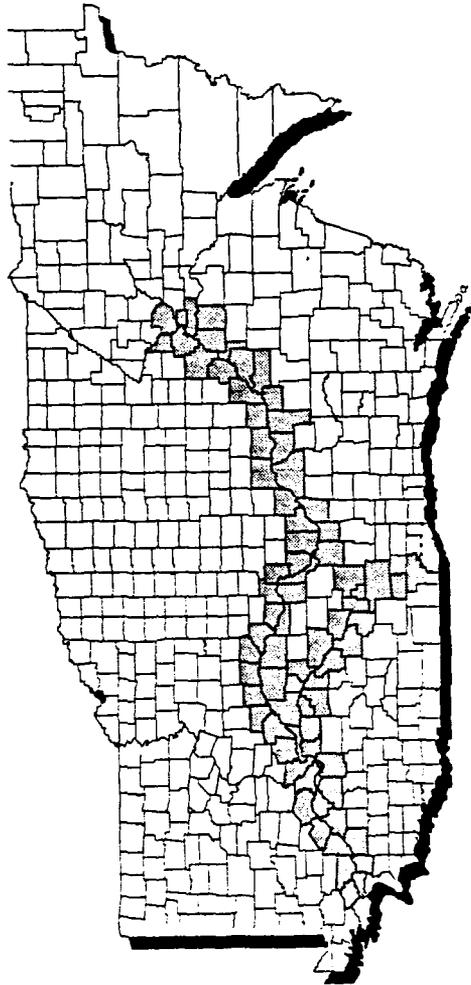


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ECONOMIC IMPACTS OF RECREATION ON THE UPPER MISSISSIPPI RIVER SYSTEM

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ECONOMIC IMPACTS REPORT

FINAL VERSION
MARCH 1993

Prepared by:

U.S. Army Corps of Engineers
St. Paul District

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ECONOMIC IMPACTS OF RECREATION
ON THE UMRS

Economic Impacts Report

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U.S. Army Corps of Engineers
St. Paul District
Planning Division

March 1993

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In 1986, Congress authorized a study to assess the economic importance of recreation in the Upper Mississippi River System. The study findings have been published in a series of reports by the U.S. Army Corps of Engineers, St. Paul District. A listing of these reports follows:

- Plan of Study for the Recreation Economics Study on the Upper Mississippi River System (September 1986)
- Recreation-Economics Data Review, Upper Mississippi River Basin (February 1988)
- Economic Impacts of Recreation on the Upper Mississippi River System: Study Sampling Plan (May 1989)
- Economic Impacts of Recreation on the Upper Mississippi River System: Recreation Use and Activities Report (March 1993)
- Economic Impacts of Recreation on the Upper Mississippi River System: Recreation Expenditure Report (March 1993)
- Economic Impacts of Recreation on the Upper Mississippi River System: Economic Impacts Report (March 1993)
- Economic Impacts of Recreation on the Upper Mississippi River System: Summary Report (June 1993)

A related document summarizes the economic input-output model applications prepared in conjunction with this study:

- MI-REC: Micro-Implan Recreation Economic Impact Estimation System Users' Manual

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INTRODUCTION

In 1986, Congress authorized a study to assess the economic importance of recreation in the Upper Mississippi River System (UMRS) (Public Law 99-88). This study, administered by the Corps of Engineers, St. Paul District, and supervised by a multi-agency Technical Review Team (TRT), has two distinct but related components:

1. measurement of the amount and type of recreation use in the UMRS through the use of on-site interviews at public access sites in the study area and telephone interviews of households that rent marina slips or have permitted boat docks, and
2. measurement of recreation-related spending by the respondents in component one. Durable recreation goods spending will be measured through the on-site interviews and initial phone calls, while variable trip spending will be measured with a self-administered mailback questionnaire.

PURPOSE AND REPORT FORMAT

The purpose of this report is to determine the economic impacts of recreational activity on the economies of the UMRS region. This determination considers the results of the recreation use and expenditure components in combination, and makes use of Input-Output analysis to estimate the effects of spending on the regional economy. The automated econometric model IMPLAN (IMPact analysis for PLANning), developed by the U.S. Forest Service, is used for this purpose. The report is divided into the following parts:

- Part One: Overview of economic impact analysis concepts used in this report.
- Part Two: Summary of UMRS region-wide results.
- Part Three: Summary of results for each surveyed population.

Part Four: Applicability of results.

STUDY AREA

Geographically, the study includes the commercially navigable portions of five rivers: the Mississippi (north of Cairo, Illinois), Illinois, St. Croix, Minnesota, and Kaskaskia (Appendix A). The UMRS is composed of nearly 1,300 miles of commercially navigable waters. Also included in the study area are the side channels, sloughs, and lakes associated with these rivers, as well as the land immediately adjacent to them. The study area is contained within the States of Minnesota, Wisconsin, Iowa, Illinois, and Missouri.

PART ONE: OVERVIEW OF ECONOMIC IMPACT ANALYSIS CONCEPTS
USED IN THIS REPORT

ECONOMIC IMPACT ANALYSIS AND IMPLAN

The economic impact analysis completed for this report involves the translation of visitor spending into economic effects in terms of income and employment. This analysis has been accomplished through the use of an Input-Output (I-O) model. An I-O model is an accounting system showing economic transactions between local businesses, households, and governments, as well as transactions between public and private entities located elsewhere. An I-O model provides only a static view of economic conditions, but can be an effective device for characterizing and analyzing complex local, regional and national economies. I-O models are constructed for specific geographic regions in order to capture the specific economic sectors and linkages that exist in the region.

IMPLAN, an I-O model developed by the U.S. Forest Service, was selected for use in this study after considering a number of alternatives. IMPLAN was first developed in 1979, and the current version for micro-computer, Version 91-09 (March 1992), was used in the analyses in this report. A major consideration for selecting IMPLAN was that it provides more detailed information than most other standardized I-O models for recreation-related economic sectors. IMPLAN also allows for flexibility in defining the study area (using any combination of counties in the United States) making it useful for applications beyond the confines of this study. Additionally, IMPLAN allows flexibility in the use of local

and regional purchasing coefficients (LPC's and RPC's) that reflect the consumption and production relationships within given regions. Careful consideration of these relationships can lead to more realistic results in regional analyses. User training and support for IMPLAN is also available, which was a consideration in evaluating its usefulness in future applications.

The types of economic effects and regional analyses used in this analysis are described in the sections below.

ECONOMIC EFFECTS

The economic effects of recreation use on the UMRS can be viewed as the income and employment businesses derive as a direct or indirect result of spending by visitors. The total economic effect can be described as the sum of the **direct, indirect, and induced** effects resulting from recreation-related purchases in an economy. These three distinct types of effects are measured separately by IMPLAN and are reported separately in the analysis.

Direct effects include income and employment resulting from direct spending by visitors on goods and services required to engage in recreation activities; for instance, the retail purchase of a boat.

Indirect effects measure the secondary purchases, or "recirculation" of dollars among related firms, resulting from the initial purchase. Continuing the boat example, boating manufacturers will purchase materials and labor to meet the increased demand for boats resulting from increased retail sales;

shipping companies will purchase labor, trucks, gasoline and other supplies; and boat dealers will purchase labor and supplies in support of their retail sales activities.

Induced effects measure the additional "recirculation" of dollars caused by increased employee income generated by the direct and indirect effects of a retail purchase. These increases in employee income lead to more retail purchases in the economy, which lead to further "recirculation" of the original retail dollars expended.

REGIONAL ANALYSES

An economic region must be defined in order to determine the economic effects of an activity. In IMPLAN, a region can include any collection of counties in the United States.

Two basic regions have been used in this analysis: the 76 "border" counties that define the UMRS corridor (plus the city of St. Louis), and the five States that encompass the study area.

Additionally, in determining the effects of recreational use at developed sites, four sub-regions of the UMRS corridor counties are separately analyzed. These regions conform to the boundaries of the St. Paul, Rock Island, and St. Louis Districts of the Corps of Engineers on the main stem Mississippi River, plus the counties along the length of the Illinois Waterway (excluding the Chicago area). Maps of the regions are included as Appendix A. Since the Corps district boundaries do not follow county boundaries, some counties appear in two adjacent regions.

Each of the regions has a unique set of economic attributes, and each will therefore be affected differently by recreational spending. In general, the larger and more diverse an economic region is, the greater the resulting economic impact from a given activity will be. This is because more goods and services can be obtained within the region, limiting "leakages" of dollars to producers of goods and services outside the region.

In addition to geographic descriptions of the regions used in this report, population and total dollars of activity in a region are reported as indicators of a region's size. These figures appear in Table 1. The figures are taken from summaries prepared in IMPLAN, and reflect conditions in 1985, the most recent data currently available in IMPLAN. The number of economic sectors included in each region is also reported, and can be viewed as an indicator of a region's economic diversity. There are strong similarities between Regions 1 and 3, as well as between Regions 2 and 4.

For each region studied, two types of analysis will be performed: analysis of spending made locally (within 30 miles of the respective sites) by non-residents of the UMRS counties; and analysis of all spending made locally (residents and non-residents). The analyses will also distinguish between purchases of items that are consumed during the recreational trips (gas, food, lodging, bait, etc.) and purchases of durable items (boats, fishing gear, clothing, etc.).

TABLE 1: CHARACTERISTICS OF UMRS REGIONAL ECONOMIES (1985 FIGURES)

REGION	POPULATION	SQUARE MILES	IMPLAN SECTORS*	# OF COUNTIES	OUTPUT (\$MM)	EMPLOYEE COMP (\$MM)	JOBS
REGION 1	2,249,700	9,940	410	18	87,888	26,360	1,315,664
REGION 2	976,000	12,288	331	21	31,643	8,259	415,545
REGION 3	2,674,700	11,047	407	22	90,756	25,859	1,277,161
REGION 4	1,066,000	10,959	321	20	29,977	8,080	365,806
ALL UMRS**	6,893,600	42,343	464	77	238,459	68,113	3,349,099
5 STATES	28,421,000	314,529	504		914,438	280,257	13,114,020
U.S. TOTAL	238,699,300	3,539,289	528		7,198,847	2,367,477	109,450,200

* The number of economic sectors (as defined within IMPLAN) that are present in the region.

** Totals for UMRS corridor are not the sum of all regions since some counties are in more than one region.

PART TWO: SUMMARY OF UMRS REGION-WIDE RESULTS

The summary of economic effects presented in this section is based on the total trips and expenditures measured in all surveys for this study. More detailed presentations of the trip and expenditure results are included in the respective reports prepared for this study.

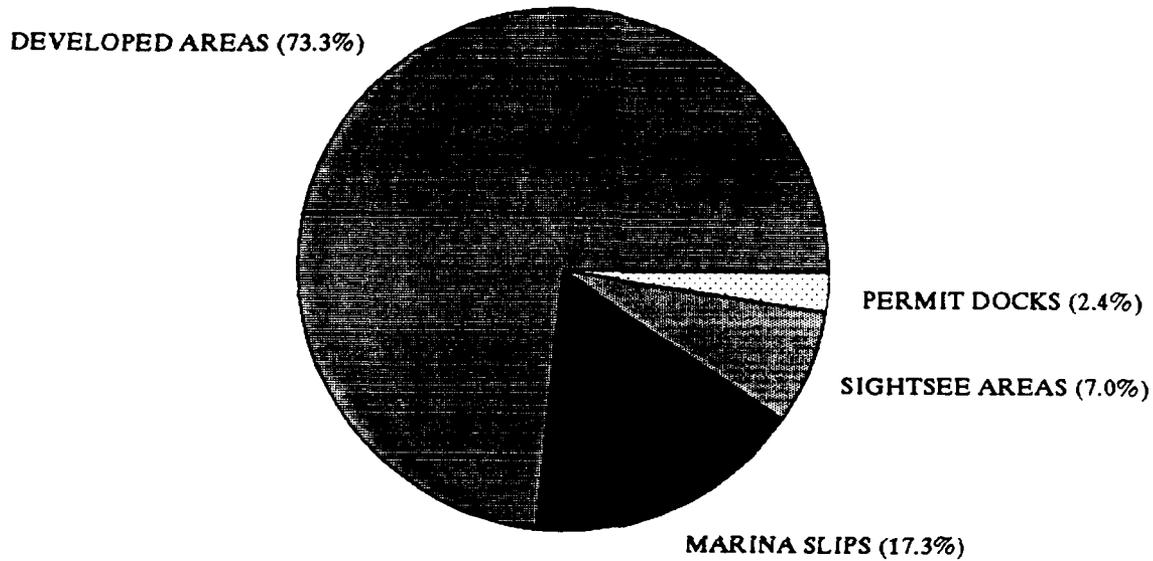
ANNUAL NUMBER OF TRIPS

The number of annual recreational parties/trips to the UMRS sites accounted for in this study has been estimated at more than 2.3 million. These trips were made by nearly 6 million people. Three-quarters of the trips were made to developed recreation areas. Marina slips accounted for 17 percent of the trips, sightseeing/visitor center areas accounted for 7 percent of the trips, and permitted boat docks accounted for 2 percent of the trips. A breakdown of these trip estimates is provided on Figure 1.

