard.

Table OAG-19. Projected total manpower requirements for the U.S. offshore minerals exploration support industry[a] (U.S. Department of Commerce, Maritime Administration 1979).

	Deck department					
Forecast year	Operators	Limited licenses	Unlimited licenses	Deck hands	Ordinary[b] seamen	Able[c] seamen
1979	7,412	5,958	40	7,412	2,016	4,032
1980	7,664	6,160	40	7,664	2,084	4,168
1981	7,924	6,368	40	7,924	2,156	4,310
1982	8,192	6,584	40	8,192	2,228	4,456
1983	8,470	6,808	40	8,470	2,304	4,608
1984	8,756	7,038	40	8,756	2,382	4,764
1985	9,054	7,278	40	9,054	2,462	4,924
1986	9,360	7,524	40	9,360	2,546	5,092
1987	9,678	7,780	40	9,678	2,632	5,264
1988	10,006	8,042	40	10,006	2,722	5,442

	Engine department				
Forecast year	Limited licenses	Unlimited licenses	Oilers	Firemen watertenders	Total
1979	420	40	2,016	30	29,376
1980	434	40	2,084	30	30,368
1981	448	40	2,156	30	31,396
1982	464	40	2,228	30	32,454
1983	480	40	2,304	30	33,554
1984	496	40	2,382	30	34,684
1985	514	40	2,462	30	35,838
1986	530	40	2,546	30	37,068

(continued)

Table OAG-19. (concluded)

Forecast year	Engine department				
	Limited licenses	Unlimited licenses	Oilers	Firemen watertenders	Total
1987	548	40	2,632	30	38,322
1988	566	40	2,722	30	39,616

[a]Assumes a constant 3.39 % proportionate fleet growth rate, a 2.0 men-per-billet ratio, and a single crew requirement.
[b]Ordinary seaman is an entry level position for the offshore marine industry.
[c]Able seaman is a person who has spent a minimum of one year of seatime and then has passed an examination given by the U.S. Coast Guard.

Table OAG-20. Estimated employment generated by proposed Outer Continental Shelf lease sales A62 and 62 (U.S. Department of the Interior, Bureau of Land Management 1979).

Direct employment	
Exploration/development (1984)	662
Development (1987 and 1988)	389
Platform operations (1988)	207
Other (1988)	24
Total employment (1987)	2,599
New resident employment (1987)	1,040
New resident population (1987)	2,396

Table OAG-21. Drilling rigs and platforms in Texas waters, February 1980 (Offshore rig locator...1980a, 1980b).

Type of platform or rig	Active	Idle	Rated Water Drilling Depth			
			0-30m	30-100m	100-300m	>300m
Drillships	4	0	X	X	X	X
Semi-submersibles	13	0	X	X	X	X
Jack-ups	47	1	X	X		
Submersible barges	11	4	X			
Tenders	3	0				
Fixed platforms[a]	22	0				
Total mobile rigs	75	5	30	32	10	17
Total production platforms	22	0				

[a]Actively drilling.

Table OAG-22. Projected requirements for mobile offshore rigs, 1979 through 1982[a] (Research and Planning Consultants, Inc. 1977).

	1979		1980		1981		1982	
	Jack-ups	Semis[d]	Jack-ups	Semis	Jack-ups	Semis	Jack-ups	Semis
Low impact case[b]								
Total wells per year	39	6	13	0	8	2	5	0
Total rigs per year	21	4	7	7	5	1	3	3
High impact case[c]								
Total wells per year	69	10	17	2	14	2	6	1
Total rigs per year	37	6	9	1	8	1	4	1

[a]Considers current leases and announced Sales 47 and 45.
[b]Assumes that 54 % of the tracts leased will ultimately be explored (historical average for Texas).
[c]Assumes that 80 % of the tracts leased will ultimately be explored.
[d]Semi-submersibles.

Table OAG-23. Projected requirements for fixed drilling/production, 1977 through 1984 (Research and Planning Consultants, Inc. 1977).

Year	Low impact scenario	High impact scenario
1977	14	48
1978	18	55
1979	17	58
1980	18	52
1981	13	35
1982	5	11
1983	2	5
1984	1	3
Total	88	267

Note: This figure considers the impact of lease sales since Sale 31 and announced Sales 47 and 45. Because of the assumptions concerning activity over time, development activity from these sales diminishes after 1980. Development of leases obtained in future, unannounced sales may very well result in the pre-1981 levels continuing rather than tapering off.

Table OAG-24. Materials requirements for rigs that drill four 15,000-foot wells per year (U.S. Department of the Interior, Bureau of Land Management 1979; Ellis 1972).

Item	Quantity per rig year	
Mud	2,568 to 5,970	tons
Cement	1,260	tons
Fresh water	5,200,000	gal
Drill cutting	5,670	yd^3
Drill pipe, casing & tubing	1,820	tons
Fuel for drilling	13,272	bbl
Fuel for all purposes	61,200	bbl
Total quantity of required material	38,430	tons

Table OAG-25. Major Texas offshore pipelines (Research and Planning Consultants, Inc. 1977).

Pipeline number	Texas General Land Office easement no.	Size (inches)	Product	Owner
1		12	Gas	Tidal Pipeline Co.
2		12	Gas	Tidal Pipeline Co.
3		6	Gas	Tidal Pipeline Co.
4		16	Gas	Tidal Pipeline Co.
5		6	Gas	Tidal Pipeline Co.
6		10	Gas	Tidal Pipeline Co.
7		10	Gas	Chevron Oil Co.
8		18	Gas	Chevron Oil Co.
9*	2184	16	Gas	United Gas Pipeline Co.
10*	2391	16	Natural Gas	Natural Gas Pipeline Co.
11	1955	10	Gas	Transcontinental Gas Pipeline Co.
12	1557	6-5/8	Oil	Zapata - C&K
13	1833	16	Gas	Transcontinental Gas Pipeline Co.
13a*	2815	10	Gas	Transcontinental Gas Pipeline Co.
13b	2850	2-7/8	Gas	Mitchell Energy Offshore
14	1852	12	Gas	United Gas Pipeline Co.
15	1827	16	Gas	United Gas Pipeline Co.
	1816	8-5/8	Oil	Atlantic Richfield Co.
16*	2421	4-1/2	Oil	Chevron Oil Co.
17	2018	12	Gas	Pennzoil Pipeline Co.
17a	2005	4-1/2	Gas	King Resources Co.
18	1572	3	Gas	Occidental Petroleum Corp.
18a	1571	4-1/2	Gas	Occidental Petroleum Corp.
		2-1/2	Oil	
19	445	4		Pan American Petroleum Corp.
20*	1487	16	Gas	Black Marlin Pipeline Co.
21*		6	Gas	Black Marlin Pipeline Co.
22	2470	8	Gas	Natural Gas Pipeline Co.

(continued)

Table OAG-25. (continued)

Pipeline number	Texas General Land Office easement no.	Size (inches)	Product	Owner
23	2465	4	Oil	Mitchell Energy Offshore
23a	2461	2-3/8	Oil	Mitchell Energy Offshore
24	3252	6-5/8	Gas	Tejas Gas Corporation
25	3089	3-1/8	Oil	Houston Oil and Minerals
26*		20	Gas	Blue Dolphin Pipeline Co.
27*	3000	20	Gas	Blue Dolphin Pipeline Co.
28	3209	8	Gas	Houston Pipeline Co.
29	2605	8-5/8	Oil	Mobil Oil Corp.
30	2565	8-5/8	Oil	Houston Pipeline Co.
31	3249	3	Gas	Houston Pipeline Co.
32	3225	8-5/8	Gas	Pipeline Technologists
32a	2857	8-5/8	Gas	Coastal States Gas Prod. Co.
33*		20	Gas	Transcontinental Gas Pipeline Co.
34*	2114	30	Gas	Transcontinental Gas Pipeline Co.
35*		20	Gas	Transcontinental Gas Pipeline Co.
36	1453	8-5/8	Gas	Lo-Vaca Gathering Co.
37	1453	8-5/8	Gas	Lo-Vaca Gathering Co.
38	1592	12	Gas	Lo-Vaca Gathering Co.
39	3170	6-5/8	Gas	Superior Oil Company
40	1454	10-3/4	Gas	Lo-Vaca Gathering Co.
40a	1567	12	Gas	Lo-Vaca Gathering Co.
41	1459	16	Gas	Lo-Vaca Gathering Co.
42	2597	6	Oil	Monsanto Co.
43	2588	5-5/8	Gas	North American Royalties, Inc.
44	2587	5-5/8	Gas	North American Royalties, Inc.
45	2926	10	Gas	Corpus Christi Oil & Gas Co.
45a	2927	8-5/8	Gas	Corpus Christi Oil & Gas Co.
46	3226	10-3/4	Gas	Pipeline Technologists
46a	1566	12	Gas	Lo-Vaca Gathering Co.

(continued)

Table OAG-25. (concluded)

Pipeline number	Texas General Land Office easement no.	Size (inches)	Product	Owner
47	2893	6-5/8	Gas	OXY Petroleum
48	2882	6	Gas	Sun Oil Co.
49	1836	4	Gas	Shell Oil Co.
	1826	6	Gas	Gulf Oil Co.
50	1717	8	Gas	United Gas Pipeline Co.
50a	1630	8	Gas	United Gas Pipeline Co.
51	1745	4-1/2	Gas	Texaco, Inc.
52	2560	6	Gas	Reynolds Mining Corp.
53	1641	10	Gas	Texas Eastern Transmission
53a	2849	10	Gas	Chevron Oil Co.
54	2790	3-1/2	Gas	Reserve Gas Systems, Inc.
55	2933	4-1/2	Oil	Mobil Oil Corp.
56	2933	4-1/2	Oil	Mobil Oil Corp.
57	2933	4-1/2	Oil	Mobil Oil Corp.
58	3115	8-5/8	Oil	Mobil Oil Corp.

*Lines in the Texas Federal OCS.

Table OAG-26. Corrosion protection coating material requirements per mile of submerged pipeline (Clark and Terrell 1978).

Submerged pipe diameter (inches)	Nominal coating thickness (inches)	Asphalt (tons)	Aggregate (tons)	Fiberglass (lb)	Primer (gal)
6	3/8	2.8	25.0	55	26
14	1/2	5.7	50.9	113	66
20	5/8	10.0	90.3	201	92
22	5/8	11.0	99.1	220	106
24	5/8	12.0	107.6	239	119
28	5/8	13.9	125.2	278	132
38	5/8	18.8	168.9	375	185
42	5/8	20.7	186.5	414	198

Table OAG-27. Raw materials required per mile of pipe coating: concrete coating (Clark and Terrell 1978).

Pipe diameter (inches)	Pipe wall thickness (inches)	Weight of cement (tons)	Weight of sand (tons)	Weight of iron ore aggregate (tons)	Water required (1000 gal)	Weight of wire mesh (tons)
14	1/4	7.1	120.0	0	0.5	1.5
20	1/4	37.7	200.0	0	2.8	2.5
22	5/16	46.5	0	400.0	3.4	3.0
24	5/16	69.0	0	500.0	5.1	3.5
28	3/8	92.8	0	700.0	6.9	4.5
38	3/8	100.3	0	1,000.0	7.5	5.5
42	3/8	116.4	0	1,200.0	8.7	6.0

Table OAG-28. Brine injection and disposal wells, 1979 (Texas Railroad Commission, Oil and Gas Division 1979b).

Planning region/ county	Injection			Disposal		
	Gas	Oil	Total	Gas	Oil	Total
GULF COAST						
Brazoria	0	14	14	18	170	188
Chambers	6	44	50	5	131	136
Fort Bend	0	12	12	4	92	96
Galveston	3	11	14	11	31	42
Harris	4	49	53	9	102	111
Liberty	0	42	42	3	86	89
Matagorda	1	48	49	8	53	61
Wharton	0	19	19	30	57	87
Total	14	239	253	88	722	810
GOLDEN CRESCENT						
Calhoun	2	10	12	6	8	14
Goliad	0	11	11	7	21	28
Jackson	0	51	51	17	71	88
Victoria	3	4	7	21	93	114
Total	5	76	81	51	193	244
COASTAL BEND						
Aransas	3	2	5	1	5	6
Bee	1	10	11	10	30	40
Brooks	0	32	32	3	7	10
Jim Wells	1	44	45	7	15	22
Kenedy	0	2	2	1	0	1
Kleberg	0	89	89	3	7	10
Nueces	1	23	24	26	44	70
Refugio	1	25	26	46	153	199
San Patricio	0	22	22	10	68	78
Total	7	249	256	107	329	436
LOWER RIO GRANDE VALLEY						
Cameron	0	0	0	2	0	2
Hidalgo	0	0	0	20	4	24
Willacy	0	44	44	1	10	11
Total	0	44	44	23	14	37
TBIE STUDY AREA	26	608	634	269	1,258	1,527
STATE	171	31,530	31,701	537	5,024	5,561

Table OAG-29. Texas geopressure/geothermal energy resources and recovery estimates (in quads[a]) (Fisher 1978).

Planning region/ county	U.S. Geological Survey		Bureau of Economic Geology	
	In-place resources	3.3% recovery	In-place resources	3.3% recovery
Thermal energy	26,150	860	2,825	95
Methane	14,425	465	1,630	55
Mechanical energy	120	ignored	0	0
Total	40,695	1,325	4,455	150

[a]quad = quadrillion BTU's
= 965 billion ft^3 of natural gas
= 175 million bbl of oil.

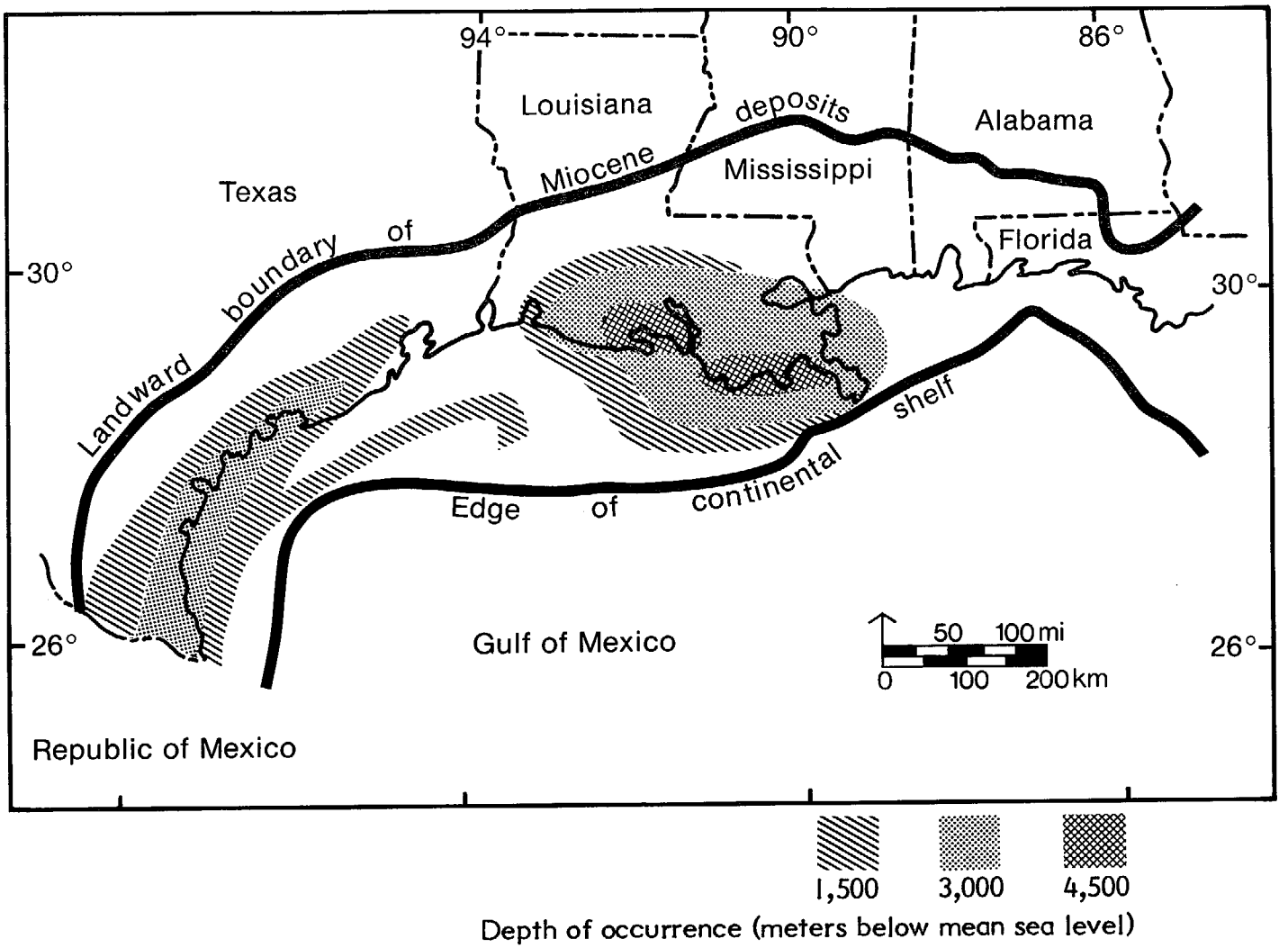


Figure OAG-4. Location and depth of occurrence of the geopressured zone in the northern Gulf of Mexico basin (Dorfman and Kehle 1974).

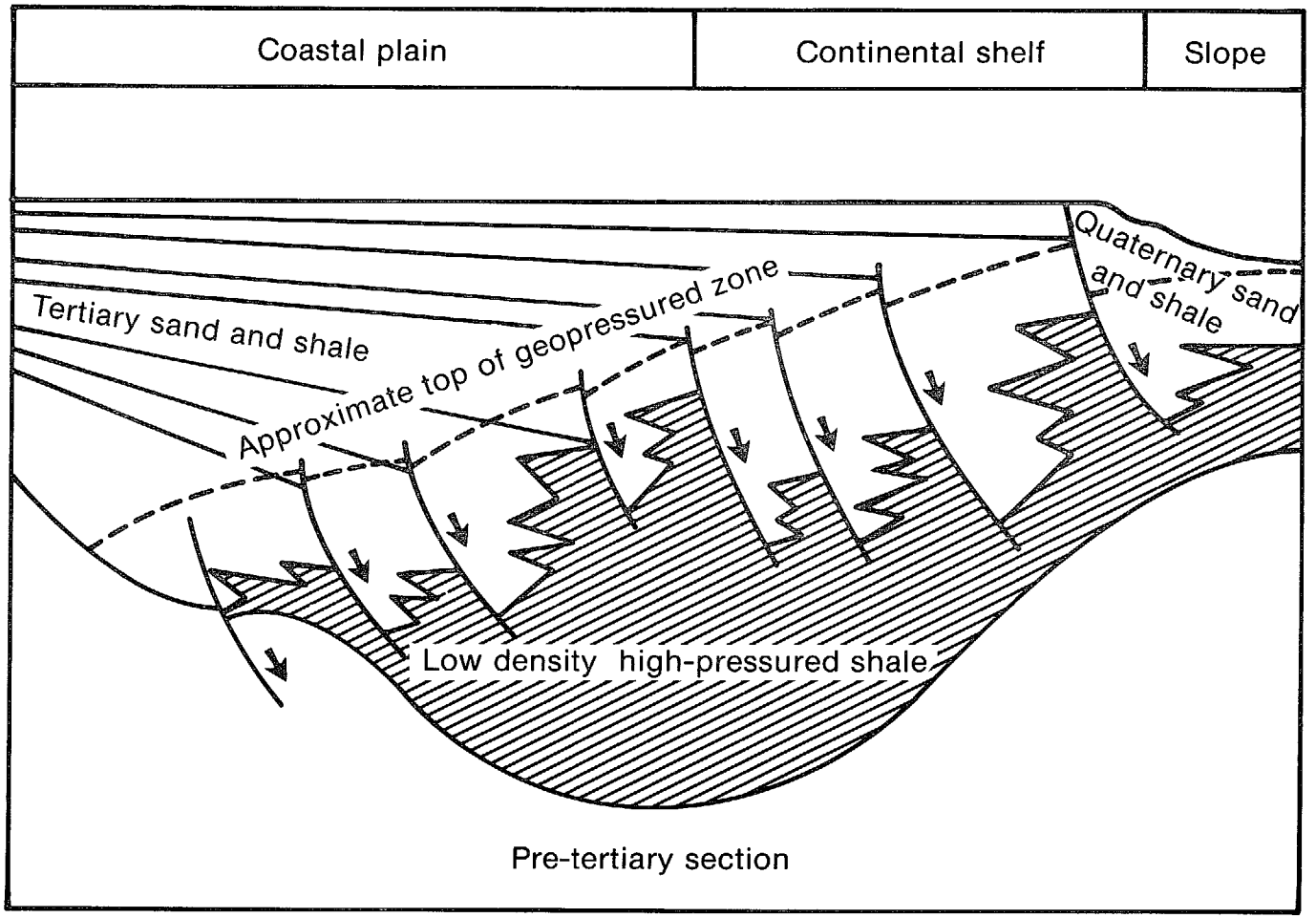


Figure OAG-5. Cross-section of coastal plain illustrating deposits of sand that form geothermal reservoirs (Dorfman and Kehle 1974).

Table OAG-30. Polluting incidents in TBIE, Gulf of Mexico and United States waters, 1972 through 1979 (U.S. Department of Transportation, Coast Guard 1972, 1974, 1975, 1977a, 1977b, 1978, 1979).

Year/location of spill	Number of incidents	% of U.S. total	Volume of spill (gal)	% of U.S. total
1972				
Gulf Coast	4,375	44.0	3,385,828	18.0
United States	9,931	100.0	18,805,732	100.0
1973				
Gulf Coast	4,422	33.2	3,789,136	15.6
United States	13,328	100.0	24,314,918	100.0
1974				
Gulf Coast	4,470	32.0	3,864,219	23.0
United States	13,996	100.0	16,916,308	100.0
1975				
Gulf Coast	4,131	34.3	5,545,714	37.1
United States	12,057	100.0	14,967,895	100.0
1976				
Gulf Coast	4,482	35.4	7,639,623	22.6
United States	12,655	100.0	33,851,830	100.0
1977[a]				
Houston	251	2.0	82,229	0.4
Galveston	394	3.1	137,476	0.7
Corpus Christi	474	3.7	299,680	1.5
TBIE study area	1,119	8.7	519,385	2.6
Gulf Coast	4,347	33.8	1,952,140	9.8
United States	12,844	100.0	19,899,988	100.0
1978				
Houston	389		273,294	
Galveston	388		97,298	
Corpus Christi	582		50,470	
TBIE study area	1,359		421,062	
Gulf Coast	4,623		28,814,937	
United States		100.0		100.0
1979				
Houston	366		960,058	
Galveston	240		26,136,949	
Corpus Christi	611		171,402	
TBIE study area	1,217		27,268,409	
Gulf Coast	4,367		31,223,047	
United States		100.0		100.0

[a]Breakdown of data by major port did not begin until after 1976.

Table OAG-31. Location of polluting incidents in the Gulf of Mexico and the United States, 1972 through 1979 (U.S. Department of Transportation, Coast Guard 1972, 1974, 1975, 1977a, 1977b).

Year/region	Location of incident: Rivers and channels	Ports and harbors	Beaches, non-navigable water	Territorial zone (shore to 3 mi.) and Great Lakes	Contiguous zone and high seas (3 mi. or more)	Total
1972						
United States						
Number incidents	2,256	3,343	288	2,660	1,384	9,931
%	22.7	33.7	2.9	26.8	13.9	100.0
Volume (gal)	13,277,358	2,135,881	766,795	393,093	2,232,605	18,805,732
%	70.6	11.4	4.1	2.1	11.9	100.1
1973						
United States						
Number incidents	4,056	5,129	897	2,082	1,164	13,328
%	30.4	38.5	6.7	15.6	8.7	99.9
Volume (gal)	14,650,579	2,746,964	4,636,103	993,468	1,287,804	24,314,918
%	60.3	11.3	19.1	4.1	5.3	100.1
1974						
United States						
Number incidents	2,507	5,625	1,667	2,770	1,397	13,966
%	18.0	40.3	11.9	19.8	10.0	100.0
Volume (gal)	3,044,113	5,962,824	7,402,374	429,944	77,053	16,916,308
%	18.0	35.2	43.8	2.5	0.5	100.0
1975						
United States						
Number incidents	2,108	4,529	559	2,072	880	10,148
%	20.8	44.7	5.5	20.4	8.7	100.1

(continued)

Table OAG-31. (concluded)

Year/region	Location of incident: Rivers and channels	Ports and harbors	Beaches, non-navigable water	Territorial zone (shore to 3 mi) and Great Lakes	Contiguous zone and high seas (3 mi or more)	Total
Volume (gal)	5,825,190	3,317,622	715,324	3,681,246	900,215	14,439,597
%	40.3	23.0	5.0	25.5	6.2	100.0
1976						
Gulf of Mexico						
Number incidents	692	1,383	194	1,352	861	4,482
% (of U.S.)	5.5	10.9	1.5	10.7	6.8	35.4
Volume (gal)	643,815	360,285	5,641,932	277,184	719,407	7,639,623
% (of U.S.)	1.9	1.1	16.7	0.8	2.1	22.6
United States						
Number incidents	2,807	4,993	1,771	2,086	1,004	12,655
%	22.2	39.5	14.6	16.4	7.9	100.0
Volume (gal)	10,776,032	4,291,705	9,652,999	881,592	8,249,502	33,851,830
%	31.8	12.7	28.5	2.5	24.4	99.9
1977						
Gulf of Mexico						
Number incidents	1,053	1,177	176	1,289	565	4,260
% (of U.S.)	8.2	9.2	1.4	10.0	4.4	33.2
Volume (gal)	1,315,239	474,912	504,474	379,539	245,057	2,919,221
% (of U.S.)	6.6	2.4	2.5	1.9	1.2	14.6
United States						
Number incidents	4,021	4,317	1,503	2,265	738	12,844
% (of U.S.)	31.3	33.6	11.7	17.6	5.7	99.9
Volume (gal)	4,232,498	2,003,285	3,038,725	726,395	9,899,085	19,899,988
% (of U.S.)	21.3	10.1	15.3	3.7	49.7	100.1

Table OAG-32. Causes of polluting incidents in United States waters, 1972 through 1979 (U.S. Department of Transportation, Coast Guard 1972, 1974, 1975, 1977a, 1977b).

Year/cause of incident	Number of incidents	% of total	Volume (gal)	% of total
1972				
Hull/tank rupture/leak	495	5.0	4,682,628	24.9
Transportation pipeline/ rupture/leak	0	0	0	0
Other structural failure	108	1.1	148,787	0.8
Equipment failure	3,500	35.2	4,367,756	23.2
Personnel error	1,287	13.0	940,316	5.0
Intentional discharge	457	4.6	68,515	0.4
Natural or chronic phenomenon	257	2.6	8,045,972	42.8
Unknown	3,827	38.5	551,758	2.9
Total	9,931	100.0	18,805,732	100.0
1973				
Hull/tank rupture/leak	845	6.3	5,391,756	22.2
Transportation pipeline/ rupture/leak	401	3.0	1,287,811	5.3
Other structural failure	201	1.5	2,107,963	8.7
Equipment failure	3,218	24.1	8,081,457	33.2
Personnel error	2,204	16.5	1,127,851	4.6
Intentional discharge	599	4.5	2,176,509	9.0
Natural or chronic phenomenon	354	2.7	2,051,364	8.4
Unknown	5,506	41.3	2,090,207	8.6
Total	13,328	99.9	24,314,918	100.0
1974				
Hull/tank rupture/leak	952	6.8	4,861,431	28.7
Transportation pipeline rupture/leak	286	2.0	4,519,102	26.7
Other structural failure	269	1.9	196,517	1.2
Equipment failure	3,909	28.0	3,619,323	21.4
Personnel error	2,327	16.7	2,259,575	13.4
Intentional discharge	637	4.6	344,060	2.0
Natural or chronic phenomenon	380	2.7	241,410	1.4
Unknown	5,206	37.3	858,086	5.1
Total	13,966	100.0	16,899,054	99.9

(continued)

Table OAG-32. (concluded)

Year/cause of incident	Number of incidents	% of total	Volume (gal)	% of total
1975				
Hull/tank rupture leak	801	6.6	6,628,087	44.3
Transportation pipeline rupture/leak	238	2.0	1,252,117	8.4
Other structural failure	219	1.8	2,768,640	18.5
Equipment failure	2,977	24.7	2,101,683	14.0
Personnel error	2,827	23.4	1,261,707	8.4
Intentional discharge	540	4.5	218,209	1.5
Natural or chronic phenomenon	264	2.2	154,026	1.0
Unknown	4,191	34.9	583,426	3.9
Total	12,057	100.1	14,967,895	100.0
1976				
Hull/tank rupture/leak	782	6.2	8,128,139	24.0
Transportation pipeline rupture/leak	522	4.1	2,281,746	6.7
Other structural failure	411	3.2	12,193,880	36.0
Equipment failure	3,058	24.2	6,514,538	19.2
Personnel error	2,101	16.6	1,054,507	3.1
Intentional discharge	504	4.0	795,870	2.4
Natural or chronic phenomenon	318	2.5	118,798	0.4
Unknown	4,959	39.2	2,764,352	8.2
Total	12,655	100.0	33,851,830	100.0
1977				
Hull/tank rupture/leak	918	7.1	11,648,439	58.5
Transportation pipeline rupture/leak	577	4.5	1,160,140	5.8
Other structural failure	724	5.6	169,415	0.9
Equipment failure	2,667	20.8	3,382,485	17.0
Personnel error	2,100	16.4	839,388	4.2
Intentional discharge	517	4.0	443,400	2.2
Natural or chronic phenomenon	345	2.7	912,573	4.6
Unknown	4,996	38.9	1,344,148	6.8
Total	12,844	100.0	19,899,988	100.0

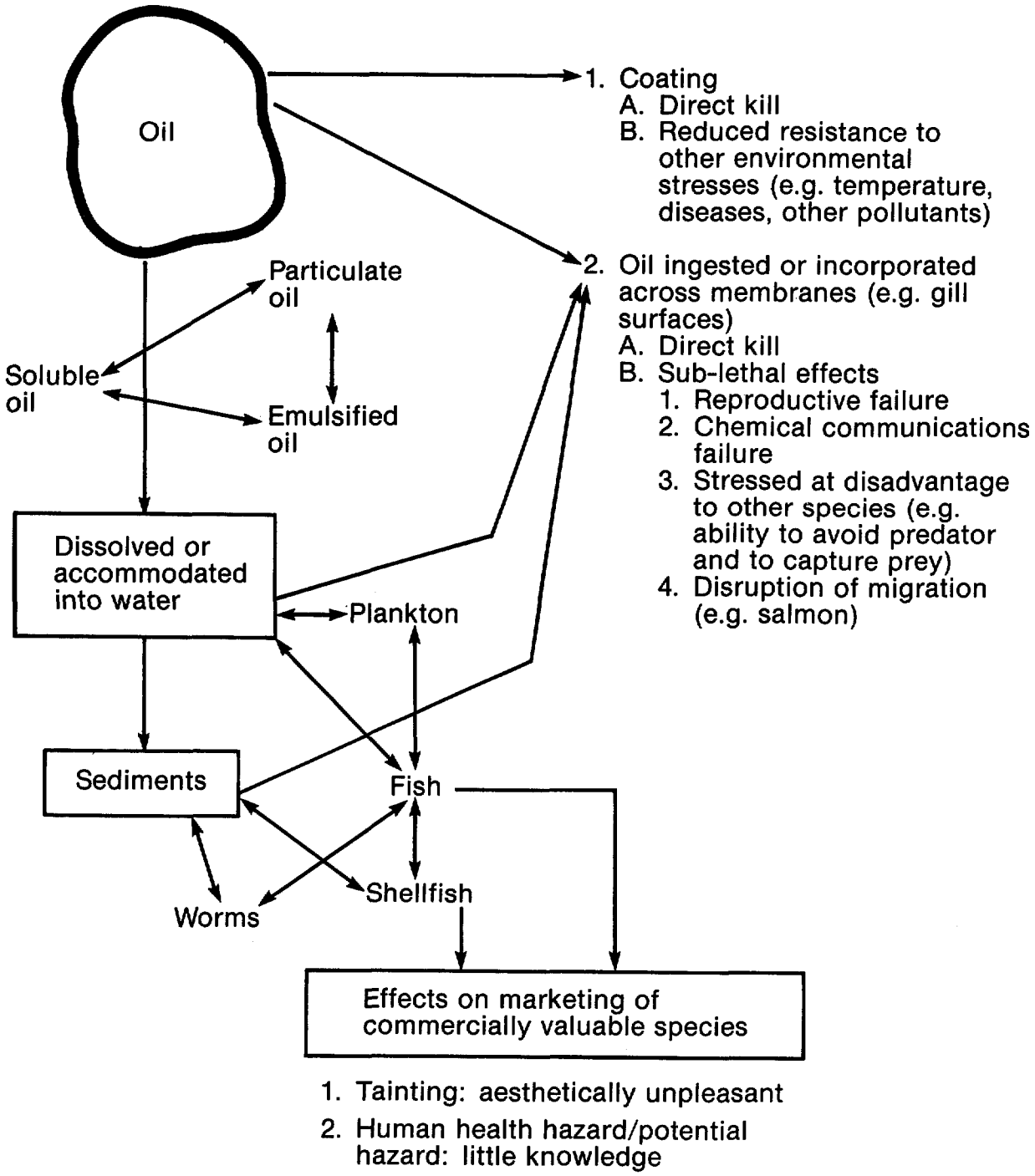


Figure OAG-6. Pathways of oil incorporation into marine ecosystems (Banta 1978).

Table OAG-33. Type and value of minerals produced in 1977 (Texas almanac 1979).

County	Value (dollars)	Minerals produced in order of value
Aransas	20,477,000	Natural gas, petroleum
Bee	47,173,000	Natural gas, petroleum
Brazoria	641,928,000	Petroleum, natural gas, magnesium chloride, salt, magnesium compounds, sand & gravel, stone
Brooks	127,270,000	Natural gas, petroleum
Calhoun	52,171,000	Natural gas, petroleum, lime, stone
Cameron	7,240,000	Natural gas, petroleum
Chambers	271,876,000	Petroleum, natural gas, salt, sand & gravel, clays
Fort Bend	153,197,000	Petroleum, natural gas, sulphur (Frasch), salt, clays, sand & gravel
Galveston	239,172,000	Natural gas, petroleum, sand & gravel, clays
Goliad	33,850,000	Natural gas, petroleum
Harris	438,622,000	Cement, natural gas, petroleum, sand & gravel, salt, lime, clays, stone
Hidalgo	128,059,000	Natural gas, petroleum, stone, sand & gravel
Jackson	180,053,000	Petroleum, natural gas
Jim Wells	182,391,000	Natural gas, petroleum, stone
Kenedy	67,510,000	Natural gas, petroleum
Kleberg	420,701,000	Natural gas, petroleum
Liberty	72,884,000	Petroleum, sulphur (Frasch), natural gas, sand & gravel
Matagorda	151,129,000	Natural gas, petroleum, salt, stone
Nueces	204,017,000	Natural gas, petroleum, cement, lime, sand & gravel

(continued)

Table OAG-33. (concluded)

County	Value (dollars)	Minerals produced in order of value
Refugio	426,637,000	Petroleum, natural gas
San Patricio	79,535,000	Natural gas, petroleum, stone, clays
Victoria	63,737,000	Natural gas, petroleum, sand & gravel
Wharton	136,402,000	Natural gas, petroleum, sulphur (Frasch)
Willacy	34,713,000	Natural gas, petroleum
TBIE Total	4,180,744,000	

Table OAG-34. Value of minerals produced in 1977 (Texas almanac 1979).

Planning region[a]	Value of minerals (dollars)
Gulf Coast	2,105,210,000
Golden Crescent	329,811,000
Coastal Bend	1,575,711,000
Lower Rio Grande Valley	170,012,000
TBIE Study Area	4,180,744,000
State	19,880,385,000

[a]Planning regions correspond to regional council of government jurisdictions.

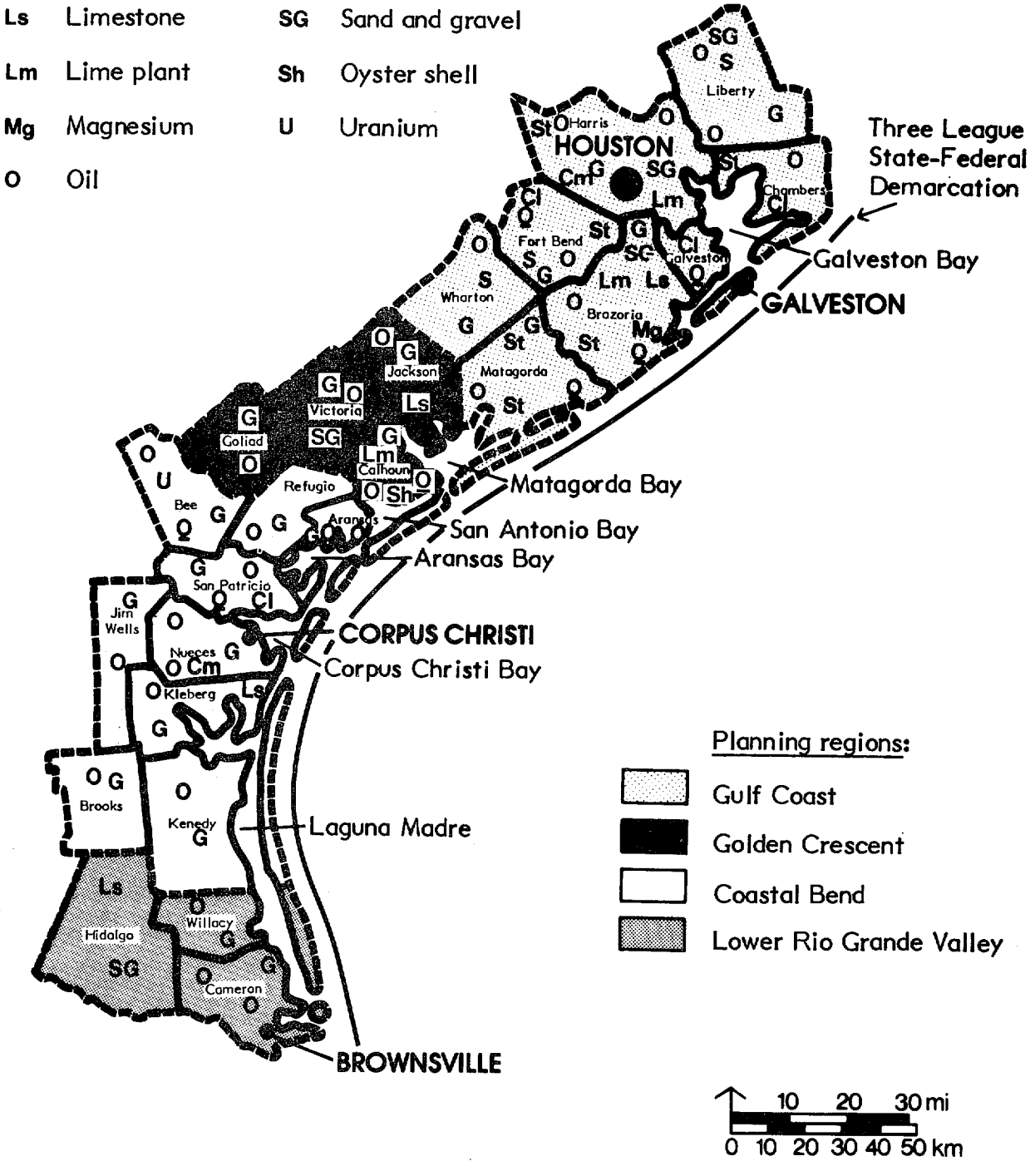


Figure OAG-7. Mineral production in the TBIE study area (U.S. Dept. of the Interior, Bureau of Mines 1979).

Table OAG-35. Mining and mineral processing (other than oil and gas) (Bureau of Economic Geology, University of Texas at Austin 1979).

Planning region/ county	Product
GULF COAST	
Brazoria	Periclase, sand, lime, salt, magnesium, vanadium, molybdenum, fill, gravel
Chambers	Sand, salt, clay, iron
Fort Bend	Sand, clay
Galveston	Sand, gravel, barite, clay, sulphur, tin
Harris	Sand, lime, salt, gravel, shell, phosphate, barite, clay, sulphur, vermiculite, perlite, cement, limestone, strontium, chlorine, gypsum
Liberty	Sand, gravel, clay, sulphur
Matagorda	Salt, gravel
Wharton	Gravel, sulphur
GOLDEN CRESCENT	
Calhoun	Lime, bauxite, shell
Goliad	None
Jackson	None
Victoria	Sand, gravel
COASTAL BEND	
Aransas	None
Bee	Uranium, caliche
Brooks	None
Jim Wells	Caliche, sand, gravel
Kenedy	None
Kleberg	Asphalt
Nueces	Cement, limestone, zinc, sand, lime, gravel
Refugio	None
San Patricio	Aluminum oxide
LOWER RIO GRANDE VALLEY	
Cameron	Fluorspar, phosphate, barite, clay
Hidalgo	Caliche, sand, gravel, limestone
Willacy	None

Table OAG-36. Texas' role in National non-fuel mineral supply, 1978 (U.S. Department of the Interior, Bureau of Mines 1979).

Commodity	Rank in Nation	% of National output	Reserve estimate
Cement			
Masonry	4	7	[a]
Portland	2	11	[a]
Clays[b]	3	7	Large
Fluorspar	2	(D)	Small
Graphite	1	100	Small
Gypsum	2	13	Large
Helium, crude	2	(D)	Small
Lime	4	7	[a]
Magnesium chloride	1	100	[a]
Salt	2	24	Large
Sand & gravel	3	6	Large
Stone			
Crushed	2	6	Large
Dimension	14	2	Large
Sulfur (Frasch)	1	(D)	Moderate
Talc	3	20	Small
Uranium	5	(D)	Moderate

(D) = Withheld to avoid disclosing individual company confidential data.
[a]Reserves of raw materials considered large.
[b]Excludes ball clay, fuller's earth, and kaolin.

FISH AND WILDLIFE PRODUCTION (FSH)

Table FSH-1. Landings (at Texas ports from Texas waters) and value by species for selected years, 1965 through 1977 (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1980).

Species	1965		1967	
	Catch (lb)	Value ($)	Catch (lb)	Value ($)
Shrimp (heads on)	77,116,500	21,933,447	80,707,500	35,134,479
Cabio	7,400	592	8,600	989
Croaker	600	36	134,200	8,770
Black drum	1,469,400	135,991	1,058,300	144,237
Red drum	519,100	134,522	747,400	134,466
Flounder	240,200	60,309	230,700	58,941
Grouper	93,000	9,29	37,100	4,046
King whiting	200,500	8,572	145,200	8,460
Menhaden	16,085,100	291,622	8,470,800	96,567
Mullet	1,300	39	27,800	1,420
Pompano	7,000	2,195	19,100	2,495
Sea catfish	64,500	5,164	105,000	9,663
Spotted sea trout	910,300	315,879	1,386,700	363,320
White sea trout	0	0	43,600	4,378
Sheepshead	183,000	16,832	196,200	17,606
Red snapper	1,137,900	317,196	775,900	252,537
Blue crab	2,882,500	230,022	1,842,900	157,123
Oyster	2,474,845	1,354,700	3,532,900	1,484,493
Squid	23,900	2,390	9,500	902
Unclassified for food	43,900	22,050	179,500	10,159
Industrial	65,500	2,671	72,200	2,161
Total	103,526,445	24,843,508	99,731,100	37,897,212
% shrimp, crab, & oysters		94.7		97.0

Species	1969		1971	
	Catch (lb)	Value ($)	Catch (lb)	Value ($)
Shrimp (heads on)	54,943,000	32,685,380	66,247,800	47,631,503
Cabio	13,800	1,760	14,200	1,533
Croaker	84,400	4,700	51,800	2,890

(continued)

Table FSH-1. (continued)

Species	1969 Catch (lb)	1969 Value ($)	1971 Catch (lb)	1971 Value ($)
Black drum	716,500	78,533	1,129,400	116,500
Red drum	1,074,400	230,462	1,990,100	484,228
Flounder	131,995	56,411	270,000	65,319
Grouper	27,900	2,997	114,600	5,884
King whiting	57,400	493	61,500	4,047
Menhaden	7,319,700	123,295	26,430,700	441,001
Mullet	181,700	5,948	97,600	3,836
Pompano	3,600	1,582	3,200	1,506
Sea catfish	59,600	3,636	44,600	2,882
Spotted sea trout	1,166,900	255,990	1,485,300	326,487
White sea trout	18,300	6,451	1,900	207
Sheepshead	209,300	22,874	128,000	6,719
Red snapper	601,200	215,375	659,800	296,487
Blue crab	5,360,900	509,155	3,838,800	374,060
Oyster	3,634,200	1,524,805	4,671,400	2,276,348
Squid	6,900	699	3,200	1,508
Unclassified for food	168,300	7,973	35,400	5,374
Industrial	320,800	11,503	45,300	1,730
Total	7,598,200	35,750,022	107,324,600	52,050,049
% shrimp, crab, & oysters		97.1		96.6

Species	1973 Catch (lb)	1973 Value ($)	1975 Catch (lb)	1975 Value ($)
Shrimp (heads on)	61,243,200	63,863,120	55,467,900	67,794,271
Cabio	16,000	2,436	28,700	4,963
Croaker	109,600	8,859	102,200	10,860
Black drum	1,215,300	153,557	1,162,000	206,251
Red drum	1,699,500	535,462	2,108,000	790,904

(continued)

Table FSH-1. (continued)

Species	1973 Catch (lb)	1973 Value ($)	1975 Catch (lb)	1975 Value ($)
Flounder	309,200	96,128	525,700	165,901
Grouper	68,500	10,426	64,000	9,163
King whiting	81,400	8,525	158,300	16,242
Menhaden	0	0	0	0
Mullet	158,000	8,432	46,100	4,537
Pompano	2,100	912	6,600	3,122
Sea catfish	67,500	8,384	71,800	11,420
Spotted sea trout	1,949,900	639,439	1,798,900	695,067
White sea trout	5,800	741	15,000	3,742
Sheepshead	259,700	71,039	311,000	26,134
Red snapper	580,400	300,810	495,300	309,014
Blue crab	5,429,900	663,053	5,290,500	838,405
Oyster	871,600	1,812,554	1,756,000	1,392,028
Squid	5,400	783	6,500	1,423
Unclassified for food	125,700	10,617	306,700	32,159
Industrial	190,300	8,632	234,300	14,949
Total	74,389,000	68,203,909	69,955,500	72,330,555
% shrimp, crab, & oysters		97.3		96.8

Species	1977 Catch (lb)	1977 Value ($)
Shrimp (heads on)	73,929,304*	98,307,023
Cabio	18,000	4,649
Croaker	32,400	3,862
Black drum	1,446,600	397,948
Red drum	947,600	509,797
Flounder	307,300	266,342
Grouper	15,400	3,681
King whiting	28,600	4,437
Menhaden	0	0
Mullet	8,800	1,743

(continued)

Table FSH-1. (concluded)

Species	1977 Catch (lb)	1977 Value ($)
Pompano	800	522
Sea catfish	74,100	14,187
Spotted sea trout	1,345,200	672,398
White sea trout	6,500	3,552
Sheepshead	292,200	28,447
Red snapper	268,800	248,370
blue crab	7,923,500	1,888,836
Oyster	2,600,500	2,991,744
Squid	13,800	4,144
Unclassified for food	116,200	21,296
Industrial	159,100	22,325
Total	89,534,700	105,395,303
% shrimp, crab, & oysters		97.9

*All shrimp from Texas waters may include Texas shrimp landed at out-of-state ports.

Table FSH-2. Landings from Texas waters and total landings at Texas ports for selected years, 1965 through 1977 (lb) (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1980).

Year	Landings from Texas waters	Total landings
1965	103,526,445	154,436,200
1967	99,731,100	139,670,600
1969	7,598,200	160,576,700
1971	107,324,600	169,485,800
1973	74,389,000	101,325,400
1975	69,955,500	85,980,000
1977	89,534,700	108,543,200

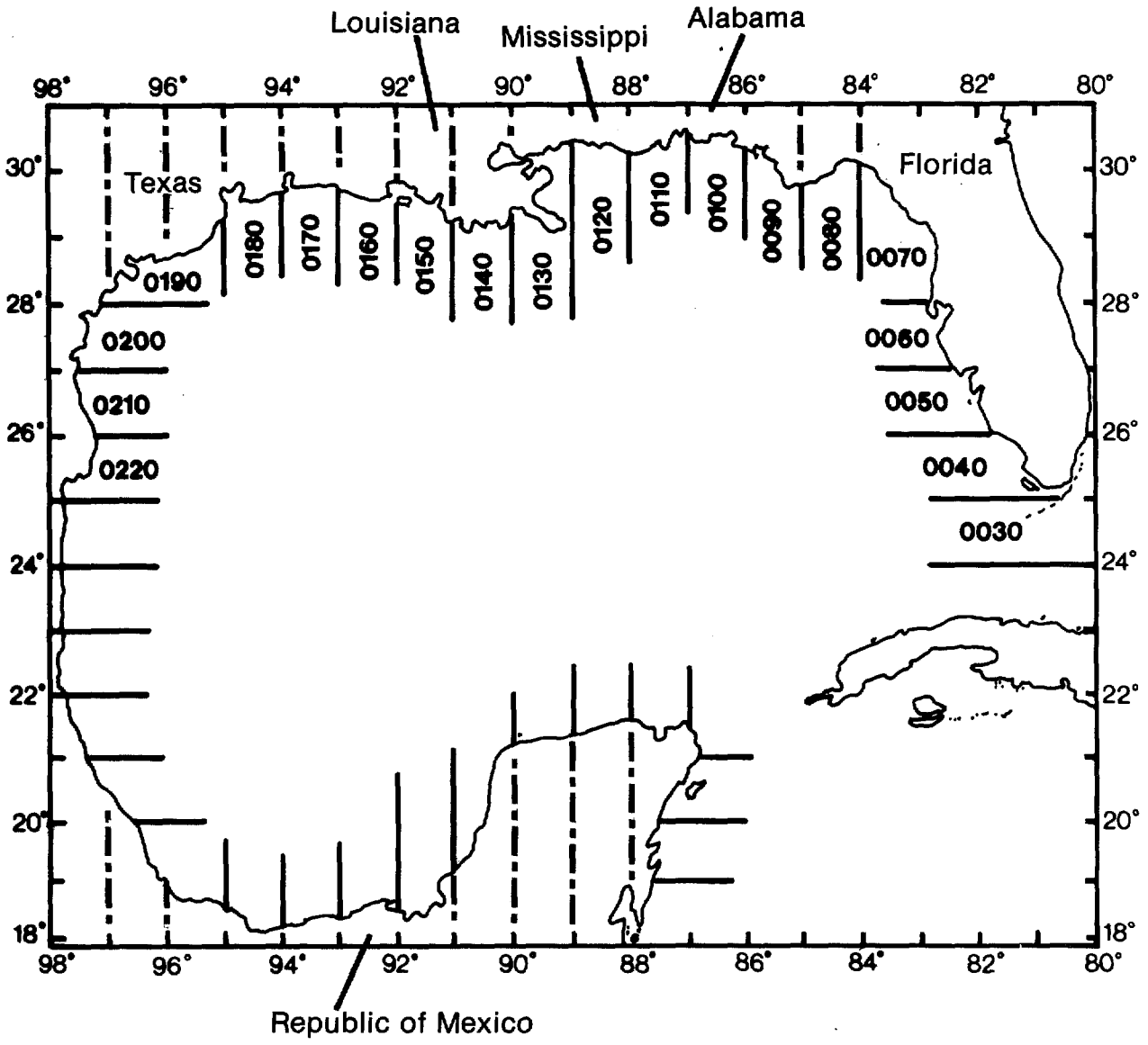


Figure FSH-1. National Marine Fisheries Service grid zones, Gulf of Mexico (U.S. Dept. of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1980).

Table FSH-3. Texas Gulf of Mexico water grid zones (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1980).

0180	Gulf
0181	Galveston Bay System
0190	Gulf
0191	Matagorda Bay System
0192	San Antonio Bay System
0193	Aransas Bay System
0200	Gulf
0201	Corpus Christi Bay System
0210	Gulf
0211	Lower Laguna Madre

Table FSH-4a. Texas Gulf of Mexico catch by grid zone for selected years, 1965 through 1977: shrimp (heads on, lb) (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1980).

Grid zone	1965	1967	1969	1971	1973	1975	1977
0180	8,346,700	12,362,300	6,430,800	13,720,100	6,296,200	9,207,800	16,240,030
0181	1,451,983	2,187,400	4,285,100	5,012,900	5,027,600	4,755,600	3,791,017
0190	25,260,500	1,268,400	20,676,700	26,827,500	14,070,400	13,152,800	19,914,257
0191	23,646,000	32,312,800	1,427,700	1,287,200	3,812,100	1,706,100	4,474,489
0192	1,733,600	1,285,700	1,098,600	748,600	1,521,800	1,277,100	1,621,836
0193	945,600	488,100	735,000	422,700	1,870,900	1,184,100	2,313,653
0200	6,886,600	14,742,600	8,986,200	10,939,300	15,322,800	13,065,300	12,500,871
0201	452,800	514,700	327,300	99,300	1,222,000	988,800	1,205,763
0202	700	200	2,800	4,100	448,300	0	114,169
0210	5,645,700	15,545,300	10,972,800	7,186,100	11,651,100	10,130,300	11,752,901
0211	0	0	0	0	0	0	0
Total	77,116,500	80,707,500	54,943,000	66,247,800	61,243,200	55,467,900	73,929,304

Table FSH-4b. Texas Gulf of Mexico catch by grid zone for selected years, 1965 through 1977: blue crabs (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1980).

Grid zone	1965	1967	1969	1971	1973	1975	1977
0180	0	8,700	30,500	36,800	73,900	37,900	11,000
0181	1,817,900	1,047,900	1,705,700	2,160,800	2,040,000	1,784,700	1,746,000
0190	500	0	0	24,400	1,000	0	0
0191	401,300	360,800	891,000	394,300	1,129,600	1,075,900	535,400
0192	509,500	269,900	1,328,500	530,000	859,000	1,539,100	2,275,400
0193	39,600	155,600	724,200	591,800	1,272,700	714,300	2,150,800
0200	0	0	0	0	0	0	100
0201	113,700	0	152,500	100,500	41,100	134,700	102,800
0202	0	0	528,500	200	1,000	0	126,800
0210	0	0	0	0	0	400	0
0211	0	0	0	0	11,600	3,500	975,200
Total	2,882,500	1,842,900	5,360,900	3,838,800	5,429,900	5,290,500	7,923,500

Table FSH-4c. Texas Gulf of Mexico catch by grid zone for selected years, 1965 through 1977: oysters (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1980).

Grid zone	1965	1967	1969	1971	1973	1975	1977
0180	0	0	0	0	0	0	0
0181	2,223,145	2,992,600	3,447,200	3,951,800	743,700	1,237,800	1,947,800
0190	0	0	0	0	0	0	0
0191	123,600	282,300	130,900	294,600	73,700	373,600	139,600
0192	122,500	252,100	11,100	395,000	43,800	124,000	438,400
0193	0	3,800	43,900	30,000	9,900	12,400	65,600
0200	0	0	0	0	0	0	0
0201	0	0	0	0	0	0	0
0202	0	0	0	0	0	0	0
0210	0	0	0	0	0	0	0
0211	5,600	2,100	1,100	0	500	8,200	9,100
Total	2,474,845	3,532,900	3,634,200	4,671,400	871,600	1,756,000	2,600,500

Table FSH-4d. Texas Gulf of Mexico catch by grid zone for selected years, 1965 through 1977: black drum (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1980).

Grid zone	1965	1967	1969	1971	1973	1975	1977
0180	7,500	11,500	4,000	9,000	16,600	7,800	24,600
0181	23,900	124,900	44,600	25,200	93,000	46,400	102,200
0190	2,600	4,200	600	4,900	4,400	4,200	7,700
0191	51,100	45,700	41,600	41,000	38,300	18,500	27,500
0192	14,900	70,900	17,200	44,600	52,700	92,000	39,900
0193	180,700	57,400	50,700	114,000	129,000	118,100	123,400
0200	5,500	4,200	10,600	58,000	25,300	1,800	5,900
0201	19,800	112,700	38,200	63,100	220,200	515,800	199,800
0202	369,400	413,500	362,500	547,900	369,700	0	376,400
0210	3,200	2,500	1,900	3,800	13,700	39,700	18,000
0211	790,800	210,800	144,600	226,000	252,400	317,700	378,300
0212	0	0	0	0	0	0	142,900
Total	1,469,400	1,058,300	716,500	1,129,400	1,215,300	1,162,000	1,446,600

Table FSH-4e. Texas Gulf of Mexico catch by grid zone for selected years, 1965 through 1977: red drum (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1980).

Grid zone	1965	1967	1969	1971	1973	1975	1977
0180	13,900	14,000	12,000	18,500	32,800	14,300	28,100
0181	32,200	45,000	38,100	18,100	49,600	79,500	24,000
0190	4,100	1,900	5,600	33,900	20,900	29,600	2,200
0191	50,700	69,000	109,000	65,300	70,500	72,100	45,700
0192	24,400	86,500	33,700	96,800	78,100	179,400	64,500
0193	64,300	55,300	151,400	222,200	229,200	282,000	158,400
0200	3,300	0	18,400	123,600	82,500	23,200	5,500
0201	2,600	25,400	16,700	72,600	153,300	584,500	86,700
0202	70,800	185,300	254,300	545,400	270,900	0	142,200
0210	2,600	600	6,800	20,400	15,900	15,300	3,200
0211	250,200	264,400	428,400	773,300	695,800	828,100	384,100
0212	0	0	0	0	0	0	3,000
Total	519,100	747,400	1,074,400	1,990,100	1,699,500	2,108,000	947,600

Table FSH-4f. Texas Gulf of Mexico catch by grid zone for selected years, 1965 through 1977: flounder (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1980).

Grid zone	1965	1967	1969	1971	1973	1975	1977
0180	19,900	24,900	34,100	47,800	26,700	19,300	24,400
0181	29,800	30,200	11,700	14,400	9,900	21,200	14,500
0190	26,600	29,900	28,500	46,000	71,700	66,100	40,500
0191	18,000	21,700	47,900	32,000	29,800	40,100	22,800
0192	12,700	8,700	7,300	15,500	6,300	19,100	15,000
0193	83,300	31,800	8,400	32,700	19,600	65,500	68,100
0200	4,900	36,600	76,900	42,200	91,300	74,100	23,300
0201	8,500	5,800	1,500	5,300	17,500	130,400	31,100
0202	4,600	4,700	8,200	18,100	2,100	0	5,200
0210	18,400	21,500	6,500	8,000	26,800	62,400	9,100
0211	13,500	14,900	10,100	25,200	7,500	27,500	53,300
0212	0	0	0	0	0	0	0
Total	240,200	230,700	131,995	270,000	309,200	525,700	307,300

Table FSH-4g. Texas Gulf of Mexico catch by grid zone for selected years, 1965 through 1977: menhaden (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1980).

Grid zone	1965	1967	1969	1971	1973	1975	1977
0180	16,085,100	8,470,800	7,319,700	26,430,700	0	0	0
0181	0	0	0	0	0	0	0
0190	0	0	0	0	0	0	0
0191	0	0	0	0	0	0	0
0192	0	0	0	0	0	0	0
0193	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0
0201	0	0	0	0	0	0	0
0202	0	0	0	0	0	0	0
0210	0	0	0	0	0	0	0
Total	16,085,100	8,470,800	7,319,700	26,430,700	0	0	0

Table FSH-4h. Texas Gulf of Mexico catch by grid zone for selected years, 1965 through 1977: red snapper (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1980).

Grid zone	1965	1967	1969	1971	1973	1975	1977
0180	306,700	264,600	117,900	46,400	47,900	91,400	40,800
0181	0	0	0	0	0	0	0
0190	75,900	94,200	97,500	84,900	68,800	27,400	61,200
0191	0	0	0	0	0	0	0
0192	0	0	0	0	0	0	0
0193	0	0	0	0	0	0	0
0200	268,300	133,800	166,700	225,600	347,700	127,600	88,000
0201	0	0	0	0	0	0	0
0202	0	0	0	0	0	0	0
0210	487,000	283,300	219,100	302,900	116,000	248,900	78,800
0211	0	0	0	0	0	0	0
0212	0	0	0	0	0	0	0
Total	1,137,900	775,900	601,200	659,800	580,400	495,300	268,800

Table FSH-4i. Texas Gulf of Mexico catch by grid zone for selected years, 1965 through 1977: spotted sea trout (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1980).

