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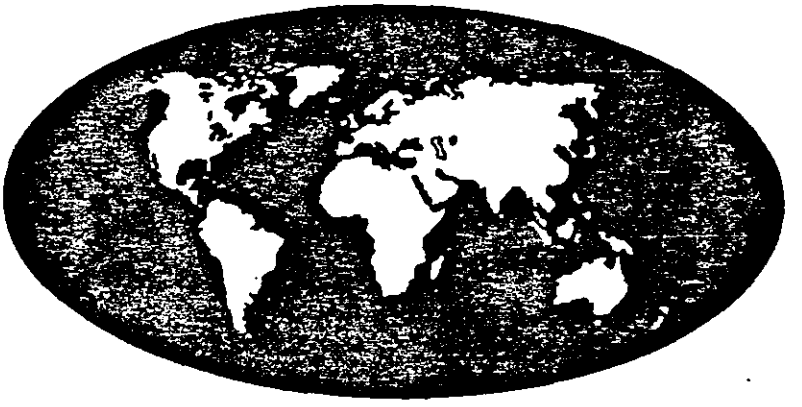


Impact Assessment, Incorporated

PUBLIC AND PRIVATE SECTOR ECONOMIC IMPACTS OF THE EXXON VALDEZ OIL SPILL

An Interim Report For

A STUDY OF THE ECONOMIC, SOCIAL AND PSYCHOLOGICAL IMPACTS OF THE EXXON VALDEZ OIL SPILL

June 1, 1990

INTERIM REPORT #2

PUBLIC AND PRIVATE SECTOR ECONOMIC IMPACTS OF THE EXXON VALDEZ OIL SPILL

For the:

Economic, Social, and Psychological Impact Assessment of the Exxon Valdez Oil Spill

Prepared for:

Oiled Mayors Subcommittee
Alaska Conference of Mayors

Prepared by:

Impact Assessment, Inc.

2160 Avenida de la Playa, Suite A
La Jolla, California 92037

911 West 8th Avenue, Suite 402
Anchorage, Alaska 99501

June 1, 1990

IMPACT ASSESSMENT, INC.

911 WEST 8TH AVENUE. SUITE 402 • ANCHORAGE. ALASKA 99501

TELEPHONE (907) 272-6811 • FACSIMILE (907) 272-6558

June 1, 1990

Mr. Gordon Gould, *City Manager*
City of Kodiak
710 Upper Mill Bay Road
Kodiak, Alaska 99508

Grant # AK-OSG 90-5
Socioeconomic Impact Study

Dear Mr. Gould:

Attached is the second of three Interim Reports as progress toward completion of the Final Report regarding the "Economic, Social, and Psychological Impacts of the Exxon Valdez oil spill. This report addresses private sector economic impacts and presents findings from the continuing analysis of fiscal impacts to local government jurisdictions. The economic base model provides a framework for assessing the direct and induced effects of the oil spill for the major regions within the Gulf Coast labor market area. Observations and findings concerning private and public sector impacts are preliminary, pending further analysis to be conducted for and presented in the final report.

The basis for the presentation of Group A and Group B local government fiscal impacts are the Group A and Group B fiscal templates. In the first Interim Report, the Group A fiscal data were presented as aggregate yearly data. Trends in these data for years 1986-1989 were presented. In this report monthly expenditure and revenue data are presented to examine the patterns for specific communities during the period of potential fiscal impact in 1989. The Group B fiscal templates are the basis for presentation of the fiscal data for communities which are second class cities. These templates are adapted from the Group A templates to reflect the record-keeping and fiscal realities of Group B communities. These adaptations were made after examination of the yearly ADCRA reports submitted by communities that are second class cities. Data are not presented for the second class cities of Chignik Bay and Akhiok because (1) record-keeping in these communities is such that financial records are limited and (2) after the oil spill, community government was sufficiently disrupted that record keeping was disrupted.

These same templates were used as a basis for attempted data collection in communities which are not second class cities, i.e., Indian Reorganization Act (IRA) villages that have Tribal Council forms of government. These communities do not have the same reporting requirements as the ADCRA stipulates for second class cities. Consequently, it was not possible to retrieve data in this format. In fact, only one IRA community, Port Graham, provided fiscal data that could be included in this Interim Report. However, regardless of record-keeping practices, interviews with Tribal Council staff indicate that during the

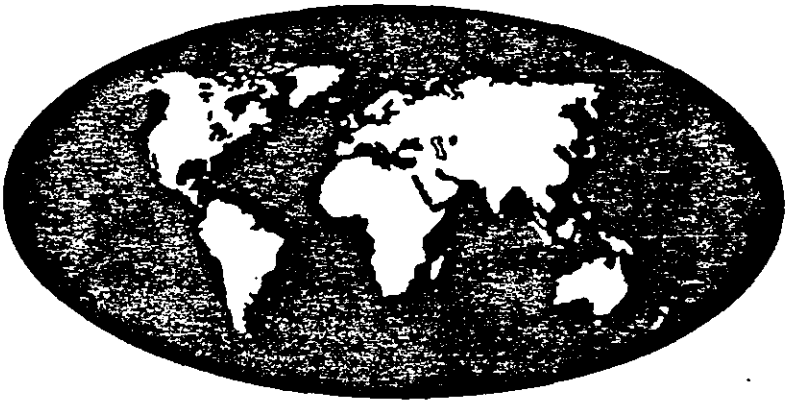
cleanup effort village administrative capabilities were overwhelmed, making fiscal record keeping problematic for even spill-related issues. These issues will be developed in more detail in the Final Report. However, in this Report Port Graham is used as a representative of fiscal impact issues in IRA type communities. That is, in the absence of specific presentations of fiscal data for IRA villages, Port Graham will be used as an example of the types of fiscal issues experienced by other village communities.

We would once again like to take the opportunity to thank finance directors, city managers, village administrators and other local government staff who have taken the time to develop the information contained in this report. We have uniformly received extraordinary cooperation in our requests for materials that often take substantial time to assemble. The cordial attitudes and cooperation extended to us have made a significant difference in the completion of this work.

If you have any questions about this Interim Report or require elaboration of any of the analysis or data, please contact us at your convenience.

Best wishes,

John S. Petterson, Ph.D.
President



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A STUDY OF THE ECONOMIC, SOCIAL AND PSYCHOLOGICAL IMPACTS OF THE EXXON VALDEZ OIL SPILL

June 1, 1990

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

EXECUTIVE SUMMARY

This report is the second in a series of three interim reports prepared under contract to the Oiled Mayors. It contains an analysis of private sector economic impacts and public sector fiscal impacts brought about as a consequence of the *Exxon Valdez* oil spill and cleanup on major Group A jurisdictions and Group B communities in the Oiled Mayors' study area.

The conceptual framework applied to the economic analysis is the economic base model, also known as the export base model. Using this framework, regional economic activity is organized into basic and support sectors. The basic sector industries "drive" the economy. They produce goods and services for export rather than for local consumption. Important basic industries include commercial fish harvesting and processing. Tourism represents another increasingly important basic industry in Alaska's Gulf Coast region. In this study, oil spill cleanup is interpreted as a new basic sector industry, one that was suddenly thrust upon an established economy dominated by commercial fishing. Support sector industries, such as trade, services, transportation, local manufacturing and construction respond to markets in the local economy. Support industry activity is determined by the amount of activity in the basic sector. The base model provides a systematic framework for assessing direct and multiplier-induced economic impacts.

Findings from the base model analysis indicate that oil spill cleanup operations generated employment expansion among support-sector industries not tied directly to the spill cleanup. Over the course of the six-month cleanup period, the amount of spin-off (induced) employment generated gradually exceeded the direct spill cleanup employment, and continued to affect all three regional economies to varying degrees after cleanup operations shut down in September 1989. The spending of windfall earnings continued to feed a post-cleanup expansion during the fourth quarter of 1989. Isolating the combined effects of direct and induced expansion provides a sense of what the economy would have looked like under no-spill conditions.

The analysis indicates that commercial fishing continued to dominate the regional economy in spite of closures in Gulf Coast waters for many species. Nevertheless, actual commercial fish harvests were significantly below official harvest projections for many species and management areas. Estimates of commercial fishing impacts are forthcoming. They will be based on hypothetical scenarios of what fishing activity would have looked like under no-spill conditions.

Section Three of this report is a continuation of the analysis of oil spill fiscal impacts on local government revenues and expenditures. For the more populous and previously reported Group A jurisdictions, this report shows how monthly patterns of selected revenues and expenditures were affected by the spill. For the less populous and often remote Group B communities, which include both incorporated cities and unincorporated villages, the information available in the villages was limited and insufficient for making comparisons.

However, what is available has been included in this report. Consequently, the report includes comparative information only for seven of the eight Group B Cities. Only four of the eight Group B cities reported sufficient quarterly detail for the analysis contained in this report. As a result, no clear revenue and expenditure patterns emerged for the Group B cities. The four Group B cities for which data was reported were scattered throughout the spill area. They provide a good cross-sectional view of how revenues and expenditures were affected as the spill moved southward.

Four significant findings emerge from this study:

1. Revenues are rapidly moving back to normal patterns. Fish tax may be the exception.

2. From the information available, it is not possible to determine additional costs that may be incurred in the future due to delays in maintenance and capital projects, nor how other expenditures such as insurance and auditing will be affected.

3. The monthly reports of the Group A communities reveal that mental health and alcoholism costs have shown an increase after the spill. If this trend continues, additional fiscal burdens will be created for the jurisdictions reviewed.

4. It does appear that Exxon was less attentive to the Group B cities than it was to the Group A cities.

The spill and cleanup placed demands on the villages and smaller cities that extended their social and governmental resources beyond capacity. The activity of usual community life was displaced by the need to respond to the oil spill and to secure an income against potential loss of subsistence resources. Similarly, efforts normally applied toward continued administrative development were redirected and administrative records were not maintained that would have provided meaningful fiscal information.

It should also be noted that in the Group B cities, due to the sudden increase in workloads, accounting staffs were generally overworked and overwhelmed. At the outset, there was neither direction given as to accounting methods nor consistent information as to what would be reimbursed. Also, among the various administrative staffs, there was a perception that Exxon paid only what it had to, where it had to, and without uniform treatment allocated to each community. There was also a common understanding in the communities about what Exxon would not pay for: for example, child care and other social service needs. For these reasons, there are undoubtedly many costs that went unreported and unreimbursed.

1.0 INTRODUCTION

This report is the second in a series of three interim reports associated with an ongoing study of the economic, social and psychological effects of the *Exxon Valdez* oil spill. It was prepared for the Oiled Mayors. The first interim report, entitled, Interim Report #1 Analysis of Fiscal Impacts to Local Jurisdictions, was submitted in March, 1990. This second report summarizes current research findings on two major subjects: (1) private sector economic impacts and (2) public sector fiscal impacts.

The economic base model is the conceptual and operational framework used for measuring private sector economic impacts and for describing economic structure and performance. Employment is the indicator of economic activity used in the base model. Time series employment data available from regularly published statistical sources was combined with specially developed estimates of commercial fish harvesting employment and direct spill cleanup employment. The primary geographic areas of analysis include three Gulf Coast regions: the Valdez-Cordova Census Area, the Kenai Peninsula Borough and the Kodiak Island Borough. Appendix A contains more detailed figures on employment composition for the seven Group-A, first-class cities in the Oiled Mayors' study area. The objective of the economic analysis is to describe the magnitude of the short-term direct and induced effects arising from the oil spill event and to give a sense of the total effects of the spill on several key regions that comprise the Gulf Coast economy. The intent is to provide a historical perspective on what happened and to set the stage for subsequent analysis of primary data collected in connection with the Oiled Mayors' business survey.

The second part of this interim report addresses public sector fiscal impacts. This material may be viewed as an extension of the analysis and findings presented in Interim Report #1. It examines the revenue and expenditure patterns among the smaller Group B communities, with special attention given to oil spill-related revenues, expenditures, and claims. Also, the analysis of fiscal data investigates seasonal patterns using monthly data for selected revenue and expenditure categories for Group A jurisdictions. Much of the fiscal analysis is based on primary revenue and expenditure data prepared especially for this study by government officials in communities throughout the Gulf Coast study area. Again, we extend our sincere thanks to the mayors, city managers, finance directors, treasurers and department heads that contributed to this effort.

This report is organized into three sections. Section 1.0 is this introduction. Section 2.0 is entitled "Private Sector Economic Impacts." It contains a discussion of the economic base model conceptual framework, an extensive review of the methods and assumptions used to develop and adapt employment data to the base model, and a summary of findings. The material in Section 2.0 was prepared by George Rogers, Will Nebesky and Liesl Schernthanner.

Section 3.0 is entitled, "Public Sector Fiscal Impacts." It is divided into two parts. The first addresses Group A monthly revenue and expenditures. The second part examines Group B oil spill revenues and expenditures and Exxon payments to villages. This section was prepared by Jack Ference, John Russell and Stephanie Paladino.

This report also contains four technical appendices. Appendix A summarizes detailed time-series employment data broken down by major industry group and base-model sector for the seven Group A first-class cities. Appendix B summarizes monthly revenues and expenditures for Group A jurisdictions. Appendix C presents annual revenue and expenditure data by category for selected Group B communities. Appendix D summarizes quarterly revenues and expenditures by category for Group B communities.

2.0 PRIVATE SECTOR ECONOMIC IMPACTS: THE STRUCTURE AND PERFORMANCE OF GULF COAST REGION ECONOMIES

2.1 Introduction

The objective of Section 2.0 is to describe how Gulf Coast economies responded to the events surrounding the *Exxon Valdez* oil spill. The research approach for this task involved consolidating data from a wide variety of secondary sources into a meaningful framework of analysis. The approach utilizes a conceptual framework commonly referred to as an "economic base" model. This framework distinguishes between "direct" and "induced" impacts. Direct impacts are defined as employment and income changes directly associated with beach cleanup operations and spill-related fishery closures. Induced impacts are defined as indirect expansion or contraction of the economy brought about as a result of direct changes. The analysis focuses on annual average employment for the period 1980 to 1989 and average monthly employment for the periods 1988 and 1989. The intent of this work is to provide an understanding of short-term impacts and to set the stage for meaningful analysis of longer-term changes in the structure and performance of the Gulf Coast regional economy. In particular, the analysis contained here will provide a framework for the forthcoming analysis of business survey results.

The geographic focus of this section is on the three major regions in Alaska's North Gulf Coast Area. They are the Valdez-Cordova Census Area, the Kenai Peninsula Borough and the Kodiak Island Borough. Table 2.1 identifies the geographic relationship between wage-and-salary employment data and commercial fishery statistics. While much of the analysis contained in this interim report is regional in nature, considerable effort was allocated to developing employment information for individual Group-A first-class jurisdictions. This community-level information is summarized in Appendix A (excluding fish harvesting employment).

Section 2.0 is divided into four parts. Part 2.1 is this introduction. Part 2.2 reviews the economic base model framework and its applicability to the kind of analysis presented in this report. Part 2.3 outlines in some detail the methods and assumptions used to develop estimates of fish harvesting employment and wage-and-salary employment, including direct oil spill cleanup employment. Part 2.4 summarizes the findings of the economic base model analysis in terms of both annual and seasonal patterns of change. Annual and monthly time series employment data is organized by major industry groups within the basic, support and government sectors of the Gulf Coast regional economies.

Table 2.1 Geographic Areas Associated with Employment and Fisheries Statistics

Alaska Department of Labor Categories			
U.S. Census Areas	Sub Areas	Labor Market Areas	Commercial Fisheries Management Regions
Valdez-Cordova	Prince William Sound	Gulf Coast	Prince William Sound
Kenai Peninsula Borough	Cook Inlet	Gulf Coast	Cook Inlet
Kodiak Island Borough	Kodiak	Gulf Coast	Kodiak
Dillingham	Chignik	Southwest	Aleutian Peninsula

2.2 The Economic Base Model

In approaching the research task of this phase of the study, two general questions must be asked and answered before reaching into the tool box. First, what are the questions being asked and what are the most appropriate terms in which answers can be framed? In this part of the study, the questions focus on the impact of the *Exxon Valdez* oil spill and subsequent cleanup on communities. The questions focus on socioeconomic change within a region that embraces fisheries, wildlife and scenic resources. This can be measured most appropriately in terms of population, employment and income. Data for these measures are available from regularly published and computer-accessible statistical sources.

Secondly, what is the nature of the subject region and its economic system? The region is rich in petroleum, marine, wildlife and scenic resources. Its location on the North Pacific Great Circle Route gives it strategic defense and transportation value. Its economy produces raw or semi-processed materials (fish products, petroleum, timber) primarily for export, provides defense services and offers scenic and recreational resources for enjoyment of Alaska residents and tourists. It is far from self-sufficient. Virtually all of the goods required by its residents and the supplies, equipment and capital required by its industries must be imported from outside the region. In short, it is the classical colonial system. Given the simplicity of these systems, overly elaborate models are not appropriate. Because of its basic colonial nature, it does not lend itself to input-output analysis. Given the question being asked, models designed to study regional change were considered. One of the simplest and most useful is the "export-base" concept.

The theory on which this model is based hypothesizes that the factor initiating change and determining its extent is its export base. Change in a given region, it is proposed, is initiated by the response of the industries within this region to an increase or decrease in demand arising outside the region itself. This results in an expansion or contraction of economic activities, particularly local trade and service activities, through a multiplier process. The total direct impact of outside forces of change is determined not only by the magnitude of the initial impact, but by the interindustry relations within the economic system as well. Through a further extension of this process, change in total employment is assumed to change total population by other multipliers and through a backward linkage from employment to resource harvest levels.

This study uses a modified version of the traditional export-base model. The term "base" is applied to the traditional "export" sector. The induced sector is classified as "support." Also, the present model has been significantly simplified. Total employment in the regional economy is simply divided into three categories: basic, support and government. Federal, State and local government employment is treated as a neutral category for present purposes. The model does not extend to consideration of the relationship between population, total employees and government. Employment in the basic sector is, of course, exogenously determined. That is, it is determined by factors that originate outside of the regional economy and is largely unaffected by incremental shifts in local economic

conditions. Support sector employment is proportionately related to total non-government employment. Three equations reflecting these relationships are outlined below. Three equations in three variables can be solved to show that total employment is strictly a function of employment in the base sector. The multiplier relating total non-government employment to base employment is determined by the parameters c_1:

$$(1) \quad E = B + S$$

$$(2) \quad B = B_o$$

$$(3) \quad S = c_1 E$$

Then, $E = B_o + c_1 E$

Or,

$$E = \frac{1}{1 - c_1} B_o$$

Where E = Total Non-government Employment

B = Basic Sector Employment

S = Support Sector Employment

The data sources from which the models for this study were assembled are all regularly available statistical series: the monthly series on civilian non-farm wage and salary employment published quarterly by the Alaska Department of Labor, estimates of fish harvesting employment (self-employment, share-paid and wage-paid crew) and income calculated from data provided by the Alaska Commercial Fisheries Entry Commission, and annual personal income published by the U.S. Department of Commerce. This is discussed more fully in the following section 2.3.

The first step in structuring the model from the data was determination of basic and a support industries. Table 2.2 shows the definitions of basic and support industry groups used in this study. On a case-by-case basis, a determination was made by referring to the definitions of each sector. For example, the establishment of a new fishery would introduce new jobs and income into the economy directly and induce further expansion in employment and income through additional support sector activities. On the other hand, in the absence of any change in the basic sector, a new grocery store would merely fight for a share of the existing market.

Table 2.2 Definition of Basic and Support Sector Industries

Industry Type

BASIC SECTOR BUSINESS FIRMS

- Commercial Fishing
- Fish Processing
- Tourism
- Oil Spill & Cleanup
- Other
  - Logging, Lumber, Pulp
  - Construction (public works)
  - Mining
  - Agriculture & Forestry

SUPPORT SECTOR BUSINESS FIRMS

- Manufacturing (local)
- Construction (local)
- Transportation, Communication, & Utilities
- Trade
- Finance, Insurance, Real Estate
- Services,
  - Personal
  - Business
  - Auto & Misc. Repair
  - Amuse. & Rec.
  - Health
  - Professional
  - Miscellaneous

GOVERNMENT EMPLOYMENT

- Federal
- State
- Local

Given the classical colonial nature of the region's economy, the most obvious group of industries providing candidates for the basic sector are commodity-producing industries fish harvesting and processing, forest products and minerals. Virtually all of their output is for markets outside the region and determined by external forces, the typical "export" industry. Non-fish manufacturing, however, is a catch-all of miscellaneous commodity-producing activities, mostly for regional consumption (e.g., bakeries, newspapers, etc.) and, therefore, was included in the support sector.

Construction could be either basic or support since elements of it frequently take on the characteristics of either sector. Construction of homes, schools, local utilities, etc. would be included in the support sector. Public works are generally assumed to be support in nature. However, the flow of state petroleum dollars created a general construction boom in all parts of Alaska during the 1970s and early 1980s. Many of these projects would not have been undertaken in the absence of this money and, therefore, public works construction has been divided between basic and support.

Tourism is an important base industry of the region, but few sources of reliable data exist for making accurate estimates of tourist employment. This is due to problems of definition and because the industrial classification of employment in available statistics is by the type of goods and services produced rather than by the type of purchaser or use made of the product. This is more fully discussed under section 2.35 below.

In summary, the economic base model is useful for evaluating the immediate direct and induced economic impacts of an event such as the *Exxon Valdez* oil spill. This model is not being applied to predict. It is being applied to this study to describe the extent and magnitude of economic change across the Gulf Coast region and to probe for possible indications of structural change arising as a consequence of the oil spill. The economic base model is nothing more than a framework for repackaging historic time series indicators of economic activity in meaningful ways.

2.3 Methods and Assumptions For Fish Harvesting and Wage and Salary Employment Data

2.31 Introduction

The base model analysis presented in this interim report relies on a set of fairly detailed employment figures for the three major geographic study areas (Kodiak Island Borough, Kenai Peninsula Borough and the Valdez-Cordova Census Area) and seven first-class cities (Valdez, Cordova, Kenai City, Soldotna, Seward, Homer and Kodiak City). These ten Group-A jurisdictions comprise the overall geographic area of analysis. The economic base model application contained in this report uses the Alaska Department of Labor (ADOL) definitions of annual and monthly employment (i.e. number of jobs) as the economic indicator. Annual employment data covers the period 1980 to 1989. Monthly employment data is presented for 1988 and 1989. The employment figures are also divided into major industry groups, organized into three major sectors dictated by the economic base model framework: basic, support and government.

Employment figures developed and published by the ADOL are used for this analysis. This data is based on quarterly Employment Security records compiled by the ADOL. Its chief advantages are consistency and industry group detail, especially for ADOL sub areas (boroughs and census areas). ADOL employment statistics cover business firms that have one or more employees. By law, these firms are required to file and remit Employment Security taxes on a quarterly basis to the state of Alaska. Small business proprietorships and other firms that do not have employees are not reflected in the ADOL employment statistics. Thus, commercial fishermen are not required to file quarterly employment security reports and are not represented in the ADOL statistics. Furthermore, the ADOL is prohibited by law from reporting employment and payroll information if the number of businesses representing a particular industry group is small or if a large firm dominates a particular industry group. Thus, data connected with the manufacturing industry may not be disclosed in a community or labor market area in which one or two seafood processing firms account for the bulk of that community's manufacturing employment.

A series of employment estimates were developed to supplement actual employment data from the ADOL and to complete the employment picture needed to conduct the base model analysis. These estimates are divided into three major employment categories:

- Commercial fishing employment
- Direct oil spill employment,
- Employment for the third and fourth quarters of 1989, and
- Employment for special industry groups.

2.32 Commercial Fishing Employment

Although fish harvesting is an important source of income and employment, it is not covered in the statistical series regularly published by the ADOL, which are limited to "non-agricultural" wage and salary employment. The series is derived from employer quarterly reports included in the unemployment insurance program and are inclusive of activities which can be broken down into standard pay periods. By definition and the nature of its activities, commercial fishing does not meet any of these conditions. This exclusion from the ADOL series, however, limits the usefulness. Attempts have been made to remedy this with compatible estimates for use in conjunction with the non-agricultural wage and salary estimates. All start with the recognition that these series are not "employment," but rather "the number of jobs that were filled during the pay period containing the 12th day of each month." In fisheries a "job" can be defined as any operating gear multiplied by an appropriate crew factor. Regular pay periods are unknown in the industry, so the estimates are limited to an unduplicated count of the operating units each month.

Existing series providing estimates of employment and gross earnings by species, gear and labor market areas extend from 1965 to 1984. The original estimates were based upon fish ticket information and tied to registered vessels or gear making landings. The advent of the Commercial Fisheries Entry program provided a greater depth and variety of data. Estimates based upon gear operator rather than licensed units of gear provided improved results and a wider range of information (e.g. operator's place of residence as well as the areas fished).

The estimates used in this study for the years 1980 through 1984 are from the latest version published by the Commercial Entry Commission (Rick Focht, CFEC Report No. 86-8, August 1986). For purposes of this interim report preliminary estimates were made for 1985-89. Pending the generation of information upon which to replicate the established estimating methodology, a number of sources and assumptions were called upon.

The latest published estimates (1983-84) were used as the base from which to project the intervening years and the monthly seasonal pattern for all fisheries except the recently expanding groundfish and sablefish fisheries. A combination of ADFG indices of "fishing effort" (vessels participating, landings, etc.) were related to the 1983-84 employment estimates to create employment factors to apply to future effort indicators. For the two major emerging fisheries, employment estimates were related to catch by area.

The following tables summarize the estimates of commercial fishing employment by general fishery management and statistical areas. As discussed elsewhere, these geographic units embrace other statistical units (labor market areas of the ADOL census divisions and places). The summary data by major fish species was aggregated from estimates made for each gear type used. These will be useful in the more detailed analysis of impacts scheduled for the final report.

Table 2.3 presents fishing employment as annual averages for the years 1980 through 1989. Because of the heavy monetary investment represented by ownership of an entry permit and required gear and vessel, the number of "unique persons" engaged in fishing remains relatively constant. Variations in the twelve month averages for each year reflects the number of months fished. This is a very weak correlation therefore, between employment and statistical series of catch and value of catch to fishermen . Like farmers, fishermen must live with the cyclical rhythm of fluctuation in resource abundance. Each season they "gear up" and survive on the hope (or belief) that over the long-run the good season will outweigh the bad season.

In addition to cyclical fluctuations over time, another major characteristic of a fishery dominated economy is extreme seasonal fluctuations within the year. Tables 2.4 and 2.5 present monthly employment estimates for calendar years 1988 and 1989 by management region and major fish type. Like the annual average estimates, these can be desegregated by gear types for detailed analysis.

In addition to revising these interim estimates as permit holder data becomes available, data will be generated for gear operators and crew members who are residents of the study region by census divisions and places. This will be compatible with annual estimates provided by the U.S. Department of Commerce of personal income received by residents of census divisions. Together this will be the basis for analysis of households in the study region and the impact of economic change upon them.

For each census division within the study region, Table 2.6 summarizes the number of permits fished each year for 1980 through 1988 (this will be connected to employment estimates), the catch and gross income earned. In its final form these place of residence data will be presented in terms of the fisheries in which the permits participated (management area, gear type and species) to facilitate relating the household analysis to that of the total economy.

Table 2.3
Commercial Fish Harvesting
Average Annual Employment 1980 - 1989

Region	Type of Fish	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Prince William Sound -											
Copper River Area	Salmon	420	417	415	413	419	435	435	435	435	370
	Herring	25	34	36	35	44	43	46	46	49	
	Halibut	65	50	78	75	70	70	80	100	100	100
	Sablefish		5	10	10	34	30	30	70	56	70
	Groundfish	10	10	10	10	2	10	10	20	31	35
	Shellfish	74	72	63	103	72	52	53	61	53	50
	PWS-CR Area Total	595	588	611	647	639	639	654	732	723	625
Cook Inlet Area (Including Seward)											
	Salmon	485	597	490	483	477	467	493	480	483	450
	Herring	8	12	11	21	23	42	46	130	100	33
	Halibut	230	200	290	253	257	260	260	260	260	260
	Sablefish		5	5		5	40	70	100	150	160
	Groundfish	10	12	23	20	1	20	40	120	115	130
	Shellfish	127	174	188	143	175	187	159	165	163	44
	Cook Inlet Total	860	1000	1006	921	937	1017	1068	1255	1271	1077
Kodiak Island Area	Salmon	440	440	440	445	431	432	435	440	440	350
	Herring	57	50	39	41	38	46	46	46	59	57
	Halibut	160	130	190	174	176	180	180	180	180	180
	Sablefish	5			8	25	100	120	130	175	200
	Groundfish		25	30	27	40	120	300	400	457	500
	Shellfish	338	415	522	362	311	255	207	157	148	145
	Kodiak Area Total	1000	1060	1229	1055	1021	1133	1288	1353	1459	1432
Chignik Area	Salmon	146	149	152	148	143	146	144	147	147	125
	Herring	3	6	5	4	4	2	3	4	3	3
	Shellfish	62	18	28	36	11	11	6	8	6	6
	Chignik Area Total	211	172	184	188	157	159	153	159	156	134

Table 2.4

1988 Commercial Fish Harvesting Employment by Month

Region	Type of Fish	January	February	March	April	May	June	July	August	September	October	November	December	12 Month Average
Prince William Sound - Copper River Area	Salmon				0	644	681	1703	1681	499	13			435.1
	Herring				522	65								48.9
	Halibut				0	944			256					100.0
	Sablefish			4	525	103	26	4	4					55.5
	Groundfish	4	8	35	101	106	100	4	4					30.2
	Shellfish			8	95	167	168	146	43	6				52.8
	PWS-CR Area Total	4	8	47	1243	2029	975	1857	1988	505	13	0	0	722.4
Cook Inlet Area (Including Seward)	Salmon						1095	2609	2002	83				482.4
	Herring				600	600								100.0
	Halibut					2419			700					259.9
	Sablefish	4	12	38	766	929	46	4	4					150.3
	Groundfish	72	239	644	113	85	106	95	26					115.0
	Shellfish	107	90	73	67	117	174	182	203	176	167	470	127	162.8
	Cook Inlet Total	183	341	755	1546	4150	1421	2890	2935	259	167	470	127	1270.3
Kodiak Island Area	Salmon						1300	1700	1692	597				440.8
	Herring				553	154								58.9
	Halibut					1150			470	550				180.8
	Sablefish	4	16	45	893	1084	54	4	4					175.3
	Groundfish	370	1035	2420	440	334	414	370	100					456.9
	Shellfish	7	196	565	170	56	118	137	127	135	145	66	50	147.7
	Kodiak Area Total	381	1247	3030	2056	2778	1886	2211	2393	1282	145	66	50	1460.4
Chignik Area	Salmon						515	520	497	233				147.1
	Herring				10	26								3.0
	Shellfish	30	44											6.2
	Chignik Area Total	30	44		10	26	515	520	497	233				156.3

Table 2.5

1989 Commercial Fish Harvesting Employment by Month

Region	Type of Fish	January	February	March	April	May	June	July	August	September	October	November	December	12 Month Average
Prince William Sound - Copper River Area	Salmon					578	579	1488	1430	424	10			375.8
	Herring	closed	closed	closed	closed	closed	closed	closed	closed	closed	closed	closed	closed	0.0
	Halibut					944			251					99.6
	Sablefish			8	670	180	30	4	4					74.7
	Groundfish	4	12	40	118	117	118	4	4					34.8
	Shellfish			5	90	155	160	140	40	5				49.6
	PWS-CR Area Total	4	12	53	878	1974	887	1636	1729	429	10	0	0	634.3
Cook Inlet Area (Including Seward)														0.0
	Salmon						1022	2434	1868	77				450.1
	Herring				200	196								33.0
	Halibut					2419			700					259.9
	Sablefish	4	15	40	810	990	50	4	4					159.8
	Groundfish	100	270	730	100	100	130	110	30					130.8
	Shellfish	30	24	20	18	32	47	49	55	48	45	127	34	44.1
	Cook Inlet Total	134	309	790	1128	3737	1249	2597	2657	125	45	127	34	1077.7
Kodiak Island Area	Salmon						1035	1350	1344	475				350.3
	Herring				340	145								40.4
	Halibut					1150			470	550				180.8
	Sablefish	4	20	50	1020	1230	60	6	4					199.5
	Groundfish	314	1040	2800	490	370	460	410	115					499.9
	Shellfish	6	192	555	167	55	116	134	125	133	142	65	38	144.0
	Kodiak Area Total	324	1252	3405	2017	2950	1671	1900	2058	1158	142	65	38	1415.0
Chignik Area	Salmon						450	440	430	180				125.0
	Herring				10	26								3.0
	Shellfish	26	40											5.5
	Chignik Area Total	26	40	0	10	26	450	440	430	180	0	0	0	133.5

Table 2.6
Permits Fished, Catch and Gross Earnings
By Census Division of Residence
1980-1988

Census Division	Type of Fish	1980	1981	1982	1983	1984	1985	1986	1987	1988
Valdez/Cordova	Number of Permits Fished	832	822	811	880	760	769	834	956	908
	Pounds (Thousands)	53,129	82,979	62,198	46,810	57,649	70,875	45,636	75,336	40,344
	Gross Earnings (Thousands $)	23,177	40,241	29,303	18,226	24,256	31,511	26,035	48,568	45,521
	Gross Earnings Per Permit ($)	27,857	48,955	36,132	20,711	31,916	40,977	31,217	50,803	50,133
Kenai Peninsula Borough	Number of Permits Fished	1,948	1,918	2,031	2,135	2,061	1,988	2,099	2,677	2,657
	Pounds (Thousands)	67,751	77,621	87,541	80,021	75,076	83,613	83,502	111,406	107,335
	Gross Earnings (Thousands $)	35,811	52,090	54,339	45,498	39,818	55,784	68,218	122,805	
	Gross Earnings Per Permit ($)	18,383	27,158	26,755	21,311	19,320	28,060	32,500	45,874	
Kodiak Island Borough	Number of Permits Fished	1,490	1,690	1,642	1,677	1,615	1,434	1,561	1,727	1,661
	Pounds (Thousands)	157,747	131,488	98,104	91,777	110,685	98,951	158,937	165,355	188,819
	Gross Earnings (Thousands $)	88,487	97,067	86,117	57,758	61,791	63,478	93,968		
	Gross Earnings Per Permit ($)	59,387	57,436	52,446	34,441	38,261	44,266	60,197		

2.33 Direct Oil Spill Employment

Direct oil spill employment shown by month and by ADOL "sub areas" and "sub subareas" in Table 2.7, is presented by place of work and by place of residence. All of the official employment figures published by the ADOL are defined on a place-of-work basis. In many cases, place of work and place of residence are identical. However, in order to assess the impacts of direct oil spill employment within a given community or region, the distinction between place of work and residence is of critical importance. In order to fully assess economic impacts associated with new employment, it is important to know where the employees reside and thereby spend their earnings. Table 8 show the geographic classification of cities and places within each of the major ADOL sub areas relevant to this study.

The place-of-work figures shown in Table 2.7 were compiled by ADOL staff from employment reports submitted to the ADOL by Jeff Day of Hackney, Holden, & Breeze (HHB), public relations consultants representing VECO, Incorporated. The VECO records include all beach maintenance personnel and vessel crews contracted and sub-contracted through VECO, Inc., including NORCON union employment. ADOL staff classified all oil spill cleanup employment under the sanitary services standard industry category (SIC code 4959). This industry subgroup falls under the broader transportation heading and is contained in published ADOL statistics for the transportation, communication and utilities (TCU) industry group. In this study, spill employment was subtracted from TCU and placed in its own industry category called Oil Spill. All TCU data contained in this report is presented net of oil spill employment.

Spill employment by place of residence was compiled by IAI staff from a series of VECO monthly reports depicting the residence of spill cleanup employees. Reports for the months of May, July and August were made available to IAI by HHB. The resident status of VECO and NORCON employment was covered for May only. The resident distribution of NORCON workers was assumed to follow patterns similar to those exhibited by VECO workers in the larger first class jurisdictions for July and August. Procedures for estimating NORCON employment residency were developed under the assumption that, as union employment, the NORCON workers would be likely to reside in larger, predominantly non-Native communities.

A two-stage procedure was developed for estimating total VECO and NORCON oil spill cleanup employment by place of residence for April, June and September, for which this data was not available. The first stage involved performing a trend analysis of shifting resident status for the months in which actual (or partial) data on employment by place of residence was available. In Figure 2.1, the proportion of total spill cleanup employment by place of residence is plotted for the months of May, July and August. The plotted data indicate that the resident distribution of oil spill cleanup employment gradually shifted over the course of the six-month cleanup period. The proportion of total spill cleanup employment residing in Anchorage increased steadily from 27 percent in May to 46 percent

Table 2.7 VECO & NORCON Oil Spill Cleanup Employment by Place of Work and by Place of Residence for ADOL Labor Market Areas (April - September, 1989)

ADOL Sub Areas	April 89		May 89		June 89		July 89		August 89		September 89	
	Place of Work	Residence	Work	Residence	Work	Residence	Work	Residence	Work	Residence	Work	Residence
Anchorage (623)	0	172	73	835	110	1170	203	1447	156	1786	141	1087
Kenai Peninsula Borough (122)	0	329	735	1101	768	978	623	688	477	559	264	251
Kenai-Cook Inlet (71)		200	283	669	282	509	165	358	116	279	29	125
Tyonek (711)		0	0	0	0	0	0	0	0	13	0	6
Kenai City (712)		33	0	110	0	131	0	92	0	69	0	31
Soldotna (713)		33	0	110	0	132	0	93	0	80	0	36
Hope (714)		1	0	5	0	0	0	0	0	6	0	3
Ninilchik (715)		7	0	24	0	0	0	0	0	12	0	5
Homer City (716)		93	168	310	188	182	115	128	81	70	29	31
Seldovia (717)		33	115	110	94	64	50	45	35	29		13
Seward (72)	0	129	452	432	486	469	458	330	361	280	235	126
Seward City (721)		129	289	432	347	337	215	237	152	224	154	101
Kenai Mountains (722)		0	163	0	139	132	243	93	209	56	81	25
Kodiak Island Borough (150)	0	23	292	284	524	616	833	897	924	950	260	502
Kodiak (74)		23	292	284	524	616	833	897	924	950	260	502
Kodiak City (741)		19	292	233	524	491	833	715	924	782	260	413
Afognak (742)		3	0	37	0	60	0	87	0	65	0	34
Shearwater Bay (743)		1	0	14	0	65	0	95	0	103	0	54
Valdez-Cordova (261)	807	258	2122	893	2761	833	2963	692	3076	596	1824	251
Prince William Sound (75)	711	166	1866	575	2536	589	2916	489	3032	428	1784	180
Knight Island (751)	192	25	559	88	409	63	16	52	15	44	13	19
Valdez City (752)	326	127	864	440	1299	526	981	437	874	380	970	160
Montague Island (753)	193	14	443	47	828	0	1919	0	2143	4	801	2
Cordova (76)	96	92	256	318	225	244	47	203	44	168	40	71
Cordova City (761)	96	92	256	318	225	244	47	203	44	168	40	71
Hinchinbrook (762)	0	0	0	0	0	0	0	0	0	0	0	0
Controller Bay (763)	0	0	0	0	0	0	0	0	0	0	0	0
Chignik (549)	0	0	0	23	0	25	0	0	0	6	0	0
TOTAL VECO/NORCON EMPLOYMENT	807	783	3222	3136	4163	3622	4622	3724	4633	3897	2489	2091

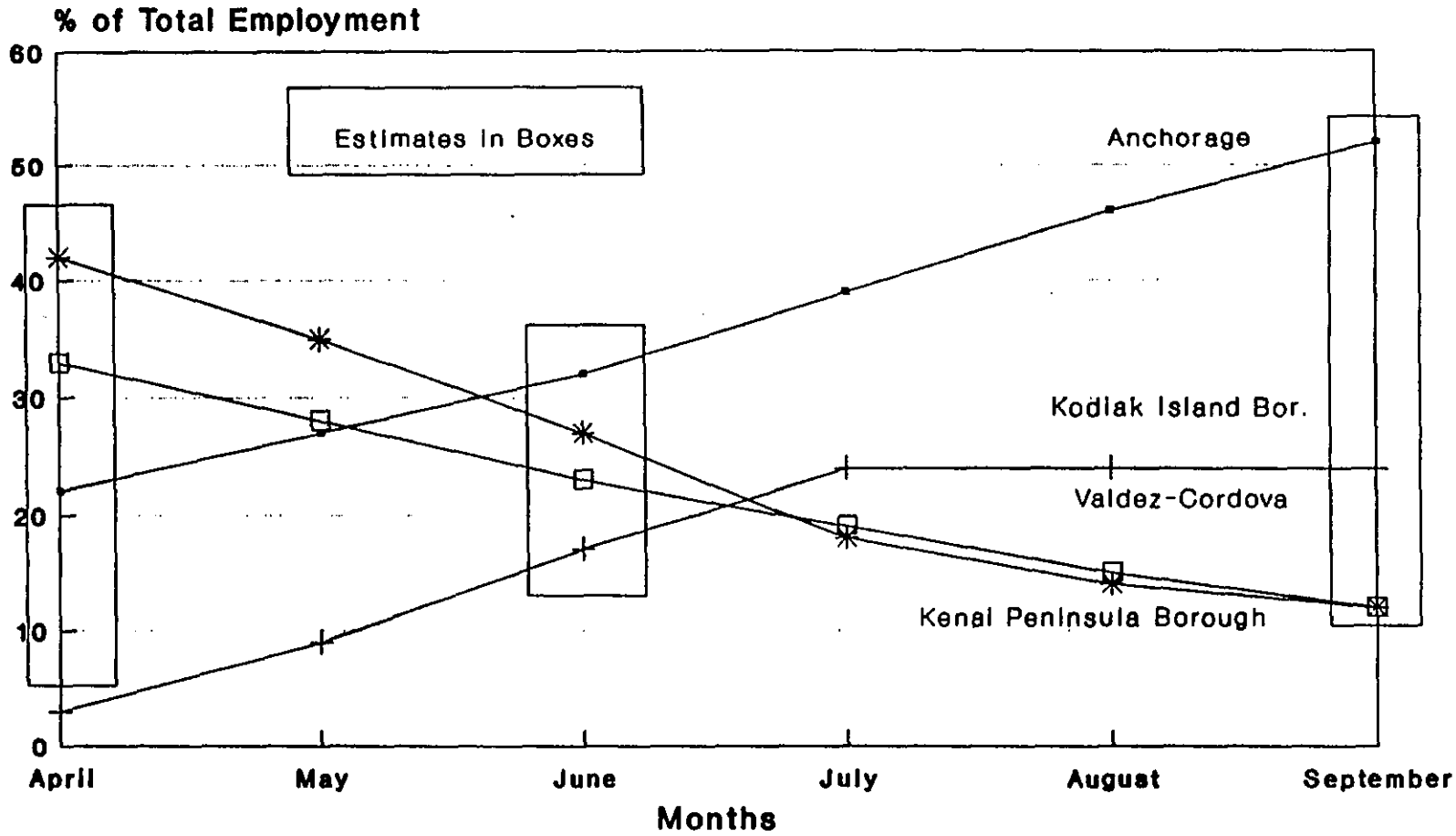
Source: Employment by Place of Work: Alaska Department of Labor, and VECO Inc., Special tabulations, 1989.
Employment by Place of Residence: For May, July, and August: VECO Inc., Special Tabulations, 1989.
For April, June, and September: Estimates from Impact Assessment, Inc.

Note: See Table 2.8 for list of communities in ADOL sub areas.

Table 2.8 Geographic Classification of Communities Associated With Regions and Sub Areas in Table 2.7

REGION, SUB AREA	CITIES AND PLACES	
KENAI PENINSULA BOROUGH		
Kenai Mountains	Bear Creek (Woodrow)	Crow Point
	Divide	English Bay (Alexandrofsky)
	Lowell Point	Nuka Island
	Port Graham	Portlock
KODIAK ISLAND BOROUGH		
Afognak	Afognak	Bare Island
	Bells Flats	Chiniak
	Danger Bay	Kalsin Bay
	Kitoi Bay	Mission Road
	Ouzinkie (Uzinki)	Port Bailey
	Port Lions	Port O'Brien
	Port Vita	Port Wakefield
	Port William	San Juan (Uganik)
	Shuyak Island	Spruce Island
	Terror Bay	Village Island
	Womens Bay	Woody Island
Shearwater Bay	Akhiok (Alitak)	Cape Sitkinak
	Halibut Bay	Kaguyak
	Karluk	Larsen Bay
	Lazy Bay	McCord
	Moser Bay	Old Harbor
	Olga Bay	Port Hobron
	Shearwater Bay	Sitkinak Island
	Uyak	Zachar Bay
VALDEZ-CORDOVA		
Prince William Sound		
Knight Island Passage	Axel Lind Island	Chenega
	Crab Bay	Crafton Island
	Culross Bay (Tomas Bay)	Golden
	LaTouche	Moraine
	Olsen Island	Perry Island
	Port Ashton	Port Nellie Juan
	San Juan Hatchery	Whittier
Montague Island	Dayville (Fort Liscum)	Ellamar
	Fairmount Island	Peak Island Ptarmigan
	Tatitlek	Thompson Pass
	Wortmanns	

Figure 2.1 Resident Patterns of Oil Spill Cleanup Employment



in August. Kodiak Island spill cleanup employment also increased as a proportion of total spill cleanup employment. The proportion of total spill cleanup employment residing in the Kenai Peninsula Borough and the Valdez-Cordova Area exhibited a pattern of steady decrease. Lines connecting actual data points were drawn under the assumption that shifting residency status was fairly steady. The proportion of total spill cleanup employment residing in a given labor market area was inferred from these lines. Spill cleanup employment data for non-Alaska-resident workers and for Alaska-resident workers residing outside of the Southcentral-North Gulf Coast region was excluded from the analysis.

Stage 2 involved allocating employment by place of residence to sub areas within the major labor market jurisdictions. This was accomplished by assuming that the resident distribution exhibited in respective subsequent months would apply for April and June, and that of the preceding month would apply for September. Chignik area employment by place of residence in June was assumed to be about one percent of total employment by place of residence, based on the Chignik area place of residence distribution for May.

2.34 Estimating Third and Fourth Quarter 1989 Employment

Actual employment data for the third and fourth quarters of 1989 (herein designated: Q3 and Q4, respectively) were not available at the time of this interim report. Published ADOL statistics for Q3 should be available in time for incorporation into the final report. However, in the April 1990 issue of Economic Trends, the ADOL published benchmark monthly employment estimates for 1989 for the North Gulf Coast region of Alaska. This region includes the three major sub-areas (i.e., labor market areas) relevant to this study: the Valdez-Cordova Area (designated VCV), the Kenai Peninsula Borough (designated KNB) and the Kodiak Island Borough (designated KDB). The ADOL benchmark estimates of current monthly employment are based on the ADOL's Current Employment Statistics (CES) program, involving a sample of about 1300 firms. These figures were used as the basis for estimating Q3 and Q4 employment by major industry group for the three major sub areas and the seven first-class jurisdictions within these respective sub areas.

Estimates for Q3 and Q4 employment were developed in two stages, as depicted schematically in Figure 2.2.

Figure 2.2 Allocation of Q3 and Q4 Employment Estimates

	STAGE 1	STAGE 2
	Region Estimates	First-Class Jurisdiction Estimates
	VALDEZ-CORDOVA AREA (VCV)	CORDOVA VALDEZ CITY
NORTH GULF COAST	KENAI PENINSULA BOROUGH (KNB)	HOMER KENAI CITY SEWARD SOLDOTNA
	KODIAK ISLAND BOROUGH (KDB)	KODIAK CITY

Stage 1 Sub Area Estimates for Q3 and Q4, 1989. In Stage 1, the ADOL North Gulf Coast benchmark estimates of monthly employment were allocated to the three major sub areas. The procedures used to estimate sub area employment are based on the assumption that a stable relationship existed between the North Gulf Coast region and its sub areas over the twenty-four month period from 1988 to 1989. Thus, for any given month and any given industry group, sub area employment as a proportion of North Gulf Coast employment would be the same in 1989 as it was in 1988. For example, under this assumption, September retail trade employment in the Kenai Peninsula Borough, as a proportion of total September retail trade employment in the North Gulf Coast, would be the same in both 1988 and 1989. Mathematically, this procedure would be expressed as:

$$\frac{E_{SA,\,1989}}{E_{NGC,\,1989}} = \frac{E_{SA,\,1988}}{E_{NGC,\,1988}} \qquad (1)$$

where,

E_{SA} = Monthly sub area (VCV, KNB, or KDB) employment for a given time period and industry group.