AVERAGE TRIP EXPENDITURES

Spending patterns differ among different types of visitors, as well as among types of areas visited. The total annual trip expenditures made in the UMRS, broken down by river access type, are shown on Figure 2. Although trips to developed areas were the most common in the UMRS, they accounted for the lowest average spending per trip (\$69). Trips to marinas had the highest spending average (\$132) followed by trips to permitted docks (\$86) and trips

FIGURE 1: RECREATIONAL USE OF UMRS BY ACCESS TYPE (TRIPS)

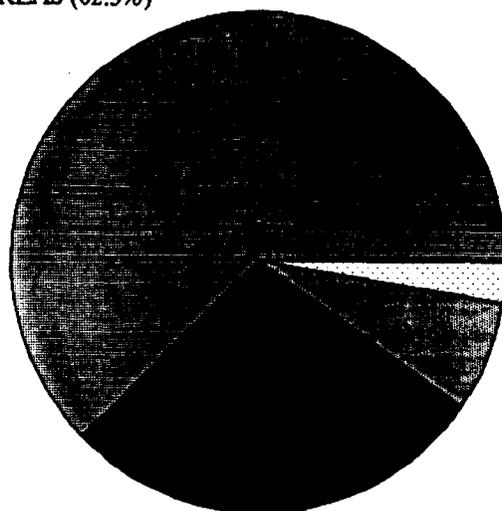


	People (Annual)	Proportion	Trips (Annual)	Proportion	Party Size
DEVELOPED AREAS	3,739,724	62.7%	1,732,571	73.3%	2.2
MARINA SLIPS	1,569,785	26.3%	408,985	17.3%	3.8
SIGHTSEEING AREAS	415,945	7.0%	166,342	7.0%	2.5
PERMITTED DOCKS	236,332	4.0%	57,151	2.4%	4.1
TOTAL	5,961,786	100.0%	2,365,049	100.0%	

	Visitor Days (Annual)	Proportion
DEVELOPED AREAS	8,216,174	67.8%
MARINA SLIPS	2,637,239	21.7%
SIGHTSEEING AREAS	913,831	7.5%
PERMITTED DOCKS	359,489	3.0%
TOTAL	12,126,733	100.0%

FIGURE 2: TOTAL EXPENDITURES ON UMRS TRIPS, BY ACCESS TYPE

DEVELOPED AREAS (62.3%)



PERMIT DOCKS (2.6%)

SIGHTSEE AREAS (7.2%)

MARINA SLIPS (28.0%)

	Trips (Annual)	Spending Per Trip*	Total Spending*	% Spent w/i 30 miles
DEVELOPED AREAS	1,732,571	\$69.05	\$119,634,028	69.2%
MARINA SLIPS	408,985	\$131.55	\$53,801,977	85.0%
SIGHTSEEING AREAS	166,342	\$82.95	\$13,798,069	65.2%
PERMITTED DOCKS	57,151	\$85.97	\$4,913,271	81.3%
TOTAL	2,365,049	\$81.24	\$192,147,345	73.6%

	Visitor Days (Annual)	Spending Per Visitor Day*	Total Spending*	% Spent w/i 30 miles
DEVELOPED AREAS	8,216,174	\$14.56	\$119,634,028	69.2%
MARINA SLIPS	2,637,239	\$20.40	\$53,801,977	85.0%
SIGHTSEEING AREAS	913,831	\$15.10	\$13,798,069	65.2%
PERMITTED DOCKS	359,489	\$13.67	\$4,913,271	81.3%
TOTAL	12,126,733	\$15.84	\$192,147,345	73.6%

* 1990 Price Levels

documented at sightseeing/visitor center areas (\$83). On average, three-fourths of the spending took place within 30 miles of the recreational site visited.

Factors that account for differences in spending among access types include trip length, party size, mix of goods purchased, and visitor segments represented. Some of these differences are highlighted in Appendix B.

SPENDING ON DURABLE GOODS

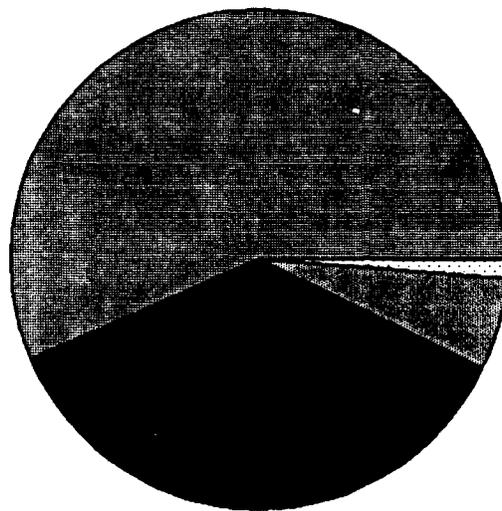
Spending on durable goods used on the trips to the UMRS was also measured in the survey, and is summarized on Figure 3. The purchases have been adjusted to a per-trip average. Durable goods spending per trip was greatest for trips to marina slips (\$135), followed by sightseeing areas (\$54), developed areas (\$50) and permitted docks (\$29). Overall spending on durable goods was largest from trips to developed areas since these areas had the greatest number of trips.

Unlike trip spending, however, durable goods spending cannot be as directly attributed to use of the UMRS. Many durable goods, such as boats, trailers, and camping equipment, can be used for trips outside the UMRS. There has been no attempt in the survey to isolate which durable goods purchases were made specifically for recreation on the UMRS, since procedures to do this are confusing to respondents and likely would have yielded unreliable results in a study of this scope. These purchases, therefore, can only be viewed as "associated with" recreation on the UMRS.

To address this allocation issue in the regional economic

FIGURE 3: DURABLE EXPENDITURES RELATED TO UMRS TRIPS, BY ACCESS TYPE

DEVELOPED AREAS (56.6%)



PERMIT DOCKS (1.1%)

SIGHTSEE AREAS (5.9%)

MARINA SLIPS (36.4%)

	Trips (Annual)	Spending Per Trip*	Total Spending*	% Spent w/i 30 miles
DEVELOPED AREAS	1,732,571	\$49.69	\$86,091,453	49.9%
MARINA SLIPS	408,985	\$135.26	\$55,319,311	34.9%
SIGHTSEEING AREAS	166,342	\$54.33	\$9,037,361	35.8%
PERMITTED DOCKS	57,151	\$29.24	\$1,671,095	75.2%
TOTAL	2,365,049	\$81.24	\$152,119,220	43.9%

	Visitor Days (Annual)	Spending Per Visitor Day*	Total Spending*	% Spent w/i 30 miles
DEVELOPED AREAS	8,216,174	\$10.48	\$86,091,453	49.9%
MARINA SLIPS	2,637,239	\$20.98	\$55,319,311	34.9%
SIGHTSEEING AREAS	913,831	\$9.89	\$9,037,361	35.8%
PERMITTED DOCKS	359,489	\$4.65	\$1,671,095	75.2%
TOTAL	12,126,733	\$12.54	\$152,119,220	43.9%

* 1990 Price Levels

analyses, the location of purchase and type of access visited were used as the distinguishing factors. Since durable goods used on trips to developed areas and sightseeing areas are highly mobile, only goods purchased in the UMRS corridor counties have been considered to be directly associated with recreation on the UMRS. This accounts for roughly half of the amount of durable goods purchases used on these visits. Durable goods purchases for trips to marinas and permitted docks are more directly tied to recreation on the UMRS. Purchases of durable goods used at these sites (nearly all purchases were made in the five-State region) have been considered directly associated with UMRS recreation, and have been included in the five-State regional analysis and national analysis presented in the next section.

Considering the results of durable goods purchases has the greatest usefulness in studying economic impacts of a large region, such as the UMRS corridor counties or the five States in the study area. Regions of this size are large enough to have some production capacity. Attempting to measure the economic impacts of durable goods purchases on individual projects or small counties has limited usefulness, however, and is generally not recommended. In small or isolated regions, the local effects of durable goods purchases are virtually zero in most circumstances. This is evident in the IMPLAN results presented by region in PART THREE.

ECONOMIC EFFECTS OF SPENDING IN THE UMRS REGION

The economic effects of recreation originating from all surveyed access types in the study area are summarized in Table 2.

These figures represent all spending on recreational trips within the border counties that define the study area. This spending was 73.6 percent of all trip spending (Figure 2). Note that all figures in Table 2 and subsequent tables have been deflated to 1985 price levels by IMPLAN for internal consistency in running the model. (The discount from 1990 prices to 1985 prices is approximately 5 percent.)

Table 2 contains separate listings for trip spending and durable goods spending, as well as for non-resident spending within 30 miles and total spending within 30 miles. Three separate measures are reported: total output, total income to employees, and jobs supported by the spending. Three types of economic effects are contained in the matrix: direct spending by visitors, indirect effects, and induced effects. In addition, two types of economic multipliers have been computed. Type I multipliers consider the effect of direct and indirect activity generated by a given amount of spending $[(\text{Direct} + \text{Indirect})/\text{Direct}]$. Type III multipliers consider the effect of total activity in relation to a given amount of spending $[(\text{Direct} + \text{Indirect} + \text{Induced})/\text{Direct}]$. Higher multipliers are an indication of greater economic capacity and diversity within a given region.

The results in Table 2 show that the direct trip spending in the UMRS corridor counties generated a total of \$325 million in economic activity in the region. About \$90 million of this amount was wages to employees. A total of 5,789 jobs were supported by this activity. Just over one-third of this activity was due to "new" dollars brought to the region by visitors who permanently

**TABLE 2: ECONOMIC EFFECTS OF RECREATIONAL SPENDING
UMRS CORRIDOR: GRAND TOTAL**

(All figures are annual, reported at 1985 price levels)

TRIP SPENDING

A. NON-RESIDENT LOCAL SPENDING

Multipliers
Type I Type III

	Direct	Indirect	Induced	Total		
Output(\$MM)	47.34	20.20	62.32	129.86	1.43	2.74
Income (\$MM)	13.61	5.13	17.39	36.13	1.38	2.65
Jobs	1089	282	1024	2395	1.26	2.20

B. ALL LOCAL SPENDING

	Direct	Indirect	Induced	Total		
Output(\$MM)	122.44	51.40	150.89	324.73	1.42	2.65
Income (\$MM)	34.79	13.04	42.11	89.94	1.37	2.59
Jobs	2595	714	2480	5789	1.28	2.23

DURABLE GOODS SPENDING

A. NON-RESIDENT LOCAL SPENDING

	Direct	Indirect	Induced	Total		
Output(\$MM)	4.52	2.03	6.01	12.56	1.45	2.78
Income (\$MM)	1.59	0.54	1.67	3.80	1.34	2.39
Jobs	108	30	99	237	1.28	2.19

B. ALL LOCAL SPENDING

	Direct	Indirect	Induced	Total		
Output(\$MM)	27.27	12.18	37.74	77.19	1.45	2.83
Income (\$MM)	9.64	3.23	10.52	23.39	1.34	2.43
Jobs	652	180	619	1451	1.28	2.23

live outside the UMRS area. The portions of the economic impacts that are due to the different access types are similar to the proportions of total expenditures presented on Figure 2.