Grid zone	1965	1967	1969	1971	1973	1975	1977
0180	91,600	85,200	128,500	137,200	389,800	187,200	88,100
0181	27,700	280,400	55,700	75,900	232,800	221,300	135,000
0190	9,800	60,900	23,000	26,600	39,000	29,500	19,700
0191	80,000	138,400	168,600	140,500	133,400	94,800	66,700
0192	12,200	14,300	19,200	76,000	85,300	114,000	68,900
0193	187,000	110,800	148,700	181,000	225,500	152,800	223,100
0200	26,400	48,400	48,300	99,400	76,000	3,900	1,400
0201	18,300	79,100	28,500	42,400	156,700	523,000	82,300
0202	95,700	215,000	193,400	377,500	209,200	0	171,000
0210	4,300	4,100	0	12,800	11,300	15,000	0
0211	357,300	270,100	353,000	316,500	390,900	457,400	484,700
0212	0	0	0	0	0	0	4,300
Total	910,300	1,386,700	1,166,900	1,485,300	1,949,900	1,798,900	1,345,200

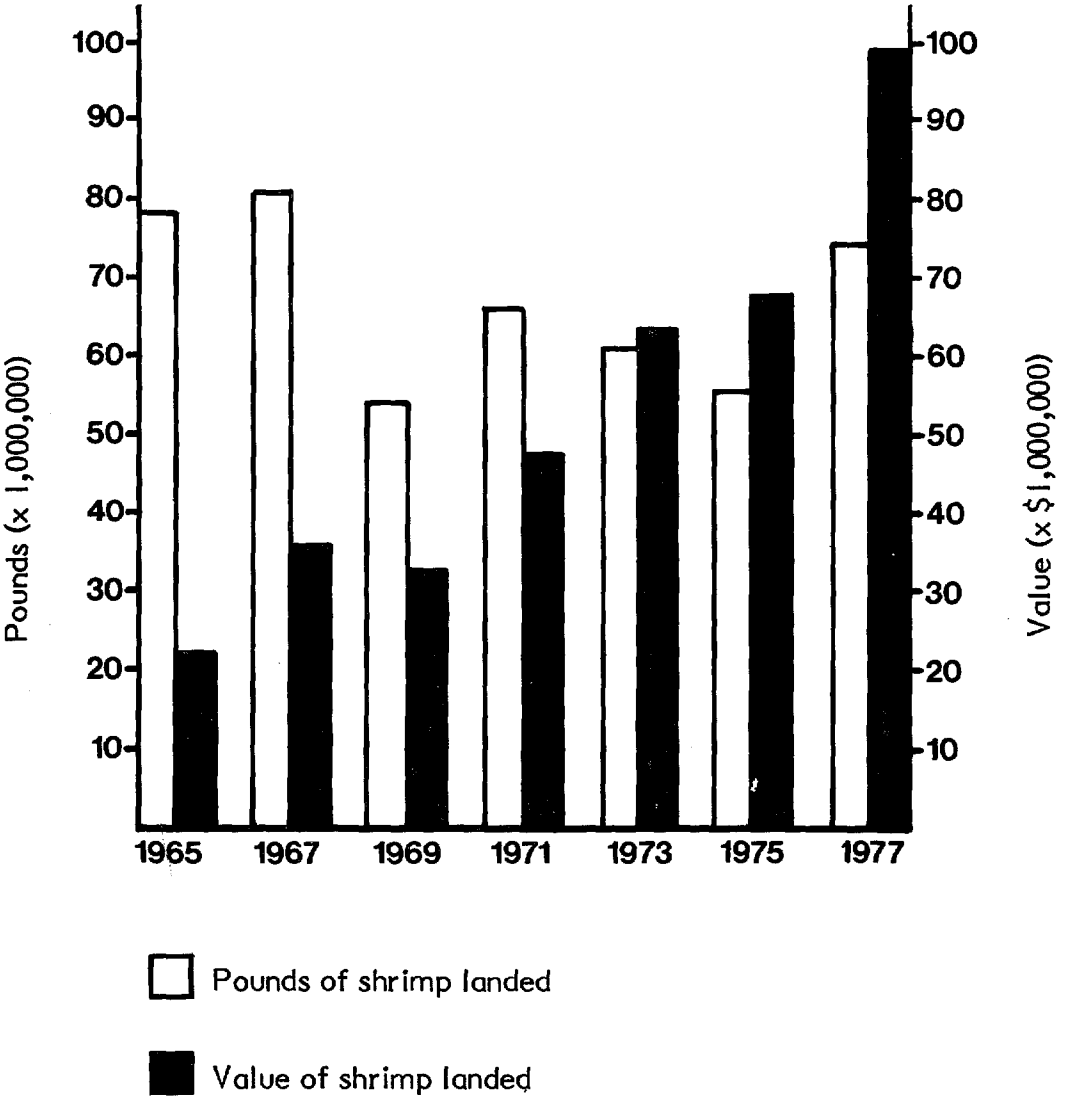


Figure FSH-2. Landings and value of shrimp at Texas ports from Texas waters for selected years, 1965 through 1977 (U.S. Dept. of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1979).

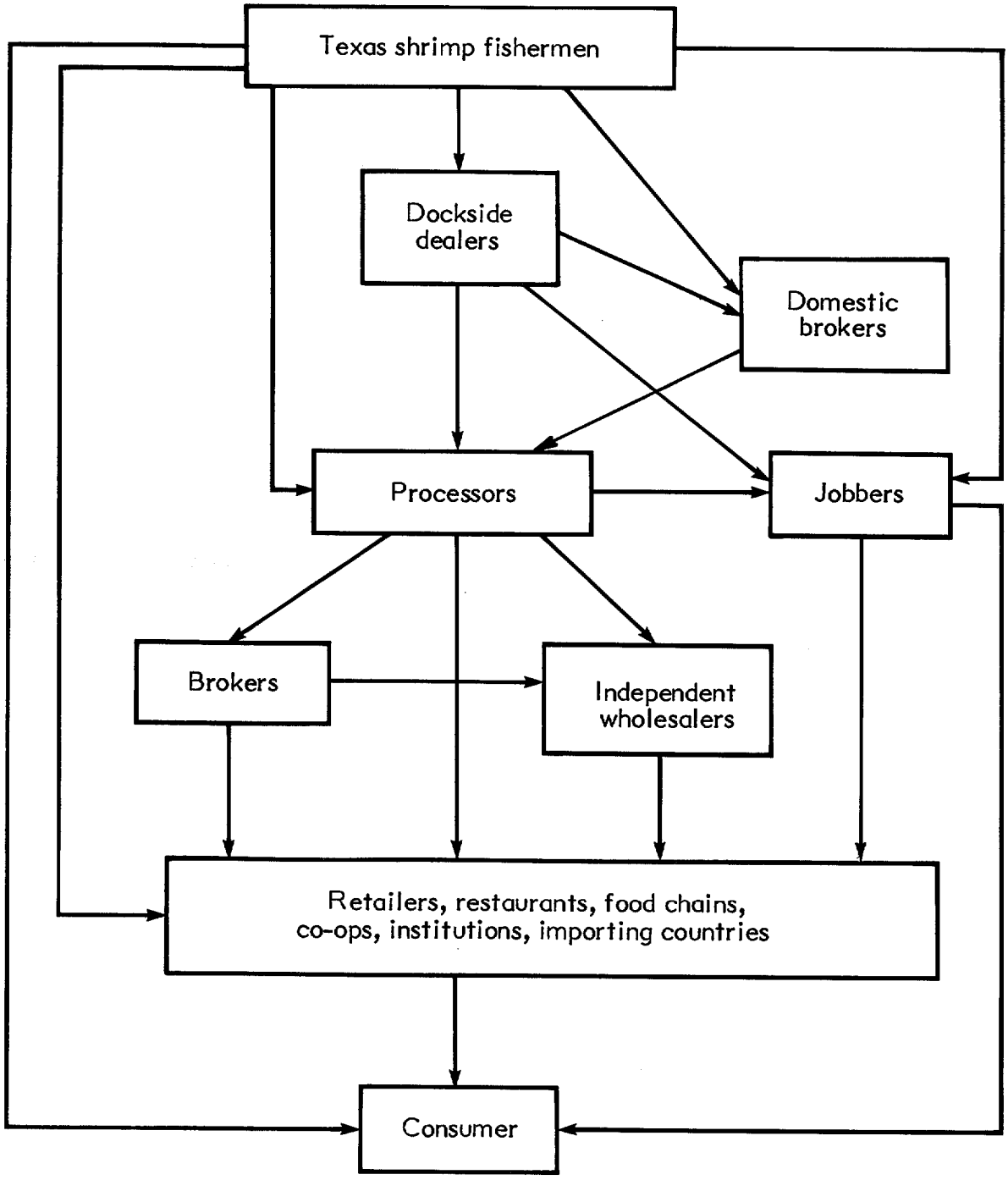


Figure FSH-3. Marketing channels for shrimp products (Van Lopik et al. 1979).

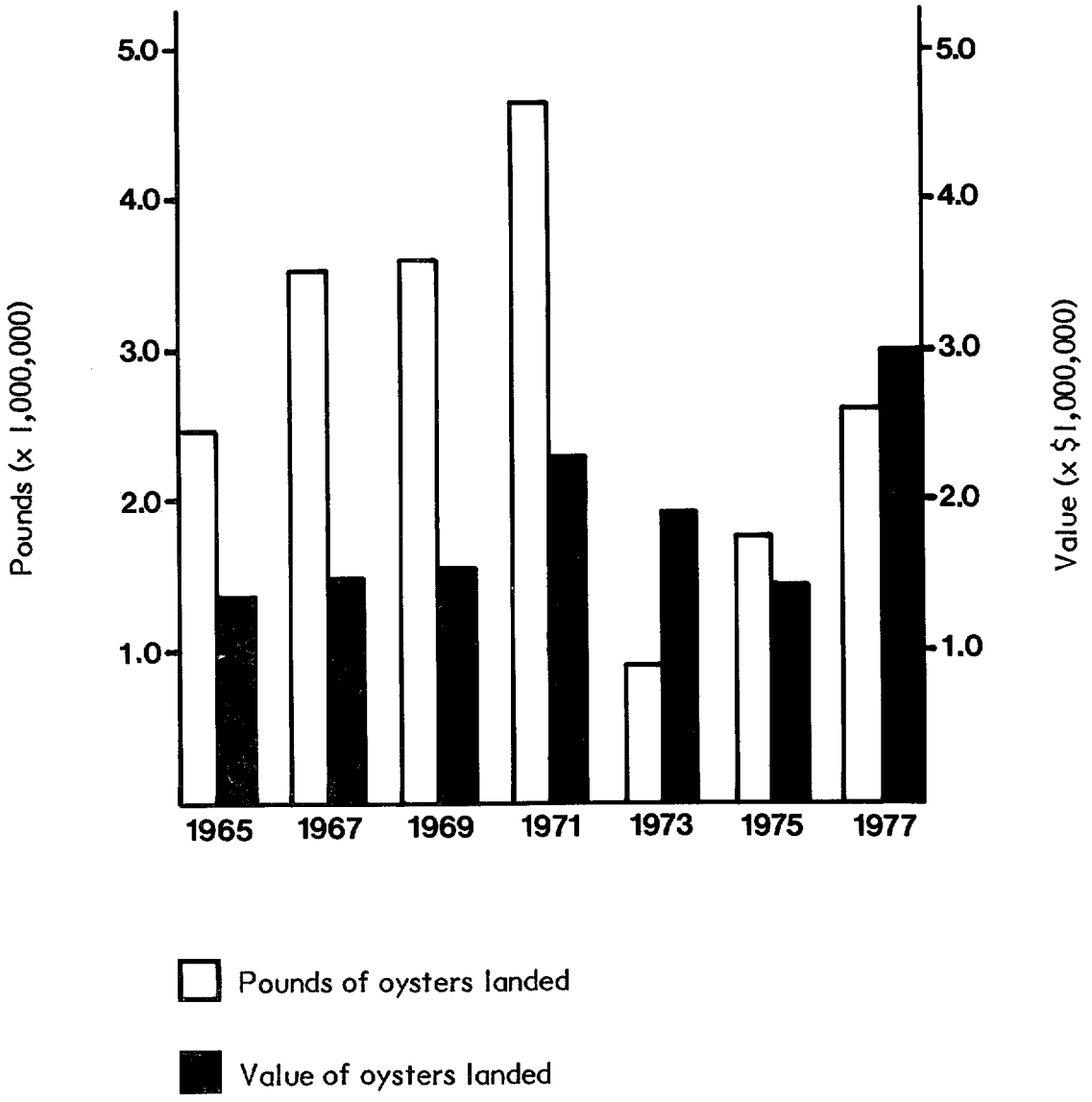


Figure FSH-4. Landings and value of oysters at Texas ports from Texas waters for selected years, 1965 through 1977 (U.S. Dept. of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1979).

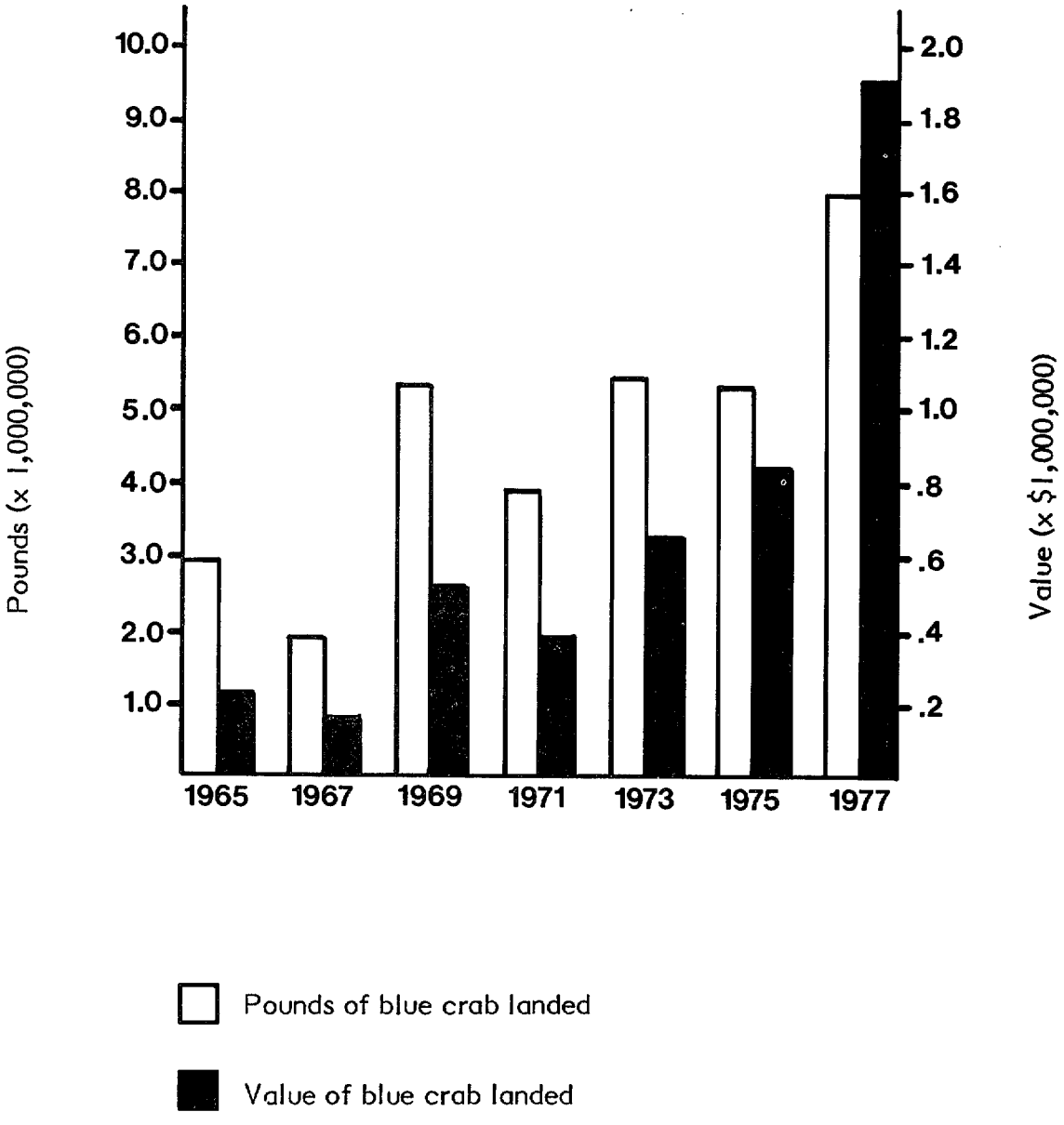


Figure FSH-5. Landings and value of blue crab at Texas ports from Texas waters for selected years, 1965 through 1977 (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1979).

Table FSH-5. Total effort data for the Texas shrimp fishery (U.S. Department of the Interior, Fish and Wildlife Service, Bureau of Commercial Fisheries 1957, 1961, 1966; U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1971, 1976, 1978a).

Year	Man days fished	Catch (heads off, lb)	Catch per day (lb)
1956	34,074	24,877,034	730
1960	45,987	21,398,317	465
1965	10,639	8,588,390	807
1970	6,105	4,137,292	676
1975	6,492	3,858,134	594
1977	76,740	46,350,661	604

Table FSH-6. Average value/lb of shrimp landed at Texas ports from Texas waters for selected years, 1965 through 1977 (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1980).

Year	Average value/lb (dollars)
1965	0.28
1967	0.44
1969	0.59
1971	0.72
1973	1.04
1975	1.22
1977	1.33

Table FSH-7. Resident vessel shrimpers for the Gulf of Mexico and Texas, 1958 through 1975 (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1980).

Year	Gulf	Texas
1958	8,171	4,592
1959	8,225	4,222
1960	7,849	4,142
1961	7,186	4,268
1962	6,661	3,406
1963	7,252	3,824
1964	7,121	3,749
1965	7,223	3,657
1966	7,466	3,787
1967	8,219	4,723
1968	8,851	4,932
1969	9,266	4,975
1970	9,386	4,737
1971	9,042	5,247
1972	9,534	5,264
1973	10,573	6,312
1974	9,733	5,415
1975[a]	9,359	4,751

[a]Estimate.

Table FSH-8. Commercial fishing vessels unloading in Texas, 1973 through 1978 (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service 1980).

Year	Size class (length in ft)							
	20-29	30-39	40-49	50-59	60-69	70-79	80-89	Total
1973	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	2,294
1974	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	2,006
1975	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1,758
1976	40	345	219	167	901	153	3	1,828
1977	61	423	267	225	1,093	158	3	2,230
1978	41	350	222	168	909	155	3	1,840

Table FSH-9. Classification of United States fishing gear (Dumont and Sundstrom 1961).

Encircling or Encompassing	Scooping
Seines	Dip nets
haul	Lift nets
stop	Reef nets
purse	Push nets
Lampara	Cast nets
Bag nets	Wheels
Trawls	
beam	
otter	
Entrapment	**Impaling or Wounding**
Weirs	Harpoons
Pound and trap nets	Spears
Hoop nets	
Fyke nets	
Pots and traps	
Slat traps	
Entanglement	**Shellfish**
Gill nets	Scrapes
anchor	Dredges
drift	Tongs and oyster grabs
semi-drift	Rakes
runaround	Hoes and forks
stake	Shovels
bar nets	Picks
rip rap nets	Crowfoot bars
Trammel nets	
Lines	
Hand	
Troll	
Long or set with hooks	**Miscellaneous**
Trot with baits	
Snag	Frog grabs
	Brush traps
	Hooks
	sponge
	other
	Diving outfits
	By hand

Table FSH-10. Commercial fishing license sales in Texas by type for selected years, 1955 through 1979 (Texas Parks and Wildlife Department, Licenses Section 1979b).

	1955-56	1960-61	1965-66	1970-71	1975-76	1978-79
Commercial Fisherman's	10,382	23,634	28,461	34,268	26,651	35,826
Commercial Fishing Boat	1,682	1,886	1,027	1,086	1,360	1,726
Commercial Fishing Boat - Menhaden	39	24	22	31	51	43
Commercial Fishing Boat - Red Drum	0	0	0	0	0	605
Commercial Gulf Shrimp Boat	0	1,947	1,947	2,900	2,573	3,364
Commercial Bay Shrimp Boat	0	0	1,969	3,743	2,917	4,444
Oyster Dredge - Power	150	316	144	126	[a]	58
Shrimp House Operator's	0	9	28	34	27	28
Menhaden Fish Plant Permit	0	2	1	1	0	0
Wholesale Fish Dealer's	157	185	234	225	241	254
Wholesale Fish Dealer's Truck	96	87	78	62	54	60
Retail Fish Dealer's	8,007	8,371	8,643	8,642	7,679	6,697
Retail Fish Dealer's Truck	75	78	65	73	490	602
Retail Oyster Dealer's	0	12	0	0	0	0

[a]Now Commercial Oyster Dredge.

Table FSH-11. Revenue to Texas from severance taxes and sale of shrimp fishing licenses, 1973 through 1977 (Texas Parks and Wildlife Department, Licenses Section 1979b).

Year	Revenue (dollars)
1973	644,781
1974	969,899
1975	887,768
1976	845,556
1977	881,085

Table FSH-12. Value of processed products[a] for the Texas commercial fishery, 1956, 1965, and 1975 (Power 1958, Lyles 1967, Pileggi and Thompson 1978).

Year	Dollars
1956	39,858,397
1965	61,115,597
1975	75,592,000

[a]Includes all products which undergo processing (i.e., fileting, canning, freezing, etc.) before sale to ultimate consumer.

Table FSH-13. Texas fish and seafood processors and manufacturers, 1977 (Directory of Texas manufacturers 1977).

County	Company and address
Brazoria	Old River Shrimp Co. 90 W. Brazos, Box 864 Freeport, Texas 77541
Calhoun	Clark's Seafood 6th Intercoastal Canal, Box 2 Port O'Connor, Texas 77982
	Clegg Shrimp Co., Inc. 613 N. Harbor, Drawer C Port Lavaca, Texas 77979
	Sea Breeze Inc. Plant 2 613 Harbor, Box 629 Port Lavaca, Texas 77979
Cameron	B & A, Inc., Seafoods ¼ mi. W. Hwy. 100 & Yacht Basin, Box 245 Port Isabel, Texas 78578
	Brazos Fisheries, Inc. Box 921 Port Isabel, Texas 78578
	Coastal Ice & Fuel Co. of Brownsville Shrimp Basin Brownsville, Texas 78520
	Grace, W.R., & Co. Grocery Products Group Seapak - Tradewinds Div. 2954 Boca Chica Blvd., Box 3067 Brownsville, Texas 78520
	Pace Fish Co., Inc. 55 W. Fronton, Box 3365 Brownsville, Texas 78520
	Port Mansfield Seafoods W. Port Drive Port Mansfield, Texas 78580

(continued)

Table FSH-13. (continued)

County	Company and address
Cameron (cont.)	Sea Breeze Inc. Plant 1 Shrimp Basin Brownsville, Texas 78520
	Shell-Tex Fisheries, Ltd. Shrimp Turning Basin, Box 1672 Brownsville, Texas 78520
	Twin City Shrimp Co., Inc. Box 518 Port Isabel, Texas 78578
	W.B.P. Shrimp Producers Corp. 606 S. Shore Dr., Box 686 Port Isabel, Texas 78578
	Winter Garden, Inc. 3135 E. 14th, Box 1752 Brownsville, Texas 78520
Chambers	Jeris Seafoods, Inc. Rt. 2, Box 85-AA Anahuac, Texas 77514
Galveston	Joe Grasso & Son, Inc. 9th & Wharf, Box 1018 Galveston, Texas 77550
	Hills Fish & Oyster Co. 20th & Wharf, Box 2097 Galveston, Texas 77550
	Liberty Fish & Oyster co. Pier 7, Box 267 Galveston, Texas 77550
	Southeast Packing Co. Pier 22, Box 1226 Galveston, Texas 77550
Hidalgo	Whittlesey's, Inc. 925 E. Highway 83 Mission, Texas 78572

(continued)

Table FSH-13. (concluded)

County	Company and address
Matagorda	Dumas Seafood, Inc. 9 8th St. Palacios, Texas 77465
Nueces	Coastal Freezing, Inc. 230 Maddox, Drawer CC Aransas Pass, Texas 78336
Processors outside the study area	Campbell Soup Co. Loop Hwy. 286 N.W., Box 116 Paris, Texas 75460
	Ruberstein Foods, Inc. 3201 Swiss Ave., Box 687 Dallas, Texas 75221
	San Antonio Spice Co. 2439 Castroville Rd., Box 37190 San Antonio, Texas 78237
	Southern Fish Co., Inc. 2502 Gonzalez, Box 1317 Laredo, Texas 78040

Table FSH-14. Migratory behavior of coastal fishes and crustaceans (adapted from Banta 1978).

Month	Movement into estuaries (or nearshore zone)	Movement from estuaries
January	Southern hake, red drum (peak)	Gulf menhaden, spadefish
February	Stingray, brown shrimp post-larvae, Gulf menhaden, spadefish	
March	Gulf killifish, spot, cutlassfish, butterfish, rough silverside, flounder, tonguefish	Blue catfish, sheepshead minnow, long-nose killifish
April	Gafftopsail catfish, sea catfish, bluefish, bumper, sand seatrout, southern kingfish, shipjack herring, adult Atlantic croaker, black drum (peak), pinfish, Atlantic threadfin, toadfish, midshipman	Skipjack herring (in and out same month)
May	Striped anchovy, lizardfish, sardine, Spanish mackerel, white shrimp post-larvae	Gulf menhaden, southern hake, brown shrimp juveniles
June	Needlefish, pompano, crevalle jack, leatherjacket, Atlantic moonfish	Butterfish
July	Ladyfish	
August		Ladyfish, Atlantic threadfin
September		Adult Atlantic croaker, rough silverside
October	Gulf menhaden, sheepshead minnow	Sardine, bluefish, leatherjacket, Atlantic moonfish, sand seatrout, cutlassfish, Spanish mackerel

(continued)

Table FSH-14. (concluded)

Month	Movement into estuaries (or nearshore zone)	Movement from estuaries
November	Blue catfish, juvenile Atlantic croaker	Striped anchovy, gafftopsail, sea catfish, needlefish, pompano, crevalle jack, bumper, pinfish, tonguefish, toadfish, midshipman, white shrimp juveniles
December	Longnose killifish	Stingray, lizardfish, Gulf killifish, spot, southern kingfish, flounder, hogchoker

Table FSH-15. Major finfish caught by sport fishermen in Texas coastal waters (Green and Weaver 1978).

Atlantic croaker *Micropogon undulatus*
Black drum *Pogonias cromis*
Gafftopsail catfish *Bagre marinus*
Red drum *Sciaenops ocellata*
Sand seatrout *Cynoscion arenarius*
Sheepshead *Archosargus probatocephalus*
Southern flounder *Paralichthys lethostigma*
Spotted seatrout *Cynoscion nebulosus*

Table FSH-16. Total estimated weekend finfish landings (lb X 1,000) by sport fishermen in boats, by bay system for 1974-75 and 1976-77 (Green and Weaver 1978).

Species	Bay system							
	Galveston		San Antonio		Aransas		Upper Laguna Madre	
	1974-75	1976-77	1974-75	1976-77	1974-75	1976-77	1974-75	1976-77
Spotted seatrout	281.6	152.7	117.7	68.9	82.6	90.5	333.5	178.0
Red drum	45.5	36.3	44.9	67.3	40.2	42.0	46.6	26.2
Black drum	85.8	43.1	4.1	35.5	6.3	6.0	52.1	20.8
Southern flounder	41.7	24.3	8.7	12.3	16.7	10.9	37.0	5.0
Sheepshead	30.8	44.4	8.0	3.1	10.0	7.4	13.1	3.8
Atlantic croaker	236.4	141.4	1.3	0.7	1.5	0.9	42.4	12.3
Sand seatrout	182.7	91.6	2.1	0.6	7.1	10.4	17.4	5.5
Gafftopsail catfish	18.4	26.2	9.9	16.3	0.6	5.4	0.1	0.0
Other	51.7	23.5	5.3	7.1	4.6	2.3	3.6	0.8
Bay totals	974.6	583.5	202.0	212.0	169.6	175.9	545.8	252.5

(continued)

Table FSH-16. (concluded)

Species	Bay system: Matagorda 1974-75	Matagorda 1976-77	Corpus Christi 1974-75	Corpus Christi 1976-77	Lower Laguna Madre 1974-75	Lower Laguna Madre 1976-77	Annual Species total 1974-75	Annual Species total 1976-77
Spotted seatrout	112.4	61.0	58.1	67.0	138.9	154.3	1,124.8	772.4
Red drum	56.6	14.2	16.2	10.1	22.1	23.8	272.1	219.9
Black drum	14.4	5.6	15.0	28.9	8.9	69.2	186.6	209.1
Southern flounder	20.3	8.2	3.2	6.3	5.3	6.8	132.9	73.8
Sheepshead	5.3	19.1	6.6	5.8	6.5	7.3	80.3	90.9
Atlantic croaker	5.3	4.1	13.5	10.8	3.3	4.9	303.7	175.1
Sand seatrout	9.6	10.1	42.6	30.4	7.3	9.3	268.8	157.9
Gafftopsail catfish	143.0	33.3	21.2	4.9	0.0	0.1	193.2	86.2
Other	1.4	10.8	7.1	3.4	16.4	3.1	90.1	57.0
Bay total	368.3	166.4	183.4	167.6	208.6	278.8	2,652.5	1,836.7

Table FSH-17. Estimated catch rates (lb/hr) for weekend sport fishermen in boats, by bay system for 1974-75 and 1976-77 (Green and Weaver 1978).

Species	Bay system									
	Galveston		San Antonio		Aransas		Upper Laguna Madre		Species average	
	1974-75	1976-77	1974-75	1976-77	1974-75	1976-77	1974-75	1976-77	1974-75	1976-77
Spotted seatrout	0.18	0.21	0.56	0.25	0.30	0.25	0.57	0.46	0.31	0.28
Red drum	0.03	0.05	0.23	0.25	0.17	0.11	0.08	0.07	0.06	0.10
Black drum	0.05	0.06	0.02	0.13	0.02	0.02	0.09	0.06	0.06	0.06
Southern flounder	0.02	0.03	0.05	0.04	0.05	0.03	0.06	0.01	0.04	0.03
Sheepshead	0.02	0.06	0.04	0.01	0.03	0.02	0.02	0.01	0.02	0.03
Atlantic croaker	0.15	0.19	0.01	0.01	0.01	0.01	0.07	0.03	0.10	0.09
Sand seatrout	0.12	0.12	0.01	0.01	0.02	0.03	0.03	0.01	0.08	0.06
Gafftopsail catfish	0.01	0.03	0.05	0.06	0.01	0.02	0.01	0.00	0.01	0.03
Other	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.02	0.02
Bay average	0.61	0.78	1.00	0.78	0.63	0.48	0.93	0.65	0.71	0.69

(continued)

Table FSH-17. (concluded)

Species	Bay system: Matagorda 1974-75	Matagorda 1976-77	Corpus Christi 1974-75	Corpus Christi 1976-77	Lower Laguna Madre 1974-75	Lower Laguna Madre 1976-77	Species average 1974-75	Species average 1976-77
Spotted seatrout	0.25	0.31	0.35	0.38	0.41	0.40	0.32	0.42
Red drum	0.12	0.07	0.10	0.05	0.11	0.08	0.09	0.07
Black drum	0.03	0.03	0.07	0.14	0.04	0.25	0.04	0.15
Southern flounder	0.05	0.04	0.02	0.03	0.02	0.03	0.03	0.03
Sheepshead	0.01	0.10	0.03	0.03	0.02	0.02	0.02	0.05
Atlantic croaker	0.01	0.02	0.07	0.06	0.01	0.02	0.02	0.03
Sand seatrout	0.02	0.05	0.21	0.16	0.02	0.03	0.06	0.07
Gafftopsail catfish	0.31	0.17	0.11	0.02	0.00	0.01	0.17	0.06
Other	0.01	0.05	0.04	0.02	0.05	0.01	0.03	0.02
Bay averages	0.81	0.84	1.00	0.91	0.66	0.92	0.80	0.90

Table FSH-18. Total pressure estimates (in man-trip-hours) of sport finfish harvest by sport fishermen by bay system for 1974-75 and 1976-77 (Green and Weaver 1978).

Bay system	1974-75	1976-77
Galveston	1,606.9	746.6
Matagorda	456.7	197.8
San Antonio	204.5	273.9
Aransas	270.0	365.5
Corpus Christi	183.0	184.2
Upper Laguna Madre	581.1	389.3
Lower Laguna Madre	314.1	296.5
Annual Total	3,616.3	2,453.8

Table FSH-19. White-tailed deer hunter and harvest data in the TBIE study area for selected years, 1974 through 1978 (Boydston and Harwell 1979).

Planning region/county	1974 Number hunters	Number hunter days	Total kill	Hunter days per hunter	Kills per hunter
GULF COAST					
Brazoria	2,781	17,988	1,017	6.47	0.38
Chambers	0	0	0	0.00	0.00
Fort Bend	1,501	8,694	635	5.79	0.42
Galveston	0	0	0	0.00	0.00
Harris	3,222	21,371	339	6.63	0.12
Liberty	3,310	20,729	550	6.26	0.18
Matagorda	1,324	5,610	805	4.24	0.61
Wharton	2,428	13,577	1,101	5.59	0.45
Total	14,566	87,969	4,447	6.04	0.31
GOLDEN CRESCENT					
Calhoun	618	1,884	339	3.05	0.55
Goliad	4,502	30,793	1,695	6.84	0.38
Jackson	3,399	19,658	1,440	5.78	0.44
Victoria	3,531	24,755	2,542	7.01	0.72
Total	12,050	77,090	6,016	6.40	0.50
COASTAL BEND					
Aransas	839	2,814	339	2.60	0.40
Bee	2,869	16,660	1,526	5.81	0.53
Brooks	2,384	11,692	1,356	4.91	0.57
Jim Wells	2,648	15,204	1,398	5.74	0.53
Kenedy	574	1,499	297	2.61	0.52
Kleberg	1,148	4,497	932	3.92	0.81
Nueces	795	4,668	127	5.88	0.16
Refugio	1,545	10,536	593	6.82	0.41
San Patricio	795	5,867	423	7.39	0.59
Total	13,597	73,437	6,991	5.40	0.51
LOWER RIO GRANDE VALLEY					
Cameron	441	1,756	84	3.98	0.19
Hidalgo	2,295	12,806	1,017	5.58	0.46
Willacy	1,148	6,981	636	6.08	0.55
Total	3,884	21,543	1,737	5.55	0.44
TBIE STUDY AREA	44,097	260,039	19,191	5.90	0.44

(continued)

Table FSH-19. (continued)

Planning region/county	1976 Number hunters	Number hunter days	Total kill	Hunter days per hunter	Kills per hunter
GULF COAST					
Brazoria	2,763	16,940	1,121	6.13	0.47
Chambers	210	3,092	0	14.70	0.00
Fort Bend	1,857	10,974	607	5.91	0.39
Galveston	0	0	0	0.00	0.00
Harris	1,857	10,606	158	5.71	0.11
Liberty	2,845	25,632	671	9.01	0.28
Matagorda	1,692	7,807	671	4.61	0.47
Wharton	2,269	13,478	607	5.94	0.32
Total	13,493	88,529	3,835	6.56	0.28
GOLDEN CRESCENT					
Calhoun	704	5,670	543	8.05	0.97
Goliad	5,233	32,262	1,995	6.16	0.43
Jackson	2,845	15,467	1,441	5.44	0.58
Victoria	2,763	14,510	1,121	5.25	0.47
Total	11,545	67,909	5,100	5.88	0.44
COASTAL BEND					
Aransas	704	4,124	94	5.85	0.15
Bee	2,351	12,815	1,185	5.45	0.58
Brooks	2,681	11,490	800	4.29	0.35
Jim Wells	2,351	17,530	1,056	7.46	0.52
Kenedy	704	5,523	479	7.84	0.85
Kleberg	1,445	5,449	736	3.77	0.60
Nueces	787	6,112	415	7.77	0.65
Refugio	1,775	8,543	992	4.81	0.65
San Patricio	1,034	6,407	735	6.20	0.85
Total	13,832	77,993	6,492	5.64	0.47
LOWER RIO GRANDE VALLEY					
Cameron	457	2,871	94	6.28	0.24
Hidalgo	2,224	12,225	673	5.50	0.30
Willacy	1,281	6,923	287	5.40	0.27
Total	3,962	22,019	1,054	5.56	0.27
TBIE STUDY AREA	42,832	256,450	16,481	5.99	0.38

(continued)

Table FSH-19. (concluded)

Planning region/county	1978 Number hunters	Number hunter days	Total kill	Hunter days per hunter	Kills per hunter
GULF COAST					
Brazoria	2,979	18,477	1,199	6.20	0.46
Chambers	203	2,570	0	12.66	0.00
Fort Bend	1,629	7,336	566	4.50	0.40
Galveston	278	3,376	0	12.14	0.00
Harris	2,379	12,504	498	5.26	0.25
Liberty	4,405	35,056	1,199	7.96	0.32
Matagorda	1,253	7,470	497	5.96	0.47
Wharton	3,054	15,054	673	4.93	0.27
Total	16,180	101,843	4,632	6.29	0.29
GOLDEN CRESCENT					
Calhoun	653	4,449	264	6.81	0.50
Goliad	5,905	36,130	2,134	6.12	0.42
Jackson	2,979	18,544	1,141	6.22	0.44
Victoria	4,179	26,934	2,427	6.44	0.65
Total	13,716	86,057	5,966	6.27	0.43
COASTAL BEND					
Aransas	1,178	6,597	264	5.60	0.27
Bee	2,829	13,913	1,433	4.92	0.58
Brooks	3,279	15,994	1,550	4.88	0.54
Jim Wells	2,604	16,799	790	6.45	0.36
Kenedy	803	4,449	439	5.54	0.67
Kleberg	578	3,912	264	6.77	0.58
Nueces	953	8,342	439	8.75	0.55
Refugio	2,754	16,329	1,550	5.93	0.64
San Patricio	803	7,940	147	9.88	0.22
Total	15,781	94,275	6,876	5.97	0.44
LOWER RIO GRANDE VALLEY					
Cameron	653	4,517	147	6.92	0.27
Hidalgo	2,079	10,222	498	4.92	0.29
Willacy	1,629	11,564	907	7.10	0.65
Total	4,361	26,303	1,552	6.03	0.36
TBIE STUDY AREA	50,038	308,478	19,026	6.16	0.38

Table FSH-20. White-tailed deer population and herd composition in the TBIE study area, 1977 and 1978 (Cook and Harwell 1979).

Planning region/county	1977				
	Estimated population (number)	Number per 1,000 acres	Herd composition		
			% bucks	% does	% fawns
GULF COAST					
Brazoria	14,603	120.5	13.8	54.3	31.9
Chambers	300	12.7	N.D.	N.D.	N.D.
Fort Bend	7,077	112.4	9.7	51.4	38.9
Galveston	0	0.0	0.0	0.0	0.0
Harris	2,000	12.0	N.D.	N.D.	N.D.
Liberty	7,000	21.4	N.D.	N.D.	N.D.
Matagorda	8,417	125.0	20.2	44.7	35.1
Wharton	3,753	59.2	24.2	57.6	18.2
Total	43,150				
GOLDEN CRESCENT					
Calhoun	7,078	52.9	22.9	48.6	28.5
Goliad	20,183	44.6	11.5	65.5	23.0
Jackson	11,536	44.1	9.1	57.6	33.3
Victoria	14,715	66.2	19.4	52.8	27.8
Total	53,512				
COASTAL BEND					
Aransas	1,800	19.8	20.7	59.0	20.3
Bee	13,383	54.9	28.4	65.9	5.7
Brooks	20,207	37.0	N.D.	N.D.	N.D.
Jim Wells	12,958	45.7	9.5	58.5	32.0
Kenedy	27,781	33.3	N.D.	N.D.	N.D.
Kleberg	19,178	45.7	N.D.	N.D.	N.D.
Nueces	5,247	107.5	N.D.	N.D.	N.D.
Refugio	20,176	54.9	N.D.	N.D.	N.D.
San Patricio	8,492	107.5	32.8	54.0	13.1
Total	129,222				
LOWER RIO GRANDE VALLEY					
Cameron	1,063	28.6	N.D.	N.D.	N.D.
Hidalgo	10,192	39.2	23.3	56.9	19.8
Willacy	3,178	24.8	26.3	62.5	11.2
Total	14,433				
TBIE STUDY AREA	240,317				

(continued)

Table FSH-20. (concluded)

Planning region/county	1978 Estimated population (number)	1978 Number per 1,000 acres	1978 Herd composition % bucks	1978 Herd composition % does	1978 Herd composition % fawns
GULF COAST					
Brazoria	10,359	85.5	4.8	62.9	32.3
Chambers	500	21.2	N.D.	N.D.	N.D.
Fort Bend	10,860	172.4	17.2	51.0	31.7
Galveston	0	0.0	0.0	0.0	0.0
Harris	1,500	9.0	N.D.	N.D.	N.D.
Liberty	10,000	30.5	0.0	92.9	7.1
Matagorda	7,008	105.3	24.5	42.4	33.0
Wharton	2,059	32.5	9.7	50.0	40.3
Total	42,286				
GOLDEN CRESCENT					
Calhoun	6,564	49.0	16.5	50.0	33.3
Goliad	36,139	80.0	21.2	53.0	25.8
Jackson	12,470	47.6	11.5	60.2	28.3
Victoria	17,481	78.7	23.6	52.7	23.6
Total	72,654				
COASTAL BEND					
Aransas	1,302	14.3	23.4	58.3	18.3
Bee	11,276	46.3	17.0	68.0	15.0
Brooks	22,220	40.6	N.D.	N.D.	N.D.
Jim Wells	5,936	20.9	21.8	57.7	20.5
Kenedy	30,635	36.8	N.D.	N.D.	N.D.
Kleberg	21,095	50.3	N.D.	N.D.	N.D.
Nueces	4,459	91.7	N.D.	N.D.	N.D.
Refugio	17,149	46.7	N.D.	N.D.	N.D.
San Patricio	5,850	74.1	30.4	51.8	17.8
Total	119,922				
LOWER RIO GRANDE VALLEY					
Cameron	713	19.2	N.D.	N.D.	N.D.
Hidalgo	9,165	35.2	N.D.	N.D.	N.D.
Willacy	4,823	37.6	18.1	71.0	10.9
Total	14,701				
TBIE STUDY AREA	249,563				

Table FSH-21. Estimated white-tailed deer population in the TBIE study area, 1974 through 1978 (Cook and Harwell 1979).

Region	Number of deer				
	1974	1975	1976	1977	1978
Gulf prairies and marshes[a]	96,924	99,740	103,970	104.694	98,141
South Texas plains[a]	640,337	698,924	600,766	667,750	655,051

[a]Regions do not correspond directly to TBIE study area, although TBIE area is included in these ecological regions.

Table FSH-22. Deer density and herd composition in the TBIE study area, 1974 through 1978 (Cook and Harwell 1979).

Region	Year	Deer per 1,000 acres	Herd composition			Does per buck	Fawns per doe	Fawns per adult
			% bucks	% does	% fawns			
Gulf prairies and marshes[a]	1974	66.7	19	54	27	2.77	0.49	0.36
	1975	66.7	21	56	23	2.74	0.41	0.30
	1976	62.5	24	57	19	2.40	0.33	0.23
	1977	63.3	20	55	25	2.71	0.47	0.34
	1978	59.2	21	53	26	2.57	0.48	0.35
South Texas plains[a]	1974	41.6	21	64	15	3.12	0.23	0.17
	1975	43.5	18	53	29	3.07	0.55	0.42
	1976	37.0	17	58	25	3.45	0.43	0.33
	1977	40.2	16	58	27	3.72	0.46	0.36
	1978	39.4	18	61	21	3.46	0.34	0.27

[a]Regions do not correspond directly to TBIE study area, although TBIE area is included in these ecological regions.

Table FSH-23. Mourning dove hunting activity and harvest in the TBIE study area, 1973-74 and 1975-76 hunting seasons (Harwell 1974, Dunks 1976).

Year & region	Number hunters	Total harvest	Hunter days	Daily bag	Hours per hunter-day
1973-1974					
Gulf prairies & marshes[a]	23,968	214,971	2.5	4.1	2.6
South Texas plains[a]	56,901	1,066,674	3.1	6.6	3.0
1975-1976					
Gulf prairies & marshes[a]	16,358	238,591	3.5	4.27	2.68
South Texas plains[a]	39,493	917,393	3.94	5.97	2.92

[a]Regions do not correspond directly to TBIE study area, although TBIE region is included in these ecological areas.

Table FSH-24. Javelina hunter and harvest data in the TBIE study area, 1978 (Williams 1979).

Region	Javelina harvested	Number hunters	Hunter days	% hunter success
South Texas plains[a]	16,951	36,400	215,292	43
Gulf prairies and marshes[a]	495	1,546	10,649	26
Total statewide (estimate)	22,647	54,021	299,434	38

[a]Regions do not correspond directly to TBIE study area, although TBIE area is included in these ecological regions.

Table FSH-25. Hunting and fishing license sales in Texas for selected years, 1955 through 1978 (Texas Parks and Wildlife Department, Licenses Section 1979b).

License class & type	1955-56	1960-61	1965-66	1970-71	1977-78
Class I					
Resident hunting	398,204	491,176	740,349	980,485	590,930
Non-resident hunting	1,423	2,293	4,395	10,421	14,453
Class II					
Non-resident 5-day migratory game bird	923	1,418	2,066	4,339	6,674
Non-resident migratory waterfowl	0	36	0	0	0
Non-resident shooting resort only	0	224	81	85	37
Non-resident trapper	0	0	0	4	2
Shooting preserve	5,853	8,553	12,317	15,357	11,250
Shooting resort	17	45	87	91	47
Hunting boat	48	30	13	16	27
Fur-bearing animal Permit	46	39	33	107	265
Fishing	458,702	873,859	1,018,913	1,495,845	1,036,028
Fish boat	1,392	1,616	1,147	1,081	650
Fish guide	202	262	249	692	517
Resident trapper	6,266	3,575	2,457	2,641	33,156
Resident combination fishing & hunting[a]	0	0	0	0	448,840

[a]Use of combination licenses did not begin until after 1970-71.

Table FSH-26. Some fish-eating and migratory birds of the Texas coastal area (Lay and Culbertson 1978).

Species	Habitat	Status, conflicts, tolerances
White pelican (Pelecanus erythrorhynchus)	Flat terrain with little obstructing vegetation. Nests on spoil banks & margins of shallow coastal bays & inlets.	Primary nesting colony is North & South Bird Island in Kleberg County. Seemingly stable population.
Anhinga (Anhinga anhinga)	Wooded freshwater swamps, rivers, & lakes.	Declining in numbers since 1930s. Habitat has been disturbed by motorboats. Has no protected sanctuary for nesting.
Great blue heron (Ardea herodias)	Fresh or salt water along the coast; marshes & bays. Nests on spoil banks.	Has declined as a breeder, but number of wintering birds has increased.
Little blue heron (Florida caerulea)	Lagoons. Nests primarily in freshwater marshes, rice fields, creeks, & bayous in hardwood forests.	Populations are relatively stable.
Cattle egret (Bubulcus ibis)	Nests in vegetation near water; feeds near grazing cattle in grassy pastures.	First seen in 1955 in Texas; has expanded its range & population since then to a State total of 100,000 birds in 1972. May be threatened by pesticide use.
Common egret (Casmerodius albus)	Salt, brackish, or fresh water thickets of swamps & marshes or on mesquite-saltcedar covered islands.	Most mainland colonies no longer exist because of intensive development; active colonies remain on Gulf Coast islands.
Snowy egret (Egretta thula)	Salt, brackish, or freshwater marshes.	Fish kills threaten its food supply. Nesting sites are invaded by cattle egrets. Development has caused mainland colonies to fail; island colonies still remain.

(continued)

Table FSH-26. (concluded)

Species	Habitat	Status, conflicts, tolerances
Louisiana heron (Hydranassa tricolor)	Feeds in saltwater marshes, rice fields, lagoons, beaches; nests on sparsely vegetated oyster reef islands in bays.	Has declined in numbers since 1939 because of habitat destruction, but still common.
Black-crowned night heron (Nycticorax nycticorax)	Fresh, brackish, or saltwater habitats; wooded swamps, offshore islands, lakes.	Populations declining slowly since 1939 in areas of intense development. Tolerates some encroachment of civilization around its nesting colonies.
Yellow-crowned night heron (Nyctanassa violacea)	Brackish-water swamps.	Declining in numbers due to habitat destruction. Most common in Lake Charlotte.
Wood stork (Mycteria americana)	Roosts in stands of bald-cypress and red mangrove; forages in prairie ponds, flooded pastures, rice fields, marshes, & shallow lagoons.	U.S. range has declined 90% since 1939; may be increasing in Texas.
White ibis (Endocimus albus)	Requires extensive shallows of flats, marshes, or wet pastures for foraging. Forms colonies near rivers in woody areas.	Declining in numbers. Has disappeared from the central coast, a former stronghold.
Sandhill crane (Gruscana densis)	Relatively inaccessible bodies of water & broad tracts of land in native vegetation juxtaposed with large areas under intensive field crop production.	Fairly common winter visitor; numbered over 13,500 during winter of 1970-71.

Table FSH-27. Some shorebirds of the Texas coastal area (Lay and Culbertson 1978).

Species	Habitat	Status, conflicts, tolerances
Gulls & terns (Larus and Sterna)	Mud flats, lagoons, marshes, jetties, beaches, and spoil islands.	Threatened by pollution and human infringement on nesting grounds, Several species declining in numbers.
Upland plover (Bartramia longicauda)	Upland prairies, pastures, and grassy fields away from shorelines.	Fairly common migrant. Nearly exterminated about 1900 by overhunting.
White-rumped sandpiper (Calidris fuscicollis)	Wet pastures, rice fields, tidal flats, and beaches.	Fairly common.
Semipalmated and western piper (Galidris pusilla and Calidris mauri)	Tidal flats and beaches.	Fairly common migrant and winter visitor.
Dowitcher (Limnodromus)	Rice fields, wet pastures, tidal flats, estuaries, and beaches.	Common during winter.
Snipe (Capella gallinago)	Fresh or saltwater marshes, shallow rain pools in prairies and pastures, and plowed or mowed fields, muddy areas.	Common along coast and over most of Texas.
Woodcock (Philohela minor)	Moist forest land in early stages of succession.	Habitat threatened by drainage of wetlands. Pesticides may be contaminating its earthworm food supply. Hunting is negligible.

Table FSH-28. Endangered, threatened, and peripheral[a] birds of the Texas coastal area (Lay and Culbertson 1978).

Name	TOES[b]	TPWD	FWS	Preferred habitat	Reasons for status
Brown pelican (Pelecanus occidentalis)	E*	E	E	Coastal islands and bays.	Pesticides, human disturbance.
Olivaceous cormorant (Phalacrocorax olivaceous)	P	NC	NC	Coastal islands, bays, and marshes.	Pollution, marsh drainage.
Reddish egret (Dichromanassa rufescens)	E	T	NC	Coastal islands and brackish marshes.	Restricted distribution; pollution, pesticides.
White-faced ibis (Plegadis chihi)	T	T	NC	Coastal islands and marshes.	Cultivation of habitat.
Roseate spoonbill (Ajaia ajaia)	P	NC	NC	Coastal islands and marshes.	Human disturbance (recovering).
Ross' goose	T	NC	NC	Coastal prairies.	Small population.
Fulvous tree duck (Dendrocygna bicolor)	E	NC	NC	Freshwater marshes and prairies.	Pesticides, cultivation of habitat.
Mexican duck (Anas diazi)	P	NC	E	Coastal marshes and resacas.	Small population, marsh drainage.
White-tailed kite (Elanus leucurus)	P	NC	NC	Prairies and farm country with clumps of trees.	Indiscriminate shooting.

(continued)

Table FSH-28. (continued)

Name	TOES	TPWD	FWS	Preferred habitat	Reasons for status
Swallow-tailed kite (Elanoides forficatus)	T	T	NC	Open woodlands.	Indiscriminate shooting, lumbering.
Zone-tailed hawk (Buteo albonotatus)	P	T	NC	Steep canyons and river woodlands.	Indiscriminate shooting.
Gray hawk (Buteo nitidus maximus)	P	T	NC	Subtropical woodlands.	Clearing of woodlands.
White-tailed hawk (Buteo albicaudatus hypospodius)	P	T	NC	Coastal prairies and marshes.	Indiscriminiate shooting.
Southern bald eagle (Haliaeetus l. leucocephalus)	T	NC	NC	Lakes, reservoirs, and large rivers.	Pesticides, indiscriminate shooting.
Golden eagle (Aquila chrysaetos)	T	NC	NC	Mountainous, hilly country.	Indiscriminate shooting.
Osprey (Pandion hallaetus)	E*	T	NC	Coastal zone, lakes and reservoirs.	Pesticides, indiscriminate shooting.
Peregrine falcon (Falco peregrinus)	E*	E	E	Coastal zone, lakes, and mountains.	Pesticides, nest robbing by falconers.
Prairie falcon (Falco mexicanus)	T	NC	NC	Open country of arid areas.	Pesticides, nest robbing by falconers.

(continued)

Table FSH-28. (continued)

Name	TOES	TPWD	FWS	Preferred habitat	Reasons for status
Merlin (Falco columbarius)	T	NC	NC	Open country.	Pesticides.
Attwater's prairie chicken (Tympanuchus cupido attwateri)	E*	E	E	Coastal prairies.	Overgrazing, agriculture.
Whooping crane (Grus americana)	E*	E	E	Coastal marshes and bays.	Small population size, restricted winter range.
Jacana (Jacanidae)	P	NC	NC	Coastal marshes.	Small population, drainage.
American oystercatcher (Haematopus palliatus)	P	NC	NC	Coastal islands, beaches, and mud-flats.	Small population.
Eskimo curlew (Numenius borealis)	E*	E	E	Coastal prairies.	Small population.
Sooty tern (Sterny fuscata)	P	NC	NC	Coastal islands.	Disturbance during nesting.
Ferruginous owl (Glaucidium brasilianum cactorum)	P	NC	NC	Subtropical woodland.	Clearing of woodland.
Ringed kingfisher (Megaceryle torquata)	P	NC	NC	Lower Rio Grande.	Small population.

(continued)

Table FSH-28. (continued)

Name	TOES	TPWD	F&WS	Preferred habitat	Reasons for status
Red-cockaded woodpecker (Dendrocopos borealis)	E*	E	E	Mature open pine forest.	Lumbering.
Ivory-billed woodpecker (Campephilus principalis)	E*	E	E	Mature hardwood riverbottom forests.	Lumbering.
Rose-throated becard (Tlatypsaris agalaia)	P	NC	NC	Subtropical woodland.	Clearing of woodlands.
Beardless flycatcher (Camptostoma imberbis)	P	NC	NC	Subtropical woodland.	Clearing of woodlands.
Yellow-green vireo (Vireo flavifrons)	P	NC	NC	Subtropical woodland.	Clearing of woodlands.
Tropical parula (Parula pitiami)	P	NC	NC	Subtropical woodland.	Clearing of woodlands.
White-collared seedeater (Sporophila morelleti)	P	NC	NC	Pastures and weedy fields.	Restricted distribution, small population size.

Table FSH-28. (concluded)

Name	TOES	TPWD	F&WS	Preferred habitat	Reasons for status
Botteri's sparrow (Aimophila botterii)	P	NC	NC	Coastal prairie, lower Gulf Coast.	Restricted distribution, small population size.

[a]Endangered (E): In danger of extinction in all or most of its geographic range in the United States, particularly in Texas.
Threatened (T): Depleted or impacted by man so as likely to become endangered in the near future.
Peripheral (P): Endangered or threatened in the United States, especially in Texas, although not in its range as a whole.
[b]The present vertebrate lists are cross-referenced with those of the Texas Parks and Wildlife Department (TPWD), and the United States Fish and Wildlife Service (FWS). If not considered (NC) by these agencies, or the animal's status is undetermined by them (SU), these additional designations are given. If listed in the RED DATA BOOK of the International Union for the Conservation of Nature, an asterisk (*) is placed by the Texas Organization for Endangered Species (TOES) designation. Brief statements of preferred habitat in Texas and reasons for status here are given also.

Table FSH-29. Endangered, threatened, and peripheral[a] mammals of the Texas coastal area (Lay and Culbertson 1978).

Name	TOES[b]	TPWD	FWS	Preferred habitat	Reasons for status
Southern yellow bat (Lasiurus ega xanthinus)	P	NC	NC	Roost in palm grove near Brownsville.	Habitat destruction.
Gulf stream beaked whale (Mesoplodon europaeus)	T	T	NC	Offshore waters.	Small population.
Goose-beaked whale (Ziphius cavirostris)	T	NC	NC	Offshore waters.	Unknown.
Sperm whale (Physeter catodon)	T	E	E	Offshore waters.	Whaling.
Pygmy sperm whale (Kogia breviceps)	T	T	NC	Offshore waters.	Whaling.
Dwarf sperm whale (Kogia simus)	T	T	NC	Offshore waters.	Whaling.
Pygmy killer whale (Feresa attenuata)	T	T	NC	Offshore waters.	Whaling.

(continued)

Table FSH-29. (continued)

Name	TOES	TPWD	FWS	Preferred habitat	Reasons for status
Finback whale (Balaenoptera physalus)	E*	E	E	Offshore waters.	Whaling.
Blue whale (Balaenoptera musculus)	E*	E	E	Offshore waters.	Whaling.
Black right whale (Eubalaena spp.)	E*	E	E	Offshore waters.	Whaling.
Red wolf (Canis rufus)	E	E	E	Coastal and prairie marshes.	Habitat destruction, predator control, disease.
River otter (Lutra canadensis)	T	NC	NC	Marshes, river or stream habitat.	Trapping pressure.
Ocelot (Felis pardalis)	P*	E	E	Subtropical woodland.	Predator control, habitat destruction.
Jaguarundi (Felis yagouaroundi cacomitli)	P	E	E	Subtropical woodland.	Predator control, hunting, habitat destruction.
West Indian seal (Monachus tropicalis)	E*	NC	NC	Sandy beaches.	Commercial hunting.

(continued)

Table FSH-29. (concluded)

Name	TOES	TPWD	FWS	Preferred habitat	Reasons for status
Manatee (Trichechus manatus)	E*	E	E	Warm, vegetated water.	Inadvertent killing by motorboat propellers, commercial hunting.

[a]Endangered (E): In danger of extinction in all or most of its geographic range in the United States, particularly in Texas. Threatened (T): Depleted or impacted by man so as likely to become endangered in the near future.
Peripheral (P): Endangered or threatened in the United States, especially in Texas, although not in its range as a whole.
[b]The present vertebrate lists are cross-referenced with those of the Texas Parks and Wildlife Department (TPWD), and the United States Fish and Wildlife Service (FWS). If not considered (NC) by these agencies, or the animal's status is undetermined by them (SU), these additional designations are given. If listed in the RED DATA BOOK of the International Union for the Conservation of Nature, an asterisk (*) is placed by the Texas Organization for Endangered Species (TOES) designation. Brief statements of preferred habitat in Texas and reasons for status here are given also.

TRANSPORTATION (TRANS)

Table TRANS-1. Standard Transportation Commodity Classification (2-digit code) (U.S. Department of the Army, Corps of Engineers 1978).

01	Farm products
08	Forest products
09	Fresh fish and other marine products
10	Metallic ores
11	Coal
13	Crude petroleum
14	Nonmetallic minerals, except fuels
19	Ordnance and accessories
20	Food and kindred products
21	Tobacco products
22	Basic textiles
23	Apparel and other finished textile products, including knit
24	Lumber and wood products, except furniture
25	Furniture and fixtures
26	Pulp, paper and allied products
27	Printed matter
28	Chemicals and allied products
29	Petroleum and coal products
30	Rubber and miscellaneous plastics products
31	Leather and leather products
32	Stone, clay, glass, and concrete products
33	Primary metal products
34	Fabricated metal products, except ordnance, machinery, and transportation equipment
35	Machinery, except electrical
36	Electrical machinery equipment and supplies
37	Transportation equipment
38	Instruments, photographic and optical goods, watches and clocks
39	Miscellaneous products of manufacturing
40	Waste and scrap materials
41	Special items
99	Department of Defense controlled cargo and special category items

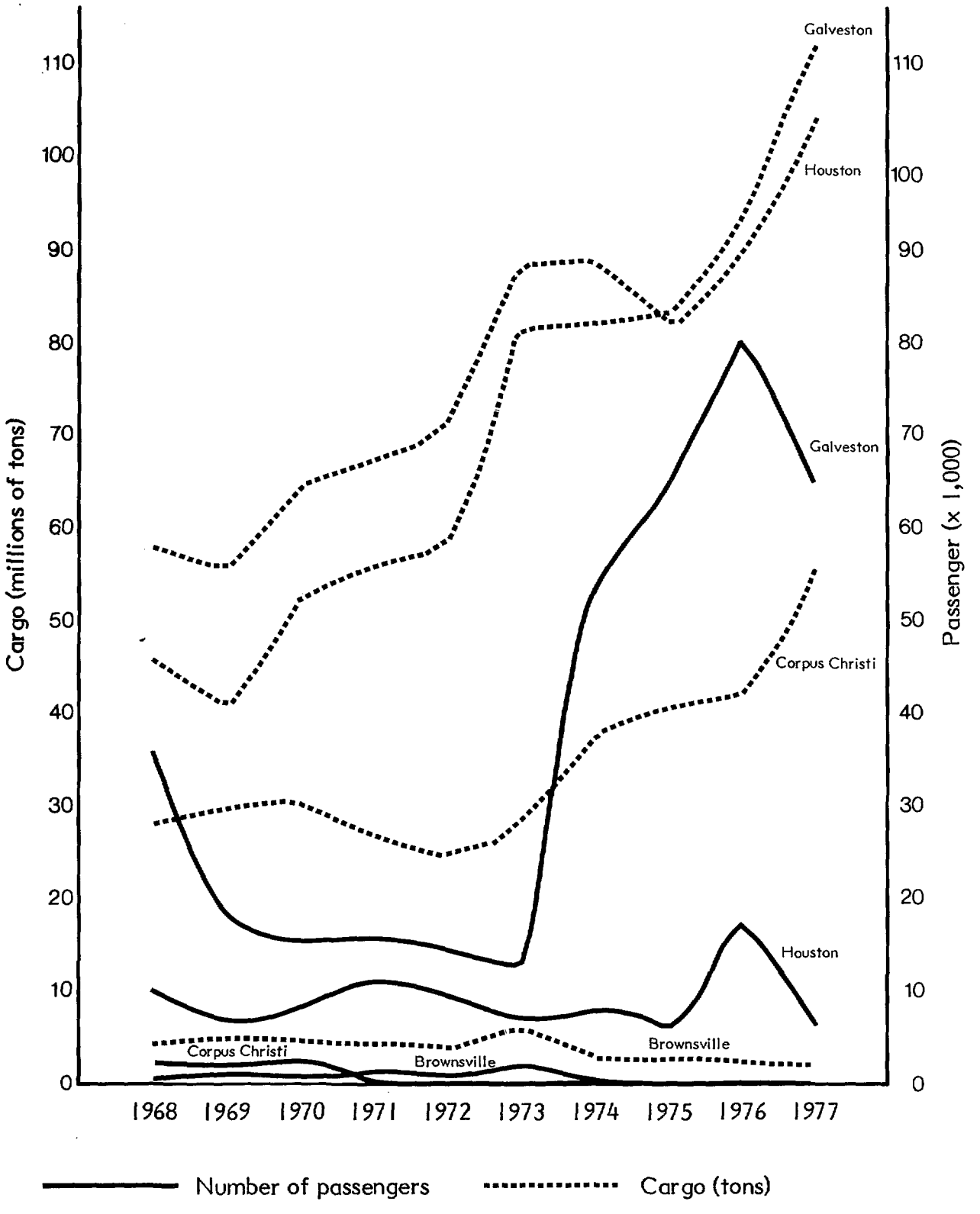


Figure TRANS-1. Passenger and cargo for four major habor/port areas (U.S. Department of the Army, Corps of Engineers 1966, 1971, 1976, 1978).

Table TRANS-2. Waterborne commerce by Standard Transportation Commodity Classification code for the Gulf Intracoastal Waterway: Sabine River to Galveston, Texas, for selected years, 1965 through 1977 (short tons) (U.S. Department of the Army, Corps of Engineers 1966, 1971, 1976, 1978).