E_{NGC} = Monthly employment in the North Gulf Coast region for a given time period and industry group.

While variation in the relative size and composition of a particular industry located in a particular area is likely to occur, ADOL employment data indicate that, over time, the North Gulf Coast regional economy exhibited a stable pattern based on commercial fishing, tourism, and trade among neighboring communities. The stable character of this regional economy is an implicit assumption in our procedure to estimate Q3 and Q4 employment levels in 1989. Furthermore, several important adjustments were introduced to account for probable geographic shifts in industry activity, especially those related to the oil spill event.

As explained above, oil spill cleanup employment is classified under the TCU major industry group. It is likely that, given the events of March 24, employment in the TCU industry would not be evenly distributed across sub areas between Q2 and Q3 of 1988 and Q2 and Q3 of 1989. This would only occur if geo-economic distribution of spill cleanup operations was comparable to that of the North Gulf Coast TCU industry as a whole. In reality, oil spill cleanup operations were concentrated in the Valdez-Cordova sub area. Viewed either by place of work or by place of residence, a disproportionate amount of the total employment associated with the oil spill cleanup was allocated to Valdez City itself (See Table 2.7). Thus, the monthly pattern and total level of 1989 TCU employment in each major sub area is not likely to mirror the patterns that prevailed in 1988 and earlier periods.

Procedures were developed to allocate average annual and monthly North Gulf Coast TCU employment to the three major regions. This was accomplished, first by developing a 1988 index of monthly TCU employment for Q2 and Q3 to obtain a fix on normal seasonal cycles in 1989 for the VCV, KNB and KDB regions. This index was then applied to average Q1 1989 TCU employment. Direct spill employment, by place of work and by month, was added to this base estimate. Further adjustments were made to TCU employment in the KNB and VCV regions while preserving the North Gulf Coast TCU industry monthly total, as estimated by the ADOL for 1989. This adjustment involved shifting a portion of TCU employment, estimated on the basis of 1988 patterns, from KNB to VCV. This adjustment occurred in Q3 only and is shown in Table 2.9.

Table 2.9 TCU Adjustment

		Valdez-Cordova Area (VCV)	Kenai Peninsula Borough (KNB)
July	Estimate[a]	2,814	3,080
	Adjustment	+766	-766
	Corrected Estimate	3,580	2,314
August	Estimate[a]	2,796	3,205
	Adjustment	+876	-876
	Corrected Estimate	3,672	2,329
September	Estimate[a]	1,741	2,050
	Adjustment	+663	-663
	Corrected Estimate	2,404	1,387

Note: [a] Based on 1988 Q2-Q3 index applied to 1989 Q1 average monthly employment base, plus direct oil spill cleanup employment.

Further adjustments were conducted, beyond those outlined above, in connection with TCU industry employment. For example, mining employment in the VCV region was estimated for Q3 and Q4 based on average mining employment per reporting unit in the Fairbanks region. North Gulf Coast mining employment is concentrated in the Kenai Peninsula Borough. Alyeska Pipeline Company employment is classified under the TCU industry group in the VCV regions. The small amount of mining activity that does exist in the VCV regions is assumed to comparable to the nature and structure of mining activity in the Fairbanks area.

Estimates of 1989 Q3 and Q4 monthly and average annual seafood processing employment were developed somewhat independently for the KNB and KDB regions, based on historic patterns each exhibited in Q3 and Q4 of 1988 in those same regions. The sum of these estimates was deducted from the ADOL monthly and average annual figures for the North Gulf Coast region. This residual was allocated to the VCV region so as to preserve the overall integrity of the ADOL North Gulf Coast employment estimates for Q3 and Q4 of 1989. The results of this procedure is outlined in Table 2.10, below.

Table 2.10 Seafood Processing Employment Adjustments

1989	North Gulf Coast Total[a]		Estimated for KDB[b]		KNB[b]		Residual Applied to VCV
July	6,650	=	1,887	+	3,307	+	1,557
August	5,700	=	1,927	+	2,216	+	1,557
September	3,800	=	1,729	+	1,075	+	996
October	2,100	=	1,441	+	551	+	108
November	1,650	=	1,268	+	341	+	41
December	1,500	=	1,004	+	263	+	234

Notes: [a] ADOL Economic Trends, April, 1990, Benchmark estimates.
[b] IAI Independent estimates based on 1988 patterns.

Stage 2 Estimates for First-Class Jurisdictions. The objective in Stage 2 was to estimate monthly employment by major industry group for Q3 and Q4 of 1989 for the seven first-class jurisdictions. The basic procedure used was to compute an index of monthly seasonal employment patterns, based on the relationship between average annual employment and monthly employment levels by major industry group in Q3 and Q4 of 1988. Next, the 1988 Q3-Q4 index for each industry group was applied to a base-level estimate for 1989. Typically this was average monthly employment in Q1 (1989) with further adjustments reflecting the relationship between average Q1 employment and average annual employment in 1988. This procedure was applied systematically to each major industry group in all seven first-class jurisdictions. Occasionally, alternative methods were substituted for this indexing approach, where appropriate. All assumptions developed for Q3 (1989) will be replaced with actual Q3 data that is forthcoming from ADOL (to be published on or before July 1). A complete catalog of Q4 assumptions will be included in a technical appendix of the final report.

2.35 Special Industry Assumptions for Monthly and Average Annual Employment

A series of additional procedures were developed to account for missing or non-disclosed monthly (1988-1989) and average annual (1980-1989) data, and to adapt the ADOL industry employment classifications to the base model framework. The base model framework calls for realigning industry groups into basic, support and government sectors. The special considerations outlined below pertain to the seafood processing, construction and tourism industries.

Seafood Processing. In the North Gulf Coast of Alaska, seafood processing is the major component of employment in the manufacturing industry group. During 1989, seafood processing accounted for over 81 percent of all manufacturing employment in the North Gulf Coast region. For the most part, non-disclosure restrictions do not present a problem for this special industry group at the regional level (VCV, KNB and KDB). However, while figures on manufacturing employment were generally available, ADOL non-disclosure restrictions obscured seafood processing employment in all first-class jurisdictions except Kodiak City. Seafood processing employment within first-class jurisdictions was estimated by applying the ratio of seafood processing to total manufacturing employment in each region to its respective first-class jurisdictions. The remaining manufacturing employment was allocated to the support sector under the assumption that it is geared largely to local markets.

Basic-Sector Construction. As with the manufacturing industry, the construction industry group includes elements of both basic and support activity. Published ADOL Statistical Quarterly figures include three sub groups within the construction industry group. They are:

- o General Contractors
- o Special Trade Contractors
- o Heavy Construction Contractors

We assume that heavy construction contractors are geared toward the non-local market and would therefore qualify as a basic-sector industry. Employment figures for this industry sub-group were available for the KNB and KDB regions. Estimates of basic construction employment were developed for first-class jurisdictions under the assumption that the ratio of heavy-construction contract employment to total construction employment in a given first-class jurisdiction is equal to that of the respective region in which it belongs. The remaining construction employment was allocated to the support sector under the assumption that it is geared largely to local markets

Tourism. Tourism is interpreted as a basic-sector industry. Even though tourists come to Alaska regions and places, their demand for Alaska goods and services originates outside of the regional and state economy. From the standpoint of the local business operator, the goods and services sold to tourists are exported commodities. Tourism employment is not specifically broken out in the ADOL published statistics. Employment in this special industry cuts across several standard industry groups including, retail trade, services and miscellaneous employment.

The procedure used to estimate tourism employment was to assume that a portion of employment in services, retail trade and miscellaneous industry group is allocated to tourism. For each 12-month period, we compute an index of monthly seasonal employment based on the ratio of estimated average non-tourist employment to actual monthly employment for services, retail trade and miscellaneous industry groups. The non-tourism employment base is generally Q1 average monthly employment, reflecting services, retail and miscellaneous industry conditions absent of tourism. The seasonal tourism index was used to estimate monthly tourism employment, as a proportion of total services, retail and miscellaneous employment. The estimated share of average annual services, retail and miscellaneous employment belonging to tourism is shown by jurisdiction for 1988 and 1989 in Table 2.11, below. Next, estimated tourism employment was deducted from each of the three industry components to derive non-tourism estimates for these three industry groups.

Table 2.11 Estimated Share of Tourism as a Proportion of Services, Retail and Miscellaneous Employment

Jurisdiction	Average Annual Tourism Share (Percent)	
	1988	1989
Kenai Peninsula Bor.	25%	26%
Homer	20	26
Kenai City	6	8
Seward	19	29
Soldotna	19	15
Kodiak Island Bor.	15	11
Kodiak City	15	12
Valdez-Cordova Area	29	30
Valdez	26	30
Cordova	39	25

Source: Impact Assessment, Inc.

2.36 Summary

The procedures and assumptions used to estimate direct oil spill cleanup employment and commercial fish harvesting employment, and to account for missing data, were applied systematically and consistently across industry groups and jurisdictions. Oil spill cleanup estimates are based on actual VECO records originally furnished to the ADOL. Commercial fish harvesting employment estimates were made on the basis of fishing effort, as measured by the number and composition of permits used. Third and Fourth quarter employment estimates for non-agricultural industries were generated by allocating ADOL estimates for the Gulf Coast labor market area. Considerable attention was given to the allocation of employment in specific industries with a high incidence of non-disclosed data. These industries include seafood processing, which falls within the ADOL manufacturing classification, tourism and construction. These procedures are predicated on the idea that, for the purposes of this analysis, an estimate is more useful than ignoring potentially important economic relationships.

2.4 Findings

Total employment estimates compiled for model sectors, industry groups, and major study regions are summarized in two sets of figures and tables. The first set (figures 2.3 - 2.5) summarizes the composition of annual average employment for the Valdez-Cordova Census Area, the Kenai Peninsula Borough and the Kodiak Island Borough, from 1980 through 1989. These figures show how employment changed over time in each major sector (government, support and base) of the respective regional economies. Because of its overall importance to Gulf Coast economies, commercial fish-harvesting employment (labeled COMMFISH) is separated from the basic sector. The commercial fish harvesting employment figures reflect estimates of what actually occurred during 1989. As explained in Section 2.3.2, further investigation is needed in order to estimate commercial fishing employment under hypothetical no-spill conditions. (A no-spill scenario is forthcoming. It is being prepared for the twelve-month 1989 period based upon the ADFG's pre-1989 harvest predictions for each fishery and the normal sector relationships in the model.)

The bar graphs depicting the 1989 time period in Figures 2.3 - 2.5 show employment directly related to oil spill cleanup operations. Also shown is induced employment expansion brought about as an indirect consequence of the spill cleanup. Figures 2.3 through 2.5 are based on the figures presented in Tables 2.12 through 2.14, respectively. These tables provide more specific information on average annual employment levels for major industry groups within each of the base-model sectors.

Tables 2.12 through 2.14 provide the raw material for developing the summary measures contained in Table 2.15. The annual figures in Table 2.15 are computed by taking the ratio of average annual support employment to average annual non-government employment (i.e., support plus basic). These figures also are used to compute the basic-support multipliers (coefficient c_1, as described in Section 2.2). They indicate that the multipliers which govern the extent of induced expansion in the total economy fluctuate over time. For example, the drop in the ratio of support to non-government employment in the Valdez-Cordova area in 1988 reflects the sudden and rapid rise in groundfish catch and processing. Also, it suggests that the support sector in this region may not immediately respond to new support demands brought about by sudden swings in industrial activity.

The second set of tables and figures show monthly employment levels for 1988 and 1989. Figures 2.6 and 2.7 and Tables 2.16 and 2.17 depict seasonal employment patterns in the Valdez-Cordova Area for 1988 and 1989. Figures 2.8 and 2.9 and Tables 2.18 and 2.19 pertain to the Kenai Peninsula Borough in 1988 and 1989. Figures 2.10 and 2.11 and Tables 2.20 and 2.21 present similar findings for the Kodiak Island Borough. The sector and industry categories contained in the annual employment tables are the same in all the monthly tables and figures. The monthly employment tables and figures for 1988 and 1989 display the highly seasonal nature of the fisheries-dominated economies.

The government sector, with the exception of the summer dip when school teachers leave for extended vacations or to participate in fisheries, is devoid of seasonal employment effects. This is also true of the private support sector. Even though their business returns reflect seasonal patterns, private businesses must maintain their physical establishments on a year round basis. The highly seasonal pattern of the basic sector minus commercial fishery employment reflects the seasonal nature of fish processing and tourism. Comparing 1988 and 1989 displays oil spill and cleanup direct and induced employment as a wedge which elevates and tilts the total employment pattern. The results of the Oiled Mayors' Business Survey will address questions as to what industries account for the "wedge" and the ability of the other sectors to weather its eventual disappearance.

The time series in the other tables and figures provide a tool for analyzing the structure and functioning of the local economies, but at this point they merely flag certain aberrations that merit investigation. On the other hand, combinations of factors within the model may have the opposite effect of masking structural changes within the regions. Interpreting the time series for each area, therefore, requires understanding of some pre-oil spill background events. The most significant was the rapid emergence of new fisheries in the most recent years of the period. Groundfish landings in the Central Gulf area rose from 1,369 metric tons in 1980 to 9,596 metric tons in 1985 and exploded over the next few years to 100,526 metric tons in 1989. For the Western Gulf the trend was from 72 to 10,131 to 28,324 metric tons. Sablefish enjoyed a healthy if somewhat less spectacular growth from 19 to 3,760 to 12,190 metric tons in the Central Gulf and 1 to 1,955 to 4,100 metric tons in the Western Gulf. These landings not only increased fisheries employment, but fish processing in the basic sector and handling and transportation in the support sector. As these developments reached their peak in the year of the spill, they offset or masked the full impact of that event.

In other fisheries the first three years of the period saw the final gasp and death of the once booming king crab fishery. Tanner crab showed signs of decline toward the end of the period and other shellfish displayed erratic patterns of rise and fall. Although salmon harvests reflected the combination of underlying natural cycles for each specific run, employment remained relatively stable from year to year. As discussed in the section on fisheries employment estimates, because of their heavy capital and permit investments fishermen attempt to fish regardless of the outlook.

The long-term impact of the spill and cleanup on future salmon runs is not yet known and may not be fully known in advance of actual harvest seasons. The management review of the 1989 season was laced with bad news. In Cook Inlet "the presence of crude oil, in the form of mousse patties, throughout the tidal rip areas of the Central District resulted in complete closure of the drift gill net fishery." (CFEC, 1990, 5J90-03.)

Kodiak suffered heavy impacts. "Oil contaminated waters were widespread throughout the Kodiak Area to the point that commercial fishing activities occurred in only three geographically isolated locations, two of which provided modified commercial fishing on natural stocks and one of which provided for modified cost recovery fishing on hatchery stock. . .. The total Kodiak salmon catch this year is down 60% (11.3 million salmon) from last year and 42 % (5.6 million fish) from the five-year average. It was also about half of the Department's pre-season projected harvest of 14.5 million salmon." The experience at Chignik was similar. The pink and chum harvests were "only 2.7 percent and 0.7 percent of the 1979-88 average respectively ... and the coho harvest, 44.5 percent of the 1979-88 average." (CFEC, Ibid.)

Prince William Sound was full of contradictions. Beach damage was so heavy that five districts were closed for the entire season and others for varying time periods. Yet the combined catch for the area was 24.5 million fish as compared with 14.1 million in 1988. This was in part accounted for by an amazing rise in hatchery catch sales (an increase from 1.7 million fish in 1988 to 8.2 million fish in 1989) which accounted for 33% of the reported total. The common property catch was below the 10-year average and considerably lower than the predicted harvest of 47.2 million fish. The critical comparison is with the projection rather than with the previous year's catch.

A better fix on what actually happened in 1989 will be provided by CFEC data on permit holders' resident within the study region. This could be used to, in effect, add up the experience of all resident permit holders and their crews by fisheries in which they participated and in terms of the volume of catch and gross earnings they received. A sample of the type of information that will be provided (in more specific detail) is given in Table 2.6. The annual fluctuation in average income received per permit illustrates the reason fishermen take a longer view of their economic prospects than a comparison of one year to the last or next.

2.5 Summary

The economic base model provides a framework for systematically consolidating three sources of annual average and monthly employment data for the three major Gulf Coast study regions and seven Group-A first-class jurisdictions (see Appendix A). They are:

- Wage-and-salary employment,
- Commercial fish harvesting employment estimates, and
- Direct spill cleanup employment.

Application of base-model multipliers indicate that oil spill cleanup operations resulted in economic expansion beyond the immediate count of direct resident spill cleanup employment. The results indicate that the magnitude of this induced expansion, as expressed in annual average or monthly employment, exceeded the count of direct resident

spill cleanup employment. These induced oil spill impacts occurred in the support sector of the regional economies, involving trade, services, transportation, communication, utilities, and possibly some construction and manufacturing. Furthermore, induced expansion, expressed in terms of monthly employment patterns, continued to affect all three regional economies in varying degrees after cleanup operations were shut down in September, 1989. Continuing post-cleanup induced expansion reflects the secondary multiplier effects of spending the windfall earnings procured by residents during the second and third quarters of 1989. The "wedge" created by direct and induced expansion provides a sense of the total economic effects of the spill and of what the economy would have looked like under no-spill conditions.

The findings presented here are based on estimates of actual commercial fish harvesting activity during the 1989 spill period; they incorporate the effects of fishery closures. The framework is now in place to examine how the spill affected the Gulf Coast commercial fishing industry. Thus far, findings indicate that commercial fishing continued to dominate the regional economy in spite of closures in Gulf Coast waters for many species. Nevertheless, actual commercial fish harvests were significantly below official harvest projections for many species and management areas. Estimating commercial fishing impacts involves developing hypothetical scenarios of what fishing activity would have looked like under no-spill conditions and comparing the economic effects with the results presented in this interim report. Estimates of no-spill commercial fishing employment are forthcoming, based on official harvest projections prepared before March 24, 1989.

These findings present a foundation for interpreting Oiled Mayors' Business Survey results. The business survey addresses how the benefits and costs of economic expansion were distributed across industries and communities.

FIGURE 2.3 COMPOSITION OF EMPLOYMENT
VALDEZ-CORDOVA AREA - 1980 TO 1989

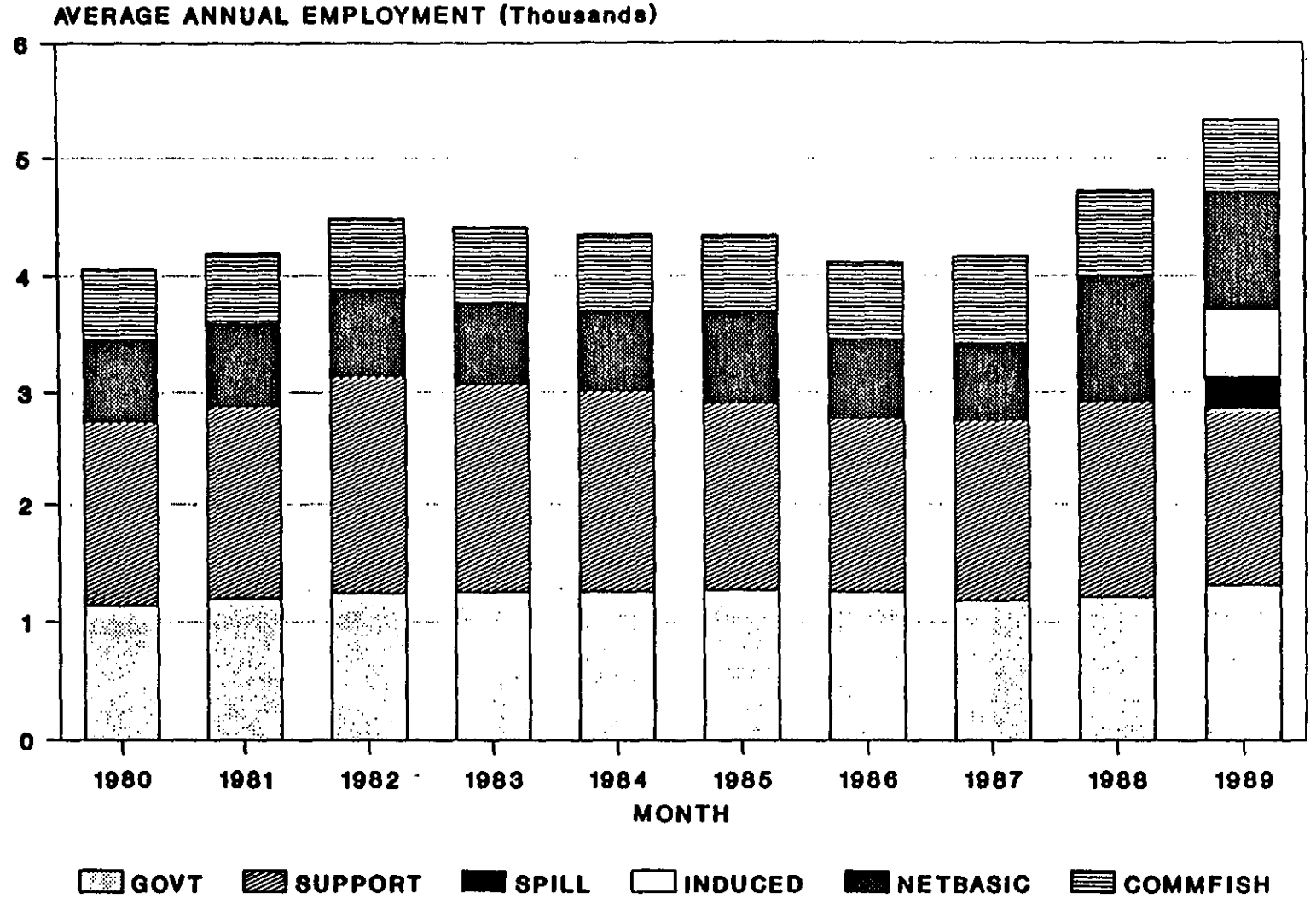


Table 2.12 Average Annual Employment for Valdez - Cordova Area

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
BASIC SECTOR										
Commercial Fishing	594	588	611	647	639	639	653	732	723	625
Fish Processing	218	169	255	278	253	383	332	335	707	544
Tourism	267	266	296	282	286	284	273	282	308	378
Oil Spill	0	0	0	0	0	0	0	0	0	294
Construction	175	168	157	122	137	114	71	58	56	63
Mining	62	114	16	8	24	14	14	9	15	16
Total BASIC	1,315	1,306	1,336	1,337	1,339	1,434	1,342	1,416	1,809	1,920
SUPPORT SECTOR										
Manufacturing	80	63	94	103	94	141	123	124	152	291
Construction	127	122	114	89	100	82	52	42	44	45
Trans/Comm/Util	604	714	812	778	695	550	516	536	565	695
Trade	243	282	352	347	349	360	321	342	363	399
F.I.R.E.	102	88	87	81	87	85	85	91	96	99
Services	427	367	405	378	401	395	391	385	430	512
Misc.	20	48	38	38	24	19	27	37	50	58
Total SUPPORT	1,602	1,684	1,903	1,814	1,749	1,632	1,514	1,558	1,699	2,099
GOVERNMENT SECTOR										
Federal	76	80	75	68	87	87	122	86	94	104
State	493	503	513	504	527	514	503	479	486	544
Local	568	609	651	681	641	670	630	620	633	667
Total GOVERNMENT	1,136	1,192	1,240	1,252	1,254	1,271	1,255	1,185	1,214	1,315
GRAND TOTAL	4,054	4,181	4,478	4,403	4,342	4,337	4,111	4,159	4,722	5,334

FIGURE 2.4 COMPOSITION OF EMPLOYMENT
KENAI PENINSULA BOROUGH - 1980 TO 1989

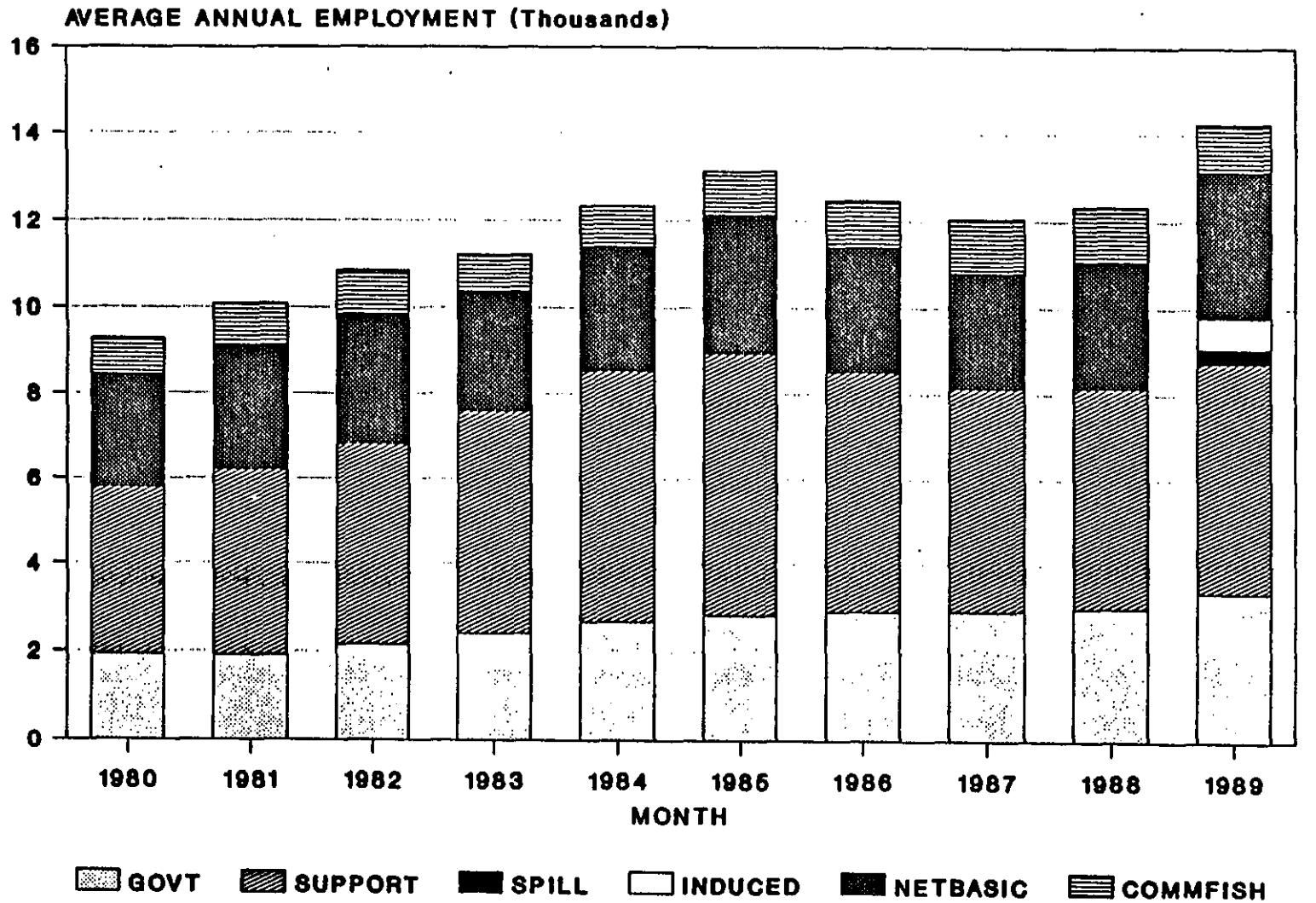


Table 2.13 Average Annual Employment for Kenai Peninsula Borough

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
BASIC SECTOR										
Commercial Fishing	860	1,000	1,006	921	937	1,017	1,068	1,255	1,271	1,077
Fish Processing	1,031	1,118	1,090	888	735	826	730	783	948	1,035
Tourism	567	612	690	761	880	991	989	974	948	1,148
Oil Spill	0	0	0	0	0	0	0	0	0	326
Construction	262	346	394	362	498	546	241	147	197	359
Mining	783	814	848	694	761	827	935	758	839	838
Total BASIC	3,503	3,890	4,029	3,626	3,810	4,207	3,963	3,916	4,203	4,782
SUPPORT SECTOR										
Manufacturing	631	618	578	576	580	593	565	537	537	602
Construction	356	359	401	643	829	842	622	496	421	430
Trans/Comm/Util	689	891	1,029	1,054	1,039	934	678	568	622	1,044
Trade	1,080	1,184	1,258	1,416	1,713	1,923	1,834	1,791	1,744	1,824
F.I.R.E.	220	247	283	315	376	366	375	299	257	268
Services	832	928	993	1,036	1,236	1,358	1,418	1,406	1,451	1,779
Misc.	51	51	121	146	70	74	97	96	105	131
Total SUPPORT	3,858	4,277	4,663	5,184	5,843	6,089	5,589	5,193	5,138	6,079
GOVERNMENT SECTOR										
Federal	206	170	169	192	210	210	225	216	248	267
State	528	582	646	700	780	769	822	787	912	1,083
Local	1,188	1,168	1,347	1,525	1,699	1,870	1,885	1,948	1,859	2,035
Total GOVERNMENT	1,922	1,919	2,162	2,418	2,689	2,848	2,932	2,951	3,019	3,385
GRAND TOTAL	9,283	10,086	10,853	11,228	12,343	13,144	12,484	12,059	12,360	14,246

FIGURE 2.5 COMPOSITION OF EMPLOYMENT
KODIAK ISLAND BOROUGH - 1980 TO 1989

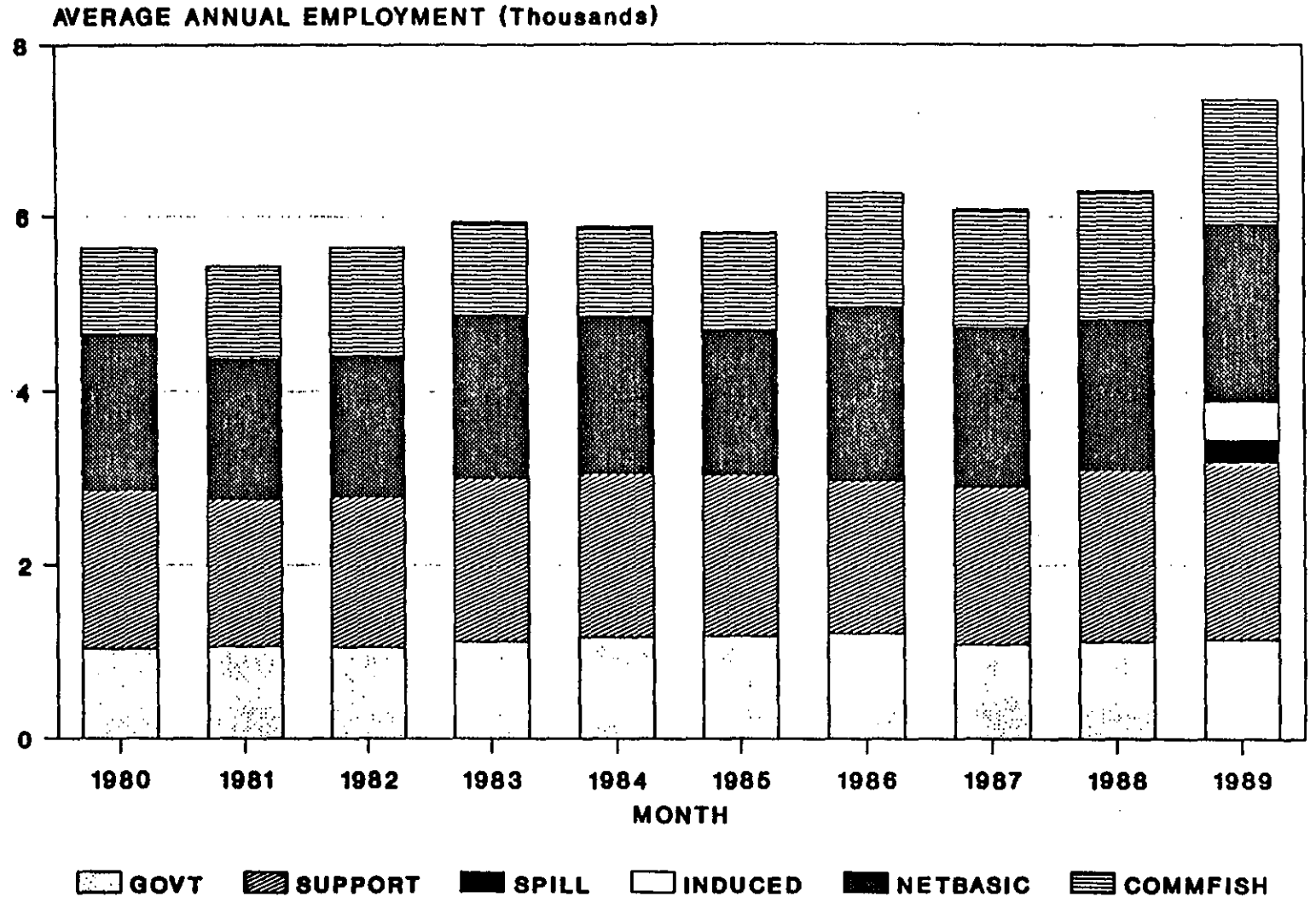


Table 2.14 Average Annual Employment for Kodiak Island Borough

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
BASIC SECTOR										
Commercial Fishing	1,000	1,060	1,228	1,055	1,021	1,133	1,288	1,353	1,459	1,432
Fish Processing	1,544	1,377	1,167	1,285	1,423	1,326	1,708	1,534	1,397	1,703
Tourism	180	181	204	203	218	220	212	226	243	211
Oil Spill	0	0	0	0	0	0	0	0	0	273
Construction	52	64	262	400	170	99	86	77	100	112
Mining	0	0	0	0	0	0	0	0	0	0
Total BASIC	2,776	2,683	2,861	2,943	2,831	2,778	3,295	3,190	3,198	3,731
SUPPORT SECTOR										
Manufacturing	280	167	109	93	50	54	25	35	82	211
Construction	50	71	42	182	172	182	190	121	81	79
Trans/Comm/Util	352	320	298	311	298	231	188	222	230	304
Trade	525	508	617	620	642	698	651	717	729	788
F.I.R.E.	98	95	102	105	103	105	109	108	116	115
Services	477	463	485	519	514	545	563	564	704	964
Misc.	54	74	86	50	112	54	40	50	43	24
Total SUPPORT	1,836	1,698	1,737	1,880	1,890	1,869	1,766	1,817	1,985	2,485
GOVERNMENT SECTOR										
Federal	277	257	252	253	241	243	243	234	193	170
State	207	253	260	273	281	282	266	237	248	280
Local	545	542	533	588	642	650	700	610	671	684
Total GOVERNMENT	1,029	1,052	1,045	1,115	1,165	1,174	1,209	1,081	1,112	1,135
GRAND TOTAL	5,641	5,433	5,644	5,938	5,886	5,822	6,269	6,087	6,294	7,350

Table 2.15 Ratio of Support Employment to Support and Basic Employment, 1980 - 1989

	Valdez Cordova Area	Kenai Peninsula Borough	Kodiak Island Borough
1980	0.549	0.524	0.398
1981	0.563	0.524	0.388
1982	0.588	0.536	0.378
1983	0.576	0.588	0.390
1984	0.566	0.605	0.400
1985	0.532	0.591	0.402
1986	0.530	0.585	0.349
1987	0.524	0.570	0.363
1988	0.484	0.550	0.383
1989	0.522	0.560	0.400

Source: Impact Assessment, Inc.

FIGURE 2.6 SEASONAL EMPLOYMENT PATTERNS
VALDEZ-CORDOVA AREA - 1988

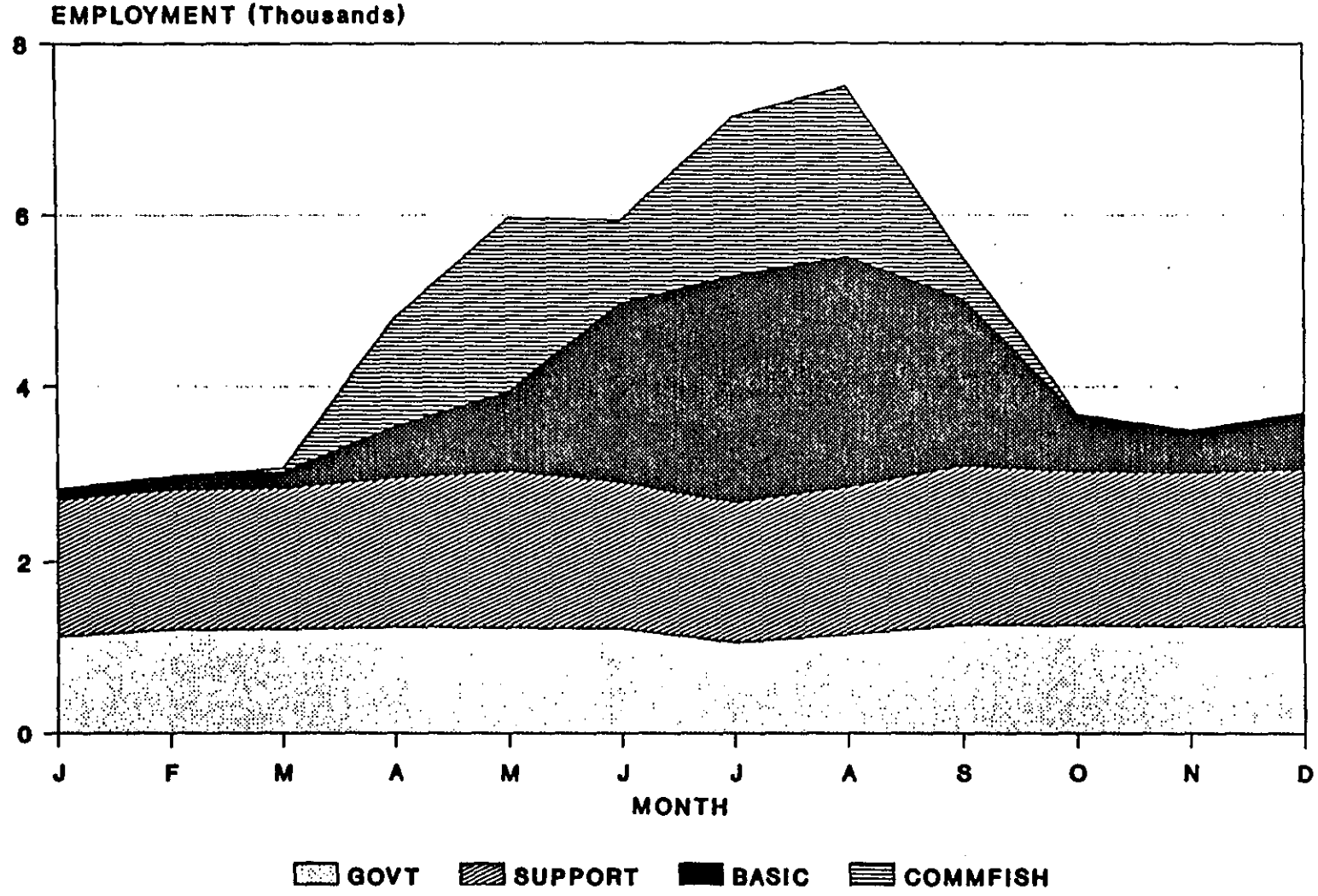
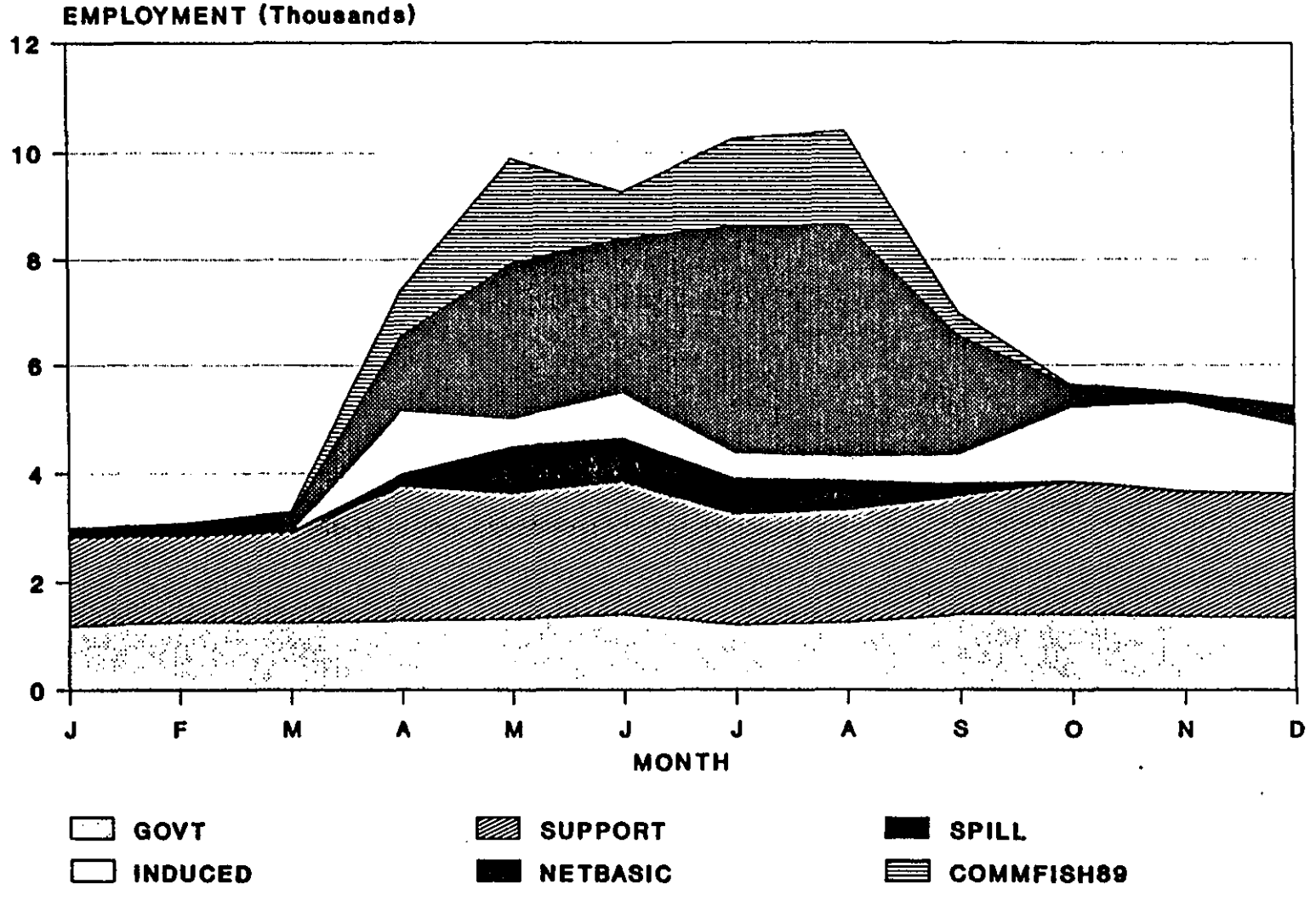


Table 2.16 1988 Monthly Employment for Valdez-Cordova Area

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing	4	8	47	1,243	2,029	975	1,857	1,988	505	13	0	0	722
Fish Processing	78	97	90	434	520	1,276	1,657	1,756	1,280	397	359	535	707
Tourism	0	11	52	112	322	722	858	798	541	160	55	69	308
Oil Spill	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction	33	30	38	38	47	52	81	83	89	90	59	37	56
Mining	5	5	5	22	22	22	22	22	22	10	10	10	15
Total BASIC	120	151	231	1,848	2,940	3,047	4,475	4,647	2,437	670	484	651	1,808
SUPPORT SECTOR													
Manufacturing	18	34	30	129	213	208	164	239	244	140	162	241	152
Construction	26	27	25	20	44	48	63	64	69	70	46	28	44
Trans/Comm/Util	523	532	550	560	567	611	623	602	587	546	541	533	565
Trade	363	375	380	381	395	339	319	324	352	360	387	379	363
F.I.R.E.	95	93	93	88	96	90	94	106	115	101	91	87	96
Services	504	507	482	475	422	325	289	301	383	483	490	493	430
Misc.	40	38	54	51	50	48	54	59	63	53	47	44	50
Total SUPPORT	1,569	1,606	1,615	1,705	1,787	1,669	1,606	1,695	1,813	1,753	1,763	1,805	1,699
GOVERNMENT SECTOR													
Federal	68	67	66	72	94	116	126	121	109	97	90	106	94
State	432	480	488	504	477	486	479	494	519	500	500	476	486
Local	640	665	665	670	670	628	464	541	648	671	664	671	633
Total GOVERNMENT	1,140	1,212	1,219	1,246	1,241	1,230	1,069	1,156	1,276	1,268	1,254	1,253	1,214
GRAND TOTAL	2,829	2,969	3,065	4,799	5,968	5,946	7,150	7,498	5,526	3,691	3,501	3,709	4,721

FIGURE 2.7 DIRECT & INDUCED SPILL IMPACT
VALDEZ-CORDOVA AREA - 1989



Impact Assessment, Inc.