Spending on durable goods in the UMRS corridor counties generated a total of \$77 million in economic activity in the region. Over \$23 million of this amount was wages to employees. A total of 1,451 jobs were supported by purchases of durable goods in the region. Only one-sixth of this activity was due to non-residents making purchases in the UMRS corridor counties.

This amount of activity accounts for only a very small portion of total economic activity in the region - less than 1 percent. The \$400 million in trip and durable goods spending compares with total economic output of \$238 billion in the UMRS corridor counties (Appendix C). Similarly, the 7,000-plus jobs that are supported by recreational purchases compare with nearly 7 million total jobs in the region.

The value of considering economic "importance" for this large a region is rather limited compared to its value in considering importance in relation to specific recreation areas or industries. Recreation expenditures play a more "important" role in specific areas within the basin, but this detail is lost at this level of aggregation. Conducting this type of analysis for a specific county, region, or project is discussed in detail in the applications manual prepared for this study.

ECONOMIC EFFECTS OF ALL SPENDING ON UMRS TRIPS

The previous section examined the effects of spending that

occurred in the UMRS region only. Virtually all of the remaining spending associated with UMRS recreation was made within the five States of the study area. The effects of total spending on the five-State economy, and on the national economy, are presented in Tables 3A and 3B, respectively. More than \$550 million in total output and more than 10,000 jobs in the five States in the study area were supported by UMRS recreational spending. Comparable figures for the national economy are \$1.2 billion in output and over 18,000 jobs.

Figures in these tables represent all spending made on trip related purchases. For durable goods purchases associated with marina slips and permitted docks, all spending is included; for durable goods purchases associated with developed sites and sightseeing areas, only the spending made within the UMRS counties is included. The distinction for developed sites and sightseeing areas is made to attempt to include only those purchases that were made specifically for use on UMRS recreational trips. Durable goods purchases made within the UMRS counties and used at UMRS sites were counted as wholly attributable to UMRS recreational visits for the purposes of this report.

**TABLE 3A: ECONOMIC EFFECTS OF RECREATIONAL SPENDING
FIVE STATES (MN,WI,IA,IL,MO): GRAND TOTAL**
(All figures are annual, reported at 1985 price levels)

TRIP SPENDING (ALL SPENDING)					Multipliers	
	Direct	Indirect	Induced	Total	Type I	Type III
Output(\$MM)	155.48	70.59	219.07	445.14	1.45	2.86
Income (\$MM)	50.16	19.11	65.62	134.89	1.38	2.69
Jobs	3487	968	3587	8042	1.28	2.31

DURABLE GOODS SPENDING
(DEVELOPED & SIGHTSEEING AREAS: CORRIDOR SPENDING)
(DOCK & MARINA: ALL SPENDING)

	Direct	Indirect	Induced	Total	Multipliers	
					Type I	Type III
Output(\$MM)	40.09	17.86	58.92	116.87	1.45	2.92
Income (\$MM)	15.57	5.13	17.66	38.36	1.33	2.46
Jobs	949	254	965	2168	1.27	2.28

**TABLE 3B: ECONOMIC EFFECTS OF RECREATIONAL SPENDING
UNITED STATES: GRAND TOTAL**
(All figures are annual, reported at 1985 price levels)

TRIP SPENDING (ALL SPENDING)					Multipliers	
	Direct	Indirect	Induced	Total	Type I	Type III
Output(\$MM)	181.56	148.51	523.95	854.02	1.82	4.70
Income (\$MM)	59.61	37.55	151.41	248.57	1.63	4.17
Jobs	3765	1782	7921	13468	1.47	3.58

DURABLE GOODS SPENDING
(DEVELOPED & SIGHTSEEING AREAS: CORRIDOR SPENDING)
(DOCK & MARINA: ALL SPENDING)

	Direct	Indirect	Induced	Total	Multipliers	
					Type I	Type III
Output(\$MM)	69.43	56.61	197.71	323.75	1.82	4.66
Income (\$MM)	25.34	16.33	57.12	98.79	1.64	3.90
Jobs	1378	721	2988	5087	1.52	3.69

PART THREE: SUMMARY OF RESULTS FOR EACH
SURVEYED POPULATION

Economic effects generated by spending from the specific populations surveyed are examined in this part of the report. The analyses are presented in the same manner as those in PART TWO, only for different populations and regions.

DEVELOPED RECREATION AREAS

Spending on trips to developed recreation areas in the UMRS accounted for \$71 million in spending in the region, and resulted in over \$188 million in total economic activity. This activity generated wages of over \$50 million, and supported approximately 3,364 jobs. Nearly 40 percent of this activity was the result of new dollars being brought to the region by non-resident visitors. The input/output statistics for the developed areas are presented in Table 4.

The largest share of economic activity took place in Region 1. Region 1 accounted for 60 percent of the total activity related to all trip spending in the corridor (resident plus non-resident local spending), and nearly 80 percent of the activity generated by import dollars (local spending by non-residents). Regional breakdowns of the economic effects of the combined trip and durable goods spending are shown on Figures 4A and 4B, respectively. The associated input/output statistics for the developed areas in each region are presented in Tables 5 through 8.

**TABLE 4: ECONOMIC EFFECTS OF RECREATIONAL SPENDING
DEVELOPED AREAS: UMRS TOTAL**

(All figures are annual, reported at 1985 price levels)

TRIP SPENDING

A. NON-RESIDENT LOCAL SPENDING

Multipliers
Type I Type III

	Direct	Indirect	Induced	Total		
Output(\$MM)	26.64	11.25	35.57	73.46	1.42	2.76
Income (\$MM)	7.78	2.86	9.93	20.57	1.37	2.64
Jobs	622	158	585	1365	1.25	2.19

B. ALL LOCAL SPENDING

	Direct	Indirect	Induced	Total		
Output(\$MM)	71.08	29.48	87.70	188.26	1.41	2.65
Income (\$MM)	20.40	7.47	24.48	52.35	1.37	2.57
Jobs	1510	412	1442	3364	1.27	2.23

DURABLE GOODS SPENDING

A. NON-RESIDENT LOCAL SPENDING

	Direct	Indirect	Induced	Total		
Output(\$MM)	2.18	0.97	2.90	6.05	1.44	2.78
Income (\$MM)	0.77	0.26	0.81	1.84	1.34	2.39
Jobs	51	14	48	113	1.27	2.22

B. ALL LOCAL SPENDING

	Direct	Indirect	Induced	Total		
Output(\$MM)	17.97	7.98	24.68	50.63	1.44	2.82
Income (\$MM)	6.38	2.12	6.89	15.39	1.33	2.41
Jobs	423	118	406	947	1.28	2.24

FIGURE 4A: DISTRIBUTION OF ECONOMIC EFFECTS: ALL LOCAL SPENDING

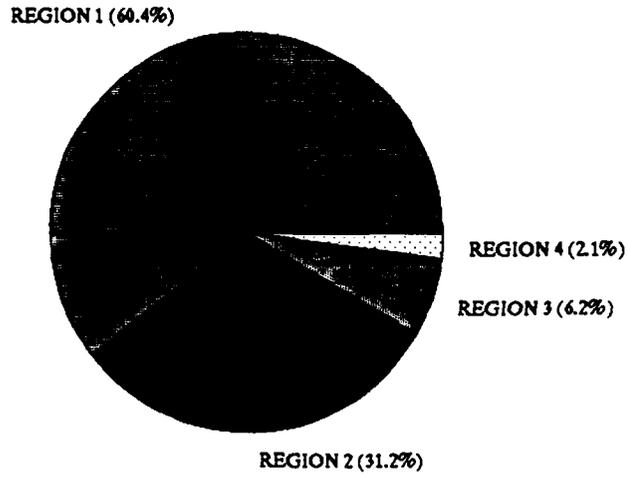
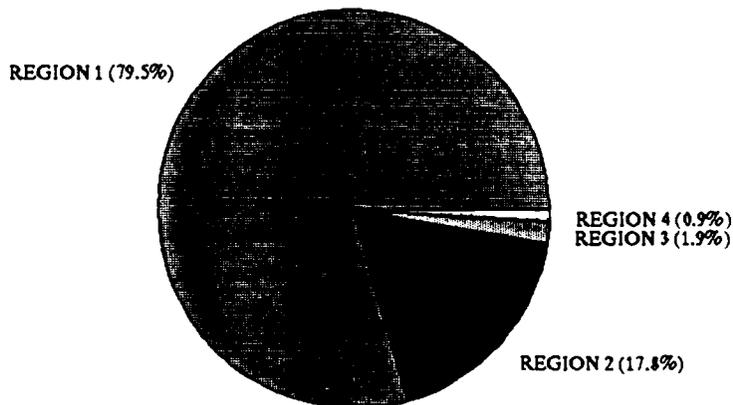


FIGURE 4B: DISTRIBUTION OF ECONOMIC EFFECTS: NON-RESIDENT LOCAL SPENDING



**TABLE 5: ECONOMIC EFFECTS OF RECREATIONAL SPENDING
DEVELOPED AREAS: REGION 1**

(All figures are annual, reported at 1985 price levels)

TRIP SPENDING

A. NON-RESIDENT LOCAL SPENDING

Multipliers
Type I Type III

	Direct	Indirect	Induced	Total		
Output(\$MM)	19.06	7.64	21.40	48.10	1.40	2.52
Income (\$MM)	5.90	2.09	6.11	14.10	1.35	2.39
Jobs	508	118	374	1000	1.23	1.97

B. ALL LOCAL SPENDING

	Direct	Indirect	Induced	Total		
Output(\$MM)	36.88	14.59	39.10	90.57	1.40	2.46
Income (\$MM)	11.40	3.98	11.16	26.54	1.35	2.33
Jobs	918	224	683	1825	1.24	1.99

DURABLE GOODS SPENDING

A. NON-RESIDENT LOCAL SPENDING

	Direct	Indirect	Induced	Total		
Output(\$MM)	1.56	0.67	1.70	3.93	1.43	2.52
Income (\$MM)	0.58	0.18	0.48	1.24	1.31	2.14
Jobs	40	10	30	80	1.25	2.00

B. ALL LOCAL SPENDING

	Direct	Indirect	Induced	Total		
Output(\$MM)	8.93	3.78	9.64	22.35	1.42	2.50
Income (\$MM)	3.29	1.03	2.75	7.07	1.31	2.15
Jobs	227	57	168	452	1.25	1.99

**TABLE 6: ECONOMIC EFFECTS OF RECREATIONAL SPENDING
DEVELOPED AREAS: REGION 2**

(All figures are annual, reported at 1985 price levels)

TRIP SPENDING					Multipliers	
A. NON-RESIDENT LOCAL SPENDING					Type I	Type III
	Direct	Indirect	Induced	Total		
Output(\$MM)	4.32	1.50	4.95	10.77	1.35	2.49
Income (\$MM)	1.36	0.36	1.40	3.12	1.26	2.29
Jobs	112	21	87	220	1.19	1.96
B. ALL LOCAL SPENDING						
	Direct	Indirect	Induced	Total		
Output(\$MM)	18.85	6.56	20.83	46.24	1.35	2.45
Income (\$MM)	5.99	1.59	5.92	13.50	1.27	2.25
Jobs	459	93	368	920	1.20	2.00
DURABLE GOODS SPENDING						
A. NON-RESIDENT LOCAL SPENDING						
	Direct	Indirect	Induced	Total		
Output(\$MM)	0.39	0.13	0.36	0.88	1.33	2.26
Income (\$MM)	0.14	0.03	0.10	0.27	1.21	1.93
Jobs	10	2	6	18	1.20	1.80
B. ALL LOCAL SPENDING						
	Direct	Indirect	Induced	Total		
Output(\$MM)	4.97	1.71	5.39	12.07	1.34	2.43
Income (\$MM)	1.75	0.44	1.53	3.72	1.25	2.12
Jobs	120	24	95	239	1.20	1.99