Year	Commodity		Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1965		Total	32,762,612	40,037	360,740	1,407,716	11,620,283
	01	Farm products	121,193	0	0	0	0
	08	Forest products	4,390	0	0	0	4,390
	09	Fresh fish and other marine products	914,456	0	118,132	0	782,668
	10	Metallic ores	19,471	0	0	0	8,098
	11	Coal	335,457	0	0	0	0
	13	Crude petroleum	14,970,574	0	16,774	41,646	1,549,655
	14	Nonmetallic minerals, except fuels	928,010	0	0	0	809,691
	20	Food and kindred products	18,885	0	0	0	10,396
	24	Lumber and wood products, except furniture	11,093	0	0	0	3,440
	26	Pulp, paper and allied products	57,473	0	0	0	24,533
	28	Chemicals and allied products	4,746,940	0	31,796	125,065	2,788,079
	29	Petroleum and coal products	8,739,003	40,037	182,447	1,221,766	4,956,276
	30	Rubber and miscellaneous plastics products	9,392	0	0	0	9,392
	32	Stone, clay, glass, and concrete products	355,293	0	0	0	345,512
	33	Primary metal products	1,128,437	0	2,698	0	248,017
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	79,151	0	0	80	5,202
	35	Machinery, except electrical	32,863	0	0	0	2,230
	36	Electrical machinery equipment and supplies	8,722	0	0	0	0
	37	Transportation equipment	1,916	0	0	0	1,002
	39	Miscellaneous products of manufacturing	13,726	0	593	369	7,553

(continued)

Table TRANS-2. (continued)

Year	Commodity		Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1965	40	Waste and scrap materials	75,428	0	0	0	19,119
	41	Special items	190,739	0	8,300	18,790	45,030

Year	Commodity		Westbound	Inbound westbound	Outbound westbound	Through westbound
1965		Total	21,669	2,442,637	1,760,968	15,645,333
	01	Farm products	0	0	0	0
	08	Forest products	0	0	0	0
	09	Fresh fish and other marine products	0	0	0	13,656
	10	Metallic ores	0	0	0	11,373
	11	Coal	0	0	0	335,457
	13	Crude petroleum	0	1,129,034	1,359,994	10,873,471
	14	Nonmetallic minerals, except fuels	0	0	0	118,319
	20	Food and kindred products	0	0	0	8,489
	24	Lumber and wood products, except furniture	0	288	0	7,365
	26	Pulp, paper and allied products	0	0	0	32,940
	28	Chemicals and allied products	21,469	50,097	67,355	1,663,079
	29	Petroleum and coal products	200	528,280	216,163	1,593,834
	30	Rubber and miscellaneous plastics products	0	0	0	0
	32	Stone, clay, glass, concrete products	0	0	0	9,781
	33	Primary metal products	0	731,096	0	804,626
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	0	1,611	0	72,258

(continued)

Table TRANS-2. (continued)

Year	Commodity		Westbound	Inbound westbound	Outbound westbound	Through westbound
1965	35	Machinery, except electrical	0	50	0	30,583
	36	Electrical machinery equipment and supplies	0	0	0	8,722
	37	Transportation equipment	0	0	0	914
	39	Miscellaneous products of manufacturing	0	2,217	306	2,688
	40	Waste and scrap materials	0	0	0	56,309
	41	Special items	0	0	117,150	1,469

Year	Commodity		Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1970		Total	42,660,782	N.D.	633,490	3,239,858	16,149,074
	01	Farm products	N.D.	N.D.	N.D.	N.D.	N.D.
	09	Fresh fish and other marine products	1,532,239	N.D.	22,635	0	193,582
	10	Metallic ores	52,116	N.D.	0	0	27,229
	11	Coal	357,775	N.D.	0	0	875
	13	Crude petroleum	15,391,573	N.D.	59,094	13,142	1,299,618
	14	Nonmetallic minerals, except fuels	1,142,274	N.D.	83,426	0	789,331
	20	Food and kindred products	45,800	N.D.	0	0	12,185
	22	Basic textiles	191	N.D.	0	0	0
	24	Lumber and wood products, except furniture	6,304	N.D.	0	688	5,301
	25	Furniture and fixtures	606	N.D.	0	0	0
	26	Pulp, paper and allied products	41,795	N.D.	0	0	17,518
	28	Chemicals and allied products	7,089,866	N.D.	93,507	360,264	4,644,323
	29	Petroleum and coal products	15,077,575	N.D.	372,167	2,854,230	8,539,311

(continued)

Table TRANS-2. (continued)

Year	Commodity		Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1970	30	Rubber and miscellaneous plastics products	262	N.D.	0	0	0
	32	Stone, clay, glass, and concrete products	274,337	N.D.	0	0	230,728
	33	Primary metal products	1,241,260	N.D.	2,661	0	270,951
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	26,581	N.D.	0	0	10,379
	35	Machinery, except electrical	21,543	N.D.	0	0	4,145
	37	Transportation equipment	8,230	N.D.	0	0	674
	39	Miscellaneous products of manufacturing	1,454	N.D.	0	0	319
	40	Waste and scrap materials	330,644	N.D.	0	11,439	98,059
	41	Special items	18,357	N.D.	0	95	4,546

Year	Commodity		Westbound	Inbound westbound	Outbound westbound	Through westbound
1970		Total	48,714	2,939,186	819,302	18,831,158
	01	Farm products	N.D.	N.D.	N.D.	N.D.
	09	Fresh fish and other marine products	0	50,453	0	1,265,569
	10	Metallic ores	0	0	0	24,887
	11	Coal	0	0	0	356,900
	13	Crude petroleum	17,361	2,408,339	441,392	11,152,627
	14	Nonmetallic minerals, except fuels	0	0	0	269,517
	20	Food and kindred products	0	0	0	33,615
	22	Basic textiles	0	0	0	191

(continued)

Table TRANS-2. (continued)

Year	Commodity		Westbound	Inbound westbound	Outbound westbound	Through westbound
1970	24	Lumber and wood products, except furniture	0	0	0	315
	25	Furniture and fixtures	0	0	0	606
	26	Pulp, paper and allied products	0	0	0	24,277
	28	Chemicals and allied products	12,085	156,853	84,502	1,738,332
	29	Petroleum and coal products	19,268	249,093	274,946	2,768,560
	30	Rubber and miscellaneous plastics products	0	0	0	262
	32	Stone, clay, glass, and concrete products	0	0	0	43,609
	33	Primary metal products	0	71,926	0	895,722
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	0	1,174	0	15,028
	35	Machinery, except electrical	0	0	0	17,398
	37	Transportation equipment	0	0	0	7,556
	39	Miscellaneous products of manufacturing	0	0	0	1,135
	40	Waste and scrap materials	0	1,348	18,462	201,336
	41	Special items	0	0	0	13,716

Year	Commodity		Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1975		Total	37,559,050	N.D.	398,778	4,141,712	17,537,707
	01	Farm products	570,800	N.D.	0	0	45,109
	08	Forest products	418	N.D.	0	0	418
	09	Fresh fish and other marine products	932,308	N.D.	5,247	0	64,455
	10	Metallic ores	55,809	N.D.	0	0	12,542

(continued)

Table TRANS-2. (continued)

Year	Commodity		Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1975	11	Coal	394,265	N.D.	0	720	0
	13	Crude petroleum	8,760,723	N.D.	19,951	194,031	1,448,443
	14	Nonmetallic minerals, except fuels	1,084,527	N.D.	13,087	412	941,915
	20	Food and kindred products	70,765	N.D.	804	701	45,399
	22	Basic textiles	82	N.D.	82	0	0
	24	Lumber and wood products, except furniture	8,808	N.D.	0	0	809
	25	Furniture and fixtures	622	N.D.	0	0	488
	26	Pulp, paper and allied products	44,828	N.D.	0	0	3,260
	28	Chemicals and allied products	7,918,453	N.D.	94,909	262,172	5,243,876
	29	Petroleum and coal products	15,757,099	N.D.	263,620	3,679,253	9,165,284
	32	Stone, clay, glass, and concrete products	160,629	N.D.	0	1,783	120,549
	33	Primary metal products	1,261,828	N.D.	1,018	1,212	323,519
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	19,861	N.D.	60	0	5,087
	35	Machinery, except electrical	15,167	N.D.	0	0	4,150
	36	Electrical machinery equipment and supplies	3,029	N.D.	0	0	505
	37	Transportation equipment	11,775	N.D.	0	0	1,082
	39	Miscellaneous products of manufacturing	7,374	N.D.	0	277	3,580
	40	Waste and scrap materials	474,434	N.D.	0	1,151	105,713
	41	Special items	5,446	N.D.	0	0	1,524

(continued)

Table TRANS-2. (continued)

Year		Commodity	Westbound	Inbound westbound	Outbound westbound	Through westbound
1975		Total	28,123	1,119,444	1,333,856	13,023,430
	01	Farm products	0	69,411	3,565	452,715
	08	Forest products	0	0	0	0
	09	Fresh fish and other marine products	6,520	102,552	67,834	685,700
	10	Metallic ores	0	0	0	43,267
	11	Coal	0	0	0	393,545
	13	Crude petroleum	0	632,604	338,241	6,127,453
	14	Nonmetallic minerals, except fuels	0	3,849	109,146	16,118
	20	Food and kindred products	0	0	0	23,861
	22	Basic textiles	0	0	0	0
	24	Lumber and wood products, except furniture	0	0	0	7,999
	25	Furniture and fixtures	0	0	0	134
	26	Pulp, paper and allied products	0	0	0	41,568
	28	Chemicals and allied products	12,727	73,445	94,100	2,137,224
	29	Petroleum and coal products	8,876	196,627	711,829	1,731,610
	32	Stone, clay, glass, and concrete products	0	0	0	38,297
	33	Primary metal products	0	39,456	600	920,023
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	0	973	0	13,741
	35	Machinery, except electrical	0	0	0	11,017
	36	Electrical machinery equipment and supplies	0	0	0	2,524
	37	Transportation equipment	0	0	0	10,693
	39	Miscellaneous products of manufacturing	0	377	0	3,140
	40	Waste and scrap materials	0	0	8,541	359,029
	41	Special items	0	150	0	3,772

(continued)

Table TRANS-2. (continued)

Year	Commodity		Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1977		Total	45,434,054	N.D.	500,490	3,468,553	23,530,294
	01	Farm products	238,352	N.D.	3,708	2,800	90,308
	08	Forest products	4,184	N.D.	0	0	0
	09	Fresh fish and other marine products	1,360,458	N.D.	0	0	81,242
	10	Metallic ores	110,652	N.D.	0	0	75,896
	11	Coal	236,327	N.D.	0	0	0
	13	Crude petroleum	10,007,406	N.D.	257	222,522	2,817,863
	14	Nonmetallic minerals, except fuels	1,028,408	N.D.	95,987	0	819,829
	20	Food and kindred products	167,851	N.D.	0	2,642	100,274
	22	Basic textiles	234	N.D.	40	0	0
	24	Lumber and wood products, except furniture	9,214	N.D.	0	0	2,035
	25	Furniture and fixtures	578	N.D.	0	0	354
	26	Pulp, paper and allied products	34,109	N.D.	0	0	5,324
	28	Chemicals and allied products	9,334,072	N.D.	99,052	203,979	6,521,802
	29	Petroleum and coal products	21,056,372	N.D.	300,847	3,034,136	12,626,058
	30	Rubber and miscellaneous plastics products	2	N.D.	0	0	0
	31	Leather and leather products	1,129	N.D.	0	0	1,129
	32	Stone, clay, glass, and concrete products	95,714	N.D.	0	0	19,719
	33	Primary metal products	942,500	N.D.	599	0	265,714
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	22,412	N.D.	0	0	4,250
	35	Machinery, except electrical	16,237	N.D.	0	0	12,507
	36	Electrical machinery equipment and supplies	510	N.D.	0	0	424
	37	Transportation equipment	5,408	N.D.	0	450	743

(continued)

Table TRANS-2. (continued)

Year	Commodity		Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1977	39	Miscellaneous products of manufacturing	11,160	N.D.	0	410	7,249
	40	Waste and scrap materials	735,921	N.D.	0	1,115	68,744
	41	Special items	14,844	N.D.	0	499	8,830

Year	Commodity		Westbound	Inbound westbound	Outbound westbound	Through westbound
1977		Total	76,006	1,428,787	1,313,798	15,115,766
	01	Farm products	0	20,312	0	121,224
	08	Forest products	0	791	0	3,393
	09	Fresh fish and other marine products	33,887	77,513	219,859	947,957
	10	Metallic ores	0	0	0	34,756
	11	Coal	0	0	0	236,327
	13	Crude petroleum	5,692	871,903	345,891	5,743,278
	14	Nonmetallic minerals, except fuels	0	18,003	540	94,049
	20	Food and kindred products	0	33	0	64,902
	21	Basic textiles	0	0	0	194
	24	Lumber and wood products, except furniture	0	0	0	7,179
	25	Furniture and fixtures	0	2	0	222
	26	Pulp, paper and allied products	0	21	0	28,764
	28	Chemicals and allied products	9,146	62,646	90,349	2,347,098
	29	Petroleum and coal products	27,281	318,659	638,880	4,110,511
	30	Rubber and miscellaneous plastics products	0	2	0	0
	31	Leather and leather products	0	0	0	0

(continued)

Table TRANS-2. (concluded)

Year	Commodity		Westbound	Inbound westbound	Outbound westbound	Through westbound
1977	32	Stone, clay, glass, and concrete products	0	150	0	75,845
	33	Primary metal products	0	48,376	615	627,196
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	0	2,989	0	15,173
	35	Machinery, except electrical	0	436	0	3,294
	36	Electrical machinery equipment and supplies	0	0	0	86
	37	Transportation equipment	0	2,775	0	1,080
	39	Miscellaneous products of manufacturing	0	25	0	3,476
	40	Waste and scrap materials	0	4,151	17,612	644,299
	41	Special items	0	0	52	5,463

Table TRANS-3. Waterborne commerce by Standard Transportation Commodity Classification code for the Gulf Intracoastal Waterway: Galveston, Texas, to Corpus Christi, Texas, for selected years, 1965 through 1977 (short tons) (U.S. Department of the Army, Corps of Engineers 1966, 1971, 1976, 1978).

Year	Commodity		Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1965		Total	16,816,665	235,844	700,790	5,676,150	3,991,544
	01	Farm products	48,781	5	0	0	0
	08	Forest products	7,248	0	0	0	7,248
	09	Fresh fish and other marine products	2,921,164	207,904	52,495	1,696,630	56,333
	10	Metallic ores	1,775,642	0	0	1,769,375	2,886
	13	Crude petroleum	6,381,321	3,631	583,977	2,103,270	1,328,038
	14	Nonmetallic minerals, except fuels	146,167	0	0	19,828	66,851
	20	Food and kindred products	1,156	0	0	0	1,146
	24	Lumber and wood products, except furniture	655	0	600	0	0
	26	Pulp, paper and allied products	1,510	0	0	0	0
	28	Chemicals and allied products	2,527,825	0	16,891	0	1,381,793
	29	Petroleum and coal products	2,017,287	24,174	32,616	72,902	1,075,294
	32	Stone, clay, glass, and concrete products	52,662	0	12,751	0	5,517
	33	Primary metal products	108,003	0	0	100	53,200
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	1,116	0	0	0	179
	35	Machinery, except electrical	2,562	0	0	0	2,411
	36	Electrical machinery equipment and supplies	19,969	0	0	11,247	0
	37	Transportation equipment	568	130	0	70	0
	39	Miscellaneous products of manufacturing	8,560	0	0	2,728	539
	40	Waste and scrap materials	44,670	0	0	0	1,809
	41	Special items	749,799	0	1,460	0	8,300

(continued)

Table TRANS-3. (continued)

Year	Commodity		Westbound	Inbound westbound	Outbound westbound	Through westbound
1965		Total	106,366	1,003,303	312,407	4,790,261
	01	Farm products	0	48,776	0	0
	08	Forest products	0	0	0	0
	09	Fresh fish and other marine products	104,668	193,457	8,255	601,422
	10	Metallic ores	0	0	0	3,381
	13	Crude petroleum	0	9,831	292,111	2,060,463
	14	Nonmetallic minerals, except fuels	0	20,698	0	38,790
	20	Food and kindred products	0	0	10	0
	24	Lumber and wood products, except furniture	0	0	0	55
	26	Pulp, paper and allied products	0	0	0	1,510
	28	Chemicals and allied products	0	11,510	0	1,117,631
	29	Petroleum and coal products	0	88,510	11,831	711,960
	32	Stone, clay, glass, and concrete products	0	4,640	0	29,754
	33	Primary metal products	0	1,861	0	52,842
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	0	432	0	505
	35	Machinery, except electrical	0	0	0	151
	36	Electrical machinery equipment and supplies	0	0	0	8,722
	37	Transportation equipment	130	109	0	129
	39	Miscellaneous products of manufacturing	1,568	1,290	0	2,435
	40	Waste and scrap materials	0	0	0	42,861
	41	Special items	0	622,189	200	117,650

(continued)

Table TRANS-3. (continued)

Year	Commodity		Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1970		Total	20,208,590	363,832	697,931	6,830,700	5,606,507
	01	Farm products	131,922	0	0	8,895	1,316
	09	Fresh fish and other marine products	6,880,128	359,921	14,777	5,749,469	3,750
	10	Metallic ores	46,438	0	0	268	21,283
	13	Crude petroleum	4,095,143	3,471	413,776	603,026	787,960
	14	Nonmetallic minerals, except fuels	1,261,568	0	134,437	318,076	725,108
	24	Lumber and wood products, except furniture	315	0	0	0	0
	26	Pulp, paper and allied products	1,638	0	0	0	0
	28	Chemicals and allied products	3,555,229	0	55,806	12,181	1,903,660
	29	Petroleum and coal products	3,629,605	440	61,423	73,046	1,977,853
	32	Stone, clay, glass, and concrete products	120,537	0	17,712	260	75,095
	33	Primary metal products	176,095	0	0	41,955	97,269
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	2,860	0	0	0	62
	35	Machinery, except electrical	18,141	0	0	3,858	645
	37	Transportation equipment	56	0	0	0	0
	39	Miscellaneous products of manufacturing	20,365	0	0	19,666	0
	40	Waste and scrap materials	266,262	0	0	0	10,960
	41	Special items	2,288	0	0	0	1,546

(continued)

Table TRANS-3. (continued)

Year		Commodity	Westbound	Inbound westbound	Outbound westbound	Through westbound
1970		Total	64,928	658,814	973,235	5,012,643
	01	Farm products	0	35,973	0	85,738
	09	Fresh fish and other marine products	64,928	112,029	575,254	0
	10	Metallic ores	0	2,593	0	22,294
	13	Crude petroleum	0	64,726	166,882	2,055,302
	14	Nonmetallic minerals, except fuels	0	14,317	0	69,630
	24	Lumber and wood products, except furniture	0	315	0	0
	26	Pulp, paper and allied products	0	0	0	1,638
	28	Chemicals and allied products	0	71,125	218,683	1,293,774
	29	Petroleum and coal products	0	95,780	10,749	1,410,314
	32	Stone, clay, glass, and concrete products	0	24,274	0	3,196
	33	Primary metal products	0	3,675	1,667	31,529
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	0	2,469	0	329
	35	Machinery, except electrical	0	1,793	0	11,845
	37	Transportation equipment	0	0	0	56
	39	Miscellaneous products of manufacturing	0	699	0	0
	40	Waste and scrap materials	0	228,304	0	26,998
	41	Special items	0	742	0	0

(continued)

Table TRANS-3. (continued)

Year	Commodity	Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1975	Total	19,462,432	270,766	1,048,836	5,616,993	6,251,263
01	Farm products	218,675	0	0	25,388	5,339
08	Forest products	418	0	0	418	0
09	Fresh fish and other marine products	3,420,411	269,310	1,454	2,811,483	5
10	Metallic ores	40,889	0	0	0	5,329
13	Crude petroleum	4,259,807	0	84,523	2,209,157	364,711
14	Nonmetallic minerals, except fuels	2,663,808	0	359,169	168,924	1,836,501
20	Food and kindred products	30,465	0	0	5,828	4,593
22	Basic textiles	1,451	0	0	210	0
24	Lumber and wood products, except furniture	10,764	0	0	4,990	0
25	Furniture and fixtures	12,589	0	0	11,687	0
26	Pulp, paper and allied products	28,107	0	0	428	0
28	Chemicals and allied products	4,328,882	0	56,244	62,871	2,106,003
29	Petroleum and coal products	3,536,431	0	543,750	122,932	1,820,182
30	Rubber and miscellaneous plastics products	1,589	0	0	1,589	0
32	Stone, clay, glass, and concrete products	46,757	30	0	2,330	0
33	Primary metal products	196,105	321	2,475	41,489	75,739
34	Fabricated metal products, except ordnance, machinery, and transportation equipment	15,797	0	0	6,787	1,122
35	Machinery, except electrical	22,558	0	600	5,110	510
36	Electrical machinery equipment and supplies	1,176	0	0	0	1,116
37	Transportation equipment	6,375	0	0	2,668	0

(continued)

Table TRANS-3. (continued)

Year	Commodity		Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1975	39	Miscellaneous products of manufacturing	61,441	1,105	621	30,692	3,654
	40	Waste and scrap materials	436,841	0	0	0	8,320
	41	Special items	121,096	0	0	102,012	18,139

Year	Commodity		Westbound	Inbound westbound	Outbound westbound	Through westbound
1975		Total	99,264	1,088,162	331,091	4,756,057
	01	Farm products	0	98,803	0	89,145
	08	Forest products	0	0	0	0
	09	Fresh fish and other marine products	97,908	14,112	225,932	207
	10	Metallic ores	0	0	0	35,560
	13	Crude petroleum	0	18,359	102,654	1,480,403
	14	Nonmetallic minerals, except fuels	0	84,842	150	214,222
	20	Food and kindred products	0	1,620	0	18,424
	22	Basic textiles	0	1,241	0	0
	24	Lumber and wood products, except furniture	0	5,774	0	0
	25	Furniture and fixtures	55	847	0	0
	26	Pulp, paper and allied products	0	22,745	0	4,934
	28	Chemicals and allied products	0	136,887	0	1,966,877
	29	Petroleum and coal products	0	214,018	0	835,549
	30	Rubber and miscellaneous plastics products	0	0	0	0

(continued)

Table TRANS-3. (continued)

Year	Commodity		Westbound	Inbound westbound	Outbound westbound	Through westbound
1975	32	Stone, clay, glass, and concrete products	0	44,397	0	0
	33	Primary metal products	0	35,749	882	39,450
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	0	5,770	0	2,118
	35	Machinery, except electrical	0	12,998	219	3,121
	36	Electrical machinery equipment and supplies	0	0	0	60
	37	Transportation equipment	0	2,782	0	925
	39	Miscellaneous products of manufacturing	1,301	20,155	954	2,959
	40	Waste and scrap materials	0	366,418	0	62,103
	41	Special items	0	645	300	0

Year	Commodity		Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1977		Total	18,785,557	81,990	484,752	3,424,214	7,904,169
	01	Farm products	236,421	0	3,496	42,738	29,038
	09	Fresh fish and other marine products	1,321,562	79,687	4,273	1,120,069	0
	10	Metallic ores	80,337	751	699	46,667	5,457
	11	Coal	1,370	0	0	0	0
	13	Crude petroleum	4,672,885	0	94,660	1,622,988	826,215
	14	Nonmetallic minerals, except fuels	2,239,996	0	251,297	52,193	1,639,147
	20	Food and kindred products	44,872	0	0	3,044	16,084

(continued)

Table TRANS-3. (continued)

Year	Commodity	Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1977	22 Basic textiles	4,476	0	908	812	600
	24 Lumber and wood products, except furniture	1,762	0	0	1,033	0
	25 Furniture and fixtures	970	0	0	970	0
	26 Pulp, paper and allied products	25,496	0	0	0	2,689
	28 Chemicals and allied products	4,861,236	0	581	13,113	2,788,859
	29 Petroleum and coal products	4,150,150	0	127,364	33,458	2,500,368
	30 Rubber and miscellaneous plastics products	1,949	0	0	1,949	0
	32 Stone, clay, glass, and concrete products	71,547	300	0	24,809	0
	33 Primary metal products	199,176	1,252	1,404	81,699	67,250
	34 Fabricated metal products, except ordnance, machinery, and transportation equipment	4,880	0	70	1,986	1,630
	35 Machinery, except electrical	6,226	0	0	3,172	427
	36 Electrical machinery equipment and supplies	86	0	0	0	0
	37 Transportation equipment	2,463	0	0	1,338	30
	39 Miscellaneous products of manufacturing	99,432	0	0	95,371	700
	40 Waste and scrap materials	436,689	0	0	802	6,545
	41 Special items	321,576	0	0	276,003	19,130

Year	Commodity	Westbound	Inbound westbound	Outbound westbound	Through westbound
1977	Total	52,169	1,346,355	198,881	5,293,027
	01 Farm products	0	152,611	0	8,538

(continued)

Table TRANS-3. (concluded)

Year		Commodity	Westbound	Inbound westbound	Outbound westbound	Through westbound
1977	09	Fresh fish and other marine products	32,600	65,589	17,114	2,230
	10	Metallic ores	0	0	0	26,763
	11	Coal	0	1,370	0	0
	13	Crude petroleum	18,784	59,853	152,694	1,897,691
	14	Nonmetallic minerals, except fuels	0	106,195	740	190,424
	20	Food and kindred products	0	2,629	3,237	19,878
	22	Basic textiles	0	2,156	0	0
	24	Lumber and wood products, except furniture	0	729	0	0
	25	Furniture and fixtures	0	0	0	0
	26	Pulp, paper and allied products	0	16,507	0	6,300
	28	Chemicals and allied products	0	101,554	0	1,957,129
	29	Petroleum and coal products	532	310,583	13,974	1,163,871
	30	Rubber and miscellaneous plastics products	0	0	0	0
	32	Stone, clay, glass, and concrete products	0	44,038	405	1,995
	33	Primary metal products	253	37,467	0	9,851
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	0	68	0	1,126
	35	Machinery, except electrical	0	2,621	0	6
	36	Electrical machinery equipment and supplies	0	0	0	86
	37	Transportation equipment	0	818	0	277
	39	Miscellaneous products of manufacturing	0	1,345	1,940	76
	40	Waste and scrap materials	0	422,556	0	6,786
	41	Special items	0	17,666	8,777	0

Table TRANS-4. Waterborne commerce by Standard Transportation Commodity Classification code for Houston Ship Channel, Texas, for selected years, 1965 through 1977 (short tons) (U.S. Department of the Army, Corps of Engineers 1966, 1971, 1976, 1978).

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1965		Total	59,831,766	4,107,583	9,711,422	1,859,858
	01	Farm products	5,981,304	179,847	5,760,915	279
	08	Forest products	24,361	15,772	1,407	123
	09	Fresh fish and other marine products	7,270,484	985	10	550
	10	Metallic ores	978,272	959,378	5,552	0
	11	Coal	361,455	0	25,998	0
	13	Crude petroleum	4,663,599	22	0	432,810
	14	Nonmetallic minerals, except fuels	2,771,755	207,593	68,722	713,768
	19	Ordnance and accessories	1,248	55	0	1,173
	20	Food and kindred products	1,134,888	255,162	785,549	41,736
	21	Tobacco products	74	32	30	12
	22	Basic textiles	98,492	60,126	32,225	2,691
	23	Apparel and other finished textile products, including knit	1,368	444	726	4
	24	Lumber and wood products, except furniture	96,996	75,134	5,110	338
	25	Furniture and fixtures	3,384	1,221	252	1,019
	26	Pulp, paper and allied products	208,518	100,156	19,979	6,171
	27	Printed matter	2,555	96	142	2,100
	28	Chemicals and allied products	6,888,182	59,157	1,772,074	168,379
	29	Petroleum and coal products	25,318,780	991,754	808,111	240,692
	30	Rubber and miscellaneous plastics products	27,517	3,271	4,988	7,023
	31	Leather and leather products	2,627	2,181	32	407

(continued)

Table TRANS-4. (continued)

Year	Commodity	Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1965	32 Stone, clay, glass, and concrete products	487,885	26,958	9,665	6,301
	33 Primary metal products	2,306,432	1,006,959	165,590	193,393
	34 Fabricated metal products, except ordnance, machinery, and transportation equipment	238,375	101,827	45,307	16,349
	35 Machinery, except electrical	133,425	10,107	82,572	4,081
	36 Electrical machinery equipment and supplies	20,818	2,858	4,731	1,777
	37 Transportation equipment	48,994	34,312	8,441	859
	38 Instruments, photographic and optical goods, watches and clocks	1,284	145	770	321
	39 Miscellaneous products of manufacturing	235,429	10,801	677	6,495
	40 Waste and scrap materials	506,633	1,230	98,197	219
	41 Special items	12,982	0	0	10,788
	99 Department of Defense controlled cargo and special category items	3,650	0	3,650	0

Year	Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1965	Total	20,155,233	7,798,944	7,649,212	8,549,514
	01 Farm products	24,148	9,703	6,412	0
	08 Forest products	41	4,938	2,080	0

(continued)

Table TRANS-4. (continued)

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1965	09	Fresh fish and other marine products	10	250,860	1,564,582	5,453,487
	10	Metallic ores	138	7,992	5,212	0
	11	Coal	0	335,457	0	0
	13	Crude petroleum	663,354	3,283,708	258,387	25,318
	14	Nonmetallic minerals, except fuels	1,403	625,682	83,886	1,070,701
	19	Ordnance and accessories	20	0	0	0
	20	Food and kindred products	30,012	6,158	8,050	8,221
	21	Tobacco products	0	0	0	0
	22	Basic textiles	3,450	0	0	0
	23	Apparel and other finished textile products, including knit	194	0	0	0
	24	Lumber and wood products, except furniture	3,564	7,365	5,485	0
	25	Furniture and fixtures	892	0	0	0
	26	Pulp, paper and allied products	10,816	30,361	41,035	0
	27	Printed matter	217	0	0	0
	28	Chemicals and allied products	799,568	1,114,479	2,304,927	669,598
	29	Petroleum and coal products	18,335,738	1,244,580	2,751,217	946,688
	30	Rubber and miscellaneous plastics products	3,289	0	8,946	0
	31	Leather and leather products	7	0	0	0
	32	Stone, clay, glass, and concrete products	50,543	26,874	367,544	0
	33	Primary metal products	9,813	722,769	202,314	5,594
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	2,083	68,467	4,342	0

(continued)

Table TRANS-4. (continued)

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1965	35	Machinery, except electrical	1,705	31,781	779	2,400
	36	Electrical machinery equipment and supplies	197	11,247	0	8
	37	Transportation equipment	137	201	110	4,934
	38	Instruments, photographic and optical goods, watches and clocks	48	0	0	0
	39	Miscellaneous products of manufacturing	211,194	453	2,917	2,892
	40	Waste and scrap materials	1,070	15,257	30,987	359,673
	41	Special items	1,582	612	0	0
	99	Department of Defense controlled cargo and special category items	0	0	0	0

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1970		Total	64,654,263	4,827,583	12,255,700	2,365,493
	01	Farm products	8,205,024	206,786	7,904,359	2,375
	08	Forest products	8,462	7,053	1,377	32
	09	Fresh fish and other marine products	4,556,352	81	0	360
	10	Metallic ores	1,068,027	1,048,646	17,444	0
	11	Coal	364,318	0	7,418	0
	13	Crude petroleum	5,892,778	29,465	12,558	95,084

(continued)

Table TRANS-4. (continued)

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1970	14	Nonmetallic minerals, except fuels	3,308,155	209,606	122,269	1,016,851
	19	Ordnance and accessories	830	723	0	107
	20	Food and kindred products	1,081,455	417,548	592,072	21,786
	21	Tobacco products	175	121	54	0
	22	Basic textiles	62,702	48,178	10,309	2,768
	23	Apparel and other finished textile products, including knit	1,438	927	438	72
	24	Lumber and wood products, except furniture	100,132	78,813	11,795	328
	25	Furniture and fixtures	6,271	3,512	477	473
	26	Pulp, paper and allied products	183,856	75,422	65,593	1,747
	27	Printed matter	1,021	259	138	403
	28	Chemicals and allied products	8,685,000	312,997	1,968,216	425,469
	29	Petroleum and coal products	26,632,770	950,318	858,653	433,643
	30	Rubber and miscellaneous plastics products	30,178	7,516	11,890	7,230
	31	Leather and leather products	3,399	3,100	50	249
	32	Stone, clay, glass, and concrete products	541,300	67,590	10,196	1,890
	33	Primary metal products	2,483,671	1,090,649	351,805	261,129
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	253,496	100,417	38,398	71,398
	35	Machinery, except electrical	186,891	32,181	130,260	5,100
	36	Electrical machinery equipment and supplies	22,080	13,004	6,948	1,469
	37	Transportation equipment	131,144	99,505	22,554	110

(continued)

Table TRANS-4. (continued)

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1970	38	Instruments, photographic and optical goods, watches and clocks	4,487	317	1,752	1,157
	39	Miscellaneous products of manufacturing	9,962	7,245	373	569
	40	Waste and scrap materials	772,172	588	101,571	2,959
	41	Special items	50,354	15,016	370	10,735
	99	Department of Defense controlled cargo and special category items	6,363	0	6,363	0

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1970		Total	19,994,417	13,232,984	8,503,374	3,474,712
	01	Farm products	22,209	34,636	30,223	4,436
	08	Forest products	0	0	0	0
	09	Fresh fish and other marine products	7	4,550,120	0	5,784
	10	Metallic ores	31	0	1,906	0
	11	Coal	0	356,900	0	0
	13	Crude petroleum	2,066,229	3,409,236	276,452	3,754
	14	Nonmetallic minerals, except fuels	6,381	911,988	86,995	954,065
	19	Ordnance and accessories	0	0	0	0
	20	Food and kindred products	10,185	31,917	7,947	0

(continued)

Table TRANS-4. (continued)

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1970	21	Tobacco products	0	0	0	0
	22	Basic textiles	1,256	191	0	0
	23	Apparel and other finished textile products, including knit	1	0	0	0
	24	Lumber and wood products, except furniture	3,895	0	5,301	0
	25	Furniture and fixtures	1,203	606	0	0
	26	Pulp, paper and allied products	937	22,639	17,518	0
	27	Printed matter	221	0	0	0
	28	Chemicals and allied products	1,022,402	870,934	2,890,353	1,194,629
	29	Petroleum and coal products	16,569,289	2,203,913	4,405,031	1,211,923
	30	Rubber and miscellaneous plastics products	3,280	262	0	0
	31	Leather and leather products	0	0	0	0
	32	Stone, clay, glass, and concrete products	220,836	50,647	190,141	0
	33	Primary metal products	12,288	618,962	120,580	28,258
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	24,166	11,545	7,572	0
	35	Machinery, except electrical	10,771	5,205	2,991	383
	36	Electrical machinery equipment and supplies	659	0	0	0
	37	Transportation equipment	5,541	2,610	674	150
	38	Instruments, photographic and optical goods, watches and clocks	1,261	0	0	0
	39	Miscellaneous products of manufacturing	934	738	103	0

(continued)

Table TRANS-4. (continued)

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1970	40	Waste and scrap materials	1,414	137,123	457,187	71,330
	41	Special items	9,021	12,812	2,400	0
	99	Department of Defense controlled cargo and special category items	0	0	0	0

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1975		Total	83,674,039	18,273,391	18,000,891	3,315,300
	01	Farm products	13,161,080	135,353	12,605,825	2,657
	08	Forest products	15,294	10,811	4,288	44
	09	Fresh fish and other marine products	2,652,156	1,305	83	6
	10	Metallic ores	818,623	786,189	18,439	0
	11	Coal	396,002	0	597	1,722
	13	Crude petroleum	19,208,850	13,337,849	0	1,470,628
	14	Nonmetallic minerals, except fuels	3,879,790	147,370	280,730	926,262
	19	Ordnance and accessories	370	272	0	93
	20	Food and kindred products	1,058,979	411,096	494,479	35,893
	21	Tobacco products	369	294	61	14
	22	Basic textiles	45,374	29,951	8,956	2,421
	23	Apparel and other finished textile products, including knit	767	223	469	65
	24	Lumber and wood products, except furniture	51,303	28,746	11,149	1,021

(continued)

Table TRANS-4. (continued)

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1975	25	Furniture and fixtures	22,469	4,844	437	4,951
	26	Pulp, paper and allied products	90,675	13,955	43,569	8,335
	27	Printed matter	781	428	212	136
	28	Chemicals and allied products	9,815,887	565,549	2,571,753	260,475
	29	Petroleum and coal products	26,536,111	809,515	365,984	314,316
	30	Rubber and miscellaneous plastics products	88,513	21,031	53,388	6,688
	31	Leather and leather products	3,142	2,576	164	402
	32	Stone, clay, glass, and concrete products	354,068	109,531	18,885	16,591
	33	Primary metal products	3,387,787	1,420,877	795,897	109,527
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	308,582	106,648	81,549	89,390
	35	Machinery, except electrical	515,495	73,657	399,174	3,809
	36	Electrical machinery equipment and supplies	44,499	14,357	21,832	3,024
	37	Transportation equipment	332,318	206,057	116,799	425
	38	Instruments, photographic and and optical goods, watches and clocks	4,946	705	3,917	301
	39	Miscellaneous products of manufacturing	44,616	5,530	1,814	19,684
	40	Waste and scrap materials	940,903	1,703	87,891	1,834
	41	Special items	83,138	26,969	1,398	34,586
	99	Department of Defense controlled cargo and special category items	11,152	0	11,152	0

(continued)

Table TRANS-4. (continued)

Year		Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1975		Total	19,541,554	10,994,880	9,838,437	3,709,586
	01	Farm products	69,065	280,801	67,379	0
	08	Forest products	151	0	0	0
	09	Fresh fish and other marine products	0	2,646,871	3,891	0
	10	Metallic ores	40	5,175	8,780	0
	11	Coal	138	393,545	0	0
	13	Crude petroleum	1,203,878	1,892,993	903,929	199,573
	14	Nonmetallic minerals, except fuels	19,091	1,291,460	1,918	1,212,959
	19	Ordnance and accessories	5	0	0	0
	20	Food and kindred products	46,266	20,879	45,412	4,954
	21	Tobacco products	0	0	0	0
	22	Basic textiles	2,513	210	1,323	0
	23	Apparel and other finished textile products, including knit	10	0	0	0
	24	Lumber and wood products, except furniture	2,217	7,100	1,070	0
	25	Furniture and fixtures	57	11,333	847	0
	26	Pulp, paper and allied products	5,994	15,022	3,800	0
	27	Printed matter	5	0	0	0
	28	Chemicals and allied products	1,291,412	1,111,119	3,490,373	525,206
	29	Petroleum and coal products	16,762,819	2,224,613	4,392,668	1,666,196
	30	Rubber and miscellaneous plastics products	5,817	1,589	0	0
	31	Leather and leather products	0	0	0	0
	32	Stone, clay, glass, and concrete products	81,434	494	127,133	0
	33	Primary metal products	5,812	825,564	221,350	8,760

(continued)

Table TRANS-4. (continued)

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1975	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	8,604	15,042	7,194	155
	35	Machinery, except electrical	10,803	10,965	15,688	1,399
	36	Electrical machinery equipment and supplies	81	3,436	505	1,264
	37	Transportation equipment	1,341	5,632	2,064	0
	38	Instruments, photographic and optical goods, watches and clocks	23	0	0	0
	39	Miscellaneous products of manufacturing	3,309	825	3,237	10,217
	40	Waste and scrap materials	5,543	226,482	538,547	78,903
	41	Special items	15,126	3,730	1,329	0
	99	Department of Defense controlled cargo and special category items	0	0	0	0

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1977		Total	104,291,207	35,511,712	15,527,326	3,348,700
	01	Farm products	9,530,144	64,511	9,237,468	2,938
	08	Forest products	19,141	12,223	3,518	7
	09	Fresh fish and other marine products	1,128,122	2,766	505	0
	10	Metallic ores	1,051,870	1,009,760	8,685	0

(continued)

Table TRANS-4. (continued)

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1977	11	Coal	241,472	0	1,687	4,823
	13	Crude petroleum	31,776,192	27,936,363	0	177,153
	14	Nonmetallic minerals, except fuels	4,582,092	1,136,859	117,146	947,280
	19	Ordnance and accessories	280	121	131	0
	20	Food and kindred products	1,466,678	577,791	707,372	38,400
	21	Tobacco products	304	196	108	0
	22	Basic textiles	76,446	44,200	20,636	932
	23	Apparel and other finished textile products, including knit	2,425	429	1,973	23
	24	Lumber and wood products, except furniture	100,339	72,492	22,249	877
	25	Furniture and fixtures	17,814	8,749	1,839	5,232
	26	Pulp, paper and allied products	82,004	25,563	30,234	8,901
	27	Printed matter	1,586	702	648	217
	28	Chemicals and allied products	13,445,205	624,052	3,609,719	629,992
	29	Petroleum and coal products	33,964,785	925,191	448,692	1,433,227
	30	Rubber and miscellaneous plastics products	57,283	26,300	18,804	3,832
	31	Leather and leather products	4,698	2,468	1,286	115
	32	Stone, clay, glass, and concrete products	261,599	146,522	33,906	26,723
	33	Primary metal products	3,870,866	2,376,525	620,480	21,565
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	254,105	129,497	92,528	13,738

(continued)

Table TRANS-4. (continued)

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1977	35	Machinery, except electrical	430,247	77,055	328,035	4,540
	36	Electrical machinery equipment and supplies	49,072	16,424	30,904	1,316
	37	Transportation equipment	333,277	244,777	84,445	947
	38	Instruments, photographic and optical goods, watches and clocks	5,613	1,331	4,072	189
	39	Miscellaneous products of manufacturing	44,229	5,722	2,734	15,273
	40	Waste and scrap materials	1,340,906	3,829	52,329	2,195
	41	Special items	131,970	39,294	24,750	8,265
	99	Department of Defense controlled cargo and special category items	20,443	0	20,443	0

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1977		Total	19,200,207	11,791,667	13,858,669	5,050,986
	01	Farm products	27,238	70,828	127,161	0
	08	Forest products	0	3,393	0	0
	09	Fresh fish and other marine products	0	1,123,915	108	828
	10	Metallic ores	10	8,818	24,597	0
	11	Coal	5	234,957	0	0

(continued)

Table TRANS-4. (continued)

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1977	13	Crude petroleum	76,358	2,205,925	1,193,239	185,154
	14	Nonmetallic minerals, except fuels	1,227	1,187,386	335,070	857,124
	19	Ordnance and accessories	28	0	0	0
	20	Food and kindred products	39,998	47,565	55,552	0
	21	Tobacco products	0	0	0	0
	22	Basic textiles	6,956	1,566	2,156	0
	23	Apparel and other finished textile products, including knit	0	0	0	0
	24	Lumber and wood products, except furniture	2,392	1,387	1,002	0
	25	Furniture and fixtures	448	1,192	354	0
	26	Pulp, paper and allied products	7,010	6,809	3,487	0
	27	Printed matter	19	0	0	0
	28	Chemicals and allied products	1,500,177	1,713,137	4,698,609	669,519
	29	Petroleum and coal products	17,487,039	3,877,394	6,634,705	3,158,537
	30	Rubber and miscellaneous plastics products	6,398	1,949	0	0
	31	Leather and leather products	0	0	829	0
	32	Stone, clay, glass, and concrete products	7,485	28,839	18,124	0
	33	Primary metal products	6,329	661,034	162,127	22,806
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	1,763	14,648	1,588	343
	35	Machinery, except electrical	538	6,882	12,563	634
	36	Electrical machinery equipment and supplies	304	0	124	0

(continued)

Table TRANS-4. (concluded)

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1977	37	Transportation equipment	821	1,312	668	307
	38	Instruments, photographic and optical goods, watches and clocks	21	0	0	0
	39	Miscellaneous products of manufacturing	7,036	3,400	7,172	2,892
	40	Waste and scrap materials	3,598	583,457	554,977	140,521
	41	Special items	17,009	5,874	24,457	12,321
	99	Department of Defense controlled cargo and special category items	0	0	0	0

Table TRANS-5. Waterborne commerce by Standard Transportation Commodity Classification code for Brazos Island Harbor, Texas, for selected years, 1965 through 1977 (short tons) (U.S. Department of the Army, Corps of Engineers 1966, 1971, 1976, 1978).

Year	Commodity	Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1965	Total	4,876,713	1,864,479	429,579	36,543
	01 Farm products	357,872	4,535	353,337	0
	09 Fresh fish and other marine products	12,992	811	0	0
	10 Metallic ores	3,381	0	0	0
	13 Crude petroleum	3,830,934	1,814,260	0	0
	14 Nonmetallic minerals, except fuels	99,276	23,436	39	0
	20 Food and kindred products	64,749	2,617	40,918	0
	21 Tobacco products	7	0	7	0
	22 Basic textiles	10,213	36	10,177	0
	23 Apparel and other finished textile products, including knit	149	135	14	0
	24 Lumber and wood products, except furniture	37	0	37	0
	26 Pulp, paper and allied products	1,491	0	1,491	0
	28 Chemicals and allied products	174,281	1,753	1,362	11,509
	29 Petroleum and coal products	223,839	3,948	14	23,241
	30 Rubber and miscellaneous plastics products	23	22	1	0
	32 Stone, clay, glass, and concrete products	1,471	8	243	0
	33 Primary metal products	36,373	8,152	19,908	0
	34 Fabricated metal products, except ordnance, machinery, and transportation equipment	751	712	39	0
	35 Machinery, except electrical	3,384	3,261	73	0
	36 Electrical machinery equipment and supplies	37	27	10	0

(continued)

Table TRANS-5. (continued)

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1965	37	Transportation equipment	2,636	725	4	1,793
	38	Instruments, photographic and optical goods, watches and clocks	1	1	0	0
	39	Miscellaneous products of manufacturing	642	40	602	0
	40	Waste and scrap materials	2,581	0	1,303	0
	41	Special items	49,593	0	0	0

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1965		Total	1,699,520	229,727	562,749	54,116
	01	Farm products	0	0	0	0
	09	Fresh fish and other marine products	0	8,146	12	4,023
	10	Metallic ores	0	3,381	0	0
	13	Crude petroleum	1,648,223	0	368,451	0
	14	Nonmetallic minerals, except fuels	0	9,150	66,651	0
	20	Food and kindred products	0	0	21,214	0
	21	Tobacco products	0	0	0	0
	22	Basic textiles	0	0	0	0
	23	Apparel and other finished textile products, including knit	0	0	0	0
	24	Lumber and wood products, except furniture	0	0	0	0

(continued)

Table TRANS-5. (continued)

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1965	26	Pulp, paper and allied products	0	0	0	0
	28	Chemicals and allied products	0	79,918	79,239	500
	29	Petroleum and coal products	51,297	126,470	18,869	0
	30	Rubber and miscellaneous plastics products	0	0	0	0
	32	Stone, clay, glass, and concrete products	0	1,220	0	0
	33	Primary metal products	0	0	8,313	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	0	0	0	0
	35	Machinery, except electrical	0	50	0	0
	36	Electrical machinery equipment and supplies	0	0	0	0
	37	Transportation equipment	0	114	0	0
	38	Instruments, photographic and optical goods, watches and clocks	0	0	0	0
	39	Miscellaneous products of manufacturing	0	0	0	0
	40	Waste and scrap materials	0	1,278	0	0
	41	Special items	0	0	0	49,593

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1970		Total	5,376,732	1,844,560	477,316	N.D.
	01	Farm products	582,190	29,843	465,293	N.D.

(continued)

Table TRANS-5. (continued)

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1970	09	Fresh fish and other marine products	8,887	312	0	N.D.
	10	Metallic ores	50,242	15,752	3	N.D.
	13	Crude petroleum	3,694,513	1,776,979	0	N.D.
	14	Nonmetallic minerals, except fuels	242,899	17,103	30	N.D.
	20	Food and kindred products	11,745	2,053	1,561	N.D.
	22	Basic textiles	4,841	0	4,841	N.D.
	23	Apparel and other finished textile products, including knit	17	16	1	N.D.
	24	Lumber and wood products, except furniture	59	0	59	N.D.
	26	Pulp, paper and allied products	68	0	68	N.D.
	28	Chemicals and allied products	241,829	1,962	74	N.D.
	29	Petroleum and coal products	454,775	0	35	N.D.
	30	Rubber and miscellaneous plastics products	2	0	2	N.D.
	32	Stone, clay, glass, and concrete products	2	1	1	N.D.
	33	Primary metal products	44,195	121	4,646	N.D.
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	137	14	123	N.D.
	35	Machinery, except electrical	12,761	333	78	N.D.
	36	Electrical machinery equipment and supplies	34	1	33	N.D.
	37	Transportation equipment	403	0	403	N.D.
	38	Instruments, photographic and optical goods, watches and clocks	1	0	1	N.D.

(continued)

Table TRANS-5. (continued)

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1970	40	Waste and scrap materials	27,062	0	64	N.D.
	41	Special items	70	70	0	N.D.

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1970		Total	1,442,526	474,763	1,137,567	N.D.
	01	Farm products	0	85,738	1,316	N.D.
	09	Fresh fish and other marine products	0	8,575	0	N.D.
	10	Metallic ores	0	22,294	12,193	N.D.
	13	Crude petroleum	1,365,422	0	552,112	N.D.
	14	Nonmetallic minerals, except fuels	0	17,925	207,841	N.D.
	20	Food and kindred products	0	0	8,131	N.D.
	22	Basic textiles	0	0	0	N.D.
	23	Apparel and other finished textile products, including knit	0	0	0	N.D.
	24	Lumber and wood products, except furniture	0	0	0	N.D.
	26	Pulp, paper and allied products	0	0	0	N.D.
	28	Chemicals and allied products	0	25,270	214,523	N.D.
	29	Petroleum and coal products	77,104	248,916	128,720	N.D.
	30	Rubber and miscellaneous plastics products	0	0	0	N.D.
	32	Stone, clay, glass, and concrete products	0	0	0	N.D.

(continued)

Table TRANS-5. (continued)

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1970	33	Primary metal products	0	27,342	12,086	N.D.
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	0	0	0	N.D.
	35	Machinery, except electrical	0	11,705	645	N.D.
	36	Electrical machinery equipment and supplies	0	0	0	N.D.
	37	Transportation equipment	0	0	0	N.D.
	38	Instruments, photographic and optical goods, watches and clocks	0	0	0	N.D.
	40	Waste and scrap materials	0	26,998	0	N.D.
	41	Special items	0	0	0	N.D.

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1975		Total	3,084,947	1,147,172	493,168	4,420
	01	Farm products	493,682	428	406,729	0
	08	Forest products	219	0	219	0
	09	Fresh fish and other marine products	3,659	15	0	0
	10	Metallic ores	124,324	75,942	11,845	0
	13	Crude petroleum	266,748	20,186	0	0
	14	Nonmetallic minerals, except fuels	427,166	41,473	8,977	0
	20	Food and kindred products	24,672	1,196	324	0

(continued)

Table TRANS-5. (continued)

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1975	22	Basic textiles	48	1	47	0
	23	Apparel and other finished textile products, including knit	1	1	0	0
	24	Lumber and wood products, except furniture	3,043	2,999	44	0
	26	Pulp, paper and allied products	43	0	43	0
	27	Printed matter	4	4	0	0
	28	Chemicals and allied products	292,470	38,519	215	0
	29	Petroleum and coal products	1,180,909	783,997	43,616	0
	30	Rubber and miscellaneous plastics products	3	1	2	0
	32	Stone, clay, glass, and concrete products	2,101	1,849	2	0
	33	Primary metal products	209,946	164,222	8,786	4,300
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	5,853	3,022	73	0
	35	Machinery, except electrical	8,264	4,650	229	0
	36	Electrical machinery equipment and supplies	1,923	1,874	49	0
	37	Transportation equipment	692	0	377	120
	38	Instruments, photographic and optical goods, watches and clocks	3	2	1	0
	39	Miscellaneous products of manufacturing	9,761	6,790	1	0
	40	Waste and scrap materials	28,662	0	11,589	0
	41	Special items	751	1	0	0

(continued)

Table TRANS-5. (continued)

Year		Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1975		Total	19,446	575,737	845,004	N.D.
	01	Farm products	0	85,245	1,280	N.D.
	08	Forest products	0	0	0	N.D.
	09	Fresh fish and other marine products	0	3,644	0	N.D.
	10	Metallic ores	0	33,993	2,544	N.D.
	13	Crude petroleum	0	0	246,562	N.D.
	14	Nonmetallic minerals, except fuels	0	15,572	361,144	N.D.
	20	Food and kindred products	0	18,424	4,728	N.D.
	22	Basic textiles	0	0	0	N.D.
	23	Apparel and other finished textile products, including knit	0	0	0	N.D.
	24	Lumber and wood products, except furniture	0	0	0	N.D.
	26	Pulp, paper and allied products	0	0	0	N.D.
	27	Printed matter	0	0	0	N.D.
	28	Chemicals and allied products	0	42,185	211,551	N.D.
	29	Petroleum and coal products	19,446	324,710	9,140	N.D.
	30	Rubber and miscellaneous plastics products	0	0	0	N.D.
	32	Stone, clay, glass, and concrete products	0	0	250	N.D.
	33	Primary metal products	0	27,733	4,905	N.D.
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	0	1,758	1,000	N.D.
	35	Machinery, except electrical	0	3,385	0	N.D.
	36	Electrical machinery equipment and supplies	0	0	0	N.D.

(continued)

Table TRANS-5. (continued)

Year	Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1975	37 Transportation equipment	0	195	0	N.D.
	38 Instruments, photographic and optical goods, watches and clocks	0	0	0	N.D.
	39 Miscellaneous products of manufacturing	0	1,445	1,525	N.D.
	40 Waste and scrap materials	0	17,073	0	N.D.
	41 Special items	0	375	375	N.D.

Year	Commodity	Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1977	Total	2,334,142	849,359	287,667	12,403
	01 Farm products	199,590	9	191,043	0
	09 Fresh fish and other marine products	1,144	10	0	0
	10 Metallic ores	130,737	113,006	0	0
	13 Crude petroleum	175,754	0	0	0
	14 Nonmetallic minerals, except fuels	296,349	74,958	1,447	0
	20 Food and kindred products	54,094	1,220	16,245	0
	22 Basic textiles	3,486	52	1,926	0
	23 Apparel and other finished textile products, including knit	5	5	0	0
	24 Lumber and wood products, except furniture	3,602	3,600	0	0
	25 Furniture and fixtures	4	3	1	0

(continued)

Table TRANS-5. (continued)

Year		Commodity	Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1977	26	Pulp, paper and allied products	5,934	132	3,113	0
	28	Chemicals and allied products	497,034	56,034	86	10,527
	29	Petroleum and coal products	677,880	376,942	32,009	0
	30	Rubber and miscellaneous plastics products	11	1	10	0
	31	Leather and leather products	1	1	0	0
	32	Stone, clay, glass, and concrete products	223	5	1	0
	33	Primary metal products	149,530	138,056	70	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	571	464	95	0
	35	Machinery, except electrical	1,133	538	191	0
	36	Electrical machinery equipment and supplies	90	57	33	0
	37	Transportation equipment	2,247	12	359	1,876
	38	Instruments, photographic and optical goods, watches and clocks	1	1	0	0
	39	Miscellaneous products of manufacturing	558	13	1	0
	40	Waste and scrap materials	113,394	67,017	41,037	0
	41	Special items	20,770	17,223	0	0

Year	Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1977	Total	N.D.	485,566	699,147	N.D.

(continued)

Table TRANS-5. (continued)

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1977	01	Farm products	N.D.	8,538	0	N.D.
	09	Fresh fish and other marine products	N.D.	1,134	0	N.D.
	10	Metallic ores	N.D.	13,482	4,249	N.D.
	13	Crude petroleum	N.D.	10,906	164,848	N.D.
	14	Nonmetallic minerals, except fuels	N.D.	18,466	201,478	N.D.
	20	Food and kindred products	N.D.	19,878	16,751	N.D.
	22	Basic textiles	N.D.	0	1,508	N.D.
	23	Apparel and other finished textile products, including knit	N.D.	0	0	N.D.
	24	Lumber and wood products, except furniture	N.D.	2	0	N.D.
	25	Furniture and fixtures	N.D.	0	0	N.D.
	26	Pulp, paper and allied products	N.D.	0	2,689	N.D.
	28	Chemicals and allied products	N.D.	140,553	289,834	N.D.
	29	Petroleum and coal products	N.D.	264,114	4,815	N.D.
	30	Rubber and miscellaneous plastics products	N.D.	0	0	N.D.
	31	Leather and leather products	N.D.	0	0	N.D.
	32	Stone, clay, glass, and concrete products	N.D.	0	217	N.D.
	33	Primary metal products	N.D.	4,909	6,495	N.D.
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	N.D.	0	12	N.D.
	35	Machinery, except electrical	N.D.	250	154	N.D.
	36	Electrical machinery equipment and supplies	N.D.	0	0	N.D.
	37	Transportation equipment	N.D.	0	0	N.D.

(continued)

Table TRANS-5. (concluded)

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1977	38	Instruments, photographic and optical goods, watches and clocks	N.D.	0	0	N.D.
	39	Miscellaneous products of manufacturing	N.D.	176	368	N.D.
	40	Waste and scrap materials	N.D.	2,579	2,761	N.D.
	41	Special items	N.D.	579	2,968	N.D.

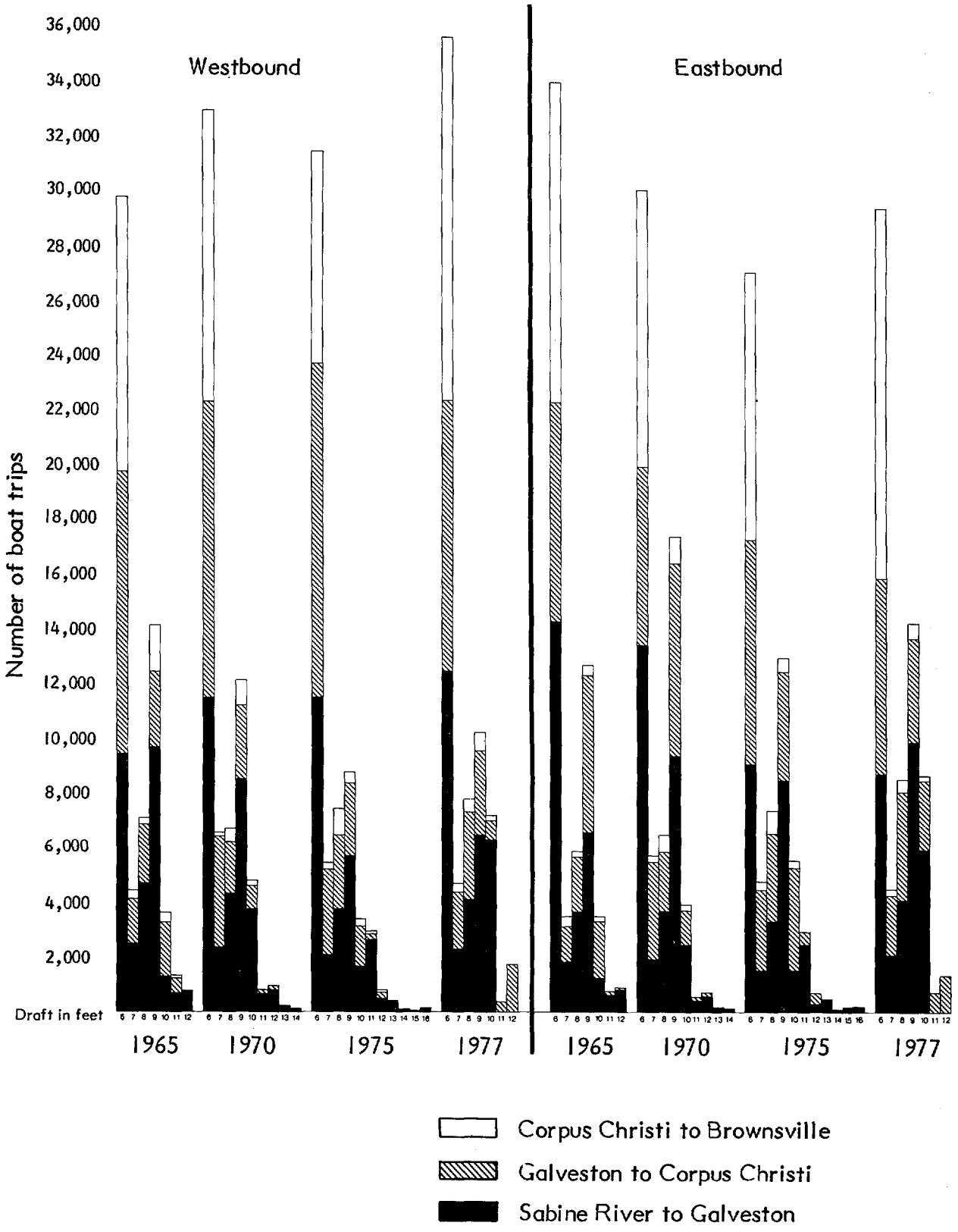


Figure TRANS-2. Distribution of Gulf Intracoastal Waterway (GIWW) boat traffic by reach, direction, and draft, for selected years 1965 through 1977 (U.S. Dept. of the Army, Corps of Engineers 1966, 1971, 1976, 1978).

Table TRANS-6. Waterborne commerce by Standard Transportation Commodity Classification code for Texas City Channel, Texas, for selected years, 1965 through 1977 (short tons) (U.S. Department of the Army, Corps of Engineers 1966, 1971, 1976, 1978).