Table 2.17 1989 Monthly Employment for Valdez-Cordova Area

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing	4	12	53	878	1,974	887	1,636	1,729	429	10	0	0	634
Fish Processing	105	133	173	304	446	979	1,456	1,557	996	108	41	234	544
Tourism	0	11	52	143	426	964	1,024	945	644	184	64	78	378
Oil Spill	0	0	0	258	893	833	692	596	251	0	0	0	294
Construction	30	29	33	41	57	62	113	98	97	98	62	38	63
Mining	10	10	10	22	22	22	20	22	23	11	11	10	16
Total BASIC	149	195	321	1,646	3,817	3,747	4,941	4,947	2,440	411	177	361	1,929
SUPPORT SECTOR													
Manufacturing	59	60	71	112	149	260	439	453	453	438	470	527	291
Construction	22	19	21	24	41	56	79	68	68	69	43	27	45
Trans/Comm/Util	534	510	537	1,018	863	1,048	617	596	580	810	634	592	695
Trade	377	357	365	497	468	415	335	349	385	410	417	408	399
F.I.R.E.	91	88	91	94	98	108	103	116	125	101	91	87	99
Services	507	508	500	592	593	478	369	380	484	562	588	584	512
Misc.	45	41	63	95	70	53	55	60	65	54	48	45	58
Total SUPPORT	1,635	1,584	1,648	2,432	2,282	2,418	1,997	2,022	2,160	2,444	2,292	2,271	2,099
GOVERNMENT SECTOR													
Federal	95	85	89	87	97	118	126	121	119	106	99	106	104
State	430	479	481	528	534	626	599	584	617	568	556	530	544
Local	678	706	695	693	693	661	495	559	667	729	721	708	667
Total GOVERNMENT	1,203	1,270	1,265	1,308	1,324	1,405	1,220	1,264	1,403	1,402	1,375	1,345	1,315
GRAND TOTAL	2,987	3,049	3,234	5,386	7,423	7,570	8,158	8,233	6,003	4,257	3,844	3,976	5,343

FIGURE 2.8 SEASONAL EMPLOYMENT PATTERNS
KENAI PENINSULA BOROUGH - 1988

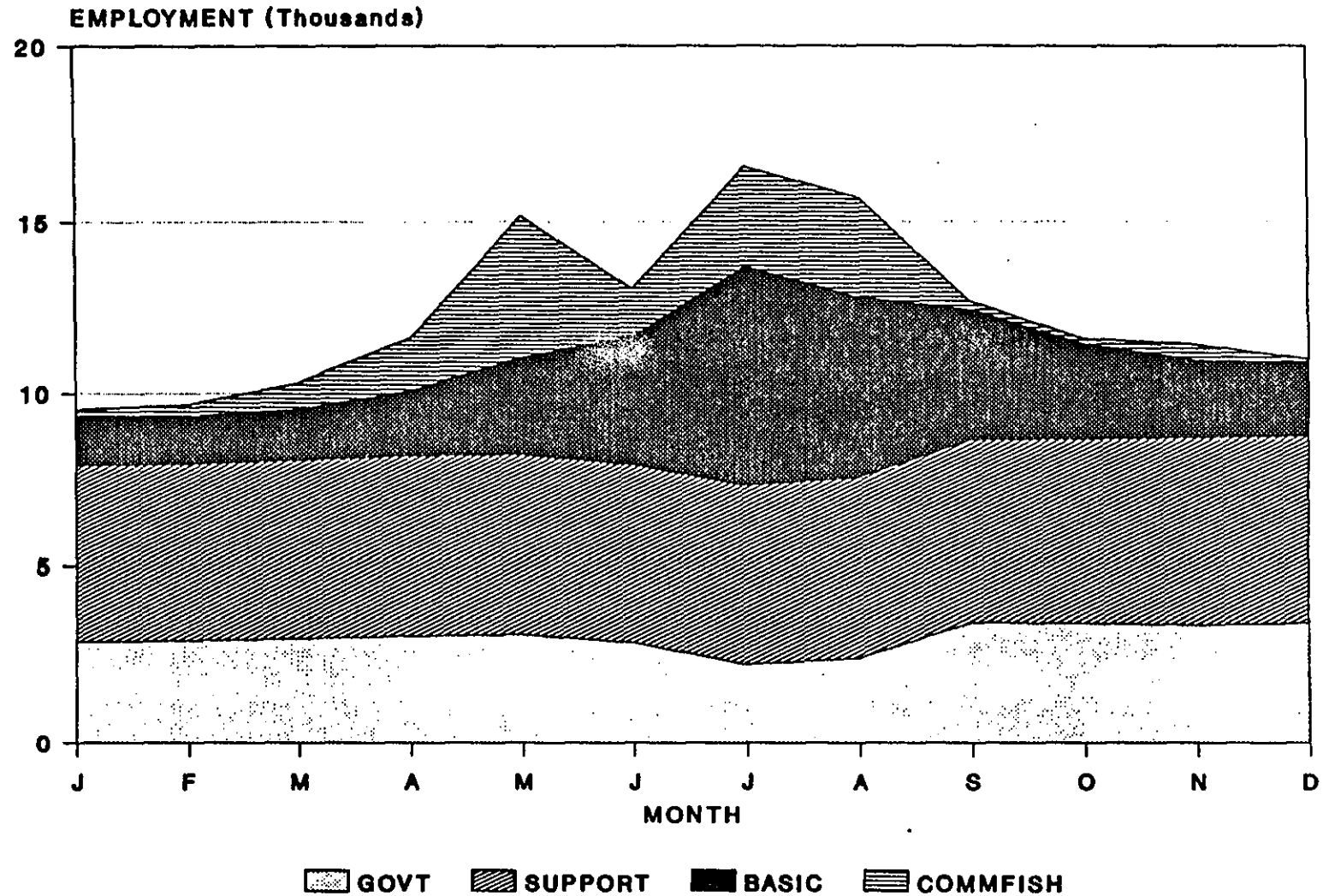
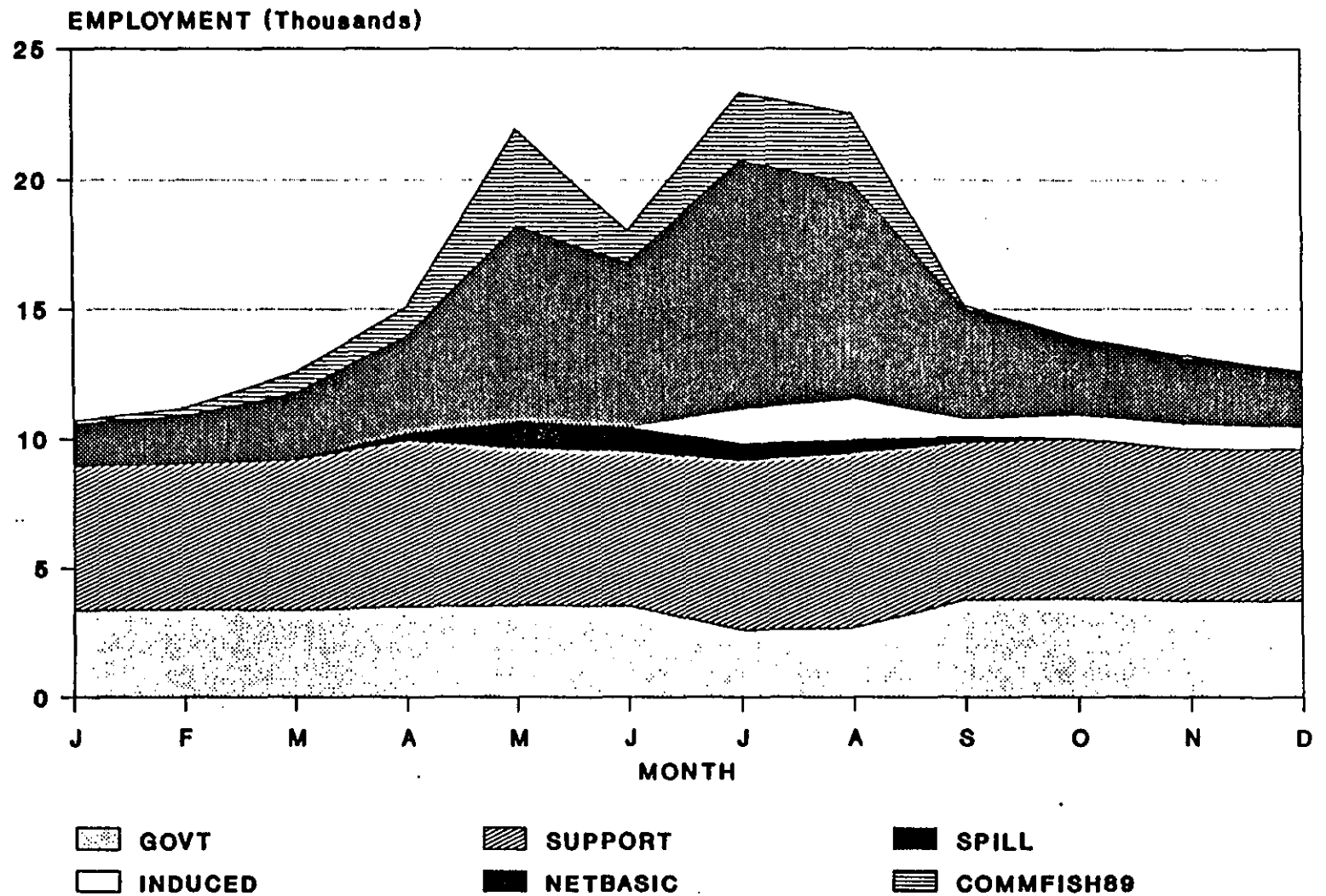


Table 2.18 1988 Monthly Employment for Kenai Peninsula Borough

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing	183	341	755	1,546	4,150	1,421	2,890	2,935	259	167	470	127	1,270
Fish Processing	334	255	278	481	819	1,050	3,332	2,313	1,216	604	382	315	948
Tourism	253	252	271	467	1,012	1,615	1,888	1,816	1,443	1,019	697	640	948
Oil Spill	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction	83	83	114	124	130	223	220	258	310	310	270	242	197
Mining	763	788	803	803	834	853	936	878	831	820	864	892	839
Total BASIC	1,616	1,719	2,221	3,421	6,945	5,162	9,266	8,200	4,059	2,920	2,683	2,216	4,202
SUPPORT SECTOR													
Manufacturing	514	516	519	537	537	541	544	549	565	538	534	554	537
Construction	290	321	318	341	394	445	469	537	533	473	476	458	421
Trans/Comm/Util	562	569	560	546	588	646	682	690	691	666	660	606	622
Trade	1,823	1,801	1,834	1,865	1,847	1,778	1,706	1,639	1,590	1,620	1,692	1,734	1,744
F.I.R.E.	256	239	254	254	250	248	275	268	265	256	255	258	257
Services	1,498	1,498	1,510	1,494	1,384	1,251	1,275	1,303	1,437	1,527	1,601	1,637	1,451
Misc.	76	74	85	103	127	125	104	105	115	161	116	70	105
Total SUPPORT	5,019	5,018	5,081	5,139	5,128	5,034	5,055	5,091	5,196	5,241	5,334	5,316	5,138
GOVERNMENT SECTOR													
Federal	198	198	204	205	248	291	298	293	284	257	238	264	248
State	794	794	812	869	838	878	899	931	1,071	1,041	1,021	996	912
Local	1,898	1,939	1,969	1,979	2,016	1,706	1,073	1,222	2,090	2,120	2,113	2,183	1,859
Total GOVERNMENT	2,890	2,931	2,985	3,053	3,102	2,875	2,270	2,446	3,445	3,418	3,372	3,443	3,019
GRAND TOTAL	9,525	9,668	10,287	11,613	15,175	13,071	16,591	15,737	12,700	11,579	11,389	10,975	12,359

FIGURE 2.9 DIRECT & INDUCED SPILL IMPACT
KENAI PENINSULA BOROUGH - 1989



Impact Assessment, Inc.

Table 2.19 1989 Monthly Employment for Kenai Peninsula Borough

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing	134	309	790	1,128	3,737	1,249	2,597	2,657	125	45	127	34	1,078
Fish Processing	310	306	445	805	1,257	1,539	3,307	2,216	1,075	551	341	263	1,035
Tourism	250	249	277	744	1,312	2,177	2,412	2,192	1,770	1,046	752	593	1,148
Oil Spill	0	0	0	329	1,101	978	688	559	251	0	0	0	326
Construction	334	246	318	245	388	534	416	407	397	370	338	317	359
Mining	745	746	755	813	820	849	837	878	880	923	915	892	838
Total BASIC	1,773	1,856	2,585	4,064	8,615	7,326	10,258	8,909	4,498	2,935	2,473	2,099	4,782
SUPPORT SECTOR													
Manufacturing	530	545	549	584	615	635	726	667	619	609	558	590	602
Construction	338	322	344	487	455	505	502	491	479	447	408	383	430
Trans/Comm/Util	713	709	739	1,183	953	1,133	1,691	1,852	1,123	988	774	673	1,044
Trade	1,808	1,822	1,860	1,908	1,929	1,722	1,733	1,756	1,720	1,892	1,821	1,915	1,824
F.I.R.E.	247	244	252	264	275	288	300	292	289	256	255	258	268
Services	1,850	1,895	1,927	1,835	1,681	1,535	1,505	1,582	1,754	1,842	1,944	2,001	1,779
Misc.	115	145	153	153	167	147	101	106	116	172	121	74	131
Total SUPPORT	5,601	5,682	5,824	6,414	6,075	5,964	6,557	6,747	6,101	6,205	5,881	5,894	6,079
GOVERNMENT SECTOR													
Federal	229	236	237	240	256	296	298	293	310	280	262	264	267
State	995	1,011	1,009	1,045	989	1,027	1,124	1,100	1,274	1,182	1,134	1,110	1,083
Local	2,112	2,110	2,101	2,196	2,263	2,177	1,146	1,262	2,151	2,302	2,294	2,304	2,035
Total GOVERNMENT	3,336	3,357	3,347	3,481	3,508	3,500	2,567	2,655	3,734	3,764	3,690	3,678	3,385
GRAND TOTAL	10,710	10,895	11,756	13,959	18,198	16,790	19,382	18,311	14,333	12,903	12,045	11,670	14,246

FIGURE 2.10 SEASONAL EMPLOYMENT PATTERNS
KODIAK ISLAND BOROUGH - 1988

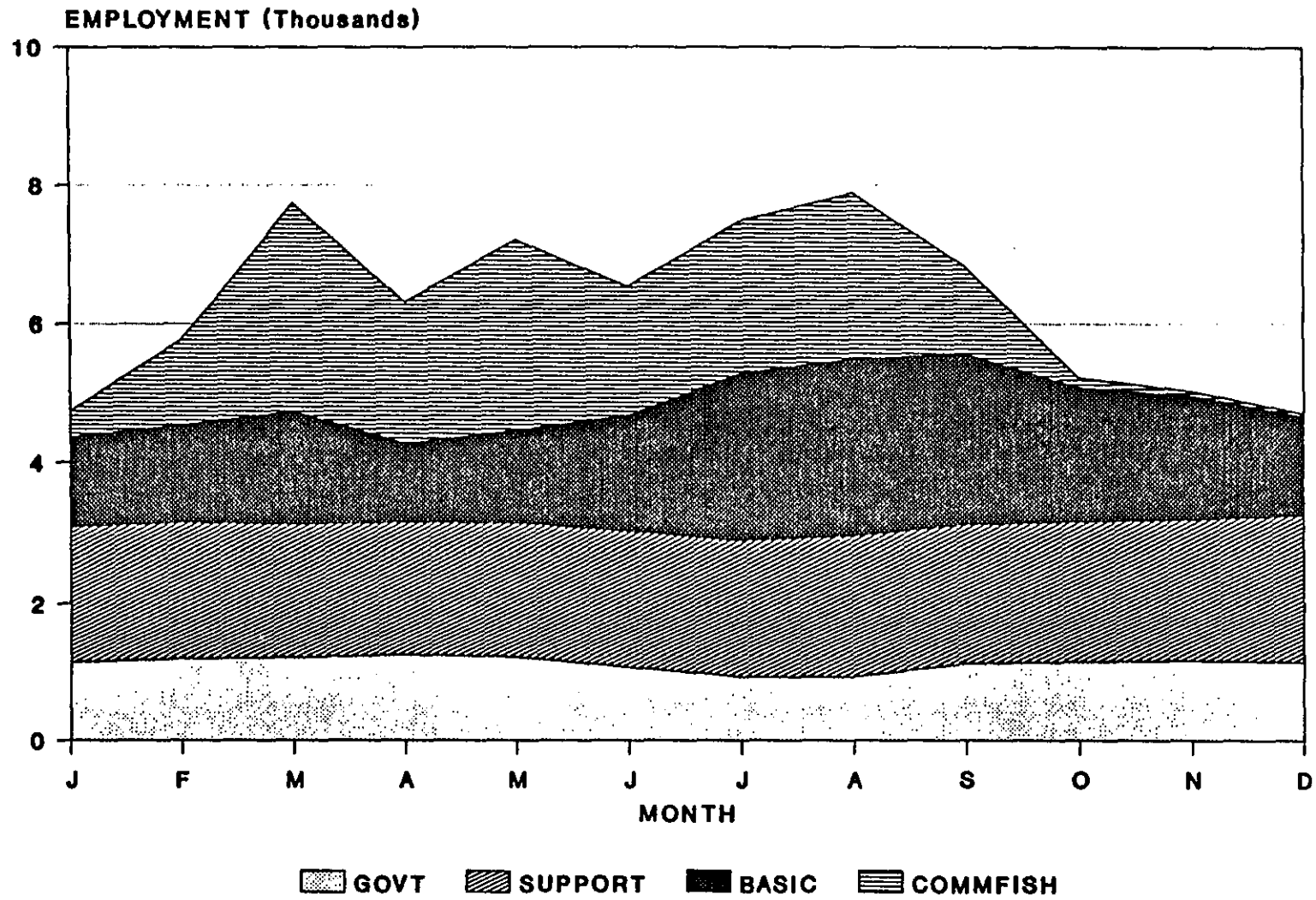


Table 2.20 1988 Monthly Employment for Kodiak Island Borough

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing	381	1,247	3,030	2,056	2,778	1,886	2,211	2,393	1,282	145	66	50	1,460
Fish Processing	1,088	1,208	1,425	834	967	1,164	1,901	2,011	1,957	1,578	1,422	1,203	1,397
Tourism	96	97	93	186	259	394	404	419	376	239	240	108	243
Oil Spill	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction	89	82	89	103	95	99	93	115	122	108	106	93	100
Mining	0	0	0	0	0	0	0	0	0	0	0	0	0
Total BASIC	1,654	2,634	4,637	3,179	4,099	3,543	4,609	4,938	3,737	2,070	1,834	1,454	3,199
SUPPORT SECTOR													
Manufacturing	42	38	35	34	32	31	86	131	133	144	145	134	82
Construction	70	72	60	56	89	92	104	95	102	77	88	66	81
Trans/Comm/Util	219	212	209	208	211	268	240	270	230	225	237	228	230
Trade	784	791	766	763	756	714	703	680	674	708	668	743	729
F.I.R.E.	116	115	114	113	108	113	111	122	117	115	122	122	116
Services	673	683	685	687	684	697	691	701	707	724	739	778	704
Misc.	49	51	48	46	47	44	42	40	39	33	37	41	43
Total SUPPORT	1,953	1,961	1,916	1,906	1,927	1,959	1,977	2,040	2,002	2,026	2,035	2,112	1,985
GOVERNMENT SECTOR													
Federal	226	221	220	218	208	193	180	185	178	167	164	161	193
State	200	245	249	248	221	223	221	232	284	292	289	271	248
Local	702	713	729	773	777	638	508	494	648	668	698	703	671
Total GOVERNMENT	1,128	1,179	1,198	1,239	1,206	1,054	909	911	1,110	1,127	1,151	1,135	1,112
GRAND TOTAL	4,735	5,774	7,751	6,324	7,232	6,556	7,495	7,889	6,849	5,223	5,020	4,701	6,296

FIG. 2.11 DIRECT & INDUCED SPILL IMPACTS
KODIAK ISLAND BOROUGH - 1989

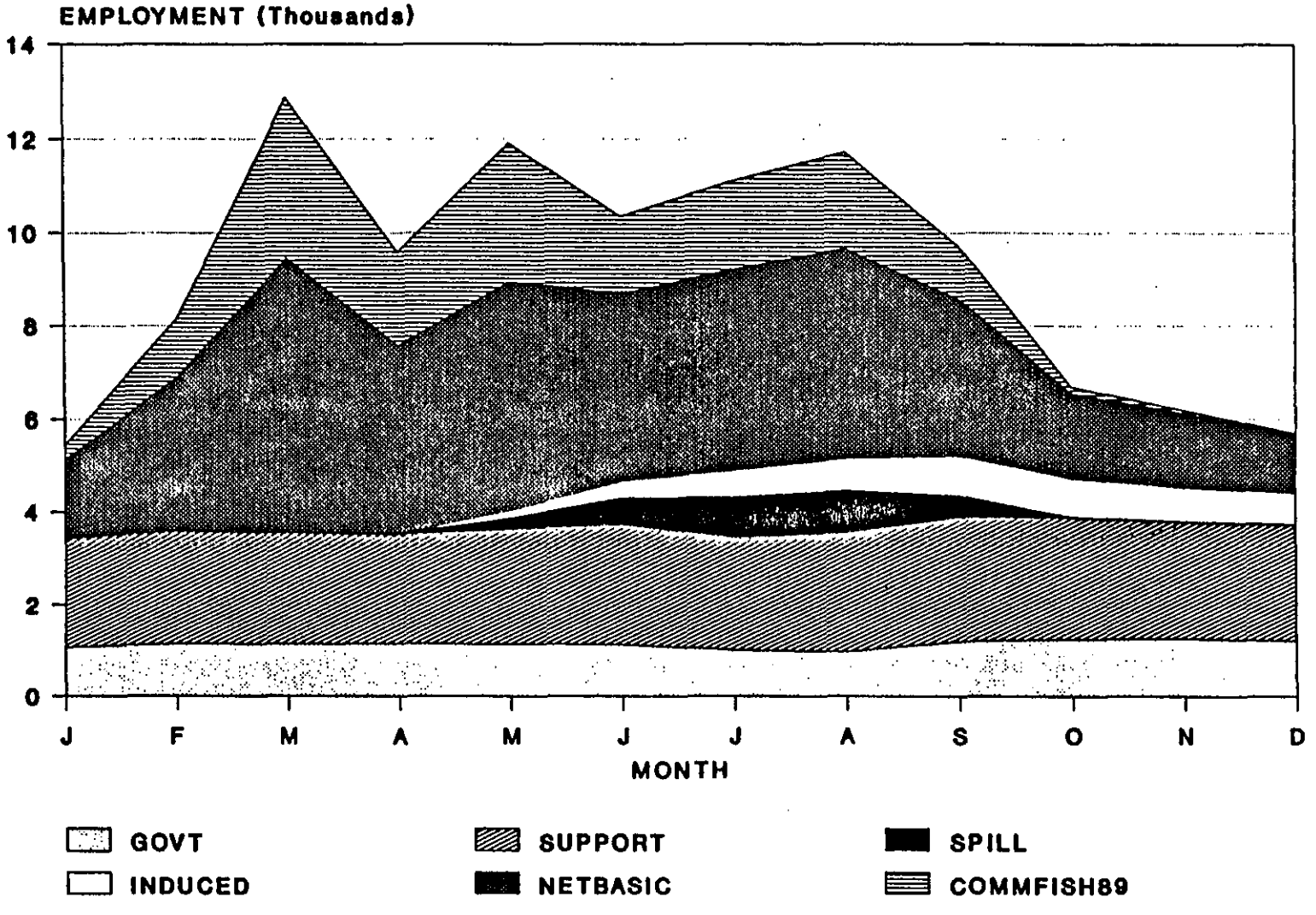


Table 2.21 1989 Monthly Employment for Kodiak Island Borough

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing	324	1,252	3,405	2,017	2,950	1,671	1,900	2,058	1,158	142	65	38	1,415
Fish Processing	1,522	1,858	2,143	1,820	1,756	2,078	1,887	1,927	1,729	1,441	1,268	1,003	1,703
Tourism	95	115	288	115	130	183	399	400	366	152	160	124	211
Oil Spill	0	0	0	23	284	616	897	950	502	0	0	0	273
Construction	93	93	94	102	110	102	155	140	137	114	114	94	112
Mining	0	0	0	0	0	0	0	0	0	0	0	0	0
Total BASIC	2,034	3,318	5,930	4,077	5,230	4,650	5,238	5,475	3,893	1,848	1,608	1,258	3,713
SUPPORT SECTOR													
Manufacturing	114	158	164	179	170	188	181	231	258	309	270	309	211
Construction	66	62	60	61	79	91	108	98	96	79	80	65	79
Trans/Comm/Util	253	276	251	275	346	377	251	330	422	334	278	253	304
Trade	690	695	727	807	828	861	808	793	788	864	784	806	788
F.I.R.E.	102	97	99	105	116	126	121	133	128	115	122	122	115
Services	1,106	1,114	1,058	892	895	896	929	937	939	912	960	934	964
Misc.	22	22	25	24	24	33	22	22	22	25	25	25	24
Total SUPPORT	2,353	2,424	2,384	2,343	2,458	2,572	2,420	2,545	2,653	2,638	2,519	2,514	2,485
GOVERNMENT SECTOR													
Federal	159	161	159	155	163	162	180	185	194	182	180	161	170
State	222	266	262	271	249	253	276	274	338	331	321	302	280
Local	676	715	720	725	721	708	542	510	667	725	758	742	684
Total GOVERNMENT	1,057	1,142	1,141	1,151	1,133	1,123	999	969	1,199	1,239	1,259	1,205	1,135
GRAND TOTAL	5,444	6,884	9,455	7,571	8,821	8,345	8,656	8,989	7,745	5,725	5,386	4,977	7,333

3.0 PUBLIC SECTOR FISCAL IMPACTS

3.1 Introduction: Issues in Presenting Group A and B Fiscal Information

In this section, we continue examination of the fiscal impacts of the *Exxon Valdez* oil spill on local government revenues and expenditures. The initial examination of oil spill-related fiscal impacts on local jurisdictions sorted communities into "A" and "B" groups. These groups are based on expectations about relative magnitudes of revenues and expenditures and the availability of computerized records. Group A communities are generally more populous communities, with greater annual revenues than the generally less populous Group B communities. It was also assumed that Group A fiscal data would be complex and thus more likely to be computerized for easy retrieval, whereas Group B data might not be computerized. By way of review, Group A and B communities are listed below:

Group A Cities	Group B Cities	Group B Villages
Cordova	Akhiok	Karluk
Homer	Chignik Bay	English Bay
Kenai	Larsen Bay	Port Graham
Kodiak	Old Harbor	Chenega Bay
Seward	Ouzinkie	Tatitlek
Soldotna	Port Lions	Chignik Lagoon
Valdez	Seldovia	Chignik Lake
	Whittier	Perryville
		Ivanoff Bay

In this report, we present selected revenue and expenditure information for Group A and B cities. Issues regarding recordkeeping practices in Group B villages (to be discussed in section 3.3) resulted in limited availability of revenue and expenditure data. However, where data are available they are included. Revenue and expenditure categories discussed in this report are:

Revenues	Expenditures
Sales Tax	General Government
Hospitals	Public Safety
Harbor/Dock	Hospitals
Public Service Charges	Mental Health and Alcohol
Rents and Leases	Harbor/Dock
Oil Spill Cleanup Revenues	Public Services
	Oil Spill Cleanup

Several considerations, detailed below, influence how revenue and expenditure data are presented in this report. First, in these communities, precise patterns of expenditures and revenues cannot be determined without retrieving transaction records (invoices, etc...) to appraise whether each is "normal"- or "oil spill"-related. The yield of such an effort, when considered in relation to the costs and time involved, make such determinations prohibitive. However, an estimation of previous expenditure and revenue trends form a basis for determining how certain spill-sensitive categories were affected by changed conditions in the study region during 1989.

Second, presentation of information in this section is also affected by the number of information points that best describe expenditure and revenue patterns. The greater the volume of transactions within a specified time period, the more precisely a trend can be observed. Within Group A jurisdictions, monthly information has sufficient volume to reveal trends. Within Group B jurisdictions, volumes are small, and the use of monthly transactions would produce information of limited value. For our examination of Group B fiscal impacts, quarterly data is sufficient. Further, as the events of the spill and cleanup generally coincide with the calendar quarters of 1989, quarterly trends are useful for describing the fiscal impacts on Group B jurisdictions. For these reasons, all graphs and tables used for Group A communities present monthly data, while those used for Group B communities use quarterly or annual data.

Third, some revenue and expenditure information is condensed or excluded to clarify this presentation. We chose not to present revenue and expenditure information on which the spill had little or no effect. That is, if the total effects on the fiscal position of the jurisdiction were of short duration or if the dollar amount was small, then this material was excluded in the interests of presenting only the more significant data. In this regard, income categories excluded are: intergovernmental revenues, interest earnings and property taxes. Expenditure categories excluded are: parks, libraries and capital projects. Information for all service charges other than health and harbor/dock services are combined into a single category.

Fourth, monthly revenue and expenditure data are reported on a cash basis, while the annual reporting is made on an accrual basis. Year-end accruals made by a jurisdiction's independent accountants are usually entered as adjustments as of the end of the fiscal year. However, in some cases, these adjustments were not available when the data were collected. Thus, some revenue or expenditure patterns may be skewed, especially in the Public Service category.

Finally, jurisdictions providing services through quasi-independent agencies, e.g., hospitals and schools, have sometimes been unable to obtain the monthly reports of revenue and expenditures necessary to complete the financial templates. Although the data for that municipality may be missing, there is sufficient information furnished by others to reveal a pattern for the particular service or revenue.

3.2 Group A Communities: Revenue and Expenditure Patterns

All Group A communities except Soldotna submitted templates summarizing revenues and expenditures by source and activity. Also, as previously stated, year-end accounting adjustments usually entered as of the end of the fiscal year may skew the data used. Two cities, Homer and Valdez, have a fiscal year ending on December 31 while the balance of the seven have a fiscal year ending June 30. Although this will make some differences visible on graphing the overall transactions, this will not affect the individual revenue and expense patterns.

Figure 3.1 shows the flow of the combined totals of the selected revenues and expenditures for all the communities. Revenues for 1988 reveal a fairly stable pattern, averaging 4.2 million dollars per month with a peak during August of seven million dollars. During 1989, these same revenues increased over a comparable period. The massive *Exxon Valdez* oil spill cleanup efforts gave an additional shot in the arm that increased the revenue flow to local communities. As a result of this and the improved economy, revenue increased approximately 38% overall in 1989, with September receipts reaching almost 10 million dollars.

For 1988, the selected expenditures averaged eight million dollars per month, but during 1989 this average expenditure rate, including oil spill expenditures, dropped to seven million dollars per month. This suggests that local government efforts were channeled toward coping with the spill, with only minimal efforts being directed to normally scheduled tasks.

3.21 Monthly Revenues

Sales Taxes. All the Group A agencies, except Valdez and Kodiak Island Borough, have a general sales tax. Valdez imposes a single-purpose tax on the transient occupants of hotels and motels. Tax rates for the general sales tax vary between communities and, in addition, most set a limit on the amount of sales tax that applies to a single purchase. Cordova, for instance, has a $2,000 limit on single equipment purchases while other communities have a $500 limit on single purchases. VECO, the prime contractor for EXXON, purchased many of its supplies through local merchants. Therefore, those cities having a higher and less restrictive limit received greater benefits from the VECO purchases. Also, these limitations tended to flatten the peaks between the two years. Most taxes are collected on a quarterly basis with collections in the month following the end of the calendar quarter. As fishing preparation takes place mostly in the second quarter, this period is the largest producer of sales tax. As shown in Figure 3.2, this was true for both 1988 and 1989. The 3rd quarter collections show slightly in excess of one million dollars additional being paid in 1989. This is undoubtedly the result of the oil spill activity.

Figure 3.1
Total Selected Revenues and Expenditures
Group A Communities

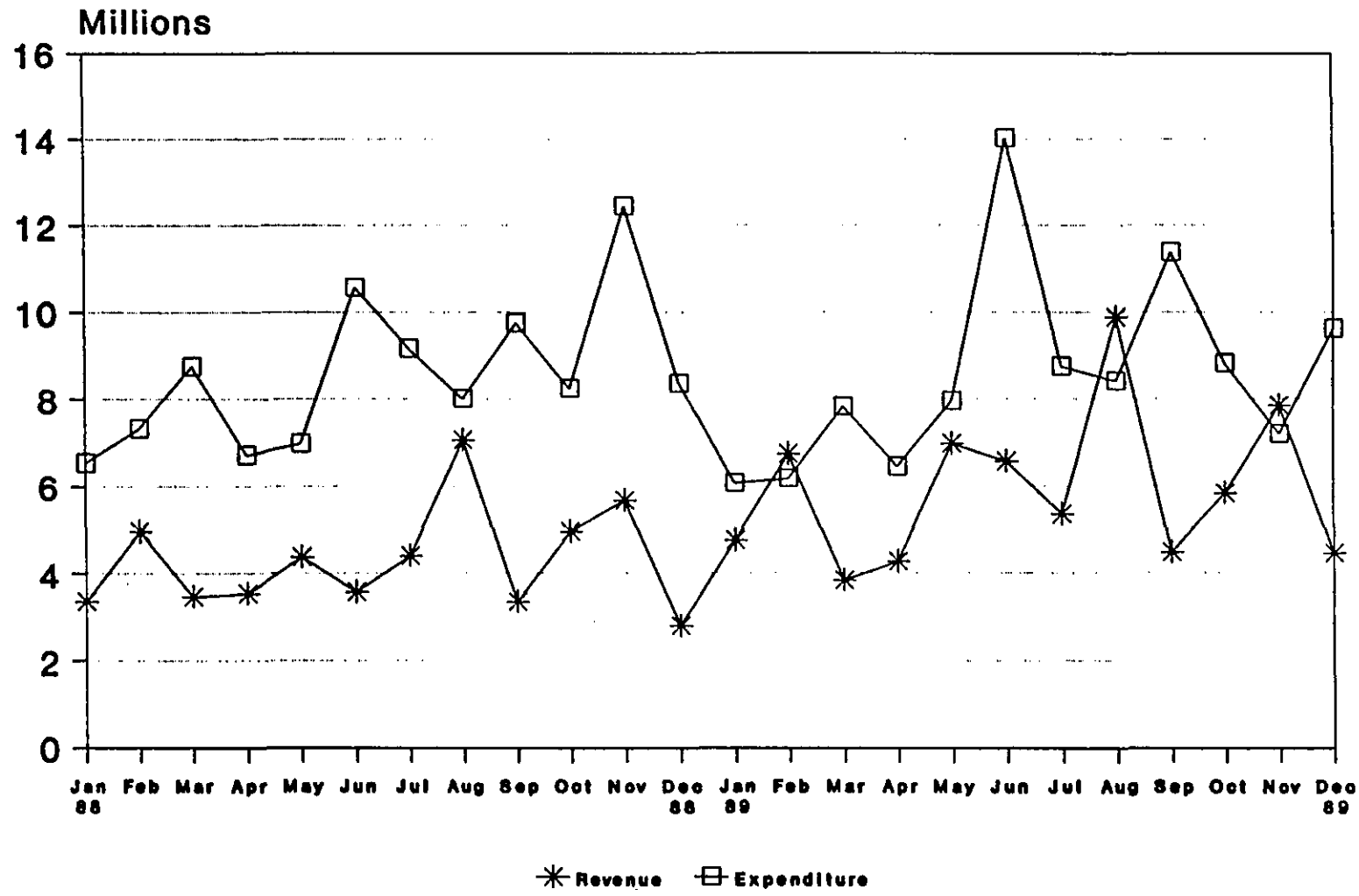


Figure 3.2
1988 vs 1989 Sales Tax Revenues
Group A Cities

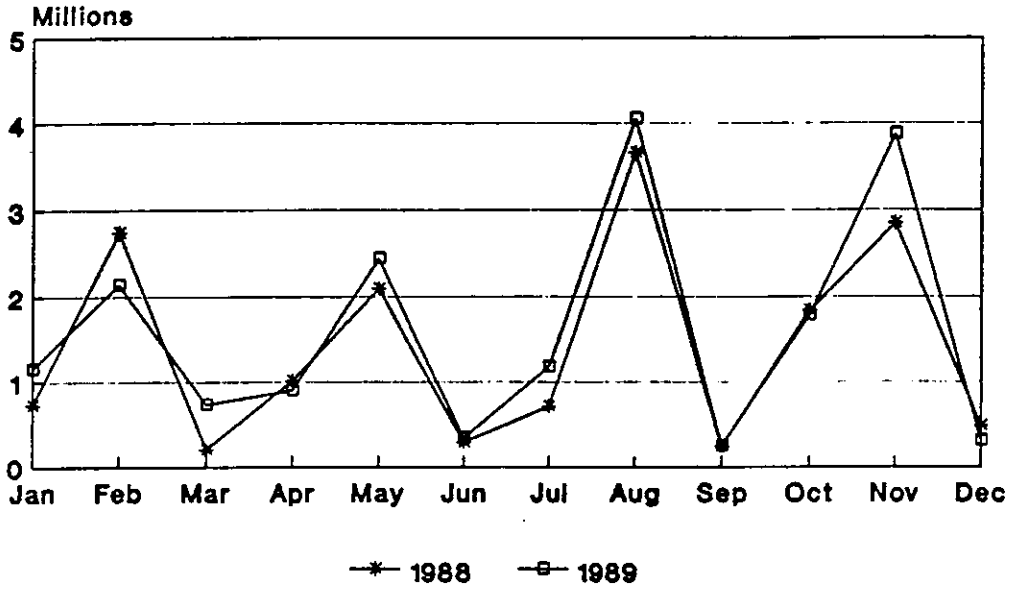
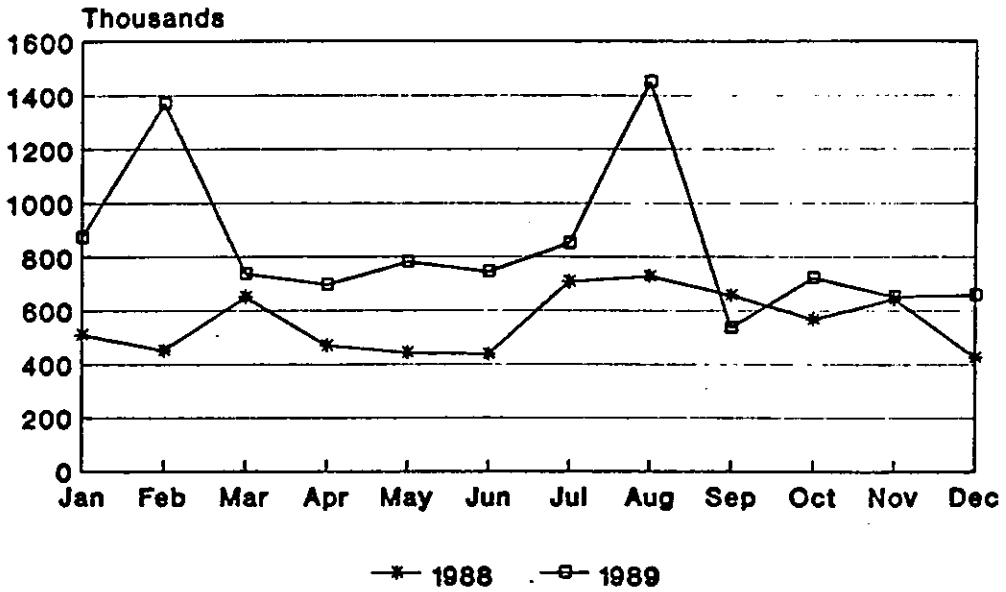


Figure 3.3
1988 vs 1989 Hospital Revenues
Group A Cities



Hospital Revenues. Only Seward and Kodiak Island Borough reported monthly revenues for hospitals, although there are hospitals in other communities that operated as quasi-independent entities. Figure 3.3 shows a sharp rise in revenues during July. This coincides with the peak of the cleanup activity, when a greatly expanded work force was in the spill area, and suggests caseloads sharply increased because of this.

Harbor Revenue, Public Service Charges, and Rents and Leases. Figures 3.4, 3.5 and 3.6 show the relationship the oil spill had with Service Charges and Rents and Leases. Harbor revenue (Figure 3.4) shows a peak in July. This is caused by accruing charges for the fiscal year at its beginning instead of apportioning them monthly. The secondary peak in October probably is due to settlement of charges accruing to the spill. The peak in Public Service Charges (Figure 3.5) is the result of service charges imposed by Homer. Revenue from Rents and Leases (Figure 3.6) shows a slight increase for August and September, 1989. This reflects charges made to VECO for rental of space and equipment.

Oil Spill Revenue. Figure 3.7 shows the flow of funds furnished to the Group A communities by Exxon and the state to assist in the oil spill cleanup and to mitigate additional costs required to maintain services during the spill cleanup period. The July peak was the result of funds advanced by Exxon to both Kenai Peninsula and Kodiak Island Boroughs to be disbursed for cleanup and for the additional costs of maintaining required service levels during the cleanup period. The secondary peak in September is due to settlement of approved expenses at the end of the cleanup period.

3.22 Monthly Expenditures

This subsection looks at the changes in cost of those activities most likely to be affected by the spill. As previously stated, the immediate direct costs attributable to the spill have been met; however, it is necessary to look further at those areas. Although the dollar volume for some activities such as Mental Health and Alcohol is low, increases in costs may be an indicator that the spill has caused underlying social problems, and that to cope with them will create additional fiscal problems in future years. Also, where costs may not have risen spectacularly in an activity, it may be an indicator that work patterns were altered to meet the spill emergency, and that future costs will be abnormally high to cope with the backlog of work. This would be especially true in completing capital or special maintenance projects that had to be delayed to the next construction season.

General Government. General Government Expenses, Figure 3.8, shows little change, rising approximately $500,000 over 1988 expenditures during the month of August and then slipping back to below the 1988 level. This is as expected, since work projects can generally be set aside to meet an emergency and delayed to a later date. These delays can be costly, both to the morale of employees and in the increased expense of a project when it does get underway. The direct costs which may increase from the spill are auditing costs as well as general insurance costs.

Figure 3.4
1988 vs 1989 Harbor Revenues
Group A Cities

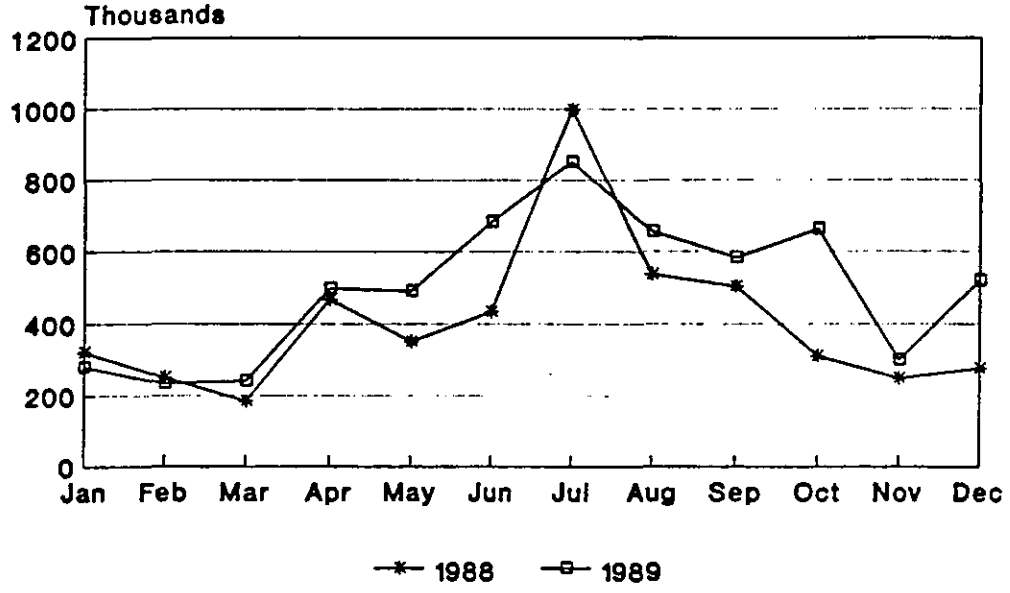
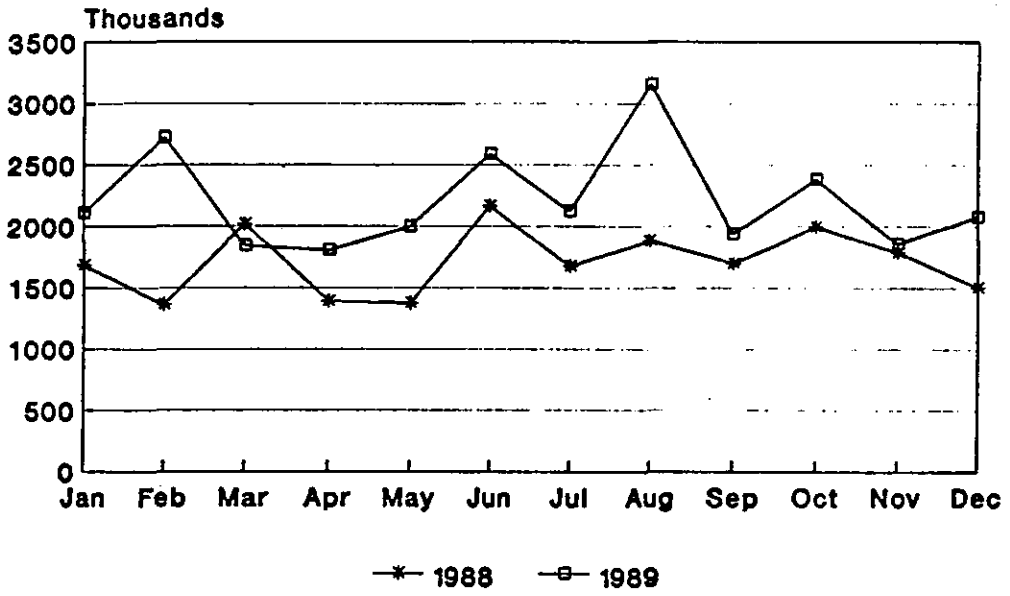


Figure 3.5
1988 vs 1989 Charges for Public Services
Group A Cities



Excludes Harbor/Dock

Figure 3.6
1988 vs 1989 Rents & Leases Revenues
Group A Cities

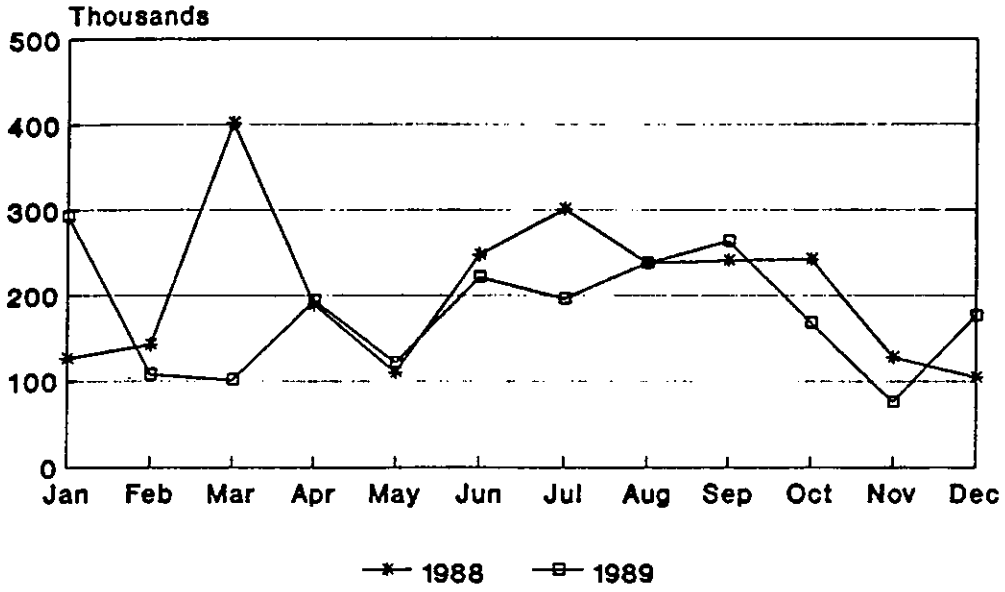


Figure 3.7
1989 Oil Spill-Related Revenues
Group A Cities

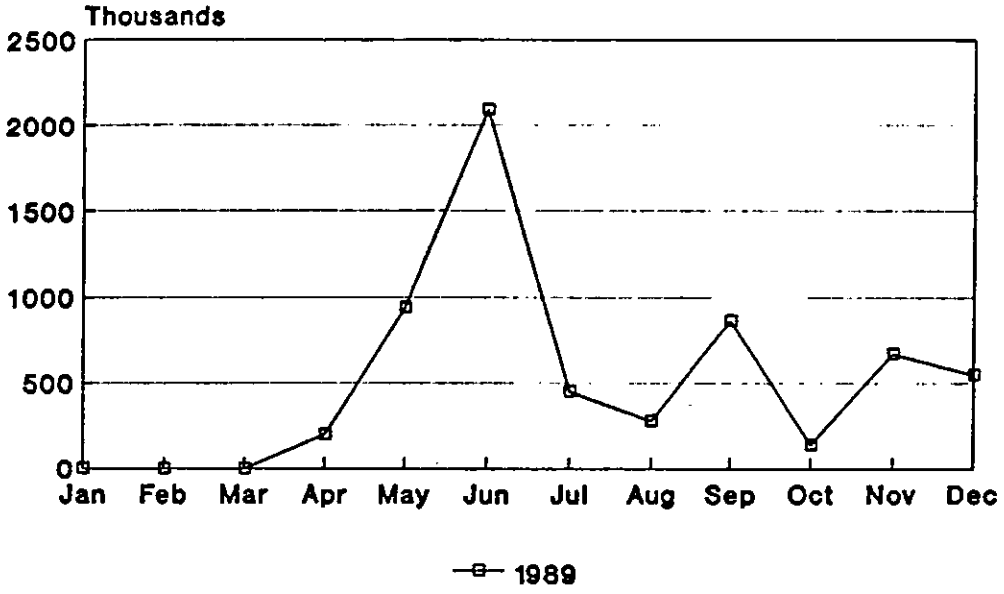


Figure 3.8
1988 vs 1989 General Gov't Expenditures
Group A Cities

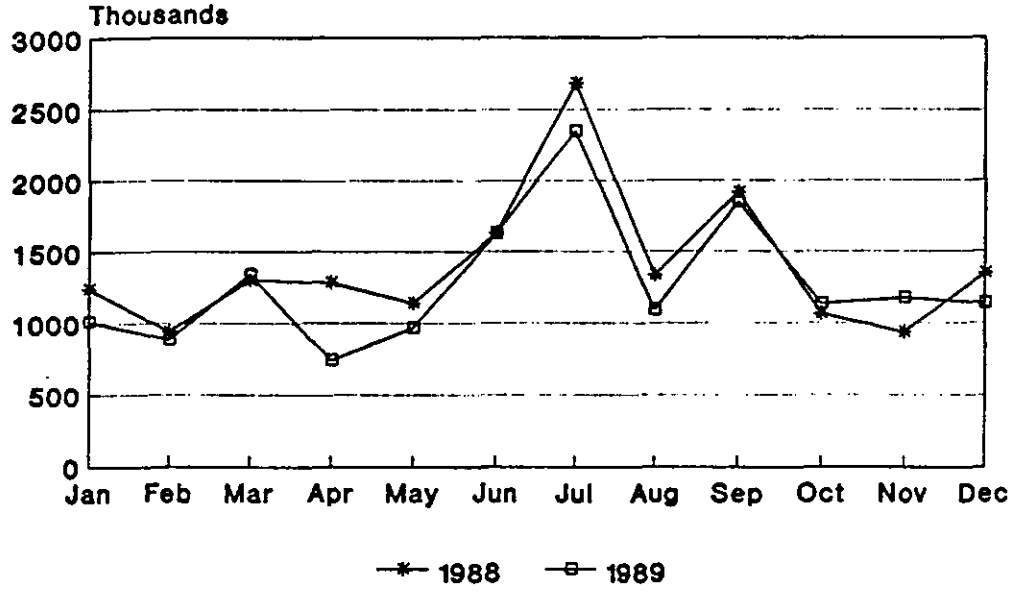
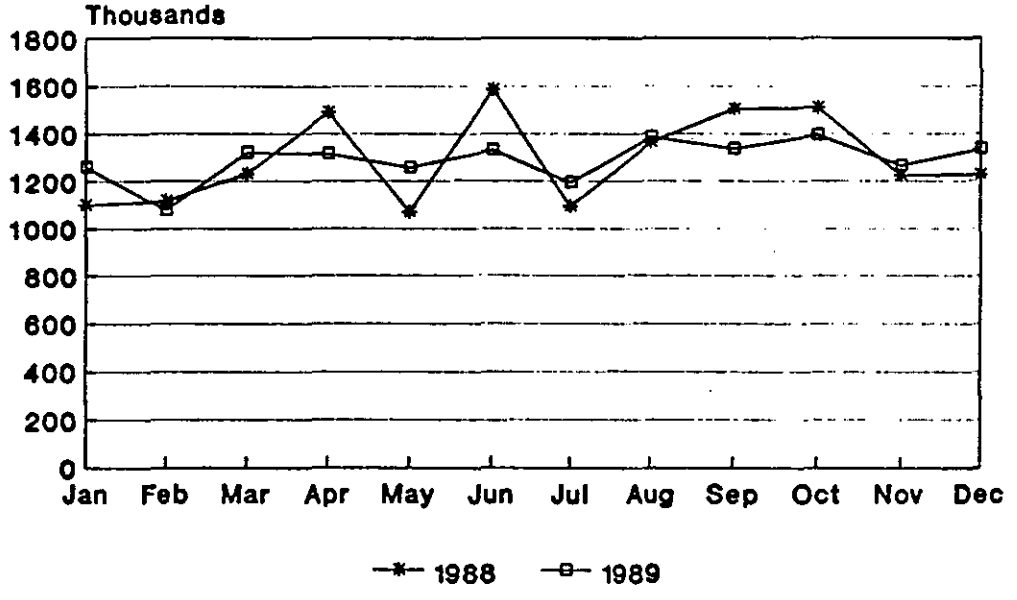


Figure 3.9
1988 vs 1989 Public Safety Expenditures
Group A Cities



Public Safety. Public Safety expenditures (Figure 3.9) for the 1988 and 1989 fiscal years show no particular rises. This may be because, in some communities, any increases were charged directly to the oil spill account rather than the Public Safety function. It is noted that Cordova, Kodiak, and Homer show increases in Public Safety costs that appear to be spill-related.