**TABLE 7: ECONOMIC EFFECTS OF RECREATIONAL SPENDING
DEVELOPED AREAS: REGION 3**

(All figures are annual, reported at 1985 price levels)

TRIP SPENDING					Multipliers	
A. NON-RESIDENT LOCAL SPENDING					Type I	Type III
	Direct	Indirect	Induced	Total		
Output(\$MM)	0.48	0.18	0.50	1.16	1.38	2.42
Income (\$MM)	0.14	0.04	0.14	0.32	1.29	2.29
Jobs	11	3	8	22	1.25	1.96
B. ALL LOCAL SPENDING						
	Direct	Indirect	Induced	Total		
Output(\$MM)	3.55	1.29	3.47	8.31	1.36	2.34
Income (\$MM)	1.01	0.33	0.95	2.29	1.33	2.27
Jobs	69	19	56	144	1.28	2.09
DURABLE GOODS SPENDING						
A. NON-RESIDENT LOCAL SPENDING						
	Direct	Indirect	Induced	Total		
Output(\$MM)	0.04	0.01	0.02	0.07	1.29	1.86
Income (\$MM)	0.01	0.00	0.01	0.02	1.00	2.00
Jobs	1	0	0	1	1.00	1.00
B. ALL LOCAL SPENDING						
	Direct	Indirect	Induced	Total		
Output(\$MM)	1.27	0.53	1.51	3.31	1.42	2.61
Income (\$MM)	0.44	0.14	0.41	0.99	1.32	2.25
Jobs	31	8	24	63	1.26	2.03

**TABLE 8: ECONOMIC EFFECTS OF RECREATIONAL SPENDING
DEVELOPED AREAS: REGION 4**

(All figures are annual, reported at 1985 price levels)

					Multipliers	
	Direct	Indirect	Induced	Total	Type I	Type III
TRIP SPENDING						
A. NON-RESIDENT LOCAL SPENDING						
Output(\$MM)	0.35	0.07	0.12	0.54	1.20	1.54
Income (\$MM)	0.08	0.01	0.03	0.12	1.13	1.50
Jobs	6	1	2	9	1.17	1.50
B. ALL LOCAL SPENDING						
Output(\$MM)	2.16	0.43	0.66	3.25	1.20	1.50
Income (\$MM)	0.47	0.09	0.18	0.74	1.19	1.57
Jobs	34	4	10	48	1.12	1.41
DURABLE GOODS SPENDING						
A. NON-RESIDENT LOCAL SPENDING						
Output(\$MM)	0.02	0.00	0.00	0.02	1.00	1.00
Income (\$MM)	0.01	0.00	0.00	0.01	1.30	1.30
Jobs	0	0	0	0	0.00	0.00
B. ALL LOCAL SPENDING						
Output(\$MM)	0.46	0.09	0.17	0.72	1.20	1.57
Income (\$MM)	0.16	0.02	0.04	0.22	1.13	1.38
Jobs	9	1	2	12	1.11	1.33

SIGHTSEEING/VISITOR CENTER AREAS

The economic effects of recreational spending from persons who visited sightseeing/visitor center areas are presented in Table 9. These expenditures accounted for 7 percent of all measured spending that took place in the UMRS counties (Figure 2). Over 60 percent of the trip spending associated with these sites represented new dollars to the region (local spending by non-residents) which is the highest proportion for any surveyed population.

PERMITTED DOCKS

The economic effects of recreational spending by parties making trips in the UMRS from their permitted docks are presented in Table 10. Spending for this population represented only 2.5 percent of all trip-related spending for the UMRS (Figure 2). Nearly 80 percent of the spending within the region was by local residents.

MARINA SLIPS

The economic effects of recreational spending by parties initiating trips from marina slips are presented in Table 11. Spending by this group accounted for over one-fourth of the trip-related spending during the study (Figure 2). Nearly 40 percent of the trip-related spending represented new dollars to the UMRS region. Durable goods purchases within the region were also sizable, even though they represented only one-third of the total durable goods purchases (Figure 3).

**TABLE 9: ECONOMIC EFFECTS OF RECREATIONAL SPENDING
SIGHTSEEING/VISITOR CENTER AREAS**
(All figures are annual, reported at 1985 price levels)

TRIP SPENDING					Multipliers	
A. NON-RESIDENT LOCAL SPENDING					Type I	Type III
	Direct	Indirect	Induced	Total		
Output(\$MM)	4.61	1.97	6.24	12.82	1.43	2.78
Income (\$MM)	1.36	0.50	1.74	3.60	1.37	2.65
Jobs	111	28	102	241	1.25	2.17
B. ALL LOCAL SPENDING						
	Direct	Indirect	Induced	Total		
Output(\$MM)	7.75	3.25	10.00	21.00	1.42	2.71
Income (\$MM)	2.25	0.83	2.79	5.87	1.37	2.61
Jobs	174	46	164	384	1.26	2.21
DURABLE GOODS SPENDING						
A. NON-RESIDENT LOCAL SPENDING						
	Direct	Indirect	Induced	Total		
Output(\$MM)	0.32	0.14	0.36	0.82	1.44	2.56
Income (\$MM)	0.11	0.04	0.10	0.25	1.36	2.27
Jobs	7	2	6	15	1.29	2.14
B. ALL LOCAL SPENDING						
	Direct	Indirect	Induced	Total		
Output(\$MM)	1.25	0.55	1.67	3.47	1.44	2.78
Income (\$MM)	0.44	0.15	0.46	1.05	1.34	2.39
Jobs	30	8	27	65	1.27	2.17

**TABLE 10: ECONOMIC EFFECTS OF RECREATIONAL SPENDING
PERMITTED DOCKS**

(All figures are annual, reported at 1985 price levels)

TRIP SPENDING					Multipliers	
A. NON-RESIDENT LOCAL SPENDING					Type I	Type III
	Direct	Indirect	Induced	Total		
Output(\$MM)	0.80	0.34	0.87	2.01	1.43	2.51
Income (\$MM)	0.22	0.08	0.24	0.54	1.36	2.45
Jobs	16	5	14	35	1.31	2.19
B. ALL LOCAL SPENDING						
	Direct	Indirect	Induced	Total		
Output(\$MM)	3.27	1.41	3.84	8.52	1.43	2.61
Income (\$MM)	0.92	0.35	1.07	2.34	1.38	2.54
Jobs	66	19	63	148	1.29	2.24
DURABLE GOODS SPENDING						
A. NON-RESIDENT LOCAL SPENDING						
	Direct	Indirect	Induced	Total		
Output(\$MM)	0.11	0.05	0.09	0.25	1.45	2.27
Income (\$MM)	0.04	0.01	0.02	0.07	1.25	1.75
Jobs	3	1	1	5	1.33	1.67
B. ALL LOCAL SPENDING						
	Direct	Indirect	Induced	Total		
Output(\$MM)	0.61	0.27	0.77	1.65	1.44	2.70
Income (\$MM)	0.21	0.07	0.21	0.49	1.33	2.33
Jobs	15	4	12	31	1.27	2.07

**TABLE 11: ECONOMIC EFFECTS OF RECREATIONAL SPENDING
MARINA SLIPS**

(All figures are annual, reported at 1985 price levels)

TRIP SPENDING					Multipliers	
A. NON-RESIDENT LOCAL SPENDING					Type I	Type III
	Direct	Indirect	Induced	Total		
Output(\$MM)	15.29	6.64	19.64	41.57	1.43	2.72
Income (\$MM)	4.25	1.69	5.48	11.42	1.40	2.69
Jobs	340	91	323	754	1.27	2.22
B. ALL LOCAL SPENDING						
	Direct	Indirect	Induced	Total		
Output(\$MM)	40.34	17.26	49.35	106.95	1.43	2.65
Income (\$MM)	11.22	4.39	13.77	29.38	1.39	2.62
Jobs	845	237	811	1893	1.28	2.24
DURABLE GOODS SPENDING						
A. NON-RESIDENT LOCAL SPENDING						
	Direct	Indirect	Induced	Total		
Output(\$MM)	1.91	0.87	2.66	5.44	1.46	2.85
Income (\$MM)	0.67	0.23	0.74	1.64	1.34	2.45
Jobs	47	13	44	104	1.28	2.21
B. ALL LOCAL SPENDING						
	Direct	Indirect	Induced	Total		
Output(\$MM)	7.44	3.38	10.62	21.44	1.45	2.88
Income (\$MM)	2.61	0.89	2.96	6.46	1.34	2.48
Jobs	184	50	174	408	1.27	2.22

PART FOUR: APPLICABILITY OF RESULTS

APPLICATIONS

The methods developed to estimate economic impacts for the various areas and scenarios presented in this report are applicable to similar studies of various scope in the UMRS. Techniques for employing these methods with new or existing data are covered separately in an application manual titled: "Micro-Implan Recreation Economic Impact Estimation System User's Manual."

LIMITATIONS

There are several limitations to the analyses presented in this document that are worthy of note. As reported in the RECREATION USE document, the use and activity levels in this report represent only one annual period of use, and have been drawn from surveys taken over a 2-year period. The data's representativeness across many years cannot be determined within the data itself. Additionally, the concept of recreation use has been limited to recreation visits to developed areas, sightseeing/visitor center areas, permitted docks, and marina slips.

Within the specific realm of the input-output analysis, the large and unusually shaped study area presents problems when considering it as a functional economy. The UMRS corridor contains two large metropolitan areas (St. Louis and the Twin Cities) as well as several mid-size economies (Quad Cities, Peoria). IMPLAN assumes economic activity will first take place inside this corridor (length-wise) rather than in surrounding areas that may actually be involved in the activity, too. The corridor's