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1965		Total	18,155,441	61,789	303,657	572,801
	01	Farm products	1,338	117	0	868
	08	Forest products	1,122	0	0	1,066
	09	Fresh fish and other marine products	42,869	0	0	0
	10	Metallic ores	9,779	9,274	0	505
	13	Crude petroleum	5,491,119	0	0	0
	14	Nonmetallic minerals, except fuels	134,711	0	0	126,728
	19	Ordnance and accessories	212	0	0	212
	20	Food and kindred products	78,686	0	0	19,273
	21	Tobacco products	468	0	0	468
	22	Basic textiles	6,058	0	0	6,018
	24	Lumber and wood products, except furniture	32,549	0	0	641
	25	Furniture and fixtures	295	0	0	90
	26	Pulp, paper and allied products	22,738	0	0	4,391
	27	Printed matter	915	0	0	915
	28	Chemicals and allied products	4,227,308	32,736	297,068	137,864
	29	Petroleum and coal products	7,886,063	19,364	5,771	138,119
	30	Rubber and miscellaneous plastics products	4,196	0	0	2,947
	31	Leather and leather products	12	0	0	12
	32	Stone, clay, glass, and concrete products	11,032	0	0	9,801
	33	Primary metal products	123,479	0	256	62,664
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	42,171	0	2	31,959

(continued)

Table TRANS-6. (continued)

Year	Commodity	Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1965	35 Machinery, except electrical	10,406	0	559	8,749
	36 Electrical machinery equipment and supplies	4,967	0	0	4,778
	37 Transportation equipment	810	0	1	680
	38 Instruments, photographic and optical goods, watches and clocks	39	0	0	39
	39 Miscellaneous products of manufacturing	13,504	298	0	12,554
	40 Waste and scrap materials	8,364	0	0	1,460
	41 Special items	231	0	0	0

Year	Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1965	Total	6,478,961	7,917,837	2,887,625	20,311
	01 Farm products	353	0	0	0
	08 Forest products	56	0	0	0
	09 Fresh fish and other marine products	960	41,909	0	0
	10 Metallic ores	0	0	0	0
	13 Crude petroleum	135,471	5,287,197	68,451	0
	14 Nonmetallic minerals, except fuels	2,238	5,745	0	0
	19 Ordnance and accessories	0	0	0	0
	20 Food and kindred products	59,413	0	0	0

(continued)

Table TRANS-6. (continued)

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1965	21	Tobacco products	0	0	0	0
	22	Basic textiles	40	0	0	0
	24	Lumber and wood products, except furniture	31,908	0	0	0
	25	Furniture and fixtures	205	0	0	0
	26	Pulp, paper and allied products	18,347	0	0	0
	27	Printed matter	0	0	0	0
	28	Chemicals and allied products	964,401	1,569,306	1,216,803	9,130
	29	Petroleum and coal products	5,184,630	1,012,445	1,602,093	11,181
	30	Rubber and miscellaneous plastics products	1,249	0	0	0
	31	Leather and leather products	0	0	0	0
	32	Stone, clay, glass, and concrete products	1,231	0	0	0
	33	Primary metal products	60,199	360	0	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	9,874	159	177	0
	35	Machinery, except electrical	887	110	101	0
	36	Electrical machinery equipment and supplies	189	0	0	0
	37	Transportation equipment	129	0	0	0
	38	Instruments, photographic and optical goods, watches and clocks	0	0	0	0
	39	Miscellaneous products of manufacturing	277	375	0	0
	40	Waste and scrap materials	6,904	0	0	0
	41	Special items	0	231	0	0

(continued)

Table TRANS-6. (continued)

Year	Commodity	Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1970	Total	17,097,411	157,660	723,915	268,251
	01 Farm products	4,840	716	4,124	0
	09 Fresh fish and other marine products	15,305	0	0	0
	10 Metallic ores	31,765	31,765	0	0
	13 Crude petroleum	4,765,814	22,155	0	0
	14 Nonmetallic minerals, except fuels	3,324	0	2,205	0
	20 Food and kindred products	5,724	0	0	0
	22 Basic textiles	666	0	666	0
	28 Chemicals and allied products	5,328,737	102,463	670,333	232,016
	29 Petroleum and coal products	6,904,362	0	45,046	24,251
	30 Rubber and miscellaneous plastics products	9	0	9	0
	33 Primary metal products	4,948	0	1,530	0
	34 Fabricated metal products, except ordnance, machinery, and transportation equipment	28,392	0	0	11,984
	35 Machinery, except electrical	332	330	2	0
	37 Transportation equipment	300	0	0	0
	40 Waste and scrap materials	2,662	0	0	0
	41 Special items	231	231	0	0

Year	Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1970	Total	5,100,669	7,029,184	3,785,989	31,743
	01 Farm products	0	0	0	0

(continued)

Table TRANS-6. (continued)

Year		Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1970	09	Fresh fish and other marine products	0	15,305	0	0
	10	Metallic ores	0	0	0	0
	13	Crude petroleum	286,428	4,400,600	56,631	0
	14	Nonmetallic minerals, except fuels	0	0	1,119	0
	20	Food and kindred products	5,724	0	0	0
	22	Basic textiles	0	0	0	0
	28	Chemicals and allied products	1,068,176	1,589,444	1,639,852	26,453
	29	Petroleum and coal products	3,723,973	1,017,415	2,088,387	5,290
	30	Rubber and miscellaneous plastics products	0	0	0	0
	33	Primary metal products	0	3,418	0	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	16,368	40	0	0
	35	Machinery, except electrical	0	0	0	0
	37	Transportation equipment	0	300	0	0
	40	Waste and scrap materials	0	2,662	0	0
	41	Special items	0	0	0	0

Year		Commodity	Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1975		Total	23,863,770	5,662,641	531,599	405,937
	01	Farm products	17	17	0	0
	09	Fresh fish and other marine products	1,200	0	0	0

(continued)

Table TRANS-6. (continued)

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1975	10	Metallic ores	10,709	10,709	0	0
	13	Crude petroleum	9,084,584	5,450,807	0	167,700
	14	Nonmetallic minerals except fuels	13,000	0	0	0
	28	Chemicals and allied products	5,466,279	173,401	526,197	218,738
	29	Petroleum and coal products	9,246,303	4,167	3,755	13,934
	33	Primary metal products	25,884	22,556	1,615	0
	34	Fabricated metal products, except ordnance, machinery and transportation equipment	10,775	0	13	5,565
	35	Machinery, except electrical	470	468	2	0
	36	Electrical machinery equipment and supplies	15	0	15	0
	37	Transportation equipment	4,016	0	0	0
	38	Instruments, photographic and optical goods, watches and clocks	2	0	2	0
	41	Special items	516	516	0	0

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1975		Total	7,066,350	5,402,574	4,763,060	31,609
	01	Farm products	0	0	0	0
	09	Fresh fish and other marine products	0	0	1,200	0
	10	Metallic ores	0	0	0	0
	13	Crude petroleum	0	3,263,823	202,254	0

(continued)

Table TRANS-6. (continued)

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1975	14	Nonmetallic minerals except fuels	0	6,000	7,000	0
	28	Chemicals and allied products	1,005,129	1,731,840	1,779,365	31,609
	29	Petroleum and coal products	6,056,590	396,020	2,771,837	0
	33	Primary metal products	0	309	1,404	0
	34	Fabricated metal products except ordnance, machinery and transportation equipment	4,631	566	0	0
	35	Machinery, except electrical	0	0	0	0
	36	Electrical machinery equipment and supplies	0	0	0	0
	37	Transportation equipment	0	4,016	0	0
	38	Instruments, photographic and optical goods, watches and clocks	0	0	0	0
	41	Special items	0	0	0	0

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1977		Total	33,583,596	12,314,057	740,179	592,093
	01	Farm products	725	0	725	0
	10	Metallic ores	10,003	9,999	4	0
	13	Crude petroleum	15,391,449	12,110,834	772	0
	14	Nonmetallic minerals, except fuels	6,360	0	0	0
	20	Food and kindred products	154	153	1	0

(continued)

Table TRANS-6. (continued)

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1977	22	Basic textiles	3	0	3	0
	24	Lumber and wood products, except furniture	3,502	3,500	2	0
	28	Chemicals and allied products	6,787,560	187,874	717,150	325,364
	29	Petroleum and coal products	11,360,703	0	4,117	264,339
	30	Rubber and miscellaneous plastics products	1	0	1	0
	32	Stone, clay, glass and concrete products	5	0	5	0
	33	Primary metal products	17,739	0	17,086	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	3,401	0	19	2,390
	35	Machinery, except electrical	279	1	278	0
	36	Electrical machinery equipment and supplies	20	8	12	0
	37	Transportation equipment	4	0	4	0
	41	Special items	1,688	1,688	0	0

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1977		Total	6,073,892	7,034,579	6,800,860	27,936
	01	Farm products	0	0	0	0
	10	Metallic ores	0	0	0	0
	13	Crude petroleum	4,505	3,123,885	149,002	2,451
	14	Nonmetallic minerals, except fuels	0	6,360	0	0

(continued)

Table TRANS-6. (concluded)

Year		Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1977	20	Food and kindred products	0	0	0	0
	22	Basic textiles	0	0	0	0
	24	Lumber and wood products, except furniture	0	0	0	0
	28	Chemicals and allied products	874,731	2,322,165	2,348,168	12,108
	29	Petroleum and coal products	5,193,799	1,581,381	4,303,690	13,377
	30	Rubber and miscellaneous plastics products	0	0	0	0
	32	Stone, clay, glass, and concrete products	0	0	0	0
	33	Primary metal products	0	653	0	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	857	135	0	0
	35	Machinery, except electrical	0	0	0	0
	36	Electrical machinery equipment and supplies	0	0	0	0
	37	Transportation equipment	0	0	0	0
	41	Special items	0	0	0	0

Table TRANS-7. Waterborne commerce by Standard Transportation Commodity Classification code for Corpus Christi, Texas, for selected years, 1965 through 1977 (short tons) (U.S. Department of the Army, Corps of Engineers 1966, 1971, 1976, 1978).

Year	Commodity	Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1965	Total	20,282,869	2,914,454	2,319,752	243,484
	01 Farm products	1,838,345	0	1,826,865	0
	09 Fresh fish and other marine products	168,183	0	0	0
	10 Metallic ores	2,953,509	2,629,923	77,439	0
	11 Coal	160	44	116	0
	13 Crude petroleum	4,362,826	0	0	132,370
	14 Nonmetallic minerals, except fuels	46,573	46,512	61	0
	20 Food and kindred products	137,689	29,437	74,754	0
	22 Basic textiles	11,176	2	11,174	0
	24 Lumber and wood products, except furniture	679	76	3	0
	25 Furniture and fixtures	6	4	2	0
	26 Pulp, paper and allied products	8,127	6,599	18	0
	28 Chemicals and allied products	1,106,528	3,119	306,699	34,145
	29 Petroleum and coal products	9,393,575	148,212	2,375	76,870
	30 Rubber and miscellaneous plastics products	53	2	51	0
	32 Stone, clay, glass, and concrete products	45,979	327	50	0
	33 Primary metal products	168,640	49,082	16,661	0
	34 Fabricated metal products, except ordnance, machinery, and transportation equipment	2,826	1,066	1,362	0
	35 Machinery, except electrical	328	13	315	0
	36 Electrical machinery equipment and supplies	15	1	14	0
	37 Transportation equipment	169	1	53	99

(continued)

Table TRANS-7. (continued)

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1965	38	Instruments, photographic and optical goods, watches and clocks	6	0	6	0
	39	Miscellaneous products of manufacturing	328	34	1	0
	40	Waste and scrap materials	36,022	0	1,666	0
	41	Special items	1,060	0	0	0
	99	Department of Defense controlled cargo and special category items	67	0	67	0

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1965		Total	10,499,108	1,854,308	2,063,961	387,802
	01	Farm products	11,480	0	0	0
	09	Fresh fish and other marine products	0	7,698	79,983	80,502
	10	Metallic ores	245,477	0	670	0
	11	Coal	0	0	0	0
	13	Crude petroleum	2,354,163	1,078,016	692,317	105,960
	14	Nonmetallic minerals, except fuels	0	0	0	0
	20	Food and kindred products	32,313	39	1,146	00
	22	Basic textiles	0	0	0	0
	24	Lumber and wood products, except furniture	0	0	600	0
	25	Furniture and fixtures	0	0	0	0

(continued)

Table TRANS-7. (continued)

Year	Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1965	26 Pulp, paper and allied products	0	1,510	0	0
	28 Chemicals and allied products	155,094	153,802	384,569	69,100
	29 Petroleum and coal products	7,675,901	504,779	853,199	132,239
	30 Rubber and miscellaneous plastics products	0	0	0	0
	32 Stone, clay, glass, and concrete products	0	27,334	18,268	0
	33 Primary metal products	24,680	46,361	31,856	0
	34 Fabricated metal products, except ordnance, machinery, and transportation equipment	0	398	0	0
	35 Machinery, except electrical	0	0	0	0
	36 Electrical machinery equipment and supplies	0	0	0	0
	37 Transportation equipment	0	15	0	1
	38 Instruments, photographic and optical goods, watches and clocks	0	0	0	0
	39 Miscellaneous products of manufacturing	0	0	293	0
	40 Waste and scrap materials	0	34,356	0	0
	41 Special items	0	0	1,060	0
	99 Department of Defense controlled cargo and special category items	0	0	0	0

(continued)

Table TRANS-7. (continued)

Year		Commodity	Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1970		Total	25,229,045	3,985,561	2,866,964	139,098
	01	Farm products	1,938,461	0	1,938,461	0
	09	Fresh fish and other marine products	301,200	0	0	0
	10	Metallic ores	3,477,374	3,465,950	2,334	0
	13	Crude petroleum	4,046,640	232,921	0	0
	14	Nonmetallic minerals, except fuels	24,834	19,731	5,103	0
	20	Food and kindred products	171,059	52,325	89,402	0
	22	Basic textiles	5,522	0	5,522	0
	23	Apparel and other finished textile products, including knit	2	2	0	0
	24	Lumber and wood products, except furniture	15	0	15	0
	26	Pulp, paper and allied products	9,234	7,563	33	0
	28	Chemicals and allied products	2,294,394	77,560	695,159	25,480
	29	Petroleum and coal products	12,652,822	29,028	67,399	113,618
	30	Rubber and miscellaneous plastics products	40	0	40	0
	32	Stone, clay, glass, and concrete products	93,168	0	104	0
	33	Primary metal products	212,467	100,425	61,775	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	547	0	547	0
	35	Machinery, except electrical	478	0	338	0
	36	Electrical machinery equipment and supplies	26	1	25	0
	37	Transportation equipment	167	0	167	0

(continued)

Table TRANS-7. (continued)

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1970	38	Instruments, photographic and optical goods, watches and clocks	10	0	10	0
	39	Miscellaneous products of manufacturing	3	0	3	0
	40	Waste and scrap materials	572	50	522	0
	41	Special items	10	5	5	0

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1970		Total	12,710,861	2,226,691	2,925,817	374,053
	01	Farm products	0	0	0	0
	09	Fresh fish and other marine products	0	268,650	23,100	9,450
	10	Metallic ores	0	0	9,090	0
	13	Crude petroleum	2,157,235	949,809	570,655	136,020
	14	Nonmetallic minerals, except fuels	0	0	0	0
	20	Food and kindred products	29,332	0	0	0
	22	Basic textiles	0	0	0	0
	23	Apparel and other finished textile products, including knit	0	0	0	0
	24	Lumber and wood products, except furniture	0	0	0	0
	26	Pulp, paper and allied products	0	1,638	0	0
	28	Chemicals and allied products	498,389	407,449	518,950	71,407

(continued)

Table TRANS-7. (continued)

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1970	29	Petroleum and coal products	10,025,905	591,872	1,667,824	157,176
	30	Rubber and miscellaneous plastics products	0	0	0	0
	32	Stone, clay, glass, and concrete products	0	3,196	89,868	0
	33	Primary metal products	0	3,937	46,330	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	0	0	0	0
	35	Machinery, except electrical	0	140	0	0
	36	Electrical machinery equipment and supplies	0	0	0	0
	37	Transportation equipment	0	0	0	0
	38	Instruments, photographic and optical goods, watches and clocks	0	0	0	0
	39	Miscellaneous products of manufacturing	0	0	0	0
	40	Waste and scrap materials	0	0	0	0
	41	Special items	0	0	0	0

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1975		Total	35,487,454	13,038,122	5,195,591	201,992
	01	Farm products	4,447,447	0	4,440,742	0
	09	Fresh fish and other marine products	64,257	0	0	0
	10	Metallic ores	3,592,668	3,576,393	13,490	0

(continued)

Table TRANS-7. (continued)

Year		Commodity	Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1975	11	Coal	16,191	16,191	0	0
	13	Crude petroleum	11,227,188	9,182,504	0	126,787
	14	Nonmetallic minerals, except fuels	319,533	84,485	31,039	0
	20	Food and kindred products	65,936	27,210	10,673	0
	22	Basic textiles	1	0	1	0
	24	Lumber and wood products, except furniture	5	0	5	0
	26	Pulp, paper and allied products	4,934	0	0	0
	27	Printed matter	1	0	1	0
	28	Chemicals and allied products	2,161,384	14,101	656,312	36,643
	29	Petroleum and coal products	13,360,782	54,845	1,103	38,562
	30	Rubber and miscellaneous plastics products	137	0	137	0
	32	Stone, clay, glass, and concrete products	145	0	145	0
	33	Primary metal products	176,902	82,382	41,032	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	846	0	486	0
	35	Machinery, except electrical	790	0	280	0
	36	Electrical machinery equipment and supplies	1,227	0	51	0
	37	Transportation equipment	67	0	67	0
	38	Instruments, photographic and optical goods, watches and clocks	6	0	6	0
	40	Waste and scrap materials	39,681	0	20	0
	41	Special items	7,325	11	0	0

(continued)

Table TRANS-7. (continued)

Year	Commodity	Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1975	99 Department of Defense controlled cargo and special category items	1	0	1	0

Year	Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1975	Total	11,923,449	1,393,438	3,081,333	653,529
	01 Farm products	0	3,900	2,805	0
	09 Fresh fish and other marine products	0	62,861	1,396	0
	10 Metallic ores	0	0	2,785	0
	11 Coal	0	0	0	0
	13 Crude petroleum	1,150,268	509,765	148,089	109,775
	14 Nonmetallic minerals, except fuels	0	40,347	163,662	0
	20 Food and kindred products	25,381	1,272	1,400	0
	22 Basic textiles	0	0	0	0
	24 Lumber and wood products, except furniture	0	0	0	0
	26 Pulp, paper and allied products	0	4,934	0	0
	27 Printed matter	0	0	0	0
	28 Chemicals and allied products	389,139	383,144	570,737	111,308
	29 Petroleum and coal products	10,358,661	340,347	2,134,818	432,446
	30 Rubber and miscellaneous plastics products	0	0	0	0
	32 Stone, clay, glass, and concrete products	0	0	0	0

(continued)

Table TRANS-7. (continued)

Year	Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1975	33 Primary metal products	0	6,787	46,701	0
	34 Fabricated metal products, except ordnance, machinery, and transportation equipment	0	360	0	0
	35 Machinery, except electrical	0	0	510	0
	36 Electrical machinery equipment and supplies	0	60	1,116	0
	37 Transportation equipment	0	0	0	0
	38 Instruments, photographic and optical goods, watches and clocks	0	0	0	0
	40 Waste and scrap materials	0	39,661	0	0
	41 Special items	0	0	7,314	0
	99 Department of Defense controlled cargo and special category items	0	0	0	0

Year	Commodity	Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1977	Total	46,871,695	19,926,112	4,282,282	344,819
	01 Farm products	3,379,489	0	3,378,340	0
	09 Fresh fish and other marine products	5,582	0	1	0
	10 Metallic ores	4,044,101	4,029,612	0	0
	13 Crude petroleum	18,028,469	15,346,713	52,545	188,007
	14 Nonmetallic minerals, except fuels	427,124	89,306	38	0

(continued)

Table TRANS-7. (continued)

Year		Commodity	Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1977	20	Food and kindred products	54,617	40,879	13,054	0
	22	Basic textiles	112	0	112	0
	24	Lumber and wood products, except furniture	105	14	91	0
	25	Furniture and fixtures	69	0	69	0
	26	Pulp, paper and allied products	6,315	0	15	0
	28	Chemicals and allied products	2,644,068	7,783	737,720	98,009
	29	Petroleum and coal products	18,006,616	300,726	3	58,279
	30	Rubber and miscellaneous plastics products	174	0	174	0
	32	Stone, clay, glass, and concrete products	60,300	58,080	2,220	0
	33	Primary metal products	193,447	52,477	88,924	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	6,689	416	5,273	0
	35	Machinery, except electrical	277	77	200	0
	36	Electrical machinery equipment and supplies	55	0	55	0
	37	Transportation equipment	674	0	150	524
	38	Instruments, photographic and optical goods, watches and clocks	2	0	2	0
	39	Miscellaneous products of manufacturing	700	0	0	0
	40	Waste and scrap materials	7,504	0	3,296	0
	41	Special items	5,206	29	0	0

(continued)

Table TRANS-7. (continued)

Year		Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1977		Total	15,468,656	1,234,398	4,510,499	1,104,929
	01	Farm products	0	0	1,149	0
	09	Fresh fish and other marine products	0	5,581	0	0
	10	Metallic ores	0	13,281	1,208	0
	13	Crude petroleum	862,896	584,922	513,294	480,092
	14	Nonmetallic minerals, except fuels	0	1,507	336,273	0
	20	Food and kindred products	0	0	684	0
	22	Basic textiles	0	0	0	0
	24	Lumber and wood products, except furniture	0	0	0	0
	25	Furniture and fixtures	0	0	0	0
	26	Pulp, paper and allied products	0	6,300	0	0
	28	Chemicals and allied products	343,527	280,885	1,039,657	136,487
	29	Petroleum and coal products	14,262,233	330,363	2,566,662	488,350
	30	Rubber and miscellaneous plastics products	0	0	0	0
	32	Stone, clay, glass, and concrete products	0	0	0	0
	33	Primary metal products	0	2,174	49,872	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	0	0	1,000	0
	35	Machinery, except electrical	0	0	0	0
	36	Electrical machinery equipment and supplies	0	0	0	0
	37	Transportation equipment	0	0	0	0

(continued)

Table TRANS-7. (concluded)

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1977	38	Instruments, photographic and optical goods, watches and clocks	0	0	0	0
	39	Miscellaneous products of manufacturing	0	0	700	0
	40	Waste and scrap materials	0	4,208	0	0
	41	Special items	0	5,177	0	0

Table TRANS-8. Waterborne commerce by Standard Transportation Commodity Classification code for Corpus Christi, Texas,to the Mexican Border for selected years, 1965 through 1977 (short tons) (U.S. Department of the Army, Corps of Engineers 1966, 1971, 1976, 1978).

Year	Commodity		Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1965		Total	2,087,530	50,410	5,800	1,310,025	67,308
	09	Fresh fish and other marine products	18,513	12	0	69	0
	10	Metallic ores	3,381	0	0	0	0
	13	Crude petroleum	1,142,586	0	0	1,134,260	4,058
	14	Nonmetallic minerals, except fuels	78,309	0	0	66,651	0
	20	Food and kindred products	21,562	180	0	1,905	0
	28	Chemicals and allied products	186,781	533	0	79,264	0
	29	Petroleum and coal products	399,411	0	0	19,543	25,430
	32	Stone, clay, glass, and concrete products	2,724	0	0	0	0
	33	Primary metal products	8,706	19	0	8,321	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	105	2	0	0	0
	35	Machinery, except electrical	233	21	0	2	0
	37	Transportation equipment	202	15	0	8	0
	39	Miscellaneous products of manufacturing	210	35	0	0	0
	40	Waste and scrap materials	8,505	0	0	0	0
	41	Special items	216,302	49,593	5,800	2	37,820

Year	Commodity	Westbound	Inbound westbound	Outbound westbound	Through westbound
1965	Total	2,023	255,896	27,481	368,587

(continued)

Table TRANS-8. (continued)

Year	Commodity		Westbound	Inbound westbound	Outbound westbound	Through westbound
1965	09	Fresh fish and other marine products	808	17,624	0	0
	10	Metallic ores	0	3,381	0	0
	13	Crude petroleum	1,128	3,140	0	0
	14	Nonmetallic minerals, except fuels	0	11,585	73	0
	20	Food and kindred products	0	181	19,296	0
	28	Chemicals and allied products	0	77,690	1,685	27,609
	29	Petroleum and coal products	0	138,772	366	215,300
	32	Stone, clay, glass, and concrete products	0	1,220	304	1,200
	33	Primary metal products	16	32	318	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	2	50	51	0
	35	Machinery, except electrical	21	51	37	101
	37	Transportation equipment	2	165	12	0
	39	Miscellaneous products of manufacturing	46	27	102	0
	40	Waste and scrap materials	0	1,278	0	7,227
	41	Special items	0	700	5,237	117,150

Year	Commodity		Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1970		Total	2,348,252	8,343	3,595	1,390,150	57,789
	01	Farm products	87,054	0	0	1,316	0
	09	Fresh fish and other marine products	46,081	0	3,595	0	0

(continued)

Table TRANS-8. (continued)

Year	Commodity		Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1970	10	Metallic ores	34,487	0	0	12,193	0
	13	Crude petroleum	870,398	0	0	812,609	57,789
	14	Nonmetallic minerals, except fuels	272,390	451	0	207,841	0
	20	Food and kindred products	8,348	0	0	217	0
	28	Chemicals and allied products	274,690	0	0	214,523	0
	29	Petroleum and coal products	667,278	1,311	0	128,720	0
	32	Stone, clay, glass, and concrete products	380	238	0	0	0
	33	Primary metal products	39,653	123	0	12,086	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	13	9	0	0	0
	35	Machinery, except electrical	12,491	37	0	645	0
	37	Transportation equipment	1,366	471	0	0	0
	40	Waste and scrap materials	26,998	0	0	0	0
	41	Special items	6,625	5,703	0	0	0

Year	Commodity		Westbound	Inbound westbound	Outbound westbound	Through westbound
1970		Total	2,473	513,042	8,131	364,729
	01	Farm products	0	85,738	0	0
	09	Fresh fish and other marine products	0	42,486	0	0
	10	Metallic ores	0	22,294	0	0
	13	Crude petroleum	0	0	0	0
	14	Nonmetallic minerals, except fuels	304	17,925	0	45,869
	20	Food and kindred products	0	0	8,131	0

(continued)

Table TRANS-8. (continued)

Year	Commodity		Westbound	Inbound westbound	Outbound westbound	Through westbound
1970	28	Chemicals and allied products	0	25,270	0	34,897
	29	Petroleum and coal products	0	253,284	0	283,963
	32	Stone, clay, glass, and concrete products	142	0	0	0
	33	Primary metal products	102	27,342	0	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	4	0	0	0
	35	Machinery, except electrical	104	11,705	0	0
	37	Transportation equipment	895	0	0	0
	40	Waste and scrap materials	0	26,998	0	0
	41	Special items	922	0	0	0

Year	Commodity		Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1975		Total	2,230,193	2,726	2,516	931,265	3,556
	01	Farm products	86,525	0	0	1,280	0
	09	Fresh fish and other marine products	11,926	0	1,193	0	5
	10	Metallic ores	36,537	0	0	2,544	0
	13	Crude petroleum	389,145	0	0	323,945	0
	14	Nonmetallic minerals, except fuels	531,939	0	0	361,752	0
	20	Food and kindred products	24,822	0	0	4,628	0
	28	Chemicals and allied products	307,434	0	0	212,968	0
	29	Petroleum and coal products	752,303	739	0	8,581	0
	32	Stone, clay, glass, and concrete products	270	0	0	270	0
	33	Primary metal products	34,076	0	0	5,859	0

(continued)

Table TRANS-8. (continued)

Year	Commodity	Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1975	34 Fabricated metal products, except ordnance, machinery, and transportation equipment	3,611	0	0	1,382	0
	35 Machinery, except electrical	4,166	0	0	548	0
	37 Transportation equipment	4,491	0	0	2,360	0
	39 Miscellaneous products of manufacturing	16,430	1,987	1,323	3,437	3,551
	40 Waste and scrap materials	17,073	0	0	0	0
	41 Special items	9,445	0	0	1,711	0

Year	Commodity	Westbound	Inbound westbound	Outbound westbound	Through westbound
1975	Total	2,266	642,337	2,479	643,048
	01 Farm products	0	85,245	0	0
	09 Fresh fish and other marine products	0	10,728	0	0
	10 Metallic ores	0	33,993	0	0
	13 Crude petroleum	0	0	0	65,200
	14 Nonmetallic minerals, except fuels	0	15,645	0	154,542
	20 Food and kindred products	0	18,424	1,770	0
	28 Chemicals and allied products	0	42,185	0	52,281
	29 Petroleum and coal products	0	372,127	0	370,856
	32 Stone, clay, glass, and concrete products	0	0	0	0
	33 Primary metal products	0	28,217	0	0
	34 Fabricated metal products, except ordnance, machinery, and transportation equipment	0	2,229	0	0

(continued)

Table TRANS-8. (continued)

Year	Commodity		Westbound	Inbound westbound	Outbound westbound	Through westbound
1975	35	Machinery, except electrical	0	3,618	0	0
	37	Transportation equipment	0	2,131	0	0
	39	Miscellaneous products of manufacturing	2,266	2,988	709	169
	40	Waste and scrap materials	0	17,073	0	0
	41	Special items	0	7,734	0	0

Year	Commodity		Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1977		Total	1,991,500	257	1,026	783,253	17,403
	01	Farm products	8,538	0	0	0	0
	09	Fresh fish and other marine products	13,801	0	1,026	0	0
	10	Metallic ores	17,731	0	0	4,249	0
	13	Crude petroleum	309,615	0	0	229,478	0
	14	Nonmetallic minerals, except fuels	390,506	0	0	201,478	0
	20	Food and kindred products	38,896	0	0	17,667	0
	22	Basic textiles	1,508	0	0	1,508	0
	24	Lumber and wood products, except furniture	3	0	0	1	0
	26	Pulp, paper and allied products	2,689	0	0	2,689	0
	28	Chemicals and allied products	492,907	0	0	303,882	789
	29	Petroleum and coal products	688,610	5	0	4,975	16,614
	32	Stone, clay, glass, and concrete products	413	0	0	413	0
	33	Primary metal products	11,846	60	0	6,688	0

(continued)

Table TRANS-8. (continued)

Year	Commodity	Total	Eastbound	Inbound eastbound	Outbound eastbound	Through eastbound
1977	34 Fabricated metal products, except ordnance, machinery, and transportation equipment	79	0	0	56	0
	35 Machinery, except electrical	807	101	0	430	0
	36 Electrical machinery equipment and supplies	30	0	0	0	0
	37 Transportation equipment	868	66	0	480	0
	39 Miscellaneous products of manufacturing	956	25	0	720	0
	40 Waste and scrap materials	5,340	0	0	2,761	0
	41 Special items	6,357	0	0	5,778	0

Year	Commodity	Westbound	Inbound westbound	Outbound westbound	Through westbound
1977	Total	33	501,725	1,351	686,452
	01 Farm products	0	8,538	0	0
	09 Fresh fish and other marine products	0	12,775	0	0
	10 Metallic ores	0	13,482	0	0
	13 Crude petroleum	0	14,859	0	65,278
	14 Nonmetallic minerals, except fuels	0	18,469	0	170,559
	20 Food and kindred products	0	19,878	1,351	0
	22 Basic textiles	0	0	0	0
	24 Lumber and wood products, except furniture	0	2	0	0
	26 Pulp, paper and allied products	0	0	0	0
	28 Chemicals and allied products	0	140,553	0	47,683
	29 Petroleum and coal products	0	264,114	0	402,902

(continued)

Table TRANS-8. (concluded)

Year	Commodity		Westbound	Inbound westbound	Outbound westbound	Through westbound
1977	32	Stone, clay, glass, and concrete products	0	0	0	0
	33	Primary metal products	0	5,098	0	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	0	23	0	0
	35	Machinery, except electrical	22	254	0	0
	36	Electrical machinery equipment and supplies	0	0	0	30
	37	Transportation equipment	11	311	0	0
	39	Miscellaneous products of manufacturing	0	211	0	0
	40	Waste and scrap materials	0	2,579	0	0
	41	Special items	0	579	0	0

Table TRANS-9. Waterborne commerce by Standard Transportation Commodity Classification code for Galveston Harbor, Texas, for selected years, 1965 through 1977 (short tons) (U.S. Department of the Army, Corps of Engineers 1966, 1971, 1976, 1978).

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1965		Total	3,716,962	163,936	3,174,214	196,893
	01	Farm products	2,565,978	52,182	2,464,564	0
	08	Forest products	3,339	863	2,426	0
	09	Fresh fish and other marine products	1	1	0	0
	10	Metallic ores	1,360	857	503	0
	14	Nonmetallic minerals, except fuels	150,794	2,022	131,059	3,112
	20	Food and kindred products	548,817	64,756	273,864	190,098
	22	Basic textiles	13,476	5,727	7,744	0
	23	Apparel and other finished textile products, including knit	17	16	0	0
	24	Lumber and wood products, except furniture	6,174	2,829	1,766	0
	25	Furniture and fixtures	45	25	11	0
	26	Pulp, paper and allied products	794	9	685	0
	27	Printed matter	79	1	1	0
	28	Chemicals and allied products	289,266	7,579	273,256	0
	29	Petroleum and coal products	85,464	93	1,545	3,682
	30	Rubber and miscellaneous plastics products	231	53	26	0
	31	Leather and leather products	413	137	0	1
	32	Stone, clay, glass, and concrete products	2,038	539	412	0
	33	Primary metal products	36,634	23,667	10,771	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	2,801	1,732	586	0
	35	Machinery, except electrical	1,759	84	1,672	0

(continued)

Table TRANS-9. (continued)

Year	Commodity	Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1965	36 Electrical machinery equipment and supplies	135	57	78	0
	37 Transportation equipment	560	154	55	0
	38 Instruments, photographic and optical goods, watches and clocks	9	6	3	0
	39 Miscellaneous products of manufacturing	3,422	385	50	0
	40 Waste and scrap materials	2,713	162	2,494	0
	99 Department of Defense controlled cargo and special category items	643	0	643	0

Year	Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1965	Total	56,697	116,016	9,206	N.D.
	01 Farm products	456	48,776	0	N.D.
	08 Forest products	50	0	0	N.D.
	09 Fresh fish and other marine products	0	0	0	N.D.
	10 Metallic ores	0	0	0	N.D.
	14 Nonmetallic minerals, except fuels	192	7,833	6,576	N.D.
	20 Food and kindred products	20,099	0	0	N.D.
	22 Basic textiles	5	0	0	N.D.
	23 Apparel and other finished textile products, including knit	1	0	0	N.D.

(continued)

Table TRANS-9. (continued)

Year	Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1965	24 Lumber and wood products, except furniture	1,579	0	0	N.D.
	25 Furniture and fixtures	9	0	0	N.D.
	26 Pulp, paper and allied products	100	0	0	N.D.
	27 Printed matter	77	0	0	N.D.
	28 Chemicals and allied products	7,093	1,338	0	N.D.
	29 Petroleum and coal products	24,073	55,957	114	N.D.
	30 Rubber and miscellaneous plastics products	152	0	0	N.D.
	31 Leather and leather products	275	0	0	N.D.
	32 Stone, clay, glass, and concrete products	77	1,010	0	N.D.
	33 Primary metal products	2,096	0	100	N.D.
	34 Fabricated metal products, except ordnance, machinery, and transportation equipment	51	432	0	N.D.
	35 Machinery, except electrical	3	0	0	N.D.
	36 Electrical machinery equipment and supplies	0	0	0	N.D.
	37 Transportation equipment	52	169	130	N.D.
	38 Instruments, photographic and optical goods, watches and clocks	0	0	0	N.D.
	39 Miscellaneous products of manufacturing	200	501	2,286	N.D.
	40 Waste and scrap materials	57	0	0	N.D.
	99 Department of Defense controlled cargo and special category items	0	0	0	N.D.

(continued)

Table TRANS-9. (continued)

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1970		Total	3,463,152	321,401	2,124,022	240,792
	01	Farm products	1,554,475	124,297	1,385,169	0
	08	Forest products	8,630	8,624	6	0
	09	Fresh fish and other marine products	35,883	0	0	0
	10	Metallic ores	29,345	26,472	12	0
	13	Crude petroleum	47	47	0	0
	14	Nonmetallic minerals, except fuels	610,849	4,256	90,578	0
	19	Ordnance and accessories	6	6	0	0
	20	Food and kindred products	748,178	66,064	425,149	240,758
	21	Tobacco products	7	7	0	0
	22	Basic textiles	,434	2,210	1,218	0
	23	Apparel and other finished textile products, including knit	59	56	3	0
	24	Lumber and wood products, except furniture	61,706	59,802	1,589	0
	25	Furniture and fixtures	252	186	16	17
	26	Pulp, paper and allied products	1,542	1,126	364	0
	27	Printed matter	378	4	0	0
	28	Chemicals and allied products	231,340	14,686	188,059	0
	29	Petroleum and coal products	44,983	0	242	0
	30	Rubber and miscellaneous plastics products	1,153	238	911	0
	31	Leather and leather products	89	88	0	1
	32	Stone, clay, glass, and concrete products	8,216	3,609	812	0
	33	Primary metal products	370	2,261	11,491	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	12,751	2,054	3,066	0

(continued)

Table TRANS-9. (continued)

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1970	35	Machinery, except electrical	15,965	495	9,776	0
	36	Electrical machinery equipment and supplies	406	48	313	11
	37	Transportation equipment	6,949	3,996	2,620	5
	38	Instruments, photographic and optical goods, watches and clocks	17	9	8	0
	39	Miscellaneous products of manufacturing	20,275	279	0	0
	40	Waste and scrap materials	2,603	6	2,597	0
	41	Special items	1,221	475	0	0
	99	Department of Defense controlled cargo and special category items	23	0	23	0

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1970		Total	319,331	157,112	300,494	N.D.
	01	Farm products	141	35,973	8,895	N.D.
	08	Forest products	0	0	0	N.D.
	09	Fresh fish and other marine products	0	35,883	0	N.D.
	10	Metallic ores	0	2,593	268	N.D.
	13	Crude petroleum	0	0	0	N.D.
	14	Nonmetallic minerals, except fuels	291,392	2,195	222,428	N.D.

(continued)

Table TRANS-9. (continued)

Year		Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1970	19	Ordnance and accessories	0	0	0	N.D.
	20	Food and kindred products	16,207	0	0	N.D.
	21	Tobacco products	0	0	0	N.D.
	22	Basic textiles	6	0	0	N.D.
	23	Apparel and other finished textile products, including knit	0	0	0	N.D.
	24	Lumber and wood products, except furniture	0	315	0	N.D.
	25	Furniture and fixtures	33	0	0	N.D.
	26	Pulp, paper and allied products	52	0	0	N.D.
	27	Printed matter	374	0	0	N.D.
	28	Chemicals and allied products	2,562	24,570	1,463	N.D.
	29	Petroleum and coal products	1,438	42,790	513	N.D.
	30	Rubber and miscellaneous plastics products	4	0	0	N.D.
	31	Leather and leather products	0	0	0	N.D.
	32	Stone, clay, glass, and concrete products	30	3,765	0	N.D.
	33	Primary metal products	1,321	3,675	43,622	N.D.
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	5,162	2,469	0	N.D.
	35	Machinery, except electrical	243	1,593	3,858	N.D.
	36	Electrical machinery equipment and supplies	34	0	0	N.D.
	37	Transportation equipment	328	0	0	N.D.
	38	Instruments, photographic and optical goods, watches and clocks	0	0	0	N.D.

(continued)

Table TRANS-9. (continued)

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1970	39	Miscellaneous products of manufacturing	0	549	19,447	N.D.
	40	Waste and scrap materials	0	0	0	N.D.
	41	Special items	4	742	0	N.D.
	99	Department of Defense controlled cargo and special category items	0	0	0	N.D.

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1975		Total	5,971,160	854,359	3,091,981	59,694
	01	Farm products	2,643,687	197,931	2,325,284	0
	08	Forest products	5,293	4,699	176	0
	09	Fresh fish and other marine products	1,919	0	0	0
	10	Metallic ores	38,322	37,807	515	0
	11	Coal	687	0	687	0
	13	Crude petroleum	249,800	189,682	0	0
	14	Nonmetallic minerals, except fuels	1,797,055	15,123	513,510	0
	20	Food and kindred products	384,661	226,185	91,354	59,674
	21	Tobacco products	9	6	3	0
	22	Basic textiles	5,974	1,879	2,641	0
	23	Apparel and other finished textile products, including knit	72	16	56	0
	24	Lumber and wood products, except furniture	91,705	80,877	61	0

(continued)

Table TRANS-9. (continued)

Year		Commodity	Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1975	25	Furniture and fixtures	13,107	413	93	3
	26	Pulp, paper and allied products	52,085	77	28,753	0
	27	Printed matter	21	7	14	0
	28	Chemicals and allied products	58,365	26,123	13,666	0
	29	Petroleum and coal products	176,753	39	869	0
	30	Rubber and miscellaneous plastics products	7,846	5,752	503	0
	31	Leather and leather products	57	34	23	0
	32	Stone, clay, glass, and concrete products	8,537	1,511	4,779	0
	33	Primary metal products	170,539	42,105	41,453	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	38,042	5,820	19,674	6
	35	Machinery, except electrical	61,650	6,493	37,341	1
	36	Electrical machinery equipment and supplies	3,067	198	2,856	0
	37	Transportation equipment	20,869	9,202	6,189	5
	38	Instruments, photographic and optical goods, watches and clocks	487	25	462	0
	39	Miscellaneous products of manufacturing	40,871	251	57	0
	40	Waste and scrap materials	913	309	599	5
	41	Special items	98,404	1,795	0	0
	99	Department of Defense controlled cargo and special category items	363	0	363	0

(continued)

Table TRANS-9. (continued)

Year		Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1975		Total	1,157,845	338,074	468,831	376
	01	Farm products	7	95,077	25,388	0
	08	Forest products	0	0	418	0
	09	Fresh fish and other marine products	0	1,919	0	0
	10	Metallic ores	0	0	0	0
	11	Coal	0	0	0	0
	13	Crude petroleum	43,570	0	16,548	0
	14	Nonmetallic minerals, except fuels	1,105,464	1,848	161,110	0
	20	Food and kindred products	0	1,620	5,828	0
	21	Tobacco products	0	0	0	0
	22	Basic textiles	3	1,241	210	0
	23	Apparel and other finished textile products, including knit	0	0	0	0
	24	Lumber and wood products, except furniture	3	5,774	4,990	0
	25	Furniture and fixtures	9	847	11,687	55
	26	Pulp, paper and allied products	82	22,745	428	0
	27	Printed matter	0	0	0	0
	28	Chemicals and allied products	1,168	6,238	11,170	0
	29	Petroleum and coal products	85	125,940	49,820	0
	30	Rubber and miscellaneous plastics products	2	0	1,589	0
	31	Leather and leather products	0	0	0	0
	32	Stone, clay, glass, and concrete products	0	10	2,237	0
	33	Primary metal products	7,345	37,450	41,865	321
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	33	5,770	6,739	0

(continued)

Table TRANS-9. (continued)

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1975	35	Machinery, except electrical	33	12,453	5,329	0
	36	Electrical machinery equipment and supplies	13	0	0	0
	37	Transportation equipment	23	2,782	2,668	0
	38	Instruments, photographic and optical goods, watches and clocks	0	0	0	0
	39	Miscellaneous products of manufacturing	5	15,850	24,708	0
	40	Waste and scrap materials	0	0	0	0
	41	Special items	0	510	96,099	0
	99	Department of Defense controlled cargo and special category items	0	0	0	0

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1977		Total	9,563,626	1,653,236	5,921,565	405
	01	Farm products	5,464,373	248,649	5,024,540	0
	08	Forest products	9,450	9,386	64	0
	09	Fresh fish and other marine products	31	0	0	0
	10	Metallic ores	151,754	149,432	47	0
	11	Coal	101	0	101	0
	13	Crude petroleum	509,766	493,969	0	0
	14	Nonmetallic minerals, except fuels	1,909,165	79,112	599,940	0
	20	Food and kindred products	413,703	370,133	38,440	0

(continued)

Table TRANS-9. (continued)

Year		Commodity	Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1977	22	Basic textiles	14,269	3,025	7,368	0
	23	Apparel and other finished textile products, including knit	73	8	65	0
	24	Lumber and wood products, except furniture	130,952	122,794	6,396	0
	25	Furniture and fixtures	3,547	331	2,246	0
	26	Pulp, paper and allied products	43,022	503	26,012	0
	27	Printed matter	199	88	111	0
	28	Chemicals and allied products	79,196	12,960	53,644	0
	29	Petroleum and coal products	303,165	6,356	9,684	0
	30	Rubber and miscellaneous plastics products	21,154	7,653	11,552	0
	31	Leather and leather products	260	217	43	0
	32	Stone, clay, glass, and concrete products	20,959	8,972	10,647	0
	33	Primary metal products	263,790	113,297	40,428	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	32,492	12,057	18,449	0
	35	Machinery, except electrical	52,773	5,256	43,345	0
	36	Electrical machinery equipment and supplies	7,117	289	6,888	0
	37	Transportation equipment	25,434	5,868	17,005	405
	38	Instruments, photographic and optical goods, watches and clocks	334	3	331	0
	39	Miscellaneous products of manufacturing	19,473	240	175	0
	40	Waste and scrap materials	4,883	12	3,235	0
	41	Special items	81,458	2,626	136	0

(continued)

Table TRANS-9. (continued)

Year	Commodity	Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1977	99 Department of Defense controlled cargo and special category items	673	0	673	0

Year	Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1977	Total	1,289,976	446,129	250,278	2,037
	01 Farm products	0	149,270	41,914	0
	08 Forest products	0	0	0	0
	09 Fresh fish and other marine products	0	31	0	0
	10 Metallic ores	0	1,450	825	0
	11 Coal	0	0	0	0
	13 Crude petroleum	0	15,797	0	0
	14 Nonmetallic minerals, except fuels	1,219,759	2,168	8,186	0
	20 Food and kindred products	0	2,104	3,026	0
	22 Basic textiles	0	3,064	812	0
	23 Apparel and other finished textile products, including knit	0	0	0	0
	24 Lumber and wood products, except furniture	0	729	1,033	0
	25 Furniture and fixtures	0	0	970	0
	26 Pulp, paper and allied products	9	16,507	0	0
	27 Printed matter	0	0	0	0
	28 Chemicals and allied products	0	6,086	6,506	0
	29 Petroleum and coal products	70,217	215,756	620	532

(continued)

Table TRANS-9. (continued)

Year		Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1977	30	Rubber and miscellaneous plastics products	0	0	1,949	0
	31	Leather and leather products	0	0	0	0
	32	Stone, clay, glass, and concrete products	0	0	1,340	0
	33	Primary metal products	0	27,529	81,031	1,505
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	0	70	1,916	0
	35	Machinery, except electrical	0	1,526	2,646	0
	36	Electrical machinery equipment and supplies	0	0	0	0
	37	Transportation equipment	0	818	1,338	0
	38	Instruments, photographic and optical goods, watches and clocks	0	0	0	0
	39	Miscellaneous products of manufacturing	0	961	18,097	0
	40	Waste and scrap materials	0	834	802	0
	41	Special items	0	1,429	77,267	0
	99	Department of Defense controlled cargo and special category items	0	0	0	0

Table TRANS-10. Waterborne commerce by Standard Transportation Commodity Classification code for Freeport Harbor, Texas for selected years, 1965 through 1977 (short tons) (U.S. Department of the Army, Corps of Engineers 1966, 1971, 1976, 1978).

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1965		Total	4,590,577	51,739	676,474	33,740
	01	Farm products	33,907	33,891	16	0
	08	Forest products	56	0	6	0
	09	Fresh fish and other marine products	1,017,145	0	0	0
	10	Metallic ores	16,507	14,291	0	0
	13	Crude petroleum	5,967	0	0	0
	14	Nonmetallic minerals, except fuels	27,218	0	0	0
	20	Food and kindred products	1,153	1,153	0	0
	22	Basic textiles	31	0	31	0
	24	Lumber and wood products, except furniture	10	10	0	0
	28	Chemicals and allied products	2,102,158	50	662,446	29,167
	29	Petroleum and coal products	1,348,606	0	389	4,573
	31	Leather and leather products	1	0	1	0
	33	Primary metal products	19,756	562	13,415	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	113	0	6	0
	35	Machinery, except electrical	157	0	157	0
	36	Electrical machinery equipment and supplies	8,722	0	0	0
	37	Transportation equipment	6	0	6	0
	38	Instruments, photographic and optical goods, watches and clocks	1	0	1	0
	39	Miscellaneous products of manufacturing	9,063	1,782	0	0

(continued)

Table TRANS-10. (continued)

Year		Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1965		Total	1,474,225	1,422,681	929,509	2,259
	01	Farm products	0	0	0	0
	08	Forest products	50	0	0	0
	09	Fresh fish and other marine products	0	1,017,145	0	0
	10	Metallic ores	0	0	2,216	0
	13	Crude petroleum	0	5,967	0	0
	14	Nonmetallic minerals, except fuels	0	27,218	0	0
	20	Food and kindred products	0	0	0	0
	22	Basic textiles	0	0	0	0
	24	Lumber and wood products, except furniture	0	0	0	0
	28	Chemicals and allied products	462,382	345,096	602,367	650
	29	Petroleum and coal products	1,011,793	16,460	315,391	0
	31	Leather and leather products	0	0	0	0
	33	Primary metal products	0	1,685	4,094	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	0	107	0	0
	35	Machinery, except electrical	0	0	0	0
	36	Electrical machinery equipment and supplies	0	8,772	0	0
	37	Transportation equipment	0	0	0	0
	38	Instruments, photographic and optical goods, watches and clocks	0	0	0	0
	39	Miscellaneous products of manufacturing	0	231	5,441	1,609

(continued)

Table TRANS-10. (continued)

Year		Commodity	Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1970		Total	5,282,973	8,464	1,115,731	118,179
	01	Farm products	35	34	1	0
	09	Fresh fish and other marine products	793,914	0	0	0
	13	Crude petroleum	763,848	0	0	0
	14	Nonmetallic minerals, except fuels	98,958	0	88	0
	20	Food and kindred products	8,084	3,570	4,514	0
	22	Basic textiles	2	2	0	0
	24	Lumber and wood products, except furniture	86	86	0	0
	28	Chemicals and allied products	2,923,028	0	1,082,318	118,179
	29	Petroleum and coal products	629,147	0	0	0
	32	Stone, clay, glass, and concrete products	4,624	0	1,685	0
	33	Primary metal products	42,076	0	27,081	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	291	0	0	0
	35	Machinery, except electrical	32	0	32	0
	36	Electrical machinery equipment and supplies	634	632	2	0
	37	Transportation equipment	3	0	3	0
	38	Instruments, photographic and optical goods, watches and clocks	6	0	6	0
	39	Miscellaneous products of manufacturing	12,518	0	0	0
	40	Waste and scrap materials	1	0	1	0
	41	Special items	5,686	4,140	0	0

(continued)

Table TRANS-10. (continued)

Year		Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1970		Total	1,048,871	2,236,711	752,015	3,002
	01	Farm products	0	0	0	0
	09	Fresh fish and other marine products	0	793,914	0	0
	13	Crude petroleum	0	763,848	0	0
	14	Nonmetallic minerals, except fuels	392	97,557	921	0
	20	Food and kindred products	0	0	0	0
	22	Basic textiles	0	0	0	0
	24	Lumber and wood products, except furniture	0	0	0	0
	28	Chemicals and allied products	563,071	498,005	658,453	3,002
	29	Petroleum and coal products	485,408	82,766	60,973	0
	32	Stone, clay, glass, and concrete products	0	0	2,939	0
	33	Primary metal products	0	250	14,745	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	0	229	62	0
	35	Machinery, except electrical	0	0	0	0
	36	Electrical machinery equipment and supplies	0	0	0	0
	37	Transportation equipment	0	0	0	0
	38	Instruments, photographic and optical goods, watches and clocks	0	0	0	0
	39	Miscellaneous products of manufacturing	0	142	12,376	0
	40	Waste and scrap materials	0	0	0	0
	41	Special items	0	0	1,546	0

(continued)

Table TRANS-10. (continued)

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1975		Total	8,194,136	3,142,026	971,299	263,614
	01	Farm products	111,110	21	109,835	0
	08	Forest products	15	0	15	0
	09	Fresh fish and other marine products	3,152	0	0	0
	13	Crude petroleum	3,850,650	3,019,185	0	130,489
	14	Nonmetallic minerals except fuels	244,399	0	0	0
	20	Food and kindred products	3,512	0	3,512	0
	22	Basic textiles	2	0	2	0
	25	Furniture and fixtures	14	14	0	0
	27	Printed matter	39	39	0	0
	28	Chemicals and allied products	3,153,589	104,734	847,641	132,825
	29	Petroleum and coal products	740,454	71	0	0
	32	Stone, clay, glass, and concrete products	9	9	0	0
	33	Primary metal products	26,931	0	10,243	0
	34	Fabricated metal products, except ordnance, machinery and transportation equipment	194	72	0	0
	35	Machinery, except electrical	21	0	1	0
	36	Electrical machinery equipment and supplies	18	0	18	0
	37	Transportation equipment	17,793	17,489	4	300
	39	Miscellaneous products of manufacturing	19,506	0	0	0
	40	Waste and scrap materials	4,197	0	28	0
	41	Special items	18,531	392	0	0

(continued)

Table TRANS-10. (continued)

Year		Commodity	Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1975		Total	1,105,425	1,737,863	863,735	110,174
	01	Farm products	0	0	1,254	0
	08	Forest products	0	0	0	0
	09	Fresh fish and other marine products	0	3,152	0	0
	13	Crude petroleum	78,686	531,151	0	91,139
	14	Nonmetallic minerals except fuels	0	235,916	8,483	0
	20	Food and kindred products	0	0	0	0
	22	Basic textiles	0	0	0	0
	25	Furniture and fixtures	0	0	0	0
	27	Printed matter	0	0	0	0
	28	Chemicals and allied products	536,680	816,048	696,626	19,035
	29	Petroleum and coal products	490,059	116,750	133,574	0
	32	Stone, clay, glass, and concrete products	0	0	0	0
	33	Primary metal products	0	5,762	10,926	0
	34	Fabricated metal products, except ordnance, machinery and transportation equipment	0	0	122	0
	35	Machinery, except electrical	0	0	20	0
	36	Electrical machinery equipment and supplies	0	0	0	0
	37	Transportation equipment	0	0	0	0
	39	Miscellaneous products of manufacturing	0	6,776	12,730	0
	40	Waste and scrap materials	0	4,169	0	0
	41	Special items	0	18,139	0	0

(continued)

Table TRANS-10. (continued)

Year	Commodity		Total	Foreign imports	Foreign exports	Domestic coastwise receipts
1977		Total	15,332,518	10,139,892	1,277,342	245,387
	01	Farm products	68,488	0	65,608	0
	09	Fresh fish and other marine products	1,192	0	0	0
	10	Metallic ores	699	0	0	0
	13	Crude petroleum	10,293,902	9,945,623	0	35,064
	14	Nonmetallic minerals, except fuels	233,012	0	0	0
	20	Food and kindred products	4,567	0	4,512	0
	22	Basic textiles	1	0	1	0
	23	Apparel and other finished textile products, including knit	6	6	0	0
	25	Furniture and fixtures	8	8	0	0
	28	Chemicals and allied products	3,649,858	172,435	1,199,650	207,085
	29	Petroleum and coal products	976,522	0	0	0
	30	Rubber and miscellaneous plastics products	1	0	1	0
	32	Stone, clay, glass, and concrete products	2,861	1	148	0
	33	Primary metal products	33,672	12,721	6,936	0
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	1,557	33	6	0
	35	Machinery, except electrical	985	0	70	0
	36	Electrical machinery equipment and supplies	70	13	1	0
	37	Transportation equipment	4,091	443	328	3,238
	39	Miscellaneous products of manufacturing	3,714	4	1	0
	40	Waste and scrap materials	81	0	0	0
	41	Special items	57,231	8,605	0	0

(continued)

Table TRANS-10. (concluded)

Year	Commodity		Domestic coastwise shipments	Domestic internal receipts	Domestic internal shipments	Domestic local
1977		Total	1,099,451	1,688,354	882,092	N.D.
	01	Farm products	0	0	2,800	N.D.
	09	Fresh fish and other marine products	0	1,192	0	N.D.
	10	Metallic ores	0	0	699	N.D.
	13	Crude petroleum	0	297,013	16,202	N.D.
	14	Nonmetallic minerals, except fuels	0	218,788	14,224	N.D.
	20	Food and kindred products	0	0	55	N.D.
	22	Basic textiles	0	0	0	N.D.
	23	Apparel and other finished textile products, including knit	0	0	0	N.D.
	25	Furniture and fixtures	0	0	0	N.D.
	28	Chemicals and allied products	571,170	800,141	699,377	N.D.
	29	Petroleum and coal products	528,281	345,844	102,397	N.D.
	30	Rubber and miscellaneous plastics products	0	0	0	N.D.
	32	Stone, clay, glass, and concrete products	0	2,055	657	N.D.
	33	Primary metal products	0	2,122	11,893	N.D.
	34	Fabricated metal products, except ordnance, machinery, and transportation equipment	0	798	720	N.D.
	35	Machinery, except electrical	0	321	594	N.D.
	36	Electrical machinery equipment and supplies	0	56	0	N.D.
	37	Transportation equipment	0	82	0	N.D.
	39	Miscellaneous products of manufacturing	0	381	3,328	N.D.
	40	Waste and scrap materials	0	81	0	N.D.
	41	Special items	0	19,480	29,146	N.D.

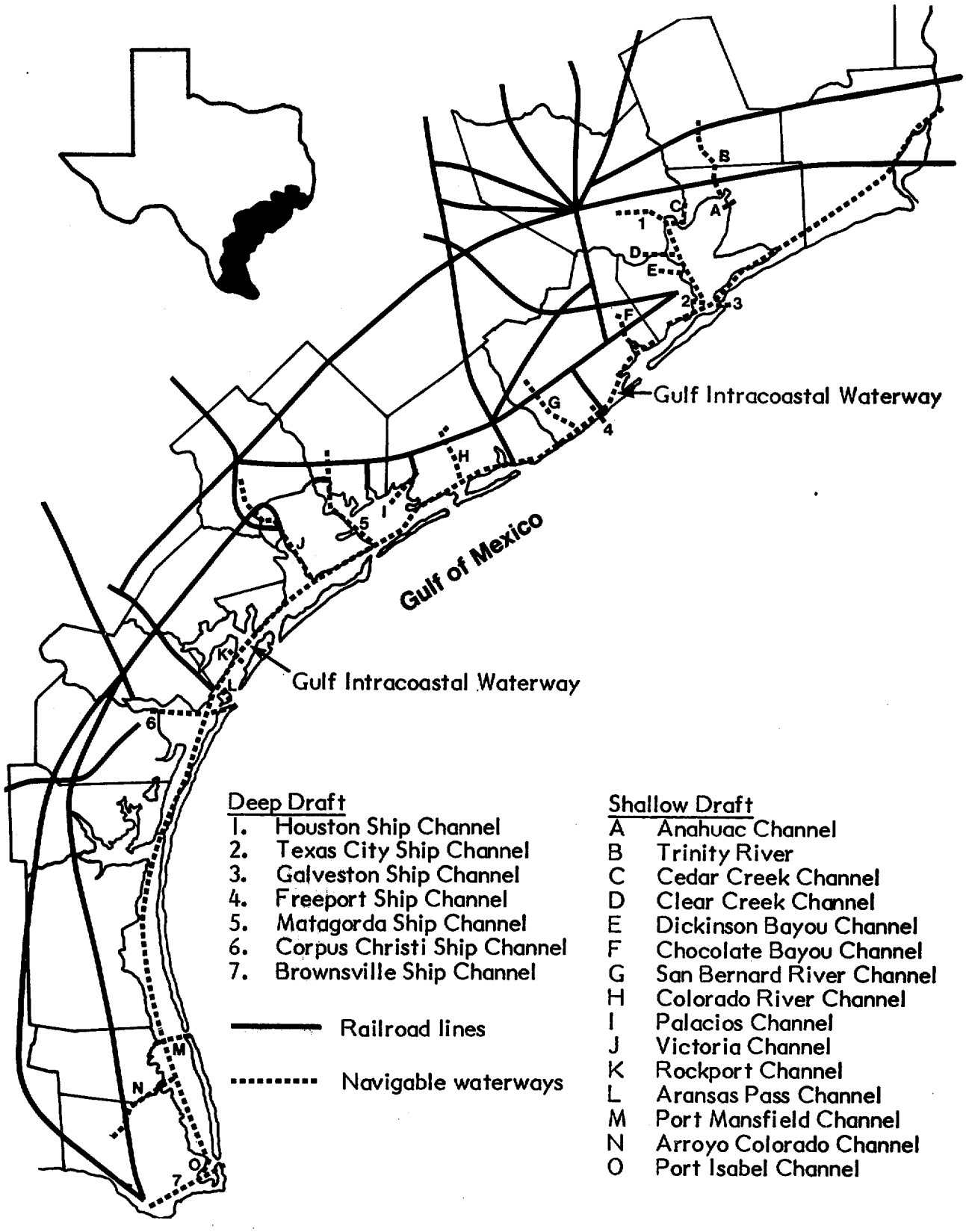


Figure TRANS-3 Railroad lines and navigable waterways in the TBIE study area (Texas Railroad Commission 1979).

Table TRANS-11. Airports found in Texas Airport System Plan 1979 (Texas Aeronautics Commission 1979).

Planning region/ county	Basic utility		General utility		Basic transport	
	existing	proposed	existing	proposed	existing	proposed
GULF COAST						
Brazoria	0	0	0	0	0	0
Chambers	1	1	0	0	0	0
Fort Bend	0	1	0	0	0	0
Galveston	0	0	0	0	0	0
Harris	0	0	1	2	0	4
Liberty	1	0	1	0	0	0
Matagorda	0	0	1	0	1	0
Wharton	0	0	1	0	0	0
Total	2	2	4	2	1	4
GOLDEN CRESCENT						
Calhoun	0	0	1	0	0	0
Goliad	0	1	0	0	0	0
Jackson	1	0	0	0	0	0
Victoria	0	0	0	0	0	0
Total	1	1	1	0	0	0
COASTAL BEND						
Aransas	1	0	0	0	1	0
Bee	0	0	0	0	1	0
Brooks	0	0	0	0	1	0
Jim Wells	0	0	0	0	1	0
Kenedy	0	0	0	0	0	0
Kleberg	0	0	0	0	1	0
Nueces	1	0	1	0	0	0
Refugio	0	0	0	1	0	0
San Patricio	0	1	1	0	0	0
Total	2	1	2	1	5	0
LOWER RIO GRANDE VALLEY						
Cameron	1	0	1	0	0	0
Hidalgo	1	0	1	1	0	0
Willacy	0	1	1	0	0	0
Total	2	1	3	1	0	0
TBIE STUDY AREA	7	5	10	4	6	4

(continued)

Table TRANS-11. (concluded)

Planning region/ county	General transport		Scheduled air passenger service		Total	
	existing	proposed	basic transport	general transport	existing	proposed
GULF COAST						
Brazoria	0	0	0	1	1	0
Chambers	0	0	0	0	1	1
Fort Bend	0	0	0	0	0	1
Galveston	0	0	0	1	1	0
Harris	0	0	0	3[a]	4	6
Liberty	0	0	0	0	2	0
Matagorda	0	0	0	0	2	0
Wharton	0	0	0	0	1	0
Total	0	0	0	5	12	8
GOLDEN CRESCENT						
Calhoun	0	0	0	0	1	0
Goliad	0	0	0	0	0	1
Jackson	0	0	0	0	1	0
Victoria	0	0	1	0	1	0
Total	0	0	1	0	3	1
COASTAL BEND						
Aransas	0	0	0	0	2	0
Bee	0	0	0	0	1	0
Brooks	0	0	0	0	1	0
Jim Wells	0	0	0	0	1	0
Kenedy	0	0	0	0	0	0
Kleberg	0	0	0	0	1	0
Nueces	0	0	0	1	3	0
Refugio	0	0	0	0	1	1
San Patricio	0	0	0	0	1	1
Total	0	0	0	1	10	2
LOWER RIO GRANDE VALLEY						
Cameron	0	0	0	2	4	0
Hidalgo	0	0	0	1	3	1
Willacy	0	0	0	0	1	1
Total	0	0	0	3	8	2
TBIE STUDY AREA	0	0	1	9	33	13

[a]Includes 1 Short take-off and landing facility.