Hospitals. Expenses for the two reported hospitals for August peaked at 1.6 million dollars. In September costs dropped back to normal (Figure 3.10).

Mental Health/Alcohol. Figure 3.11 reveals that Mental Health and Alcohol costs since July have been above comparable 1988 costs with a $60,000 increase during November. Whether this rise is directly related to a letdown after the intense spill cleanup efforts is unknown.

Social Services. Social Services expenditures (Figure 3.12) closely followed the 1988 pattern until October. At that time there was a dramatic rise in 1989 expenditures. Kodiak Island Borough had a sharp rise in both 1988 and 1989. The overall rise was offset in 1989 with smaller increases in costs in both Kenai Borough and Kenai City. Accordingly, since only three agencies reported monthly expenditures, no clear pattern is shown.

Harbor/Dock. Harbor/Dock expenditures, Figure 3.13, have stayed relatively close to the 1988 expenditure pattern. By April, when the oil spill cleanup got underway, harbors had already geared up for the summer busy season. The spill caused only a transfer of emphasis from fishing to spill cleanup, and the period of cleanup coincided roughly with the summer fishing season. Freight handling on docks is not a local government expense and increased freight handling costs for extra volume would not show. It is very probable that, because of the activity, some maintenance projects had to be delayed until 1990 or later with a resulting increase in costs because of the delay.

Public Services. Public Services includes expenditures for solid waste, sewer and water, electricity, streets and roads, maintenance of public facilities, and other public service areas not specifically set out elsewhere. The sharp increase for June 1989 as shown in Figure 3.14 is due to increased depreciation being charged on new facilities. A second, but smaller, peak developed in September, primarily in Kenai Peninsula Borough.

Oil Spill Cleanup. Approximately six million dollars has been expended by the Group A agencies on the oil spill. The five-plus million dollars shown as expended on this Plate represents expenditures reported as being charged directly by the various entities to their spill accounts. Oil spill expenditures, Figure 3.15, closely follow spill revenue patterns. These patterns reflect the expenditure of advances made by Exxon to both Kenai Peninsula and Kodiak Island Boroughs. The sharp increase in December appears to be payment of outstanding invoices by Exxon.

Figure 3.10
1988 vs 1989 Hospital Expenditures
Group A Cities

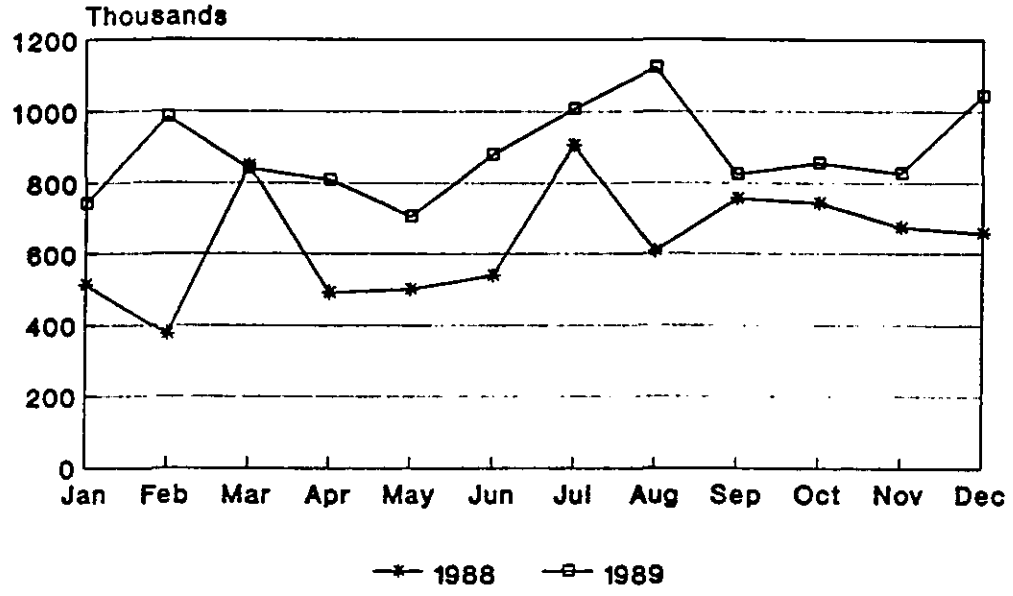


Figure 3.11
1988 vs 1989 Mental Health & Alcohol Exp
Group A Cities

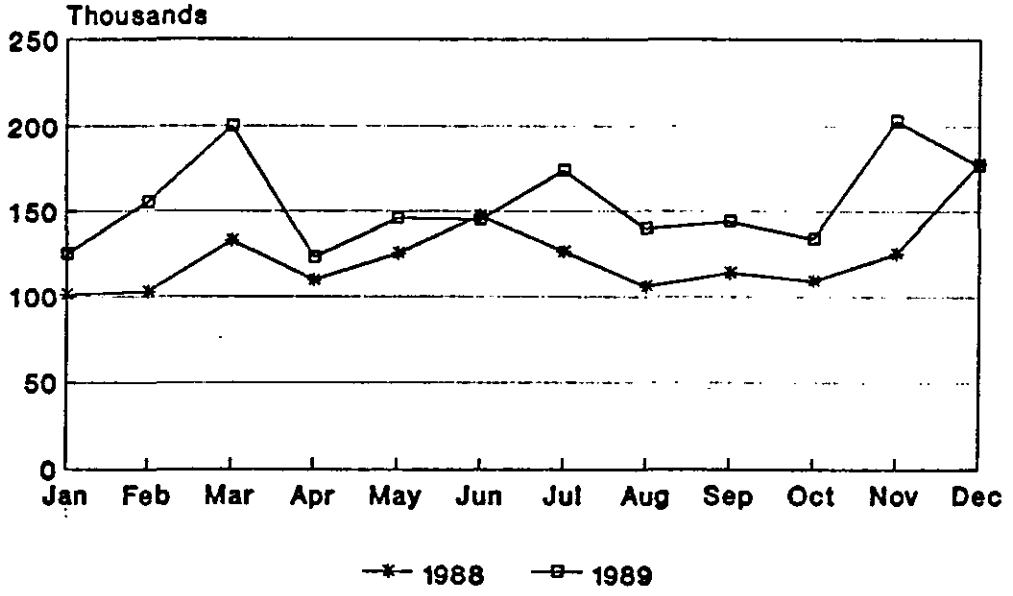
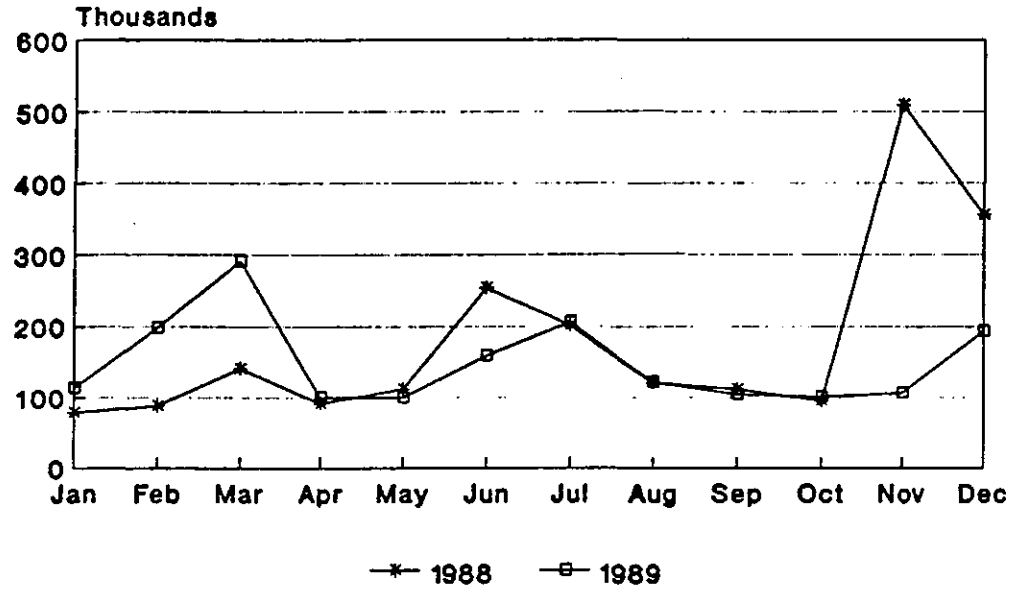


Figure 3.12
1988 vs 1989 Social Svces Expenditures
Group A Cities



Excludes Soldotna

Figure 3.13
1988 vs 1989 Harbor/Dock Expenditures
Group A Cities

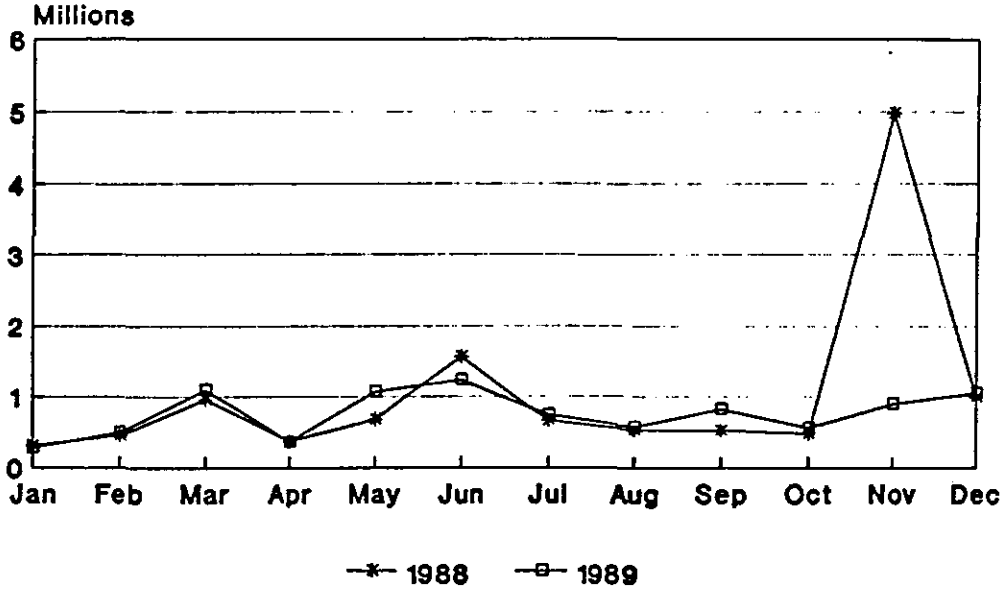
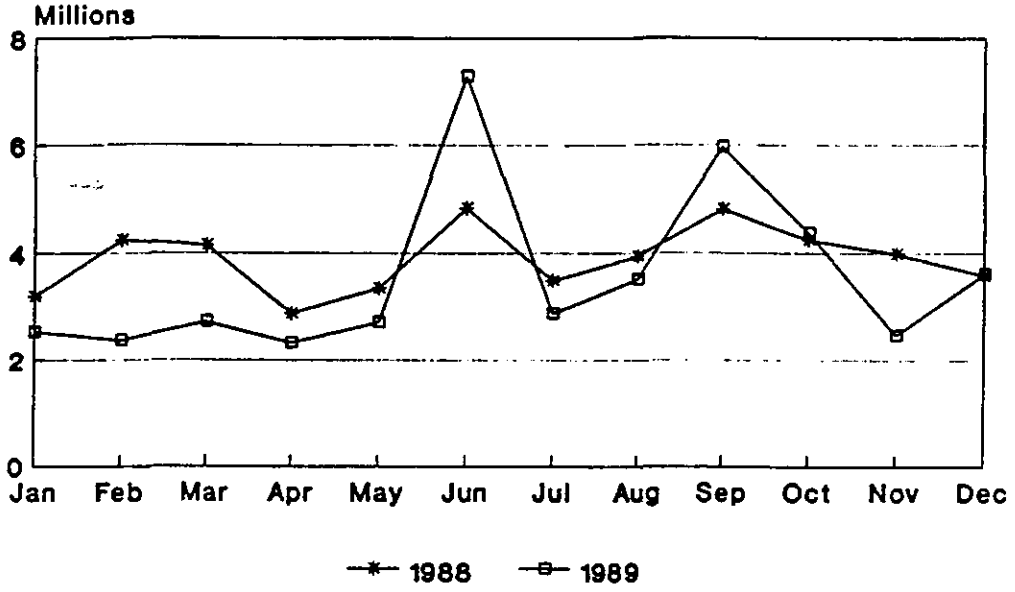
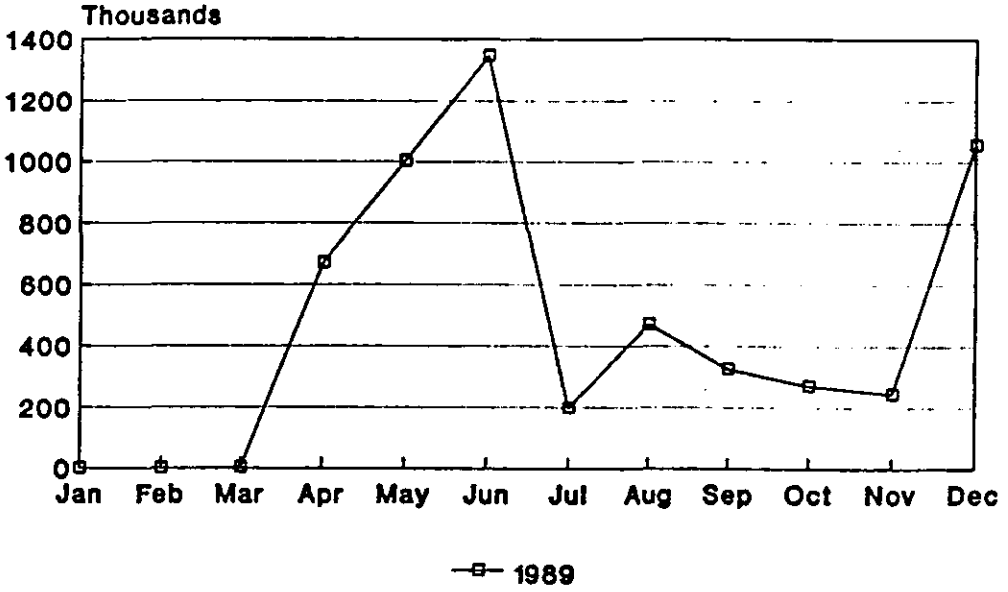


Figure 3.14
1988 vs 1989 Public Services Expenditure
Group A Cities



Excludes Harbor/Dock

Figure 3.15
1989 Oil Spill Cleanup Expenditures
Group A Cities



3.3 Group B Communities: Expenditures And Revenues

The Group B communities in the study region are the following:

Second Class Cities	Villages
Akhiok	Karluk
Chignik Bay	English Bay
Larsen Bay	Port Graham
Old Harbor	Chenega Bay
Ouzinkie	Tatitlek
Port Lions	Chignik Lagoon
Seldovia	Chignik Lake
Whittier	Perryville
	Ivanoff Bay

In this report, we focus on the second class cities, rather than the villages, because state reporting requirements for the municipalities result in records that can be used for assessment of fiscal impacts. A less rigorous form of recordkeeping and different reporting needs in the villages result in virtually no available information that can be used for the type of fiscal trend analysis we intend in this report. However, even if there had been usable records for pre-spill years, the spill so disrupted normal administrative operations in the villages, that sufficient records for any analysis would not have been available for the critical time periods in 1989.

As we will often repeat, responding to the spill and cleanup placed demands on these communities that extended their social and governmental resources beyond capacity. The energies and attentions of some communities remain bound up in the events of March 24, 1989, and all that followed. Energy that might otherwise be devoted to getting on with normal life is bound up by pervasive uncertainties about the future of commercial fishing and the safety of subsistence foods, and by speculation about the availability of $16.69/hour cleanup employment in the summer of 1990. The activity of usual life was displaced by the need to respond to the oil spill and to secure an income against the potential loss of subsistence resources. Similarly, effort normally applied towards continued administrative development was redirected.

Thus, in the villages, our requests for records often met with plaintive pointing to piles of boxes jumbled with invoices and slips of paper. As a clerk in one community commented:

> *I was just learning my job when the spill happened. I got behind because (the mayor) was out of town at meetings ... and I had to do some of his work. I was supposed to go to training last year ... about when the spill happened. I finally went last month (March, 1990). There were only two of us to do the work.... I got behind.*

My filing is behind since last summer. My budget is behind. I am supposed to do monthlies. ... I don't know where everything is yet. ... I hope it gets better this year, but I don't know.

In the absence of records that allow fiscal analysis of spill-related impacts, the final report will use qualitative data from interviews with village staff to describe the demands placed upon these communities for response to the oil spill and cleanup. In this interim report, we focus only on oil spill-related revenues and expenditures for seven cities that could provide usable records for this analysis. The eighth city, Akhiok, provided information that was incomplete for our purposes.

One final word about recordkeeping in the non-city, Group B communities is in order. The recordkeeping practices of state governments and major corporations are geared toward the demands of bureaucratic institutions, and these represent a specific perspective on how business is accomplished. This perspective is not necessarily shared by tribal governments and smaller cities, which often do not have administrative practices that are acceptable to bureaucracies for demonstrating costs incurred. This difference in organizational cultures has resulted in some demands by Exxon and others for records that are consistent with their own organizational cultures, but inconsistent with the current organizational culture of the smaller villages and cities.

3.31 Quantified Oil Spill Revenues and Expenditures

Table 3.1 summarizes the *Exxon Valdez* oil spill-related revenues, expenditures, and invoices through December 31, 1989, for each of the seven reporting cities. For purposes of this discussion, "oil spill expenditures" represent incremental increases in governmental costs resulting from expanded workloads, as well as direct expenditures incurred while assisting in the cleanup. "Oil spill revenues" include funds made available by the state of Alaska or Exxon Corporation to finance expected increases in costs for specific tasks to be performed by a city, or for reimbursement of expenses incurred which were directly attributable to the spill. It should be noted that, due to the sudden increase in workloads, personnel charged with accounting for the spill costs were generally overworked and overwhelmed. There was not, at the outset, any direction given as to accounting methods to be used, nor was there consistent information about which costs would be reimbursed. Exxon and Veco, according to some administrative staff we spoke with, would attempt to strike different deals with each municipality, resulting in a perception within the communities that there was a strategy by Exxon to pay for only what it had to, where it had to, without uniform treatment of each community. However, there was one uniform understanding in the communities about what Exxon would not pay for: child care and other social service needs. As reported by one family service worker who proposed reimbursements related to child care, "Exxon said, and this is a direct quote, 'We don't do kids.'" Consequently, any expenses incurred for such costs often were not submitted for reimbursement.

Table 3.1
Oil Spill Related Revenues and Expenditures
Group B Cities
March 24, through December 31, 1989

	CHIGNIK	OLD HARBOR	LARSEN BAY	PORT LIONS	OUSINKIE	SELDOVIA	WHITTIER	TOTAL
REVENUES								
State of Alaska	3347	0	0	0	0	0	0	3347
Borough Pass Through	0	0	0	70987	0	120070	0	191057
Exxon Corporation	4526	70000	11539	155430	8355	92493	269742	612085
Other	0	0	0	0	0	3873	42873	46746
TOTAL REVENUES	7873	70000	11539	226417	8355	216436	312615	853235
CHARGES								
Direct Expenditures								
Personnel Costs	7820	44669	828	71801	1236	63712	217292	407358
Operations & Maint.	1872	0	12176	63298	2176	59731	34573	173826
Other	0	0	0	25438	0	30793	16381	72612
TOTAL CHARGES	9692	44669	13004	160537	3412	154236	268246	653796
CITY REVENUES								
Space Rental	0	0	15271	7350	2593	0	42873	68087
Harbor & Equip. Rental	0	0	2113	2070	3995	0	0	8178
TOTAL RENTS	0	0	17384	9420	6588	0	42873	76265
UNPAID CHARGES	1819	0	18849	10207	1645	0	500	33020
NET CHARGES	7873	44669	11539	159750	8355	154236	310619	697041
RESERVES	0	0	0	0	0	0	0	0
UNAPPLIED	0	0	0	12900	0	0	1996	14896
HELD FOR WINTER PROGRAMS	0	25331	0	53767	0	62200	0	141298
TOTAL CHARGES & RESERVES	7873	70000	11539	226417	8355	216436	312615	853235

As a result, there is an absence of uniform reporting for all cities. In most cases, oil spill expenditures in the smaller cities were not kept in a separate section in the general ledger but were recorded in the department normally charged. A set of memorandum records was maintained by each city for billing to Exxon or others for oil spill costs. Using only revenues and expenditures identified in the general ledger as "Oil Spill" for this analysis would have produced inaccuracies. The comparison of revenues and expenditures presented here is based on the greatest amounts reported, as taken from the financial templates, invoices or other information relating to oil spill cleanup costs.

Total spill-related revenue reported is $835,000, or approximately .04% of the two-or-so billion dollars spent on spill response. Of this amount, $210,000 was advanced by the Exxon Corporation for winter monitoring of beaches. Through December 31, 1989, total charges made to Exxon or the state were $712,000, of which $654,000 was for "out-of-pocket" expenses, and $58,000 was for rental of city equipment and property. Of the above charges, $33,000 is outstanding as of December 31. Whether a substantial portion of this balance will be paid eventually is not known. Of the remaining $151,000 held by the cities as of December 31, $141,000 is reserved for winter beach monitoring programs, and $15,000 is held by Port Lions as a contingency reserve for undisclosed departmental charges.

Larsen Bay has reported that $19,000 remains unpaid. This includes $12,000 for rental of space and equipment, and $7,000 for operational costs. Whether these costs were refused or payment was delayed is unknown. Port Lions reported $10,000 unpaid, of which $6,000 is for rentals and $4,000 is for operational costs. The city does not expect to receive payment to cover these charges, but these costs could possibly be charged against their $15,000 contingency reserve. Three other cities reported unpaid charges of less than $2,000 each. Two of these, $500 for Whittier and $1,645 for Ouzinkie, were reductions made by Exxon on invoices submitted for payment.

Seldovia, Port Lions, and Old Harbor each reported receiving a $70,000 advance for winter beach monitoring. Chignik, after January 1, also received a $40,000 advance. The agreement with Seldovia provides that if the monitoring is maintained through the winter, any funds not used would remain with the city. In addition, Seldovia will retain custody of certain radio equipment and a facsimile telecopier purchased with oil cleanup funds. The Chignik agreement provided similar terms for the advance, sans equipment. The use of these funds for necessary beach cleanup provided a shot in the arm to the local economy during the very slow winter period. In Whittier, rental income from Veco was separately accounted for in their general fund and is included as part of the oil spill-related charges. Seldovia placed both harbor fees and rentals in general accounts without separation to source of income. Accordingly, these revenues, although fairly substantial, are not reflected in oil spill revenue.

The data gathered from the cities suggest that, except for Larsen Bay and possibly Port Lions, Exxon has reimbursed each of the cities for specific cleanup-related services rendered after March 24, 1989. In addition, Exxon has employed citizens from local communities for

their limited winter beach monitoring effort. In both Seldovia and Whittier, Exxon has also paid for additional public safety and clerical costs attributable to the spill effort. However, these data give no indication of the considerable investment of time in negotiations and extra administrative effort that community personnel were required to make, in a process many perceived as demeaning, in order to receive this approximately .04% of Exxon's over-two billion dollar expenditure.

Furthermore, the fiscal impacts of the spill do not reflect extra costs due to delays in performing necessary maintenance or completion of projects. Such delays can have an adverse effect on city finances. In Port Lions, for instance, maintenance of the sanitary landfill and the city's streets were delayed five months while city personnel were assigned to spill-related efforts. This "catch-up" work will require a greater amount of funding than if the work had been done on a timely basis. Further, this work is not considered reimbursable by either the state or Exxon. Such distortions in spending patterns will not be revealed in fiscal reports. These extra costs, especially in the smaller cities where funds are very limited, can create a financial hardship on the community.

3.32 Exxon Payments To Villages

As noted above, fiscal data for the type of discussion presented in this report are not available for most of the villages included in the study. However, the Alaska Department of Community and Regional Affairs on February 8, 1990, in a telephone survey, collected the following data regarding Exxon payments to the villages:

Port Lions Tribal Council	$1,725
* Mt. Marathon Native Association	$15,000
* Valdez Native Association	$15,000
* The Traditional Village of Eyak	$15,000
* English Bay	$15,000
* Tatitlek	$15,000
* Chenega Bay	$15,000
* Port Graham	$15,000
Chenega Bay IRA Council	$310,000
English Bay Village Council	$17,000
Port Graham Village Council	$30,000
Tatitlek (pending)	$52,000
TOTAL	**$515,725**

(* Indicates a North Pacific Rim Community)

The purpose of these payments was to cover such costs as personnel services, equipment rental, space rental, telecommunications and other spill-related expenditures. The $15,000 provided to each of the communities of The North Pacific Rim (TNPR) is part of a $400,000 payment by Exxon to TNPR for spill-response activities. Some data are still outstanding regarding billings and payments to other villages. These data will be examined and included in the final report.

3.33 Annual Patterns of Revenue and Expenditures

This section discusses the fiscal activities of the eight Group B cities, which range in population from 93 persons to 565. None of the communities are major trading areas and only three have active fish processors within their confines. Except for Whittier and Seldovia, the cities are remote from other populated areas, and their economy is oriented primarily to fishing and meeting local needs. Whittier is an important rail shipping and receiving point for the Alaska Railroad, without road connections to the Alaska highway system. As a result, Whittier became a major marshalling area for cleanup supplies. Seldovia, which is located at the mouth of Kachemak Bay, is also without road connections. It has one fish processor and an improved boat harbor. Summer tourism is a major factor in the economy for both Whittier and Seldovia. Due to its location, Seldovia became headquarters for beach cleanup activities in that area. Chignik, at the southern end of the spill area, is a major fish processing community. It also became a headquarters for beach cleanup.

All of the cities, except Larsen Bay, either completed the fiscal templates furnished to them by Impact Assessment, Incorporated (IAI), or provided sufficient fiscal data to IAI relating to their cities to at least summarize their annual fiscal transactions. Chignik did not have 1987 expenditure data available. It should be noted that where audited information was available and of sufficient detail to complete the templates, the audited reports were used. As audited statements report expenditures on an accrual basis, and the internal city reports are usually on a cash basis, there may be some variations in the information. However, the differences should not be so great as to skew the overall fiscal trends presented here, except in comparing total 1987 expenditures to 1988 and 1989. The following discussion refers to Table 3.2, with more detailed information for expenditures and revenues presented in Appendix C.

Table 3.2
Historical Revenues and Expenditures
Combined Group B Cities

	FY87	% of Total	FY88	% of Total	FY89	% of Total
REVENUES						
Property Tax	221,331	6%	226,234	7%	230,035	6%
Sales Taxes	157,105	5%	159,026	5%	160,527	4%
State Fish Tax	169,188	5%	214,249	6%	389,358	9%
Other Governmental (1)	744,258	22%	716,825	21%	678,036	16%
Harbor and Dock	612,475	18%	577,884	17%	633,609	15%
Other Service Charges	665,311	19%	648,879	19%	711,577	17%
Rents and Leases	333,901	10%	333,074	10%	376,632	9%
Oil Spill Revenue (2)	0	0%	0	0%	399,002	10%
All Other Revenue	536,849	16%	518,580	15%	578,107	14%
TOTAL REVENUES	3,440,418	100%	3,394,751	100%	4,156,883	100%
Population	1,788		1,788		1,911	
REVENUE PER CAPITA	1,924		1,899		2,175	

	FY87	% of Total	FY88	% of Total	FY89	% of Total
EXPENDITURES						
General Government	823,864	24%	951,390	27%	1,001,794	27%
Health and Safety	589,017	17%	577,563	16%	641,429	17%
Libraries	49,888	1%	39,683	1%	42,611	1%
Public Works	428,534	12%	457,576	13%	378,153	10%
Public Services	612,322	18%	643,646	18%	625,058	17%
Harbor/Dock	689,632	20%	602,426	17%	627,371	17%
Oil Spill Cleanup	0	0%	0	0%	195,335	5%
Other Expenditures	282,668	8%	292,324	8%	181,672	5%
TOTAL EXPENDITURES	3,475,925	100%	3,564,608	100%	3,693,423	100%
Population	1,584		1,788		1,911	
EXPENDITURES PER CAPITA	2,194		1,994		1,933	

Notes: (1) Excludes State Oil Spill Assistance
(2) Includes State Oil Spill Assistance

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Revenues. Total revenues dropped $45,000 during 1988, due to the sharp Alaska recession that reduced per capita revenue from $1,924 to $1,899. Revenues, as shown below, increased $762,000 during 1989, of which $399,000 was derived from an influx of oil spill cleanup funds. The $363,000 net increase, after removal of the spill income, reveals that the region, which leans heavily on the fishing industry, was rapidly recovering from the recession.

	1987		1988		1989
Total Revenue	$3,440,000		$3,395,000		$4,157,000
Percent Change		(1%)		22%	
Population	$1,788		$1,788		$1,911
Revenue Per Capita	$1,924		$1,899		$2,175

The long-term effect the spill will have on fishing is unknown. If fishing is adversely affected in future years, so also will be local revenues.

Comments on Specific Revenue Sources. Only Seldovia and Whittier levy a property tax. For the 1989 fiscal year, this represented 6% of Whittier's total revenues and 16% of Seldovia's total revenue.

Sales taxes have shown only moderate increases since 1987. Although there was an increase in economic activity within the area which undoubtedly increased total retail sales, most communities place a tax limitation on single sales, usually $500, and this tends to flatten the rise in sales taxes. Akhiok, Port Lions, and Chignik do not levy a sales tax.

State shared fish tax revenue is becoming a more important revenue source for Seldovia, increasing from $11,000 in 1987 to $45,000 in 1989, and also for Whittier where fish taxes increased from $13,000 to $56,000 during this same period. In 1989, Chignik received $288,000 or 50% of its revenue from fish taxes, compared to $111,000 in 1987, when this tax was only 22% of its total revenue. The increases cited above reflect both greater emphasis on fish processing in these areas and sharp increases in fish prices in 1987 and 1988. None of the remaining reporting cities receive major fish tax revenues.

Other Governmental Revenues have declined 15% between the 1987 and 1988 fiscal years. This is due in large part to a decline in grants for operations, reflecting the overall decline in state oil revenues.

A $56,000 increase in Harbor revenue reflects increased revenue in Seldovia. While Seldovia Harbor revenue was increasing, Whittier's revenue was falling $6,000. Port Lions Harbor receipts stayed constant during this period.

Public Service Charges, which include solid waste removal, electric power, water and sewer, increased by $63,000 during the 1989 fiscal year. Increases or decreases reported were:

Akhiok	$9,000
Chignik	($10,000)
Old Harbor	($22,000)
Ouzinkie	$73,000
Port Lions	($18,000)
Seldovia	$3,000
Whittier	$28,000

No clear pattern has developed to estimate future revenues from Public Service Charges.

$399,000 was paid to the cities for services furnished in the cleanup efforts or to mitigate extra costs auxiliary to the cleanup efforts. These payments will not recur in future years.

Expenditures. Expenditures, as used here, include only operating costs; capital project expenses have been removed to make comparison of costs more valid. Total costs reported by the seven cities were as follows:

	1987		1988		1989
Total Expenditures	$3,476,000		$3,565,000		$3,693,000
Percent Increase		2.6%		3.6%	
Population	* 1,584		1,778		1,911
Per Capita	$2,194		$1,993		$1,932

*Excludes Chignik

These increases in expenditures are relatively minor. The 1989 increase suggests the cities were mostly able to cope with the oil spill cleanup without making a substantial increase in staff. In fact, when direct oil spill expenditures of $195,000 are removed from the 1989 expenditures, the total reported drops to $3,498,000 for all other activities. This was a 5.5% decrease from 1988. If this reduction was due to meeting the spill needs, the level of other services would be reduced substantially, especially in those areas where maintenance or capital projects could be delayed. This portends future increases in costs to catch up on delayed work. Such catch-up work is usually more costly in the long run.

Expenditures for General Government for all cities equalled $1,002,000 in 1989, an increase of $51,000. All of this 5% increase cannot be attributed to the oil spill and probably represents a normal increase in cost of services and personnel. It is noted that the spill caused a substantial increase in travel expenses for spill briefing and discussions, as well as substantial increases in clerical workloads.

Health and Safety costs climbed $64,000 in 1989. Except for Whittier, which had a $66,000 increase, costs tended to be relatively equal to 1988. Whittier's increase cannot be attributed to the oil spill but rather to planned budgetary increases in staff and equipment.

Public Works decreased $79,000 in 1989 when compared to 1988. Seldovia had a $52,000 reduction, and Whittier a $21,000 reduction. These reductions could be caused by the oil spill efforts in both cities, as they appear to have taken place in the last quarter of the fiscal year.

Public Services expenditures, which include water, sewer, solid waste removal and electrical energy, increased $21,000. Decreases in costs were noted for Akhiok, Old Harbor, and Chignik, while increases in expenditures occurred in Seldovia, Port Lions, and Whittier. None of the increases or decreases can be attributed to the spill cleanup efforts.

Direct oil spill cleanup costs were noted only for Port Lions at $106,000, and for Seldovia at $89,000. In Port Lions, these costs were primarily attributed to building a boom to protect the harbor area. Seldovia's expenditures included labor and equipment to protect the harbor area, office equipment to meet increased workloads and some police overtime costs.

Only Seldovia, Whittier, and Port Lions have harbor and dock expenses. These expenses dropped $15,000 during 1989. It is unknown whether any of this drop was due to transfer of emphasis to oil spill cleanup.

All of the Group B cities have a fiscal year ending June 30. Since the *Exxon Valdez* was grounded on March 24, 1989, the cleanup effort had been underway for a very short period by the end of the fiscal year. At first, the cities' efforts were directed toward fighting the spill. By June 30, the social and policing problems caused by massive influxes of cleanup workers were only beginning to surface. Although the workers have left, many of the problems have apparently stayed. At this time, there is no way to estimate the future cost of coping with these social problems, nor is there any way to estimate the future costs of delayed maintenance and capital projects.

3.34 Quarterly Revenue and Expenditure Patterns for Four Cities

Although there are eight Group B cities within the *Exxon Valdez* oil spill area, only four, Old Harbor, Ouzinkie, Seldovia, and Whittier, submitted sufficient fiscal information to show quarterly revenue and expenditure patterns. Due to their geographic locations at the southern, central, and northern portions of the spill area, they demonstrate how the spill affected each of the areas financially. However, no clear pattern of increased or decreased revenues or expenditures developed.

Whittier, like Cordova, was not directly in the path of the spill. However, since it has excellent rail and port facilities, it became one of the more important marshalling areas for the cleanup efforts. Seldovia, lying just west of Kachemak Bay, was a major supply point for the area's beach cleanup crews. Ouzinkie, which lies just north of Kodiak Island, apparently was used as a headquarters only for local cleanup efforts. Old Harbor, at the southeast end of the spill, reported having no oil spill-related revenues and expenditures, except for winter beach monitoring that took place well after the initial spill cleanup efforts.

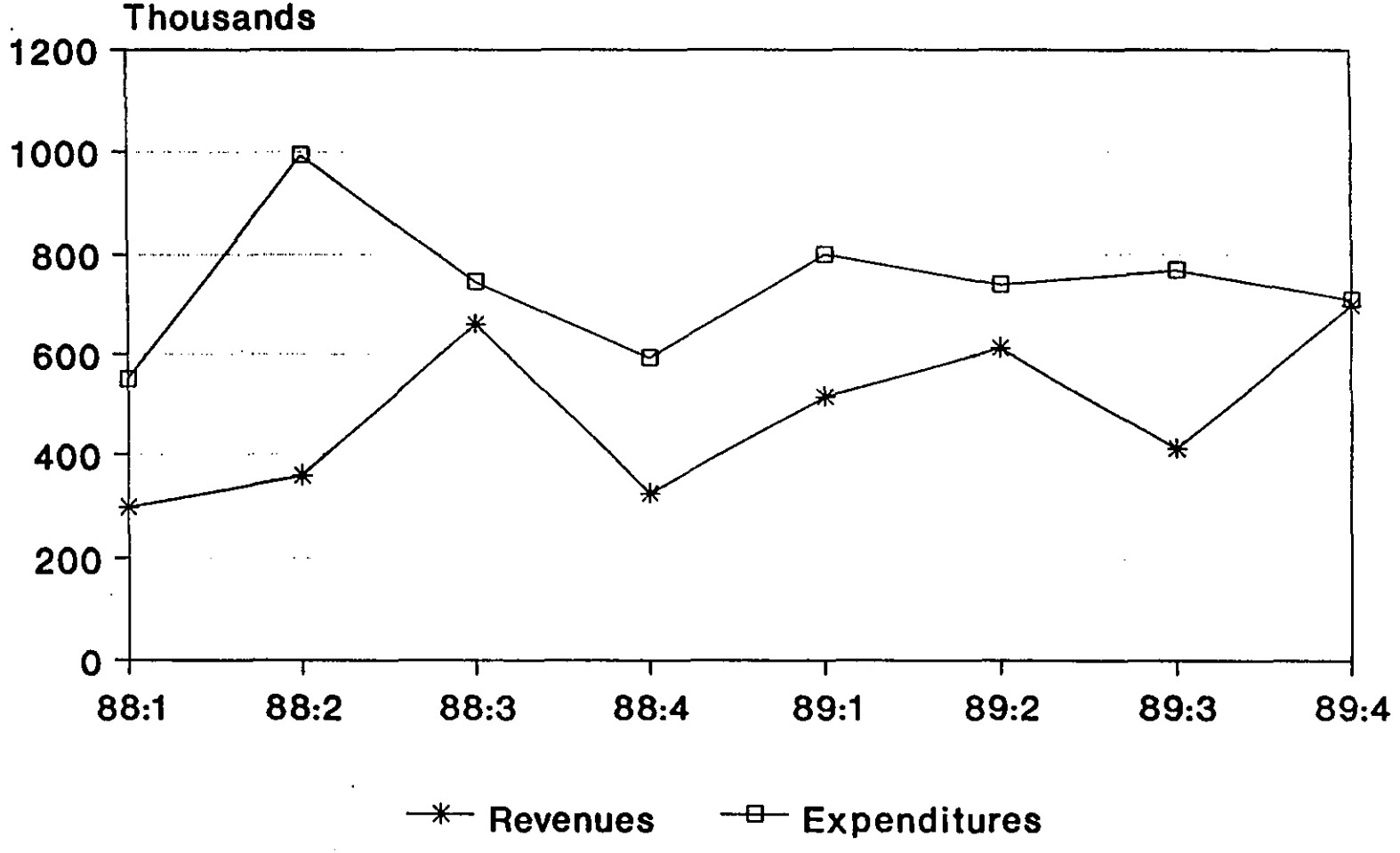
Whittier, which reported receiving $312,000 during the second, third, and fourth quarters of 1989, shows no expenditures for the same period except for General Government. Here the third- and fourth-quarter expenditures for 1989 increased $96,000 over the same period in the prior fiscal year. Other areas of local government absorbed the extra costs in their own budgets, which indicates that work programs were delayed or service levels were reduced to cope with the spill-related efforts. Unfortunately, on the revenue side, no revenues for waste disposal or for the harbor had yet been entered for the 1990 fiscal year. This distorts negatively both Whittier and the totals for all reporting entities.

Seldovia received $120,000 of oil-spill revenues during the second quarter of 1989 and reported expenditures of $89,000 for the same quarter, plus $30,000 in the third quarter. Harbor revenues for the last three quarters of 1989 increased $72,000 over the comparable period in 1988. How much of this increase was due to Exxon/VECO activity is unknown. Rents and Leases for the third and fourth quarters increased sharply. This increase is due primarily to settlement of building space rental fees by VECO.

As previously stated, the initial oil spill cleanup had little fiscal effect on Old Harbor or Ouzinkie. Ouzinkie received $6,000 in the fourth quarter of 1989 for rental of space, and Old Harbor received $70,000 from Exxon for winter beach monitoring. Of the $70,000, $40,000 had been expended during the same quarter. Although Ouzinkie shows an increase in Service Charges income, the increase over prior-year calendar quarters began before the oil spill. The only increase in expenditures in Old Harbor that can be attributed to the spill is the winter beach monitoring program, which is offset by receipt of monies for that purpose.

Figure 3.16 shows graphically the quarterly combined Revenues and Expenditures as reported by the four Group B cities. Quarterly information for each reporting city is contained in Appendix D.