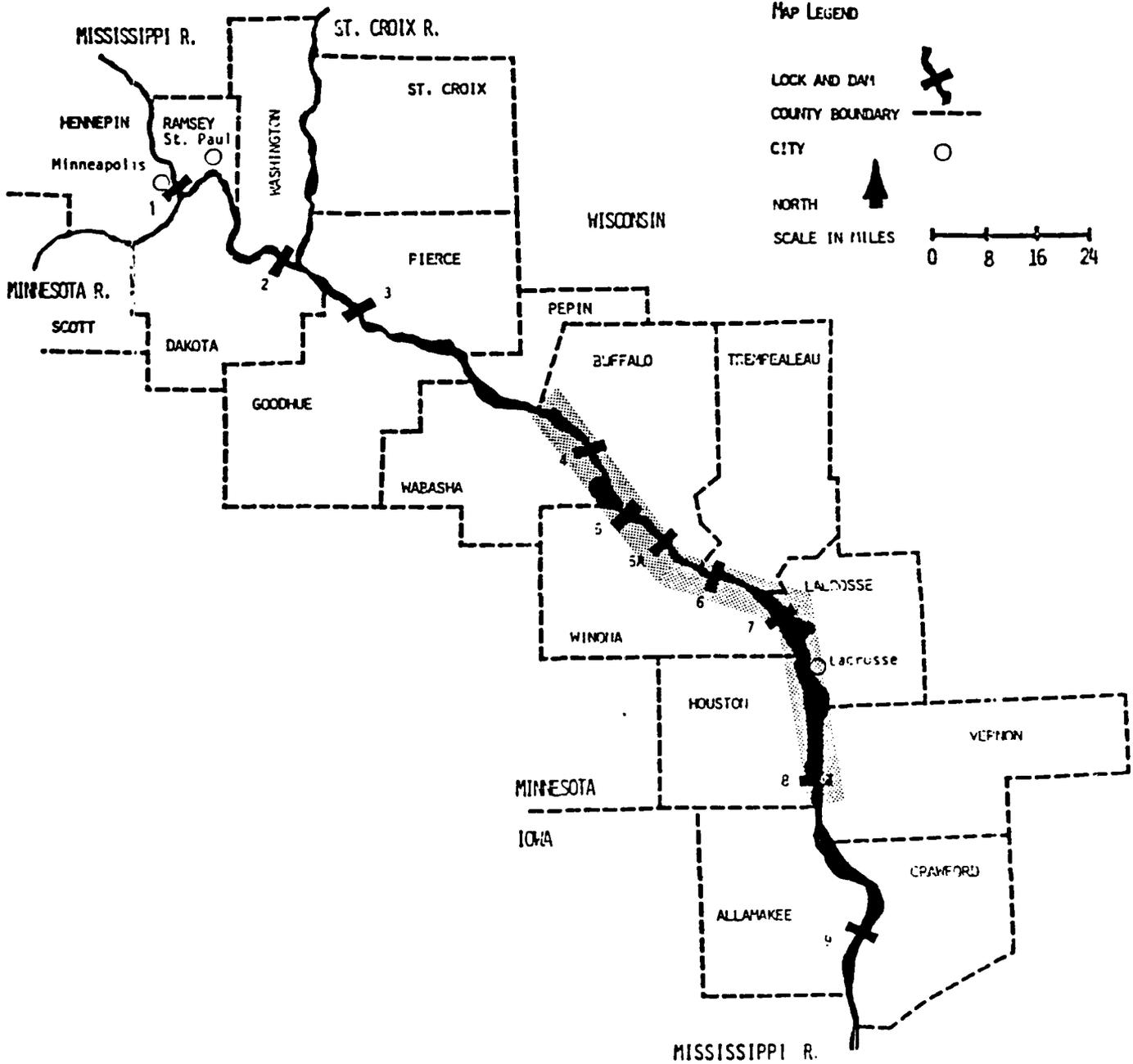
proximity to the Chicago area, for example, may not be well represented in the model. Including Chicago in the model has other complications, however, since it would likely overstate the level of activity in the region. Presenting the impact on the five States and the Nation has been done in part to account for these unusual circumstances.

The shape of the study area caused similar difficulty in describing spending inside and outside the region. Trip spending was defined as within or outside 30 miles of the site rather than in the UMRS corridor for two reasons: to avoid confusion in respondents, who were already burdened with regional definition in describing purchases; and to maintain consistency in the survey instrument, since future applications would typically use the 30-mile designation for determining local impacts. The result of this imprecision in measurement is that some trip-related spending by visitors that took place along the corridor more than 30 miles from the site has been misreported as outside the study area. (St. Louis residents who visited a Hannibal river site, for example, may have purchased gas along the way, but more than 30 miles from the Hannibal site.) This measurement problem would have underreported the percentage of trip-spending made in the UMRS counties, but would not affect total spending reported (as in the five-State model, Table 3). This problem did not occur for durable goods spending, because the county of purchase was documented in the survey.

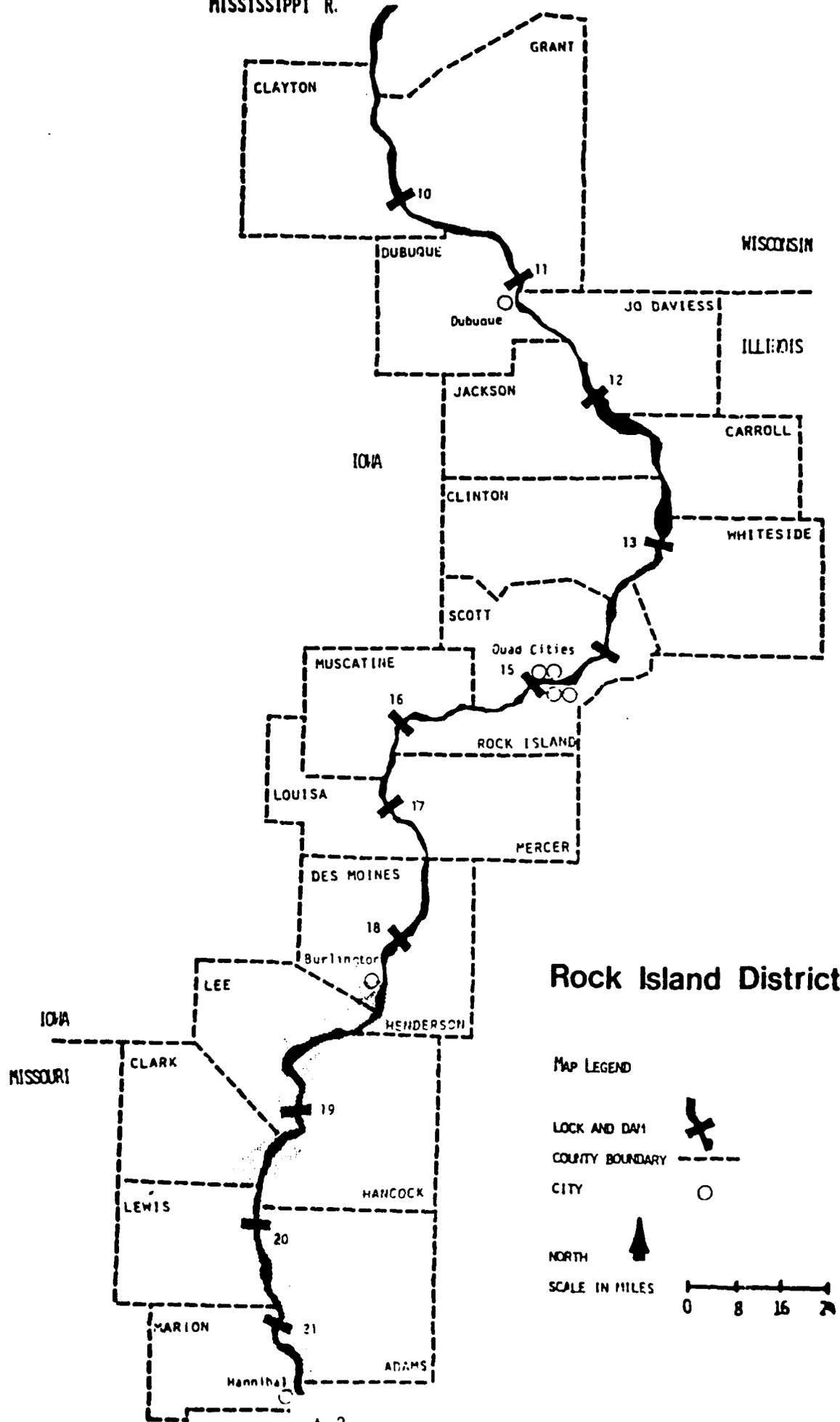
APPENDIX A

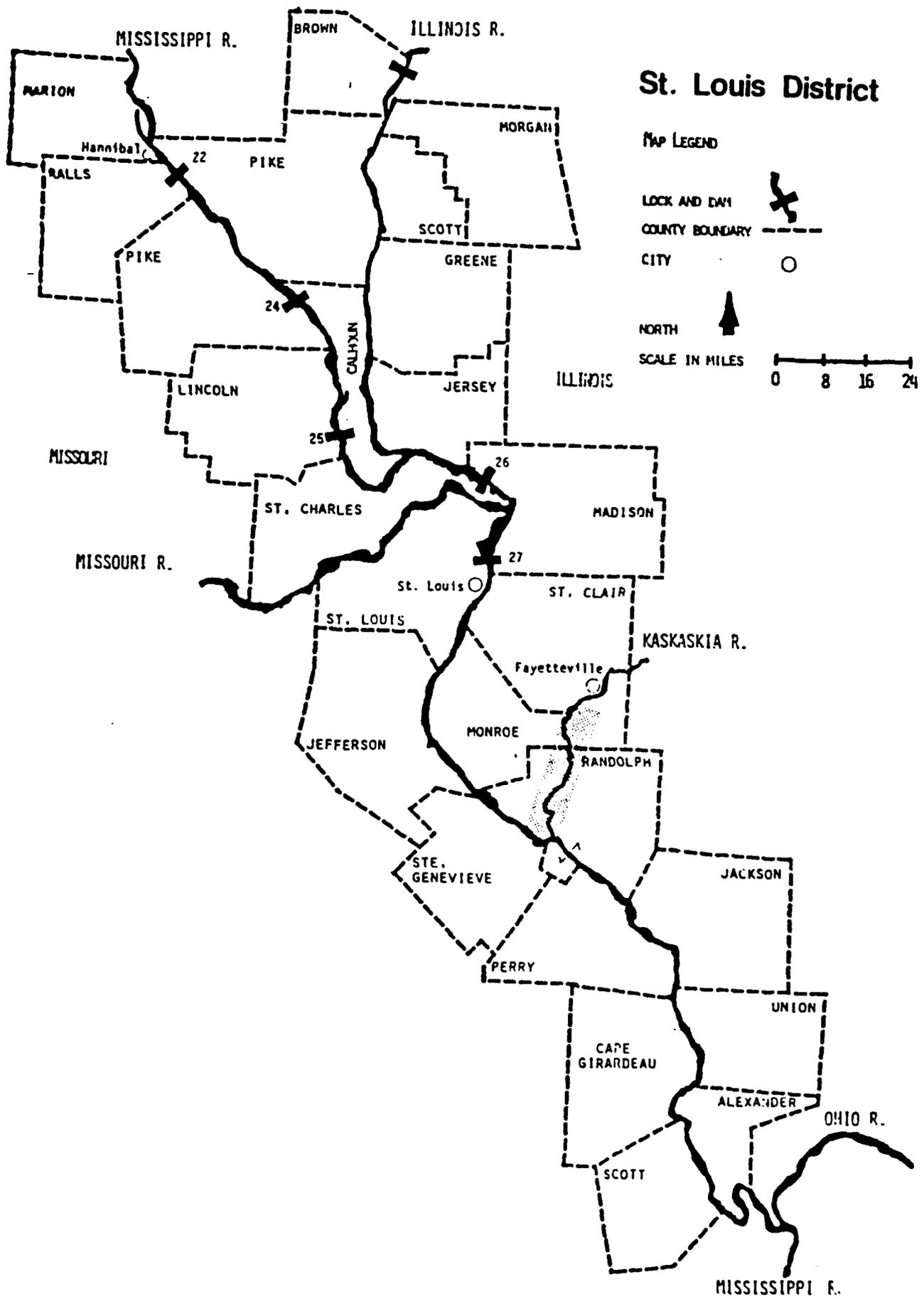
STUDY AREA MAPS

St. Paul District



MISSISSIPPI R.