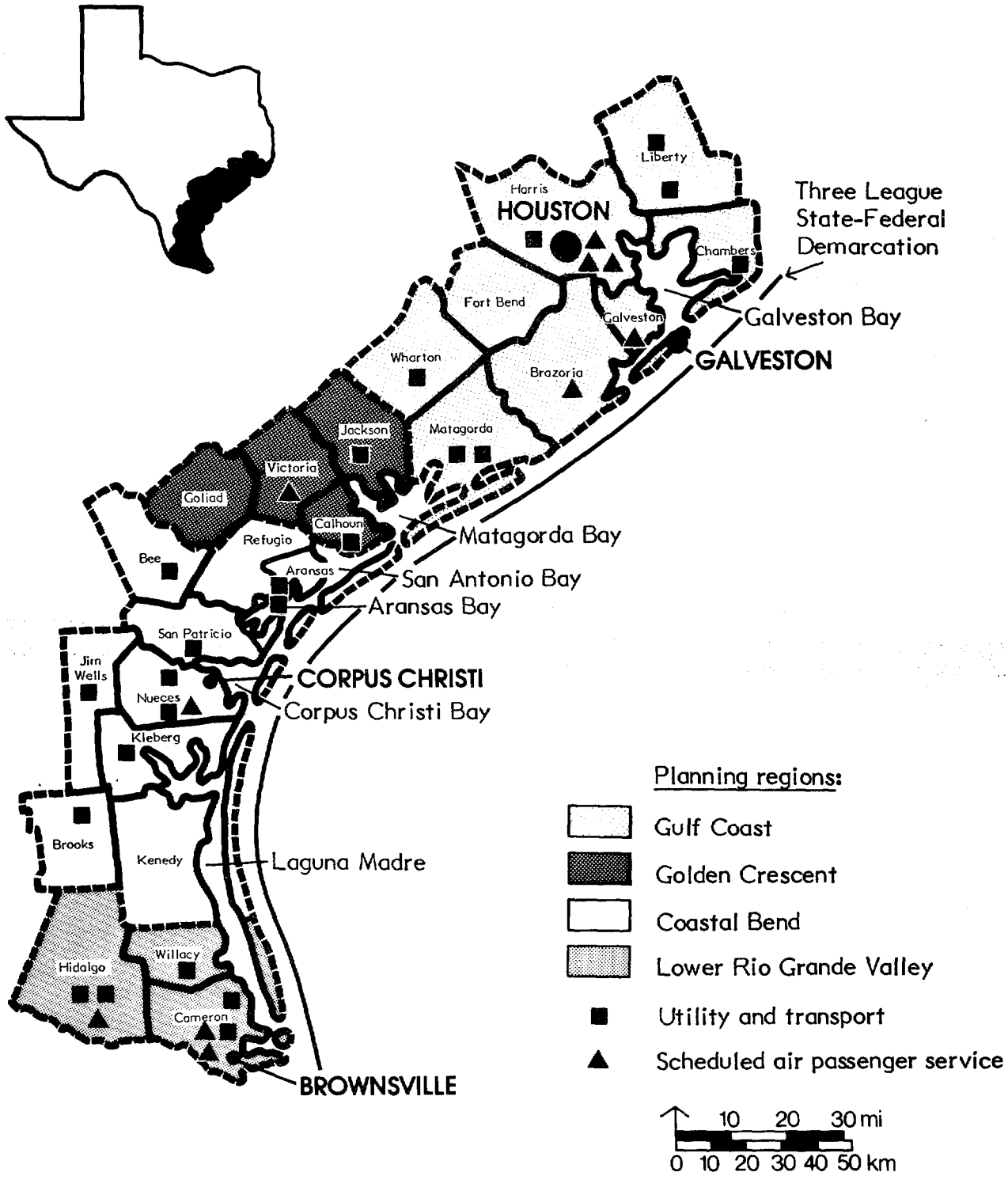


Figure TRANS-4. Airports found in Texas Airport System Plan, 1979 (Texas Aeronautics Commission 1979).

Table TRANS-12. Civil Aeronautics Board certificated, scheduled air carrier enplanement, freight and mail data, for selected calendar years, 1962 through 1978 (U.S. Department of Transportation, Federal Aviation Agency, Civil Aeronautics Board 1963, 1966, 1971, 1979).

Airport	1962			1966[a]		
	Passenger	Freight	Mail	Passenger	Freight	Mail
Brownsville						
Scheduled	18,785	171.93	103.55	27,800	206.49	56.26
Nonscheduled	0	0	0	59	0	0
All services	18,785	171.93	103.55	27,859	206.49	56.26
Corpus Christi						
Scheduled	65,703	225.27	138.26	101,347	352.27	249.75
Nonscheduled	57	0	0	203	0	0
All services	65,750	225.27	138.26	101,550	352.27	249.75
Houston[b]						
Scheduled	790,972	5,793.17	2,296.03	1,269,658	11,613.12	3,511.58
Nonscheduled	3,803	0	0	3,644	0	0
All services	794,775	5,793.17	2,296.03	1,273,302	11,618.12	3,511.58
Galveston						
Scheduled	465	10.74	0	1,900	25.41	0
Nonscheduled	0	0	0	0	0	0
All services	465	10.74	0	1,900	25.41	0

Airport	1970			1978		
	Passenger	Freight	Mail	Passenger	Freight	Mail
Brownsville						
Scheduled	59,889	297.82	95.66	108,587	1,029.35	49.3
Nonscheduled	15	0	0	59	0	0
All services	59,904	297.82	95.66	108,646	1,029.35	49.3

(continued)

Table TRANS-12 (concluded)

Airport	1970			1978		
	Passenger	Freight	Mail	Passenger	Freight	Mail
Corpus Christi						
Scheduled	169,084	625.54	778.18	206,898	506.47	152.71
Nonscheduled	130	0	0	955	0	0
All services	169,214	625.54	778.18	207,853	506.47	152.71
Houston[b]						
Scheduled	2,154,896	21,470.65	9,325.12	4,608,345	54,691.67	15,944.97
Nonscheduled	8,224	0	0	24,355	18.37	0
All services	2,163,120	21,470.65	9,325.12	4,632,700	54,710.04	15,944.97
Galveston						
Scheduled	4,818	32.95	0.09	N.D.	N.D.	N.D.
Nonscheduled	80	0	0	N.D.	N.D.	N.D.
Air services	4,898	32.95	0.09	N.D.	N.D.	N.D.

[a]Based on fiscal year ending June 1966.
[b]Based on two airports.

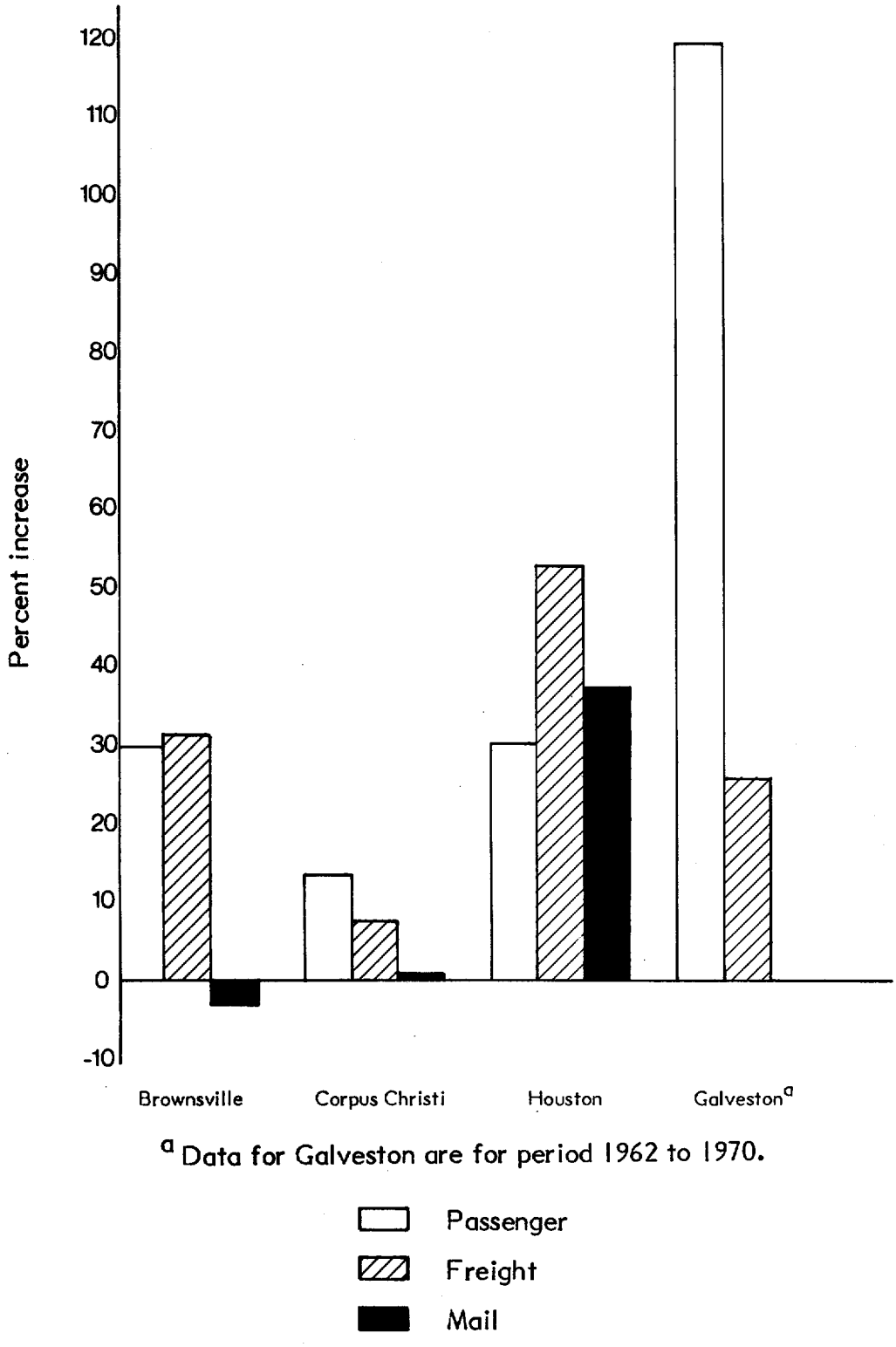


Figure TRANS-5 Growth rates of air service, 1962 to August 1978 (U.S. Dept. of Transportation, Federal Aviation Administration, Civil Aeronautics Board 1963, 1966, 1971, 1979).

Table TRANS-13. Commodities (carloads and short tons) originated or terminated in Texas, transported by selected railroads serving the TBIE area, 1977 (Texas Railroad Commission 1979).

Rail line	Commodity	Carloads			Tons		
		Origin	Term	Total	Origin	Term	Total
Texas Mexican	Nonmetallic minerals	2,871	2,655	5,526	221,022	208,573	429,595
	Waste and scrap metals	1,305	3,157	4,462	70,706	146,337	217,043
	Food and kindred products	559	3,652	4,211	30,090	177,326	207,416
	Chemicals and allied products	393	2,825	3,218	31,514	165,250	196,764
	Total			17,417			1,050,818
Fort Worth and Denver	Farm products	12,041	5,977	18,018	950,788	520,639	1,471,427
	Food and kindred products	2,562	12,505	15,067	181,462	871,353	1,052,815
	Stone, clay and glass products	636	3,106	3,742	52,976	142,429	195,405
	Lumber and wood products	16	2,156	2,172	727	87,210	87,937
	Total			38,999			2,807,584
Missouri-Kansas-Texas	Nonmetallic minerals	318	38,438	38,756	28,332	3,458,497	3,486,829
	Farm products	6,179	23,182	29,361	563,553	2,013,026	2,576,579
	Food and kindred products	6,279	16,962	23,241	275,241	858,178	1,133,419
	Stone, clay and glass products	9,002	8,056	17,058	305,940	466,564	772,504
	Total			108,416			7,969,331
Rock Island	Farm products	7,361	33,494	40,855	751,503	3,203,052	3,954,555
	Nonmetallic minerals	15,297	6,024	21,321	1,173,297	511,678	1,684,975
	Food and kindred products	8,997	11,654	20,651	347,379	488,355	835,734

(continued)

Table TRANS-13. (continued)

Rail line	Commodity	Carloads			Tons		
		Origin	Term	Total	Origin	Term	Total
Rock Island (continued)	Chemicals and allied products	4,219	1,953	6,172	304,077	111,505	415,582
	Total			88,999			6,890,846
Southern Pacific - Cotton Belt	Food and kindred products	2,474	8,006	10,480	103,297	443,809	547,106
	Lumber and wood products	5,359	5,236	10,595	353,083	243,019	596,102
	Pulp and paper and allied	662	6,195	6,857	14,041	214,554	228,595
	Chemicals and allied products	1,805	4,915	6,720	126,093	336,893	462,986
	Total			34,652			1,834,789
Southern Pacific	Nonmetallic minerals	97,263	92,710	189,973	8,388,021	7,867,263	16,255,284
	Chemicals and allied products	76,476	34,723	111,199	5,892,444	2,593,247	8,485,691
	Food and kindred products	24,355	42,259	66,614	1,164,770	2,095,597	3,260,367
	Petroleum and coal products	32,075	17,469	49,544	1,830,698	1,016,676	2,847,374
	Total			417,330			30,848,716
Missouri Pacific	Chemicals and allied products	110,486	40,570	151,056	8,888,258	3,104,416	11,992,674
	Nonmetallic minerals	42,613	76,794	119,407	3,431,096	6,530,449	9,961,545
	Farm products	15,222	64,271	79,493	886,749	5,490,756	6,377,505

(continued)

Table TRANS-13. (concluded)

Rail line	Commodity	Carloads			Tons		
		Origin	Term	Total	Origin	Term	Total
Missouri Pacific (continued)	Food and kindred products	45,377	42,618	87,995	2,242,642	2,202,950	4,445,592
	Total			437,951			32,777,316
Atchison, Topeka and Santa Fe	Farm products	55,509	84,810	140,319	4,129,952	7,168,075	11,298,027
	Nonmetallic minerals	49,797	46,959	96,756	4,161,208	4,000,151	8,161,359
	Chemicals and allied products	34,382	36,284	70,666	2,524,535	3,139,583	5,664,118
	Food and kindred products	25,609	37,385	62,994	1,274,175	1,829,017	3,103,192
	Total			370,735			28,226,696

Table TRANS-14. Total rail carloads[a] unloaded at selected TBIE ports for selected years, 1950 through 1977 (Association of American Railroads, Car Service Division 1951, 1961, 1971, 1978).

Year/port	Carloads	% change over preceding decade
1950		
Galveston	102,875	-5.0
Houston	48,847	-19.0
Corpus Christi	1,378	1.0
Brownsville	6,153	4.0
1960		
Galveston	76,212	-25.9
Houston	57,586	17.9
Corpus Christi	13,689	893.4
Brownsville	5,143	16.4
1970		
Galveston	29,364	-61.5
Houston	125,132	117.3
Corpus Christi	14,203	3.8
Brownsville	571	88.9
1977		
Galveston	50,970	73.6
Houston	97,708	-21.9
Corpus Christi	26,190	84.4
Brownsville	0	0.0

[a]Excluding coal, coke and ore.

Table TRANS-15. Railroad track in the TBIE study area, by county, 1976 (Texas almanac 1979).

Planning region/ county	Track mi
GULF COAST	
Brazoria	138
Chambers	21
Fort Bend	171
Galveston	97
Harris	842
Liberty	113
Matagorda	122
Wharton	113
Total	1,617
GOLDEN CRESCENT	
Calhoun	28
Goliad	30
Jackson	57
Victoria	103
Total	218
COASTAL BEND	
Aransas	10
Bee	62
Brooks	33
Jim Wells	77
Kenedy	46
Kleberg	21
Nueces	80
Refugio	37
San Patricio	101
Total	467
LOWER RIO GRANDE VALLEY	
Cameron	107
Hidalgo	143
Willacy	31
Total	281
TBIE STUDY AREA	2,583
TEXAS	13,301

Table TRANS-16. Texas railroad mileage, 1900 through 1978 (Texas almanac 1979).

Year	Track mi	Gain or loss from preceding year
1900	9,838.72	136.65
1901	10,139.99	301.27
1902	10,624,93	484.94
1903	11,080.39	455.46
1904	11,536.11	455.72
1905	11,744.98	208.87
1906	12,058.32	313.34
1907	12,575.56	517.24
1908	12,901.40	352.84
1909	13,110.35	208.95
1910	13,819.44	709.09
1911	14,325.94	506.50
1912	14,940.90	614.96
1913	15,283.57	342.67
1914	15,569.30	285.73
1915	15,635.74	66.44
1922	16,077.45	-42.63
1929	16,675.68	127.95
1930	16,900.48	224.80
1931	17,068.88	168.40
1932	17,078.29	9.41
1933	16,790.75	-287.54
1934	16,660.70	-130.05
1935	16,599.15	-61.55
1936	16,503.86	-95.29
1937	16,407.42	-96.44
1938	16,375.94	-31.48
1939	16,314.57	-61.37
1940	16,235,63	-78.94
1941	16,197.46	-38.17
1942	15,859.66	-337.80
1943	15,752.73	-106.93
1944	15,630.59	-122.14
1945	15,591.41	-39.18
1946	15,573.90	-17.51
1947	15,562.68	-11.22
1948	15,570.25	7.57
1949	15,559.25	-11.00
1950	15,555.01	-4.24
1951	25,528.90	-26.11
1952	15,511.61	-17.29
1953	15,456.13	-55.30
1954	15,324.34	-131.97
1955	15,378.57	54.23

(continued)

Table TRANS-16. (concluded)

Year	Track mi	Gain or loss from preceding year
1956	15,248.65	-129.92
1957	15,147.51	-101.14
1958	15,022.79	-124.32
1959	14,694.24	-328.55
1960	14,677.67	-16.57
1961	14,605.62	-72.05
1962	14,567.66	-37.96
1963	14,497.87	-69.79
1964	14,444.50	-53.37
1965	14,308.17	-136.33
1966	14,288.21	-19.96
1967	14,013.91	-274.30
1968	13,890.27	-123.64
1969	13,825.23	-65.04
1970	13,545.18	-280.05
1971	13,485.34	-59.84
1972	13,301.26	-184.08
1973	13,301.09	-0.17
1974	13,294.46	-6.63
1975	13,249.75	-44.71
1976	13,156.99	-92.76
1977	13,058.99	-98.00
1978	13,035.82	-23.17

Table TRANS-17. Texas railroad mileage by carrier, 1977 (Association of American Railroads 1978).

Railroad	Miles operated
Class I line-haul railroads	
[a]Atchison, Topeka & Santa Fe	3,508
[a]Chicago, Rock Island & Pacific	885
[a]Fort Worth & Denver	1,185
Kansas City Southern	294
[d]Missouri-Kansas-Texas	1,016
[a]Missouri-Pacific	3,213
St. Louis-San Francisco	139
[a]St. Louis-Southwestern	551
[a]Southern Pacific	3,138
Total Class I	13,929
Class II line-haul railroads	
Abilene & Southern	39
Angelina & Neches River	12
Belton	8
[a]Galveston, Houston & Henderson	49
Georgetown	8
Moscow, Camden & San Augustine	7
Pecos Valley Southern	34
[d]Point Comfort & Northern	13
Quanah, Acme & Pacific	120
Rockdale, Sandow & Southern	6
Roscoe, Snyder & Pacific	31
Sabine River & Northern	30
Texas & Northern	8
Texas Central	25
[a]Texas Mexican	157
Texas-New Mexico	35
Texas South-Eastern	21
Weatherford, Mineral Wells & Northwestern	23
Total Class II	626
Total Class I and II	14,555

(continued)

Table TRANS-17. (concluded)

Railroad	Miles Operated
Switching and terminal railroads	
[a]Brownsville & Matamoros Bridge	1
El Paso Union Passenger Depot	3
Forth Worth Belt	15
[a]Galveston Wharves	46
[a]Great Southwest	22
[a]Houston Belt & Terminal	244
Port Terminal Railroad Association	168
[a]Texas City Terminal	31
Texas Transportation Company	1
Total Switching and Terminal	531
Total Class I, II, Switching and Terminal	15,086

[a]Railroads serving the TBIE study area.

Table TRANS-18. Highway mileage in the TBIE study area, 1976 (Zlatkovich 1976).

Planning region/ county	State	Other highway
GULF COAST		
Brazoria	394	1,806
Chambers	235	523
Fort Bend	338	1,257
Galveston	253	1,317
Harris	616	9,200
Liberty	350	1,078
Matagorda	304	959
Wharton	376	1,398
Total	2,866	17,538
GOLDEN CRESCENT		
Calhoun	170	401
Goliad	239	538
Jackson	263	773
Victoria	249	1,079
Total	921	2,791
COASTAL BEND		
Aransas	73	291
Bee	277	757
Brooks	116	258
Jim Wells	258	892
Kenedy	47	53
Kleberg	143	425
Nueces	431	2,084
Refugio	184	401
San Patricio	300	1,125
Total	1,829	6,286
LOWER RIO GRANDE VALLEY		
Cameron	516	2,088
Hidalgo	670	2,969
Willacy	212	759
Total	1,398	5,816
TBIE STUDY AREA	7,014	32,431

Table TRANS-19. Motor vehicle registrations by county, 1970, 1976, and 1978 (Zlatkovich 1976; Texas Department of Highways and Public Transportation 1971, 1972, 1973, 1974, 1975, 1979).

Planning region/ county	1970	1976	1978
GULF COAST			
Brazoria	73,261	88,547	152,962
Chambers	11,380	13,675	22,243
Fort Bend	31,262	42,769	90,420
Galveston	101,193	115,616	178,671
Harris	1,124,845	1,381,663	2,197,591
Liberty	23,560	29,136	47,122
Matagorda	17,730	19,622	34,148
Wharton	25,092	27,895	41,314
Total	1,408,323	1,718,923	2,764,471
GOLDEN CRESCENT			
Calhoun	11,493	12,711	18,910
Goliad	3,018	4,128	4,958
Jackson	9,438	10,619	15,301
Victoria	35,838	43,316	68,539
Total	59,787	70,774	107,708
COASTAL BEND			
Aransas	6,238	7,548	13,480
Bee	12,755	14,210	21,249
Brooks	4,281	4,651	6,101
Jim Wells	19,414	21,502	32,395
Kenedy	N.D.	347	460
Kleberg	17,293	19,371	26,506
Nueces	149,193	168,085	240,212
Refugio	6,531	6,951	10,134
San Patricio	28,443	31,718	47,140
Total	244,148	274,383	397,677
LOWER RIO GRANDE VALLEY			
Cameron	73,518	87,342	135,368
Hidalgo	96,597	113,613	185,549
Willacy	9,154	9,894	13,972
Total	179,269	210,849	334,889
TBIE STUDY AREA	1,891,527	2,274,929	3,604,745
TEXAS	7,515,053	8,905,923	13,369,105

RECREATION AND TOURISM INDUSTRIES (R/T)

Table R/T-1. Recreation development status of park lands under private jurisdiction, 1979 (Texas Parks and Wildlife Department 1980).

Planning region/ county	Total acreage[a]	Developed acreage	Prime undeveloped acreage	Other undeveloped acreage
GULF COAST				
Brazoria	330	330	0	0
Chambers	16	14	2	0
Fort Bend	21	21	0	0
Galveston	398	338	60	0
Harris	835	224	41	570
Liberty	566	292	59	15
Matagorda	144	123	11	10
Wharton	0	0	0	0
Sub-Total	2,309	1,341	373	595
GOLDEN CRESCENT				
Calhoun	38	35	3	0
Goliad	0	0	0	0
Jackson	0	0	0	0
Victoria	3	3	0	0
Sub-Total	41	38	3	0
COASTAL BEND				
Aransas	147	73	74	0
Bee	70	70	0	0
Brooks	0	0	0	0
Jim Wells	258	251	7	0
Kenedy	0	0	0	0
Kleberg	2	2	0	0
Nueces	213	198	15	0
Refugio	64	14	50	0
San Patricio	83	67	16	0
Sub-Total	838	675	162	0
LOWER RIO GRANDE VALLEY				
Cameron	1,182	1,164	9	9
Hidalgo	261	70	116	75
Willacy	4	4	0	0
Sub-Total	1,447	1,238	125	84
TBIE STUDY AREA	4,634	3,293	663.3	679

[a]Rows may not sum precisely due to rounding to the nearest acre.

Table R/T-2. Recreation development status of park lands under local jurisdiction, 1979 (Texas Parks and Wildlife Department 1980).

Planning region/ county	Total acreage[a]	Developed acreage	Prime undeveloped acreage	Other undeveloped acreage
GULF COAST				
Brazoria	1,358	801	557	0
Chambers	249	138	87	25
Fort Bend	179	73	104	2
Galveston	5,077	3,319	1,756	1
Harris	13,005	5,867	6,833	0
Liberty	34	29	5	0
Matagorda	288	288	0	0
Wharton	144	136	4	4
Sub-Total	20,333	10,651	9,345	338
GOLDEN CRESCENT				
Calhoun	78	63	15	0
Goliad	217	5	212	0
Jackson	792	161	620	11
Victoria	682	254	176	252
Sub-Total	1,767	483	1,023	263
COASTAL BEND				
Aransas	101	101	0	0
Bee	0	0	0	0
Brooks	46	46	0	0
Jim Wells	225	195	30	0
Kenedy	0	0	0	0
Kleberg	248	125	109	14
Nueces	2,049	1,017	845	188
Refugio	42	13	29	0
San Patricio	572	258	314	0
Sub-Total	3,284	1,754	1,327	202
LOWER RIO GRANDE VALLEY				
Cameron	951	425	521	5
Hidalgo	1,080	877	188	16
Willacy	65	64	1	0
Sub-Total	2,096	1,366	710	21
TBIE STUDY AREA	27,481	14,253	12,405	823

[a]Rows may not sum precisely due to rounding to the nearest acre.

Table R/T-3. Recreation development status of park lands under State jurisdiction, 1979 (Texas Parks and Wildlife Department 1980).

Planning region/ county	Total acreage[a]	Developed acreage	Prime undeveloped acreage	Other undeveloped acreage
GULF COAST				
Brazoria	944	31	410	503
Chambers	0	0	0	0
Fort Bend	4,597	0	1,000	3,597
Galveston	1,952	200	1,752	0
Harris	2,830	303	2,527	0
Liberty	0	0	0	0
Matagorda	0	0	0	0
Wharton	0	0	0	0
Sub-Total	10,323	533	5,689	4,100
GOLDEN CRESCENT				
Calhoun	2	2	0	0
Goliad	198	138	32	27
Jackson	575	0	400	175
Victoria	0	0	0	0
Sub-Total	774	139	433	202
COASTAL BEND				
Aransas	315	111	102	102
Bee	0	0	0	0
Brooks	0	0	0	0
Jim Wells	0	0	0	0
Kenedy	0	0	0	0
Kleberg	0	0	0	0
Nueces	3,575	5	1,300	2,270
Refugio	0	0	0	0
San Patricio	372	263	87	22
Sub-Total	4,265	379	1,489	2,394
LOWER RIO GRANDE VALLEY				
Cameron	1,546	8	705	834
Hidalgo	698	33	554	117
Willacy	35	0	0	35
Sub-Total	2,280	41	1,259	979
TBIE STUDY AREA	17,638	1,292	8,870	7,676

[a]Rows may not sum precisely due to rounding to the nearest acre.

Table R/T-4. Recreation development status of park lands under Federal jurisdiction, 1979 (Texas Parks and Wildlife Department 1980).

Planning region/ county	Total acreage	Developed acreage	Prime undeveloped acreage	Other undeveloped acreage
GULF COAST				
Brazoria	34,586	0	0	34,586
Chambers	10,022	1	0	10,021
Fort Bend	0	0	0	0
Galveston	0	0	0	0
Harris	0	0	0	0
Liberty	0	0	0	0
Matagorda	0	0	0	0
Wharton	0	0	0	0
Sub-Total	44,608	1	0	44,607
GOLDEN CRESCENT				
Calhoun	1,700	0	0	1,700
Goliad	0	0	0	0
Jackson	0	0	0	0
Victoria	0	0	0	0
Sub-Total	1,700	0	0	1,700
COASTAL BEND				
Aransas	53,120	0	8,700	44,420
Bee	0	0	0	0
Brooks	0	0	0	0
Jim Wells	0	0	0	0
Kenedy	88,669	600	0	88,069
Kleberg	36,127	600	0	35,527
Nueces	0	0	0	0
Refugio	0	0	0	0
San Patricio	0	0	0	0
Sub-Total	177,916	1,200	8,700	168,016
LOWER RIO GRANDE VALLEY				
Cameron	49,190	8	0	49,182
Hidalgo	3,865	7	0	3,859
Willacy	9,122	600	0	8,522
Sub-Total	62,177	615	0	61,563
TBIE STUDY AREA	286,401	1,815	8,700	275,886

Table R/T-5. Recreation development status of park lands under all jurisdictions, 1979 (Texas Parks and Wildlife Department 1980).

Planning region/ county	Total acreage	Developed acreage	Prime undeveloped acreage	Other undeveloped acreage
GULF COAST				
Brazoria	37,217	1,162	966	35,089
Chambers	10,287	152	89	10,046
Fort Bend	4,797	95	1,104	3,599
Galveston	7,427	3,857	3,568	1
Harris	16,670	6,394	9,400	876
Liberty	600	321	264	15
Matagorda	431	410	11	10
Wharton	144	136	3	4
Sub-Total	77,573	12,526	15,407	49,640
GOLDEN CRESCENT				
Calhoun	1,818	100	18	1,700
Goliad	415	143	245	27
Jackson	1,367	161	1,020	186
Victoria	685	257	176	252
Sub-Total	4,285	661	1,459	2,165
COASTAL BEND				
Aransas	53,683	285	8,876	44,522
Bee	70	70	0	0
Brooks	46	46	0	0
Jim Wells	482	445	37	0
Kenedy	88,669	600	0	88,069
Kleberg	36,377	727	109	35,541
Nueces	5,837	1,218	2,162	2,457
Refugio	106	27	79	0
San Patricio	1,027	589	417	22
Sub-Total	186,297	4,007	11,680	170,611
LOWER RIO GRANDE VALLEY				
Cameron	52,869	1,605	1,235	50,029
Hidalgo	5,904	986	858	4,060
Willacy	9,226	668	1	8,557
Sub-Total	67,999	3,259	2,094	62,646
TBIE STUDY AREA	336,154	20,453	30,640	285,062

Table R/T-6. Urban park and recreation facilities by type of parks: Region 24 (Austin, Calhoun, Colorado, DeWitt, Fort Bend, Goliad, Jackson, Victoria, Waller, Wharton Counties) (Texas Parks and Wildlife Department 1975d).

Type facility	District park (units)	Community park (units)	Specialty park (units)	Total units
Boating				
Parks	1	0	0	1
Ramp lanes	2	0	0	2
Fishing				
Parks	1	0	0	1
Piers, barges, and marinas (yd)[a]	0	0	0	0
Camping				
Parks	0	0	0	0
Campsites	0	0	0	0

[a]Length measurement includes the total length of areas specifically designated as available for fishing (e.g., piers, barges, bulkheads, and marinas).

Table R/T-7. Rural park and recreation facilities by administration: Region 24 (Austin, Calhoun, Colorado, DeWitt, Fort Bend, Goliad, Jackson, Victoria, Waller, Wharton Counties) (Texas Parks and Wildlife Department 1975d).

Existing area and facilities	Federal				State			Local		Private enterprise	Region total
	Corps	NPS	USFS	Other	TPWD	RA	Other	County	Municipal		
Parks with water associated	0	0	0	1	2	0	0	4	1	2	10
Park-lake	0	0	0	0	0	0	0	0	0	0	0
Park-river or stream	0	0	0	1	2	0	0	4	1	2	10
Camping-parks	0	0	0	0	2	0	0	2	1	0	5
Campsites	0	0	0	0	149	0	0	3	19	0	171
Fishing-parks	0	0	0	0	1	0	0	0	1	3	5
Piers, barges and marinas	0	0	0	0	1	0	0	0	1	2	4
Total linear yards	0	0	0	0	1,067	0	0	0	1,320	300	2,687
Boating-parks	0	0	0	0	1	0	0	5	1	9	16
Ramps	0	0	0	0	1	0	0	5	2	8	16
Lanes	0	0	0	0	2	0	0	6	2	11	21
Slips and stalls	0	0	0	0	0	0	0	0	0	45	45

Note: Corps - U.S. Army Corps, Engineers, NPS - National Park Service, USFS - U.S. Forest Service, TPWD - Texas Parks and Wildlife Department, RA - River Authorities, Other - Fish and Wildlife Service and/or Water and Power Resources Service.

Table R/T-8. Urban park and recreation facilities by type of parks: Region 25 (Harris County) (Texas Parks and Wildlife Department 1975d).

Type facility	District park (units)	Community park (units)	Specialty park (units)	Total units
Boating				
Parks	1	0	0	1
Ramp lanes	1	0	0	1
Fishing				
Parks	1	0	0	1
Piers, barges, and marinas (yd)[a]	300	0	0	300
Camping				
Parks	0	1	0	1
Campsites	0	0	0	0

[a]Length measurement includes the total length of areas specifically designated as available for fishing (e.g., piers, barges, bulkheads, and marinas).

Table R/T-9. Rural park and recreation facilities by administration: Region 25 (Harris County) (Texas Parks and Wildlife Department 1975d).

Existing area and facilities	Federal				State			Local		Private enterprise	Region total
	Corps	NPS	USFS	Other	TPWD	RA	Other	County	Municipal		
Parks with water associated	0	0	0	0	1	0	0	6	1	9	17
Park-lake	0	0	0	0	0	0	0	1	0	3	4
Park-river or stream	0	0	0	0	1	0	0	5	1	3	10
Camping-parks	0	0	0	0	0	0	0	2	0	5	7
Campsites	0	0	0	0	0	0	0	180	0	162	342
Fishing-parks	0	0	0	0	0	0	0	0	0	5	5
Piers, barges, and marinas	0	0	0	0	0	0	0	0	0	2	2
Total linear yards	0	0	0	0	0	0	0	0	0	225	225
Boating-parks	0	0	0	0	0	0	0	1	1	6	8
Ramps	0	0	0	0	0	0	0	1	1	7	9
Lanes	0	0	0	0	0	0	0	10	1	15	26
Slips and stalls	0	0	0	0	0	0	0	0	0	10	10

Note: Corps - U.S. Army Corps of Engineers, NPS - National Park Service, USFS - U.S. Forest Service, TPWD - Texas Parks and Wildlife Department, RA - River Authorities, Other - Fish and Wildlife Service and/or Water and Power Resource Service.

Table R/T-10. Urban park and recreation facilities by type of parks: Region 26 (Liberty, Montgomery, Walker Counties) (Texas Parks and Wildlife Department 1975b, 1975c).

Type facility	District park (units)	Community park (units)	Specialty park (units)	Total units
Boating				
Parks	0	0	0	0
Ramp lanes	0	0	0	0
Fishing				
Parks	0	0	0	0
Piers, barges, and marinas (yd)[a]	0	0	0	0
Camping				
Parks	0	0	0	0
Campsites	0	0	0	0

[a]Length measurement includes the total length of areas specifically designated as available for fishing (e.g., piers, barges, bulkheads, and marinas).

Table R/T-11. Rural park and recreation facilities by administration: Region 26 (Liberty, Montgomery, Walker Counties) (Texas Parks and Wildlife Department 1975a).

Existing area and facilities	Federal				State			Local		Private enterprise	Region total
	Corps	NPS	USFS	Other	TPWD	RA	Other	County	Municipal		
Parks with water associated	0	0	2	0	1	0	1[a]	1	1	8	14
Park-lake	0	0	2	0	1	0	1	1	1	11	17
Park-river or stream	0	0	0	0	0	0	0	0	0	4	4
Camping-parks	0	0	2	0	1	0	0	0	0	7	10
Campsites	0	0	32	0	234	0	0	0	0	85	351
Fishing-parks	0	0	0	0	1	0	0	0	0	0	1
Piers, barges, and marinas	0	0	0	0	1	0	0	0	0	0	1
Total linear yards	0	0	0	0	84	0	0	0	0	0	84
Boating-parks	0	0	0	0	1	0	0	0	1	2	4
Ramps	0	0	0	0	2	0	0	0	1	2	5
Lanes	0	0	0	0	2	0	0	0	1	5	8
Slips and stalls	0	0	0	0	0	0	0	0	0	0	0

Note: Corps - U.S. Army Corps of Engineers, NPS - National Park Service, USFS - U.S. Forest Service, SFS - State Forest Service, TPWD - Texas Parks and Wildlife Department, RA - River Authorities, Other - Fish and Wildlife Service and/or Water and Power Resources Service.

[a]Park under administration of State Forest Service.

Table R/T-12. Urban park and recreation facilities by type of parks: Region 28 (Matagorda and Brazoria Counties) (Texas Parks and Wildlife Department 1975b, 1975c).

Type facility	District park (units)	Community park (units)	Specialty park (units)	Total units
Boating				
Parks	1	0	1	2
Ramp lanes	1	0	1	2
Fishing				
Parks	1	2	1	4
Piers, barges, and marinas (yd)[a]	0	0	0	0
Camping				
Parks	0	0	1	1
Campsites	0	0	8	8

[a]Length measurement includes the total length of areas specifically designated as available for fishing (e.g., piers, barges, bulkheads, and marinas).

Table R/T-13. Rural park and recreation facilities by administration: Region 28 (Brazoria and Matagorda Counties) (Texas Parks and Wildlife Department 1975a).

Existing area and facilities	Federal				State			Local		Private enterprise	Region total
	Corps	NPS	USFS	Other	TPWD	RA	Other	County	Municipal		
Parks with water associated	0	0	0	0	1	0	0	14	1	25	41
Park-lake	0	0	0	0	0	0	0	4	0	3	7
Park-river or stream	0	0	0	0	1	0	0	6	1	22	30
Camping-parks	0	0	0	0	0	0	0	2	2	5	9
Campsites	0	0	0	0	0	0	0	507	20	43	570
Fishing-parks	2	0	0	0	0	0	0	5	1	39	47
Piers, barges, and marinas	2	0	0	0	0	0	0	5	1	26	34
Total linear yards	1,998	0	0	0	0	0	0	3,247	100	3,850	9,195
Boating-parks	2	0	0	0	0	0	0	9	1	49	61
Ramps	2	0	0	0	0	0	0	16	2	46	66
Lanes	4	0	0	0	0	0	0	21	4	60	89
Slips and stalls	26	0	0	0	0	0	0	0	0	915	941

Note: Corps - U.S. Army Corps of Engineers, NPS - National Park Service, USFS - U.S. Forest Service, SFS - State Forest Service, TPWD - Texas Parks and Wildlife Department, RA - River Authorities, Other - Fish and Wildlife Service and/or Water and Power Resources Service.

Table R/T-14. Urban park and recreation facilities by type of parks: Region 32 (Bee, Brooks, Duval, Jim Wells, Live Oak, and McMullen Counties) (Texas Parks and Wildlife Department 1975b, 1975c).

Type facility	District park (units)	Community park (units)	Specialty park (units)	Total units
Boating				
Parks	0	0	0	0
Ramp lanes	0	0	0	0
Fishing				
Parks	0	0	0	0
Piers, barges, and marinas (yd)[a]	0	0	0	0
Camping				
Parks	0	0	0	0
Campsites	0	0	0	0

[a]Length measurement includes the total length of areas specifically designated as available for fishing (e.g., piers, barges, bulkheads, and marinas).

Table R/T-15. Rural park and recreation facilities by administration: Region 32 (Bee, Brooks, Duval, Jim Wells, Live Oak, McMullen Counties) (Texas Parks and Wildlife Department 1975a).

Existing area and facilities	Federal				State			Local		Private enterprise	Region total
	Corps	NPS	USFS	Other	TPWD	RA	Other	County	Municipal		
Parks with water associated	0	0	0	0	1	0	0	0	1	0	2
Park-lake	0	0	0	0	0	0	0	0	0	0	0
Park-river or stream	0	0	0	0	1	0	0	0	1	0	2
Camping-parks	0	0	0	0	0	0	0	0	0	1	1
Campsites	0	0	0	0	0	0	0	0	0	20	20
Fishing-parks	0	0	0	0	0	0	0	0	0	0	0
Piers, barges, and marinas	0	0	0	0	0	0	0	0	0	0	0
Total linear yards	0	0	0	0	0	0	0	0	0	0	0
Boating-parks	0	0	0	0	0	0	0	0	0	3	3
Ramps	0	0	0	0	0	0	0	0	0	3	3
Lanes	0	0	0	0	0	0	0	0	0	3	3
Slips and stalls	0	0	0	0	0	0	0	0	0	39	39

Note: Corps - U.S. Army Corps of Engineers, NPS - National Park Service, USFS - U.S. Forest Service, SFS - State Forest Service, TPWD - Texas Parks and Wildlife Department, RA - River Authorities, Other - Fish and Wildlife Service and/or Water and Power Resources Service.

Table R/T-16. Urban park and recreation facilities by type of parks: Region 33 (Aransas, Kenedy, Kleberg, Nueces, Refugio, San Patricio Counties) (Texas Parks and Wildlife Department 1975b).

Type facility	District park (units)	Community park (units)	Specialty park (units)	Total units
Boating				
Parks	0	0	2	2
Ramp lanes	0	0	6	6
Fishing				
Parks	1	0	1	2
Piers, barges, and marinas (yd)[a]	0	0	60	60
Camping				
Parks	1	0	0	1
Campsites	10	0	0	10

[a]Length measurement includes the total length of areas specifically designated as available for fishing (e.g., piers, barges, bulkheads, and marinas).

Table R/T-17. Rural park and recreation facilities by administration: Region 33 (Aransas, Kenedy, Kleberg, Nueces, Refugio, San Patricio Counties) (Texas Parks and Wildlife Department 1975a).

Existing area and facilities	Federal				State			Local		Private enterprise	Region total
	Corps	NPS	USFS	Other	TPWD	RA	Other	County	Municipal		
Parks with water associated	0	0	0	0	1	0	0	4	2	8	15
Park-lake	0	0	0	0	1	0	0	1	2	3	7
Park-river or stream	0	0	0	0	0	0	0	11	0	5	16
Camping-parks	0	1	0	0	1	0	0	4	2	13	21
Campsites	0	200	0	0	220	0	0	108	92	340	960
Fishing-parks	0	0	0	0	3	0	0	5	1	13	22
Piers, barges, and marinas	0	0	0	0	3	0	0	3	1	13	20
Total linear yards	0	0	0	0	3,638	0	0	1,389	40	1,071	6,138
Boating-parks	0	0	0	0	3	0	0	1	1	22	27
Ramps	0	0	0	0	4	0	0	1	1	22	28
Lanes	0	0	0	0	6	0	0	1	3	30	40
Slips and stalls	0	0	0	0	0	0	0	0	87	358	445

Note: Corps - U.S. Army Corps of Engineers, NPS - National Park Service, USFS - U.S. Forest Service, SFS - State Forest Service, TPWD - Texas Parks and Wildlife Department, RA - River Authorities, Other - Fish and Wildlife Service and/or Water and Power Resources Service.

Table R/T-18. Urban park and recreation facilities by type of parks: Region 34 (Cameron, Hidalgo, Willacy Counties) (Texas Parks and Wildlife Department 1975b, 1975c).

Type facility	District park (units)	Community park (units)	Specialty park (units)	Total units
Boating				
Parks	0	0	0	0
Ramp lanes	0	0	0	0
Fishing				
Parks	0	0	0	0
Piers, barge, and marinas (yd)[a]	0	0	0	0
Camping				
Parks	0	0	0	0
Campsites	0	0	0	0

[a]Length measurement includes the total length of areas specifically designated as available for fishing (e.g., piers, barges, bulkheads, and marinas).

Table R/T-19. Rural park and recreation facilities by administration: Region 34 (Cameron, Hidalgo, Willacy Counties) (Texas Parks and Wildlife Department 1975a).

Existing area and facilities	Federal				State			Local		Private enterprise	Region total
	Corps	NPS	USFS	Other	TPWD	RA	Other	County	Municipal		
Parks with water associated	0	0	0	1	1	0	0	2	0	6	10
Park-lake	0	0	0	1	1	0	0	1	0	3	6
Park-river or stream	0	0	0	1	1	0	0	1	0	3	6
Camping-parks	0	0	0	0	1	0	0	1	0	5	7
Campsites	0	0	0	0	127	0	0	18	0	337	482
Fishing-parks	0	0	0	0	0	0	0	2	1	13	16
Piers, barges, and marinas	0	0	0	0	0	0	0	2	1	12	15
Total linear yards	0	0	0	0	0	0	0	490	12	736	1,238
Boating-parks	0	0	0	0	1	0	0	1	1	14	17
Ramps	0	0	0	0	1	0	0	1	1	14	17
Lanes	0	0	0	0	1	0	0	2	1	17	21
Slips and stalls	0	0	0	0	0	0	0	0	0	133	133

Note: Corps - U.S. Army Corps of Engineers, NPS - National Park Service, USFS - U.S. Forest Service, SFS - State Forest Service, TPWD - Texas Parks and Wildlife Department, RA - River Authorities, Other - Fish and Wildlife Service and/or Water and Power Resources Service.

Table R/T-20. Impact of travel on study area counties, 1975 through 1978 (U.S. Travel Data Center 1976, 1977, 1978, 1979).

Planning region/ county	1975 Total travel expenditures ($1,000)	1975 Travel generated payroll ($1,000)	1975 Travel generated employment (jobs)	1975 State tax receipts ($1,000)	1975 Local tax receipts ($1,000)
GULF COAST					
Brazoria	28,710	4,965	894	1,117	189
Chambers	579	183	30	23	5
Fort Bend	18,436	5,059	512	717	114
Galveston	108,167	22,407	4,651	4,210	1,122
Harris	1,037,062	221,848	41,802	40,364	10,284
Liberty	10,183	1,273	141	396	35
Matagorda	8,588	1,683	350	334	73
Wharton	4,599	848	169	179	46
Sub-total	1,216,324	258,266	48,549	47,340	11,868
GOLDEN CRESCENT					
Calhoun	3,686	713	147	143	34
Goliad	2,157	429	90	84	18
Jackson	921	172	35	36	8
Victoria	22,466	4,459	923	874	235
Sub-total	29,230	5,773	1,195	1,137	295
COASTAL BEND					
Aransas	20,586	4,138	869	801	171
Bee	6,604	1,300	271	257	56
Brooks	1,152	222	46	45	10
Jim Wells	8,972	1,734	357	349	77
Kenedy	283	42	7	11	3
Kleberg	3,758	696	139	146	33
Nueces	107,607	21,516	4,293	4,188	1,085
Refugio	847	152	30	33	8
San Patricio	10,702	1,748	303	417	66
Sub-total	160,511	31,548	6,315	6,247	1,509
LOWER RIO GRANDE VALLEY					
Cameron	70,752	14,274	2,749	2,753	658
Hidalgo	56,444	10,724	2,135	2,197	543

(continued)

Table R/T-20. (continued)

Planning region/ county	1975 Total travel expenditures ($1,000)	1975 Travel generated payroll ($1,000)	1975 Travel generated employment (jobs)	1975 State tax receipts ($1,000)	1975 Local tax receipts ($1,000)
LOWER RIO GRANDE VALLEY (cont.)					
Willacy	2,505	484	100	98	21
Sub-total	129,701	25,482	4,984	5,048	1,222
TBIE STUDY AREA	1,535,766	321,069	61,043	59,772	14,894
STATE	5,306,118	1,138,249	207,676	206,500	66,491

Planning region/ county	1976 Total travel expenditures ($1,000)	1976 Travel generated payroll ($1,000)	1976 Travel generated employment (jobs)	1976 State tax receipts ($1,000)	1976 Local tax receipts ($1,000)
GULF COAST					
Brazoria	27,670.5	5,191.9	927	1,100.3	258.0
Chambers	622.3	212.9	33	24.7	7.2
Fort Bend	21,289.1	5,970.9	522	846.5	125.8
Galveston	124,793.5	26,551.7	5,160	4,962.2	1,335.2
Harris	1,200,147.0	265,905.9	46,135	47,721.8	12,225.5
Liberty	6,696.2	903.4	111	266.3	29.0
Matagorda	9,828.7	1,971.1	381	390.8	82.7
Wharton	5,133.3	977.9	183	204.1	52.0
Sub-total	1,396,180.6	307,685.7	53,450	55,516.7	14,115.4
GOLDEN CRESCENT					
Calhoun	4,195.9	832.8	160	166.8	38.8
Goliad	2,483.3	504.0	98	98.7	20.7
Jackson	1,033.8	199.1	38	41.1	8.9
Victoria	25,709.7	5,223.8	1,004	1,022.3	278.1
Sub-total	33,422.7	6,759.7	1,299	1,328.9	346.5

(continued)

Table R/T-20. (continued)

Planning region/ county	1976 Total travel expenditures ($1,000)	Travel generated payroll ($1,000)	Travel generated employment (jobs)	State tax receipts ($1,000)	Local tax receipts ($1,000)
COASTAL BEND					
Aransas	23,770.6	4,865.2	947	945.2	197.0
Bee	7,572.3	1,524.4	295	301.1	63.5
Brooks	1,310.5	259.5	50	52.1	11.1
Jim Wells	10,209.2	2,024.1	388	406.0	86.6
Kenedy	328.8	48.7	6	13.1	4.0
Kleberg	4,201.4	803.3	151	167.1	42.6
Nueces	120,879.9	24,790.3	4,631	4,806.6	1,274.4
Refugio	934.9	174.0	32	37.2	8.3
San Patricio	9,835.1	1,760.3	309	391.1	75.3
Sub-total	179,042.7	36,249.8	6,808	7,119.5	1,762.8
LOWER RIO GRANDE VALLEY					
Cameron	76,258.1	15,495.4	2,879	3,032.3	756.0
Hidalgo	61,136.0	12,124.7	2,291	2,431.0	633.3
Willacy	2,849.7	564.6	108	113.3	24.2
Sub-total	140,243.8	28,184.3	5,278	5,576.6	1,413.5
TBIE STUDY AREA	1,748,889.8	378,879.5	66,832	69,451.7	17,638.2
STATE	6,075,952.0	1,347,587.0	227,258	241,600.0	58,460.0

Planning region/ county	1977 Total travel expenditures ($1,000)	Travel generated payroll ($1,000)	Travel generated employment (jobs)	State tax receipts ($1,000)	Local tax receipts ($1,000)
GULF COAST					
Brazoria	44,879	8,282	1,103	842	269
Chambers	623	256	34	26	6

(continued)

Table R/T-20. (continued)

Planning region/ county	1977 Total travel expenditures ($1,000)	Travel generated payroll ($1,000)	Travel generated employment (jobs)	State tax receipts ($1,000)	Local tax receipts ($1,000)
GULF COAST (cont.)					
Fort Bend	93,146	29,225	1,977	671	427
Galveston	118,615	30,446	5,014	4,292	1,194
Harris	1,195,173	311,409	46,389	38,811	11,213
Liberty	22,884	2,777	232	103	50
Matagorda	8,761	2,135	377	353	46
Wharton	4,798	1,061	182	197	40
Sub-total	1,488,879	385,591	55,308	45,295	13,245
GOLDEN CRESCENT					
Calhoun	3,778	902	159	152	40
Goliad	2,188	546	97	87	23
Jackson	957	216	37	39	6
Victoria	22,918	5,674	997	919	245
Sub-total	29,841	7,338	1,290	1,197	314
COASTAL BEND					
Aransas	22,015	5,623	964	828	107
Bee	6,724	1,651	292	269	72
Brooks	1,182	281	49	48	6
Jim Wells	9,201	2,193	385	371	98
Kenedy	0	0	0	0	0
Kleberg	3,914	871	150	161	33
Nueces	122,462	30,912	4,673	4,179	904
Refugio	892	189	32	37	6
San Patricio	17,214	2,847	370	285	74
Sub-total	183,604	44,567	6,915	6,178	1,300
LOWER RIO GRANDE VALLEY					
Cameron	82,912	18,980	3,007	2,541	703
Hidalgo	66,193	14,419	2,359	2,079	577
Willacy	2,570	612	107	104	14
Sub-total	151,675	34,011	5,473	4,724	1,294

(continued)

Table R/T-20. (continued)

Planning region/ county	1977 Total travel expenditures ($1,000)	1977 Travel generated payroll ($1,000)	1977 Travel generated employment (jobs)	1977 State tax receipts ($1,000)	1977 Local tax receipts ($1,000)
TBIE STUDY AREA	1,853,999	471,507	68,986	57,394	16,153
STATE	6,257,807	1,601,766	229,497	192,290	51,237

Planning region/ county	1978 Total travel expenditures ($1,000)	1978 Travel generated payroll ($1,000)	1978 Travel generated employment (jobs)	1978 State tax receipts ($1,000)	1978 Local tax receipts ($1,000)
GULF COAST					
Brazoria	48,495	9,065	1,175	935	303
Chambers	685	269	36	29	7
Fort Bend	109,611	34,727	1,969	740	506
Galveston	132,218	34,098	5,357	4,784	1,369
Harris	1,340,067	351,643	49,340	43,204	12,861
Liberty	24,146	2,944	246	113	53
Matagorda	9,769	2,398	405	393	51
Wharton	5,319	1,189	196	218	45
Sub-total	1,670,310	436,333	58,724	50,416	15,195
GOLDEN CRESCENT					
Calhoun	4,207	1,013	170	169	46
Goliad	2,443	613	104	97	27
Jackson	1,062	242	40	43	6
Victoria	25,556	6,363	1,069	1,023	281
Sub-total	33,268	8,231	1,383	1,332	360
COASTAL BEND					
Aransas	24,546	6,301	1,032	925	119
Bee	7,502	1,855	314	300	82
Brooks	1,316	316	53	53	7

(continued)

Table R/T-20. (concluded)

Planning region/ county	1978 Total travel expenditures ($1,000)	Travel generated payroll ($1,000)	Travel generated employment (jobs)	State tax receipts ($1,000)	Local tax receipts ($1,000)
COASTAL BEND (cont.)					
Jim Wells	10,246	2,462	413	412	112
Kenedy	0	0	0	0	0
Kleberg	4,341	976	161	178	37
Nueces	136,262	34,661	5,001	4,640	1,352
Refugio	986	211	34	41	6
San Patricio	18,518	3,109	395	317	82
Sub-total	203,717	49,891	7,403	6,866	1,797
LOWER RIO GRANDE VALLEY					
Cameron	91,673	21,229	3,213	2,834	774
Hidalgo	72,870	16,055	2,527	2,316	619
Willacy	2,862	687	115	116	15
Sub-total	167,405	37,971	5,855	5,266	1,408
TBIE STUDY AREA	2,074,700	532,426	73,365	63,880	18,760
STATE	7,032,369	1,818,807	243,887	213,914	60,675

Table R/T-21. Auto visitation factors and characteristics for Texas for selected years, 1950 through 1978 (Texas Department of Highways and Public Transportation 1951, 1961, 1971, 1972, 1973, 1974, 1975, 1979).

Visitation factors	1950	1960	1970	1971	1972	1973	1974	1978
Number of out of state visitors (1,000's)	8,054	8,600	15,102	16,452	16,635	15,975	15,845	20,898
Total expenditures ($1,000's)	276,464	457,000	976,134	1,305,367	1,588,984	1,500,665	2,186,654	3,313,054
Number of vehicles (1,000's)	2,983	3,300	5,394	5,876	5,878	5,830	5,957	7,700
Persons per vehicle	2.7	2.6	2.8	2.8	2.83	2.74	2.66	2.71
Average length of stay (days)	5.0	6.0	5.7	5.7	6.0	5.7	6.9	10.7
Miles driven per party	691	1,105	1,041	1,144	1,222	1,294	1,153	1,188[a]

[a]Does not include Mexican visitors.

Table R/T-22. Purpose of trips to Texas by out-of-state visitors for selected years, 1950 through 1978 (Texas Department of Highways and Public Transportation 1951, 1961, 1971, 1972, 1973, 1974, 1975, 1979).

Purpose of trip	Percent of trips by year					
	1950[a]	1960[a]	1970	1971[b]	1972[b]	1973[b]
Vacation only	77	67	N.D.	N.D.	53	51
Vacation/other	0	0	0	0	0	0
Visit friends only	10	20	N.D.	68	0	2
Visit friends/other	0	0	0	0	0	0
Passing thru only	0	0	0	0	0	0
Business only	13	13	N.D.	15	29	30
Business/other	0	0	0	6	6	7
Moving to Texas only	0	0	0	0	0	4
Moving/other	0	0	0	0	0	0
Convention only	0	0	0	11	6	6
Convention other	0	0	0	0	0	0

Purpose of trip	Percent of trips by year				
	1974[b]	U.S. short term 1978[c]	U.S. short term 1978[c]	Foreign short term 1978[c]	Foreign short term 1978[c]
Vacation only	46	22.7	39.8	35.7	40.0
Vacation/other	0	49.1	42.3	51.8	46.7
Visit friends only	3	9.6	4.2	3.2	5.0
Visit friends/other	0	38.3	35.7	22.8	35.0

(continued)

Table R/T-22. (concluded)

Purpose of trip	Percent of trips by year				
	1974[b]	U.S. short term 1978[c]	U.S. short term 1978[c]	Foreign short term 1978[c]	Foreign short term 1978[c]
Passing thru only	0	5.2	1.3	5.3	0.8
Passing thru/other	0	19.0	9.8	33.1	7.5
Business only	32	4.9	5.3	1.1	4.2
Business/other	8	10.0	9.6	6.4	10.8
Moving to Texas only	4	1.8	2.3	0.2	0.8
Moving/other	0	2.5	5.9	2.0	4.2
Convention only	7	1.4	0.3	0.2	0
Convention/other	0	3.7	3.2	2.9	4.2

[a]Only three categories (vacation, business, visit friends) utilized to represent purpose of trip.
[b]Six categories used to identify purpose of trip.
[c]Incorporate multiple responses by visitors.
[d]Excluding Mexican visitors.

Table R/T-23. Accommodations used statewide by auto travelers for selected years, 1950 through 1978 (Texas Department of Highways and Public Transportation 1951, 1961, 1971, 1972, 1973, 1974, 1975, 1979).

Type of accommodation	1950	1960	1970	1971	1972	1973	1974
Motel-hotel only	N.D.	66	62	73	59	59	56
Motel-hotel/other	0	0	0	0	0	0	0
Private home only	0	21	23	0	4	4	4
Private home/other	0	0	0	0	0	0	0
Recreation vehicle only	0	7	14	0	13	13	12
Recreation vehicle/ other	0	0	0	0	0	0	0
Camping only	0	6	12	0	20	20	23
Camping/other	0	0	0	22	0	0	0
Apartment only	0	0	0	0	0	0	0
Apartment/other	0	0	0	0	0	0	0
Other	0	0	5	5	4	4	5

Type of accommodation	1978			
	U.S. short term	U.S. long term	Foreign short term[a]	Foreign long term[a]
Motel-hotel only	36.6	7.7	36.9	8.3
Motel-hotel other	29.6	32.8	35.0	45.8
Private home only	13.0	4.3	6.1	14.2
Private home/other	22.3	20.1	14.8	25.8
Recreation vehicle only	9.2	29.9	11.7	19.2
Recreation vehicle/ other	12.0	29.6	11.3	24.2

(continued)

Table R/T-23. (concluded)

Type of accommodation	1978			
	U.S. short term	U.S. long term	Foreign short term[a]	Foreign long term[a]
Camping only	3.6	2.8	8.7	3.3
Camping/other	12.3	23.8	16.9	16.7
Apartment only	1.0	3.7	0	0.8
Apartment/other	2.6	10.5	1.8	14.2
Other	0	0	0	0

[a]Excludes Mexican visitors.

Table R/T-24. Out-of-state airline, bus, and train visitors: expenditures and lengths of stay, 1974 and 1978 (Texas Department of Highways and Public Transportation 1975, 1979).

Airborne visitors	Millions of visitors		Spending per person per trip (dollars)		Total expenditures (millions of dollars)	
	1974[a]	1978	1974[a]	1978	1974[a]	1978
U.S. Visitors	N.D.	3.974	N.D.	218.69	N.D.	869.089
Mexican	N.D.	0.134	N.D.	367.40	N.D.	49.092
Foreign	N.D.	0.062	N.D.	367.40	N.D.	22.647
Sub-total	3.082	4.170	$114.94	$225.62	$354.25	$ 940.828
Visitors via bus or rail						
Bus	0.660	0.626	$138.02	$116.11	$ 91.093	$ 72.684
Rail	0.072	0.059	$138.06	$115.32	$ 9.940	$ 6.804
Sub-total	0.732	0.685	$138.02	$116.04	$101.033	$ 79.488
Total air, bus, and rail categories	3.814	4.855	$119.37	$210.16	$455.281	$1,020.316

[a]Visitor data for 1974 do not distinguish origin of visitor.

Table R/T-25. In-state visitors and expenditures by county of origin for selected study area cities, 1974 (Texas Department of Highways and Public Transportation 1975).

County of origin	City of destination, number of person trips (expenditures in millions of dollars)		
	Houston	Corpus Christi	Galveston
Bee	0	699,892 ($ 6.30)	0
Bexar	0	434,416 ($ 3.91)	0
Brazoria	2,316,885 ($20.84)	0	772,295 ($ 6.95)
Dallas	1,544,590 ($13.90)	265,476 ($ 2.39)	337,879 ($ 3.04)
Galveston	1,737,664 ($15.63)	0	675,758 ($ 6.08)
Harris	3,668,401 ($33.00)	169,939 ($ 1.52)	2,123,811 ($19.11)
Hidalgo	0	168,939 ($ 1.52)	0
Jefferson	1,351,516 ($12.16)	0	0
Montgomery	965,369 ($ 8.69)	0	0
Tarrant	0	217,208 ($ 1.95)	0
Travis	965,369 ($ 8.69)	0	0
Others	6,757,581 ($60.80)	458,550 ($ 4.13)	917,100 ($ 8.25)
Total	19,307,375 ($98.71)	2,413,422 ($21.71)	4,826,843 ($43.43)

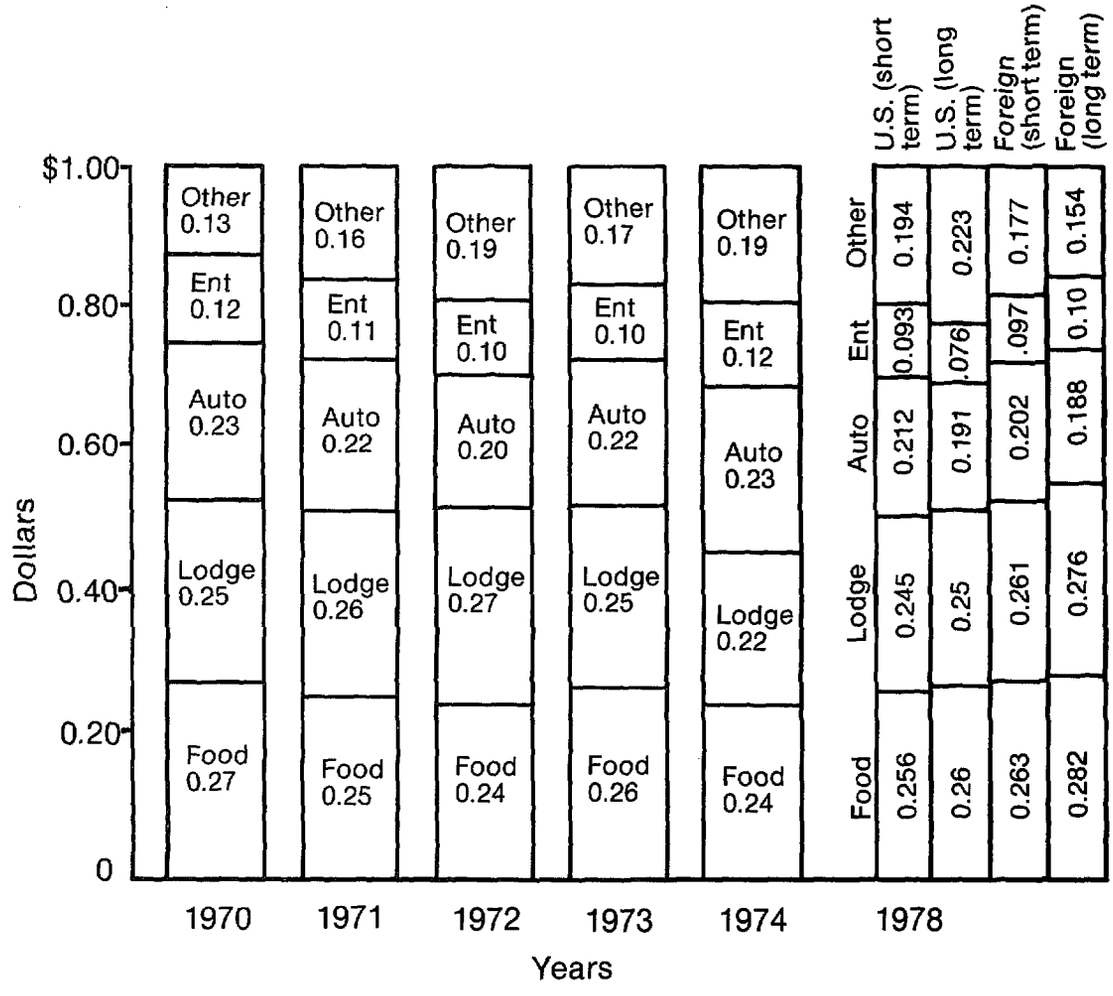


Figure R/T-1. Breakdown of tourist dollar expenditures statewide, 1970 through 1974, and 1978 (Texas Dept. of Highways and Public Transportation 1979).