Figure 3.16
Total Selected Revenues and Expenditures
Group B Communities•



•Old Harbor, Ouzinkie,
Seldovia, Whittier

Table A.1 Average Annual Employment for Cordova

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
BASIC SECTOR										
Commercial Fishing										
Fish Processing	152	195	160	182	176	191	160	210	560	388
Tourism	96	96	107	102	103	102	98	102	111	77
Oil Spill	0	0	0	0	0	0	0	0	0	91
Construction	10	12	17	15	19	21	14	9	9	15
Mining	0	0	0	0	0	0	0	0	0	0
Total BASIC	258	303	284	299	298	314	272	321	680	571
SUPPORT SECTOR										
Manufacturing	58	74	60	69	69	72	61	80	121	217
Construction	7	10	13	11	15	16	11	7	7	10
Trans/Comm/Util	117	185	261	242	189	78	70	79	83	72
Trade	105	124	141	127	89	123	109	118	118	143
F.I.R.E.	25	26	24	23	23	25	25	26	24	21
Services	82	80	91	92	68	76	74	57	69	87
Misc.	96	125	91	78	3	106	76	8	21	39
Total SUPPORT	490	623	681	642	455	495	427	374	444	590
GOVERNMENT SECTOR										
Federal	35	42	37	34	32	30	30	31	38	42
State	81	87	87	88	92	96	96	89	90	91
Local	167	179	192	197	181	174	166	162	173	179
Total GOVERNMENT	282	308	316	319	305	300	291	282	301	312
GRAND TOTAL	1,030	1,234	1,281	1,260	1,058	1,109	990	977	1,425	1,473

Table A.2 1988 Monthly Employment for Cordova

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing													
Fish Processing	85	86	100	365	440	927	1,369	1,404	939	318	273	415	560
Tourism	0	6	33	79	121	189	284	227	175	108	46	61	111
Oil Spill	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction	5	5	6	12	13	10	10	10	10	8	13	8	9
Mining	0	0	0	0	0	0	0	0	0	0	0	0	0
Total BASIC	91	98	139	2,156	3,363	4,430	1,663	1,641	1,124	434	331	484	1,329
SUPPORT SECTOR													
Manufacturing	20	30	33	109	180	151	135	191	179	112	122	186	121
Construction	4	5	4	7	13	9	8	8	7	6	10	7	7
Trans/Comm/Util	74	69	70	82	82	91	103	98	93	85	78	68	83
Trade	121	126	118	116	127	127	120	129	126	92	117	101	118
F.I.R.E.	24	23	23	25	25	25	27	26	26	23	23	22	24
Services	87	93	92	81	72	57	35	43	59	66	70	76	69
Misc.	10	9	13	14	15	17	15	22	20	39	41	37	21
Total SUPPORT	340	355	354	434	513	477	443	518	510	423	462	497	444
GOVERNMENT SECTOR													
Federal	25	24	25	27	38	48	51	50	44	40	34	47	38
State	86	83	89	95	86	87	91	94	101	92	90	89	90
Local	177	188	178	181	183	154	145	148	179	186	180	182	173
Total GOVERNMENT	288	295	292	303	307	289	287	292	324	318	304	318	301
GRAND TOTAL	719	748	785	2,892	4,182	5,196	2,393	2,451	1,958	1,175	1,097	1,299	2,075

Table A.3 1989 Monthly Employment for Cordova

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing													
Fish Processing	43	72	102	173	224	471	1,220	1,246	797	86	33	187	388
Tourism	4	0	29	144	112	194	159	119	110	34	3	16	77
Oil Spill	0	0	0	92	318	244	203	168	71	0	0	0	91
Construction	12	12	12	14	15	20	16	16	15	12	20	13	15
Mining	0	0	0	0	0	0	0	0	0	0	0	0	0
Total BASIC	59	84	142	422	669	928	1,598	1,548	993	132	56	217	571
SUPPORT SECTOR													
Manufacturing	24	32	41	64	75	125	368	362	363	350	376	422	217
Construction	8	8	8	8	10	17	11	11	10	9	14	9	10
Trans/Comm/Util	64	60	59	109	48	78	88	84	80	73	67	58	72
Trade	126	131	121	107	141	156	190	192	169	124	140	122	143
F.I.R.E.	20	20	20	21	25	24	22	21	21	19	19	18	21
Services	100	102	94	87	87	70	77	77	82	90	83	90	87
Misc.	37	31	49	33	37	27	31	36	37	48	54	52	39
Total SUPPORT	380	385	393	429	423	497	787	784	762	713	753	771	590
GOVERNMENT SECTOR													
Federal	32	27	27	29	34	44	59	58	51	47	40	55	42
State	74	86	80	100	109	130	84	87	94	85	83	82	91
Local	180	184	187	186	187	168	150	154	186	193	187	189	179
Total GOVERNMENT	286	297	294	315	330	342	294	299	330	325	310	326	312
GRAND TOTAL	724	765	829	1,166	1,422	1,767	2,679	2,631	2,085	1,170	1,118	1,314	1,473

Table A.4 Average Annual Employment for Valdez

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
BASIC SECTOR										
Commercial Fishing										
Fish Processing	50	39	59	64	58	88	76	77	129	150
Tourism	104	104	115	110	112	111	106	110	121	177
Oil Spill	0	0	0	0	0	0	0	0	0	173
Construction	131	113	105	67	89	65	34	23	22	21
Mining	62	114	16	8	24	14	14	9	0	0
Total BASIC	347	370	295	249	283	278	230	219	272	521
SUPPORT SECTOR										
Manufacturing	25	19	29	31	29	43	37	38	65	72
Construction	95	83	76	49	64	47	25	16	16	15
Trans/Comm/Util	318	409	456	479	456	416	373	375	388	465
Trade	75	97	107	111	121	117	92	112	133	168
F.I.R.E.	36	28	23	20	22	20	20	18	20	27
Services	165	132	169	141	164	176	178	191	204	235
Misc.	5	13	24	0	40	28	56	69	18	16
Total SUPPORT	719	780	885	831	896	847	780	819	843	998
GOVERNMENT SECTOR										
Federal	18	20	20	15	17	15	14	16	16	18
State	409	413	401	402	421	399	386	371	377	389
Local	259	277	292	327	300	311	286	288	280	301
Total GOVERNMENT	685	710	714	744	738	725	686	674	673	708
GRAND TOTAL	1,751	1,859	1,893	1,824	1,916	1,850	1,696	1,712	1,789	2,227

Table A.5 1988 Monthly Employment for Valdez City

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing													
Fish Processing	5	18	6	91	119	347	262	328	294	19	9	50	129
Tourism	0	1	7	24	123	340	333	335	193	46	25	31	121
Oil Spill	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction	9	11	10	9	15	17	37	38	45	42	24	8	22
Mining	0	0	0	0	0	0	0	0	0	0	0	0	0
Total BASIC	14	30	23	124	257	703	632	701	532	107	57	89	272
SUPPORT SECTOR													
Manufacturing	3	8	2	34	40	92	79	95	134	75	103	112	65
Construction	6	8	6	5	10	15	26	27	32	30	16	5	16
Trans/Comm/Util	366	380	399	385	398	405	415	399	393	369	373	372	388
Trade	144	150	151	146	147	106	100	102	120	141	142	149	133
F.I.R.E.	20	20	20	20	20	20	20	20	20	20	20	20	20
Services	227	224	213	230	210	145	149	146	191	238	240	232	204
Misc.	20	19	28	15	10	20	24	25	30	9	9	9	18
Total SUPPORT	786	809	820	835	836	803	814	814	919	882	904	900	843
GOVERNMENT SECTOR													
Federal	16	16	15	16	17	17	18	18	18	15	15	15	16
State	329	374	372	383	376	390	379	388	398	381	387	363	377
Local	278	275	291	290	282	298	209	284	280	292	286	293	280
Total GOVERNMENT	623	665	678	689	675	705	606	690	696	688	688	671	673
GRAND TOTAL	1,423	1,504	1,521	1,648	1,768	2,211	2,052	2,205	2,147	1,677	1,649	1,660	1,789

Table A.6 1989 Monthly Employment for Valdez City

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing													
Fish Processing	60	57	68	105	179	457	291	311	199	22	8	47	150
Tourism	0	4	22	67	234	548	431	409	259	83	30	37	177
Oil Spill	0	0	0	127	440	526	437	380	160	0	0	0	173
Construction	7	8	7	7	18	21	35	36	43	40	22	7	21
Mining	0	0	0	0	0	0	0	0	0	0	0	0	0
Total BASIC	67	69	98	306	870	1,552	1,194	1,137	661	145	61	91	521
SUPPORT SECTOR													
Manufacturing	34	25	28	39	60	121	88	91	91	88	94	105	72
Construction	5	5	5	4	13	18	25	26	30	28	16	5	15
Trans/Comm/Util	415	398	424	589	573	716	441	424	416	391	396	396	465
Trade	151	130	138	214	215	150	127	139	153	189	202	213	168
F.I.R.E.	20	21	21	23	25	32	30	30	30	30	30	30	27
Services	232	219	227	287	360	313	135	144	177	233	249	242	235
Misc.	6	6	17	18	11	12	19	21	15	22	24	18	16
Total SUPPORT	863	805	860	1,173	1,257	1,362	865	874	912	981	1,011	1,009	998
GOVERNMENT SECTOR													
Federal	18	17	18	16	17	16	20	20	20	16	16	16	18
State	346	370	375	403	409	483	377	386	396	379	385	362	389
Local	291	307	292	286	293	309	312	302	297	310	304	311	301
Total GOVERNMENT	655	694	685	705	719	808	709	708	713	706	705	689	708
GRAND TOTAL	1,585	1,568	1,643	2,184	2,846	3,722	2,768	2,719	2,286	1,832	1,777	1,789	2,227

Table A.7 Average Annual Employment for Kodiak City

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
BASIC SECTOR										
Commercial Fishing										
Fish Processing	1,346	1,273	1,099	1,211	1,326	1,252	1,654	1,475	1,277	1,560
Tourism	180	181	204	203	218	220	212	226	243	211
Oil Spill	0	0	0	0	0	0	0	0	0	221
Construction	52	64	262	400	170	99	86	77	100	112
Mining	0	0	0	0	0	0	0	0	0	0
Total BASIC	1,578	1,518	1,565	1,814	1,714	1,571	1,952	1,778	1,619	2,104
SUPPORT SECTOR										
Manufacturing	202	140	99	85	40	50	17	29	75	193
Construction	47	67	25	173	160	178	189	117	75	62
Trans/Comm/Util	352	320	297	308	288	227	179	214	227	284
Trade	499	485	580	588	570	643	603	670	708	783
F.I.R.E.	92	90	97	100	98	101	104	101	108	106
Services	437	426	446	477	462	494	505	495	634	812
Misc.	31	47	69	36	65	0	32	60	53	24
Total SUPPORT	1,661	1,576	1,614	1,766	1,683	1,693	1,628	1,686	1,879	2,264
GOVERNMENT SECTOR										
Federal	284	256	251	252	237	239	237	231	191	168
State	203	247	254	267	276	276	261	232	243	275
Local	502	499	483	512	527	541	599	511	530	564
Total GOVERNMENT	988	1,002	988	1,030	1,040	1,056	1,096	974	964	1,007
GRAND TOTAL	4,226	4,096	4,166	4,610	4,436	4,319	4,676	4,437	4,463	5,375

Table A.8 1988 Monthly Employment for Kodiak City

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing													
Fish Processing	1,067	1,171	1,386	780	904	1,083	1,558	1,648	1,809	1,476	1,315	1,128	1,277
Tourism	96	97	93	186	259	394	404	419	376	239	240	108	243
Oil Spill	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction	89	82	89	103	95	99	93	115	122	108	106	93	100
Mining	0	0	0	0	0	0	0	0	0	0	0	0	0
Total BASIC	1,252	1,350	1,568	1,069	1,259	1,576	2,055	2,182	2,307	1,823	1,661	1,329	1,619
SUPPORT SECTOR													
Manufacturing	41	37	34	32	30	29	70	107	123	135	134	126	75
Construction	70	72	60	56	89	92	98	76	69	73	84	65	75
Trans/Comm/Util	218	211	208	207	210	267	239	269	228	220	221	225	227
Trade	745	760	740	737	737	694	689	667	664	680	658	725	708
F.I.R.E.	108	107	106	102	101	108	106	117	109	105	111	112	108
Services	602	616	621	617	615	626	610	623	635	657	670	711	634
Misc.	59	59	59	55	53	48	46	53	64	53	37	53	53
Total SUPPORT	1,843	1,861	1,828	1,806	1,834	1,864	1,858	1,912	1,892	1,922	1,915	2,017	1,879
GOVERNMENT SECTOR													
Federal	224	219	218	216	206	190	178	183	176	165	162	159	191
State	195	240	244	243	216	218	216	227	279	287	284	266	243
Local	562	567	572	579	574	455	387	385	539	557	587	592	530
Total GOVERNMENT	981	1,026	1,034	1,038	996	863	781	795	994	1,009	1,033	1,017	964
GRAND TOTAL	4,076	4,237	4,430	3,913	4,089	4,303	4,694	4,889	5,193	4,754	4,609	4,363	4,463

Table A.9 1989 Monthly Employment for Kodiak City

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing													
Fish Processing	1,478	1,760	2,037	1,697	1,642	1,928	1,548	1,580	1,591	1,355	1,167	942	1,560
Tourism	95	115	288	115	130	183	399	400	366	152	160	124	211
Oil Spill	0	0	0	19	233	491	715	782	413	0	0	0	221
Construction	93	93	94	102	110	102	155	140	137	114	114	94	112
Mining	0	0	0	0	0	0	0	0	0	0	0	0	0
Total BASIC	1,666	1,968	2,419	1,933	2,115	2,704	2,816	2,902	2,508	1,620	1,441	1,159	2,104
SUPPORT SECTOR													
Manufacturing	111	150	156	167	159	174	148	190	238	290	248	290	193
Construction	64	60	55	58	73	90	35	50	53	66	75	63	62
Trans/Comm/Util	250	244	247	274	335	372	288	324	274	265	266	271	284
Trade	710	704	661	837	866	862	790	775	772	853	773	795	783
F.I.R.E.	96	91	92	94	101	107	115	128	119	105	111	112	106
Services	777	773	695	814	815	815	824	831	844	826	869	856	812
Misc.	22	21	24	24	24	32	22	22	23	26	26	26	24
Total SUPPORT	2,029	2,043	1,930	2,268	2,373	2,453	2,223	2,320	2,322	2,430	2,367	2,414	2,264
GOVERNMENT SECTOR													
Federal	157	159	157	153	161	160	178	183	192	180	178	159	168
State	217	261	257	266	244	248	270	269	331	324	315	296	275
Local	566	592	591	608	583	599	412	398	554	602	637	623	564
Total GOVERNMENT	940	1,012	1,005	1,027	988	1,007	861	849	1,077	1,106	1,130	1,079	1,007
GRAND TOTAL	4,635	5,023	5,354	5,228	5,476	6,164	5,900	6,071	5,907	5,157	4,938	4,652	5,375

Table A.10 Average Annual Employment for Homer

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
BASIC SECTOR										
Commercial Fishing										
Fish Processing	136	401	304	213	150	164	117	132	91	123
Tourism	74	80	90	99	114	124	129	127	106	172
Oil Spill	0	0	0	0	0	0	0	0	0	68
Construction	29	31	46	72	88	98	35	20	43	57
Mining	78	52	52	78	78	78	78	78	67	62
Total BASIC	317	564	492	462	430	464	359	357	307	482
SUPPORT SECTOR										
Manufacturing	27	80	80	78	95	59	74	46	59	83
Construction	40	32	46	72	143	154	90	68	87	170
Trans/Comm/Util	186	208	322	374	350	188	177	159	196	220
Trade	158	188	183	215	216	245	261	256	268	225
F.I.R.E.	40	46	52	60	74	74	68	57	56	61
Services	143	209	198	138	162	171	177	172	187	215
Misc.	5	6	8	22	12	5	4	3	28	58
Total SUPPORT	600	769	890	957	1,053	896	850	762	881	1,031
GOVERNMENT SECTOR										
Federal	31	32	36	36	36	39	39	40	45	49
State	4	5	12	20	18	21	18	25	25	28
Local	188	151	169	259	282	338	351	347	336	365
Total GOVERNMENT	222	189	217	315	335	398	408	411	406	442
GRAND TOTAL	1,139	1,521	1,599	1,734	1,818	1,757	1,617	1,530	1,594	1,955

Table A.11 1988 Monthly Employment for Homer

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing													
Fish Processing	32	27	29	50	85	109	276	191	102	79	63	53	91
Tourism	54	0	0	8	122	357	207	232	143	131	0	15	106
Oil Spill	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction	11	11	16	20	22	35	43	53	83	81	72	67	43
Mining	61	63	64	64	67	68	75	70	66	66	69	71	67
Total BASIC	158	101	108	142	295	569	601	546	395	357	204	206	307
SUPPORT SECTOR													
Manufacturing	49	55	53	55	56	56	45	45	47	71	87	93	59
Construction	40	43	43	55	65	71	92	110	143	123	128	127	87
Trans/Comm/Util	172	189	182	174	190	193	206	205	215	214	207	201	196
Trade	240	272	274	307	307	254	294	278	257	219	254	262	268
F.I.R.E.	58	51	63	52	52	52	62	55	58	58	57	58	56
Services	173	193	184	193	163	137	186	181	203	211	215	203	187
Misc.	78	13	11	17	34	28	5	7	34	47	24	34	28
Total SUPPORT	810	816	811	853	867	791	890	881	957	942	972	977	881
GOVERNMENT SECTOR													
Federal	41	41	40	39	41	46	50	50	50	48	47	48	45
State	32	38	33	36	13	6	3	5	32	35	33	34	25
Local	339	343	345	340	358	325	249	261	366	367	369	373	336
Total GOVERNMENT	412	422	418	415	412	377	302	316	448	450	449	455	406
GRAND TOTAL	1,380	1,339	1,337	1,410	1,574	1,737	1,793	1,743	1,800	1,749	1,625	1,638	1,594

Table A.12 1989 Monthly Employment for Homer

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing													
Fish Processing	48	47	58	81	126	156	351	242	127	128	70	45	123
Tourism	0	0	0	198	390	574	303	290	170	62	29	41	172
Oil Spill	0	0	0	93	310	182	128	70	31	0	0	0	68
Construction	124	91	107	83	111	173	0	0	0	0	0	0	57
Mining	55	55	56	60	61	63	64	63	61	71	70	68	62
Total BASIC	227	193	221	515	998	1,148	846	666	389	261	169	155	482
SUPPORT SECTOR													
Manufacturing	81	83	72	59	61	64	77	73	73	141	114	101	83
Construction	126	119	116	164	131	164	184	189	237	212	201	196	170
Trans/Comm/Util	188	189	194	271	214	274	215	214	225	224	216	210	220
Trade	243	239	261	240	207	159	222	227	215	230	221	232	225
F.I.R.E.	60	59	63	66	68	68	63	61	61	54	54	54	61
Services	199	211	218	209	176	130	201	202	245	257	268	259	215
Misc.	52	50	51	64	53	41	58	55	68	70	68	66	58
Total SUPPORT	949	950	975	1,074	910	901	1,020	1,022	1,123	1,188	1,142	1,118	1,031
GOVERNMENT SECTOR													
Federal	46	45	46	46	47	49	51	50	56	53	52	48	49
State	36	38	39	39	14	10	6	11	38	35	34	33	28
Local	372	364	366	377	412	400	264	265	387	391	390	392	365
Total GOVERNMENT	454	447	451	462	473	459	320	326	481	480	476	473	442
GRAND TOTAL	1,630	1,590	1,647	2,051	2,381	2,508	2,187	2,013	1,993	1,929	1,788	1,745	1,955

Table A.13 Average Annual Employment for Kenai City

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
BASIC SECTOR										
Commercial Fishing										
Fish Processing	602	494	525	544	523	615	570	579	593	625
Tourism	34	37	41	46	53	59	59	58	57	87
Oil Spill	0	0	0	0	0	0	0	0	0	39
Construction	169	243	260	271	252	282	98	54	65	114
Mining	660	661	734	529	600	703	827	654	668	608
Total BASIC	1,465	1,435	1,560	1,389	1,428	1,658	1,553	1,344	1,382	1,473
SUPPORT SECTOR										
Manufacturing	354	290	308	319	307	361	335	340	348	372
Construction	234	253	260	271	411	440	251	179	138	137
Trans/Comm/Util	203	264	276	318	306	246	166	229	231	353
Trade	550	608	635	670	767	859	730	693	680	666
F.I.R.E.	94	99	109	134	126	113	130	93	76	89
Services	359	355	375	446	384	423	432	433	496	589
Misc.	13	12	16	22	21	32	47	30	19	7
Total SUPPORT	1,806	1,881	1,979	2,180	2,323	2,475	2,090	1,998	1,989	2,214
GOVERNMENT SECTOR										
Federal	63	60	61	74	77	69	61	61	70	77
State	323	365	404	456	524	561	571	534	540	599
Local	581	611	700	751	811	853	851	823	786	847
Total GOVERNMENT	967	1,036	1,165	1,282	1,412	1,483	1,483	1,418	1,396	1,523
GRAND TOTAL	4,239	4,352	4,704	4,851	5,163	5,616	5,127	4,760	4,767	5,211

Table A.14 1988 Monthly Employment for Kenai City

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing													
Fish Processing	223	185	199	310	515	596	2,113	1,328	810	376	250	211	593
Tourism	16	0	0	7	103	137	110	95	121	37	16	42	57
Oil Spill	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction	26	23	37	43	47	88	76	90	105	101	83	60	65
Mining	644	665	687	660	690	707	703	695	681	598	633	649	668
Total BASIC	909	872	923	1,021	1,355	1,528	3,002	2,208	1,717	1,111	981	962	1,382
SUPPORT SECTOR													
Manufacturing	343	373	372	347	338	307	345	315	376	335	349	371	348
Construction	91	88	103	118	142	175	162	187	181	153	146	114	138
Trans/Comm/Util	220	216	220	215	236	260	267	268	263	210	198	198	231
Trade	677	671	679	679	666	693	750	675	662	669	672	671	680
F.I.R.E.	62	60	68	69	67	71	90	90	89	84	82	82	76
Services	476	460	480	489	508	508	515	520	513	501	492	489	496
Misc.	36	36	21	22	21	17	2	2	5	21	24	25	19
Total SUPPORT	1,906	1,905	1,943	1,938	1,979	2,032	2,131	2,057	2,089	1,974	1,963	1,950	1,989
GOVERNMENT SECTOR													
Federal	62	61	62	62	68	71	73	75	76	77	77	76	70
State	510	508	520	528	506	516	537	567	611	583	558	535	540
Local	793	809	823	835	849	732	497	539	868	884	886	913	786
Total GOVERNMENT	1,365	1,378	1,405	1,425	1,423	1,319	1,107	1,181	1,555	1,544	1,521	1,524	1,396
GRAND TOTAL	4,180	4,155	4,271	4,384	4,757	4,879	6,240	5,446	5,361	4,629	4,465	4,436	4,767

Table A.15 1989 Monthly Employment for Kenai City

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing													
Fish Processing	207	197	276	472	730	813	2,083	1,263	720	342	221	176	625
Tourism	0	0	6	54	79	187	196	169	182	61	50	58	87
Oil Spill	0	0	0	33	110	131	92	69	31	0	0	0	39
Construction	104	66	102	63	114	139	146	143	139	130	118	111	114
Mining	529	533	535	563	563	579	628	659	660	692	686	669	608
Total BASIC	840	796	919	1,184	1,596	1,849	3,146	2,302	1,732	1,225	1,076	1,014	1,473
SUPPORT SECTOR													
Manufacturing	354	351	341	342	357	335	457	380	415	378	363	395	372
Construction	105	87	110	124	133	131	176	172	168	156	143	134	137
Trans/Comm/Util	206	204	201	250	255	267	484	931	485	417	305	232	353
Trade	652	658	670	655	682	669	704	656	648	691	637	669	666
F.I.R.E.	86	84	86	87	91	95	99	96	95	84	84	85	89
Services	561	568	583	604	588	605	607	611	601	588	584	573	589
Misc.	1	2	2	2	2	2	2	2	5	21	24	25	7
Total SUPPORT	1,965	1,953	1,992	2,064	2,109	2,105	2,529	2,849	2,417	2,335	2,139	2,114	2,214
GOVERNMENT SECTOR													
Federal	74	76	77	75	74	77	72	76	84	84	84	77	77
State	517	528	528	545	537	580	674	671	726	662	624	599	599
Local	862	852	846	901	919	898	527	555	903	967	964	968	847
Total GOVERNMENT	1,453	1,456	1,451	1,521	1,530	1,555	1,273	1,303	1,713	1,713	1,671	1,644	1,523
GRAND TOTAL	4,258	4,206	4,362	4,769	5,234	5,509	6,947	6,454	5,862	5,272	4,886	4,771	5,211

Table A.16 Average Annual Employment for Seward

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
BASIC SECTOR										
Commercial Fishing										
Fish Processing	205	153	138	85	59	92	78	81	102	113
Tourism	68	73	83	91	106	119	119	117	81	167
Oil Spill	0	0	0	0	0	0	0	0	0	122
Construction	13	5	10	22	23	12	20	23	22	12
Mining	109	114	97	89	112	0	0	0	0	0
Total BASIC	395	345	328	287	300	223	217	221	206	413
SUPPORT SECTOR										
Manufacturing	131	98	89	54	38	59	50	51	65	66
Construction	18	5	10	22	38	19	52	78	50	58
Trans/Comm/Util	45	48	73	39	96	138	98	60	72	85
Trade	122	111	124	113	111	132	155	147	207	212
F.I.R.E.	17	20	20	19	22	23	22	21	21	20
Services	131	128	151	143	141	166	155	123	183	141
Misc.	8	6	8	10	14	14	23	14	9	123
Total SUPPORT	472	415	474	400	459	551	555	493	607	705
GOVERNMENT SECTOR										
Federal	34	31	33	35	42	36	37	37	45	46
State	194	203	222	216	229	241	221	208	311	413
Local	109	112	121	134	141	154	169	175	174	191
Total GOVERNMENT	337	346	375	385	412	430	426	420	529	651
GRAND TOTAL	1,205	1,107	1,176	1,072	1,171	1,204	1,199	1,133	1,342	1,769

Table A.17 1988 Monthly Employment for Seward

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing													
Fish Processing	43	32	35	95	132	165	266	221	114	62	34	30	102
Tourism	0	0	14	59	83	147	250	171	133	85	29	0	81
Oil Spill	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction	15	13	15	18	18	26	29	32	29	27	24	21	22
Mining	0	0	0	0	0	0	0	0	0	0	0	0	0
Total BASIC	57	45	64	173	233	338	546	425	276	174	87	51	206
SUPPORT SECTOR													
Manufacturing	65	66	66	107	87	85	44	52	53	55	47	53	65
Construction	52	50	43	49	54	53	62	68	51	42	42	39	50
Trans/Comm/Util	69	70	60	54	61	79	94	99	87	61	80	44	72
Trade	206	203	209	217	217	213	183	205	209	208	209	201	207
F.I.R.E.	20	20	20	21	20	23	26	24	22	19	18	18	21
Services	183	181	183	191	193	183	153	179	185	188	193	181	183
Misc.	1	9	36	14	4	2	15	1	3	13	16	2	9
Total SUPPORT	597	599	616	652	637	638	576	627	610	586	606	537	607
GOVERNMENT SECTOR													
Federal	35	34	37	38	44	58	59	54	51	44	40	41	45
State	217	211	219	265	295	337	339	339	372	371	381	381	311
Local	173	178	180	175	184	164	125	143	193	189	187	195	174
Total GOVERNMENT	425	423	436	478	523	559	523	536	616	604	608	617	529
GRAND TOTAL	1,079	1,067	1,116	1,303	1,393	1,535	1,645	1,588	1,502	1,364	1,301	1,205	1,342

Table A.18 1989 Monthly Employment for Seward

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing													
Fish Processing	31	31	42	137	204	211	265	222	97	55	31	26	113
Tourism	0	0	49	73	203	280	365	306	163	281	145	135	167
Oil Spill	0	0	0	129	432	337	237	224	101	0	0	0	122
Construction	21	19	23	17	29	36	0	0	0	0	0	0	12
Mining	0	0	0	0	0	0	0	0	0	0	0	0	0
Total BASIC	52	50	114	356	869	864	867	751	361	336	175	161	413
SUPPORT SECTOR													
Manufacturing	53	55	52	99	100	87	58	67	56	61	50	59	66
Construction	21	26	24	35	35	34	119	117	79	74	67	63	58
Trans/Comm/Util	69	66	96	190	35	27	109	115	101	71	93	51	85
Trade	206	197	200	242	254	254	178	195	227	179	199	213	212
F.I.R.E.	17	17	16	19	20	22	27	26	23	18	18	18	20
Services	171	172	159	153	126	124	108	121	158	111	142	143	141
Misc.	76	136	179	136	129	106	105	105	96	142	134	134	123
Total SUPPORT	613	668	726	874	698	654	705	745	740	655	703	680	705
GOVERNMENT SECTOR													
Federal	40	39	38	39	40	54	60	53	56	48	45	42	46
State	393	391	394	414	415	417	427	396	446	425	420	422	413
Local	192	195	196	200	207	201	137	151	194	207	206	207	191
Total GOVERNMENT	625	625	628	653	662	672	624	600	695	680	671	671	651
GRAND TOTAL	1,290	1,343	1,468	1,883	2,229	2,190	2,196	2,096	1,796	1,672	1,549	1,513	1,769

Table A.19 Average Annual Employment for Soldotna

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
BASIC SECTOR										
Commercial Fishing										
Fish Processing	48	50	64	41	43	65	76	118	149	166
Tourism	187	202	228	251	290	327	326	321	311	289
Oil Spill	0	0	0	0	0	0	0	0	0	40
Construction	46	55	76	125	119	120	76	46	58	104
Mining	73	57	39	23	20	28	24	29	72	118
Total BASIC	354	364	407	440	472	540	501	514	591	717
SUPPORT SECTOR										
Manufacturing	20	21	27	18	18	28	32	50	61	76
Construction	64	57	76	125	195	187	194	155	127	124
Trans/Comm/Util	225	325	356	316	283	356	234	120	121	279
Trade	251	296	316	445	671	756	739	782	693	761
F.I.R.E.	66	78	97	111	133	150	147	92	77	84
Services	183	236	270	375	547	591	645	666	636	881
Misc.	27	24	19	25	37	21	33	33	27	29
Total SUPPORT	837	1,036	1,161	1,413	1,884	2,090	2,025	1,898	1,742	2,236
GOVERNMENT SECTOR										
Federal	13	14	16	18	23	39	44	47	54	59
State	24	47	0	0	0	0	0	5	26	32
Local	174	193	191	211	242	281	286	360	349	389
Total GOVERNMENT	211	254	207	229	265	320	330	412	428	481
GRAND TOTAL	1,402	1,654	1,775	2,082	2,622	2,949	2,857	2,824	2,761	3,433

Table A.20 1988 Monthly Employment for Soldotna

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing													
Fish Processing	21	18	23	31	71	141	631	546	175	78	40	18	149
Tourism	0	0	0	90	266	405	605	611	517	406	396	438	311
Oil Spill	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction	29	34	42	35	37	65	61	73	81	85	76	81	58
Mining	34	37	30	39	40	42	130	81	46	120	129	137	72
Total BASIC	84	89	95	195	414	652	1,427	1,312	819	689	641	674	591
SUPPORT SECTOR													
Manufacturing	32	37	43	35	46	72	103	130	82	70	55	31	61
Construction	102	131	118	96	114	129	131	153	138	129	135	154	127
Trans/Comm/Util	97	92	95	100	99	109	112	116	124	176	170	157	121
Trade	743	730	724	752	772	776	688	666	607	614	625	620	693
F.I.R.E.	70	67	69	74	71	70	76	80	77	87	90	92	77
Services	606	626	639	628	590	557	620	625	666	693	692	684	636
Misc.	14	15	13	19	50	71	28	27	31	28	15	18	27
Total SUPPORT	1,664	1,698	1,701	1,704	1,741	1,785	1,757	1,796	1,725	1,798	1,782	1,755	1,742
GOVERNMENT SECTOR													
Federal	46	47	48	50	53	58	59	58	60	58	57	56	54
State	24	26	29	29	13	8	8	9	45	41	39	36	26
Local	374	388	395	401	397	296	90	140	411	430	420	441	349
Total GOVERNMENT	444	461	472	480	463	362	157	207	516	529	516	533	428
GRAND TOTAL	2,192	2,248	2,268	2,379	2,618	2,799	3,341	3,315	3,060	3,016	2,939	2,962	2,761

Table A.21 1989 Monthly Employment for Soldotna

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Average Annual
BASIC SECTOR													
Commercial Fishing													
Fish Processing	27	26	37	74	124	266	628	532	150	72	34	16	166
Tourism	0	0	0	124	290	511	460	490	436	372	389	399	289
Oil Spill	0	0	0	33	110	132	93	80	36	0	0	0	40
Construction	103	68	88	73	119	160	117	114	103	100	95	108	104
Mining	109	106	110	136	145	155	117	79	53	138	137	134	118
Total BASIC	239	200	235	440	788	1,224	1,416	1,295	779	682	655	657	717
SUPPORT SECTOR													
Manufacturing	46	46	45	54	61	110	138	160	87	79	56	35	76
Construction	104	90	95	144	139	152	141	138	125	121	114	130	124
Trans/Comm/Util	195	193	195	207	228	248	456	555	313	271	222	262	279
Trade	739	761	752	810	847	777	712	726	673	773	773	793	761
F.I.R.E.	75	75	78	81	86	86	96	94	93	82	82	83	84
Services	886	904	929	870	827	844	949	920	940	855	833	819	881
Misc.	17	17	17	24	31	31	36	35	37	37	36	35	29
Total SUPPORT	2,062	2,086	2,111	2,190	2,219	2,248	2,528	2,626	2,266	2,217	2,115	2,157	2,236
GOVERNMENT SECTOR													
Federal	55	55	56	59	60	62	60	59	65	64	63	55	59
State	39	44	38	37	12	9	11	11	51	47	45	44	32
Local	430	439	435	448	452	420	92	139	430	460	459	461	389
Total GOVERNMENT	524	538	529	544	524	491	162	208	546	572	567	561	481
GRAND TOTAL	2,825	2,824	2,875	3,174	3,531	3,963	4,106	4,129	3,591	3,472	3,337	3,375	3,433

APPENDIX B

Group A Communities: Monthly Revenues and Expenditures by Community and Category, 1988 and 1989

This appendix presents available monthly data for the following revenue and expenditure categories:

Revenues

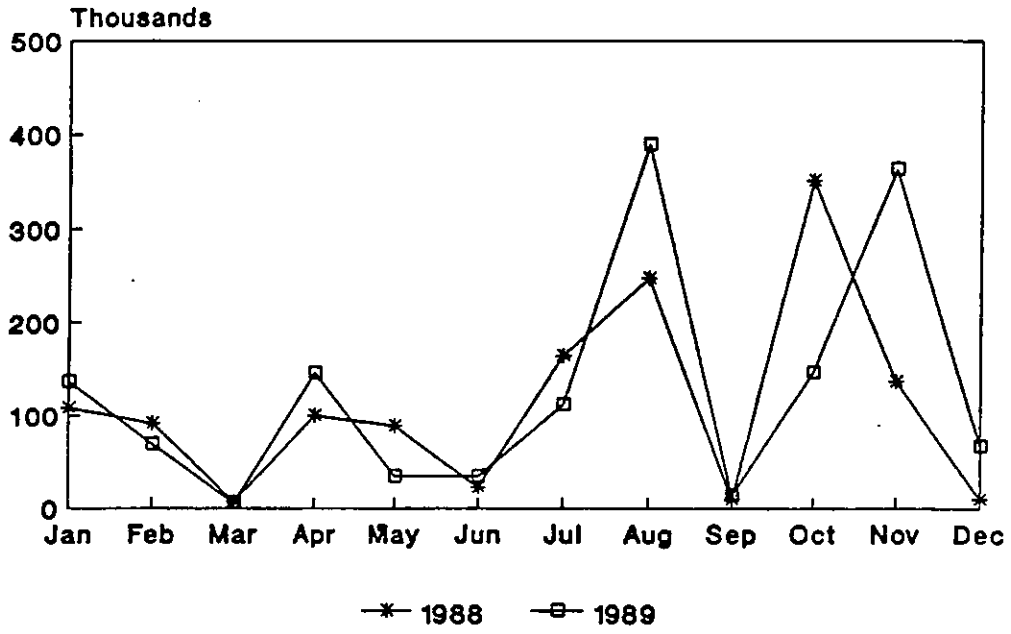
Sales Taxes
Hospital Charges
Harbor/Dock Charges
Public Service Charges
Rents and Leases
Oil Spill-Related

Expenditures

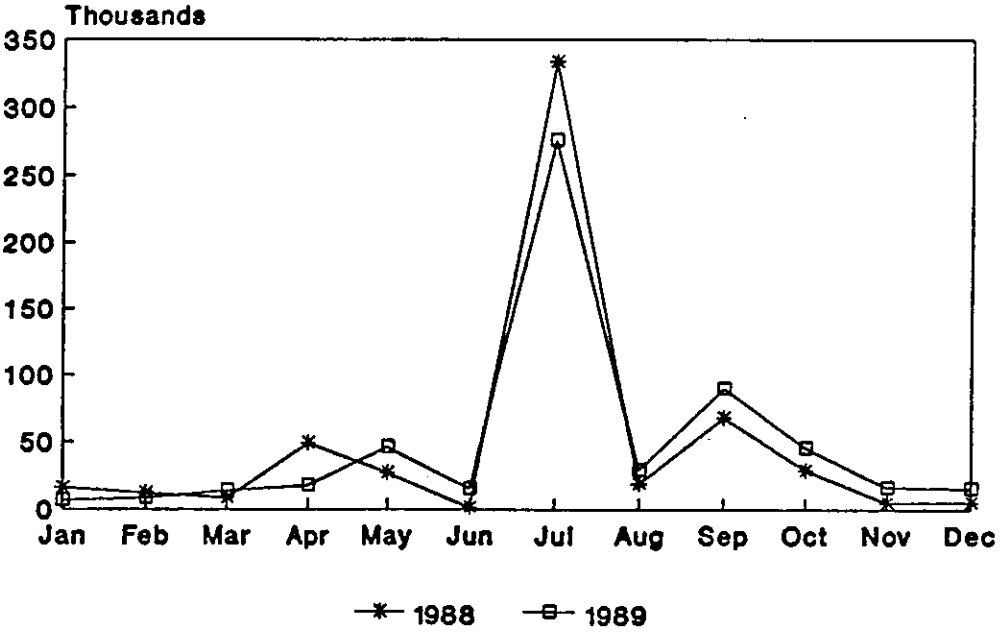
General Government
Public Safety
Hospitals
Mental Health & Alcohol
Social Services
Harbor/Dock
Public Services
Oil Spill Cleanup

The appendix is organized separately for revenues and expenditures by community, then by category.

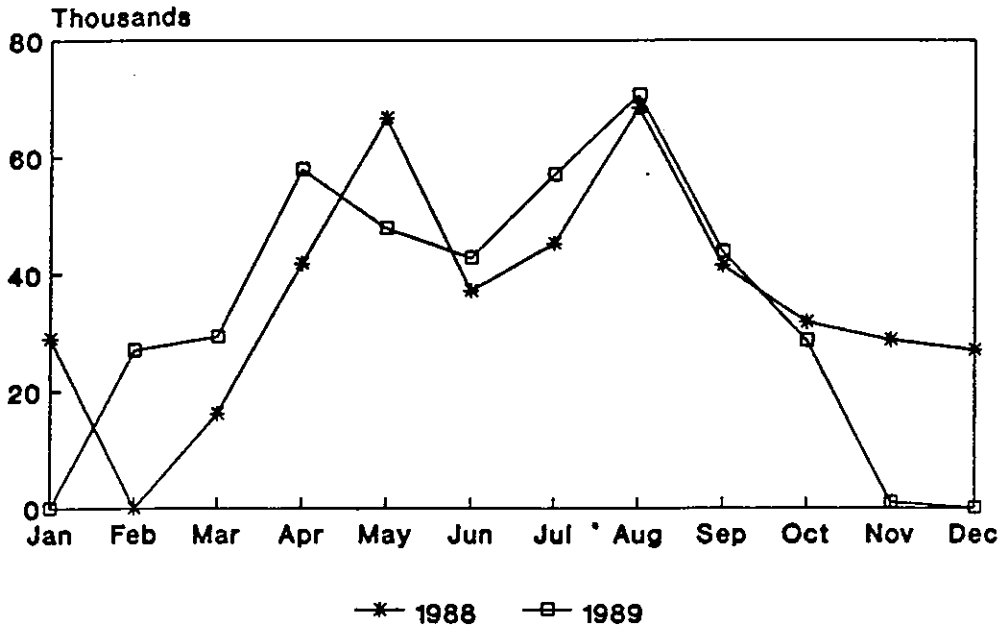
Cordova: Sales Tax Revenues
1988 vs. 1989



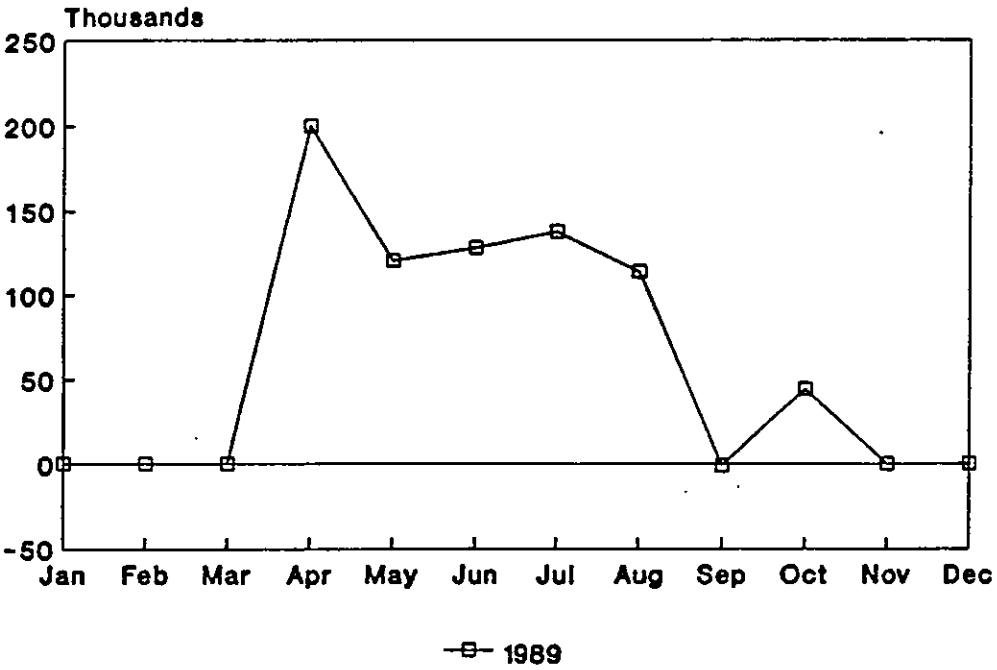
Cordova: Harbor Revenues
1988 vs. 1989



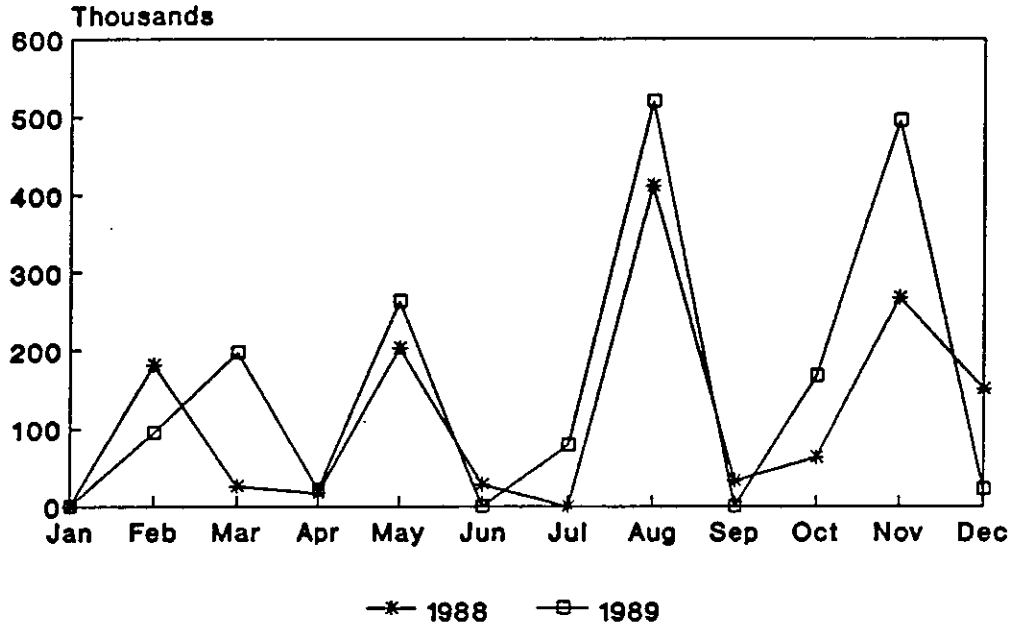
Cordova: Public Services Revenues
1988 vs. 1989



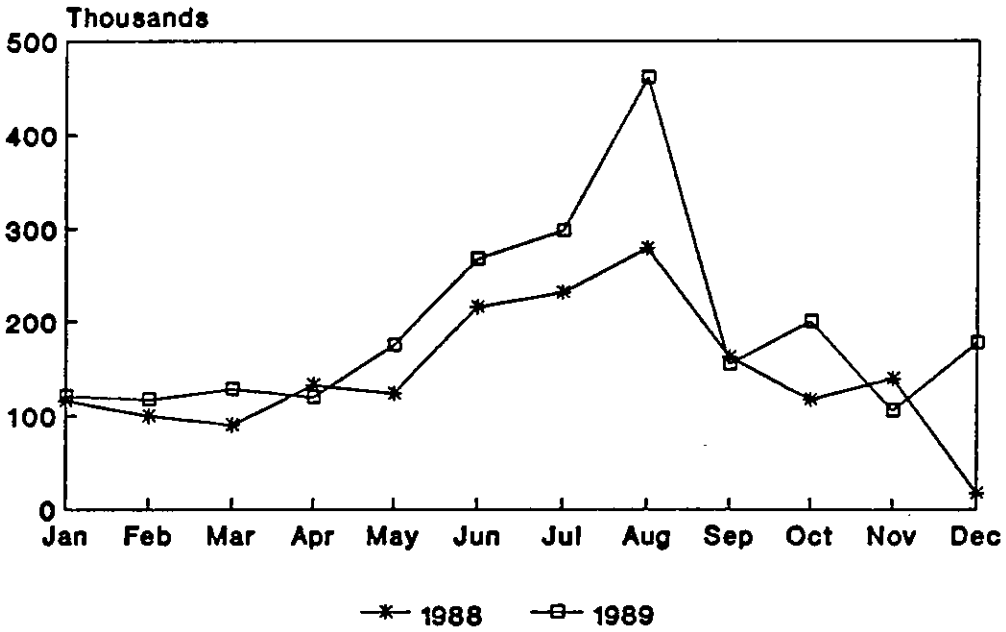
Cordova: Oil Spill Revenues



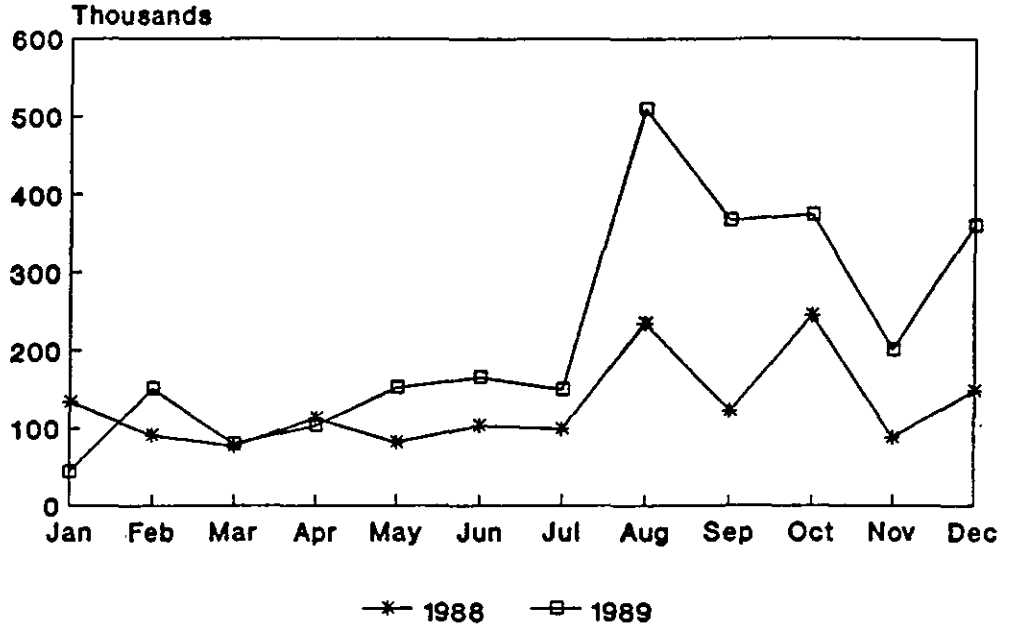
Homer: Sales Tax Revenues
1988 vs. 1989



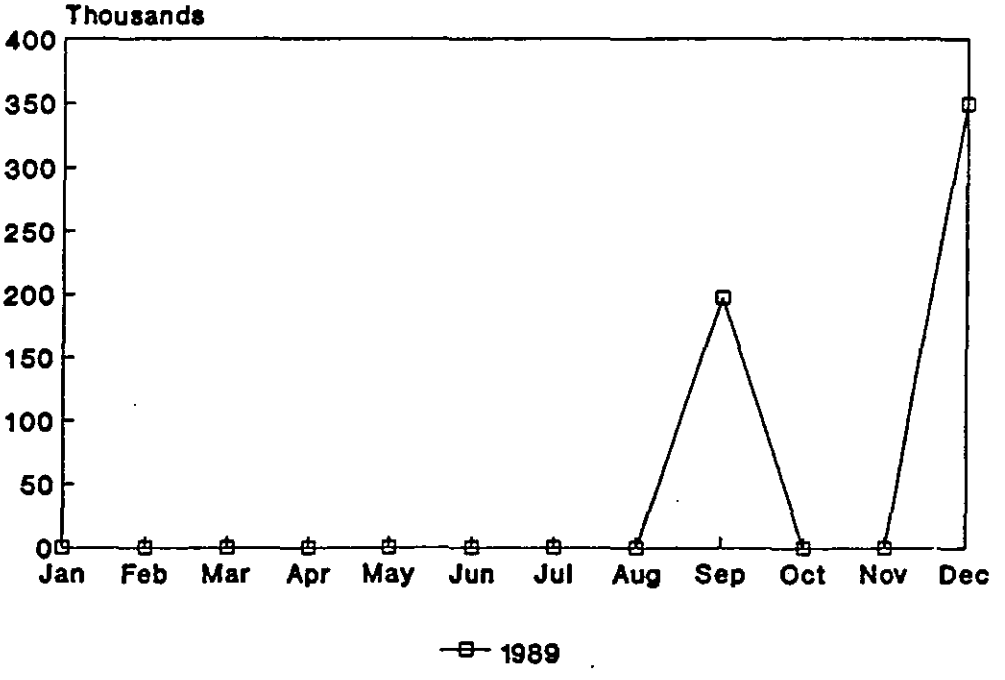
Homer: Harbor Revenues
1988 vs. 1989



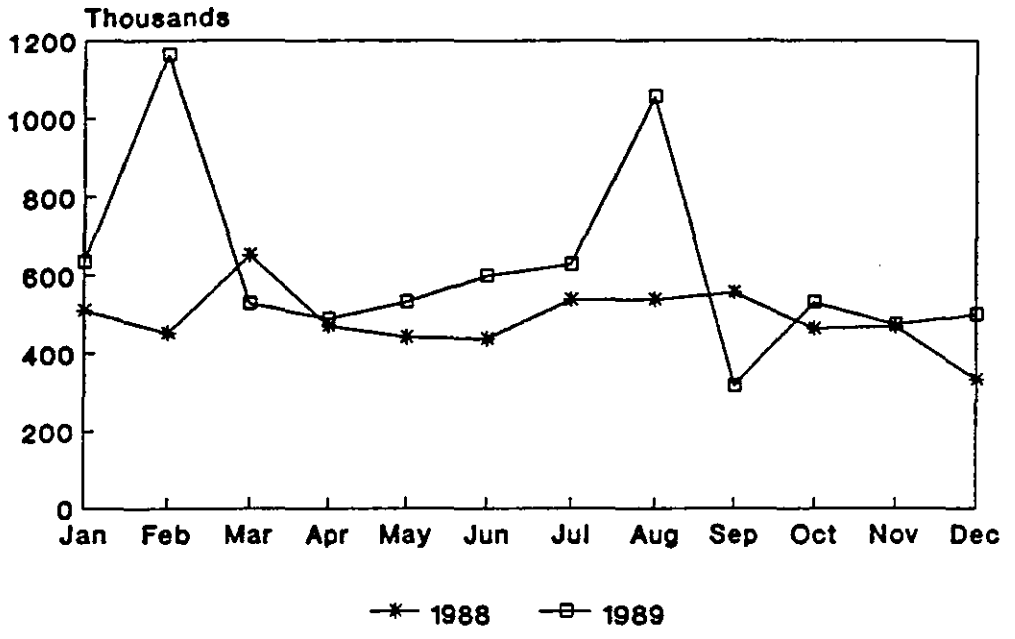
Homer: Public Services Revenues
1988 vs. 1989