Illinois River and Waterway

MAP LEGEND

LOCK AND DAM



COUNTY BOUNDARY



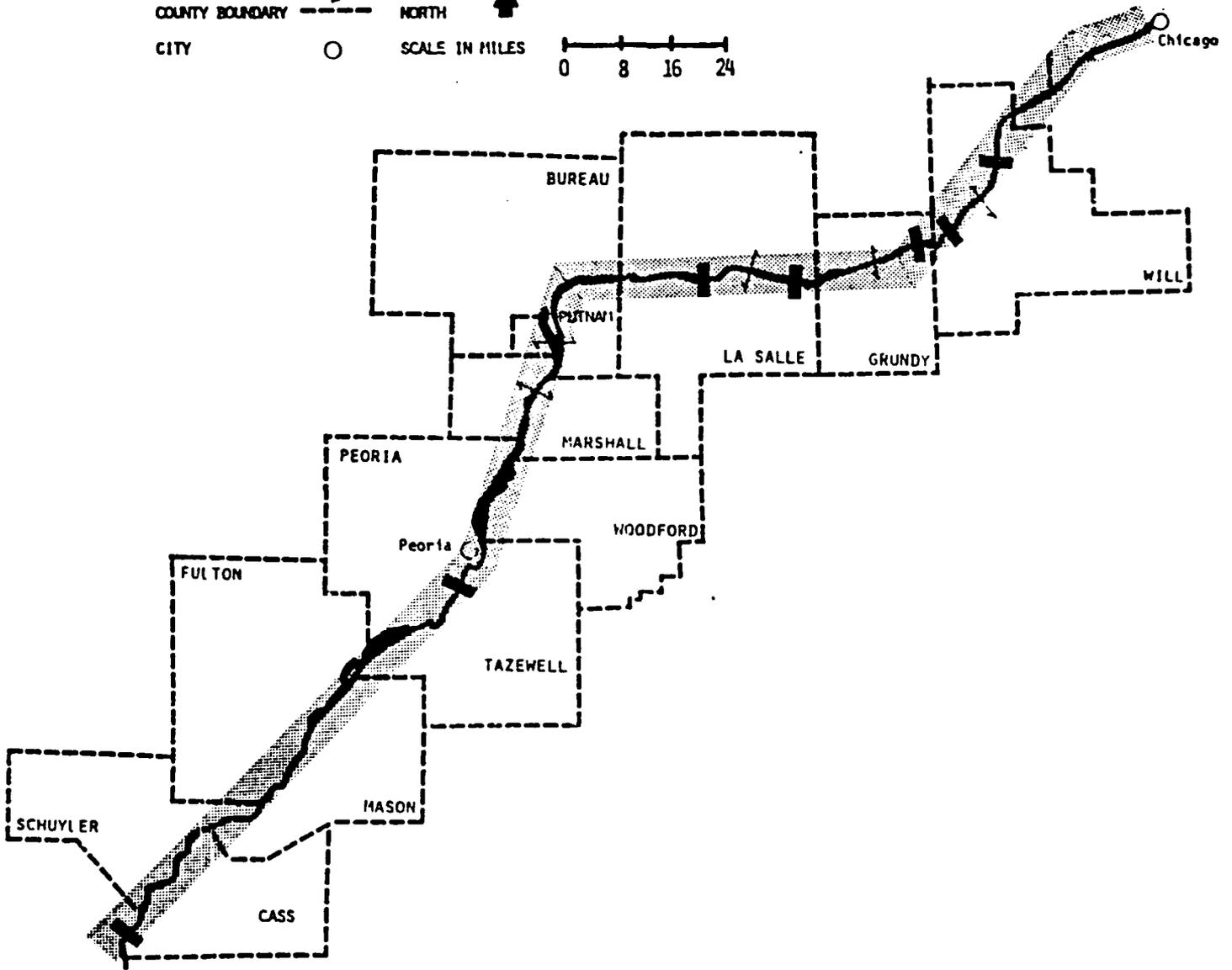
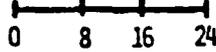
NORTH



CITY



SCALE IN MILES



APPENDIX B

RECREATION EXPENDITURE GRAPHS

APPENDIX B

Several different comparisons of recreation expenditures are presented in this appendix. They have been derived by combining the recreation use and expenditure results prepared for this study.

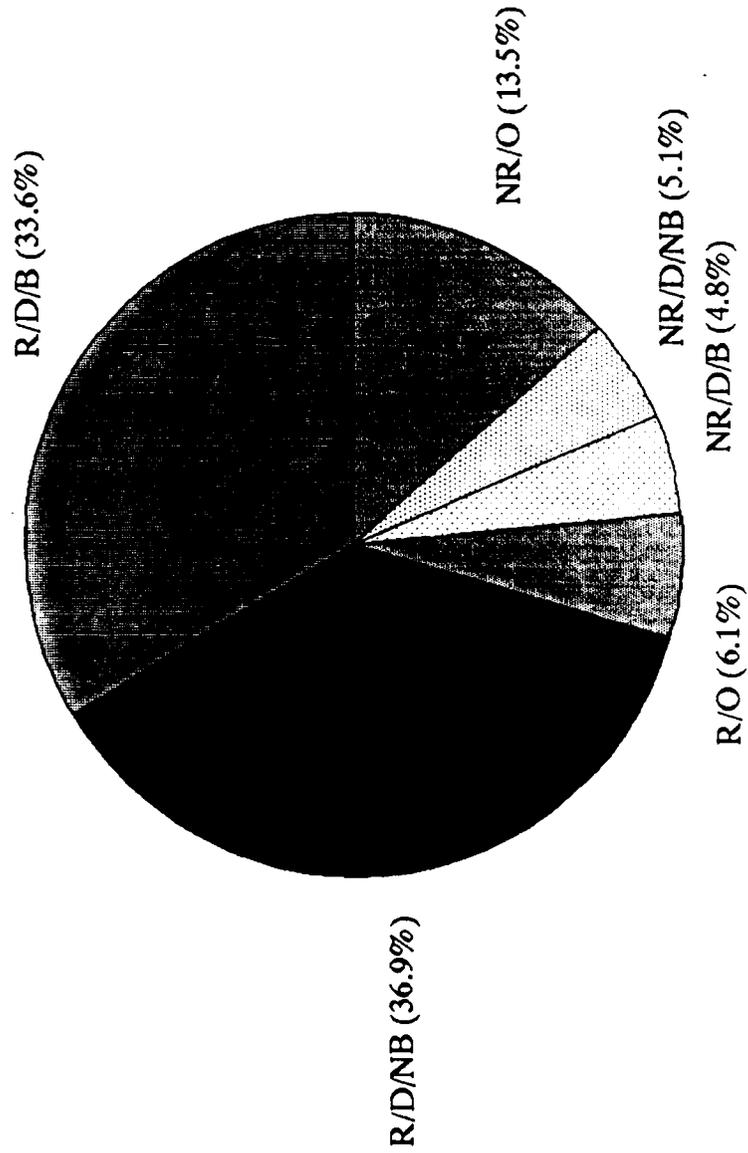
Figure B-1 displays the total segment shares for trips to developed sites (R=resident, D=Day user, B=Boater, NR=non-resident, O=overnight, NB=non-boater). Resident day users were by far the most common visitors, with non-boaters slightly outnumbering boaters.

Total average spending for each of the segments is displayed on Figure B-2. Spending is presented for the amount spent within 30 miles of the site as well as for total spending on the trip. Overnight visitors spend the most per trip, with residents spending slightly more per trip than non-residents. Visitors who do not boat spend the least on average.

Figure B-3 incorporates the average segment spending from Figure B-2 and the relative total number of trips within each segment to tally total spending by segment. Non-resident overnight visitors account for the largest amount of revenue, followed closely by residents in all three categories (R/D/B, R/O, and R/D/NB).

Figure B-4 highlights the types of goods and services that are purchased, on average, per trip. Food, automotive, boat, and lodging expenses are the highest. Total expenditures, by spending category, are displayed on Figure B-5.