Table R/T-26. Out-of-state visitors to major cities in study area, 1978 (Texas Department of Highways and Public Transportation 1979).

Destination	U.S. Visitors (1,000's) short term	U.S. Visitors (1,000's) long term	Foreign Visitors (1,000's)[a] short term	Foreign Visitors (1,000's)[a] long term	Total estimated person visits (1,000's)
Houston	4,942.1	295.5	378.6	37.7	5,653.9
Galveston	1,749.4	131.2	161.1	10.6	2,052.3
Corpus Christi	1,309.3	204.0	129.3	19.3	1,661.9
Brownsville	942.5	211.1	79.0	20.3	1,252.9
Harlingen	480.6	167.6	28.7	7.7	684.6
McAllen	466.5	137.7	22.6	6.8	633.6
South Padre Island	442.4	67.6	431	4.8	557.9

[a]Excluding Mexican visitors.

Table R/T-27. Winter visitors by city of residence, 1977, 1978, and 1979 (Bureau of Business and Economic Research, Pan American University 1977, 1978, 1979).

City of residence	Percent of surveyed visitors		
	1977	1978	1979
Alamo	0	4.3	1.9
Brownsville	26.8	19.2	16.0
Donna	2.5	2.5	3.7
Edinburg	5.8	3.4	6.1
Harlingen	14.9	9.6	16.0
McAllen	10.9	13.1	9.2
Mercedes	2.0	2.0	2.3
Mission	14.2	9.2	12.2
Pharr	13.3[a]	4.2	9.4
Port Isabel Padre Island	0	2.6	1.6
San Benito	4.6	14.8	14.5
San Juan	0	2.5	2.9
Weslaco	5.1	11.4	3.1
Other/unknown	0	1.2	0.9

[a]Includes Pharr, San Juan, Alamo.

Table R/T-28. Winter visitors by home state, 1977, 1978, and 1979 (Bureau of Business and Economic Research, Pan American University 1977; 1978; 1979).

Home state	Percent of surveyed visitors		
	1977	1978	1979
Iowa	13.7	12.5	11.1
Minnesota	12.3	12.0	11.3
Illinois	9.0	9.0	7.6
Michigan	8.2	9.0	7.8
Missouri	7.6	7.0	10.7
Wisconsin	5.9	4.1	4.2
Kansas	5.5	6.7	5.8
Nebraska	4.2	3.3	3.6
Indiana	4.1	4.3	5.0
Ohio	3.9	3.4	4.6
Texas	2.5	3.8	4.5
Oklahoma	2.7	3.5	4.1
South Dakota	3.2	2.8	3.0
Other	10.5	11.0	11.9
Canada	6.7	7.6	4.8

Table R/T-29. Winter visitors' lengths of stay, 1977, 1978, and 1979 (Bureau of Business and Economic Research, Pan American University 1977, 1978, 1979).

No. of weeks	Percent of surveyed visitors		
	1977	1978	1979
1-4	4.6	6.8	4.8
5-8	10.3	13.4	12.6
9-12	13.5	16.0	18.6
13-16	17.5	15.5	15.8
17-20	21.5	18.9	17.4
21-24	19.9	18.6	18.0
25-28	8.5	7.9	8.3
29+	4.0	3.2	4.4
Median weeks of stay	16.3	15.5	16.0

Table R/T-30. Winter visitors' housing arrangements, 1977, 1978, and 1979 (Bureau of Business and Economic Research, Pan American University 1977, 1978, 1979).

Housing	Percent of surveyed visitors 1977	1978	1979
Own travel trailer	47.3	52.8	N.D.
Own motor home	6.4	9.4	N.D.
Own mobile home	16.5	19.7	N.D.
Rent mobile home	3.4	2.0	N.D.
Hotel-motel	2.4	2.6	N.D.
Rent house/apartment	9.6	7.4	N.D.
Rent travel trailer or motor home	1.8	3.4	N.D.
Friends/relatives	0.4	0.7	N.D.
Own house	2.8	1.5	N.D.

Table R/T-31. Winter visitors by age group, 1977, 1978, and 1979 (Bureau of Business and Economic Research, Pan American University 1977, 1978, 1979).

Age group	Percent of surveyed visitors		
	1977	1978	1979
Under 50	N.D.	2.3	2.9
50-54	21.0[a]	3.8	3.9
55-59	N.D.	11.8	10.6
60-64	26.4	24.3	25.2
65-69	24.7	30.3	31.1
70-74	17.4	18.4	17.5
75-79	6.6	6.3	6.1
80+	2.5	2.8	2.8

[a]Includes 59 and under.

Table R/T-32. Winter visitors' living expenses, 1977, 1978, and 1979 (Bureau of Business and Economic Research, Pan American University 1977, 1978, 1979).

Weekly expenditure	Percent of surveyed visitors		
	1977	1978	1979
Under $50	2.9	3.9	3.8
$50-$75	20.8	17.5	16.6
$75-$100	23.1	21.0	20.8
$100-$125	21.8	20.2	21.2
$125-$150	14.4	16.0	15.6
$150+	11.5	16.3	13.8
No answer	5.5	5.1	8.2
Median	$100	$106	$105

Table R/T-33. Population versus sales subject to tax by county for selected years, 1970 through 1977 (Bureau of Business Research, University of Texas at Austin 1979).

Planning region/ county	1970 Fourth quarter (dollars)	Third quarter (dollars)	Second quarter (dollars)	First quarter (dollars)	Population (actual)
GULF COAST					
Brazoria	28,615,615	32,080,759	27,805,154	23,545,632	108,312
Chambers	2,131,491	2,098,264	2,101,473	1,705,571	12,187
Fort Bend	12,141,458	12,335,574	11,129,407	9,272,261	52,314
Galveston	55,190,178	57,497,231	58,458,820	48,581,372	169,812
Harris	1,171,516,448	1,039,455,485	1,023,207,667	912,902,256	1,741,912
Liberty	8,585,924	7,934,097	7,963,153	6,903,604	33,014
Matagorda	8,473,620	8,130,535	7,588,462	7,094,761	27,913
Wharton	10,717,529	10,272,180	9,621,061	9,340,360	36,729
Sub-total	1,297,372,263	1,169,804,125	1,147,875,197	1,019,345,817	2,182,193
GOLDEN CRESCENT					
Calhoun	4,922,388	4,747,262	4,341,359	3,515,810	17,831
Goliad	614,494	605,545	597,364	496,845	4,869
Jackson	2,815,340	2,881,463	2,364,161	3,359,348	12,975
Victoria	22,752,137	21,148,971	19,202,751	17,337,769	53,766
Sub-total	31,104,359	29,383,241	26,505,635	24,709,772	89,441
COASTAL BEND					
Aransas	3,557,376	3,613,308	3,231,865	2,821,320	8,902
Bee	5,755,498	5,379,115	4,742,848	4,408,176	22,737
Brooks	1,901,399	1,744,255	1,653,882	1,813,341	8,005
Jim Wells	12,168,019	10,792,786	9,669,457	9,892,518	33,032
Kenedy	43,461	46,564	34,727	36,246	678
Kleberg	8,711,323	8,296,908	9,197,670	6,524,879	33,166
Nueces	136,267,242	162,739,389	94,501,921	81,872,835	237,544

(continued)

Table R/T-33. (continued)

Planning region/ county	1970 Fourth quarter (dollars)	Third quarter (dollars)	Second quarter (dollars)	First quarter (dollars)	Population (actual)
Refugio	2,027,717	2,054,855	1,868,088	1,809,713	9,494
San Patricio	13,972,983	12,294,773	10,270,631	12,278,258	47,288
Sub-total	184,405,018	206,961,953	135,171,089	121,457,286	400,846
LOWER RIO GRANDE VALLEY					
Cameron	48,769,981	45,664,628	41,703,433	38,227,666	140,368
Hidalgo	55,081,407	49,109,720	47,905,571	49,263,803	181,535
Willacy	1,890,645	2,064,746	2,358,346	1,673,700	15,570
Sub-total	105,742,033	96,839,094	91,967,350	89,165,169	337,473
TBIE STUDY AREA	1,618,623,673	1,502,988,413	1,401,519,271	1,254,678,044	3,009,953
STATE	4,896,826,325	4,543,415,258	4,403,880,175	3,908,685,146	11,196,730

Planning region/ county	1973 Fourth quarter (dollars)	Third quarter (dollars)	Second quarter (dollars)	First quarter (dollars)	Population (actual)
GULF COAST					
Brazoria	40,081,023	37,484,105	34,480,435	30,775,781	115,700
Chambers	3,447,926	4,004,951	4,389,392	3,904,337	12,500
Fort Bend	20,722,029	17,020,648	16,962,604	14,235,992	66,900
Galveston	71,118,236	67,981,795	136,000,395	54,616,624	1177,000
Harris	1,593,570,510	1,375,051,351	1,362,040,957	1,205,510,209	1,854,100

(continued)

Table R/T-33. (continued)

Planning region/ county	1973 Fourth quarter (dollars)	Third quarter (dollars)	Second quarter (dollars)	First quarter (dollars)	Population (actual)
Liberty	11,397,252	11,050,461	11,064,348	9,107,984	37,500
Matagorda	11,062,079	10,348,183	9,538,674	8,365,062	27,500
Wharton	14,197,648	12,780,707	12,118,814	10,543,556	36,400
Sub-total	1,765,596,703	1,535,722,201	1,586,595,619	1,337,059,545	2,327,600
GOLDEN CRESCENT					
Calhoun	5,324,681	5,363,744	5,006,345	4,179,602	17,700
Goliad	798,469	772,048	707,001	649,602	5,000
Jackson	3,585,304	3,421,022	3,025,308	2,762,368	12,800
Victoria	32,234,053	28,573,393	27,533,427	24,388,764	55,900
Sub-total	41,942,507	38,130,207	36,272,081	31,980,336	91,400
COASTAL BEND					
Aransas	3,699,555	4,076,059	4,194,233	3,243,813	10,100
Bee	6,697,094	5,766,118	6,000,690	5,192,178	23,400
Brooks	2,009,574	1,887,960	2,031,120	1,859,045	7,900
Jim Wells	14,411,217	14,620,180	12,571,595	10,934,115	33,500
Kenedy	20,264	12,091	24,227	24,207	700
Kleberg	9,659,426	9,775,814	9,397,267	8,580,546	34,800
Nueces	140,400,929	129,884,777	128,323,098	120,061,663	245,700
Refugio	2,515,196	2,394,939	2,282,706	2,115,447	9,200
San Patricio	12,738,383	13,093,761	12,696,271	11,194,856	50,400
Sub-total	192,151,638	181,511,699	177,521,207	163,205,870	415,700
LOWER RIO GRANDE VALLEY					
Cameron	74,302,709	66,393,907	62,565,932	54,987,356	159,200

(continued)

Table R/T-33. (continued)

Planning region/ county	1973 Fourth quarter (dollars)	1973 Third quarter (dollars)	1973 Second quarter (dollars)	1973 First quarter (dollars)	Population (actual)
Hidalgo	86,938,515	73,264,917	73,097,262	65,542,213	206,700
Willacy	2,487,799	2,386,925	2,238,708	1,919,110	15,900
Sub-total	163,729,023	142,045,749	137,901,902	122,448,679	381,800
TBIE STUDY AREA	$2,163,419,871	$1,897,409,856	$1,938,290,809	$1,654,694,430	3,216,500
STATE	$6,697,704,234	$5,958,250,466	$5,879,939,607	$5,134,276,248	11,828,000

Planning region/ county	1975 Fourth quarter (dollars)	1975 Third quarter (dollars)	1975 Second quarter (dollars)	1975 First quarter (dollars)	Population (actual)
GULF COAST					
Brazoria	54,734,023	52,047,424	49,346,096	41,653,519	124,800
Chambers	9,112,405	14,059,949	18,346,797	14,430,602	13,200
Fort Bend	25,964,353	22,586,418	20,885,881	17,099,998	74,800
Galveston	98,469,824	99,430,589	91,961,994	80,078,397	181,500
Harris	2,320,309,255	2,047,456,152	2,042,329,499	1,789,833,966	1,979,900
Liberty	17,055,482	16,133,752	15,562,661	13,403,873	37,400
Matagorda	16,182,151	14,258,850	14,263,842	12,609,531	28,000
Wharton	20,052,224	19,112,426	18,740,516	16,177,605	36,100
Sub-total	2,561,879,717	2,285,085,560	2,271,437,286	1,985,287,491	2,475,700

(continued)

Table R/T-33. (continued)

Planning region/ county	1975 Fourth quarter (dollars)	Third quarter (dollars)	Second quarter (dollars)	First quarter (dollars)	Population (actual)
GOLDEN CRESCENT					
Calhoun	6,673,432	7,179,755	6,558,776	5,394,206	17,800
Goliad	952,002	1,028,083	913,156	766,344	4,800
Jackson	4,560,404	4,551,342	4,065,820	3,468,673	12,700
Victoria	43,119,838	38,050,550	38,728,161	34,719,889	58,000
Sub-total	55,305,676	50,809,730	50,265,913	44,349,112	93,300
COASTAL BEND					
Aransas	4,427,999	5,224,070	4,291,467	3,784,815	10,500
Bee	10,256,284	9,354,326	8,030,449	7,757,253	23,300
Brooks	2,390,653	2,159,909	2,150,284	1,885,675	7,700
Jim Wells	24,151,988	21,263,406	20,242,504	20,079,421	33,600
Kenedy	26,730	22,786	24,778	14,529	600
Kleberg	11,803,596	10,988,854	10,322,574	10,632,204	32,600
Nueces	212,187,489	209,066,408	187,744,275	166,361,456	247,000
Refugio	3,216,477	3,184,268	2,879,803	2,723,806	8,800
San Patricio	15,385,065	14,386,492	13,349,832	12,164,403	49,800
Subtotal	283,846,281	275,650,519	249,035,966	225,403,552	413,900
LOWER RIO GRANDE VALLEY					
Cameron	94,131,667	83,729,437	78,874,212	71,695,294	169,200
Hidalgo	112,801,500	92,033,392	90,832,856	85,445,851	220,600
Willacy	2,856,775	2,622,551	2,583,547	2,131,440	16,500

(continued)

Table R/T-33. (continued)

Planning region/ county	1975 Fourth quarter (dollars)	1975 Third quarter (dollars)	1975 Second quarter (dollars)	1975 First quarter (dollars)	Population (actual)
Sub-total	209,789,942	178,385,380	172,290,615	159,272,585	406,300
TBIE STUDY AREA	3,110,821,616	2,789,931,189	2,743,029,780	2,414,312,740	3,389,200
STATE	8,856,051,744	8,032,098,291	7,740,630,870	6,789,308,212	12,237,000

Planning region/ county	1977 Fourth quarter (dollars)	1977 Third quarter (dollars)	1977 Second quarter (dollars)	1977 First quarter (dollars)	Population (actual)
GULF COAST					
Brazoria	91,617,085	78,889,198	77,063,477	67,004,693	135,400
Chambers	8,789,714	9,282,247	8,433,235	7,046,679	14,000
Fort Bend	44,771,533	40,839,949	36,689,460	31,019,766	86,600
Galveston	132,104,340	124,265,143	123,481,331	105,187,604	195,400
Harris	3,217,288,112	2,808,504,107	2,756,440,190	2,431,501,372	2,138,300
Liberty	25,798,517	22,339,773	21,960,296	18,168,100	40,300
Matagorda	20,612,326	19,355,461	18,631,510	16,043,028	30,600
Wharton	40,643,897	24,971,821	23,956,843	19,784,839	37,300
Sub-total	3,581,625,524	3,128,447,699	3,066,656,342	2,695,756,081	2,677,900
GOLDEN CRESCENT					
Calhoun	10,345,218	9,384,313	9,005,674	6,971,620	18,100

(continued)

Table R/T-33. (concluded)

Planning region/ county	1977 Fourth quarter (dollars)	Third quarter (dollars)	Second quarter (dollars)	First quarter (dollars)	Population (actual)
Goliad	1,130,773	1,054,483	985,052	843,308	4,800
Jackson	5,884,759	5,935,359	5,342,180	4,622,877	13,000
Victoria	68,419,878	59,971,099	56,411,328	49,209,833	60,600
Sub-total	85,780,628	76,345,254	71,744,234	61,647,638	96,500
COASTAL BEND					
Aransas	9,372,007	10,346,677	7,470,533	5,982,082	11,100
Bee	13,671,441	12,433,115	10,656,278	10,046,614	22,800
Brooks	3,427,247	2,964,524	2,894,917	2,490,783	7,700
Jim Wells	31,565,229	28,232,893	27,840,668	23,820,236	34,200
Kenedy	118,310	97,894	94,130	84,099	600
Kleberg	15,096,331	14,145,413	13,187,727	12,035,247	32,800
Nueces	295,010,966	328,211,129	251,942,435	218,499,473	250,700
Refugio	4,165,276	3,901,964	3,708,680	3,310,036	9,200
San Patricio	19,939,628	19,600,798	20,719,513	15,600,418	52,500
Sub-total	392,366,435	419,934,407	338,514,881	291,868,988	421,600
LOWER RIO GRANDE VALLEY					
Cameron	112,162,716	100,123,795	95,628,869	83,968,686	176,500
Hidalgo	144,397,999	120,947,583	118,869,826	108,759,422	232,300
Willacy	3,233,145	3,076,412	3,214,384	2,681,908	16,800
Sub-total	259,793,860	224,147,790	217,713,079	195,410,016	425,600
TBIE STUDY AREA	4,319,566,447	3,848,875,150	3,694,628,536	$3,244,682,723	3,621,600
STATE	12,199,246,444	11,006,819,235	10,404,014,120	9,174,270,043	12,830,000

Table R/T-34. Population versus residential construction permits by county for selected years, 1970 through 1977 (United States Department of Commerce, Bureau of the Census, 1973, 1978; Building permits issued in Texas 1971, 1974, 1976, 1978).

Planning region/ county	1970		1973	
	Population	Building permits	Population	Building permits
GULF COAST				
Brazoria	108,312	340	115,700	1,044
Chambers	12,187	4	12,500	7
Fort Bend	52,314	105	66,900	368
Galveston	169,812	470	177,000	867
Harris	1,741,912	18,736	1,854,100	16,911
Liberty	33,014	49	37,500	82
Matagorda	27,913	10	27,500	7
Wharton	36,729	25	36,400	1
Sub-total	2,182,193	19,739	2,327,600	19,287
GOLDEN CRESCENT				
Calhoun	17,831	35	17,700	35
Goliad	4,869	3	5,000	0
Jackson	12,975	3	12,800	0
Victoria	53,766	294	55,900	936
Sub-total	89,441	335	91,400	971
COASTAL BEND				
Aransas	8,902	0	10,100	14
Bee	22,737	20	23,400	37
Brooks	8,005	0	7,900	0
Jim Wells	33,032	74	33,500	128
Kenedy	678	0	700	0
Kleberg	33,166	169	34,800	41
Nueces	237,544	1,164	245,700	2,079
Refugio	9,494	7	9,200	3
San Patricio	47,288	61	50,400	270
Sub-total	400,846	1,495	415,700	2,572
LOWER RIO GRANDE VALLEY				
Cameron	140,368	672	159,200	3,792

(continued)

Table R/T-34. (continued)

Planning region/ county	1970 Population	1970 Building permits	1973 Population	1973 Building permits
Hidalgo	181,535	615	206,700	2,099
Willacy	15,570	1	15,900	28
Sub-total	337,473	1,288	381,800	5,919
TBIE STUDY AREA	3,009,953	22,857	3,216,500	28,749
STATE	11,196,730		11,828,000	

Planning region/ county	1975 Population	1975 Building permits	1977 Population	1977 Building permits
GULF COAST				
Brazoria	124,800	1,377	135,400	2,404
Chambers	13,200	4	14,000	0
Fort Bend	74,800	492	86,600	963
Galveston	181,500	714	195,400	1,463
Harris	1,979,900	10,893	2,138,300	28,942
Liberty	37,400	125	40,300	31
Matagorda	28,000	106	30,600	220
Wharton	36,100	42	37,300	0
Sub-total	2,475,700	13,753	2,677,900	34,303
GOLDEN CRESCENT				
Calhoun	17,800	3	18,100	57
Goliad	4,800	0	4,800	0
Jackson	12,700	21	13,000	64
Victoria	58,000	765	60,600	1,028
Sub-total	93,300	789	96,500	1,149
COASTAL BEND				
Aransas	10,500	14	11,100	97
Bee	23,300	0	22,800	101
Brooks	7,700	0	7,700	0
Jim Wells	33,600	85	34,200	11

(continued)

Table R/T-34. (concluded)

Planning region/ county	1975 Population	1975 Building permits	1977 Population	1977 Building permits
Kenedy	600	0	600	0
Kleberg	32,600	56	32,800	77
Nueces	247,000	795	250,700	2,035
Refugio	8,800	4	9,200	9
San Patricio	49,800	105	52,500	553
Sub-total	413,900	1,059	421,600	2,883
LOWER RIO GRANDE VALLEY				
Cameron	169,200	524	176,500	1,073
Hidalgo	220,600	1,232	232,300	2,330
Willacy	16,500	12	16,800	15
Sub-total	406,300	1,768	425,600	3,418
TBIE STUDY AREA	3,389,200	17,369	3,621,600	41,753
STATE	12,237,000		12,830,000	

PUBLIC UTILITIES (PU)

Table PU-1. Electrical generating plants, 1977 (Moody's public utilities manual 1978).

County	Company and location	Fuel	Capacity (kw)
Aransas	none	0	0
Bee	none	0	0
Brazoria	none	0	0
Brooks	none	0	0
Calhoun	Ennis S. Joslin Station, Pt. Comfort, Central Power and Light	natural gas	261,000
Cameron	San Benito, Central P&L	natural gas	219,200
	Brownsville, Brownsville Municipal	natural gas	55,000
	Brownsville, Brownsville Municipal	natural gas	45,000
Chambers	none	0	0
Fort Bend	W.A. Parish, Houston Lighting & Power (HL&P)	natural gas	1,754,959
Galveston	P.H. Robinson, HL&P	natural gas	2,177,694
Goliad	none	0	0
Harris	Cedar Bayou, HL&P	natural gas	2,100,800
	Sam Burton, HL&P	natural gas	750,500
	Greens Bayou	natural gas	740,710
	Webster, HL&P	natural gas	550,000
	Lewis Creek Station, Gulf State Utilities Company	natural gas	530,000
	Deepwater, HL&P	natural gas	305,125
	T.H. Wharton, HL&P	natural gas	286,000
	Gable Street, HL&P	natural gas	53,000

(continued)

Table PU-1. (concluded)

County	Company and location	Fuel	Capacity (kw)
	Hiram O. Clarke, HL&P	natural gas	210,000
Hidalgo	J.L. Bates, Central P&L	natural gas	188,700
Jackson	none	0	0
Jim Wells	none	0	0
Kenedy	none	0	0
Kleberg	none	0	0
Liberty	none	0	0
Matagorda	none	0	0
Nueces	Nueces Bay, Central P&L	natural gas	569,000
	Lon C. Hill Station, Central P&L	natural gas and oil	574,200
	Barney M. Davis Station, Central P&L	natural gas	352,800
Refugio	none	0	0
San Patricio	none	0	0
Victoria	Victoria Station, Central P&L	natural gas	553,500
	Coleto Creek, Central P&L	coal	5,550,000
Wharton	none	0	0
Willacy	none	0	0

INDUSTRIAL AND RESIDENTIAL DEVELOPMENT AND POINT SOURCE DISCHARGE (IRD)

Table IRD-1. Manufacturing value added in TBIE regions, Texas, and the United States for selected years, 1954 through 1977 (in millions of dollars) (U.S. Department of Commerce, Bureau of the Census 1957b, 1961b, 1966, 1970, 1975, 1979).

Region	1954	1958	1963	1967	1972	1977
Galveston-Texas City SMSA	156.6	270.1	342.1	497.7	687.5	1,487.8
Brazoria County	147.3	[a]	277.1	474.9	582.0	1,308.9
Houston SMSA	868.7	1,154.0	1,918.4	2,873.0	4,179.5	9,743.1
Victoria County	[a]	33.9	[a]	52.7	103.3	180.4
Corpus Christi SMSA	71.6	117.8	116.2	242.0	282.0	767.8
Brownsville-Harlingen-San Benito SMSA	14.6	22.0	37.2	61.6	101.0	214.0
McAllen-Pharr-Edinburg SMSA	10.0	14.6	18.4	21.7	54.1	114.1
Total TBIE Area SMSA's	1,121.5	1,578.5	2,432.3	3,696.0	5,304.1	12,326.8
State	3,501.7	5,045.2	7,119.5	10,922.4	15,272.3	32,922.9
United States	117,032.3	141,540.6	192,082.9	261,983.8	353,994.0	581,640.9

[a]Data not shown to avoid disclosure of operations of individual firms.

Table IRD-2. Housing units in the TBIE area, 1950, 1960, and 1970 (U.S. Department of Commerce, Bureau of the Census 1951, 1961a, 1971).

Planning region/county	1950 Total number units	1950 Single-family units	1950 Multi-family units	1950 Trailers
GULF COAST				
Brazoria	13,805	11,581	2,010	214
Chambers	2,637	2,474	129	34
Fort Bend	8,694	7,812	860	22
Galveston	37,510	24,054	13,127	329
Harris	257,154	180,927	74,185	2,042
Liberty	8,077	7,268	722	87
Matagorda	7,231	6,129	1,027	75
Wharton	10,917	9,687	1,173	57
Total	346,025	249,932	93,233	2,860
GOLDEN CRESCENT				
Calhoun	3,302	2,823	347	132
Goliad	1,903	1,717	178	8
Jackson	3,807	3,512	276	19
Victoria	9,239	7,327	1,676	236
Total	18,251	15,379	2,477	395
COASTAL BEND				
Aransas	1,851	1,534	215	102
Bee	5,580	4,880	654	46
Brooks	2,470	1,665	764	41
Jim Wells	7,711	6,919	716	76
Kenedy	136	131	5	0
Kleberg	5,916	4,801	970	145
Nueces	48,077	37,098	10,283	696
Refugio	3,123	2,876	218	29
San Patricio	10,708	9,207	1,345	156
Total	85,572	69,111	15,170	1,291
LOWER RIO GRANDE VALLEY				
Cameron	33,844	27,743	5,701	400
Hidalgo	41,468	35,897	5,183	388
Willacy	5,769	5,067	680	22
Total	81,081	68,707	11,564	810
TBIE STUDY AREA	530,929	403,129	122,444	5,356
STATE	2,393,828	1,883,065	488,272	22,491

(continued)

Table IRD-2. (continued)

Planning region/county	1960 Total number units	Single-family units	Multi-family units	Trailers
GULF COAST				
Brazoria	24,156	22,667	6,027	462
Chambers	3,779	3,615	94	70
Fort Bend	11,551	11,232	251	68
Galveston	51,003	37,952	12,557	494
Harris	408,135	320,815	84,321	2,999
Liberty	10,650	10,262	218	170
Matagorda	9.476	8,950	411	115
Wharton	12,454	12,234	146	74
Total	531,204	427,727	99,025	4,452
GOLDEN CRESCENT				
Calhoun	5,688	5,251	224	213
Goliad	1,842	1,813	17	12
Jackson	4,612	4,528	19	65
Victoria	15,697	14,211	1,284	202
Total	27,839	25,803	1,544	492
COASTAL BEND				
Aransas	2,731	2,427	68	236
Bee	6,901	6,564	278	59
Brooks	2,501	2,444	20	37
Jim Wells	9,909	9,533	251	125
Kenedy	238	219	19	0
Kleberg	8,649	7,331	1,136	182
Nueces	68,475	56,038	11,720	717
Refugio	3,761	3,660	39	62
San Patricio	15,107	13,299	1,512	296
Total	118,272	101,515	15,043	1,714
LOWER RIO GRANDE VALLEY				
Cameron	42,083	34,546	6,911	626
Hidalgo	47,711	43,843	3,354	514
Willacy	5,776	5,605	131	40
Total	95,570	83,994	10,396	1,180
TBIE STUDY AREA	772,885	639,039	126,008	7,838
STATE	3,152,953	2,623,673	492,402	36,878

(continued)

Table IRD-2. (concluded)

Planning region/county	1970 Total number units	1970 Total[a] number year-round units	1970 Single-family units	1970 Multi-family units	1970 Trailers
GULF COAST					
Brazoria	34,694	34,381	29,283	3,174	1,924
Chambers	4,687	4,249	3,798	105	346
Fort Bend	15,031	15,031	13,669	767	595
Galveston	61,890	61,726	48,268	11,833	1,625
Harris	587,659	587,219	421,497	155,143	10,579
Liberty	12,642	12,602	11,442	586	574
Matagorda	10,964	9,987	9,067	669	251
Wharton	12,220	12,195	11,497	536	162
Total	739,787	737,390	548,521	172,813	16,056
GOLDEN CRESCENT					
Calhoun	6,304	5,945	5,291	416	238
Goliad	1,829	1,825	1,735	58	32
Jackson	4,537	4,525	4,356	97	72
Victoria	16,865	16,852	14,575	1,769	508
Total	29,535	29,147	25,957	2,340	850
COASTAL BEND					
Aransas	4,431	4,131	3,499	402	230
Bee	7,297	7,283	6,434	483	366
Brooks	2,949	2,461	2,298	106	57
Jim Wells	10,133	10,090	9,148	687	255
Kenedy	212	208	208	0	0
Kleberg	9,624	9,603	7,357	1,677	569
Nueces	74,695	73,904	60,097	12,260	1,547
Refugio	3,343	3,300	3,124	86	90
San Patricio	15,163	14,996	13,684	787	525
Total	127,390	125,976	105,849	16,488	3,639
LOWER RIO GRANDE VALLEY					
Cameron	41,457	40,645	35,380	4,278	987
Hidalgo	50,694	48,768	43,905	3,951	912
Willacy	4,715	4,597	4,375	151	71
Total	96,866	94,010	83,660	8,380	1,970
TBIE STUDY AREA	993,578	986,523	763,987	200,021	22,515
STATE	3,828,936	3,809,086	3,010,366	704,033	94,687

[a]Number of units in structure broken out only for year-round housing units in 1970.

Table IRD-3. Housing construction permits issued in the TBIE study area[a], 1970 through 1978 (Building permits issued in Texas cities 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978; U.S. Department of Commerce, Bureau of the Census 1971).

Planning region/county	Coverage[b] 1970	Number[c] permits issued 1970	Coverage[b] 1971	Number[c] permits issued 1971
GULF COAST				
Brazoria	57.7	340	38.6	260
Chambers	19.1	4	15.4	0
Fort Bend	43.9	105	48.0	515
Galveston	80.7	470	68.8	1,173
Harris	84.7	18,736	81.7	30,548
Liberty	48.5	49	45.5	63
Matagorda	14.3	10	13.0	24
Wharton	20.2	25	23.3	115
Sub-total		19,739		32,698
GOLDEN CRESCENT				
Calhoun	68.7	35	73.1	78
Goliad	32.8	3	35.1	0
Jackson	47.5	3	12.6	0
Victoria	71.1	294	76.9	293
Sub-total		335		371
COASTAL BEND				
Aransas	0.0	0	43.6	2
Bee	58.1	20	59.4	92
Brooks	0.0	0	0.0	0
Jim Wells	69.2	74	70.8	96
Kenedy	0.0	0	0.0	0
Kleberg	84.7	169	86.6	414
Nueces	82.0	1,164	92.3	2,839
Refugio	64.0	7	65.1	9
San Patricio	45.8	61	63.3	271
Sub-total		1,495		3,723
LOWER RIO GRANDE VALLEY				
Cameron	72.8	672	74.8	800
Hidalgo	69.0	615	70.4	1,139
Willacy	46.7	1	51.3	26
Sub-total		11,288		1,965
TBIE STUDY AREA		22,857		38,757

(continued)

Table IRD-3. (continued)

Planning region/county	Coverage[b] 1972	Number[c] permits issued 1972	Coverage[b] 1973	Number[c] permits issued 1973
GULF COAST				
Brazoria	41.9	382	49.0	1,044
Chambers	15.4	1	15.4	7
Fort Bend	48.0	139	48.0	368
Galveston	59.3	1,251	78.5	867
Harris	84.4	28,536	84.6	16,911
Liberty	28.6	23	45.5	82
Matagorda	13.0	1	55.1	7
Wharton	23.3	0	44.8	1
Sub-total		30,333		19,287
GOLDEN CRESCENT				
Calhoun	73.1	23	73.1	35
Goliad	35.1	0	0.0	0
Jackson	53.7	1	12.6	0
Victoria	76.9	469	76.9	936
Sub-total		493		971
COASTAL BEND				
Aransas	43.6	20	43.6	14
Bee	59.4	115	59.4	37
Brooks	0.0	0	0.0	0
Jim Wells	74.1	128	74.1	128
Kenedy	0.0	0	0.0	0
Kleberg	86.6	492	86.6	41
Nueces	90.8	2,643	92.3	2,079
Refugio	65.1	9	65.1	3
San Patricio	68.0	539	60.1	270
Sub-total		3,946		2,572
LOWER RIO GRANDE VALLEY				
Cameron	76.2	1,269	77.0	3,792
Hidalgo	67.6	1,558	68.5	2,099
Willacy	51.3	76	51.3	28
Sub-total		2,903		5,919
TBIE STUDY AREA		37,675		28,749

(continued)

Table IRD-3. (continued)

Planning region/county	Coverage[b] 1974	Number[c] permits issued 1974	Coverage[b] 1975	Number[c] permits issued 1975
GULF COAST				
Brazoria	62.5	421	63.1	1,377
Chambers	15.4	5	15.4	4
Fort Bend	48.0	192	48.0	492
Galveston	72.2	437	72.2	714
Harris	85.3	8,818	84.7	10,893
Liberty	45.5	89	45.5	125
Matagorda	55.1	59	55.1	106
Wharton	23.3	23	23.3	42
Sub-total		10,044		13,753
GOLDEN CRESCENT				
Calhoun	73.1	15	73.1	3
Goliad	35.1	0	0.0	0
Jackson	53.7	10	53.7	21
Victoria	76.9	289	76.9	765
Sub-total		314		789
COASTAL BEND				
Aransas	43.6	13	43.6	14
Bee	59.4	27	59.4	0
Brooks	0.0	0	0.0	0
Jim Wells	70.8	110	70.8	85
Kenedy	0.0	0	0.0	0
Kleberg	86.6	46	86.6	56
Nueces	92.3	1,027	92.3	795
Refugio	65.1	11	65.1	4
San Patricio	56.7	102	44.0	105
Sub-total		1,336		1,059
LOWER RIO GRANDE VALLEY				
Cameron	77.0	1,345	77.0	524
Hidalgo	66.1	1,315	66.2	1,232
Willacy	51.3	13	51.3	12
Sub-total		2,673		1,768
TBIE STUDY AREA		14,367		17,369

(continued)

Table IRD-3. (concluded)

Planning region/county	Coverage[b] 1976	Number[c] permits issued 1976	Number[c,d] permits issued 1977	Number[c,d] permits issued 1978	Total[c] 1970-1978
GULF COAST					
Brazoria	47.4	1,545	2,404	1,125	8,898
Chambers	0.0	0	0	18	39
Fort Bend	48.0	353	963	950	4,077
Galveston	72.1	771	1,463	1,467	8,613
Harris	85.8	19,973	28,942	53,218	216,575
Liberty	45.5	166	311	214	1,122
Matagorda	55.1	343	220	457	1,227
Wharton	23.3	0	0	53	259
Sub-total		23,151	34,303	57,502	240,810
GOLDEN CRESCENT					
Calhoun	73.1	1	57	121	368
Goliad	0.0	0	0	19	22
Jackson	12.6	0	64	27	126
Victoria	76.9	780	1,028	676	5,530
Sub-total		781	1,149	843	6,046
COASTAL BEND					
Aransas	43.6	39	97	148	347
Bee	59.4	87	101	237	716
Brooks	0.0	0	0	6	6
Jim Wells	9.9	4	11	0	636
Kenedy	0.0	0	0	0	0
Kleberg	86.6	69	77	92	1,456
Nueces	80.5	1,386	2,035	2,327	16,295
Refugio	65.1	2	9	2	56
San Patricio	56.7	157	553	165	2,223
Sub-total		1,744	2,883	2,977	21,735
LOWER RIO GRANDE VALLEY					
Calhoun	77.0	866	1,073	1,234	11,575
Hidalgo	69.0	1,597	2,330	287	12,172
Willacy	51.3	9	15	50	230
Sub-total		2,472	3,418	1,571	23,977
TBIE STUDY AREA		28,148	41,753	62,893	292,568

[a]Only buildings for which permits were issued within the incorporated area of a city are included. Federal contracts and public housing are not shown.
[b]Percent of non-farm population covered by monthly reports from cities to the Bureau of Business Research.
[c]Number of permits issued underestimated due to inconsistent reporting by many of the smaller cities.
[d]Percent coverage not given for 1977 or 1978.

Table IRD-4. Estimated water requirements for a representative petrochemical complex (Clark and Terrell 1978).

Petrochemical	Annual output (million lb)	Estimated daily water use (million gpd)[a]
Orthoxylene	139	0.4
Toluene Xylenes	2,150	1.8
Benzene Styrene	380	3.0
Ethylbenzene	87	0.5
Ethylene Propylene	1,560	6.0
Butadiene Butylene	194	0.5
Cumene Phenol Acetone	520	0.8
Polyethylene	90	0.3
Ethylene Glycol	200	1.6
Vinyl Chloride Monomer	500	4.0
Polypropylene	70	0.2
Oxo Alcohols	245	1.3
Acrylonitrile	100	1.9
Cyclohexanone	237	1.6
Total	6,472	24.0

[a]Gallons per day.

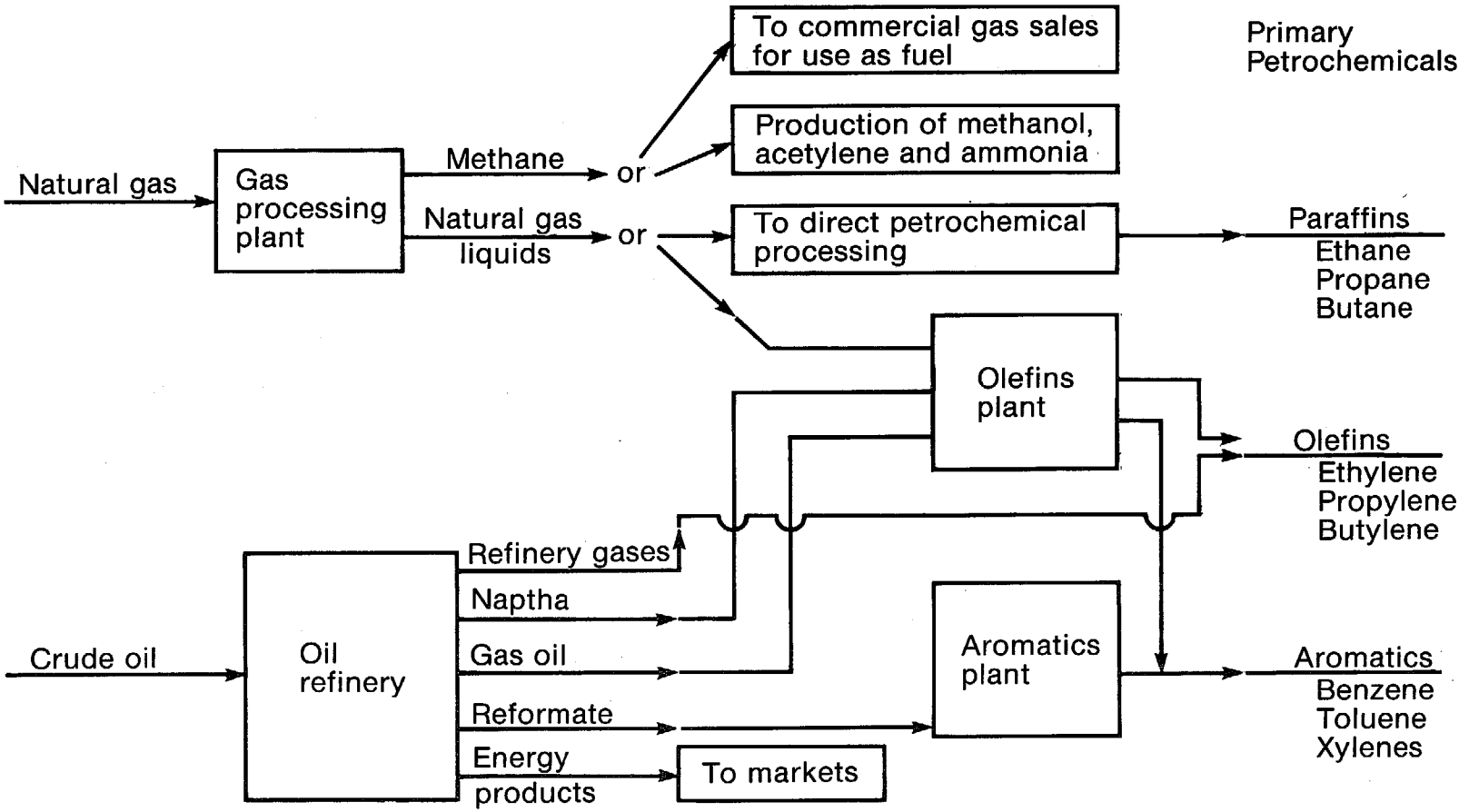


Figure IRD-1. Derivation of principal primary petrochemicals (U.S. Dept. of the Interior, Fish and Wildlife Service, Office of Biological Services 1978).

Table IRD-5a. Refineries in the TBIE study area, 1978 (Texas Railroad Commission 1979).

County/plant name	Maximum daily capacity (bbl)	Type of plant[a]
Brazoria County		
Phillips Petroleum Corp.	97,000	C(5)
Chambers County		
Independent Refining	12,000	(3)
Galveston County		
Amoco Texas Refining Co.	415,000	C,K
Marathon Oil Co.	66,700	C(3)
Texas City Refining, Inc.	119,600	S,C(3)
Harris County		
Atlantic Richfield Co.	363,000	C,K,L,W(4)
Charter International Oil Co.	70,000	C,A(4),(1)
Crown Central Petroleum Corp.	100,000	C,K
Eddy Refining Co.	3,250	S
Exxon Co., U.S.A.	640,000	C,L,A
Friendswood Refining Corp.	11,600	S,(1)
Intercoastal Refining Co., Inc.	2,500	Crude topping
Shell Oil Co.	285,000	S,C,A,L,W
Hidalgo County		
Adobe Refining Co.	5,000	S
Rancho Refining Co.	11,000	C
Nueces County		
Champlin Petroleum Co.	155,000	S,C
Coastal States Petrochemical Co.	185,000	S,C,K,A(3)
Gulf States Oil & Refining Co.	12,500	Crude topping
Quintana-Howell Joint Venture	45,000	(4)
Saber Refining Co.	21,000	S
Sentry Refining, Inc.	10,300	S
Southwestern Refining Co., Inc.	116,550	S,C,Alkylation(2)
Sun Oil Co. of Pa.	57,000	(1)

(continued)

Table IRD-5a. (concluded)

County/plant name	Maximum daily capacity (bbl)	Type of plant
San Patricio Co.		
Raymal Refining Ltd.	2,500	S
Tipperary Refining Co.	6,500	S
Uni Refining, Inc.	12,500	S
TBIE Total	2,825,500	

[a]Key:
- S Skimming.
- C Cracking and/or reforming.
- A Asphalt.
- K Coke.
- L Lube.
- W Wax.
- (1) Oil refining and petrochemical plant.
- (2) Also platforming.
- (3) Catalytic reforming, alkylation aromatics extraction, hydroalkylation, catalytic condensation.
- (4) Petrochemicals.
- (5) Complete integrated refinery.

Table IRD-5b. Texas refining data for selected years, 1953 through 1978 (Texas Energy Advisory Council 1979).

	Number of refineries	Crude oil capacity (bbl per day, as of Jan. 1)	Crude oil receipts (thousand bbl)	% from Texas sources	% from foreign sources
1953	62	2,142,537	712,477	81.9	0.3
1960	59	2,631,820	801,634	76.8	0.1
1967	53	2,800,732	961,954	73.9	0.0
1968	53	3,096,464	949,812	73.5	0.0
1969	51	3,143,179	1,018,207	75.3	0.0
1970	51	3,282,542	1,041,094	76.3	0.0
1971	51	3,556,278	1,064,197	74.8	1.7
1972	50	3,555,358	1,112,566	77.4	2.1
1973	46	3,569,858	1,174,310	73.5	11.0
1974	48	3,807,746	1,188,691	67.6	19.1
1975	49	3,995,050	1,212,431	63.2	25.5
1976	51	4,005,550	1,307,826	55.6	34.9
1977	50	4,296,387	1,430,009	49.6	41.6
1978	56	4,695,370	1,463,206	46.0	44.5

Table IRD-6. Petrochemical plants in the TBIE study area, 1975 (Texas General Land Office, Energy Resources Program 1979; U.S. Department of the Interior, Bureau of Mines 1978).

County	Company and location	Annual through-put capacity (1,000 mt/yr)
Aransas	None	0
Bee	None	0
Brazoria	Amoco Chemical Co., Chocolate Bayou	500
	Dow Badische Co., Freeport	298
	Dow Chemical Co., Freeport	300
	Monsanto Co., Alvin	235,932,000
	Phillips Petroleum Co., Sweeney	895,000
Brooks	None	0
Calhoun	Union Carbide Corp., Seadrift	315,000
Cameron	Union Carbide Corp., Brownsville	250,000
Chambers	Union Texas Petrochemical, Winnie	10,000
Fort Bend	Dow Chemical, Oyster Creek	N.D.
Galveston	Monsanto Co., Texas City	1,725,000
	Union Carbide Corp., Texas City	779,000
	Marathon Oil Co., Texas City	209,600
	Texas City Refining Co., Texas City	50,000
	Amoco Chemical Corp., Texas City	946,810
Goliad	None	0
Harris	Shell Chemical, Houston	3,691,000
	Celanese Chemical, Clear Lake	1,465,000
	Tenneco Chemicals, Pasadena	721,000
	Arco Chemical Co., Houston	589,000
	Phillips Petroleum Corp., Pasadena	503,500
	U.S. Industrial Chemicals Co., Houston	485,000
	Gulf Oil Chemicals, Cedar Bayou	437,800
	Petro-Tex Chemical Corp., Houston	433,000

(continued)

Table IRD-6. (continued)

County	Company and location	Annual through-put capacity (1,000 mt/yr)
Harris (cont.)		
	Oxirane Chemical Co., Bayport	410,000
	Goodyear Tire & Rubber, Houston	386,000
	Rohm & Hass Co., Deer Park	320,000
	Charter Int'l. Oil, Houston	314,485
	Arco Chemical Co., Channelview	232,600
	Crown Central Petroleum Corp., Houston	145,000
	Hercules, Inc., Bayport	91,000
	Merichem Co., Houston	9,000
	Dixie Chemical, Bayport	2,000
	J.M. Huber Corp., Baytown	318
	Arco/Polymers, Inc., Houston	385
	Diamond Shamrock, Pasadena/ Deer Park	N.D.
	Ethyl Corp., Pasadena	N.D.
	Exxon, Baytown	N.D.
	Reichhold Chemicals, Houston	N.D.
	Soltex Polymer Corp., Deer Park	N.D.
Hidalgo	None	0
Jackson	None	0
Jim Wells	None	0
Kenedy	None	0
Kleberg	None	0
Liberty	None	0
Matagorda	Celanese Chemical Co., Bay City	361,000
Nueces	Celanese Chemical Co., Bishop	660,000
	Suntide Refining Co., Corpus Christi	418,500
	Coastal States Petro-Chemical Co., Corpus Christi	399,700
	Champlin Petroleum Co., Corpus Christi	99,900
Refugio	None	0

(continued)

Table IRD-6. (concluded)

County	Company and location	Annual through-put capacity (1,000 mt/yr)
San Patricio	None	0
Victoria	None	0
Wharton	None	0
Willacy	None	0
TBIE Total		2,419,403

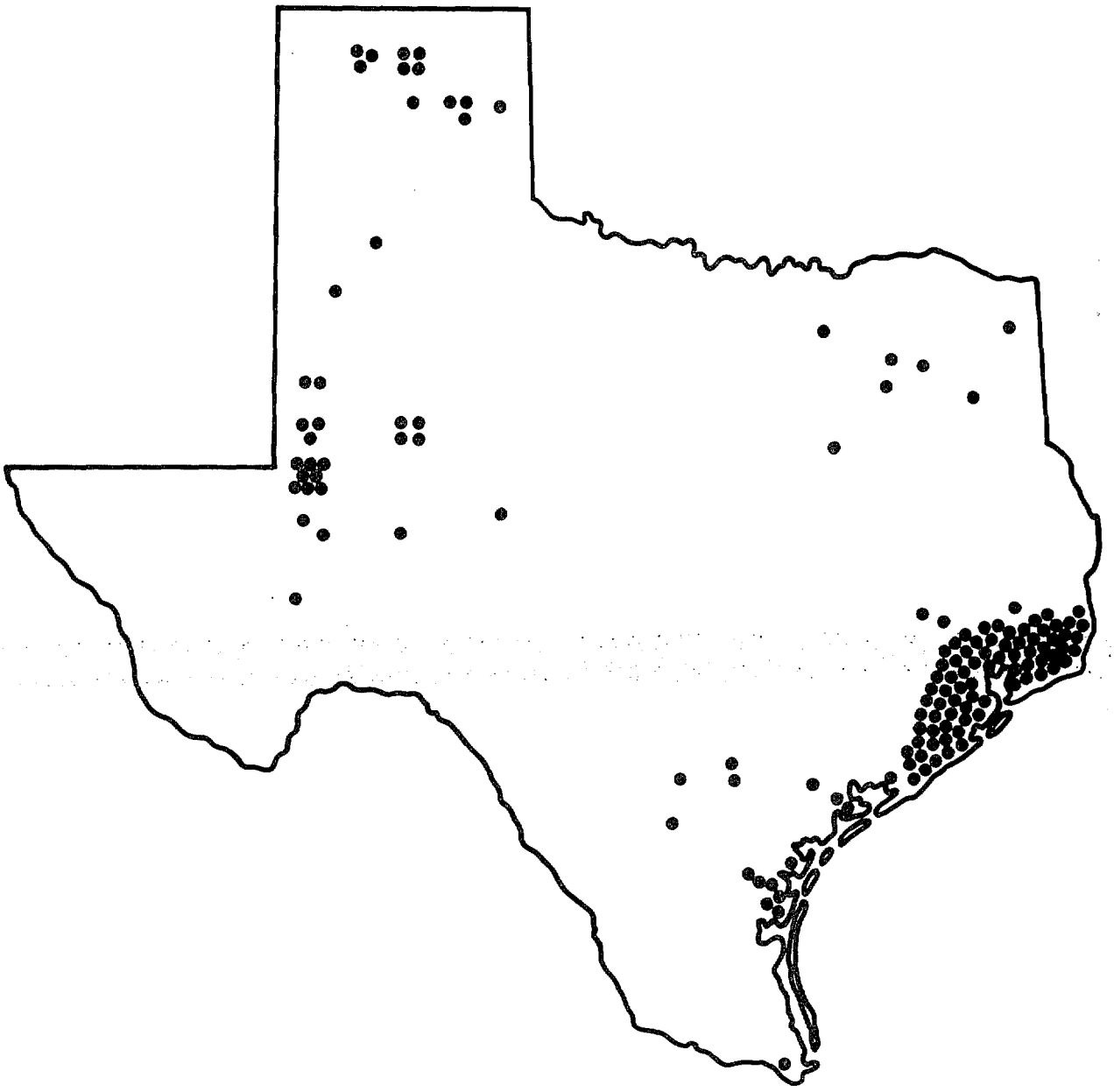


Figure IRD-2. Location of petrochemical plants in Texas (Whitehorn 1973).

Table IRD-7. Gas processing plants in the TBIE study area, 1977 (International petroleum encyclopedia 1976; Directory of Texas manufacturers 1977).

County	Company and location	Capacity (MM cubic feet/day)[a]
Aransas	Pearce Plant, Fulton Field	75.0
Bee	Amoco Production Co., Corpus Christi	N.D.
	Getty Oil Co., Normanna	N.D.
	HNG Petrochemicals, Tuleta	N.D.
Brazoria	Phillips Petroleum Co., Alvin	1,000.0
	Amoco Production Co., Old Ocean	570.0
	Exxon Corp., Pledger Field	220.0
	Amoco Production Co., Hastings Field	70.0
	Phillips Petroleum Co., Brazoria	55.0
	HNG Petrochemicals, Inc., Liverpool	24.0
Brooks	Bennett Estate, Falfurrias	N.D.
	Exxon Company, U.S.A., Kelsey	N.D.
	Exxon Company, U.S.A., Pita	N.D.
	Exxon Company, U.S.A., Santa Fe	N.D.
	HNG Petrochemicals, Inc., Loma Blanca	N.D.
	Mobil Oil Corporation, Le Gloria	N.D.
	Texaco Inc., Encinetas	N.D.
	Trinity Gas Corp., Sejita	N.D.
Calhoun	Aluminum Co. of America, Alcoa	150.0
	Exxon Corp., Kellers Bay	47.1
	Exxon Corp., Heyser Field	22.0
	Cities Service Oil Co., San Antonio Bay	12.4
Cameron	None	0.0
Chambers	Exxon Corp., Anahuac	275.0
	Houston Oil & Minerals Corp., Smith Point	150.0
	United Texas Transmission Co., Galveston Bay	40.0
	Getty Oil Co., Umbrella Point	12.0

(continued)

Table IRD-7. (continued)

County	Company and location	Capacity (MM cubic feet/day)[a]
Chambers (cont.)	Cities Service Oil Co., Mont Belvieu	N.D.
Fort Bend	Exxon Corp., Thompson Field	40.0
	Warren Petroleum Co., Moores Orchard Plant	N.D.
Galveston	Amoco Gas Co.	140.0
	Amoco Production Co., South Gillock Field	32.0
	Charter Oil Resources Co., Alta Loma	22.0
	North Texas LPG Corp., Galveston	15.0
Goliad	None	0.0
Harris	Exxon Corp., Clear Lake	200.0
	HNG Petrochemicals, Inc.	100.0
	Exxon Corp., Tomball Plant	80.0
	Texaco, Inc., Humble	3.0
Hidalgo	Tenneco Oil Co., Ward Field	140.0
	Coastal States Gas Corp., Hidalgo Field	80.0
	Anchor Gasoline Corp., Tabasco Field	67.0
	Amoco Production Co., LaBlanca	50.0
	Coastal States Gas Corp., Mission	30.0
	Clark Fuel Producing Co., Sullivan City	20.0
Jackson	Mobil Oil Corp., Vanderbilt	88.0
	Exxon Corp., West Ranch Field	23.0
Jim Wells	Mobil Oil Corp., Seeligson	N.D.
	Sun Production Co., Tijerina-Canales	N.D.
	Texaco, Inc., Tijerina	N.D.
Kenedy	Exxon Corp., Sarita	255.0

(continued)

Table IRD-7. (continued)

County	Company and location	Capacity (MM cubic feet/day)[a]
Kleberg	Exxon Corp., King Ranch	2,650.0
	Cities Service Oil Co., May Field	50.0
Liberty	Atlantic Richfield Co., Dayton	70.0
	Atlantic Richfield Co., Hall Field	18.0
	Houston Oil & Minerals Corp.	18.0
Matagorda	Lo-Vaca Gathering Co., Bay City	500.0
	Marathon Oil Co., Markham	165.0
	Amoco Production Co., Bay City	150.0
	Tenneco Oil Co., Palacios	95.0
	Texaco, Inc., Blessing Plant	65.0
	Monsanto Co., El Maton	15.0
	Exxon Corp., Sugar Valley	12.0
Nueces	Champlin Petroleum Co., Gulf Plains Plant	250.0
	Lo-Vaca Gathering Co., Corpus Christi	200.0
	Tenneco Oil Co., Dean Plant	100.0
	Amoco Production Co.	90.0
	HNG Petrochemicals, Inc., Robstown	75.0
	Cities Service Oil Co., Robstown	65.0
	United Gas Pipeline Co.	35.0
	Sun Oil Co., Luby Field	10.0
Refugio	Exxon Corp., Tom O'Conner Field	150.0
	Amoco Production Co., LaRosa	16.0
	HNG Petrochemicals, Inc., Refugio	7.5
	Atlantic Richfield Co., Refugio	6.5
San Patricio	Sun Oil Co., Red Fish Bay	140.0
	Cities Service Oil Co., Corpus Christi Bay	75.0
	HNG Petrochemicals, Inc., Gregory	70.0
	Atlantic Richfield Co., Taft	60.0
	Marathon Oil Co., Welder	55.0
	Warren Petroleum Co., Encinal	21.3
	Superior Oil Co., Portilla	15.0

(continued)

Table IRD-7. (concluded)

County	Company and location	Capacity (MM cubic feet/day)[a]
Victoria	HNG Petrochemicals, Inc., Victoria	94.0
	Sun Oil Co., Victoria	40.0
	Sun Oil Co., West Helen Gohlke Field	40.0
Wharton	Exxon Corp., Magnet Withers Field	100.0
	Getty Oil Co., West Bernard	30.0
Willacy	Amoco Production Co., La Sal Vieja	9.0
TBIE Total		9,669.8

[a]MM = million

Table IRD-8. Carbon black plants in the TBIE study area, 1977 (Directory of Texas manufacturers 1977).

County	Company and address
Harris	J.M. Huber Corp. Carbon Division Needlepoint Road Baytown
Nueces	Ashland Chemical Co. Carbon Black & Synthetic Rubber Division Aransas Pass

Table IRD-9. Smelters, refineries, and reduction plants for non-fuel minerals, 1975 (U.S. Department of the Interior, Bureau of Mines 1978).

County	Product	Company	Material treated
Brazoria	Magnesium	Dow Chemical Co., Freeport plants	Seawater
Calhoun	Aluminum	Aluminum Co. of America, Point Comfort	Bauxite
Calhoun	Aluminum	Aluminum Co. of America, Point Comfort	Alumina
Chambers	Iron	United States Steel Corp., Cedar Point	Ore and scrap
Galveston	Tin	Gulf Chemical & Metallurgical Co., Texas City	Ore
Galveston	Tungsten	Gulf Chemical & Metallurgical Co., Texas City	Ore
Harris	Iron	Armco Steel Corp., Houston	Ore and scrap
Harris	Manganese	Tenn-Tex Alloy Corp.	Ore
Harris	Sodium	Ethyl Corp.	Brine
Nueces	Cadmium	ASARCO, Inc.	Flue dust
San Patricio	Aluminum	Reynolds Metals Co., Sherwin	Bauxite
San Patricio	Aluminum	Reynolds Metals Co., San Patricio	Alumina

Table IRD-10. Secondary metal recovery plants in Harris County[a], 1975 (U.S. Department of the Interior, Bureau of Mines 1978).

Company	Material	Products
A&B Metal & Smelting Co.	Aluminum & lead scrap	Lead pigs, ingots, aluminum ingots, alloys
Federated Metals	Various metals	Lead products, alloys of copper, lead, zinc, magnesium, tin
Gulf Reduction Corp.	Aluminum & zinc scrap	Aluminum & zinc ingots, alloys
Houston Fishing Tackle Co.	Soft lead scrap	Lead products
Houston Lead Co.	Lead scrap	Lead pigs, ingots, alloys
Lead Products, Inc.	Lead scrap	Lead pigs, ingots, alloys
Proler International Corp.	Aluminum & zinc scrap	Aluminum & zinc ingots
Southwest Saw Corp.	Steel scrap	Steel alloys
Sterling Type, Rule and Metals Co.	Type metal	Type metal
Vulcan Materials Co.	Tinned scrap	Refined tin & baled detinned steel

[a]Harris County is the only TBIE county with such facilities.

Table IRD-11. Municipal and industrial water use[a] (acre-feet) in the TBIE study area, by county of use for selected years, 1955 through 1976 (Texas Department of Water Resources, Water and Wastewater Division 1979a).