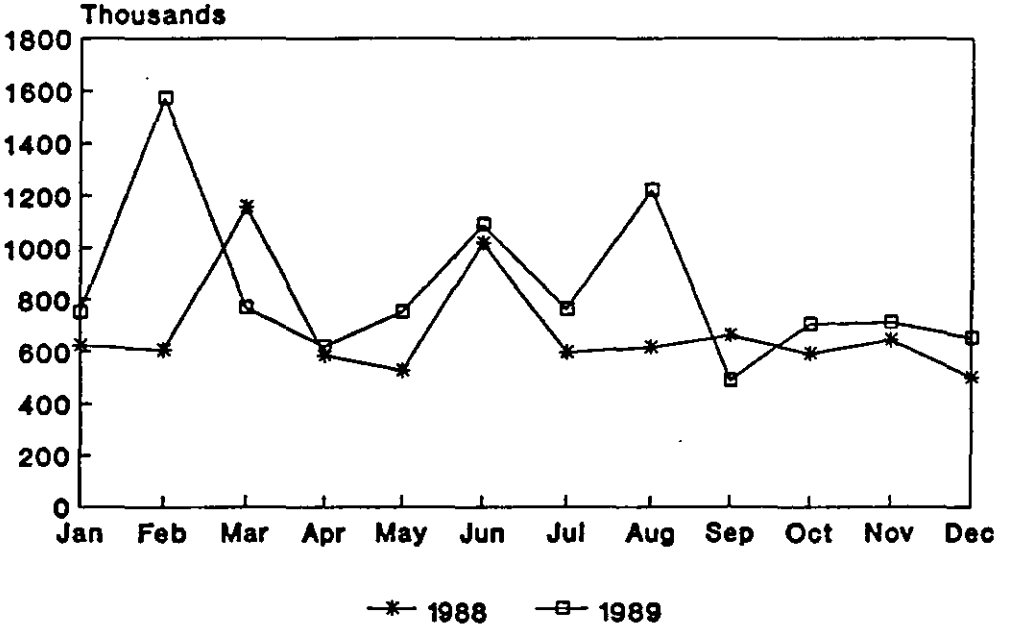
Homer: Oil Spill Revenues



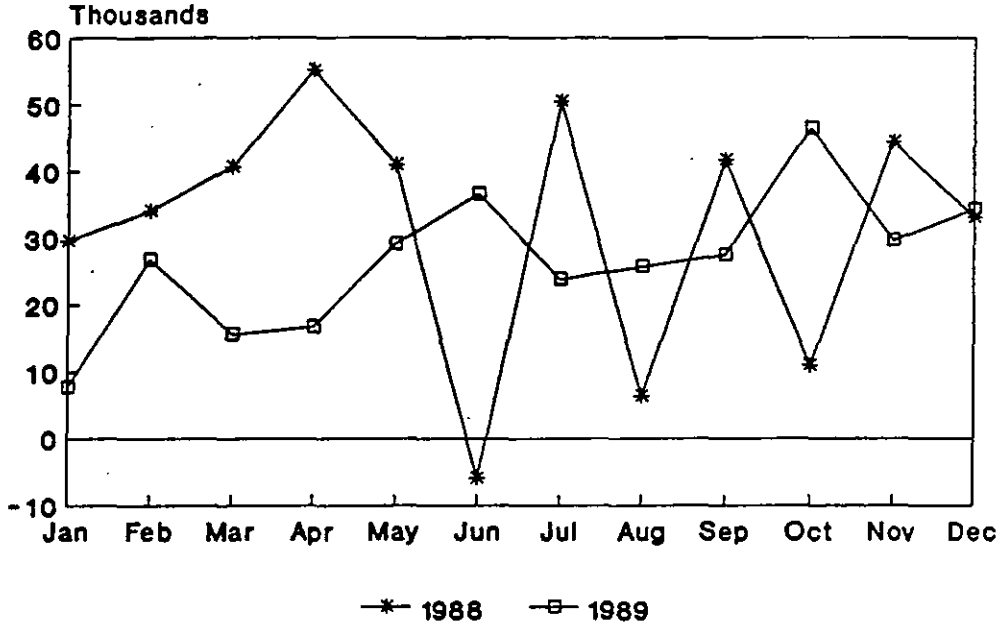
Kodiak Borough: Hospital Revenues
1988 vs. 1989



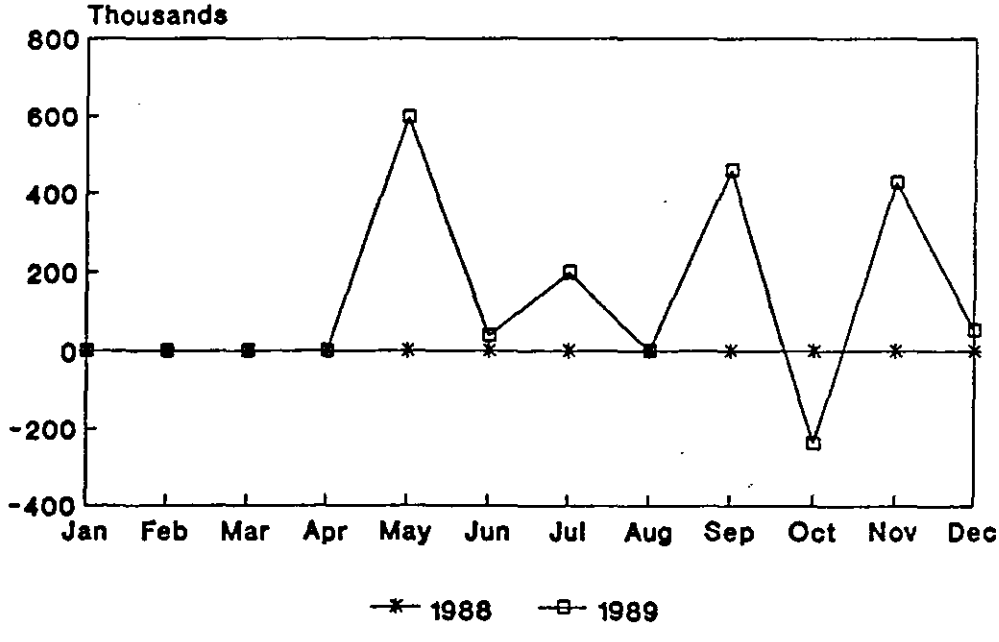
Kodiak Borough: Public Services Revenues
1988 vs. 1989



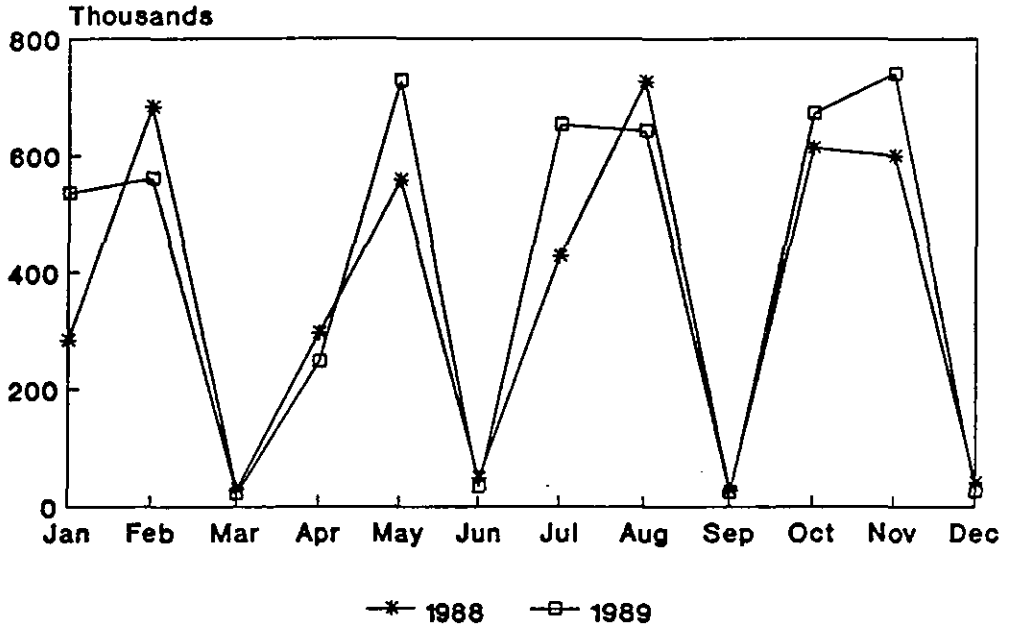
Kodiak Borough: Rents & Leases Revenues
1988 vs. 1989



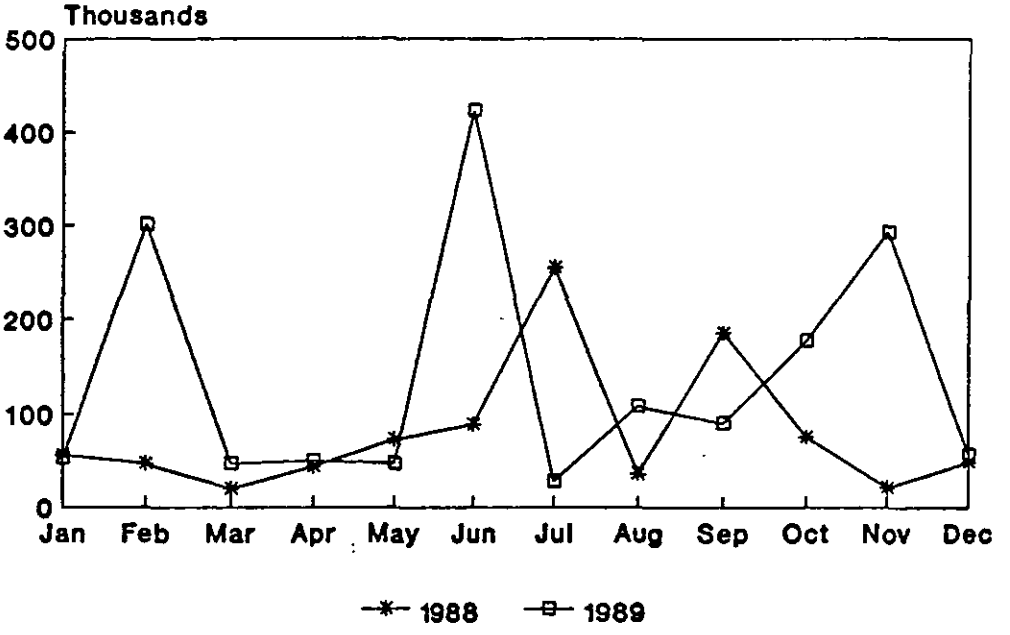
Kodiak Borough: Oil Spill Revenues
1988 vs. 1989



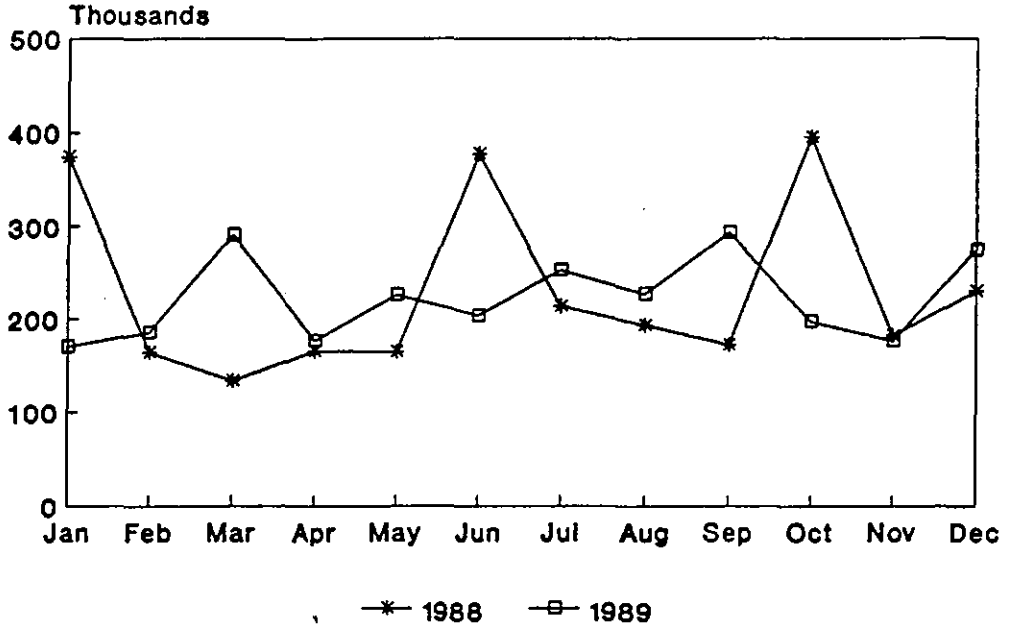
Kodiak City: Sales Tax Revenues
1988 vs. 1989



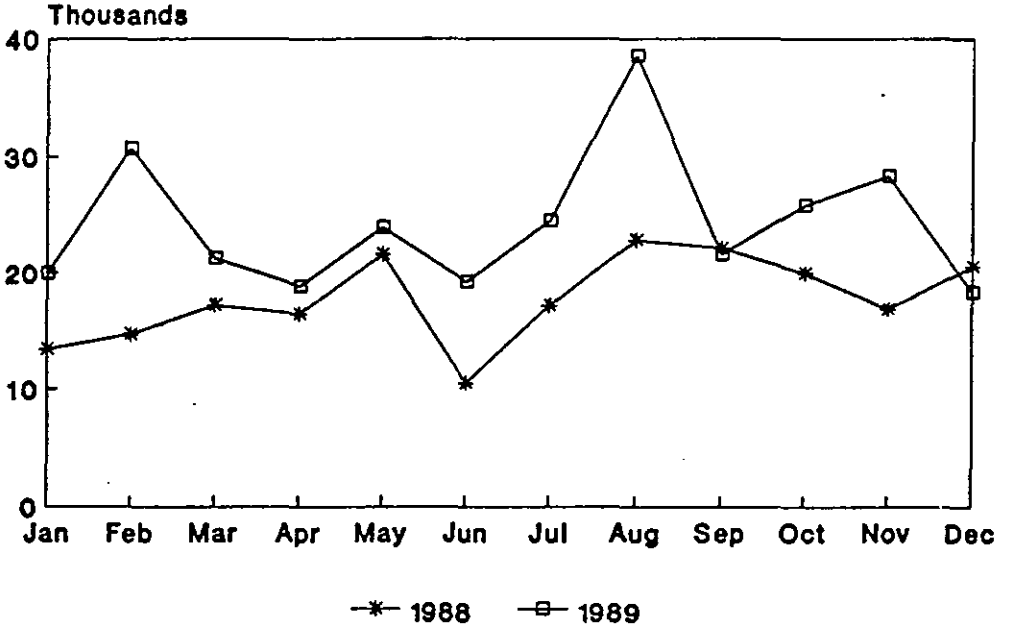
Kodiak City: Harbor Revenues
1988 vs. 1989



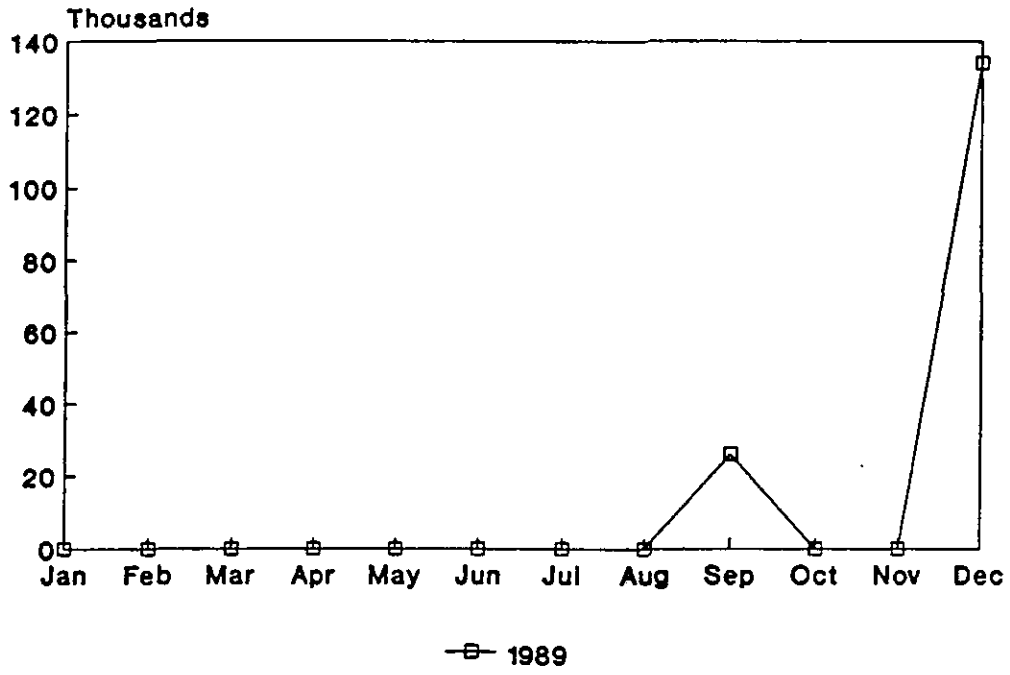
Kodiak City: Public Services Revenues
1988 vs. 1989



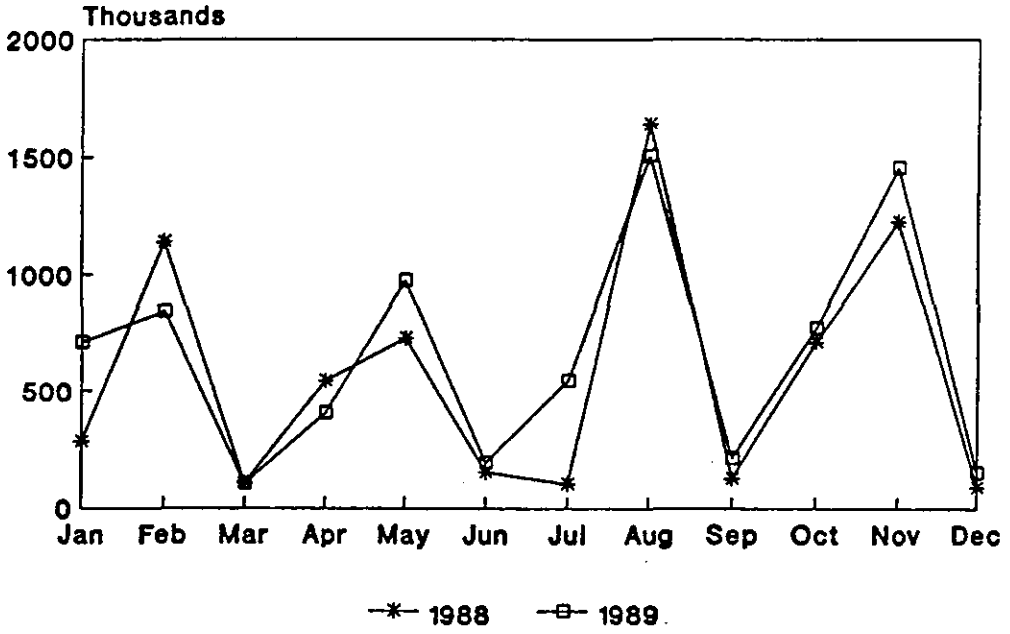
Kodiak City: Rents & Leases Revenues
1988 vs. 1989



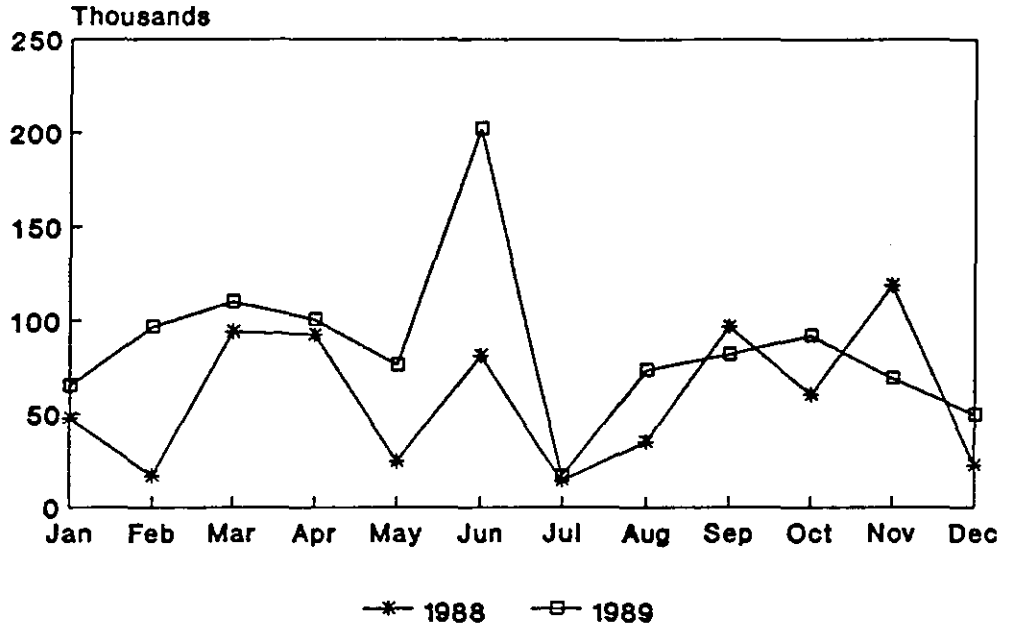
Kodiak City: Oil Spill Revenues



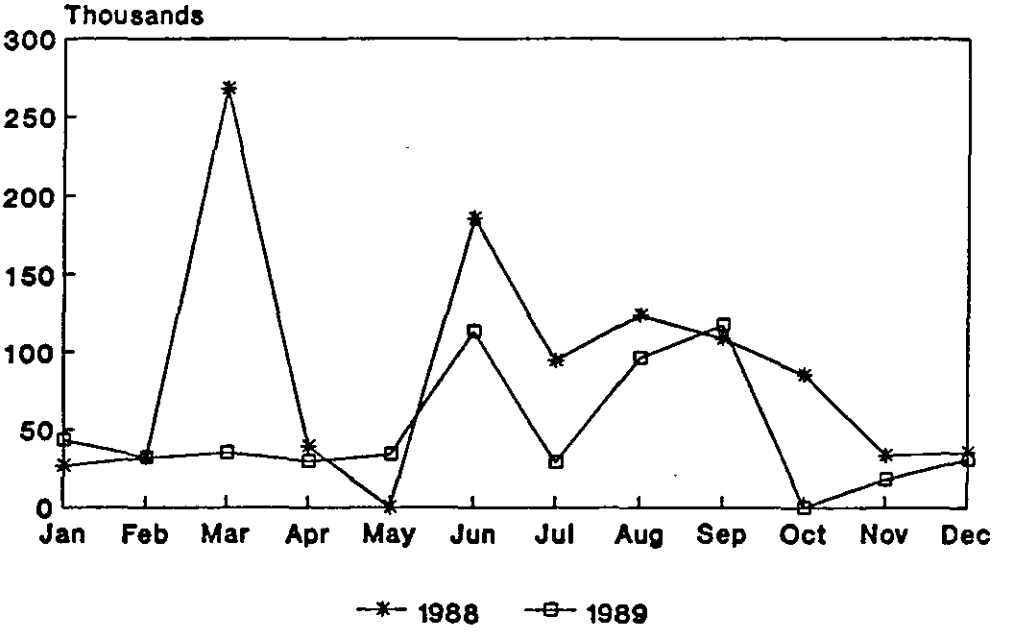
Kenai Borough: Sales Tax Revenues
1988 vs. 1989



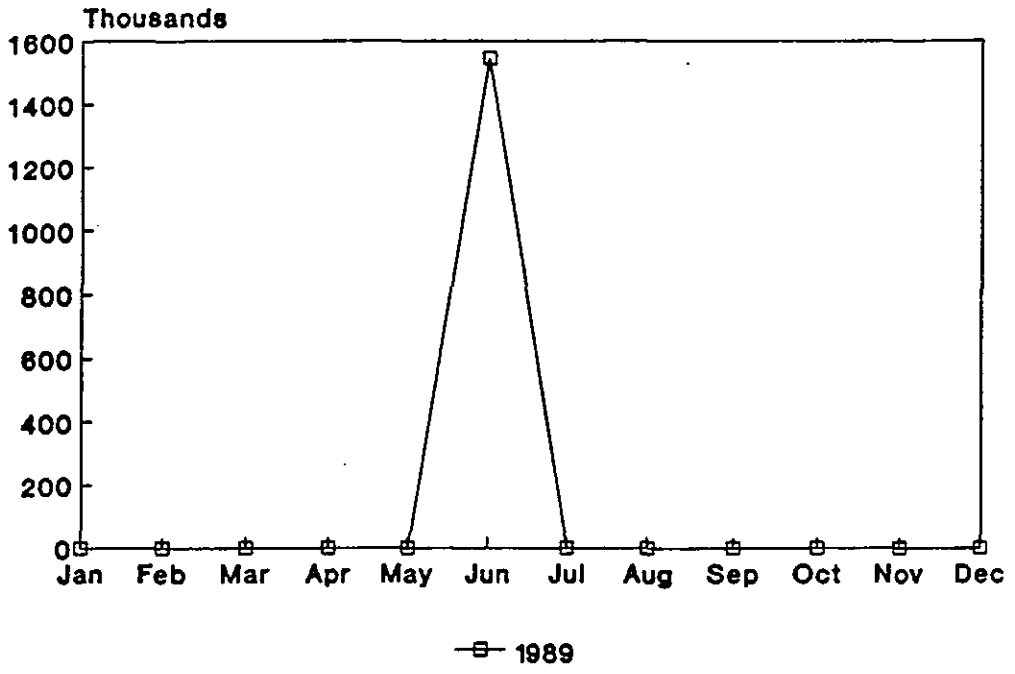
Kenai Borough: Public Services Revenues
1988 vs. 1989



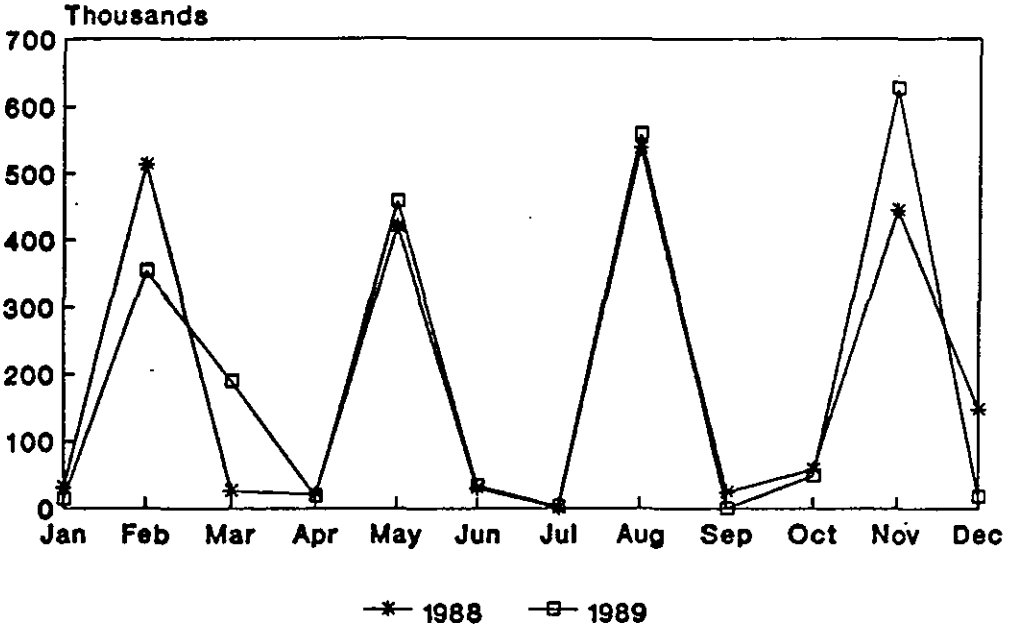
Kenai Borough: Rents & Leases Revenues
1988 vs. 1989



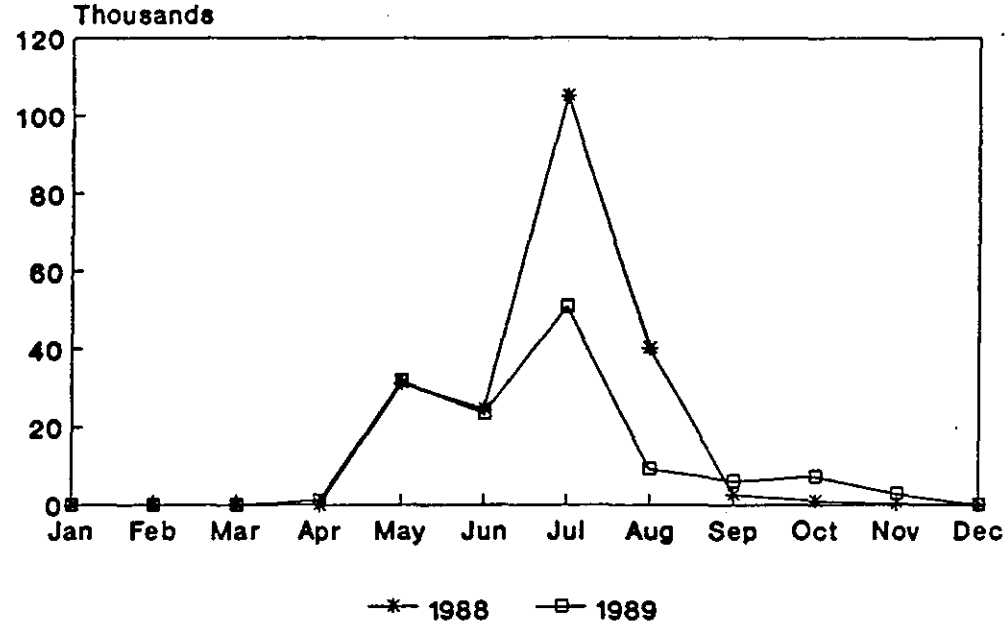
Kenai Borough: Oil Spill Revenues



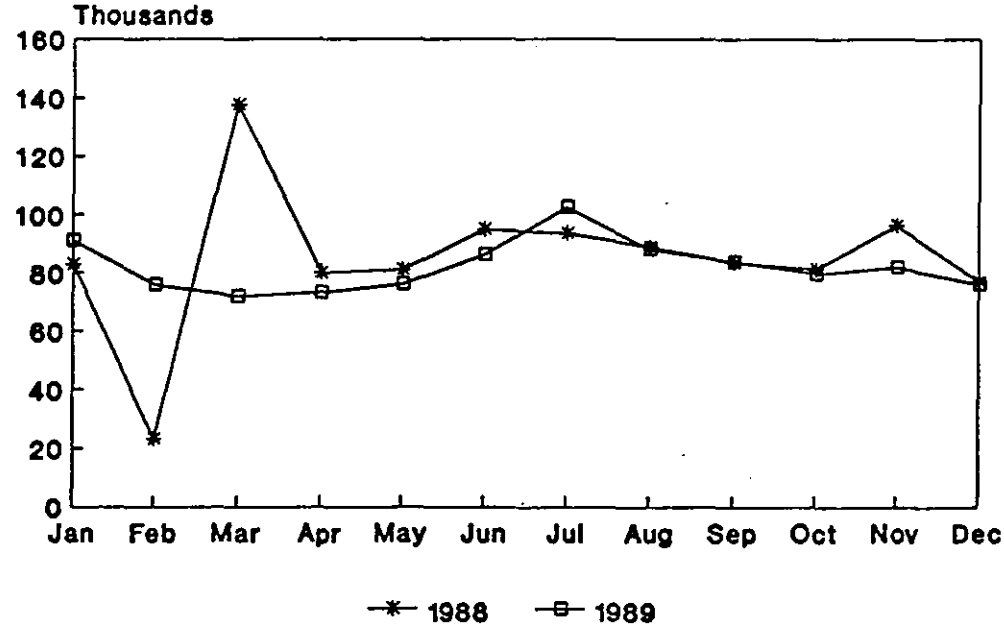
Kenai City: Sales Tax Revenues
1988 vs. 1989



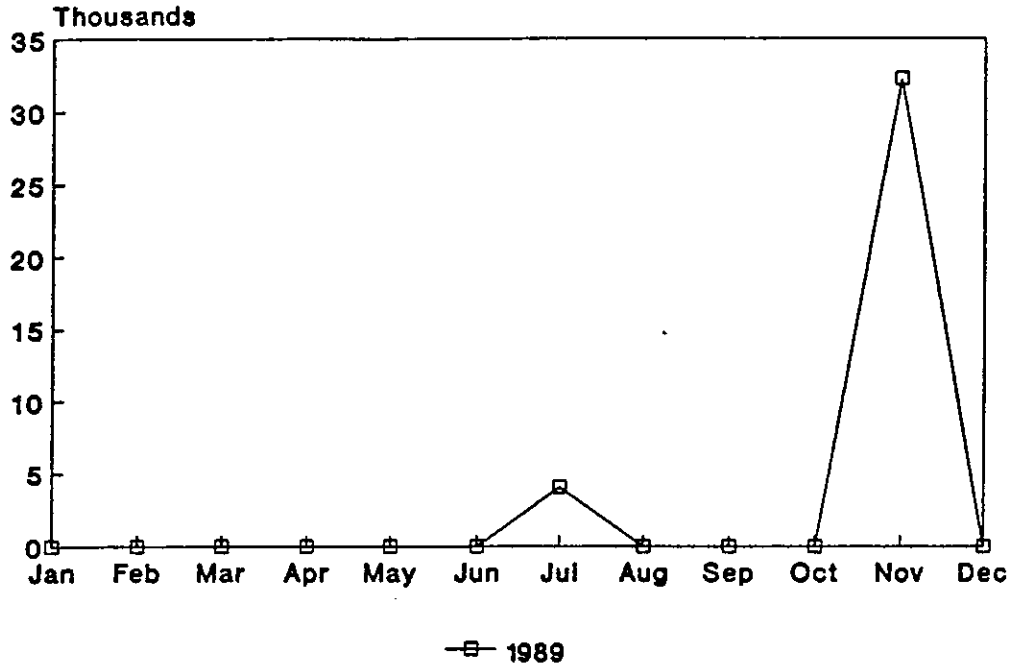
Kenai City: Harbor Revenues
1988 vs. 1989



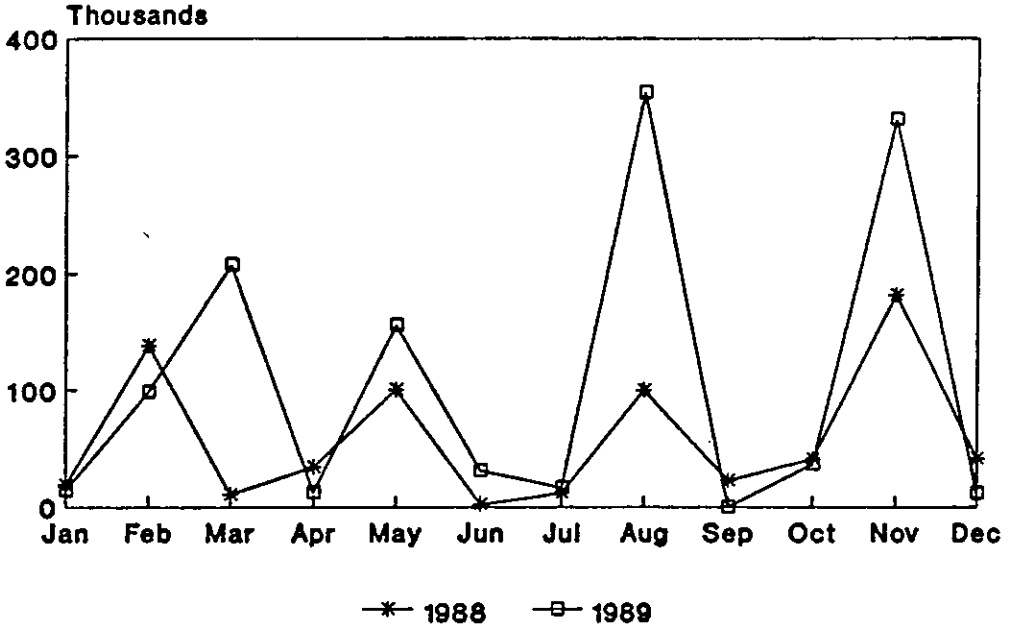
Kenai City: Other Services Revenues
1988 vs. 1989



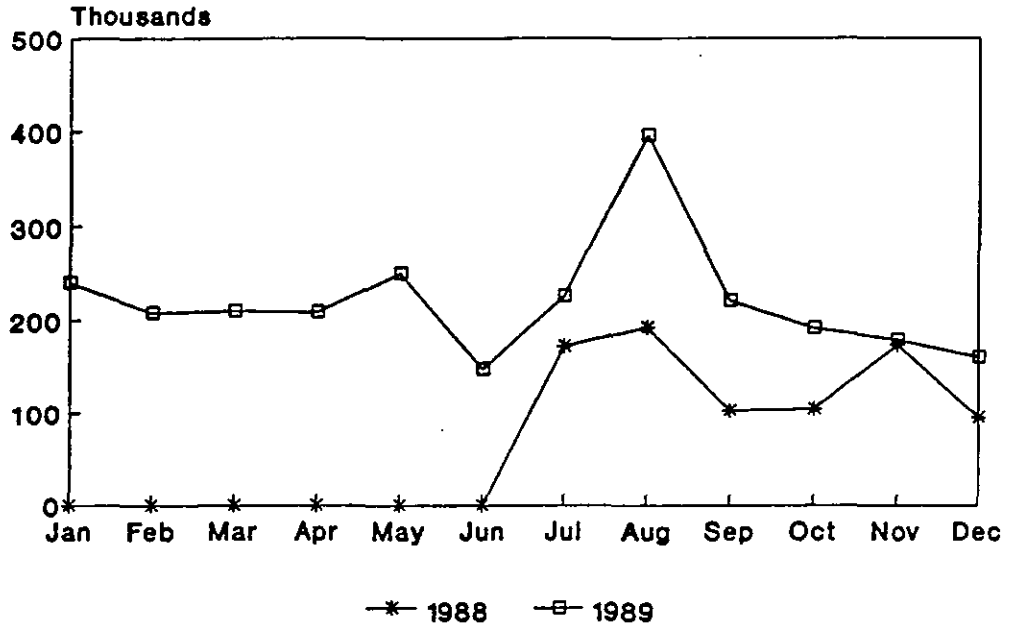
Kenai City: Oil Spill Revenues



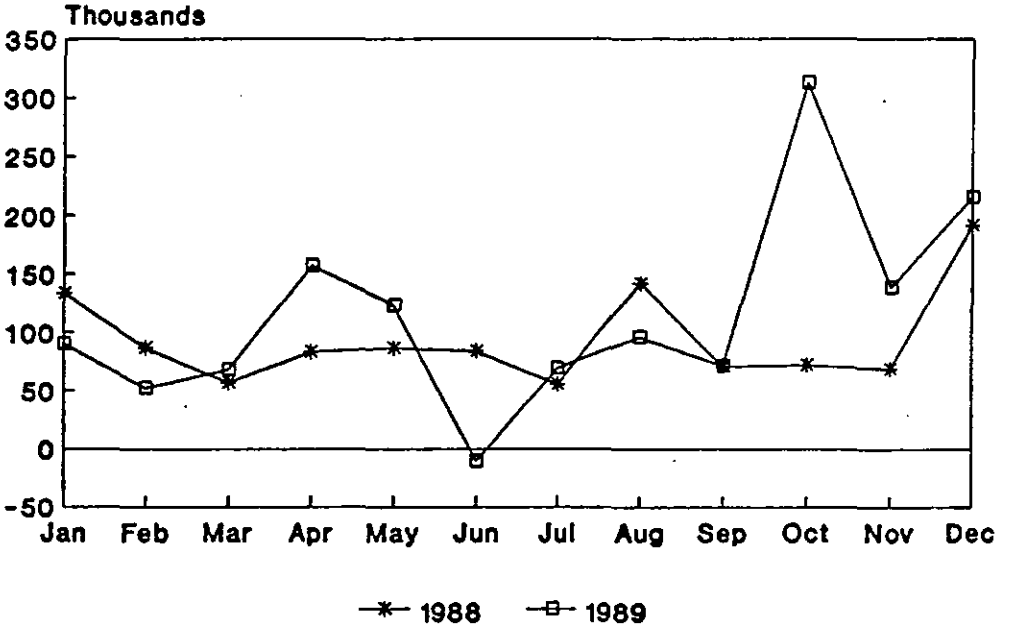
Seward: Sales Tax Revenues
1988 vs. 1989



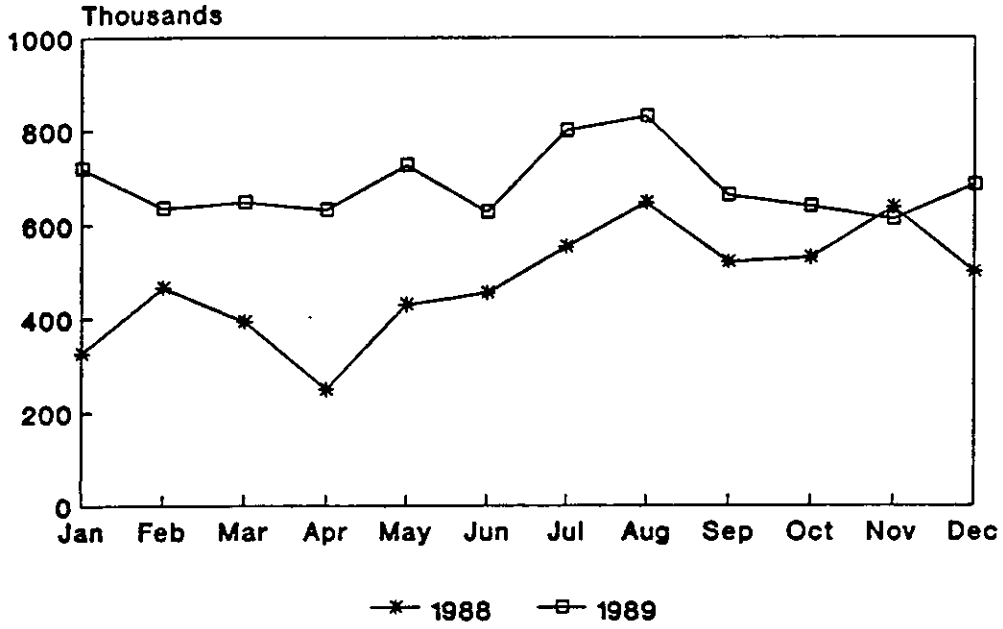
Seward: Hospital Revenues
1988 vs. 1989



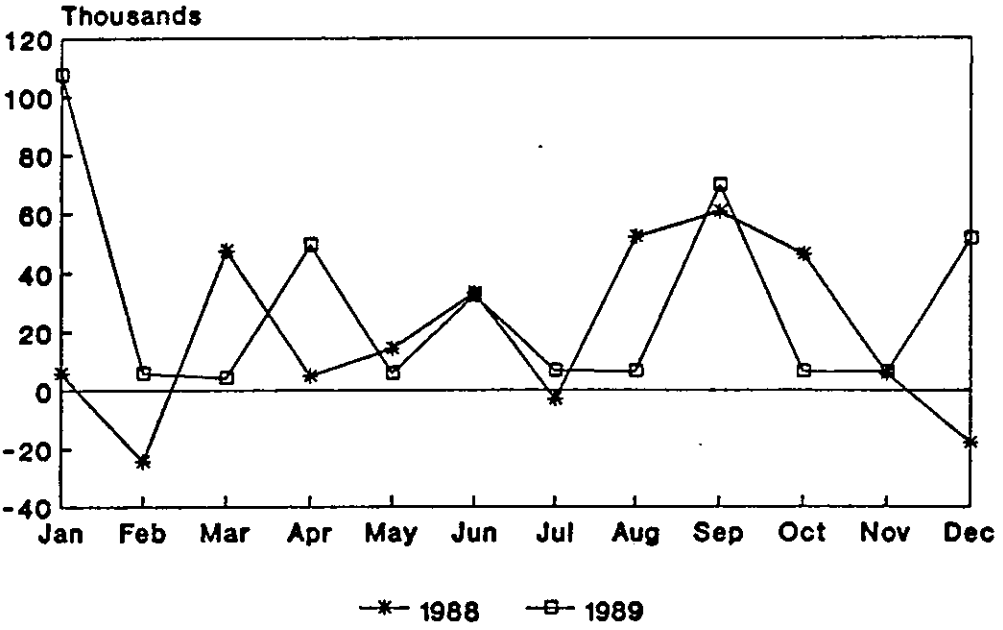
Seward: Harbor Revenues
1988 vs. 1989



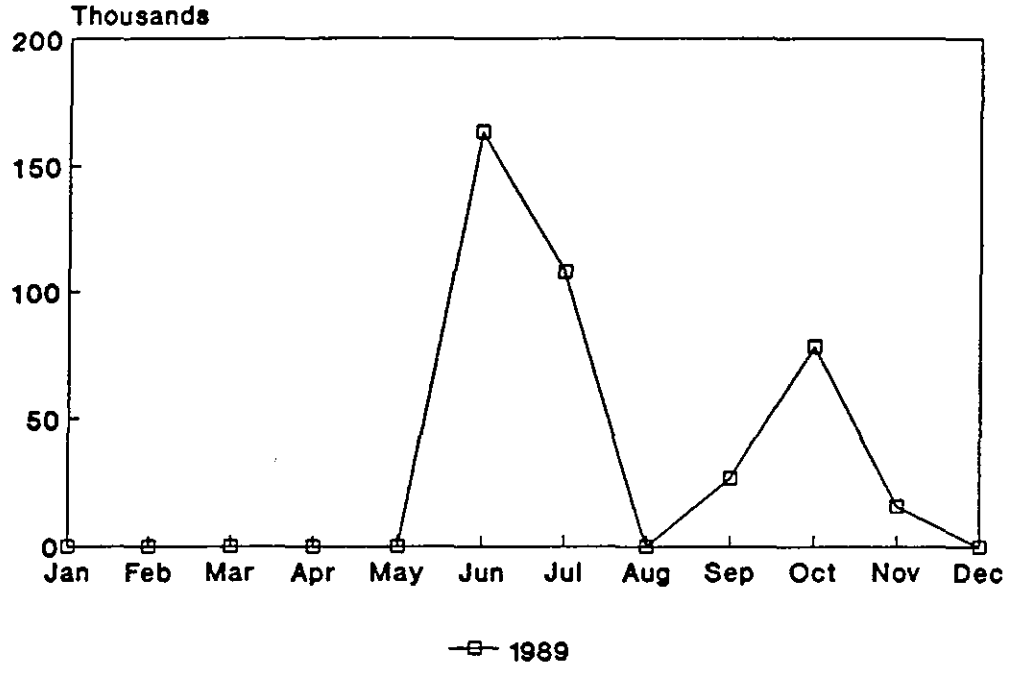
Seward: Public Services Revenues
1988 vs. 1989