FIGURE B-1: Expenditure Segment Shares
UMRS Developed Sites



**FIGURE B-2: Average Spending Per Party/Trip
by Segment (UMRS Developed Sites)**

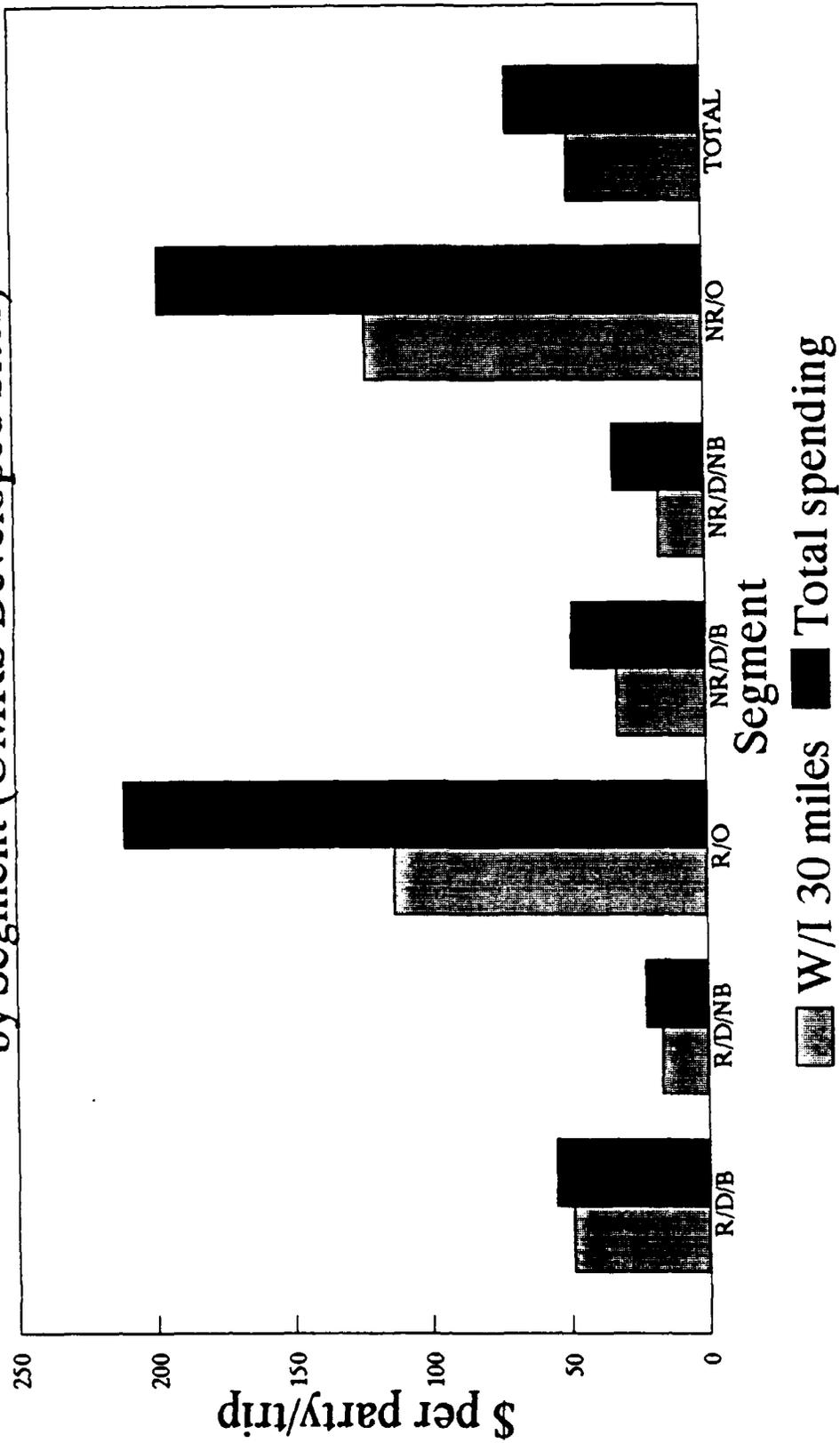


FIGURE B-3: Total Trip Spending (\$MM)
by Segment, UMRS Developed Sites

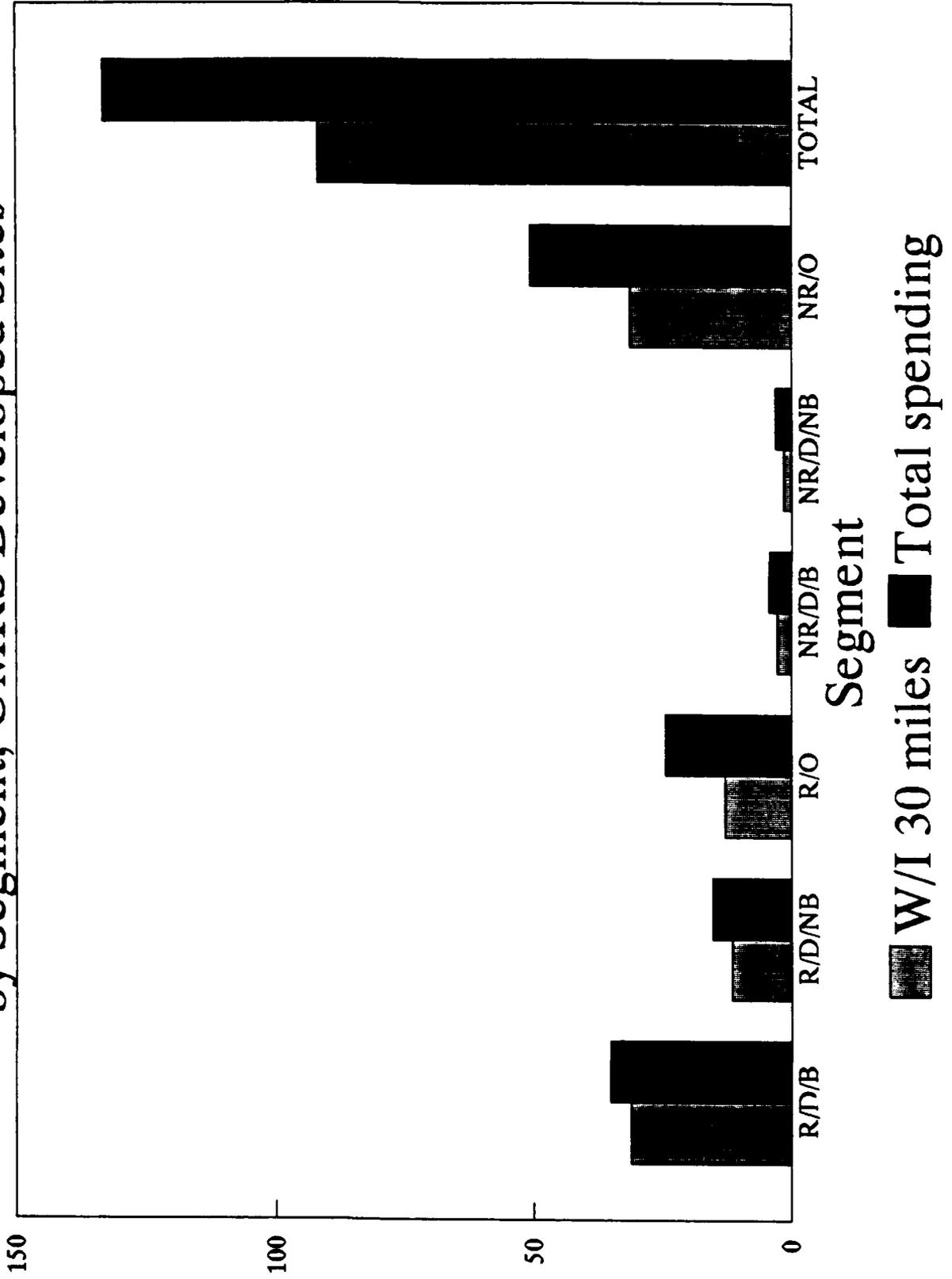


FIGURE B-4: Average Spending Per Party/Trip
 by Spending Category, UMRS Developed Sites

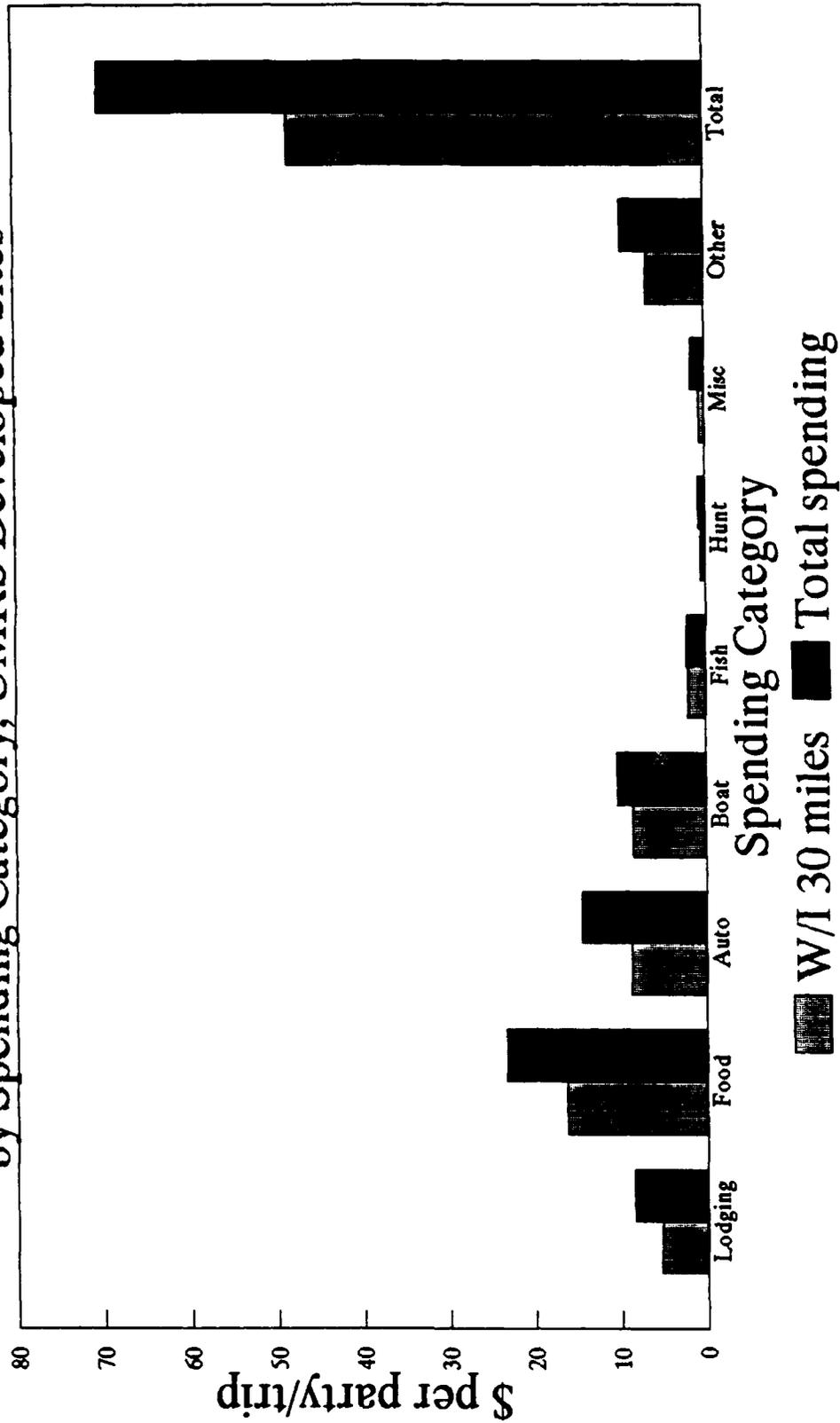
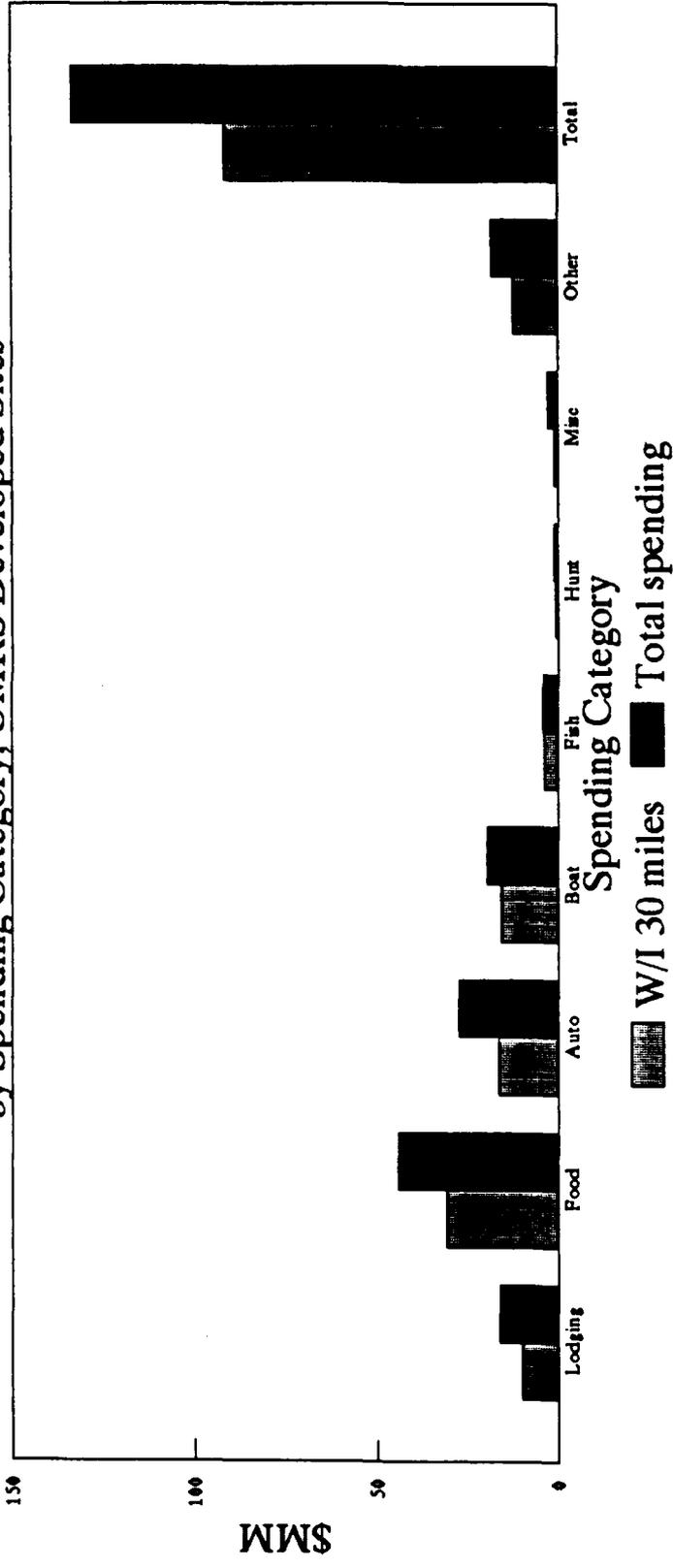


FIGURE B-5: Total Trip Spending (\$MM)
 by Spending Category, UMRS Developed Sites