Planning region/county	1955 municipal self-supplied groundwater	1955 industrial self-supplied groundwater	1955 total use	1965 municipal self-supplied groundwater	1965 industrial self-supplied groundwater	1965 total use
GULF COAST						
Brazoria	2,845.2	14,606.6	17,451.8	6,089.5	14,606.6	20,696.1
Chambers	283.6	0.0	283.6	516.1	2,077.7	2,593.8
Fort Bend	1,189.1	8,789.9	9,979.0	2,170.3	11,869.8	14,040.1
Galveston	16,610.4	11,967.8	28,578.2	20,011.5	6,986.0	26,997.5
Harris	80,456.5	98,061.9	178,518.4	170,046.8	126,564.7	296,611.5
Liberty	1,201.9	209.9	1,411.8	1,788.6	265.6	2,054.2
Matagorda	1,814.3	538.1	2,352.4	2,276.8	249.4	2,526.2
Wharton	1,994.6	3,446.7	5,441.3	2,153.4	5,919.4	8,072.8
Sub-total	106,395.6	137,620.9	1,244,016.5	205,053.0	168,539.2	373,592.2
GOLDEN CRESCENT						
Calhoun	715.2	777.2	1,492.4	1,442.1	1,852.4	3,294.5
Goliad	309.9	0.0	309.9	234.7	0.0	234.7
Jackson	605.7	273.1	878.8	1,099.8	374.3	1,474.1
Victoria	479.7	1,370.9	1,850.6	4,658.4	3,491.8	8,150.2
Sub-total	2,110.5	2,421.2	4,531.7	7,435.0	5,718.5	13,153.5
COASTAL BEND						
Aransas	172.2	128.9	301.1	659.6	347.7	1,007.3
Bee	1,164.9	1,109.1	2,274.0	2,134.2	620.1	2,754.3
Brooks	837.8	0.0	837.8	1,078.9	680.8	1,759.7
Jim Wells	3,710.5	1,848.2	5,558.7	1,052.9	2,136.5	3,189.4
Kenedy	12.3	0.0	12.3	0.0	3.1	3.1
Kleberg	4,577.5	0.0	4,577.5	6,034.1	2,297.0	8,331.1
Nueces	11,459.3	2,563.4	14,022.7	722.6	2,107.7	2,830.3

(continued)

Table IRD-11. (continued)

Planning region/county	1955 municipal self-supplied groundwater	1955 industrial self-supplied groundwater	1955 total use	1965 municipal self-supplied groundwater	1965 industrial self-supplied groundwater	1965 total use
COASTAL BEND (cont.)						
Refugio	757.5	27.5	785.0	870.1	504.6	1,374.7
San Patricio	2,648.8	30.7	2,679.5	995.4	175.2	1,170.6
Sub-total	25,340.8	5,707.8	31,048.0	13,547.8	8,872.7	22,420.5
LOWER RIO GRANDE VALLEY						
Cameron	1,347.4	0.7	1,348.1	992.5	260.6	1,253.1
Hidalgo	3,153.5	586.8	3,740.3	4,094.4	805.8	4,900.2
Willacy	1,141.6	43.0	1,184.6	20.3	1.9	22.2
Sub-total	5,642.5	630.5	6,273.0	5,107.2	1,068.3	6,175.5
TBIE STUDY AREA	139,489.4	146,380.4	258,869.8	231,143.0	184,198.7	415,341.7

(continued)

Table IRD-11. (continued)

Planning region/county	Municipal water use, 1976				
	Self-supplied groundwater	Self-supplied surface water	Purchased[b] surface water	Saline[b] water	Total municipal use
GULF COAST					
Brazoria	12,755.0	0.0	1,307.1	0	14,062.1
Chambers	1,017.1	0.0	0.0	0	1,017.1
Fort Bend	9,267.3	0.0	0.0	0	9,267.3
Galveston	21,550.3	0.0	9,653.9	0	31,204.2
Harris	367,299.9	188,751.7	10,455.0	0	566,506.6
Liberty	2,893.4	0.0	0.0	0	2,893.4
Matagorda	2,842.2	0.0	0.0	0	2,842.2
Wharton	3,310.9	0.0	0.0	0	3,310.9
Sub-total	420,936.1	188,751.7	21,416.0	0	631,103.8
GOLDEN CRESCENT					
Calhoun	189.7	0.0	1,691.5	0	1,881.2
Goliad	386.0	0.0	0.0	0	386.0
Jackson	448.3	0.0	0.0	0	448.3
Victoria	6,761.3	0.0	0.0	0	6,761.3
Sub-total	7,785.3	0.0	1,691.5	0	9,476.8
COASTAL BEND					
Aransas	152.5	0.0	1,259.2	0	1,411.7
Bee	2,570.3	4.6	0.0	0	2,574.9
Brooks	713.0	0.0	0.0	0	713.0
Jim Wells	930.4	1,830.0	2,873.0	0	5,633.4
Kenedy	24.9	0.0	0.0	0	24.9
Kleberg	7,003.6	0.0	0.0	0	7,003.6
Nueces	707.8	87,059.0	675.7	0	88,442.5
Refugio	918.3	0.0	0.0	0	918.3
San Patricio	1,233.6	0.0	3,628.1	0	4,861.7
Sub-total	14,254.4	88,893.6	8,436.0	0	111,584.0

(continued)

Table IRD-11. (continued)

Planning region/county	Municipal water use, 1976				
	Self-supplied groundwater	Self-supplied surface water	Purchased[b] surface water	Saline[b] water	Total municipal use
LOWER RIO GRANDE VALLEY					
Cameron	197.2	9,568.0	12,671.2	0	22,436.4
Hidalgo	1,005.0	0.0	26,205.3	0	27,210.3
Willacy	0.0	0.0	1,035.9	0	1,035.9
Sub-total	1,202.2	9,568.0	39,912.4	0	50,682.6
TBIE STUDY AREA	444,178.0	287,213.3	71,455.9	0	802,847.2

(continued)

Table IRD-TT. (continued)

Planning region/county	Industrial water use, 1976					
	Self-supplied groundwater	Self-supplied surface water	Purchased surface water	Saline water	Total industrial fresh water use	1976 total fresh water use
GULF COAST						
Brazoria	7,298.7	152,840.8	13,435.4	1,743,652.0	173,574.9	187,637.0
Chambers	2,130.9	0.0	7,890.4	1,442,267.0	10,021.3	11,038.4
Fort Bend	7,794.4	20,909.9	3,588.7	0.0	32,293.0	41,560.3
Galveston	9,045.9	0.0	57,296.2	1,578,452.0	66,342.1	97,546.3
Harris	152,566.7	1,198.1	104,592.5	1,345,207.0	258,357.3	824,863.9
Liberty	504.2	1,660.7	6,314.2	0.0	8,479.1	11,372.5
Matagorda	1,839.3	0.0	4,613.7	0.0	6,453.0	9,295.2
Wharton	6,440.3	6,600.4	0.0	0.0	13,040.7	16,351.6
Sub-total	187,620.4	183,209.9	197,731.1	6,109,578.0	568,561.4	1,199,665.2
GOLDEN CRESCENT						
Calhoun	2,705.9	1,199.5	17,789.9	231,727.4	21,695.3	23,576.5
Goliad	2.1	0.0	0.0	0.0	2.1	388.1
Jackson	319.2	0.0	1.7	0.0	320.9	769.2
Victoria	3,742.6	100,744.4	0.0	0.0	104,487.0	111,248.3
Sub-total	6,769.8	101,943.9	17,791.6	231,727.4	126,505.3	135,982.1
COASTAL BEND						
Aransas	46.5	0.0	295.2	0.0	341.7	1,753.4
Bee	412.8	0.0	0.0	0.0	412.8	2,987.7
Brooks	370.6	0.0	0.0	0.0	370.6	1,083.6
Jim Wells	509.7	0.0	108.8	0.0	618.5	6,251.9
Kenedy	6.5	0.0	0.0	0.0	6.5	31.4
Kleberg	3,446.9	0.0	0.0	0.0	3,446.9	10,450.5
Nueces	1,173.9	0.0	26,600.3	812,957.7	27,774.2	116,216.7

(continued)

Table IRD-11. (concluded)

Planning region/county	Industrial water use, 1976					
	Self-supplied groundwater	Self-supplied surface water	Purchased surface water	Saline water	Total industrial fresh water use	1976 total fresh water use
COASTAL BEND (cont.)						
Refugio	452.3	0.0	0.0	0.0	452.3	1,370.6
San Patricio	53.6	0.0	10,321.7	0.0	10,375.3	15,237.0
Sub-total	6,472.8	0.0	37,326.0	812,957.7	43,798.8	155,382.8
LOWER RIO GRANDE VALLEY						
Cameron	16.6	735.8	3,046.9	214,245.2	3,799.3	26,235.7
Hidalgo	686.4	355.2	2,062.5	0.0	3,104.1	30,314.4
Willacy	0.1	0.0	8.1	0.0	8.2	1,044.1
Sub-total	703.1	1,091.0	5,117.5	214,245.2	6,911.6	57,594.2
TBIE STUDY AREA	201,566.1	286,244.8	257,966.2	7,368,505.3	745,777.1	1,548,624.3

[a]Figures are for intake water rather than consumptive use (except for power plants).
[b]Information not collected for these categories until 1971.

Table IRD-12a. Current water use and projected water requirements by groundwater and surface water sources (in thousands of acre-feet), Neches-Trinity coastal basin (Texas Department of Water Resources 1977).

Population and demand category	1974			2000			2030		
	Ground-water	Surface water	Total	Ground-water	Surface water	Total	Ground-water	Surface water	Total
ZONE 1									
Population			179,000			203,600			238,800
Municipal	4.1	18.8	22.9	1.5	41.6	43.1	2.0	51.3	53.3
Manufacturing	2.8	69.6	72.4	1.5	95.0	96.5	1.0	169.1	170.1
Steam-electric	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Irrigation	0.0	171.4	171.4	0.0	172.0	172.0	0.0	172.0	172.0
Mining	0.1	6.1	6.2	0.3	7.6	7.9	0.5	7.1	7.6
Livestock	0.1	0.6	0.7	0.1	0.8	0.9	0.1	1.0	1.1
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub-total	7.1	266.5	273.6	3.4	317.0	320.4	3.6	400.5	404.1
ZONE 2									
Population			9,700			17,500			32,500
Municipal	1.2	0.0	1.2	2.1	1.3	3.4	3.7	3.2	6.9
Manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Steam-electric	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Irrigation	0.0	90.2	90.2	0.0	90.5	90.5	0.0	90.5	90.5
Mining	0.1	0.0	0.1	0.2	0.0	0.2	0.4	0.0	0.4
Livestock	0.1	0.5	0.6	0.1	0.6	0.7	0.1	0.7	0.8
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub-total	1.4	90.7	92.1	2.4	92.4	94.8	4.2	94.4	98.6
BASIN SUMMARY									
Population			188,800			221,000			271,300
Municipal	5.3	18.8	24.1	3.6	42.9	46.5	5.7	54.5	60.2
Manufacturing	2.8	69.6	72.4	1.5	95.0	96.5	1.0	169.1	170.1
Steam-electric	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(continued)

Table IRD-12a. (concluded)

Population and demand category	1974 Ground-water	1974 Surface water	1974 Total	2000 Ground-water	2000 Surface water	2000 Total	2030 Ground-water	2030 Surface water	2030 Total
BASIN SUMMARY (cont.)									
Irrigation	0.0	261.6	261.6	0.0	262.5	262.5	0.0	262.5	262.5
Mining	0.3	6.1	6.4	0.5	7.6	8.1	0.8	7.1	7.9
Livestock	0.1	1.1	1.2	0.2	1.4	1.6	0.2	1.7	1.9
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	8.5	357.2	365.7	5.8	409.4	415.2	7.7	494.9	502.6

Table IRD-12b. Current water use and projected water requirements by groundwater and surface water sources (in thousands of acre-feet), Trinity river basin (Texas Department of Water Resources 1977).

Population and demand category	1974			2000			2030		
	Ground-water	Surface water	Total	Ground-water	Surface water	Total	Ground-water	Surface water	Total
ZONE 3									
Population			46,900			66,600			93,700
Municipal	5.7	0.0	5.7	12.0	1.4	13.4	13.5	7.2	20.7
Manufacturing	1.3	0.0	1.3	1.8	0.4	2.2	4.3	2.2	6.5
Steam-electric	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Irrigation	19.5	64.4	83.9	19.5	63.5	83.0	19.5	63.5	83.0
Mining	0.1	1.7	1.8	0.1	3.0	3.1	0.2	5.8	6.0
Livestock	0.1	1.2	1.3	0.2	1.5	1.7	0.2	1.8	2.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub-total	26.7	67.3	94.0	33.6	69.8	103.4	37.7	80.5	118.2
BASIN SUMMARY									
Population			2,791,300			4,728,000			8,610,900
Municipal	61.9	366.1	428.0	47.7	1095.9	1143.6	48.4	2143.0	2191.4
Manufacturing	13.5	115.7	129.2	5.1	168.6	173.7	8.8[b]	429.3[b]	438.1[b]
Steam-electric	6.7	31.4	38.1	19.6	135.4	155.0	39.5[b]	246.1[b]	285.5[b]
Irrigation	20.9	68.1	89.0	21.5	68.5	90.0	21.5	68.5	90.0
Mining	4.3	10.5	14.8	4.0	17.3	21.3	4.3	31.8	36.1
Livestock	4.4	25.0	29.4	5.5	31.0	36.5	6.8	38.0	44.8
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	111.7	616.8	728.5	103.4	1516.7	1620.1	129.3	2956.7	3086.0

[a]Value less than 50 acre-feet.
[b]Includes year 2000-2030 incremental power demand not distributed by zone.
[c]Steam-electric power generation water requirements held constant at year 2000 level of projection.

Table IRD-12c. Current water use and projected water requirements by groundwater and surface water sources (in thousands of acre-feet), Trinity-San Jacinto river basin (Texas Department of Water Resources 1977).

Population and demand category	1974			2000			2030		
	Ground-water	Surface water	Total	Ground-water	Surface water	Total	Ground-water	Surface water	Total
BASIN SUMMARY									
Population			67,300			136,300			295,600
Municipal	9.4	0.0	9.4	2.7	25.8	28.5	3.7	61.9	65.6
Manufacturing	6.9	48.2	55.1	2.0	106.3	108.3	1.0	398.5	399.5
Steam-electric	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Irrigation	4.7	28.0	32.7	4.5	29.0	33.5	4.5	29.0	33.5
Mining	1.7[a]	0.0	1.7	2.7[a]	0.0	2.7	4.7[a]	0.0	4.7
Livestock		0.3	0.3		0.3	0.3		0.4	0.4
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	22.7	76.5	99.2	11.9	161.4	173.3	13.9	489.8	503.7

[a]Value less than 50 acre-feet.

Table IRD-12d. Current water use and projected water requirements by groundwater and surface water sources (in thousands of acre-feet), San Jacinto river basin (Texas Department of Water Resources 1977).

Population and demand category	1974			2000			2030		
	Ground-water	Surface water	Total	Ground-water	Surface water	Total	Ground-water	Surface water	Total
BASIN SUMMARY									
Population			1,877,000			3,357,000			6,548,000
Municipal	216.1	65.9	282.0	172.7	567.8	740.5	204.9	1311.0	1515.9
Manufacturing	217.1	91.5	308.6	36.0	579.5	615.5	34.8	2246.0	2280.8
Steam-electric	13.8	2.6	16.4	5.3	51.4	56.7	5.3	108.2	113.5
Irrigation	120.0	0.4	120.4	81.9	0.5	82.4	51.9	1.0	52.9
Mining	16.2	0.0	16.2	5.0	20.3	25.3	5.0	41.3	46.3
Livestock	0.4	3.5	3.9	0.6	4.3	4.9	0.7	5.3	6.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	583.6	163.9	747.5	301.5	1223.8	1525.3	302.6	3712.8	4015.4

Table IRD-12e. Current water use and projected water requirements by groundwater and surface water sources (in thousands of acre-feet), San Jacinto-Brazos river basin (Texas Department of Water Resources 1977).

Population and demand category	1974			2000			2030		
	Ground-water	Surface water	Total	Ground-water	Surface water	Total	Ground-water	Surface water	Total
BASIN SUMMARY									
Population			343,200			585,400			1,066,900
Municipal	42.1	7.2	49.3	59.7	69.3	129.0	68.1	177.2	245.3
Manufacturing	21.8	82.7	104.5	4.0	210.8	214.8	0.0	755.4	755.4
Steam-electric	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Irrigation	16.2	155.2	171.4	16.8	156.5	173.3	16.8	156.5	173.3
Mining	2.5	0.1	2.6	4.2	0.0	4.2	8.5	0.0	8.5
Livestock	0.2	1.4	1.6	0.2	2.0	2.2	0.3	2.1	2.4
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	82.8	246.6	329.4	84.9	438.6	523.5	93.7	1091.2	1184.9

Table IRD-12f. Current water use and projected water requirements by groundwater and surface water sources (in thousands of acre-feet), Brazos-Colorado coastal basin (Texas Department of Water Resources 1977).

Population and demand category	1974			2000			2030		
	Ground-water	Surface water	Total	Ground-water	Surface water	Total	Ground-water	Surface water	Total
BASIN SUMMARY									
Population			64,600			88,800			139,800
Municipal	8.1	[a]	8.1	10.3	8.0	18.3	16.1	14.7	30.8
Manufacturing	3.5	8.4	11.9	.8	35.9	36.7	4.1	158.4	162.5
Steam-electric	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Irrigation	61.7	152.2	213.9	44.2	153.0	197.2	36.7	153.0	189.7
Mining	4.2	4.4	8.6	6.4	6.2	12.6	10.0	10.2	20.2
Livestock	0.3	2.1	2.4	.4	2.6	3.0	.5	3.2	3.7
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	77.8	167.1	244.9	62.1	205.7	267.8	67.4	339.5	406.9

[a]Less than 50 acre-feet.

Table IRD-12g. Current water use and projected water requirements by groundwater and surface water sources (in thousands of acre-feet), Brazos river basin (Texas Department of Water Resources 1977).

Population and demand category	1974			2000			2030		
	Ground-water	Surface water	Total	Ground-water	Surface water	Total	Ground-water	Surface water	Total
ZONE 6									
Population			67,000			116,000			232,200
Municipal	9.1	0.0	9.1	12.9	12.5	25.4	21.8	31.9	53.7
Manufacturing	4.5	195.5	200.0	1.3	622.7	624.0	1.9	2795.9	2797.8
Steam-electric	0.0	9.0	9.0	0.0	125.4	125.4	0.0	125.4	125.4
Irrigation	30.2	20.4	50.6	26.6	20.9	47.5	19.7	20.9	40.6
Mining	1.7	0.1	1.8	1.7	2.5	4.2	1.9	10.5	12.4
Livestock	0.5	2.9	3.4	0.7	3.7	4.4	0.8	4.5	5.3
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub-total	46.0	227.9	273.9	43.2	787.7	830.9	46.1	2989.1	3035.2
BASIN SUMMARY									
Population			1,320,000			1,776,400			2,589,000
Municipal	94.5	129.2	223.7	104.1	330.7	434.8	164.2	504.1	668.3
Manufacturing	17.0	214.2	231.2	14.0	650.8	664.8	30.5	2860.3	2890.8
Steam-electric	9.2	37.6	46.8	37.3	285.6	322.9	47.8[a]	499.9[a]	547.7[a]
Irrigation	3782.6	68.0	3850.6	1047.3	73.9	1121.2	688.7	74.1	762.8
Mining	27.5	10.6	38.1	46.0	14.6	60.6	69.9	28.9	98.8
Livestock	19.2	45.3	64.5	24.2	57.0	81.2	30.0	70.6	100.6
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	3950.0	504.9	4454.9	1272.9	1412.6	2685.5	1031.1	4037.9	5069.0

[a]Incremental projected basinwide increase in requirements not assigned to specific zones.

Table IRD-12h. Current water use and projected water requirements by groundwater and surface water sources (in thousands of acre-feet), Lavaca river basin (Texas Department of Water Resources 1977).

Population and demand category	1974			2000			2030		
	Ground-water	Surface water	Total	Ground-water	Surface water	Total	Ground-water	Surface water	Total
BASIN SUMMARY									
Population			41,900			39,500			35,600
Municipal	5.9	0.0	5.9	8.1	0.7	8.9	7.7	1.2	8.9
Manufacturing	1.0	0.0	1.0	1.0	0.5	1.5	1.6	1.3	2.9
Steam-electric	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Irrigation	230.8	80.3	311.2	64.8	80.8	145.6	64.8	80.3	145.1
Mining	1.1	0.0	1.1	1.6	0.0	1.6	2.2	0.0	2.2
Livestock	0.6	3.7	4.4	0.8	5.2	6.0	1.0	6.6	7.6
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	239.6	84.0	323.6	76.3	87.3	163.6	77.3	89.4	166.7

Table IRD-12i. Current water use and projected water requirements by groundwater and surface water sources (in thousands of acre-feet), Lavaca-Guadalupe coastal basin (Texas Department of Water Resources 1977).

Population and demand category	1974			2000			2030		
	Ground-water	Surface water	Total	Ground-water	Surface water	Total	Ground-water	Surface water	Total
BASIN SUMMARY									
Population			26,000			36,400			57,100
Municipal	1.8	1.4	3.2	3.5	3.8	7.3	4.9	7.4	12.3
Manufacturing	[a]	22.2	22.2	[a]	57.1	57.1	[a]	176.0	176.0
Steam-electric	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Irrigation	34.1	42.2	76.3	28.5	46.7	75.2	28.5	46.7	75.2
Mining	0.4	0.0	0.4	0.4	0.0	0.4	0.4	0.0	0.4
Livestock	0.1	1.2	1.3	0.2	1.5	1.7	0.3	1.9	2.2
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	36.4	67.0	103.4	32.6	109.1	141.7	34.1	232.0	266.1

[a]Value less than 50 acre-feet.

Table IRD-12j. Current water use and projected water requirements by groundwater and surface water sources (in thousands of acre-feet), Guadalupe river basin (Texas Department of Water Resources 1977).

Population and demand category	1974			2000			2030		
	Ground-water	Surface water	Total	Ground-water	Surface water	Total	Ground-water	Surface water	Total
ZONE 2									
Population			129,500			152,600			201,400
Municipal	14.7	4.0	18.7	11.8	22.3	34.1	12.4	35.6	48.0
Manufacturing	3.2	28.8	32.0	1.3	59.1	60.4	1.5	164.0	165.5
Steam-electric	5.1	1.9	7.0	10.1	19.5	29.6	10.1	19.5	29.6
Irrigation	4.1	3.5	7.6	5.6	4.5	10.1	5.6	4.5	10.1
Mining	0.5	0.5	1.0	0.7	0.7	1.4	0.9	1.2	2.1
Livestock	2.2	6.0	8.2	2.8	7.3	10.1	3.5	9.2	12.7
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub-total	29.8	44.7	74.5	32.3	113.4	145.7	34.0	234.0	268.0
BASIN SUMMARY									
Population			210,700			287,100			421,600
Municipal	28.3	4.2	32.5	41.7	26.5	68.2	51.5	56.1	107.6
Manufacturing	6.3	31.0	37.3	4.0	65.3	69.3	6.8	173.5	180.3
Steam-electric	5.1	2.0	7.1	10.1	19.5	29.6	14.8	26.6	41.4
Irrigation	4.9	4.9	9.8	6.7	6.3	13.0	6.7	6.3	13.0
Mining	0.8	0.5	1.3	1.0	0.7	1.7	1.3	1.1	2.4
Livestock	4.4	6.0	10.4	5.5	7.3	12.8	6.9	9.2	16.1
Total	49.8	48.6	98.4	69.0	125.6	194.6	88.0	272.8	360.8

Table IRD-12k. Current water use and projected water requirements by groundwater and surface water sources (in thousands of acre-feet), San Antonio river basin (Texas Department of Water Resources 1977).

Population and demand category	1974			2000			2030		
	Ground-water	Surface water	Total	Ground-water	Surface water	Total	Ground-water	Surface water	Total
ZONE 2									
Population			38,700			48,000			54,300
Municipal	6.3	0.0	6.3	10.1	1.8	11.9	12.7	1.9	14.6
Manufacturing	0.3	0.0	0.3	0.3	0.2	0.5	0.6	0.3	0.9
Steam-electric	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Irrigation	13.4	6.2	19.6	11.1	6.7	17.8	9.6	6.8	16.4
Mining	0.2	0.0	0.2	0.2	0.0	0.2	0.2	0.0	0.2
Livestock	2.7	0.8	3.5	3.5	1.0	4.5	4.4	1.2	5.6
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub-total	22.9	7.0	29.9	25.2	9.7	34.9	27.5	10.2	37.7
BASIN SUMMARY									
Population			964,300			1,430,100			2,090,700
Municipal	155.6	0.0	155.6	273.0	79.4	352.4	280.7	261.7	542.4
Manufacturing	16.4	0.3	16.7	16.9	6.4	23.3	19.7	28.4	48.1
Steam-electric	2.3	16.9	19.2	4.1	63.3	67.4	6.0	91.0	97.0
Irrigation	36.8	21.3	58.1	32.3	23.2	55.5	28.4	23.2	51.6
Mining	3.3	0.0	3.3	4.7	0.0	4.7	6.6	0.0	6.6
Livestock	3.9	2.2	6.1	5.0	2.8	7.8	6.3	3.5	9.8
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	218.3	40.7	259.0	336.0	175.1	511.1	347.7	407.8	755.5

Table IRD-121. Current water use and projected water requirements by groundwater and surface water sources (in thousands of acre-feet), San Antonio-Nueces coastal basin (Texas Department of Water Resources 1977).

Population and demand category	1974			2000			2030		
	Ground-water	Surface water	Total	Ground-water	Surface water	Total	Ground-water	Surface water	Total
BASIN SUMMARY									
Population			85,400			111,000			157,300
Municipal	7.3	4.3	11.6	10.2	14.4	24.6	12.9	25.7	38.6
Manufacturing	0.6	13.0	13.6	0.1	15.5	15.6	0.1	41.9	42.0
Steam-electric	0.0	0.0[a]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Irrigation	6.3		6.3	3.0	0.1	3.1	3.0	0.1	3.1
Mining	0.5	0.2	0.7	0.4	0.4	0.8	0.6	0.4	1.0
Livestock	2.3	0.6	2.9	3.0	0.8	3.8	3.7	1.0	4.7
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	17.0	18.1	35.1	16.7	31.2	47.9	20.3	69.1	89.4

[a]Value less than 50 acre-feet.

Table IRD-12m. Current water use and projected water requirements by groundwater and surface water sources (in thousands of acre-feet), Nueces-Rio Grande river basin (Texas Department of Water Resources 1977).

Population and demand category	1974			2000			2030		
	Ground-water	Surface water	Total	Ground-water	Surface water	Total	Ground-water	Surface water	Total
ZONE 1									
Population			320,200			448,800			671,100
Municipal	7.8	40.5	48.3	8.3	100.2	108.5	8.4	164.1	172.5
Manufacturing	0.8	26.0	26.8	0.1	39.4	39.5	0.1	94.7	94.8
Steam-electric	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Irrigation	5.2	0.2[a]	5.4	6.2	3.4	9.6	6.3	3.4	9.7
Mining	2.2		2.2	2.4	0.0	2.4	3.0	0.0	3.0
Livestock	3.6	0.4	4.0	4.7	0.5	5.2	5.8	0.7	6.5
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub-total	19.6	67.1	86.7	21.7	143.5	165.2	23.6	262.9	286.5
ZONE 2									
Population			367,900			465,500			590,700
Municipal	7.7	54.1	61.8	3.9	110.2	114.1	3.9	152.4	156.3
Manufacturing	1.2	6.2	7.4	0.1	11.1	11.2	0.1	24.2	24.3
Steam-electric	0.0	4.3	4.3	0.0	9.6	9.6	0.0	9.6	9.6
Irrigation	20.5	997.4	1017.9	12.3	1025.2	1037.5	12.3	1025.2	1037.5
Mining	0.3	0.1	0.4	0.3	0.1	0.4	0.3	0.2	0.5
Livestock	5.3	0.6	5.9	6.6	0.7	7.3	8.1	9.9	9.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub-total	35.0	1062.7	1097.7	23.2	1156.9	1180.1	24.7	1212.5	1237.2
BASIN SUMMARY									
Population			668,100			914,300			1,261,800
Municipal	15.5	94.6	110.1	12.2	210.4	222.6	12.3	316.5	328.8
Manufacturing	2.0	32.2	34.2	0.2	50.5	50.7	0.2	118.9	119.1
Steam-electric	0.0	4.3	4.3	0.0	9.6	9.6	0.0	14.6	14.6
Irrigation	25.7	997.6	1023.3	18.5	1028.6	1047.1	18.5	1028.6	1047.2

(continued)

Table IRD-12m. (concluded)

Population and demand category	1974			2000			2030		
	Ground-water	Surface water	Total	Ground-water	Surface water	Total	Ground-water	Surface water	Total
BASIN SUMMARY (cont.)									
Mining	2.5	0.1	2.6	2.7	0.1	2.8	3.3	0.2	3.5
Livestock	8.9	1.0	9.9	11.3	1.2	12.5	13.9	1.6	15.5
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	54.6	1129.8	1184.4	44.9	1300.4	1345.3	48.3	1480.4	1528.7

[a]Value less than 50 acre-feet.

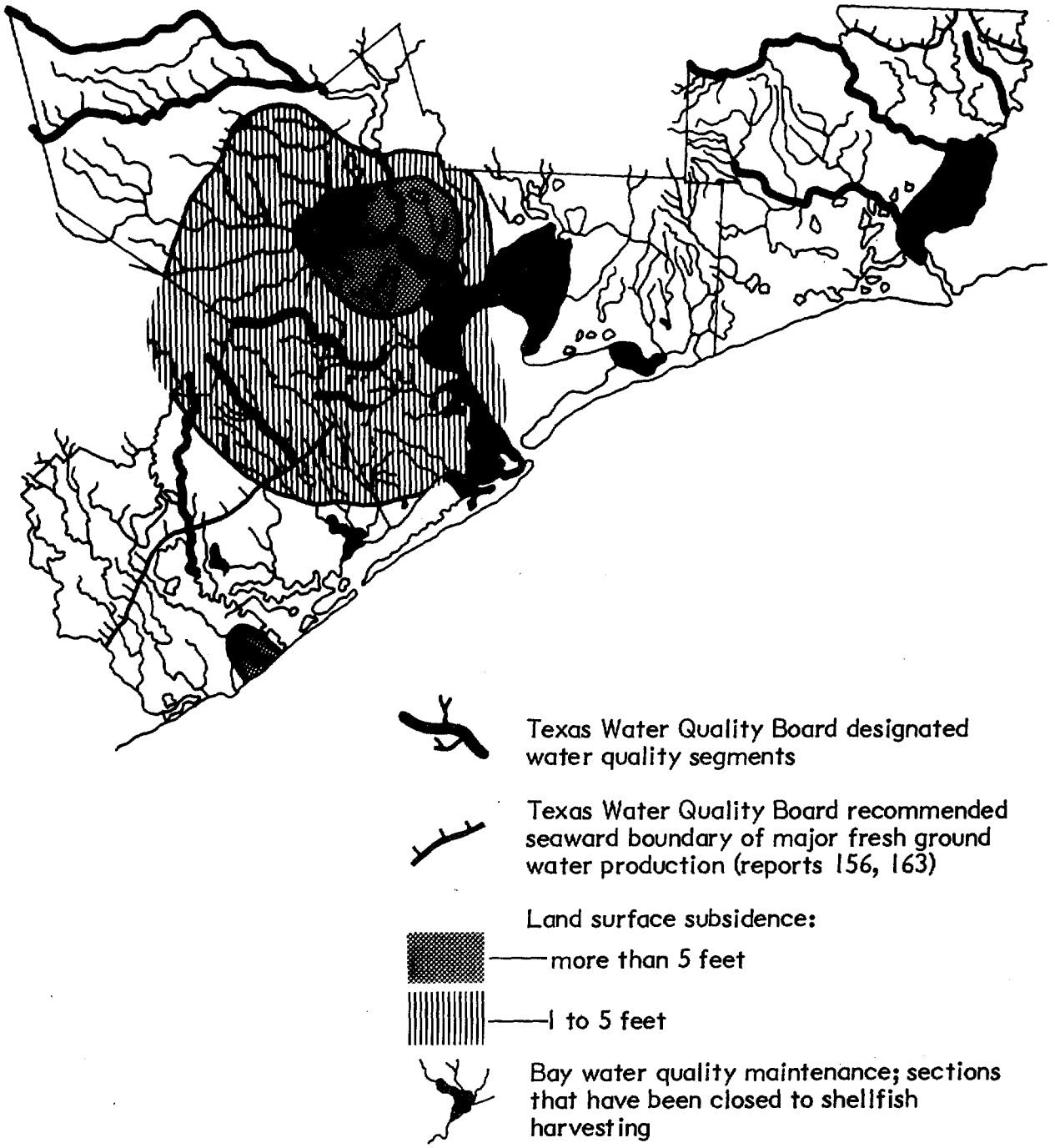


Figure IRD-3. Problems related to water development in the Galveston Bay area (Texas Dept. of Water Resources 1977).

Table IRD-13. Point source discharge sites by 1-digit Standard Industrial Classification (SIC) code and classification of discharge in the TBIE study area, 1979 (Texas Department of Water Resources, Water and Wastewater Division 1979b).

Planning region/county	Agriculture (0)	D-T-E	D-T-W	D-M-E	D-M-W	R-T-E	R-T-W	R-M-E	R-M-W[a]
GULF COAST									
Brazoria	5	0	0	0	0	1	4	0	0
Chambers	0	0	0	0	0	0	0	0	0
Fort Bend	2	0	0	0	0	1	1	0	0
Galveston	0	0	0	0	0	0	0	0	0
Harris	1	0	0	0	0	0	1	0	0
Liberty	0	0	0	0	0	0	0	0	0
Matagorda	0	0	0	0	0	0	0	0	0
Wharton	0	0	0	0	0	0	0	0	0
Sub-total	8	0	0	0	0	2	6	0	0
GOLDEN CRESCENT									
Calhoun	0	0	0	0	0	0	0	0	0
Goliad	2	0	0	0	0	0	2	0	0
Jackson	0	0	0	0	0	0	0	0	0
Victoria	0	0	0	0	0	0	0	0	0
Sub-total	2	0	0	0	0	0	2	0	0
COASTAL BEND									
Aransas	5	0	0	0	0	1	4	0	0
Bee	0	0	0	0	0	0	0	0	0
Brooks	0	0	0	0	0	0	0	0	0
Jim Wells	1	0	0	0	0	1	0	0	0
Kenedy	0	0	0	0	0	0	0	0	0
Kleberg	1	0	0	0	0	1	0	0	0
Nueces	1	0	0	0	0	1	0	0	0
Refugio	0	0	0	0	0	0	0	0	0
San Patricio	2	0	0	0	0	2	0	0	0
Sub-total	10	0	0	0	0	6	4	0	0

(continued)

Table IRD-13. (continued)

Planning region/county	Agriculture (0)	D-T-E	D-T-W	D-M-E	D-M-W	R-T-E	R-T-W	R-M-E	R-M-W[a]
LOWER RIO GRANDE VALLEY									
Cameron	5	0	1	0	0	2	2	0	0
Hidalgo	7	2	0	0	0	4	1	0	0
Willacy	0	0	0	0	0	0	0	0	0
Sub-total	9	2	1	0	0	6	3	0	0
TBIE STUDY AREA	29	2	1	0	0	14	15	0	0

Planning region/county	Construction, mining (1)	D-T-E	D-T-W	D-M-E	D-M-W	R-T-E	R-T-W	R-M-E	R-M-W[a]
GULF COAST									
Brazoria	1	1	0	0	0	0	0	0	0
Chambers	0	0	0	0	0	0	0	0	0
Fort Bend	5	5	0	0	0	0	0	0	0
Galveston	0	0	0	0	0	0	0	0	0
Harris	3	0	0	0	2	0	1	0	0
Liberty	3	0	1	2	0	0	0	0	0
Matagorda	0	0	0	0	0	0	0	0	0
Wharton	3	1	0	2	0	0	0	0	0
Sub-total	15	7	1	4	2	0	1	0	0
GOLDEN CRESCENT									
Calhoun	0	0	0	0	0	0	0	0	0
Goliad	0	0	0	0	0	0	0	0	0
Jackson	0	0	0	0	0	0	0	0	0
Victoria	5	3	0	0	0	1	1	0	0
Sub-total	5	3	0	0	0	1	1	0	0

(continued)

Table IRD-13. (continued)

Planning region/county	Construction, mining (1)	D-T-E	D-T-W	D-M-E	D-M-W	R-T-E	R-T-W	R-M-E	R-M-W
COASTAL BEND									
Aransas	0	0	0	0	0	0	0	0	0
Bee	1	0	0	0	0	1	0	0	0
Brooks	0	0	0	0	0	0	0	0	0
Jim Wells	0	0	0	0	0	0	0	0	0
Kenedy	0	0	0	0	0	0	0	0	0
Kleberg	0	0	0	0	0	0	0	0	0
Nueces	1	1	0	0	0	0	0	0	0
Refugio	0	0	0	0	0	0	0	0	0
San Patricio	0	0	0	0	0	0	0	0	0
Sub-total	2	1	0	0	0	1	0	0	0
LOWER RIO GRANDE VALLEY									
Cameron	0	0	0	0	0	0	0	0	0
Hidalgo	1	0	0	0	0	1	0	0	0
Willacy	0	0	0	0	0	0	0	0	0
Sub-total	1	0	0	0	0	1	0	0	0
TBIE STUDY AREA	23	11	1	4	2	3	2	0	0

Planning region/county	Manufacturing, non-durable goods (2)	D-T-E	D-T-W	D-M-E	D-M-W	R-T-E	R-T-W	R-M-E	R-M-W
GULF COAST									
Brazoria	40	16	5	19	0	0	0	0	0
Chambers	1	0	0	1	0	0	0	0	0

(continued)

Table IRD-13. (continued)

Planning region/county	Manufacturing, non-durable goods (2)	D-T-E	D-T-W	D-M-E	D-M-W	R-T-E	R-T-W	R-M-E	R-M-W
GULF COAST (cont.)									
Fort Bend	4	1	0	0	3	0	0	0	0
Galveston	39	4	21	11	3	0	0	0	0
Harris	178[b]	4	103	10	57	1	2	0	0
Liberty	2	2	0	0	0	0	0	0	0
Matagorda	6	2	0	4	0	0	0	0	0
Wharton	0	0	0	0	0	0	0	0	0
Sub-total	270	29	129	45	63	1	2	0	0
GOLDEN CRESCENT									
Calhoun	12	1	1	9	1	0	0	0	0
Goliad	0	0	0	0	0	0	0	0	0
Jackson	0	0	0	0	0	0	0	0	0
Victoria	7	3	1	3	0	0	0	0	0
Sub-total	19	4	2	12	1	0	0	0	0
COASTAL BEND									
Aransas	10	5	0	5	0	0	0	0	0
Bee	0	0	0	0	0	0	0	0	0
Brooks	0	0	0	0	0	0	0	0	0
Jim Wells	0	0	0	0	0	0	0	0	0
Kenedy	1	1	0	0	0	0	0	0	0
Kleberg	0	0	0	0	0	0	0	0	0
Nueces	30[c]	4	11	5	8	1	0	0	0
Refugio	0	0	0	0	0	0	0	0	0
San Patricio	7	4	1	1	0	1	0	0	0
Sub-total	48	9	12	6	8	2	0	0	0

(continued)

Table IRD-13. (continued)

Planning region/county	Manufacturing, non-durable goods (2)	D-T-E	D-T-W	D-M-E	D-M-W	R-T-E	R-T-W	R-M-E	R-M-W
LOWER RIO GRANDE VALLEY									
Cameron	13	9	2	2	0	0	0	0	0
Hidalgo	7	5	1	0	0	1	0	0	0
Willacy	0	0	0	0	0	0	0	0	0
Sub-total	20	14	3	2	0	1	0	0	0
TBIE STUDY AREA	357	56	146	65	72	4	2	0	0

Planning region/county	Manufacturing, durable goods (3)	D-T-E	D-T-W	D-M-E	D-M-W	R-T-E	R-T-W	R-M-E	R-M-W
GULF COAST									
Brazoria	13	0	0	12	0	0	1	0	0
Chambers	2	0	0	2	0	0	0	0	0
Fort Bend	4	3	1	0	0	0	0	0	0
Galveston	4	4	0	0	0	0	0	0	0
Harris	40	1	37	0	1	0	0	0	1
Liberty	1	1	0	0	0	0	0	0	0
Matagorda	0	0	0	0	0	0	0	0	0
Wharton	3	3	0	0	0	0	0	0	0
Sub-total	67	12	38	14	1	0	1	0	1
GOLDEN CRESCENT									
Calhoun	9	0	0	9	0	0	0	0	0
Goliad	0	0	0	0	0	0	0	0	0
Jackson	0	0	0	0	0	0	0	0	0
Victoria	0	0	0	0	0	0	0	0	0
Sub-total	9	0	0	9	0	0	0	0	0

(continued)

Table IRD-13. (continued)

Planning region/county	Manufacturing, durable goods (3)	D-T-E	D-T-W	D-M-E	D-M-W	R-T-E	R-T-W	R-M-E	R-M-W
COASTAL BEND									
Aransas	0	0	0	0	0	0	0	0	0
Bee	0	0	0	0	0	0	0	0	0
Brooks	0	0	0	0	0	0	0	0	0
Jim Wells	0	0	0	0	0	0	0	0	0
Kenedy	0	0	0	0	0	0	0	0	0
Kleberg	0	0	0	0	0	0	0	0	0
Nueces	2	0	0	1	0	0	0	1	0
Refugio	0	0	0	0	0	0	0	0	0
San Patricio	0	0	0	0	0	0	0	0	0
Sub-total	2	0	0	1	0	0	0	1	0
LOWER RIO GRANDE VALLEY									
Cameron	1	0	0	1	0	0	0	0	0
Hidalgo	0	0	0	0	0	0	0	0	0
Willacy	0	0	0	0	0	0	0	0	0
Sub-total	1	0	0	1	0	0	0	0	0
TBIE STUDY AREA	79	12	38	25	1	0	1	1	1

Planning region/county	Transportation & public utilities (4)	D-T-E	D-T-W	D-M-E	D-M-W	R-T-E	R-T-W	R-M-E	R-M-W
GULF COAST									
Brazoria	47	17	4	10	6	8	2	0	0
Chambers	30	17	1	10	0	2	0	0	0

(continued)

Table IRD-13. (continued)

Planning region/county	Transportation & public utilities (4)	D-T-E	D-T-W	D-M-E	D-M-W	R-T-E	R-T-W	R-M-E	R-M-W
GULF COAST (cont.)									
Fort Bend	45	22	15	1	3	0	4	0	0
Galveston	62[d]	24	5	16	6	4	7	0	0
Harris	503[d]	24	370	7	65	1	27	0	1
Liberty	17	10	4	1	1	1	0	0	0
Matagorda	20	8	2	6	0	4	0	0	0
Wharton	9	5	0	3	1	0	0	0	0
Sub-total	733	127	401	54	82	20	40	0	1
GOLDEN CRESCENT									
Calhoun	11[e]	1	2	3	1	3	0	0	0
Goliad	0	0	0	0	0	0	0	0	0
Jackson	6[f]	5	0	0	0	1	0	0	0
Victoria	30[f]	8	2	6	0	10	0	0	0
Sub-total	47	14	4	9	1	14	0	0	0
COASTAL BEND									
Aransas	5	2	0	1	0	2	0	0	0
Bee	2	1	0	0	1	0	0	0	0
Brooks	2	0	0	0	0	1	1	0	0
Jim Wells	5	4	0	0	0	1	0	0	0
Kenedy	0	0	0	0	0	0	0	0	0
Kleberg	4	3	0	0	0	1	0	0	0
Nueces	57[g]	8	13	15	3	10	1	0	0
Refugio	4	4	0	0	0	1	0	0	0
San Patricio	21	8	1	3	2	7	0	0	0
Sub-total	100	30	14	19	6	23	2	0	0

(continued)

Table IRD-13. (continued)

Planning region/county	Transportation & public utilities (4)	D-T-E	D-T-W	D-M-E	D-M-W	R-T-E	R-T-W	R-M-E	R-M-W
LOWER RIO GRANDE VALLEY									
Cameron	44[h]	8	7	7	7	10	3	0	0
Hidalgo	27	14	11	0	0	1	1	0	0
Willacy	0	0	0	0	0	0	0	0	0
Sub-total	71	22	18	7	7	11	4	0	0
TBIE STUDY AREA	1651	193	437	89	96	68	46	0	1

Planning region/county	Wholesale & retail trade (5)	D-T-E	D-T-W	D-M-E	D-M-W	R-T-E	R-T-W	R-M-E	R-M-W
GULF COAST									
Brazoria	0	0	0	0	0	0	0	0	0
Chambers	0	0	0	0	0	0	0	0	0
Fort Bend	0	0	0	0	0	0	0	0	0
Galveston	2	0	0	0	2	0	0	0	0
Harris	10	1	7	0	2	0	0	0	0
Liberty	0	0	0	0	0	0	0	0	0
Matagorda	0	0	0	0	0	0	0	0	0
Wharton	0	0	0	0	0	0	0	0	0
Sub-total	12	1	7	0	4	0	0	0	0
GOLDEN CRESCENT									
Calhoun	0	0	0	0	0	0	0	0	0
Goliad	0	0	0	0	0	0	0	0	0
Jackson	0	0	0	0	0	0	0	0	0

(continued)

Table IRD-13. (continued)

Planning region/county	Wholesale & retail trade (5)	D-T-E	D-T-W	D-M-E	D-M-W	R-T-E	R-T-W	R-M-E	R-M-W
GOLDEN CRESCENT (cont.)									
Victoria	0	0	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0	0	0
COASTAL BEND									
Aransas	0	0	0	0	0	0	0	0	0
Bee	0	0	0	0	0	0	0	0	0
Brooks	0	0	0	0	0	0	0	0	0
Jim Wells	0	0	0	0	0	0	0	0	0
Kenedy	0	0	0	0	0	0	0	0	0
Kleberg	0	0	0	0	0	0	0	0	0
Nueces	0	0	0	0	0	0	0	0	0
Refugio	0	0	0	0	0	0	0	0	0
San Patricio	0	0	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0	0	0
LOWER RIO GRANDE VALLEY									
Cameron	0	0	0	0	0	0	0	0	0
Hidalgo	0	0	0	0	0	0	0	0	0
Willacy	0	0	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0	0	0
TBIE STUDY AREA	12	1	7	0	4	0	0	0	0

(continued)

Table IRD-13. (continued)

Planning region/county	Services (7)	D-T-E	D-T-W	D-M-E	D-M-W	R-T-E	R-T-W	R-M-E	R-M-W
GULF COAST									
Brazoria	1	0	0	0	0	0	1	0	0
Chambers	0	0	0	0	0	0	0	0	0
Fort Bend	0	0	0	0	0	0	0	0	0
Galveston	0	0	0	0	0	0	0	0	0
Harris	6	0	4	0	0	0	1	0	0
Liberty	0	0	0	0	0	0	0	0	0
Matagorda	0	0	0	0	0	0	0	0	0
Wharton	0	0	0	0	0	0	0	0	0
Sub-total	7	0	4	0	0	0	2	0	0
GOLDEN CRESCENT									
Calhoun	0	0	0	0	0	0	0	0	0
Goliad	0	0	0	0	0	0	0	0	0
Jackson	0	0	0	0	0	0	0	0	0
Victoria	0	0	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0	0	0
COASTAL BEND									
Aransas	0	0	0	0	0	0	0	0	0
Bee	0	0	0	0	0	0	0	0	0
Brooks	0	0	0	0	0	0	0	0	0
Jim Wells	0	0	0	0	0	0	0	0	0
Kenedy	0	0	0	0	0	0	0	0	0
Kleberg	0	0	0	0	0	0	0	0	0
Nueces	0	0	0	0	0	0	0	0	0
Refugio	0	0	0	0	0	0	0	0	0
San Patricio	0	0	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0	0	0

(continued)

Table IRD-13. (concluded)

Planning region/county	Services (7)	D-T-E	D-T-W	D-M-E	D-M-W	R-T-E	R-T-W	R-M-E	R-M-W
LOWER RIO GRANDE VALLEY									
Cameron	0	0	0	0	0	0	0	0	0
Hidalgo	0	0	0	0	0	0	0	0	0
Willacy	0	0	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0	0	0
TBIE STUDY AREA	7	0	4	0	0	0	2	0	0

[a]Key: D = Discharged
R = Retained
M = Mainstream
T = Tributary
E = Effluent limited
W = Water quality

[b]1 In plant.
[c]1 Refinery.
[d]Harris - 8 in plant.
[e]Calhoun - 1 in plant.
[f]Victoria - 4 in plant.
[g]Nueces - 7 in plant.
[h]Cameron - 2 in plant.

Table IRD-14a. Standard Industrial Classification by three-digit code (Directory of Texas manufacturers 1977).

Three-digit SIC code	Industrial sector
021	Livestock, except dairy, poultry and animal specialities.
024	Dairy farms.
025	Poultry and eggs.
072	Crop services.
091	Commercial fishing.
109	Miscellaneous metal ores.
132	Natural gas liquids.
138	Oil and gas field services.
142	Crushed and broken stone including riprap.
144	Sand and gravel.
147	Chemicals and fertilizer mineral mining.
203	Canned and preserved fruits and vegetables.
204	Grain mill products.
206	Sugar and confectionary products.
208	Beverages.
209	Miscellaneous food preparations and kindred products.
243	Millwork, veneer, plywood and structural wood members.
262	Paper mills, except building paper mills.
264	Converted paper and paper board products, except containers and boxes.
265	Paperboard containers and boxes.
280	Chemicals and allied products.

(continued)

Table IRD-14a. (continued)

Three-digit SIC code	Industrial sector
281	Industrial inorganic chemicals.
282	Plastics materials and synthetic resins, synthetic rubber, synthetic and other man-made fibers, except glass.
283	Drugs.
284	Soap, detergents and cleaning preparations, perfumes, cosmetics and other toilet products.
285	Paints, varnishes, laquers, enamels, and allied products.
286	Industrial organic chemicals.
287	Agricultural chemicals.
289	Miscellaneous chemical products.
291	Petroleum refining.
295	Paving and roofing materials.
299	Miscellaneous products of petroleum and coal.
306	Fabricated rubber products, not elsewhere classified.
307	Miscellaneous plastic products.
324	Cement, hydraulic.
327	Concrete, gypsum, and plastic products.
329	Abrasive, asbestos, and miscellaneous nonmetallic minerals.
331	Blast furnaces, steel works, and rolling and finishing mills.
332	Iron and steel foundries.
333	Primary smelting and refining of nonferrous metals.
334	Secondary smelting and refining of nonferrous metals.
335	Rolling, driving, and extruding of nonferrous metals.

(continued)

Table IRD-14a. (continued)

Three-digit SIC code	Industrial sector
336	Nonferrous foundries.
343	Heating equipment, except electric and warm air; and plumbing fixtures.
344	Fabricated structural metal products.
347	Coating, engraving, and allied services.
349	Miscellaneous fabricated metal products.
353	Construction, mining, and materials handling equipment and machinery.
355	Special industry machinery, except metalworking machinery.
356	General industrial machinery and equipment.
367	Electronic components and accessories.
373	Ship and boat building and repairing.
374	Railroad equipment.
401	Railroads.
420	Motor freight transportation and warehousing.
422	Public warehousing.
423	Terminal and joint terminal maintenance facilities for motor freight transportation.
446	Services incidental to water transportation.
461	Pipelines, except natural gas.
474	Rental of railroad cars.
478	Miscellaneous services incidental to transportation.
491	Electric services.

(continued)

Table IRD-14a. (concluded)

Three-digit SIC code	Industrial sector
493	Combination electric and gas, and other utilities.
494	Water supply.
495	Sanitary services.
496	Steam supply.
517	Petroleum and petroleum products.
721	Laundry, cleaning, and garment services.
739	Miscellaneous business services.
762	Electrical repair shops.
769	Miscellaneous repair shops and related services.

Table IRD-14b. Point source discharge sites by 3-digit Standard Industrial Classification (SIC) code in the TBIE study area, 1979 (Texas Department of Water Resources, Water and Wastewater Division 1979b).

Planning region/county	021	024	025	072	091	109	132	138	142	144	147
GULF COAST											
Brazoria	5	0	0	0	0	0	0	0	1	0	0
Chambers	0	0	0	0	0	0	0	0	0	0	0
Fort Bend	2	0	0	0	0	0	0	1	0	0	4
Galveston	0	0	0	0	0	0	0	0	0	0	0
Harris	1	0	0	0	0	0	3	0	0	0	4
Liberty	0	0	0	0	0	0	0	0	0	1	2
Matagorda	0	0	0	0	0	0	0	0	0	0	0
Wharton	0	0	0	0	0	0	0	0	0	0	3
Sub-total	8	0	0	0	0	0	3	1	1	1	13
GOLDEN CRESCENT											
Calhoun	0	0	0	0	0	0	0	0	0	0	0
Goliad	2	0	0	0	0	0	0	0	0	0	0
Jackson	0	0	0	0	0	0	0	1	0	0	0
Victoria	0	0	0	0	0	0	0	0	0	4	0
Sub-total	2	0	0	0	0	0	0	1	0	4	0
COASTAL BEND											
Aransas	1	0	0	0	1	0	0	0	0	0	0
Bee	0	0	0	0	0	1	0	0	0	0	0
Brooks	0	0	0	0	0	0	0	0	0	0	0
Jim Wells	1	0	0	0	0	0	0	0	0	0	0
Kenedy	0	0	0	0	0	0	0	0	0	0	0
Kleberg	1	0	0	0	0	0	0	0	0	0	0
Nueces	1	0	0	0	0	0	0	0	0	1	0
Refugio	0	0	0	0	0	0	0	0	0	0	0
San Patricio	1	0	1	0	0	0	0	0	0	0	0
Sub-total	5	0	1	0	1	1	0	0	0	1	0
LOWER RIO GRANDE VALLEY											
Cameron	2	2	0	1	0	0	0	0	0	0	0
Hidalgo	2	3	0	3	0	0	0	0	0	1	0
Willacy	0	0	0	0	0	0	0	0	0	0	0
Sub-total	4	5	0	4	0	0	0	0	0	1	0
TBIE STUDY AREA	19	5	1	4	1	1	3	2	1	7	13

(continued)

Table IRD-14b. Point source discharge sites by 3-digit Standard Industrial Classification (SIC) code in the TBIE study area, 1979 (Texas Department of Water Resources, Water and Wastewater Division 1979b).

Planning region/county	021	024	025	072	091	109	132	138	142	144	147
GULF COAST											
Brazoria	5	0	0	0	0	0	0	0	1	0	0
Chambers	0	0	0	0	0	0	0	0	0	0	0
Fort Bend	2	0	0	0	0	0	0	1	0	0	4
Galveston	0	0	0	0	0	0	0	0	0	0	0
Harris	1	0	0	0	0	0	3	0	0	0	4
Liberty	0	0	0	0	0	0	0	0	0	1	2
Matagorda	0	0	0	0	0	0	0	0	0	0	0
Wharton	0	0	0	0	0	0	0	0	0	0	3
Sub-total	8	0	0	0	0	0	3	1	1	1	13
GOLDEN CRESCENT											
Calhoun	0	0	0	0	0	0	0	0	0	0	0
Goliad	2	0	0	0	0	0	0	0	0	0	0
Jackson	0	0	0	0	0	0	0	1	0	0	0
Victoria	0	0	0	0	0	0	0	0	0	4	0
Sub-total	2	0	0	0	0	0	0	1	0	4	0
COASTAL BEND											
Aransas	1	0	0	0	1	0	0	0	0	0	0
Bee	0	0	0	0	0	1	0	0	0	0	0
Brooks	0	0	0	0	0	0	0	0	0	0	0
Jim Wells	1	0	0	0	0	0	0	0	0	0	0
Kenedy	0	0	0	0	0	0	0	0	0	0	0
Kleberg	1	0	0	0	0	0	0	0	0	0	0
Nueces	1	0	0	0	0	0	0	0	0	1	0
Refugio	0	0	0	0	0	0	0	0	0	0	0
San Patricio	1	0	1	0	0	0	0	0	0	0	0
Sub-total	5	0	1	0	1	1	0	0	0	1	0
LOWER RIO GRANDE VALLEY											
Cameron	2	2	0	1	0	0	0	0	0	0	0
Hidalgo	2	3	0	3	0	0	0	0	0	1	0
Willacy	0	0	0	0	0	0	0	0	0	0	0
Sub-total	4	5	0	4	0	0	0	0	0	1	0
TBIE STUDY AREA	19	5	1	4	1	1	3	2	1	7	13

(continued)

Table IRD-14b. (continued)

Planning region/county	282	283	284	285	286	287	289	291	295	299	306
GULF COAST											
Brazoria	2	1	0	0	16	0	0	14	0	0	0
Chambers	0	0	0	0	1	0	0	0	0	0	0
Fort Bend	0	0	0	0	0	0	1	0	0	0	0
Galveston	2	0	0	0	17	2	0	15	1	0	0
Harris	39	1	3	1	64	8	14	30	2	1	1
Liberty	0	0	1	0	0	0	0	0	0	0	0
Matagorda	0	0	0	0	2	1	0	0	0	0	0
Wharton	0	0	0	0	0	0	0	0	0	0	0
Sub-total	43	2	4	1	100	11	15	59	3	1	1
GOLDEN CRESCENT											
Calhoun	1	0	0	0	6	0	0	0	0	0	0
Goliad	0	0	0	0	0	0	0	0	0	0	0
Jackson	0	0	0	0	0	0	0	0	0	0	0
Victoria	4	0	0	0	2	0	0	0	0	0	0
Sub-total	5	0	0	0	8	0	0	0	0	0	0
COASTAL BEND											
Aransas	0	0	0	0	0	0	3	0	0	0	0
Bee	0	0	0	0	0	0	0	0	0	0	0
Brooks	0	0	0	0	0	0	0	0	0	0	0
Jim Wells	0	0	0	0	0	0	0	0	0	0	0
Kenedy	0	0	0	0	1	0	0	0	0	0	0
Kleberg	0	0	0	0	0	0	0	0	0	0	0
Nueces	0	0	0	0	3	0	0	18	0	0	0
Refugio	0	0	0	0	0	0	0	0	0	0	0
San Patricio	0	0	0	0	2	0	0	2	0	0	0
Sub-total	0	0	0	0	6	0	3	20	0	0	0
LOWER RIO GRANDE VALLEY											
Cameron	0	0	0	0	1	0	0	0	0	0	0
Hidalgo	0	0	0	0	0	0	0	2	0	0	0
Willacy	0	0	0	0	0	0	0	0	0	0	0
Sub-total	0	0	0	0	1	0	0	2	0	0	0
TBIE STUDY AREA	48	2	4	1	115	11	18	81	3	1	1

(continued)

Table IRD-14b. (continued)

Planning region/county	307	324	327	329	331	332	333	334	335	336	343
GULF COAST											
Brazoria	0	0	0	1	0	0	11	0	0	11	0
Chambers	0	0	0	0	2	0	0	0	0	0	0
Fort Bend	0	0	0	0	3	0	0	0	0	0	0
Galveston	0	0	0	0	0	0	0	4	0	0	0
Harris	1	11	3	3	22	1	0	0	0	0	1
Liberty	0	0	0	0	1	0	0	0	0	0	0
Matagorda	0	0	0	0	0	0	0	0	0	0	0
Wharton	0	0	0	0	0	0	0	0	3	0	0
Sub-total	1	11	3	4	28	1	11	4	3	11	1
GOLDEN CRESCENT											
Calhoun	0	0	0	0	0	0	9	0	0	0	0
Goliad	0	0	0	0	0	0	0	0	0	0	0
Jackson	0	0	0	0	0	0	0	0	0	0	0
Victoria	0	0	0	0	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	9	0	0	0	0
COASTAL BEND											
Aransas	0	0	0	0	0	0	0	0	0	0	0
Bee	0	0	0	0	0	0	0	0	0	0	0
Brooks	0	0	0	0	0	0	0	0	0	0	0
Jim Wells	0	0	0	0	0	0	0	0	0	0	0
Kenedy	0	0	0	0	0	0	0	0	0	0	0
Kleberg	0	0	0	0	0	0	0	0	0	0	0
Nueces	0	1	0	0	0	0	1	0	0	0	0
Refugio	0	0	0	0	0	0	0	0	0	0	0
San Patricio	0	0	0	0	0	0	0	0	0	0	0
Sub-total	0	1	0	0	0	0	1	0	0	0	0
LOWER RIO GRANDE VALLEY											
Cameron	0	0	0	0	0	0	0	0	0	0	0
Hidalgo	0	0	0	0	0	0	0	0	0	0	0
Willacy	0	0	0	0	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0	0	0	0	0
TBIE STUDY AREA	1	12	3	4	28	1	21	4	3	11	1

(continued)

Table IRD-14b. (continued)

Planning region/county	344	347	349	353	355	356	367	373	374	401	420
GULF COAST											
Brazoria	0	0	0	0	0	0	0	0	1	0	0
Chambers	0	0	0	0	0	0	0	0	0	0	0
Fort Bend	0	0	0	0	0	0	1	0	0	0	0
Galveston	0	0	0	0	0	0	0	0	0	0	0
Harris	2	5	1	7	1	2	0	1	0	8	2
Liberty	0	0	0	0	0	0	0	0	0	0	0
Matagorda	0	0	0	0	0	0	0	0	0	0	0
Wharton	0	0	0	0	0	0	0	0	0	0	0
Sub-total	2	5	1	7	1	2	1	1	1	8	2
GOLDEN CRESCENT											
Calhoun	0	0	0	0	0	0	0	0	0	0	0
Goliad	0	0	0	0	0	0	0	0	0	0	0
Jackson	0	0	0	0	0	0	0	0	0	0	0
Victoria	0	0	0	0	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0	0	0	0	0
COASTAL BEND											
Aransas	0	0	0	0	0	0	0	0	0	0	0
Bee	0	0	0	0	0	0	0	0	0	0	0
Brooks	0	0	0	0	0	0	0	0	0	0	0
Jim Wells	0	0	0	0	0	0	0	0	0	0	0
Kenedy	0	0	0	0	0	0	0	0	0	0	0
Kleberg	0	0	0	0	0	0	0	0	0	0	0
Nueces	0	0	0	0	0	0	0	0	0	0	0
Refugio	0	0	0	0	0	0	0	0	0	0	0
San Patricio	0	0	0	0	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0	0	0	0	0
LOWER RIO GRANDE VALLEY											
Cameron	0	0	0	0	0	0	0	1	0	0	0
Hidalgo	0	0	0	0	0	0	0	0	0	0	0
Willacy	0	0	0	0	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0	1	0	0	0
TBIE STUDY AREA	2	5	1	7	1	2	1	2	1	8	2

(continued)

Table IRD-14b. (continued)

Planning region/county	422	423	446	461	474	478	491	493	494	495	496
GULF COAST											
Brazoria	0	1	2	1	0	0	2	0	0	41	0
Chambers	0	0	0	0	0	0	5	0	0	26	0
Fort Bend	0	0	0	0	0	0	8	0	0	37	0
Galveston	1	0	1	1	0	0	4	0	0	54	0
Harris	0	2	8	5	1	1	31	2	0	443	2
Liberty	0	0	0	0	0	0	0	0	0	17	0
Matagorda	0	0	0	0	0	0	4	0	0	16	0
Wharton	0	0	0	0	0	0	0	0	0	9	0
Sub-total	1	3	11	7	1	1	54	2	0	643	2
GOLDEN CRESCENT											
Calhoun	0	0	0	0	0	0	2	0	0	10	0
Goliad	0	0	0	0	0	0	3	0	0	3	0
Jackson	0	0	0	0	0	0	0	0	0	6	0
Victoria	0	0	0	0	0	0	8	0	0	22	0
Sub-total	0	0	0	0	0	0	13	0	0	41	0
COASTAL BEND											
Aransas	0	0	0	0	0	0	0	0	1	4	0
Bee	0	0	0	0	0	0	0	0	0	2	0
Brooks	0	0	0	0	0	0	0	0	0	2	0
Jim Wells	0	0	0	0	0	0	0	0	0	5	0
Kenedy	0	0	0	0	0	0	0	0	0	0	0
Kleberg	0	0	0	0	0	0	0	0	0	4	0
Nueces	0	0	7	0	0	0	11	0	1	38	0
Refugio	0	0	0	0	0	0	0	0	0	5	0
San Patricio	0	0	1	0	0	0	0	0	1	19	0
Sub-total	0	0	8	0	0	0	11	0	3	79	0
LOWER RIO GRANDE VALLEY											
Cameron	0	0	2	0	0	0	5	0	4	33	0
Hidalgo	0	0	0	0	0	0	3	0	6	18	0
Willacy	0	0	0	0	0	0	0	0	2	4	0
Sub-total	0	0	2	0	0	0	8	0	12	55	0
TBIE STUDY AREA	1	3	21	7	1	1	86	2	15	818	2

(continued)

Table IRD-14b. (concluded)

Planning region/county	517	721	739	762	769	Total discharge sites permitted
GULF COAST						
Brazoria	0	0	0	0	1	142
Chambers	0	0	0	0	0	34
Fort Bend	0	0	0	0	0	60
Galveston	2	0	0	0	0	116
Harris	10	2	2	1	1	803
Liberty	0	0	0	0	0	20
Matagorda	0	0	0	0	0	26
Wharton	0	0	0	0	0	15
Sub-total	12	2	2	1	2	1,216
GOLDEN CRESCENT						
Calhoun	0	0	0	0	0	34
Goliad	0	0	0	0	0	8
Jackson	0	0	0	0	0	7
Victoria	0	0	0	0	0	41
Sub-total	0	0	0	0	0	90
COASTAL BEND						
Aransas	0	0	0	0	0	17
Bee	0	0	0	0	0	3
Brooks	0	0	0	0	0	2
Jim Wells	0	0	0	0	0	6
Kenedy	0	0	0	0	0	1
Kleberg	0	0	0	0	0	5
Nueces	0	0	0	0	0	91
Refugio	0	0	0	0	0	5
San Patricio	0	0	0	0	0	30
Sub-total	0	0	0	0	0	160
LOWER RIO GRANDE VALLEY						
Cameron	0	0	0	0	0	64
Hidalgo	0	0	0	0	0	43
Willacy	0	0	0	0	0	6
Sub-total	0	0	0	0	0	113
TBIE STUDY AREA	12	2	2	1	2	1,579

Table IRD-15. Comparison summary of continuous air monitoring station data with national ambient air quality standards, 1978 (Texas Air Control Board 1979).