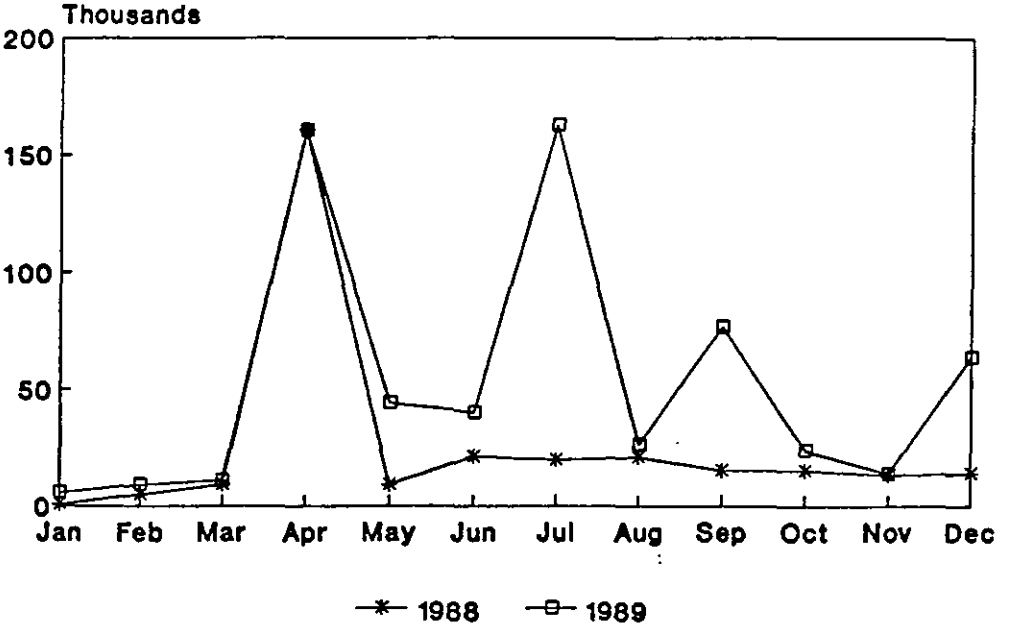
Seward: Rents & Leases Revenues
1988 vs. 1989



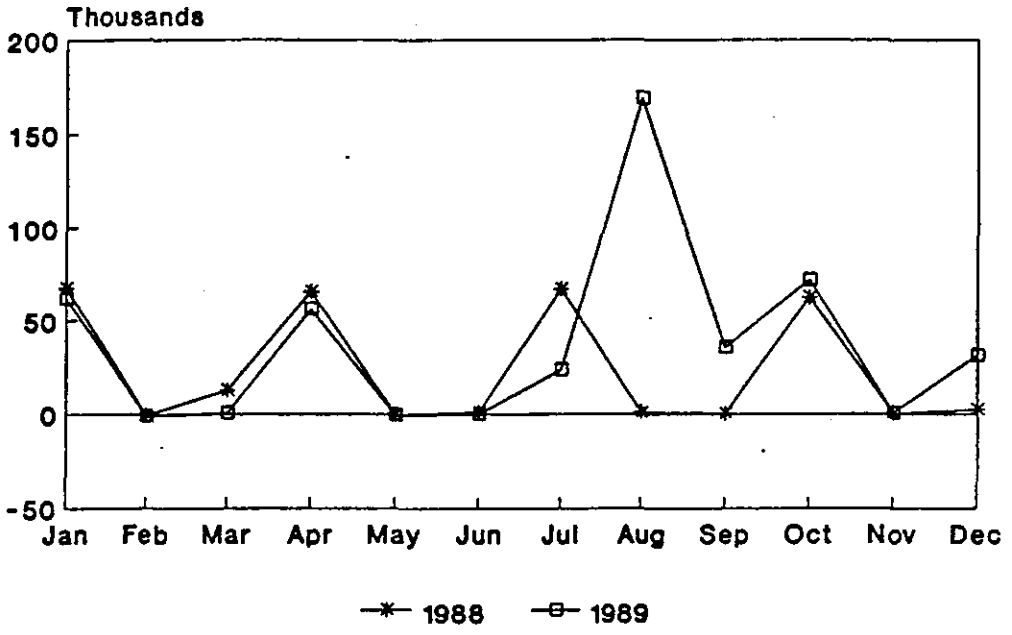
Seward: Oil Spill Revenues



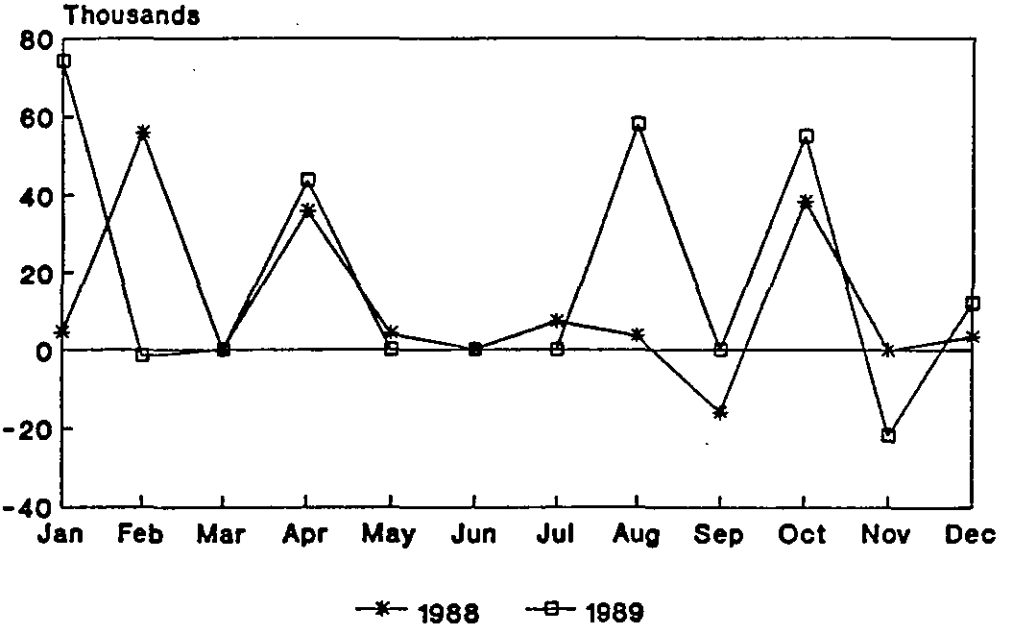
Valdez: Harbor Revenues
1988 vs. 1989



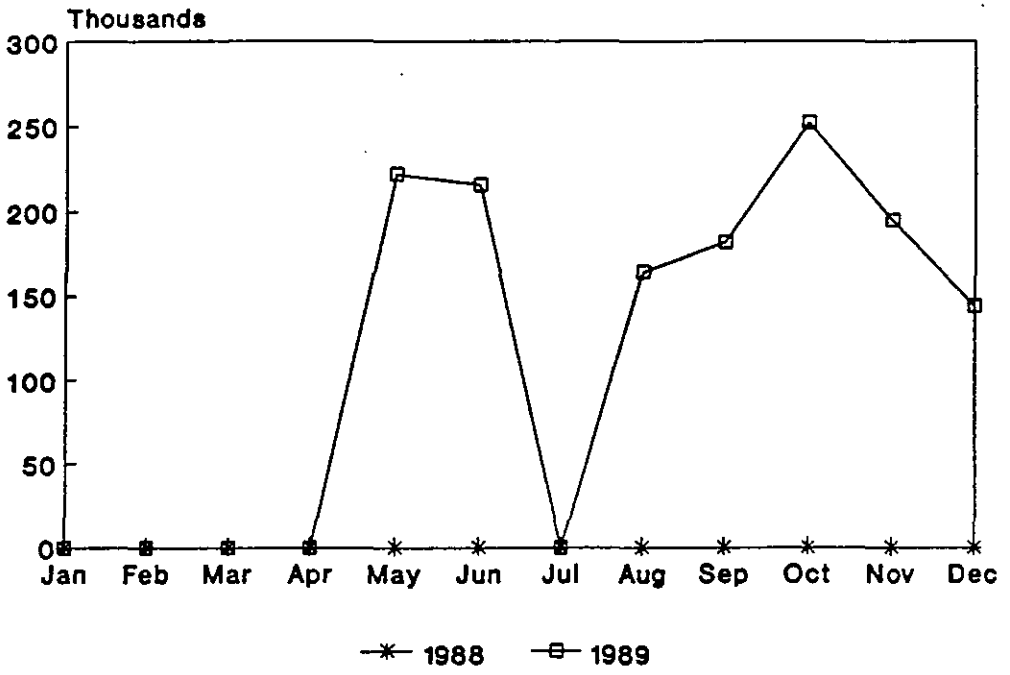
Valdez: Public Services Revenues
1988 vs. 1989



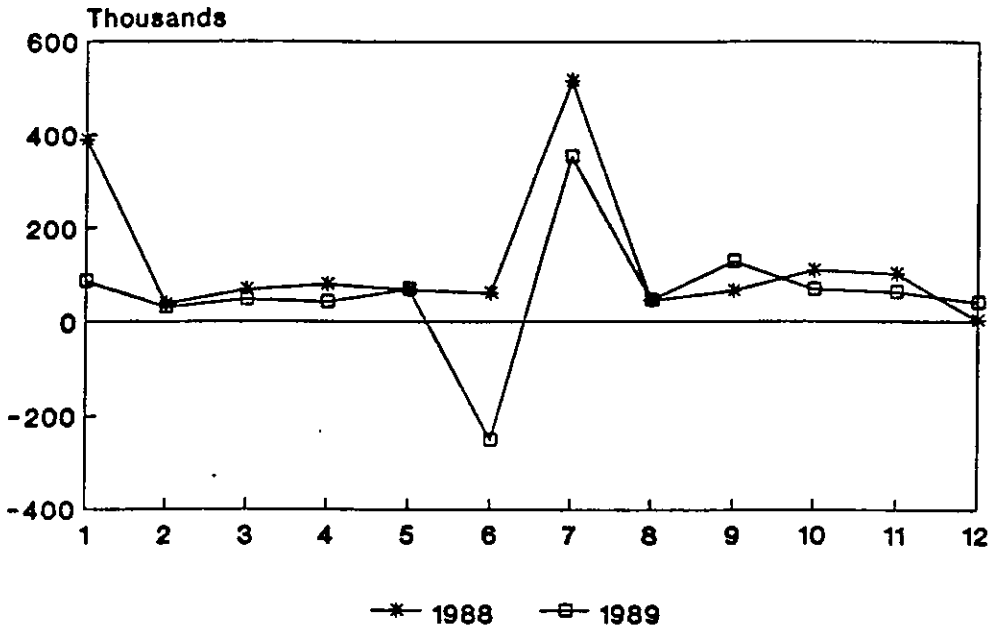
Valdez: Rents & Leases Revenues
1988 vs. 1989



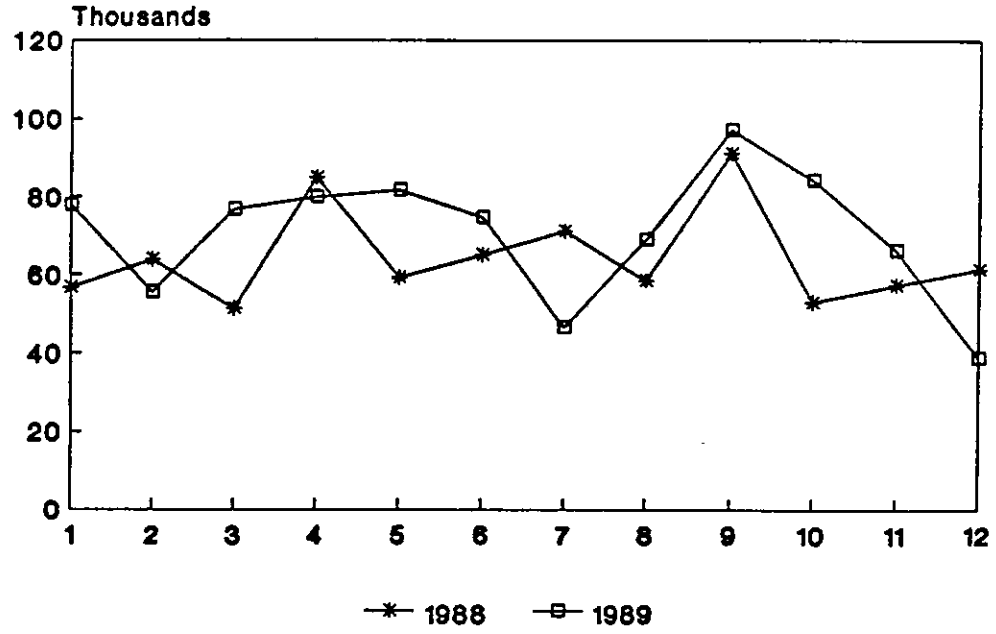
Valdez: Oil Spill Revenues



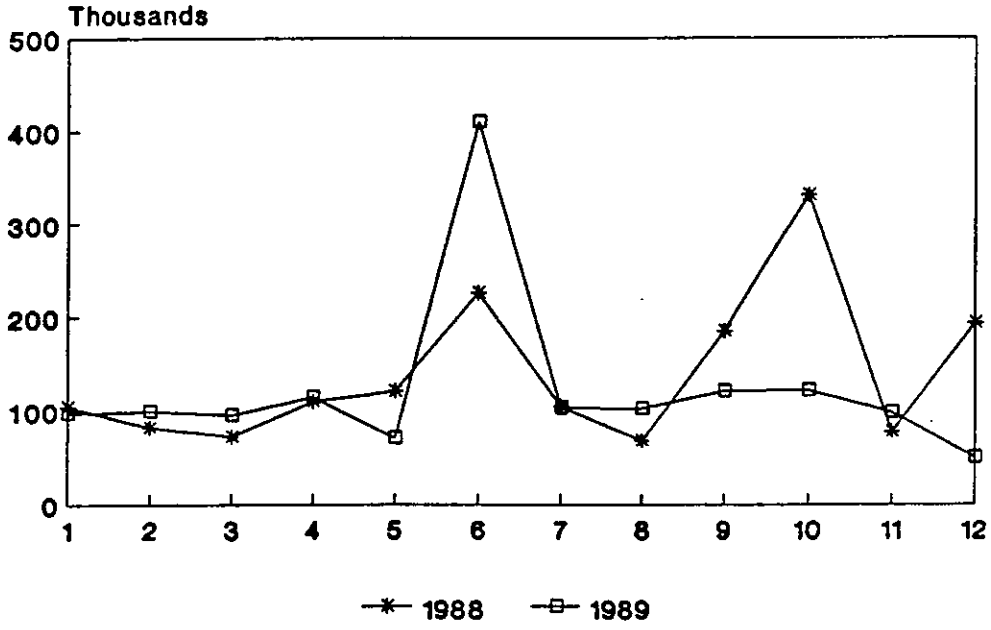
Cordova: General Government
1988 vs 1989 Monthly Expenditures



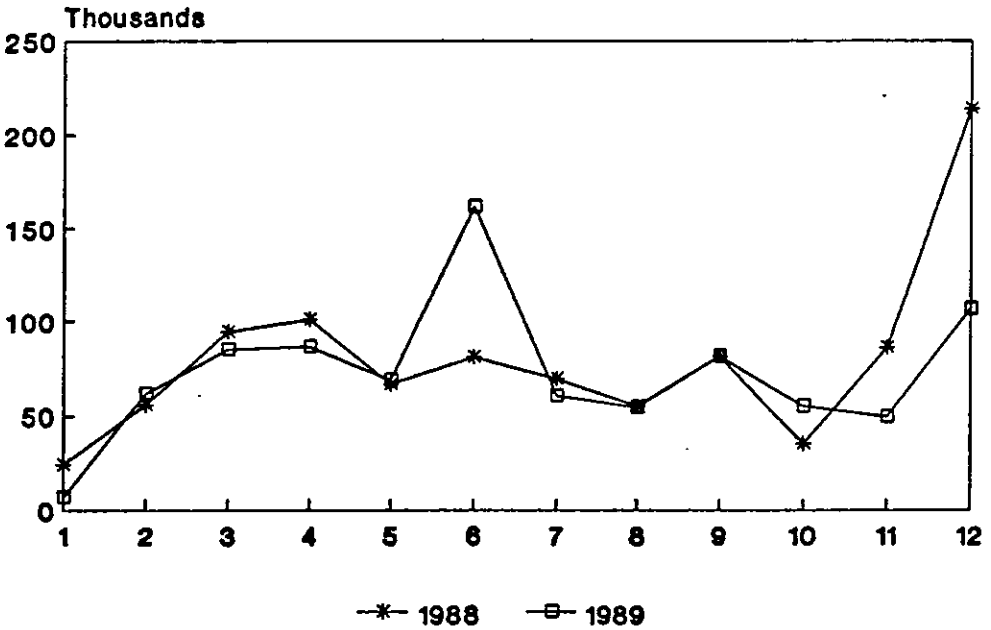
Cordova: Public Safety
1988 vs 1989 Monthly Expenditures



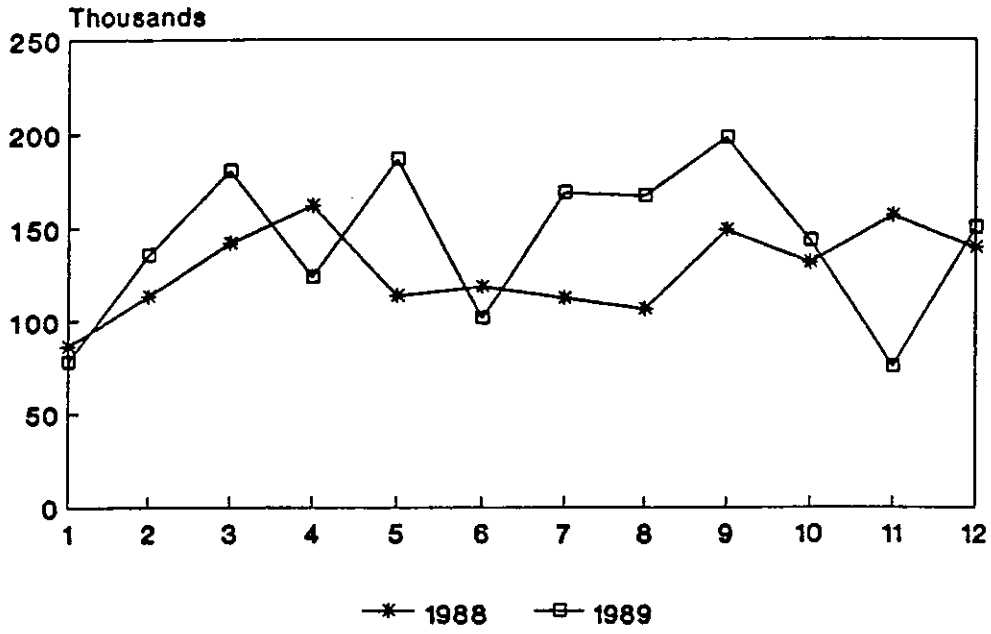
Cordova: Public Services
1988 vs 1989 Monthly Expenditures



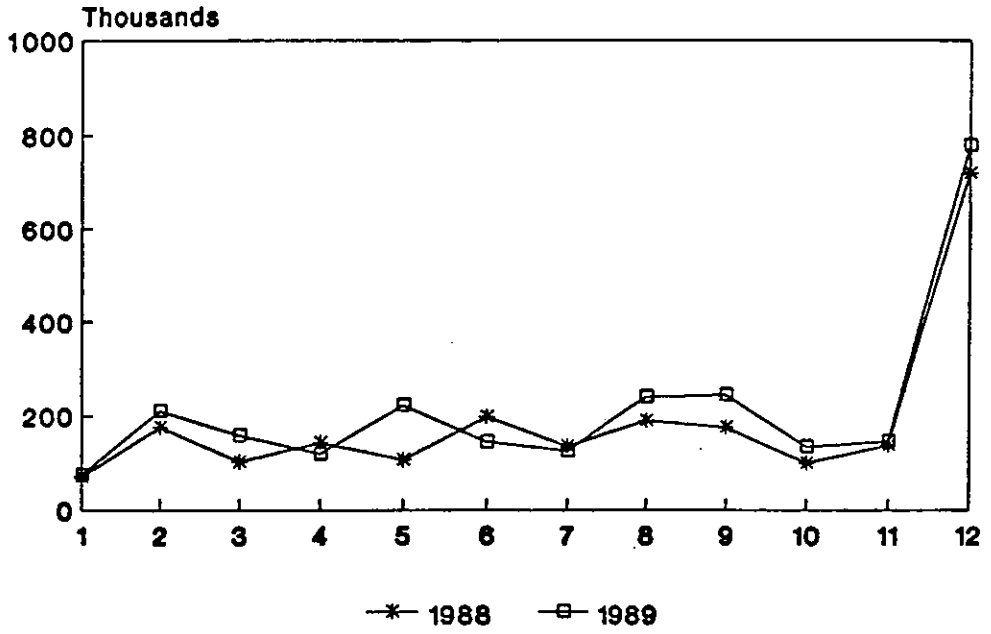
Homer: General Government
1988 vs 1989 Monthly Expenditures



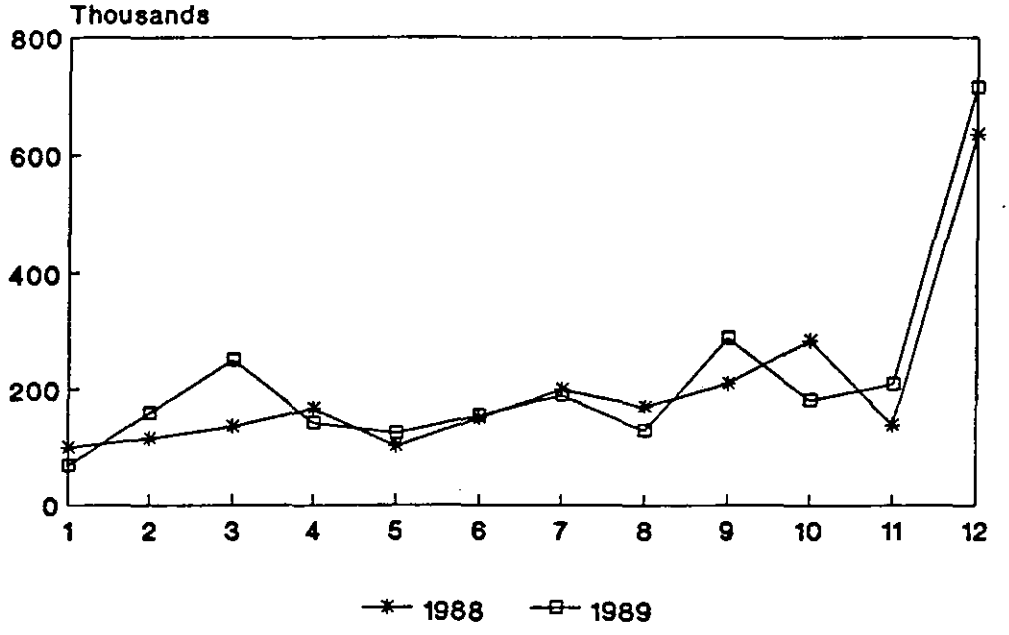
Homer: Public Safety
1988 vs 1989 Monthly Expenditures



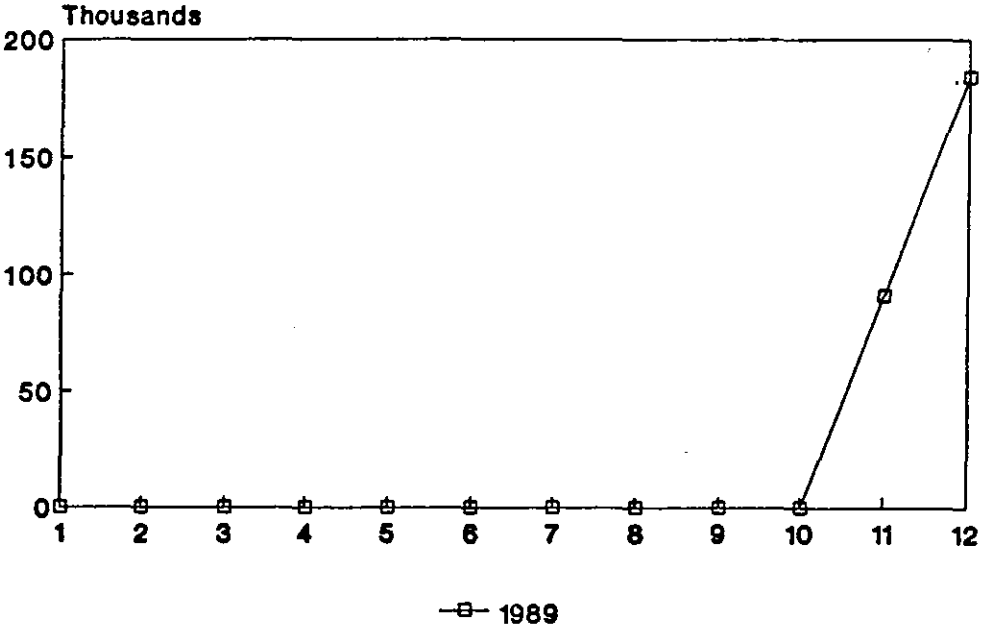
Homer: Harbor/Dock
1988 vs 1989 Monthly Expenditures



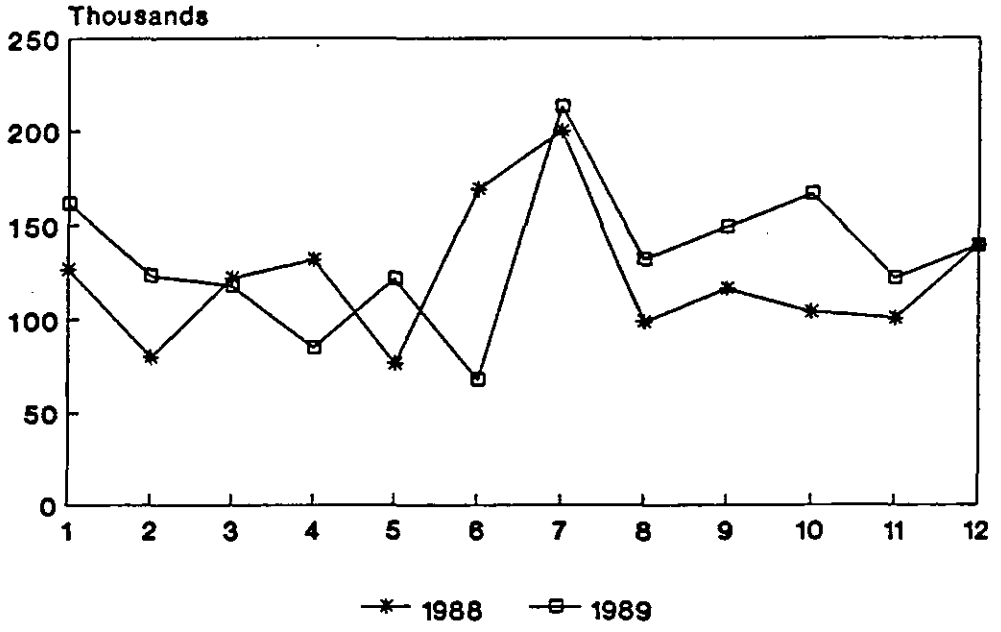
Homer: Public Services
1988 vs 1989 Monthly Expenditures



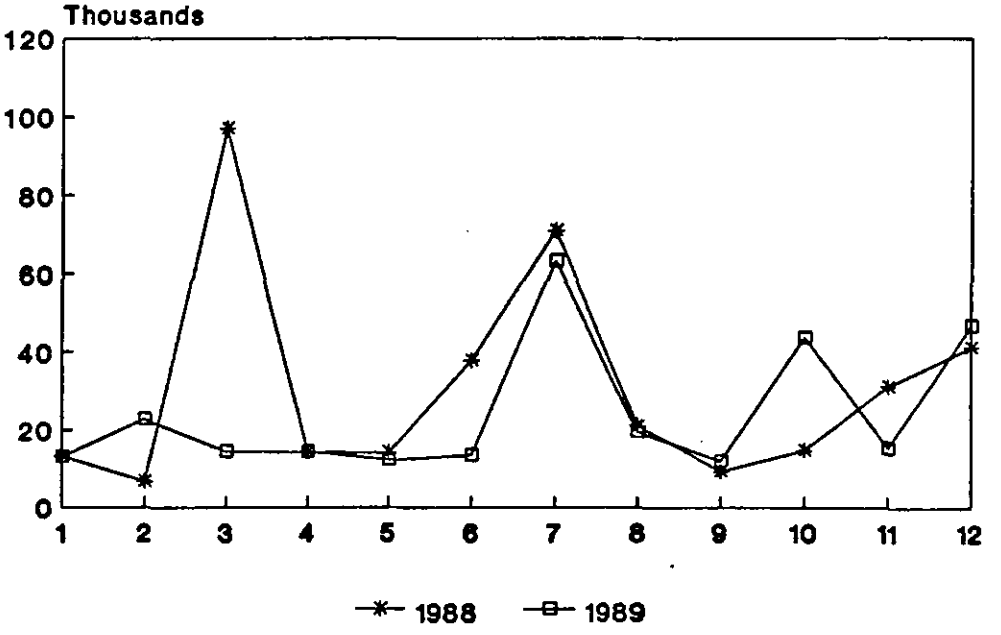
Homer: Oil Spill Cleanup
1989 Monthly Expenditures



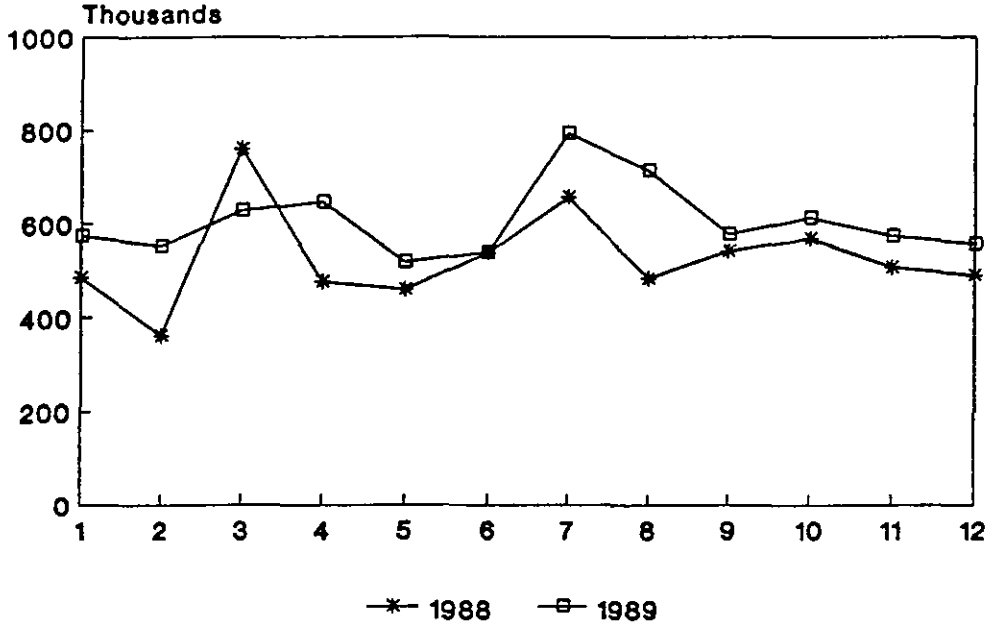
Kodiak Borough: General Government
1988 vs 1989 Monthly Expenditures



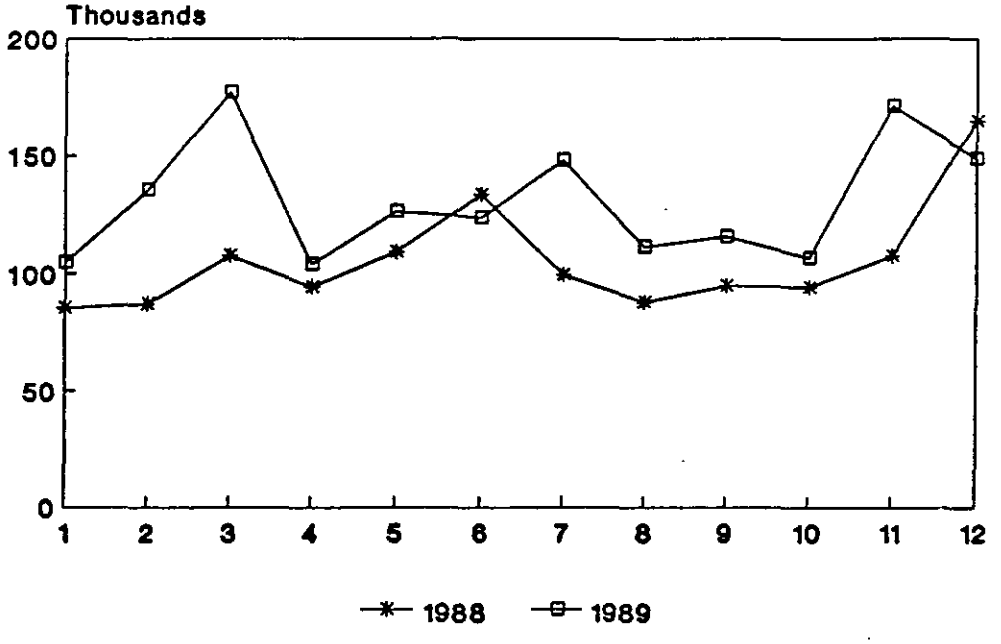
Kodiak Borough: Public Safety
1988 vs 1989 Monthly Expenditures



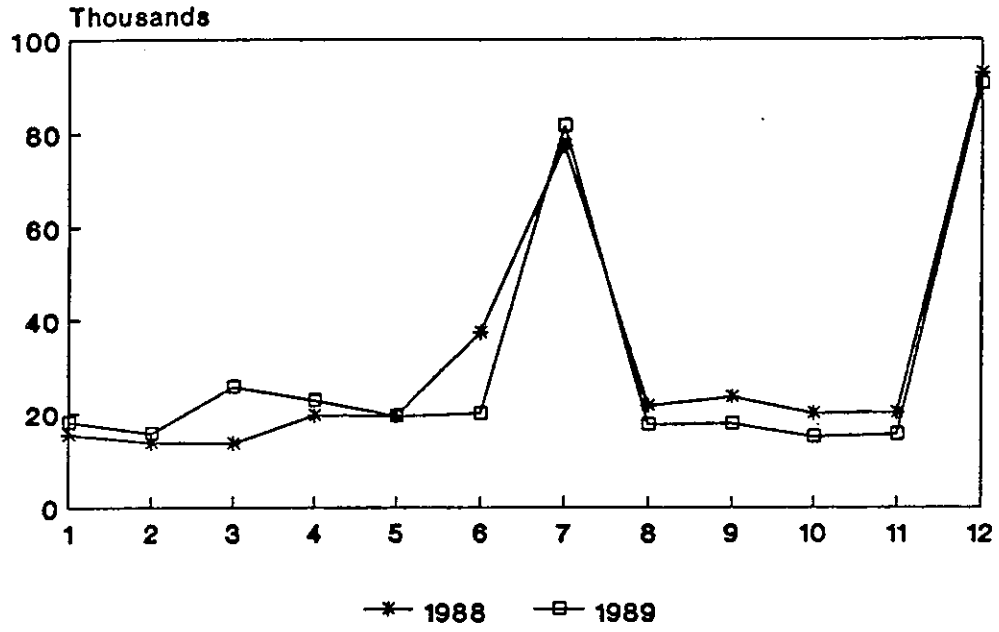
Kodiak Borough: Hospitals
1988 vs 1989 Monthly Expenditures



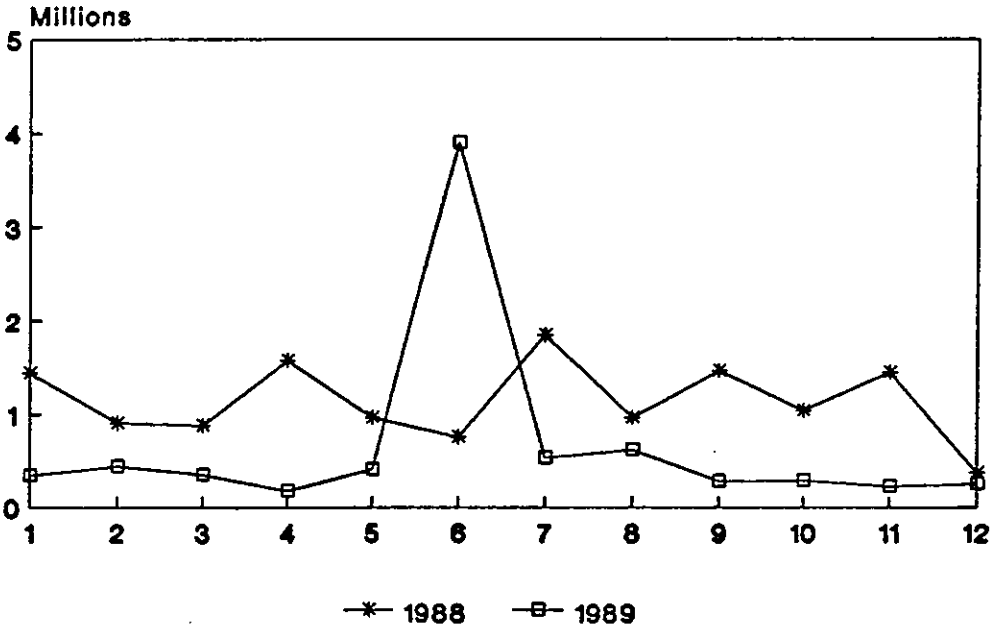
Kodiak Borough: Mental Health/Alcohol
1988 vs 1989 Monthly Expenditures



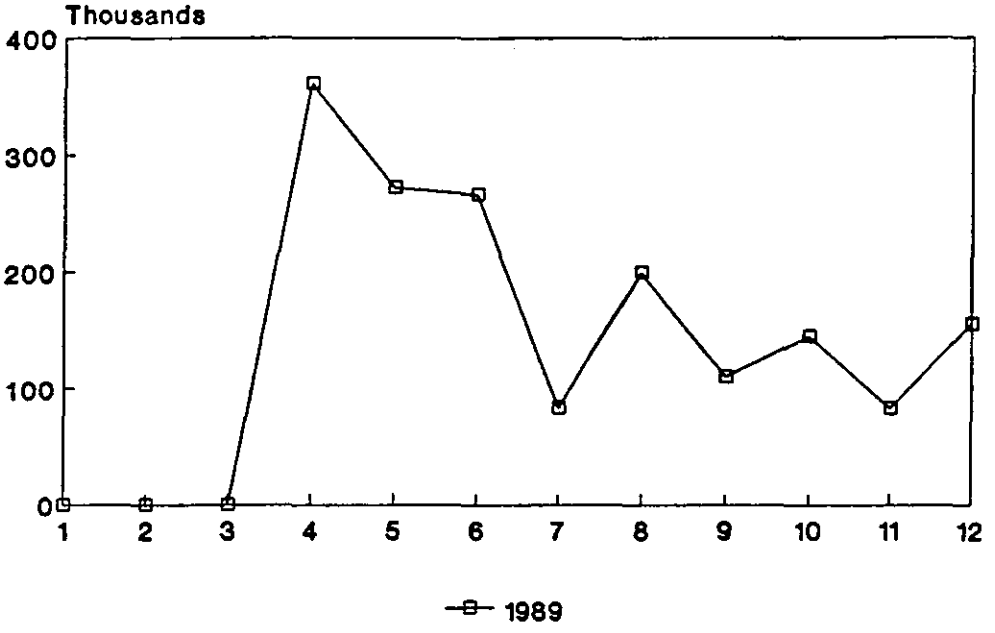
Kodiak Borough: Social Services
1988 vs 1989 Monthly Expenditures



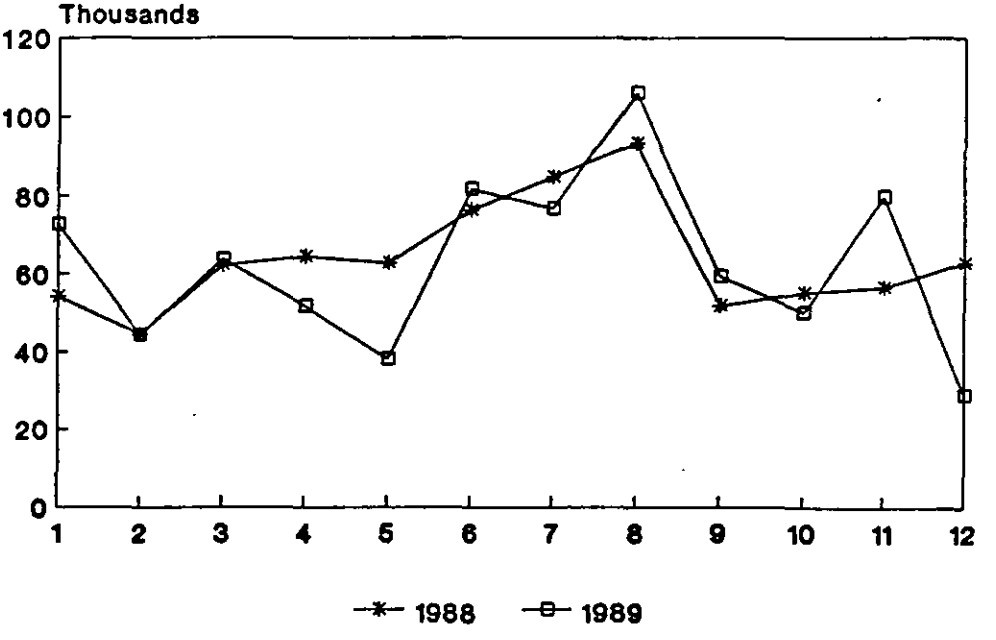
Kodiak Borough: Public Services
1988 vs 1989 Monthly Expenditures



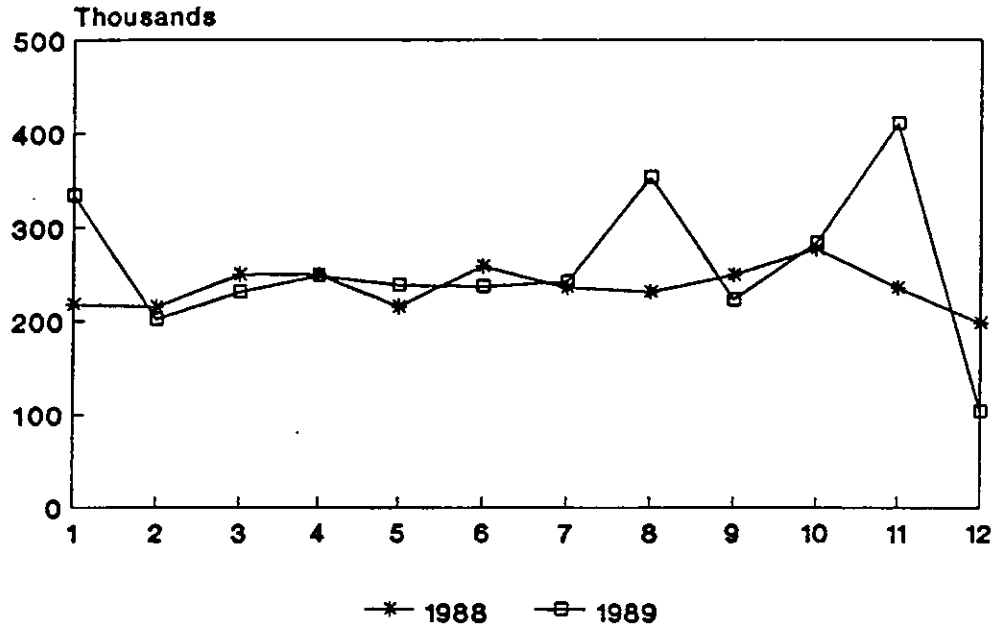
Kodiak Borough: Oil Spill Cleanup
1989 Monthly Expenditures



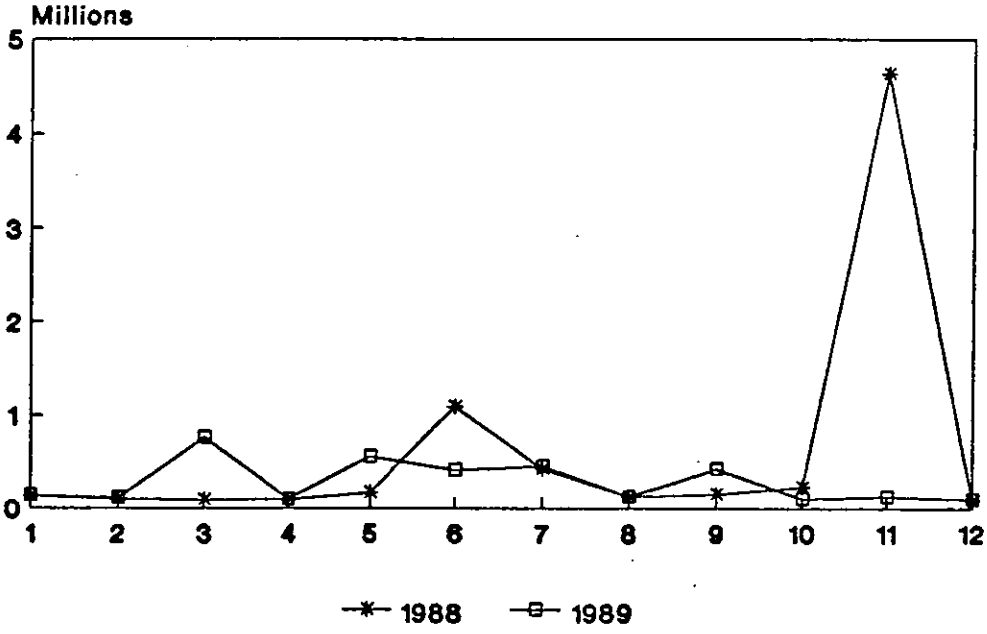
Kodiak City: General Government
1988 vs 1989 Monthly Expenditures