APPENDIX C

IMPLAN REPORT EXAMPLES

Industry	Base Year Final Demand (MM\$)	Base Year TIO (MM\$)	Employee Comp Income (MM\$)	Property Income (MM\$)	Total POW Income (MM\$)	Total Value Added (MM\$)	Employment Number of Jobs)
1 Agriculture, Forestry & F	5745.1070	9192.3870	423.6645	2466.5290	2890.1930	3058.0260	105273.00
29 Mining	611.1632	858.0852	238.6630	157.1844	395.8474	449.6764	8944.00
66 Construction	10508.2300	12289.4500	3333.9080	2026.8550	5360.7630	5459.9290	161128.00
76 Manufacturing	64485.5900	82718.5300	18571.3800	8951.6900	27523.0700	29152.2800	623992.00
320 HAND AND EDGE TOOLS, N.E.	41.1496	50.4155	16.5440	13.6452	30.1892	30.5455	693.00
322 HARDWARE, N.E.C.	181.8900	238.2675	82.4210	36.8152	119.2362	120.8050	3468.00
331 INTERNAL COMBUSTION ENGINE	389.5744	766.2263	196.9330	147.9634	344.8964	355.2148	5246.00
389 RADIO AND TV RECEIVING SE	34.1147	39.1407	8.6350	-.2539	8.3811	8.5851	329.00
408 SHIP BUILDING AND REPAIRI	7.7604	7.9029	2.8890	.7665	3.6555	3.7038	190.00
409 BOAT BUILDING AND REPAIRI	37.8095	37.8636	9.4700	5.8629	15.3329	15.4061	500.00
411 MOTORCYCLES, BICYCLES, AN	.7066	.7291	.1010	.0850	.1860	.1871	10.00
412 TRAVEL TRAILERS AND CAMPE	8.7756	8.9212	1.7500	.4877	2.2377	2.2926	110.00
415 TRANSPORTATION EQUIPMENT,	19.2786	19.7169	4.4500	1.1363	5.5863	5.6765	205.00
422 WATCHES, CLOCKS, AND PART	3.2736	3.4266	.9810	.2543	1.2353	1.2807	42.00
425 PHOTOGRAPHIC EQUIPMENT AN	103.8646	191.0510	44.8130	29.5789	74.3919	76.2288	1613.00
433 SPORTING AND ATHLETIC GOO	52.2807	52.8094	14.1600	7.1522	21.3122	23.0049	815.00
446 Transportation, Comm. & U	9854.8630	21373.4600	5481.0480	5564.1710	11045.2200	12338.1500	186790.00
452 TRANSPORTATION SERVICES	118.1623	200.4030	78.0630	43.5453	121.6083	125.7245	3803.00
460 RECREATIONAL RELATED WHOL	72.5972	105.7356	50.4400	12.6809	63.1209	74.3344	1864.00
461 OTHER WHOLESALE TRADE	6238.1440	11758.1100	5223.5510	1983.7000	7207.2510	8436.1070	192697.00
462 RECREATIONAL RELATED RETA	312.4122	323.2022	116.3250	56.0296	172.3546	197.3734	9711.00
463 OTHER RETAIL TRADE	11672.9600	12848.6500	5107.5360	1958.4550	7065.9910	8096.1440	328888.00
464 Finance, Insurance & Real	18764.1000	29149.4200	4663.5530	13379.3200	18042.8700	20758.3300	260677.00
471 HOTELS AND LODGING PLACES	525.3561	909.9985	339.8200	160.5724	500.3923	552.9729	28655.00
472 LAUNDRY, CLEANING AND SHO	447.3882	572.0170	170.7250	199.6274	370.3524	375.7402	23980.00
473 SERVICES	16400.5700	25647.9700	11093.9300	5492.0620	16585.9900	16760.1500	702573.00
491 EATING AND DRINKING PLACE	5091.1830	6457.7620	1450.3900	653.3104	2103.7010	3234.8300	180340.00
492 AUTO SERVICES	1391.7270	2422.1200	457.2580	638.3241	1095.5820	1152.2140	36821.00
495 OTHER AMUSE	837.0620	1197.2690	385.9620	133.6355	519.5975	587.5980	33053.00
502 AMUSEMENT AND RECREATION	188.6385	189.2412	63.3250	35.0410	98.3660	107.9081	8545.00
516 Govt. Enterprise & Specia	17532.1900	18828.6000	10479.8200	6975.8480	17455.6600	17455.6600	438144.00

Total 171677.9000 238458.9000 68112.5200 51132.0800 119244.6000 129016.1000 3349099.00
Population = 6893600.

Industry	Base Year Final Demand (MM\$)	Base Year TIO (MM\$)	Employee Comp Income (MM\$)	Property Income (MM\$)	Total PoW Income (MM\$)	Total Value Added (MM\$)	Employment Number of Jobs
1 Agriculture, Forestry & F	25138.3400	50333.1600	2178.0180	13194.0900	15372.1100	16235.4700	590430.00
28 Mining	4922.0890	7184.3210	1720.6550	1424.6860	3145.3410	3649.6740	63103.00
66 Construction	38367.4300	45660.0600	13314.6500	6766.5770	20081.2300	20405.2800	589417.00
76 Manufacturing	230155.7000	293405.9000	71950.3000	28155.7300	100106.0000	104028.7000	2387966.00
320 HAND AND EDGE TOOLS, N.E.	571.6809	647.7974	238.7725	154.6682	393.4407	398.4922	8321.00
322 HARDWARE, N.E.C.	852.6593	1044.9580	381.1802	154.7604	535.9406	542.4266	14098.00
331 INTERNAL COMBUSTION ENGIN	2525.9990	4014.9660	1120.4700	665.4491	1785.9190	1819.1620	29969.00
389 RADIO AND TV RECEIVING SE	627.5486	705.7911	157.5521	-15.4548	142.0973	145.2397	6947.00
408 SHIP BUILDING AND REPAIRI	194.5415	196.8493	93.2847	16.8872	110.1718	110.9298	3065.00
409 BOAT BUILDING AND REPAIRI	317.7609	318.1664	84.3536	43.3279	127.6815	128.1155	4349.00
411 MOTORCYCLES, BICYCLES, AN	48.8914	49.9897	9.3830	3.1424	12.5254	12.5943	711.00
412 TRAVEL TRAILERS AND CAMPE	165.6459	167.0811	39.0927	4.6004	43.6930	44.8986	1824.00
414 MOTOR HOMES	252.4921	253.8037	37.4374	16.7995	54.2368	54.7321	948.00
415 TRANSPORTATION EQUIPMENT,	158.8138	161.6904	38.9829	7.9321	46.9150	47.5632	1574.00
422 WATCHES, CLOCKS, AND PART	140.7615	146.3302	43.2549	8.7274	51.9823	53.8099	1899.00
425 PHOTOGRAPHIC EQUIPMENT AN	721.8562	1197.9840	314.0288	155.8854	469.9142	482.5862	9837.00
423 SPORTING AND ATHLETIC GOO	543.9968	550.6002	165.8176	61.2267	227.0443	243.0696	8066.00
446 Transportation, Comm. & U	32572.9100	75311.3900	21187.8700	18478.5400	39666.4100	44300.0100	693570.00
452 TRANSPORTATION SERVICES	569.1405	891.2656	371.6970	186.5431	558.2401	580.4811	14794.00
460 RECREATIONAL RELATED WHOL	519.7167	669.3789	318.1748	87.6127	405.7875	475.1177	11406.00
461 OTHER WHOLESALE TRADE	24576.3200	46196.9200	21964.7200	6289.1720	28253.8900	33165.4300	755308.00
462 RECREATIONAL RELATED RETA	1094.6960	1131.5070	456.7529	147.7306	604.4835	692.5970	33731.00
463 OTHER RETAIL TRADE	45903.8500	50344.5900	21007.2300	6674.0910	27681.3200	31703.6900	1291499.00
464 Finance, Insurance & Real	69066.0600	110807.4000	20176.1300	45653.2500	65829.3800	79279.0200	996497.00
471 SERVICES	88320.2500	131198.6000	54010.9800	23162.6900	77173.6700	82304.8800	3550023.00
492 AUTO SERVICES	4910.0150	8714.4030	1723.4970	2206.9220	3930.4180	4133.6460	130594.00
495 OTHER AMUSE	2714.8990	3983.8230	1338.8900	370.1221	1709.0120	1875.2210	110640.00
516 Govt. Enterprise & Specia	73682.5900	79149.5500	45813.4600	27578.6500	73392.1200	73392.1200	1803438.00

Total 649636.6000 914438.3000 280256.7000 181654.4000 461910.9000 500304.9000 13114020.00
Population = 28421800.

Industry	Base Year		Base Year TIO (MM\$)	Employee Comp		Property Income (MM\$)	Total POW		Total Value Added (MM\$)	Employment Number of Jobs
	Final Demand (MM\$)	1985		Income (MM\$)	Income (MM\$)		Income (MM\$)	Income (MM\$)		
1 Agriculture, Forestry & F	53203.9000	196595.9000	19334.2000	54883.8500	74218.0500	77544.8500	3860394.00			
28 Mining	14414.6800	176620.0000	34856.0800	68989.1600	103845.2000	123546.0000	1180824.00			
66 Construction	416704.8000	491749.0000	123841.7000	92523.6300	216365.3000	223673.0000	6006310.00			
76 Manufacturing	1043583.0000	2190434.0000	533850.6000	194648.2000	728499.2000	776734.2000	18514520.00			
320 HAND AND EDGE TOOLS, N.E.	1261.2000	2831.3610	993.8455	681.5643	1675.4100	1709.8750	39461.00			
322 HARDWARE, N.E.C.	1224.8670	6823.8880	2483.8900	1054.2870	3538.1770	3611.8420	85935.00			
331 INTERNAL COMBUSTION ENGIN	4872.2160	11398.1200	2996.9090	2010.2780	5007.1870	5233.8310	80994.00			
389 RADIO AND TV RECEIVING SE	5415.7320	6189.8430	1520.6180	-148.4353	1372.1820	1375.2660	50165.00			
408 SHIP BUILDING AND REPAIRI	8590.1910	9707.0210	4411.4600	838.2972	5249.7580	5525.7690	146190.00			
409 BOAT BUILDING AND REPAIRI	3997.3180	4064.6590	1086.8280	562.3205	1649.1480	1679.5040	50850.00			
411 MOTORCYCLES, BICYCLES, AN	1286.1120	1469.8570	312.4107	107.9395	420.3502	433.4894	14095.00			
412 TRAVEL TRAILERS AND CAMPE	1988.1290	2088.2240	465.2699	55.4346	520.7045	567.6944	22006.00			
414 MOTOR HOMES	1850.9610	1928.8070	248.9750	104.8551	353.8302	367.6016	12523.00			
415 TRANSPORTATION EQUIPMENT,	1083.0250	1427.7460	322.4403	65.1103	387.5505	420.1740	13883.00			
422 WATCHES, CLOCKS, AND PART	1107.1510	1157.4290	343.4559	68.4133	411.8692	421.8953	15463.00			
425 PHOTOGRAPHIC EQUIPMENT AN	11614.9200	17016.7400	4730.2730	2324.6900	7054.9640	7186.8130	119656.00			
433 SPORTING AND ATHLETIC GOO	3077.1180	3362.8130	1009.8570	368.5049	1378.3620	1434.6920	55947.00			
446 Transportation, Comm. & U	251053.9000	616768.8000	164346.6000	144574.6000	308921.3000	347969.5000	5455128.00			
452 TRANSPORTATION SERVICES	4427.1690	7495.2340	3308.2900	1248.0800	4556.3690	4772.5160	135250.00			
460 RECREATIONAL RELATED WHOL	3182.5940	4244.2480	2162.2810	472.6204	2634.9020	2975.1230	75576.00			
461 OTHER WHOLESALE TRADE	166834.7000	320954.5000	163321.0000	35768.2000	199089.3000	224817.2000	5737134.00			
462 RECREATIONAL RELATED RETA	9890.7730	10255.8900	4662.9080	1054.1910	5717.0980	6229.8200	313665.00			
463 OTHER RETAIL TRADE	349112.0000	389988.3000	181519.3000	39649.9100	221169.2000	240665.9000	10726280.00			
464 Finance, Insurance & Real	587884.3000	943306.9000	165636.2000	383728.7000	549364.9000	679770.0000	8443804.00			
471 HOTELS AND LODGING PLACES	29258.8800	47189.5900	20240.0300	7279.7010	27519.7300	29942.5900	1297433.00			
472 LAUNDRY, CLEANING AND SHO	11066.1500	14940.0400	6127.5470	2974.8960	9102.4430	9335.2820	747552.00			
473 SERVICES	508518.3000	845408.3000	391080.9000	169458.5000	560539.3000	568810.1000	21273650.00			
491 EATING AND DRINKING PLACE	131470.1000	172185.0000	50365.1100	12675.4800	63040.5900	83715.0000	5325674.00			
492 AUTO SERVICES	53023.5700	93466.0100	14635.3200	29142.3900	43777.7200	48601.9900	1118801.00			
495 OTHER AMUSE	23994.9500	41563.5400	15257.3300	3434.1930	18691.5200	19870.9000	927269.00			
502 AMUSEMENT AND RECREATION	9112.5730	9164.4550	3809.0280	1363.2100	5172.2380	5545.1000	343829.00			
516 Govt. Enterprise & Specia	504113.2000	557051.0000	448196.1000	46935.9100	495132.0000	495132.0000	17259890.00			
Total	4218219.0000	7198847.0000	2367477.0000	1298899.0000	3666376.0000	3999620.0000	109450200.00			
Population =	238699300.									

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