Air quality control region number	Station location	CAMS[a] number	Ozone-second highest hr	Ozone-percent of time 0.12 ppm	Carbon monoxide 2nd highest hr	Carbon monoxide 2nd highest 8 hr (non-overlapping)
	Maximum allowable by ambient air standards (parts per million)		0.12	0.0	35.0	9.0
5	Corpus Christi, Urban	4	0.16	0.2	9.3	3.7
	Corpus Christi, Downwind	21	0.14	0.1	0.0	0.0
7	Houston, East	1	0.21	0.6	11.8	5.9
	Harris County, Aldine	8	0.21	1.5	10.6	5.6
	Texas City	10	0.29	0.9	4.8	2.4
	Clute (Freeport)	11	0.16	0.4	6.4	2.8
	Seabrook[b]	20	0.00	0.0	0.0	0.0

(continued)

Table IRD-15. (concluded)

Air quality control region number	Station location	CAMS[a] number	Nonmethane hydrocarbons 6-9 AM 2nd high	Sulfur dioxide 2nd highest 24 hr	Sulfur dioxide annual mean	Sulfur dioxide 2nd highest 3 hr (non-overlapping)	Nitrogen dioxide annual mean
	Maximum allowable by ambient air standards (parts per million)		0.24	0.14	0.03	0.50	0.05
5	Corpus Christi, Urban	4	3.5	0.03	0.00	0.15	0.01
	Corpus Christi, Downwind	21	0.0	0.01	0.00	0.08	0.00
7	Houston, East	1	4.6	0.03	0.00	0.04	0.03
	Harris County, Aldine	8	4.2	0.02	0.00	0.03	0.02
	Texas City	10	2.2	0.01	0.00	0.04	0.02
	Clute (Freeport)	11	2.6	0.00	0.00	0.00	0.02
	Seabrook[b]	20	0.0	0.00	0.00	0.00	0.00

[a]Continuous air monitoring station.
[b]CAMS 20 was relocated from Dallas to Seabrook. Seabrook operation began December 8, 1978.

Table IRD-16. Industrial solid waste disposal sites in the TBIE study area, 1979 (Texas Department of Water Resources 1980; U.S. Congress, House of Representatives 1979).

Planning region/county	Number disposal sites	Number sites in use	Number[a] sites out of use	Number sites closed	Amount[b] of waste (hundreds of tons)
GULF COAST					
Brazoria	19	9	10	3	20,989.4
Chambers	0	0	0	0	0.0
Fort Bend	4	2	2	1	2.0
Galveston	15	13	2	1	245,538.9
Harris	97	63	34	3	323,555.6
Liberty	2	1	1	0	N.D.
Matagorda	1	1	0	0	7,947.0
Wharton	0	0	0	0	0.0
Sub-total	138	89	49	8	598,032.9
GOLDEN CRESCENT					
Calhoun	1	1	0	0	3,511.0
Goliad	0	0	0	0	0.0
Jackson	0	0	0	0	0.0
Victoria	1	1	0	0	25.0
Sub-total	2	2	0	0	3,536.0
COASTAL BEND					
Aransas	0	0	0	0	0.0
Bee	0	0	0	0	0.0
Brooks	0	0	0	0	0.0
Kenedy	0	0	0	0	0.0
Kleberg	0	0	0	0	0.0
Nueces	10	10	0	0	26,857.3
Refugio	0	0	0	0	0.0
San Patricio	1	1	0	0	990.0
Sub-total	11	11	0	0	27,847.3
LOWER RIO GRANDE VALLEY					
Cameron	0	0	0	0	0.0
Hidalgo	0	0	0	0	0.0
Willacy	0	0	0	0	0.0
Sub-total	0	0	0	0	0.0
TBIE STUDY AREA	151	102	49	8	629,416.2

[a]Includes closed sites as well as open sites no longer in use.
[b]Figures (as of 1978) represent only a partial total due to incomplete data.

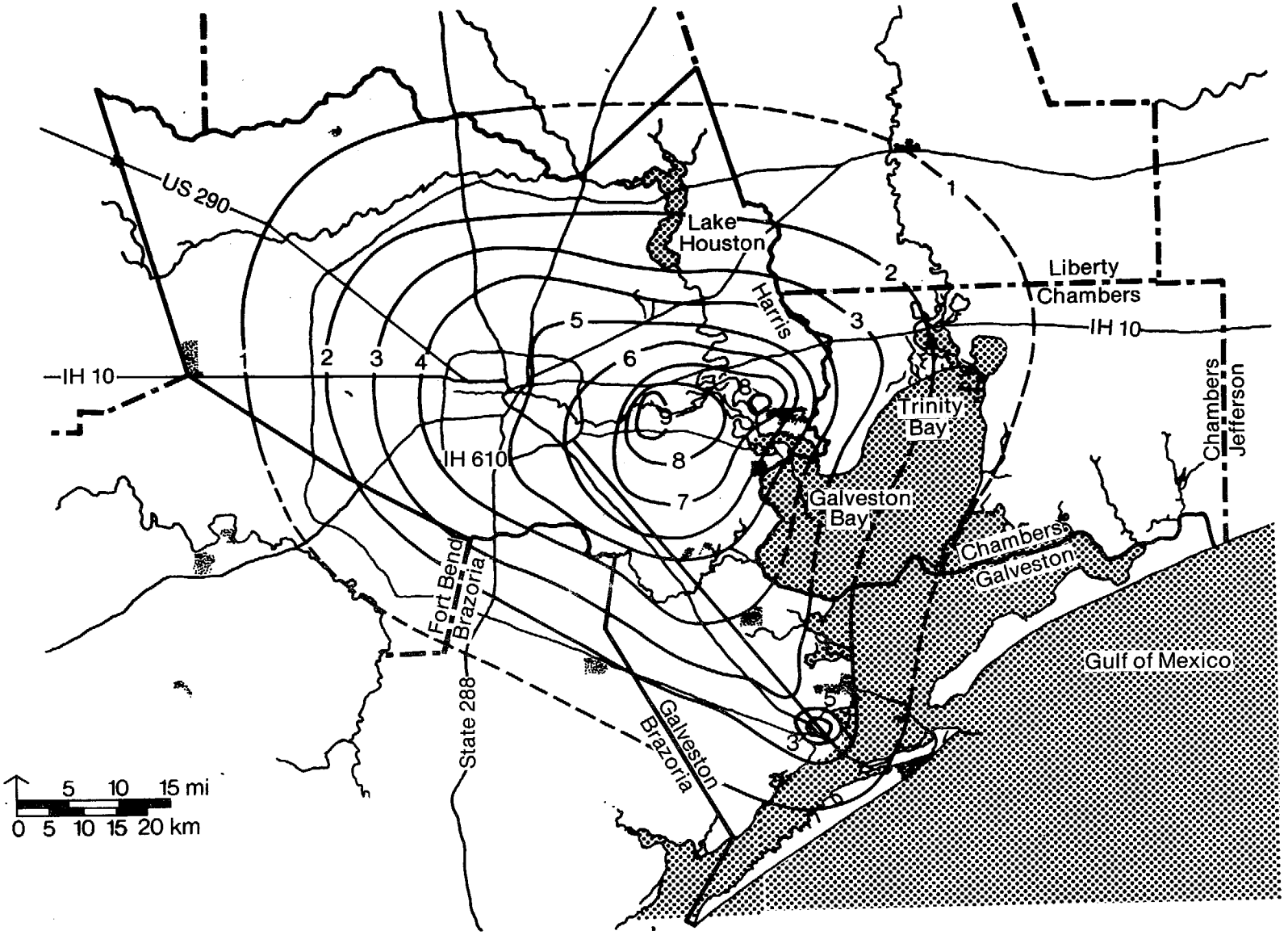


Figure IRD-4. Land-surface subsidence in the Houston-Galveston area, 1906 through 1978 (Verbeek 1978).

LAND USE PRACTICES AND MANAGEMENT (LU)

Table LU-1. TBIE land use in hectares (acres), 1976 (Kier et al. 1977).

Planning region/county	Surface water storage areas	Wildlife refuges, forests and parks	Urban areas	Made land and subaerial spoil	Subaqueous spoil	Total
GULF COAST						
Brazoria	8,547 (21,120)	13,986 (34,560)	14,245 (35,200)	2,331 (5,760)	259 (640)	39,368 (97,280)
Chambers	11,137 (27,520)	4,144 (10,240)	777 (1,920)	259 (640)	2,072 (5,120)	18,389 (45,440)
Fort Bend	777 (1,920)	2,072 (5,120)	5,957 (14,720)	0 (0)	0 (0)	8,806 (21,760)
Galveston	1,813 (4,480)	777 (1,920)	14,504 (35,840)	4,921 (12,160)	3,367 (8,320)	25,382 (62,720)
Harris	11,914 (29,440)	518 (1,280)	125,617 (310,400)	1,295 (3,200)	259 (640)	139,603 (344,960)
Liberty	2,331 (5,760)	0 (0)	1,554 (3,840)	0 (0)	0 (0)	3,885 (9,600)
Matagorda	3,367 (8,320)	0 (0)	1,554 (3,840)	3,108 (7,680)	2,849 (7,040)	10,878 (26,880)
Wharton	259 (640)	0 (0)	1,295 (3,200)	0 (0)	0 (0)	1,554 (3,840)
Sub-total	40,146 (99,200)	21,497 (53,120)	165,504 (408,960)	11,914 (29,440)	8,806 (21,760)	247,867 (612,480)
GOLDEN CRESCENT						
Calhoun	4,662 (11,520)	777 (1,920)	777 (1,920)	777 (1,920)	5,698 (14,080)	12,691 (31,360)
Golidad	0 (0)	0 (0)	259 (640)	0 (0)	0 (0)	259 (640)
Jackson	1,036 (2,560)	0 (0)	518 (1,280)	0 (0)	0 (0)	1,554 (3,840)
Victoria	1,554 (3,840)	0 (0)	1,295 (3,200)	0 (0)	0 (0)	2,849 (7,040)
Sub-total	7,252 (17,920)	777 (1,920)	2,849 (7,040)	777 (1,920)	5,698 (14,080)	17,353 (42,880)

(continued)

Table LU-1. (concluded)

Planning region/county	Surface water storage areas	Wildlife refuges, forests and parks	Urban areas	Made land and subaerial spoil	Subaqueous spoil	Total
COASTAL BEND						
Aransas	1,554	20,979	259	518	1,295	24,605
	(3,840)	(51,840)	(640)	(1,280)	(3,200)	(60,800)
Bee	0	0	1,295	0	0	1,295
	(0)	(0)	(3,200)	(0)	(0)	(3,200)
Brooks	0	0	1,036	0	0	1,036
	(0)	(0)	(2,560)	(0)	(0)	(2,560)
Jim Wells	777	0	1,295	0	0	2,072
	(1,920)	(0)	(3,200)	(0)	(0)	(5,120)
Kenedy	1,036	37,815	0	6,216	2,590	47,657
	(2,560)	(93,440)	(0)	(15,360)	(6,400)	(117,760)
Kleberg	5,180	15,799	1,813	1,036	1,813	25,641
	(12,800)	(39,040)	(4,480)	(2,560)	(4,480)	(63,360)
Nueces	1,036	1,554	12,950	4,662	3,885	24,087
	(2,560)	(3,840)	(32,000)	(11,520)	(9,600)	(59,520)
Refugio	777	0	1,036	0	0	1,813
	(1,920)	(0)	(2,560)	(0)	(0)	(4,480)
San Patricio	2,849	5,698	2,072	259	0	10,878
	(7,040)	(14,080)	(5,120)	(640)	(0)	(26,880)
Sub-total	13,209	81,845	21,756	12,691	9,583	139,085
	(32,640)	(202,240)	(53,760)	(31,360)	(23,680)	(343,680)
LOWER RIO GRANDE VALLEY						
Cameron	2,849	18,907	5,698	3,885	1,036	36,422
	(7,040)	(46,720)	(14,080)	(9,600)	(2,560)	(80,000)
Hidalgo	1,813	259	11,137	0	0	13,209
	(4,480)	(640)	(27,520)	(0)	(0)	(32,640)
Willacy	1,295	3,885	1,295	777	1,036	8,288
	(3,200)	(9,600)	(3,200)	(1,920)	(2,560)	(20,480)
Sub-total	5,957	23,051	18,130	4,662	2,072	53,873
	(14,720)	(56,960)	(44,800)	(11,520)	(5,120)	(133,120)
TBIE STUDY AREA	66,564	127,170	208,239	30,045	26,159	458,177
	(164,480)	(314,240)	(514,560)	(74,240)	(64,640)	(1,132,160)

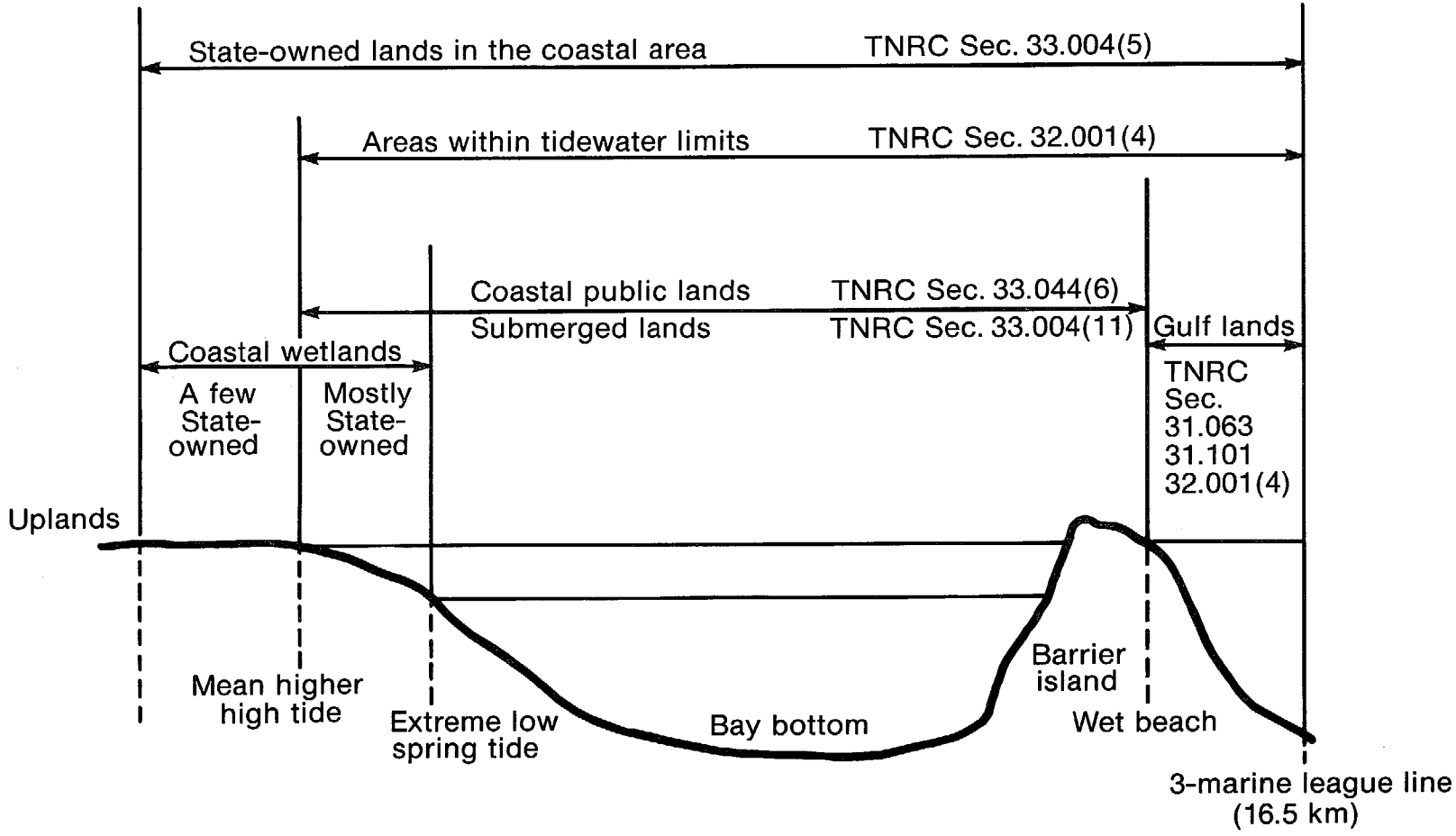


Figure LU-1. State-owned coastal lands and legal authority for ownership (Research and Planning Consultants, Inc. 1978).

Table LU-2. TBIE land use: agricultural, forest, urban, public and recreational lands, in hectares (acres), 1976 (Fisher et al. 1972, Brown et al. 1976, McGowen et al. 1976a, McGowen et al. 1976b, Brown et al. 1977, Brown et al. 1980).

Land use category	Hectares (acres)[a,b]
Agricultural lands[c]	1,153,263 (2,849,712)
Range land[d]	1,462,792 (3,614,560)
Total agricultural lands	2,616,055 (6,464,272)
Woodland-timber[e]	306,688 (757,824)
Swamp timber[f]	12,795 (31,616)
Total forest	319,483 (789,440)
Saline and brackish water marsh[g]	66,564 (164,480)
Fresh water marsh[h]	27,273 (67,388)
Total marsh	93,837 (231,868)
Residential-urban[i]	80,527 (198,982)
Industrial[j]	13,680 (33,804)
Undifferentiated urban[k]	15,048 (37,184)
Total urban	109,255 (269,970)
Park and recreational facilities[l]	40,331 (99,658)
Wildlife refuge[m]	51,361 (126,912)
General recreational land[n]	5,361 (13,248)
Total recreational land	97,053 (239,818)
Government land[o]	43,488 (107,459)
Total public land	140,541 (347,277)

(continued)

Table LU-2. (continued)

Land use category	Hectares (acres)[a,b]
Made land[p]	6,400 (15,814)
Oil and gas fields[q]	390,715 (965,456)
Other[r]	512,317 (1,265,935)
Total land area	4,188,601 (10,350,034)

Land use category	Gulf Coast Planning Region		
	Brazoria[a]	Chambers[a]	Fort Bend[a]
Agricultural lands[c]	140,380 (346,880)	100,805 (249,088)	41,052 (101,440)
Rangeland[d]	80,939 (200,000)	24,087 (59,520)	37,245 (92,032)
Total agricultural lands	221,319 (546,880)	124,892 (308,608)	78,297 (193,472)
Woodland-timber[e]	81,327 (200,960)	14,504 (35,840)	20,979 (51,840)
Swamp timber[f]	2,202 (5,440)	2,331 (5,760)	648 (1,600)
Total forest	83,529 (206,400)	16,835 (41,600)	21,627 (53,440)
Saline and brackish water marsh[g]	10,308 (25,472)	14,375 (35,520)	0 (0)
Fresh water marsh[h]	3,132 (7,740)	2,150 (5,312)	104 (256)
Total marsh	13,441 (33,212)	16,524 (40,832)	104 (256)
Residential-urban[i]	4,992 (18,560)	2,072 (5,120)	725 (1,792)
Industrial[j]	2,020 (4,992)	130 (320)	259 (640)
Undifferentiated urban[k]	78 (192)	0 (0)	207 (512)

(continued)

Table LU-2. (continued)

Land use category	Gulf Coast Planning Region		
	Brazoria[a]	Chambers[a]	Fort Bend[a]
Total urban	9,609 (23,744)	2,202 (5,440)	1,191 (2,944)
Park and recreational facilities[l]	130 (320)	11 (28)	0 (0)
Wildlife refuge[m]	12,380 (30,592)	4,015 (9,920)	0 (0)
General recreational land[n]	777 (1,920)	26 (64)	0 (0)
Total recreational land	13,287 (32,832)	4,052 (10,012)	0 (0)
Government land[o]	15,670 (38,720)	0 (0)	2,072 (5,120)
Total public land	28,957 (71,552)	4,052 (10,012)	2,072 (5,120)
Made land[p]	699 (1,728)	0 (0)	0 (0)
Oil and gas fields[q]	34,914 (86,272)	27,454 (67,840)	7,382 (18,240)
Other[r]	38,203 (94,400)	18,214 (45,006)	8,366 (20,672)
Total land area	430,671 (1,064,188)	210,173 (519,338)	119,038 (294,144)

Land use category	Gulf Coast Planning Region		
	Galveston[a]	Harris[a]	Liberty[a]
Agricultural lands[c]	44,549 (110,080)	40,923 (101,120)	44,367 (109,632)
Rangeland[d]	38,177 (94,336)	30,563 (75,520)	11,008 (27,200)
Total agricultural lands	82,726 (204,416)	71,485 (176,640)	55,375 (136,832)

(continued)

Table LU-2. (continued)

Land use category	Gulf Coast Planning Region		
	Galveston[a]	Harris[a]	Liberty[a]
Woodland-timber[e]	518	13,727	44,549
	(1,280)	(33,920)	(110,080)
Swamp timber[f]	0	2,331	3,963
	(0)	(5,760)	(9,792)
Total forest	518	16,058	48,512
	(1,280)	(39,680)	(119,872)
Saline and brackish water marsh[g]	7,511	777	0
	(18,560)	(1,920)	(0)
Fresh water marsh[h]	0	259	1,036
	(0)	(640)	(2,560)
Total marsh	7,511	1,036	1,036
	(18,560)	(2,560)	(2,560)
Residential-urban[i]	8,444	23,569	1,735
	(20,864)	(58,240)	(4,288)
Industrial[j]	2,077	4,662	26
	(5,132)	(11,520)	(64)
Undifferentiated urban[k]	259	13,209	0
	(640)	(32,640)	(0)
Total urban	10,780	41,441	1,761
	(26,636)	(102,400)	(4,352)
Park and recreational facilities[l]	130	777	130
	(320)	(1,920)	(320)
Wildlife refuge[m]	259	777	0
	(640)	(1,920)	(0)
General recreational land[n]	881	78	0
	(2,176)	(192)	(0)
Total recreational land	1,269	1,632	130
	(3,136)	(4,032)	(320)
Government land[o]	1,554	3,367	0
	(3,840)	(8,320)	(0)
Total public land	2,823	4,999	130
	(6,976)	(12,352)	(320)

(continued)

Table LU-2. (continued)

Land use category	Gulf Coast Planning Region		
	Galveston	Harris	Liberty
Made land[p]	2,331 (5,760)	207 (512)	0 (0)
Oil and gas fields[q]	16,913 (41,792)	6,216 (15,360)	5,957 (14,720)
Other[r]	22,844 (56,448)	40,534 (100,160)	7,589 (18,752)
Total land area	146,446 (361,868)	181,977 (449,664)	120,359 (297,408)

Land use category	Gulf Coast Planning Region		
	Matagorda	Wharton	Total
Agricultural land[c]	54,883 (135,616)	56,463 (139,520)	523,422 (1,293,376)
Rangeland[d]	166,462 (411,328)	43,849 (108,352)	432,330 (1,068,288)
Total agricultural land	221,345 (546,949)	100,312 (247,872)	955,752 (2,361,664)
Woodland-timber[e]	47,735 (117,952)	19,244 (47,552)	242,584 (599,424)
Swamp timber[f]	518 (1,280)	259 (640)	12,251 (30,272)
Total forest	48,253 (119,232)	19,503 (48,192)	254,835 (629,696)
Saline and brackish water marsh[g]	13,261 (32,768)	0 (0)	46,232 (114,240)
Fresh water marsh[h]	803 (1,984)	0 0	7,484 (18,492)
Total marsh	14,064 (34,752)	0 (0)	53,716 (132,732)
Residential-urban[i]	2,437 (6,022)	2,590 (6,400)	49,084 (121,286)

(continued)

Table LU-2. (continued)

Land use category	Gulf Coast Planning Region		
	Matagorda	Wharton	Total
Industrial[j]	78 (192)	0 (0)	9,251 (22,860)
Undifferentiated urban[k]	0 (0)	0 (0)	13,753 (33,984)
Total urban	2,515 (6,214)	2,590 (6,400)	72,088 (178,130)
Park and recreational facilities[l]	0 (0)	0 (0)	1,177 (2,908)
Wildlife refuge[m]	0 (0)	0 (0)	17,431 (43,072)
General recreational land[n]	1,502 (3,712)	0 (0)	3,263 (8,064)
Total recreational land	1,502 (3,712)	0 (0)	21,871 (54,044)
Government land[o]	466 (1,152)	0 (0)	23,129 (57,152)
Total public land	1,968 (4,864)	0 (0)	45,000 (11,196)
Made land[p]	103 (256)	0 (0)	3,341 (8,256)
Oil and gas field[q]	4,562 (11,272)	19,425 (48,000)	122,823 (303,496)
Other[r]	19,270 (47,616)	7,602 (18,784)	162,622 (401,838)
Total land area	312,080 (771,150)	149,433 (369,248)	1,670,177 (4,127,008)

Land use category	Golden Crescent Planning Region		
	Calhoun[a]	Goliad[a]	Jackson[a]
Agricultural lands[c]	39,136 (96,704)	78 (192)	54,909 (135,680)

(continued)

Table LU-2. (continued)

Land use category	Golden Crescent Planning Region		
	Calhoun[a]	Goliad[a]	Jackson[a]
Rangeland[d]	61,332 (151,552)	23,958 (59,200)	64,648 (159,744)
Total agricultural lands	100,468 (248,256)	24,036 (59,392)	119,556 (295,424)
Woodland-timber[e]	3,445 (8,512)	1,917 (4,736)	21,938 (54,208)
Swamp timber[f]	0 (0)	78 (192)	78 (192)
Total forest	3,445 (8,512)	1,994 (4,928)	22,015 (54,400)
Saline and brackish water marsh[g]	7,356 (18,176)	0 (0)	1,166 (2,880)
Fresh water marsh[h]	7,770 (19,200)	78 (192)	1,243 (3,072)
Total marsh	15,126 (37,376)	78 (192)	2,409 (5,952)
Residential-urban[i]	1,036 (2,560)	0 (0)	1,036 (2,560)
Industrial[j]	130 (320)	26 (64)	207 (512)
Undifferentiated urban[k]	78 (192)	0 (0)	78 (192)
Total urban	1,243 (3,072)	26 (64)	1,321 (3,264)
Park and recreational facilities[l]	19 (46)	0 (0)	0 (0)
Wildlife refuge[m]	648 (1,600)	0 (0)	0 (0)
General recreational land[n]	130 (320)	0 (0)	0 (0)
Total recreational land	796 (1,966)	0 (0)	0 (0)

(continued)

Table LU-2. (continued)

Land use category	Golden Crescent Planning Region		
	Calhoun[a]	Goliad[a]	Jackson[a]
Government land[o]	11,785	0	0
	(29,120)	(0)	(0)
Total public land	12,580	0	0
	(31,086)	(0)	(0)
Made land[p]	78	0	0
	(192)	(0)	(0)
Oil and gas fields[q]	22,171	311	29,501
	(54,781)	(768)	(72,896)
Other[r]	15,359	259	5,439
	(37,952)	(640)	(13,440)
Total land area	170,469	26,703	180,241
	(421,230)	(65,984)	(445,376)

Land use category	Golden Crescent Planning Region	
	Victoria[a]	Total[a]
Agricultural lands[c]	34,966	129,088
	(86,400)	(318,976)
Rangeland[d]	62,860	212,798
	(155,328)	(525,824)
Total agricultural lands	97,826	341,886
	(241,728)	(844,800)
Woodland-timber[e]	14,634	41,933
	(36,160)	(103,616)
Swamp timber[f]	259	414
	(640)	(1,024)
Total forest	14,893	42,347
	(36,800)	(104,640)
Saline and brackish water marsh[g]	907	9,428
	(2,240)	(23,296)
Fresh water marsh[h]	389	9,480
	(960)	(23,424)
Total marsh	1,295	18,907
	(3,200)	(46,720)

(continued)

Table LU-2. (continued)

Land use category	Golden Crescent Planning Region	
	Victoria[a]	Total[a]
Residential-urban[i]	389 (960)	2,461 (6,080)
Industrial[j]	207 (512)	570 (1,408)
Undifferentiated urban[k]	0 (0)	155 (384)
Total urban	596 (1,472)	3,186 (7,872)
Park and recreational facilities[l]	0 (0)	19 (46)
Wildlife refuge[m]	0 (0)	648 (1,600)
General recreational land[n]	0 (0)	130 (320)
Total recreational land	0 (0)	796 (1,966)
Government land[o]	0 (0)	11,785 (29,120)
Total public land	0 (0)	12,580 (31,086)
Made land[p]	0 (0)	78 (192)
Oil and gas fields[q]	18,234 (45,056)	70,216 (173,504)
Other[r]	3,885 (9,600)	24,942 (61,632)
Total land area	136,728 (337,856)	514,142 (1,270,446)

Land use category	Coastal Bend Planning Region		
	Aransas[a]	Bee[a]	Brooks[a]
Agricultural lands[c]	2,435 (6,016)	2,331 (5,760)	0 (0)

(continued)

Table LU-2. (continued)

Land use category	Coastal Bend Planning Region		
	Aransas[a]	Bee[a]	Brooks[a]
Rangeland[d]	31,055 (76,736)	23,544 (58,176)	3,069 (7,584)
Total agricultural lands	33,489 (82,752)	25,875 (63,936)	3,069 (7,584)
Woodland-timber[e]	3,471 (8,576)	2,435 (6,016)	0 (0)
Swamp timber[f]	0 (0)	0 (0)	0 (0)
Total forest	3,471 (8,576)	2,435 (6,016)	0 (0)
Saline and brackish water marsh[g]	4,973 (12,288)	0 (0)	0 (0)
Fresh water marsh[h]	1,269 (3,136)	0 (0)	0 (0)
Total marsh	6,242 (15,424)	0 (0)	0 (0)
Residential-urban[i]	2,202 (5,440)	26 (64)	0 (0)
Industrial[j]	104 (256)	0 (0)	0 (0)
Undifferentiated urban[k]	0 (0)	0 (0)	0 (0)
Total urban	2,305 (5,696)	26 (64)	0 (0)
Park and recreational facilities[l]	259 (640)	0 (0)	0 (0)
Wildlife refuge[m]	17,742 (43,840)	0 (0)	0 (0)
General recreational land[n]	725 (1,792)	0 (0)	0 (0)
Total recreational land	18,726 (46,272)	0 (0)	0 (0)

(continued)

Table LU-2. (continued)

Land use category	Coastal Bend Planning Region		
	Aransas[a]	Bee[a]	Brooks[a]
Government land[o]	337 (832)	0 (0)	0 (0)
Total public land	19,063 (47,104)	0 (0)	0 (0)
Made land[p]	130 (320)	0 (0)	0 (0)
Oil and gas fields[q]	26,781 (66,176)	5,128 (12,672)	0 (0)
Other[r]	14,323 (35,392)	259 (640)	220 (544)
Total land area	105,803 (261,440)	33,722 (83,328)	3,289 (8,128)

Land use category	Coastal Bend Planning Region		
	Jim Wells[a]	Kenedy[a]	Kleberg[a]
Agricultural lands[c]	0 (0)	1,191 (2,944)	17,140 (42,352)
Rangeland[d]	337 (832)	254,550 (628,992)	171,668 (424,192)
Total agricultural lands	337 (832)	255,741 (631,936)	188,808 (466,544)
Woodland-timber[e]	0 (0)	0 (0)	0 (0)
Swamp timber[f]	0 (0)	0 (0)	0 (0)
Total forest	0 (0)	0 (0)	0 (0)
Saline and brackish water marsh[g]	0 (0)	0 (0)	78 (192)
Fresh water marsh[h]	0 (0)	0 (0)	3,807 (9,408)
Total marsh	0 (0)	0 (0)	3,885 (9,600)

(continued)

Table LU-2. (continued)

Land use category	Coastal Bend Planning Region		
	Jim Wells[a]	Kenedy[a]	Kleberg[a]
Residential-urban[i]	0	155	1,502
	(0)	(384)	(3,712)
Industrial[j]	0	52	78
	(0)	(128)	(192)
Undifferentiated urban[k]	0	0	0
	(0)	(0)	(0)
Total urban	0	207	1,580
	(0)	(512)	(3,904)
Park and recreational facilities[l]	0	25,382	9,402
	(0)	(62,720)	(23,232)
Wildlife refuge[m]	0	0	0
	(0)	(0)	(0)
General recreational land[n]	0	0	130
	(0)	(0)	(320)
Total recreational land	0	25,382	9,531
	(0)	(62,720)	(23,552)
Government land[o]	0	0	1,943
	(0)	(0)	(4,800)
Total public land	0	25,382	11,474
	(0)	(62,720)	(28,352)
Made land[p]	0	2	26
	(0)	(6)	(64)
Oil and gas fields[q]	78	9,065	16,783
	(192)	(22,400)	(41,472)
Other[r]	0	145,327	13,494
	(0)	(359,104)	(33,344)
Total land area	414	435,726	236,050
	(1,024)	(1,076,678)	(583,280)

(continued)

Table LU-2. (continued)

Land use category	Coastal Bend Planning Region			
	Nueces[a]	Refugio[a]	San Patricio[a]	Total[a]
Agricultural lands[c]	126,860 (313,472)	33,153 (81,920)	86,119 (212,800)	269,229 (665,264)
Rangeland[d]	29,268 (72,320)	156,905 (387,712)	42,943 (106,112)	713,337 (1,762,656)
Total agricultural lands	156,128 (385,792)	190,057 (469,632)	129,062 (318,912)	982,566 (2,427,920)
Woodland-timber[e]	1,684 (4,160)	9,143 (22,592)	5,439 (13,440)	22,171 (54,784)
Swamp timber[f]	0 (0)	130 (320)	0 (0)	130 (320)
Total forest	1,684 (4,160)	9,272 (22,912)	5,439 (13,440)	22,300 (55,104)
Saline and brackish water marsh[g]	389 (960)	2,098 (5,184)	2,849 (7,040)	10,386 (25,664)
Fresh water marsh[h]	777 (1,920)	1,994 (4,928)	2,072 (5,120)	9,920 (24,512)
Total marsh	1,166 (2,880)	4,092 (10,112)	4,921 (12,160)	20,306 (50,176)
Residential-urban[i]	6,294 (15,552)	1,295 (3,200)	3,497 (8,640)	14,970 (36,992)
Industrial[j]	1,554 (3,840)	155 (384)	648 (1,600)	2,590 (6,400)
Undifferentiated urban[k]	1,036 (2,560)	26 (64)	0 (0)	1,062 (2,624)
Total urban	8,884 (21,952)	1,476 (3,648)	4,144 (10,240)	18,622 (46,016)
Park and recreational facilities[l]	2,538 (6,272)	0 (0)	130 (320)	37,711 (93,184)
Wildlife refuge[m]	0 (0)	130 (320)	0 (0)	17,871 (44,160)

(continued)

Table LU-2. (continued)

Land use category	Coastal Bend Planning Region			
	Nueces[a]	Refugio[a]	San Patricio[a]	Total[a]
General recreational land[n]	466 (1,152)	0 (0)	0 (0)	1,321 (3,264)
Total recreational land	3,004 (7,424)	130 (320)	130 (320)	56,903 (140,608)
Government land[o]	4,740 (11,712)	0 (0)	130 (320)	7,149 (17,664)
Total public land	7,744 (19,136)	130 (320)	259 (640)	64,052 (158,272)
Made land[p]	1,891 (4,672)	0 (0)	518 (1,280)	2,567 (6,342)
Oil and gas fields[q]	67,164 (165,962)	32,971 (81,472)	26,936 (66,560)	184,907 (456,906)
Other[r]	41,234 (101,888)	5,646 (13,952)	16,343 (40,384)	236,847 (585,248)
Total land area	285,893 (706,442)	243,645 (602,048)	187,623 (463,616)	1,532,167 (3,785,984)

Land use category	Lower Rio Grande Planning Region			
	Cameron[a]	Hidalgo[a]	Willacy[a]	Total[a]
Agricultural lands[c]	149,187 (368,640)	6,501 (16,064)	75,837 (187,392)	231,524 (572,096)
Rangeland[d]	47,398 (117,120)	6,243 (3,072)	55,686 (137,600)	104,327 (257,792)
Total agricultural lands	196,584 (485,760)	7,744 (19,136)	131,522 (324,992)	335,851 (829,888)
Woodland-timber[e]	0 (0)	0 (0)	0 (0)	0 (0)
Swamp timber[f]	0 (0)	0 (0)	0 (0)	0 (0)
Total forest	0 (0)	0 (0)	0 (0)	0 (0)

(continued)

Table LU-2. (continued)

Land use category	Lower Rio Grande Planning Region			
	Cameron[a]	Hidalgo[a]	Willacy[a]	Total[a]
Saline and brackish water marsh[g]	130 (320)	0 (0)	389 (960)	518 (1,280)
Fresh water marsh[h]	130 (320)	0 (0)	259 (640)	389 (960)
Total marsh	259 (640)	0 (0)	648 (1,600)	907 (2,240)
Residential-urban[i]	12,380 (30,592)	0 (0)	1,632 (4,032)	14,012 (34,624)
Industrial[j]	984 (2,432)	26 (64)	259 (640)	1,269 (3,136)
Undifferentiated urban[k]	78 (192)	0 (0)	0 (0)	78 (192)
Total urban	13,442 (33,216)	26 (64)	1,891 (4,672)	15,359 (37,952)
Park and recreational facilities[l]	389 (960)	0 (0)	1,036 (2,560)	1,425 (3,520)
Wildlife refuge[m]	15,281 (37,760)	0 (0)	130 (320)	15,411 (38,080)
General recreational land[n]	648 (1,600)	0 (0)	0 (0)	648 (1,600)
Total recreational land	16,317 (40,320)	0 (0)	1,166 (2,880)	17,483 (43,200)
Government land[o]	1,425 (3,520)	0 (0)	0 (0)	1,425 (3,520)
Total public land	17,742 (43,840)	0 (0)	1,166 (2,880)	18,907 (46,720)
Made land[p]	337 (832)	0 (0)	78 (192)	414 (1,024)
Oil and gas fields[q]	2,849 (7,040)	78 (192)	9,842 (24,320)	12,769 (31,552)
Other[r]	55,323 (136,704)	0 (0)	32,582 (80,512)	87,906 (217,216)
Total land area	286,537 (708,032)	7,848 (19,392)	177,729 (439,168)	472,113 (1,166,592)

(continued)

Table LU-2. (continued)

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a Only part of each county lies within map area upon which figures are based.

b Totals may vary several points due to rounding.

c Includes agricultural lands, cultivated land and orchards, significant acreage out of cultivation, and local silage crops for cultivation.

d Includes range-pasture, uncultivated or permanently removed from crop use, some local silage fields; land use varies adjacent to expanding residential urban areas.

e Includes woodland-timber, water tolerant hardwoods on floodplains of modern streams, mixed pine and hardwood forests, some local timber cutting operations; scattered cattle throughout, wildlife locally abundant.

f Includes swamp-timber, continually wet floodplains and abandoned channels of modern fluvial systems; water table slightly above surface, poor drainage; palmetto, cypress, and associated hardwoods.

g Includes saline and brackish water marsh, locally inundated by tides; water table may be locally above surface, developed on back side of barrier islands; abundant wildlife.

h Includes fresh-water marsh, continually wet floodplains, abandoned channels, and inland parts of modern deltas; abundant wildlife.

i Includes residential-urban, commercial and residential development, metropolitan areas and small rural villages and settlements; may include some minor industrial areas.

j Includes industrial, heavy industrial areas, rail yards, docks, municipal works, refineries, and chemical plants.

k Includes undifferentiated urban lands, undeveloped tracts, greenbelts, cemeteries.

l Includes parks and recreational facilities, formally defined Federal, State and most county and municipal facilities such as ball parks, athletic fields, golf courses; includes some private facilities.

m Includes wildlife refuge, formally defined State or Federal protection area; restricted access.

n General recreational land, public beaches below mean low tide and mean high tide.

(continued)

Table LU-2. (concluded)

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o Includes government land, Federal and State, excluding recreational and education institutions; includes penal institutions, Department of Defense property (major tracts only).

p Includes made land, graded and filled areas utilizing spoil or other fill, used for urban, residential and industrial expansion; commonly developed over marsh, reclaimed land.

q Includes oil or gas field.

r Includes education site, salt dome, sulphur production sites, brine production sites, liquid petroleum gas storage site, pit or quarry, sludge pit, sewage disposal site, pipeline, solid waste disposal site, offshore petroleum production platform, airfield, artificial reservoir, spoil deposition sites, and barren land.

Table LU-3. TBIE land use: cropland, pastureland, rangeland and forest in hectares (acres), 1958 and 1967 (U.S. Department of Agriculture, Soil Conservation Service 1970).

Planning region/county	Total Inventory		Cropland		Pastureland	
	1958	1967	1958	1967	1958	1967
GULF COAST						
Brazoria	335,289 (828,500)	335,576 (829,209)	143,140 (353,700)	108,380 (267,806)	58,843 (145,400)	92,420 (228,371)
Chambers	155,807 (385,000)	151,699 (374,847)	68,231 (168,600)	70,716 (174,740)	20,599 (50,900)	21,217 (52,426)
Fort Bend	217,766 (538,100)	218,482 (539,868)	97,046 (239,800)	101,216 (250,105)	90,773 (224,300)	63,194 (156,153)
Galveston	96,924 (239,500)	89,097 (220,159)	33,630 (83,100)	24,909 (61,549)	17,361 (42,900)	16,287 (40,244)
Harris	312,303 (771,700)	269,830 (666,750)	78,915 (195,000)	65,628 (162,168)	118,737 (293,400)	112,560 (278,135)
Liberty	293,889 (726,200)	296,106 (731,678)	66,491 (164,300)	58,464 (144,465)	37,272 (92,100)	50,805 (125,539)
Matagorda	289,276 (714,800)	292,979 (723,952)	114,933 (284,000)	115,499 (285,399)	39,457 (97,500)	56,801 (140,355)
Wharton	272,683 (673,800)	271,535 (670,963)	192,513 (475,700)	174,271 (430,624)	43,262 (106,900)	59,372 (146,709)
Sub-total	1,973,937 (4,877,600)	1,925,303 (4,757,426)	794,900 (1,964,200)	719,084 (1,776,856)	426,305 (1,053,400)	472,656 (1,167,932)
GOLDEN CRESCENT						
Calhoun	135,370 (334,500)	125,245 (309,481)	39,174 (96,800)	38,271 (94,567)	5,949 (14,700)	6,970 (17,222)
Goliad	223,351 (551,900)	223,242 (551,631)	40,915 (101,100)	26,305 (65,000)	0 (0)	5,375 (13,282)
Jackson	216,228 (534,300)	214,876 (530,958)	82,881 (204,800)	79,007 (195,226)	21,651 (53,500)	12,407 (30,657)
Victoria	221,489 (547,300)	220,592 (545,084)	45,730 (113,000)	48,960 (120,979)	25,536 (63,100)	9,215 (22,770)

(continued)

Table LU-3. (continued)

Planning region/county	Total Inventory 1958	Total Inventory 1967	Cropland 1958	Cropland 1967	Pastureland 1958	Pastureland 1967
Sub-total	796,439 (1,968,000)	783,955 (1,937,154)	208,701 (515,700)	192,542 (475,772)	53,136 (131,300)	33,966 (83,931)
COASTAL BEND						
Aransas	50,992 (126,000)	48,839 (120,682)	6,070 (15,000)	2,217 (5,478)	0 (0)	238 (587)
Bee	208,134 (514,300)	208,087 (514,184)	53,703 (132,700)	46,348 (114,525)	0 (0)	12,926 (31,941)
Brooks	231,930 (573,100)	231,944 (573,133)	15,176 (37,500)	20,306 (50,175)	3,683 (9,100)	5,778 (14,277)
Jim Wells	212,869 (526,000)	212,221 (524,398)	68,110 (168,300)	46,199 (114,157)	0 (0)	42,280 (104,475)
Kenedy	363,132 (897,300)	359,674 (888,754)	7,001 (17,300)	1,340 (3,310)	5,059 (12,500)	3,851 (9,517)
Kleberg	214,933 (531,100)	215,011 (531,292)	21,449 (53,000)	20,610 (50,927)	0 (0)	6,286 (15,532)
Nueces	188,466 (465,700)	185,883 (459,316)	157,871 (390,100)	137,988 (340,969)	0 (0)	10,934 (27,019)
Refugio	196,965 (486,700)	197,710 (488,542)	29,947 (74,000)	36,310 (89,723)	0 (0)	1,909 (27,019)
San Patricio	166,815 (412,200)	165,307 (408,474)	71,105 (175,700)	94,681 (233,956)	0 (0)	12,870 (31,803)
Sub-total	1,834,237 (4,532,400)	1,824,676 (4,508,775)	430,433 (1,063,600)	405,998 (1,003,220)	8,741 (21,600)	97,074 (239,869)
LOWER RIO GRANDE VALLEY						
Cameron	200,769 (496,100)	203,996 (504,073)	148,280 (366,400)	143,060 (353,501)	13,314 (32,900)	11,206 (27,691)
Hidalgo	372,440 (920,300)	372,439 (920,296)	216,997 (536,200)	208,075 (514,153)	890 (2,200)	14,032 (34,674)

(continued)

Table LU-3. (continued)

Planning region/county	Total Inventory 1958	Total Inventory 1967	Cropland 1958	Cropland 1967	Pastureland 1958	Pastureland 1967
Willacy	150,142 (371,000	149,115 (368,462)	73,047 (180,500)	71,452 (176,559)	1,781 (4,400)	4,217 (10,419)
Sub-total	723,351 (1,787,400)	725,549 (1,792,831)	438,325 (1,083,100)	422,587 (1,044,213)	15,985 (39,500)	29,455 (72,784)
TBIE STUDY AREA	5,327,964 (13,165,400)	5,259,484 (12,996,186)	1,872,359 (4,626,600)	1,740,211 (4,300,061)	504,168 (1,245,800)	633,151 (1,564,516)
STATE	65,260,442 (161,258,553)	64,856,783 (160,261,110)	16,803,408 (41,521,220)	14,419,397 (35,630,331)	3,030,830 (7,489,180)	5,698,762 (14,081,642)

Planning region/county	Rangeland 1958	Rangeland 1967	Forest 1958	Forest 1967	Other Land 1958	Other Land 1967
GULF COAST						
Brazoria	59,247 (146,400)	60,186 (148,719)	73,695 (182,100)	71,340 (176,281)	364 (900)	3,251 (8,032)
Chambers	48,847 (120,700)	37,130 (91,749)	14,569 (36,000)	14,326 (35,400)	3,561 (8,800)	8,309 (20,532)
Fort Bend	0 (0)	18,924 (46,762)	29,543 (73,000)	31,260 (77,243)	405 (1,000)	3,887 (9,605)
Galveston	42,574 (105,200)	36,611 (90,466)	1,619 (4,000)	2,053 (5,073)	1,740 (4,300)	9,238 (22,827)
Harris	5,666 (14,000)	3,959 (9,783)	104,533 (258,300)	73,978 (182,800)	4,452 (11,000)	13,705 (33,864)
Liberty	7,405 (18,300)	0 (0)	182,234 (450,300)	183,569 (453,600)	486 (1,200)	3,268 (8,074)
Matagorda	74,302 (183,600)	75,790 (187,278)	48,280 (119,300)	39,191 (96,841)	12,302 (30,400)	5,698 (14,079)

(continued)

Table LU-3. (continued)

Planning region/county	Rangeland 1958	Rangeland 1967	Forest 1958	Forest 1967	Other Land 1958	Other Land 1967
Wharton	9,875 (24,400)	0 (0)	26,184 (64,700)	31,028 (76,804)	850 (2,100)	6,809 (16,826)
Sub-total	247,916 (612,600)	232,601 (574,757)	480,656 (1,187,700)	446,799 (1,104,042)	24,160 (59,700)	54,164 (133,839)
GOLDEN CRESCENT						
Calhoun	77,094 (190,500)	67,586 (167,004)	3,318 (8,200)	0 (0)	9,834 (24,300)	12,419 (30,688)
Goliad	162,323 (401,100)	107,238 (264,985)	20,032 (49,500)	78,949 (195,083)	81 (200)	5,375 (13,281)
Jackson	61,635 (152,300)	95,374 (235,669)	49,170 (121,500)	27,312 (67,489)	890 (2,200)	776 (1,917)
Victoria	123,472 (305,100)	155,344 (383,855)	25,212 (62,300)	2,420 (5,980)	1,538 (3,800)	4,654 (11,500)
Sub-total	424,524 (1,049,000)	425,541 (1,051,513)	97,734 (241,500)	108,682 (268,552)	12,343 (30,500)	23,224 (57,386)
COASTAL BEND						
Aransas	41,724 (103,100)	29,841 (73,737)	3,116 (7,700)	3,879 (9,584)	81 (200)	12,665 (31,296)
Bee	153,379 (379,000)	145,660 (359,926)	0 (0)	2,049 (5,064)	1,052 (2,600)	1,104 (2,728)
Brooks	210,886 (521,100)	204,539 (505,417)	0 (0)	0 (0)	2,185 (5,400)	1,321 (3,264)
Jim Wells	143,950 (355,700)	122,926 (303,750)	0 (0)	0 (0)	809 (2,000)	816 (2,016)
Kenedy	349,980 (864,800)	298,389 (737,318)	0 (0)	0 (0)	1,093 (2,700)	56,094 (138,609)
Kleberg	193,080 (477,100)	174,254 (430,582)	0 (0)	0 (0)	405 (1,000)	13,861 (34,251)

(continued)

Table LU-3. (concluded)

Planning region/county	Rangeland		Forest		Other Land	
	1958	1967	1958	1967	1958	1967
Nueces	29,057	20,174	0	0	1,538	16,786
	(71,800)	(49,850)	(0)	(0)	(3,800)	(41,478)
Refugio	155,524	146,815	11,251	7,923	243	4,753
	(384,300)	(362,779)	(27,800)	(19,577)	(600)	(11,745)
San Patricio	49,616	42,069	3,197	3,218	2,428	12,469
	(122,600)	(103,953)	(7,900)	(7,951)	(6,000)	(30,811)
Sub-total	1,327,195	1,184,667	17,564	17,068	9,834	119,870
	(3,279,500)	(2,927,312)	(43,400)	(42,176)	(24,300)	(296,198)
LOWER RIO GRANDE VALLEY						
Cameron	34,682	43,601	0	0	4,492	6,129
	(85,700)	(107,737)	(0)	(0)	(11,100)	(15,144)
Hidalgo	152,084	139,846	0	0	2,469	10,485
	(375,800)	(345,560)	(0)	(0)	(6,100)	(25,909)
Willacy	70,053	65,703	0	0	5,261	7,743
	(173,100)	(162,351)	(0)	(0)	(13,000)	(19,133)
Sub-total	256,819	249,149	0	0	12,222	24,357
	(634,600)	(615,648)	(0)	(0)	(30,200)	(60,186)
TBIE STUDY AREA	2,256,455	2,091,959	595,953	572,550	58,599	221,614
	(5,575,700)	(5,169,230)	(1,472,600)	(1,414,770)	(144,700)	(547,609)
STATE	35,074,096	34,643,684	9,852,589	9,179,177	499,521	915,762
	(86,668,090)	(85,604,543)	(24,345,747)	(22,681,747)	(1,234,316)	(2,262,847)

Table LU-4. TBIE land use: Federal non-cropland, urban land,and water areas in hectares (acres), 1958 and 1967 (U.S. Department of Agriculture, Soil Conservation Service 1970).

Planning region/county	Federal non-cropland		Urban and built-upland		Small water areas	
	1958	1967	1958	1967	1958	1967
GULF COAST						
Brazoria	0	0	32,699	32,780	202	233
	(0)	(0)	(80,800)	(81,000)	(500)	(575)
Chambers	0	3,994	3,885	3,880	0	0
	(0)	(9,870)	(9,600)	(9,587)	(0)	(0)
Fort Bend	688	695	4,533	5,225	283	352
	(1,700)	(1,718)	(11,200)	(12,912)	(700)	(870)
Galveston	728	68	13,517	14,178	0	0
	(1,800)	(168)	(33,400)	(35,033)	(0)	(0)
Harris	2,914	2,928	127,883	173,134	40	243
	(7,200)	(7,235)	(316,000)	(427,815)	(100)	(600)
Liberty	0	0	9,875	9,982	0	55
	(0)	(0)	(24,400)	(24,666)	(0)	(136)
Matagorda	0	0	6,111	6,783	0	9
	(0)	(0)	(15,100)	(16,761)	(0)	(23)
Wharton	0	0	6,556	6,960	162	168
	(0)	(0)	(16,200)	(17,198)	(400)	(415)
Sub-total	4,330	7,685	205,059	252,923	688	1,060
	(10,700)	(18,991)	(506,700)	(624,972)	(1,700)	(2,619)
GOLDEN CRESCENT						
Calhoun	243	7,537	3,278	3,669	0	18
	(600)	(18,624)	(8,100)	(9,066)	(0)	(45)
Goliad	0	0	1,943	1,946	324	405
	(0)	(0)	(4,800)	(4,809)	(800)	(1,000)
Jackson	0	0	4,614	5,004	364	352
	(0)	(0)	(11,400)	(12,364)	(900)	(870)
Victoria	688	715	8,984	9,718	40	58
	(1,700)	(1,766)	(22,200)	(24,014)	(100)	(144)

(continued)

Table LU-4. (continued)

Planning region/county	Federal non-cropland 1958	Federal non-cropland 1967	Urban and built-upland 1958	Urban and built-upland 1967	Small water areas 1958	Small water areas 1967
Sub-total	931 (2,300)	8,252 (20,390)	18,818 (46,500)	20,337 (50,253)	728 (1,800)	833 (2,059)
COASTAL BEND						
Aransas	18,980 (46,900)	18,997 (46,942)	1,457 (3,600)	2,227 (5,503)	40 (100)	23 (57)
Bee	809 (2,000)	732 (1,809)	8,947 (22,108)	9,019 (22,287)	202 (500)	243 (600)
Brooks	0 (0)	0 (0)	2,104 (5,200)	2,095 (5,177)	121 (300)	101 (250)
Jim Wells	567 (1,400)	554 (1,370)	5,463 (13,500)	5,739 (14,182)	202 (500)	223 (550)
Kenedy	0 (0)	0 (0)	1,295 (3,200)	1,306 (3,228)	0 (0)	20 (50)
Kleberg	1,700 (4,200)	1,684 (4,161)	3,399 (8,400)	3,662 (9,048)	40 (100)	30 (75)
Nueces	2,631 (6,500)	1,837 (4,539)	25,900 (64,000)	31,177 (77,038)	40 (100)	40 (99)
Refugio	121 (300)	132 (327)	2,590 (6,400)	2,625 (6,487)	0 (0)	53 (132)
San Patricio	0 (0)	0 (0)	9,187 (22,700)	10,618 (26,236)	81 (200)	85 (210)
Sub-total	24,808 (61,300)	23,936 (59,148)	60,340 (149,100)	68,468 (169,186)	728 (1,800)	819 (2,023)
LOWER RIO GRANDE VALLEY						
Cameron	10,886 (26,900)	10,901 (26,936)	16,795 (41,500)	16,897 (41,753)	243 (600)	274 (678)

(continued)

Table LU-4. (continued)

Planning region/county	Federal non-cropland 1958	Federal non-cropland 1967	Urban and built-upland 1958	Urban and built-upland 1967	Small water areas 1958	Small water areas 1967
LOWER RIO GRANDE VALLEY (cont.)						
Hidalgo	809 (2,000)	803 (1,984)	25,617 (63,300)	26,085 (64,457)	243 (600)	239 (591)
Willacy	0 (0)	0 (0)	3,885 (9,600)	3,876 (9,578)	81 (200)	81 (200)
Sub-total	11,696 (28,900)	11,704 (28,920)	46,297 (114,400)	46,858 (115,788)	567 (1,400)	594 (1,469)
TBIE STUDY AREA	41,764 (103,200)	51,578 (127,449)	330,514 (816,700)	388,586 (960,559)	2,711 (6,700)	3,306 (8,170)
STATE	876,608 (2,163,628)	987,378 (2,439,812)	1,755,662 (4,338,241)	1,960,022 (4,843,215)	192,594 (475,901)	184,925 (456,949)

Planning region/county	Total 1958	Total 1967	Inventory acreage 1958	Inventory acreage 1967	Total land area
GULF COAST					
Brazoria	32,901 (81,300)	33,013 (81,575)	335,289 (828,500)	335,576 (829,209)	368,589 (910,784)
Chambers	3,885 (9,600)	7,874 (19,457)	155,807 (385,000)	151,699 (374,847)	159,573 (394,304)
Fort Bend	5,504 (13,600)	6,273 (15,500)	217,766 (538,100)	218,482 (539,868)	224,754 (555,368)
Galveston	14,245 (35,200)	14,246 (35,201)	96,924 (239,500)	89,097 (220,159)	103,343 (255,360)

(continued)

Table LU-4. (continued)

Planning region/county	Total		Inventory acreage		Total land area
	1958	1967	1958	1967	
Harris	130,838	176,305	312,303	269,830	446,135
	(323,300)	(435,650)	(771,700)	(666,750)	(1,102,400)
Liberty	9,875	10,037	293,889	296,106	306,143
	(24,400)	(24,802)	(726,200)	(731,678)	(756,480)
Matagorda	6,111	6,792	289,276	292,979	299,772
	(15,100)	(16,784)	(714,800)	(723,952)	(740,736)
Wharton	6,718	7,128	272,683	271,535	278,663
	(16,600)	(17,613)	(673,800)	(670,963)	(688,576)
Sub-total	210,077	261,668	1,973,937	1,925,304	2,186,972
	(519,100)	(646,582)	(4,877,600)	(4,757,426)	(5,404,008)
GOLDEN CRESCENT					
Calhoun	3,521	11,224	135,370	125,245	136,469
	(8,700)	(27,735)	(334,500)	(309,481)	(337,216)
Goliad	2,266	2,350	223,350	223,242	225,593
	(5,600)	(5,809)	(551,900)	(551,631)	(557,440)
Jackson	4,978	5,356	216,228	214,868	220,231
	(12,300)	(13,234)	(534,300)	(530,938)	(544,192)
Victoria	9,713	10,491	221,489	220,592	231,084
	(24,000)	(25,924)	(547,300)	(545,084)	(571,008)
Sub-total	20,478	29,422	796,438	783,955	813,378
	(50,600)	(72,702)	(1,968,000)	(1,937,154)	(2,009,856)
COASTAL BEND					
Aransas	20,478	21,247	50,992	48,839	70,087
	(50,600)	(52,502)	(126,000)	(120,682)	(173,184)
Bee	9,955	9,994	208,134	208,087	218,082
	(24,600)	(24,696)	(514,300)	(514,184)	(538,880)
Brooks	2,226	2,196	231,930	231,944	234,140
	(5,500)	(5,427)	(573,100)	(573,133)	(578,560)

(continued)

Table LU-4. (concluded)

Planning region/county	Total		Inventory acreage		Total land area
	1958	1967	1958	1967	
Jim Wells	6,232 (15,400)	6,516 (16,102)	212,869 (526,000)	212,221 (524,398)	218,737 (540,500)
Kenedy	1,295 (3,200)	1,327 (3,278)	363,132 (897,300)	359,674 (888,754)	361,000 (892,032)
Kleberg	5,140 (12,700)	5,376 (13,284)	214,933 (531,100)	215,011 (531,292)	220,387 (544,576)
Nueces	28,571 (70,600)	33,054 (81,676)	188,466 (465,700)	185,883 (459,316)	218,936 (540,992)
Refugio	2,711 (6,700)	2,811 (6,946)	196,965 (486,700)	197,710 (488,542)	200,521 (495,488)
San Patricio	9,268 (22,900)	10,703 (26,446)	166,815 (412,200)	165,307 (408,474)	176,010 (434,920)
Sub-total	85,876 (212,200)	93,224 (230,357)	1,834,237 (4,532,400)	1,824,676 (4,508,775)	1,917,900 (4,739,132)
LOWER RIO GRANDE VALLEY					
Cameron	27,924 (69,000)	28,072 (69,367)	200,769 (496,100)	203,996 (504,073)	232,068 (573,440)
Hidalgo	26,669 (65,900)	27,127 (67,032)	372,440 (920,300)	372,439 (920,296)	399,566 (987,328)
Willacy	3,966 (9,800)	3,957 (9,778)	150,142 (371,000)	149,115 (368,462)	153,072 (378,240)
Sub-total	58,559 (144,700)	59,157 (146,177)	723,351 (1,787,400)	725,549 (1,792,831)	784,706 (1,939,008)
TBIE STUDY AREA	374,990 (926,600)	443,471 (1,095818)	5,327,964 (13,165,400)	5,259,484 (12,996,186)	5,702,956 (14,092,004)
STATE	2,816,580 (6,959,770)	3,132,325 (7,739,976)	65,260,442 (161,258,553)	64,856,782 (160,261,110)	67,989,108 (168,001,086)

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