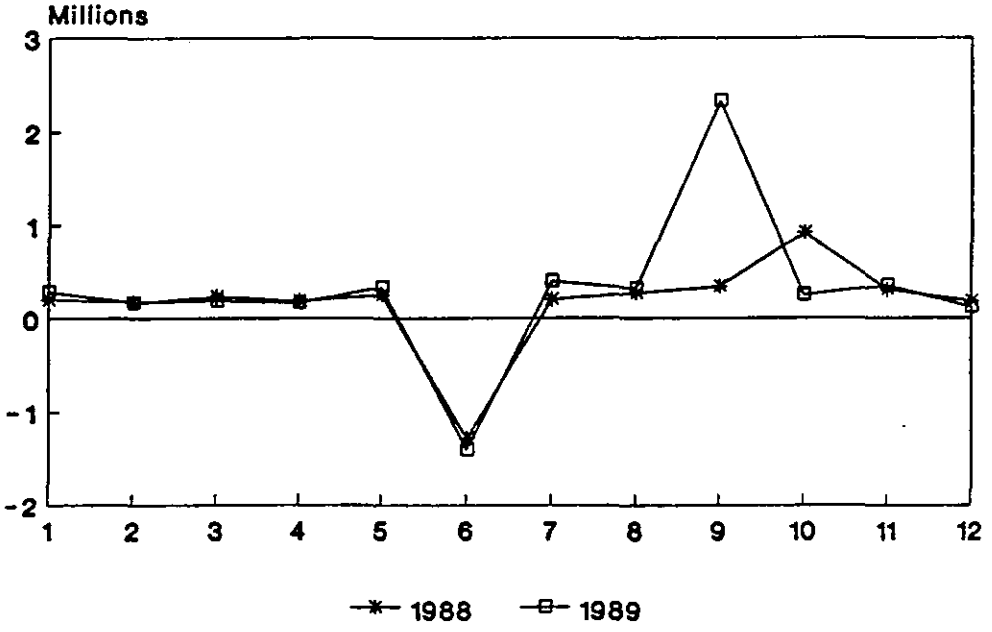
Kodiak City: Public Safety
1988 vs 1989 Monthly Expenditures



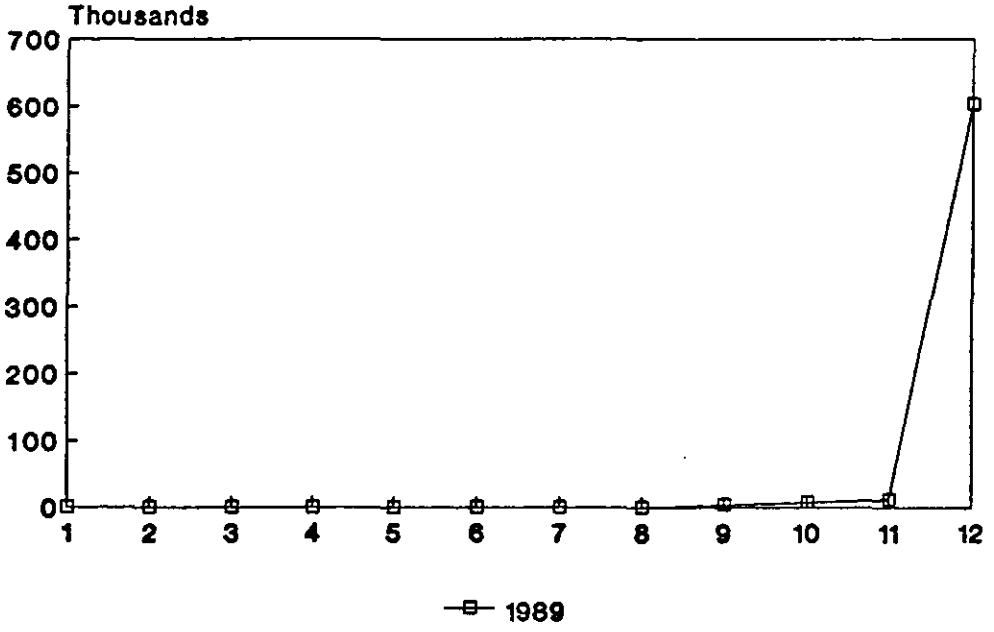
Kodiak City: Harbor/Dock
1988 vs 1989 Expenditures



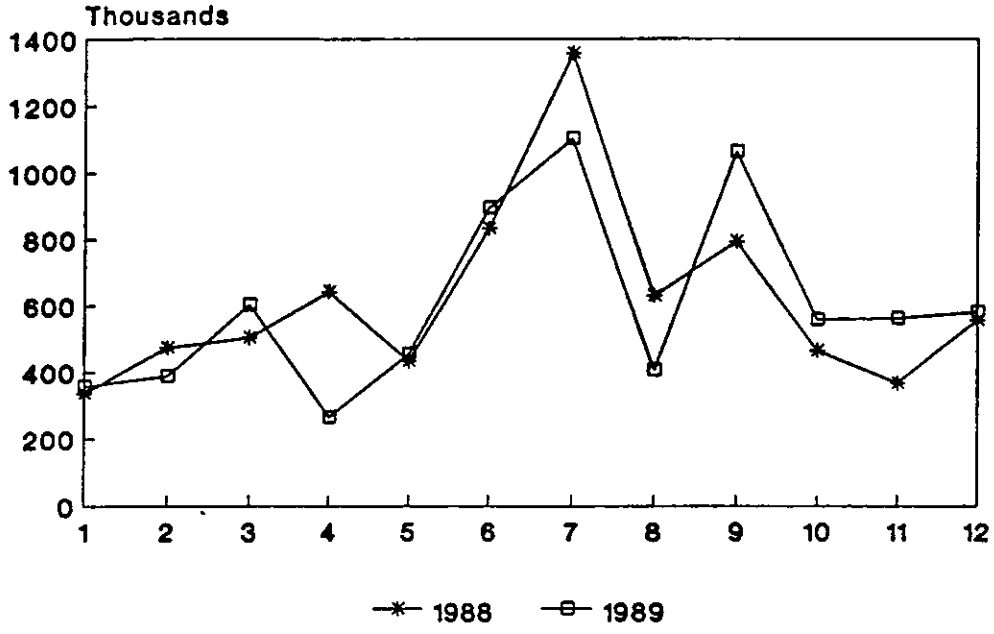
Kodiak City: Public Services
1988 vs 1989 Monthly Expenditures



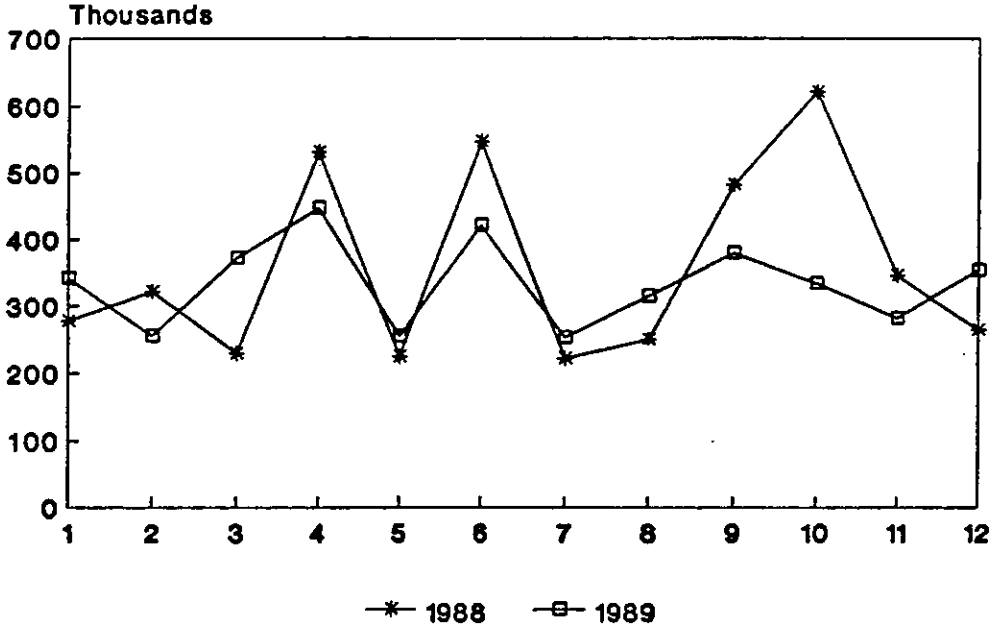
Kodiak City: Oil Spill Cleanup
1989 Monthly Expenditures



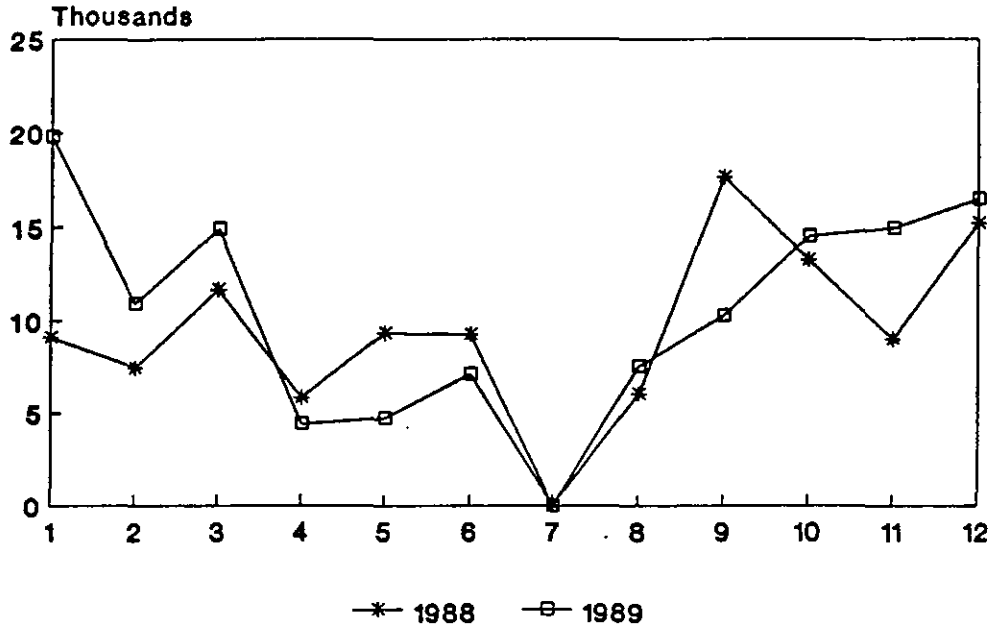
Kenai Borough: General Government
1988 vs 1989 Monthly Expenditures



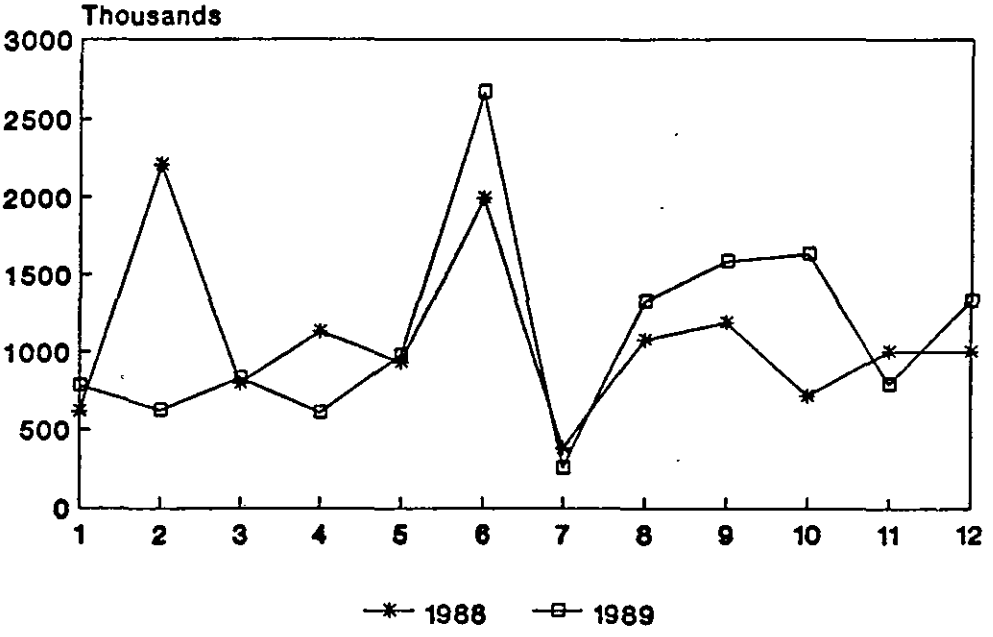
Kenai Borough: Public Safety
1988 vs 1989 Monthly Expenditures



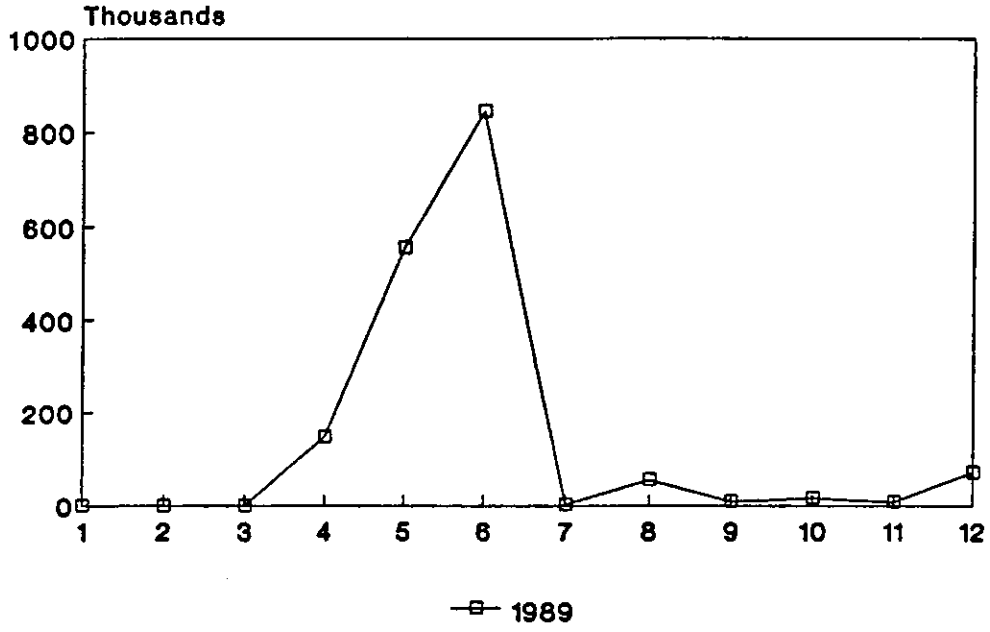
Kenai Borough: Social Services
1988 vs 1989 Monthly Expenditures



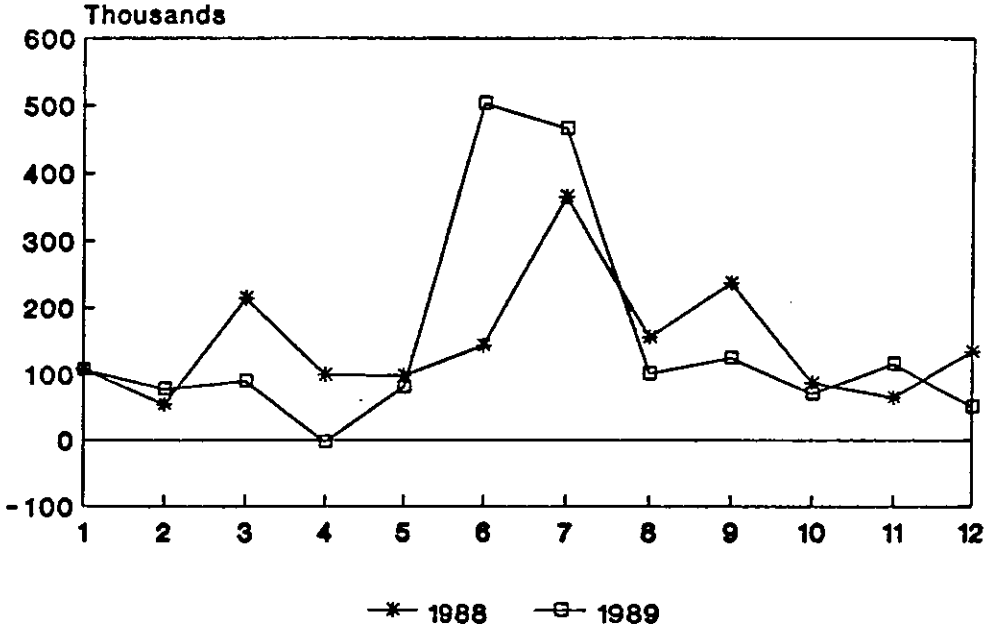
Kenai Borough: Public Services
1988 vs 1989 Monthly Expenditures



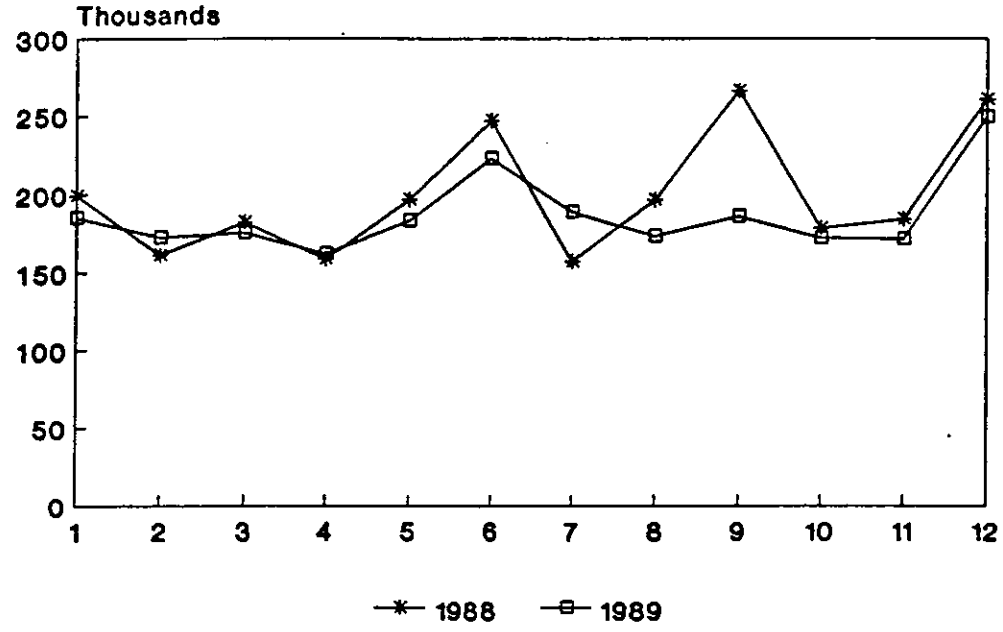
Kenai Borough: Oil Spill Cleanup
1989 Monthly Expenditures



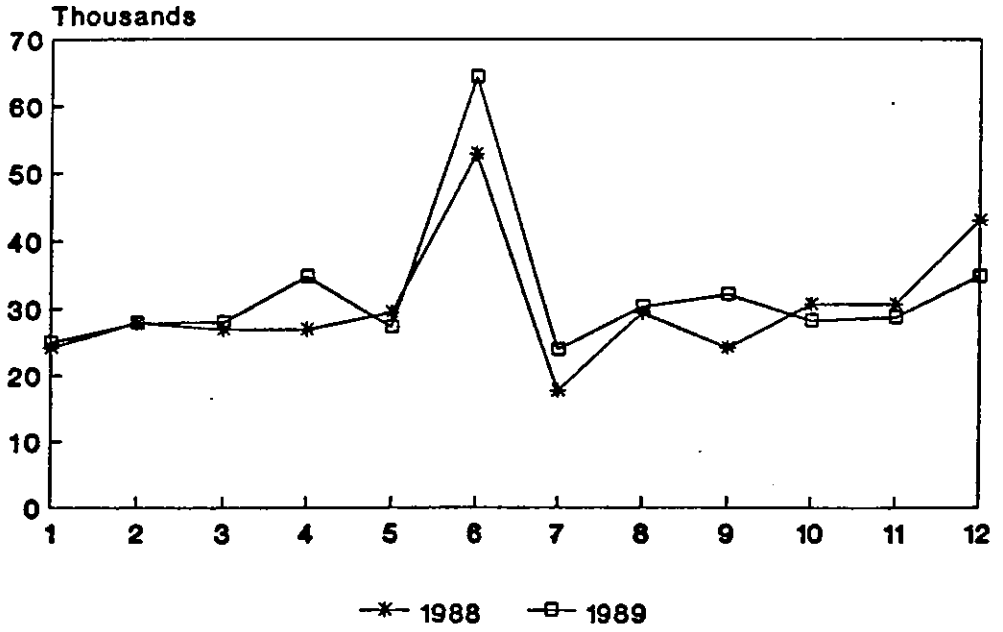
Kenai City: General Government
1988 vs 1989 Monthly Expenditures



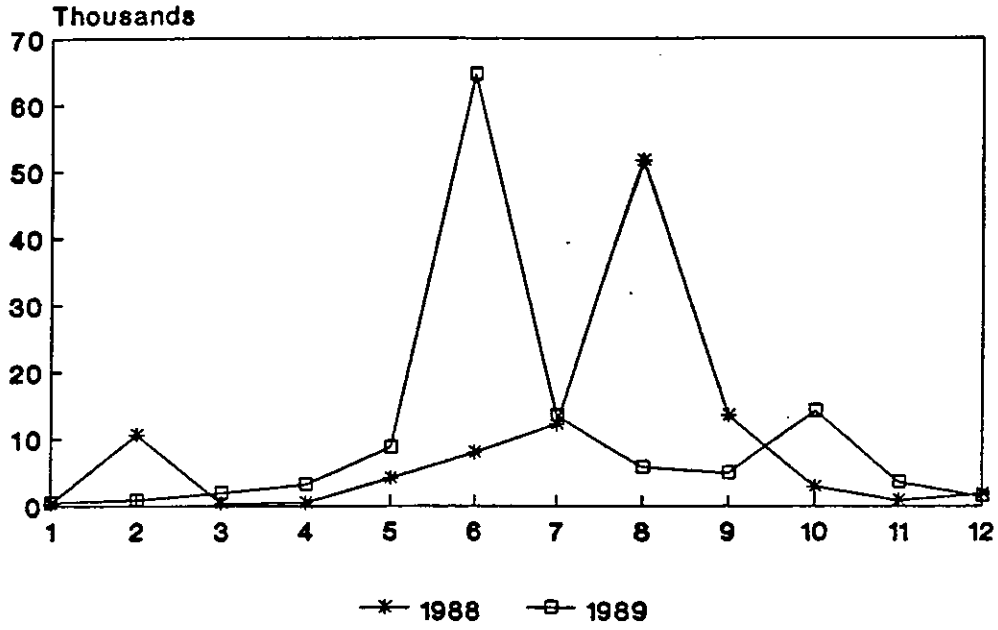
Kenai City: Public Safety
1988 vs 1989 Monthly Expenditures



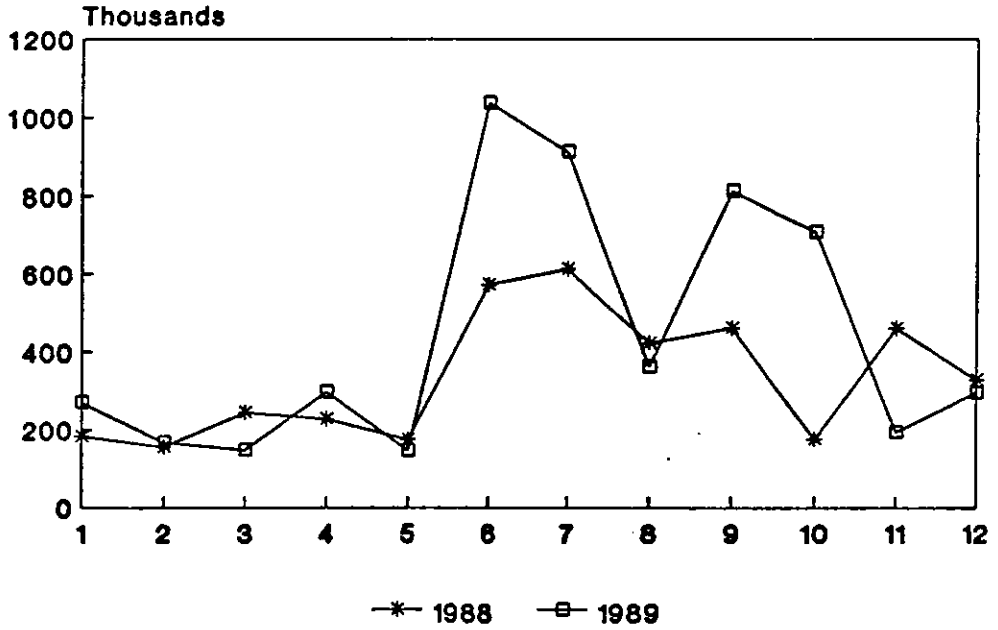
Kenai City: Social Services
1988 vs 1989 Monthly Expenditures



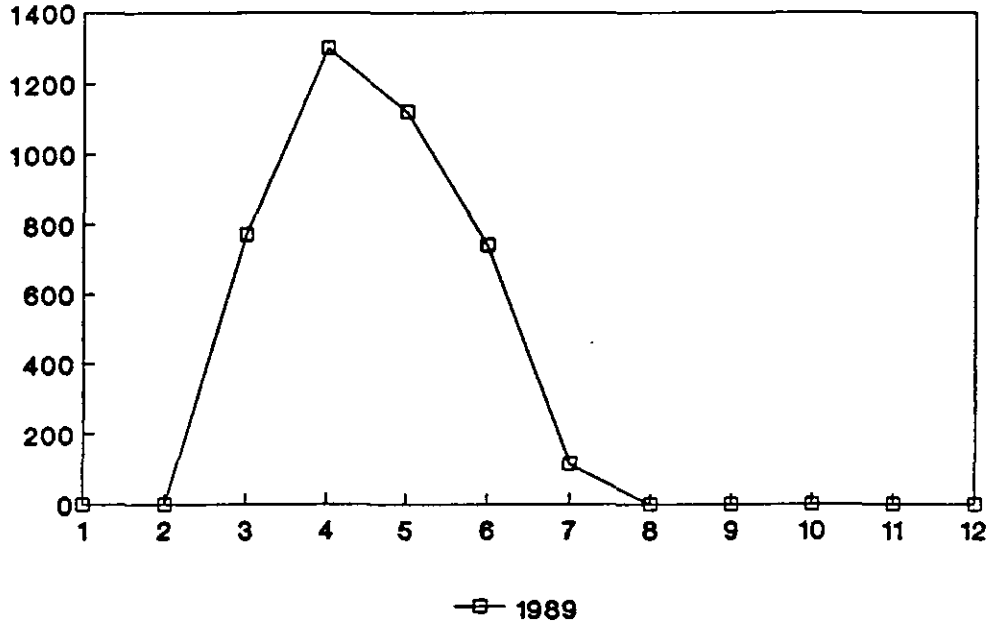
Kenai City: Harbor/Dock
1988 vs 1989 Monthly Expenditures



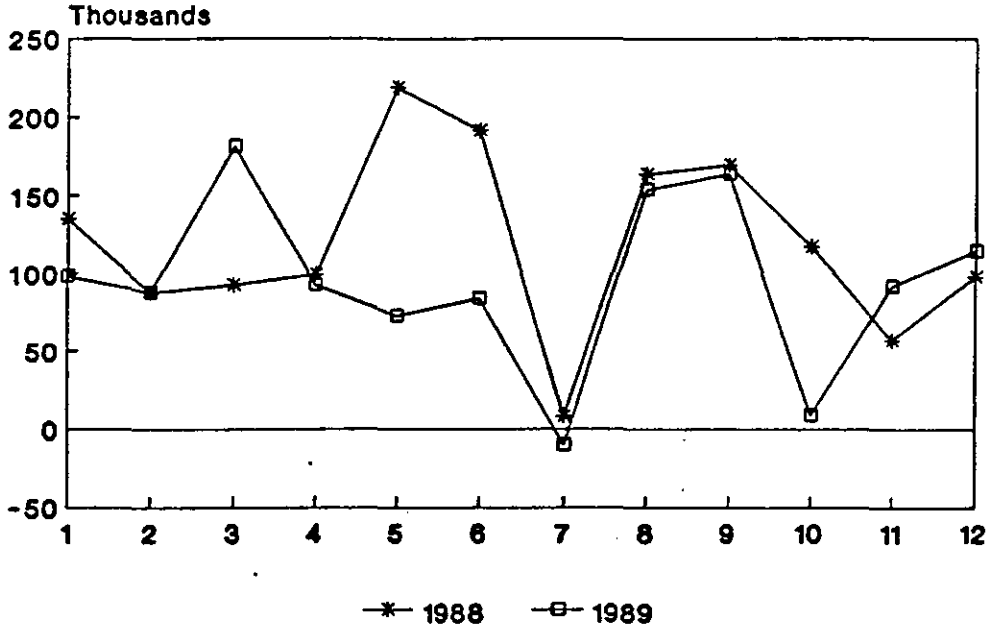
Kenai City: Public Services
1988 vs 1989 Monthly Expenditures



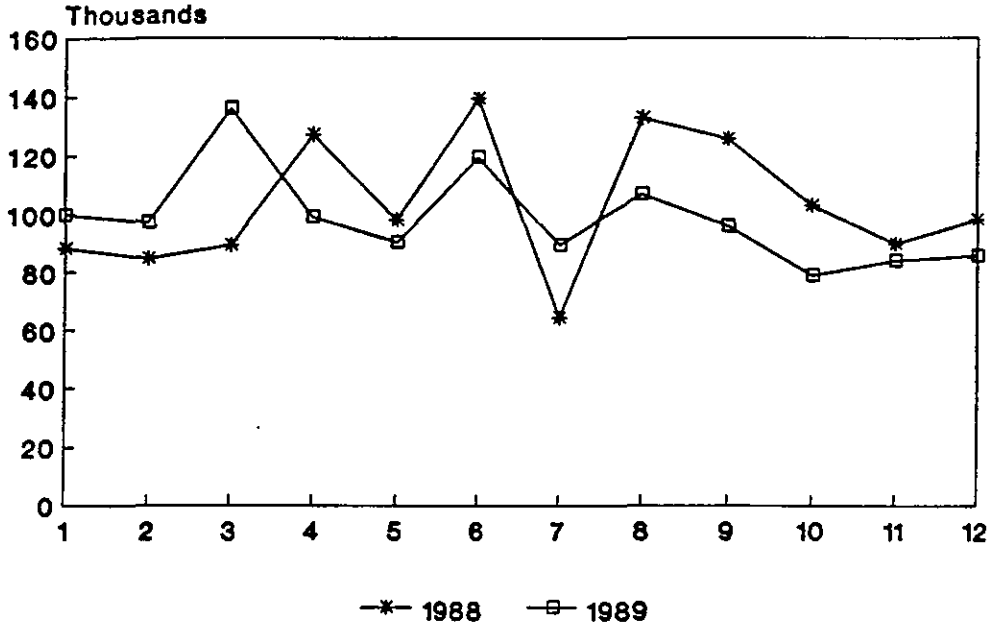
Kenai City: Oil Spill Cleanup
1989 Monthly Expenditures



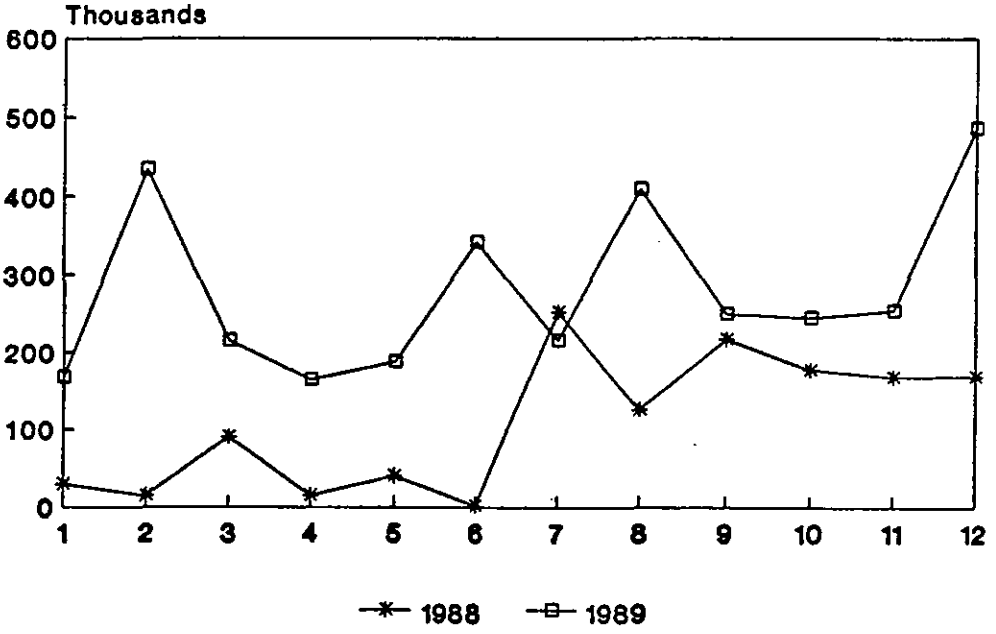
Seward: General Government
1988 vs 1989 Monthly Expenditures



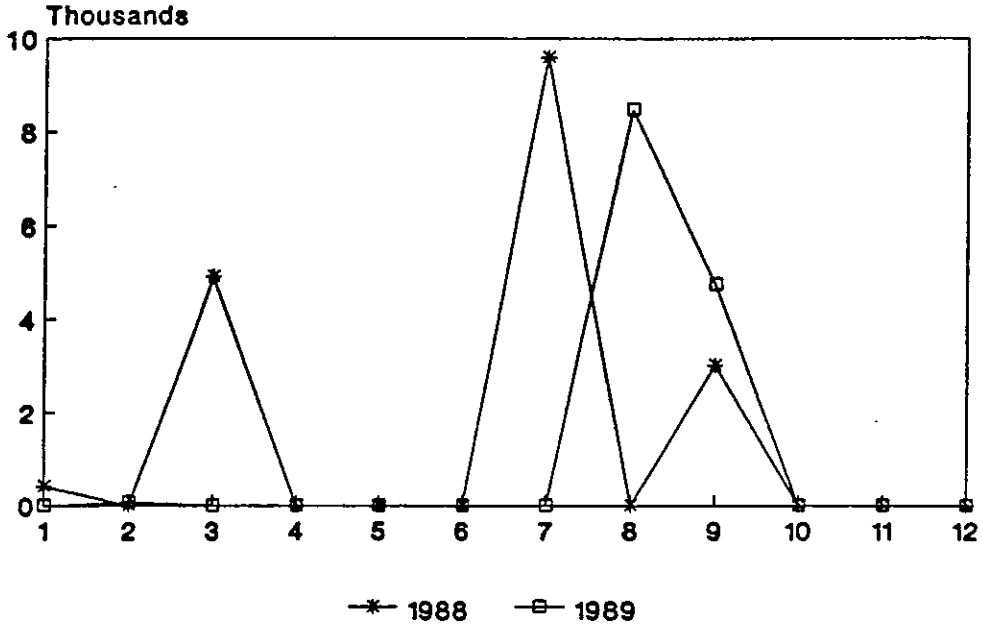
Seward: Public Safety
1988 vs 1989 Monthly Expenditures



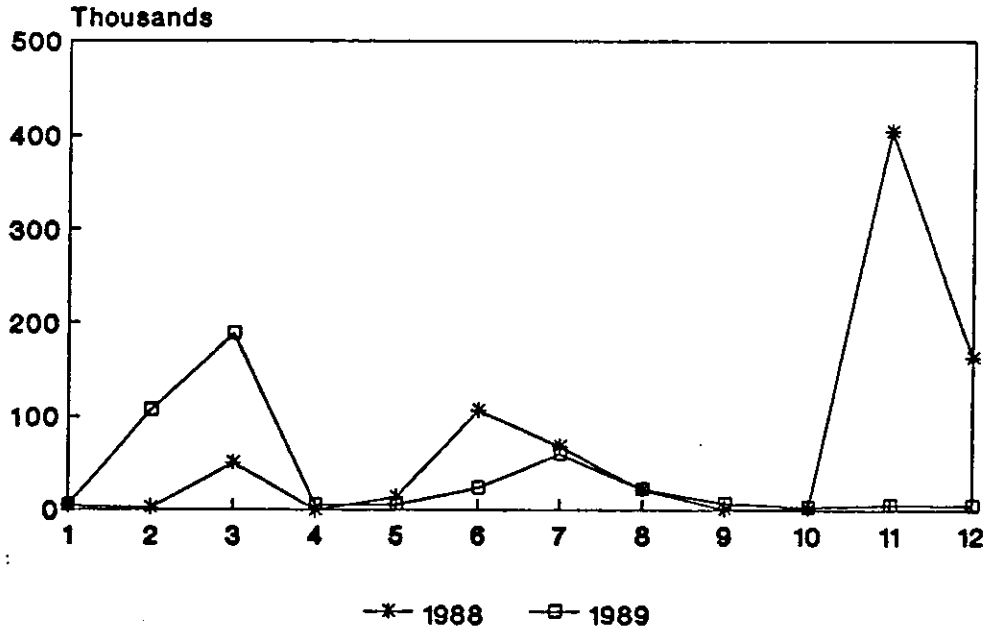
Seward: Hospitals
1988 vs 1989 Monthly Expenditures



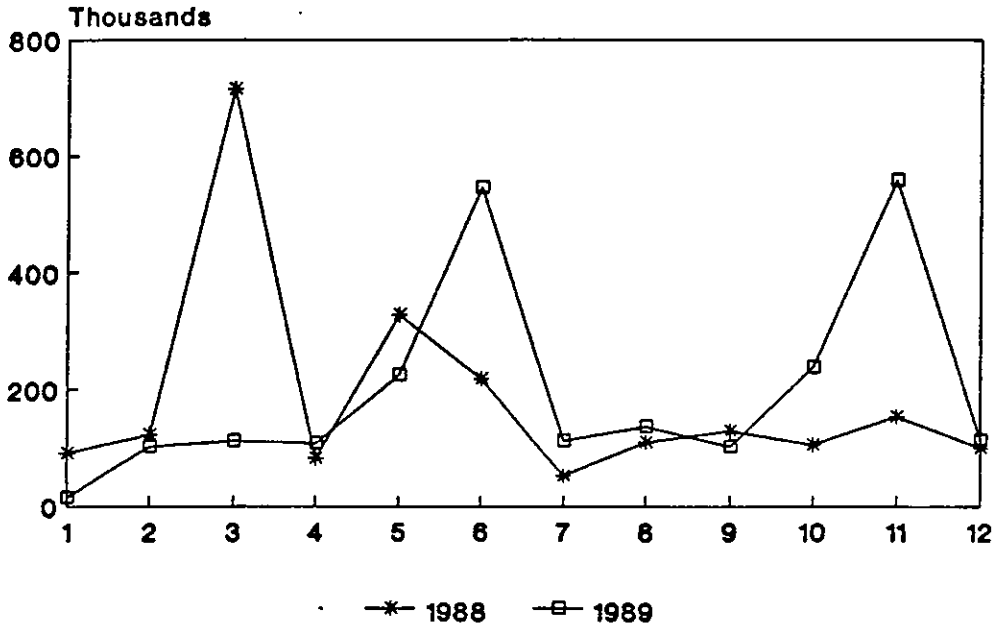
Seward: Mental Health & Alcohol
1988 vs 1989 Monthly Expenditures



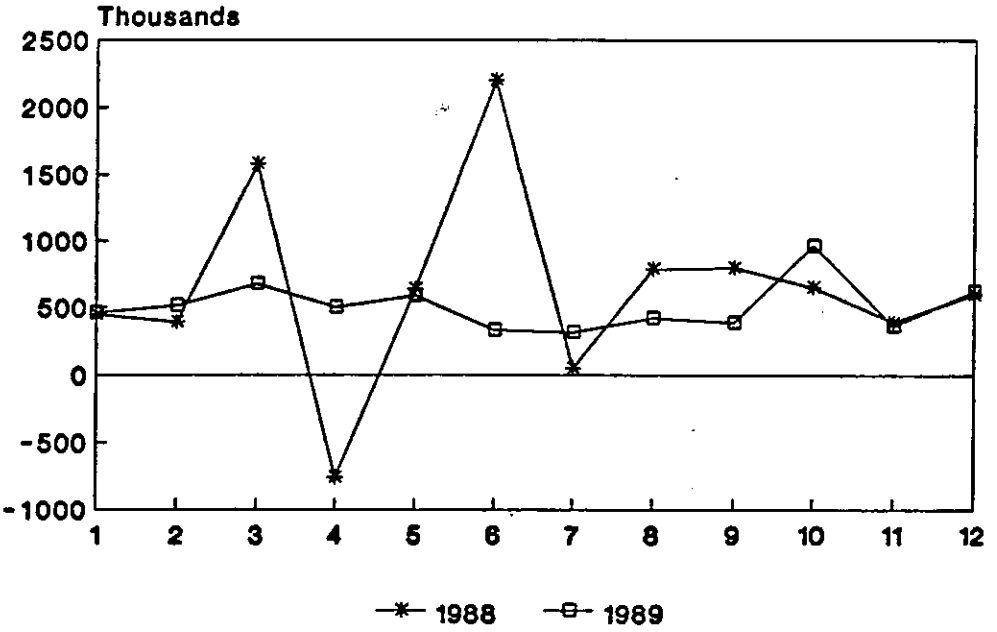
Seward: Social Services
1988 vs 1989 Monthly Expenditures



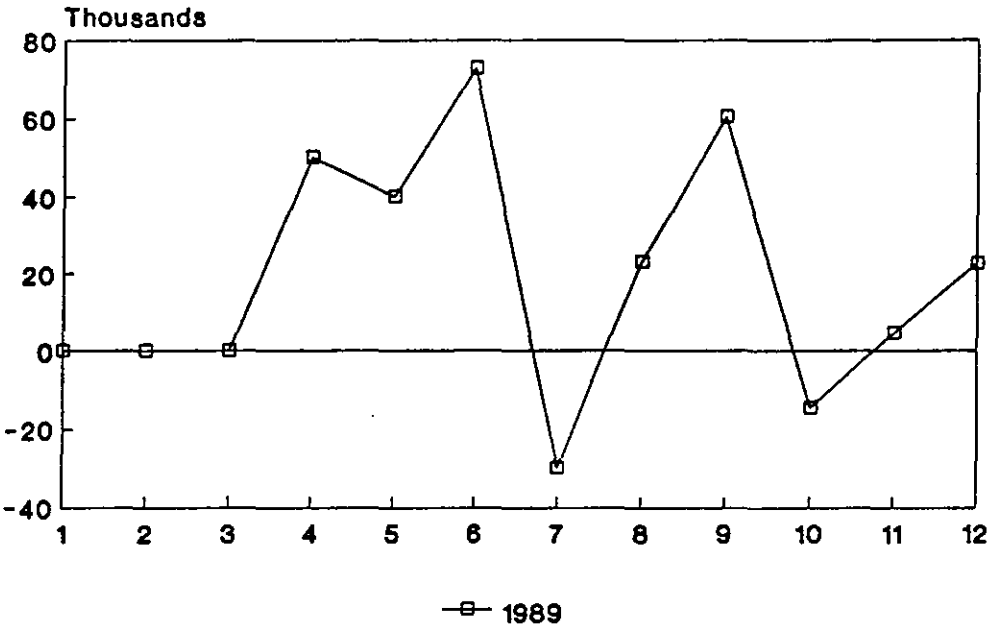
Seward: Harbor/Dock
1988 vs 1989 Monthly Expenditures



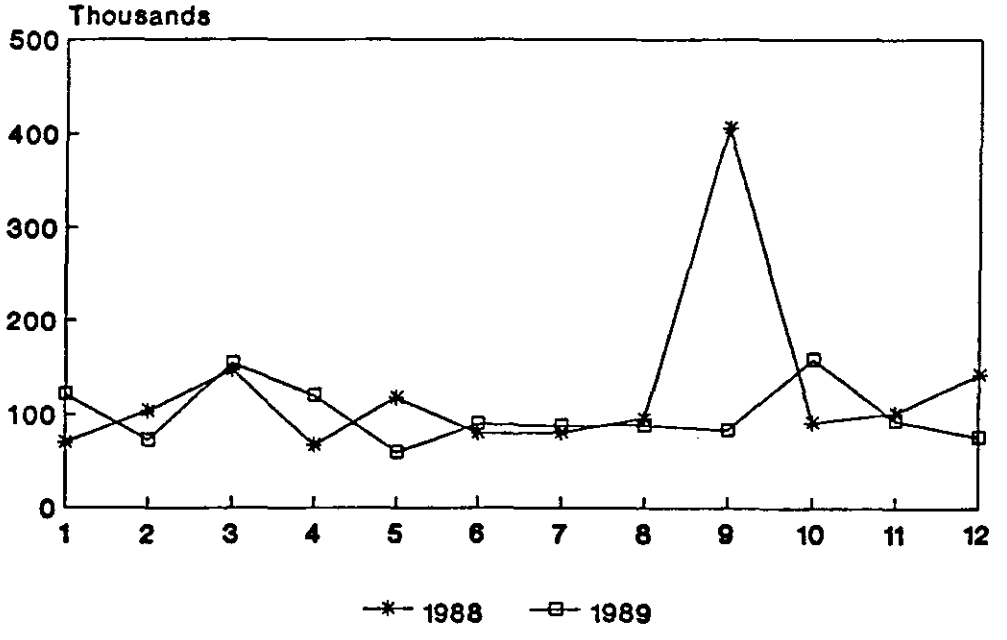
Seward: Public Services
1988 vs 1989 Monthly Expenditures



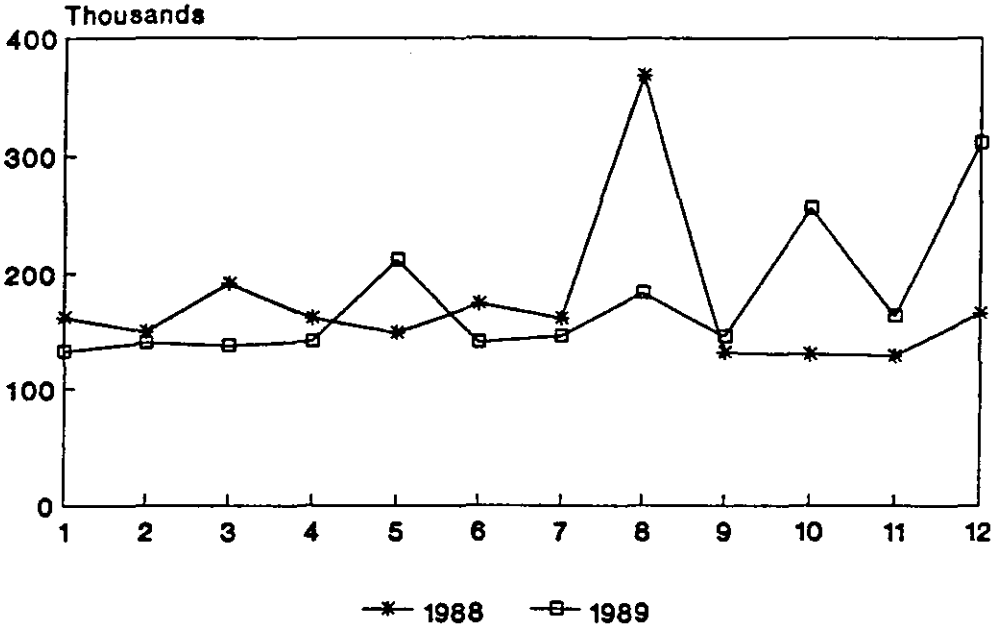
Seward: Oil Spill Cleanup
1989 Monthly Expenditures



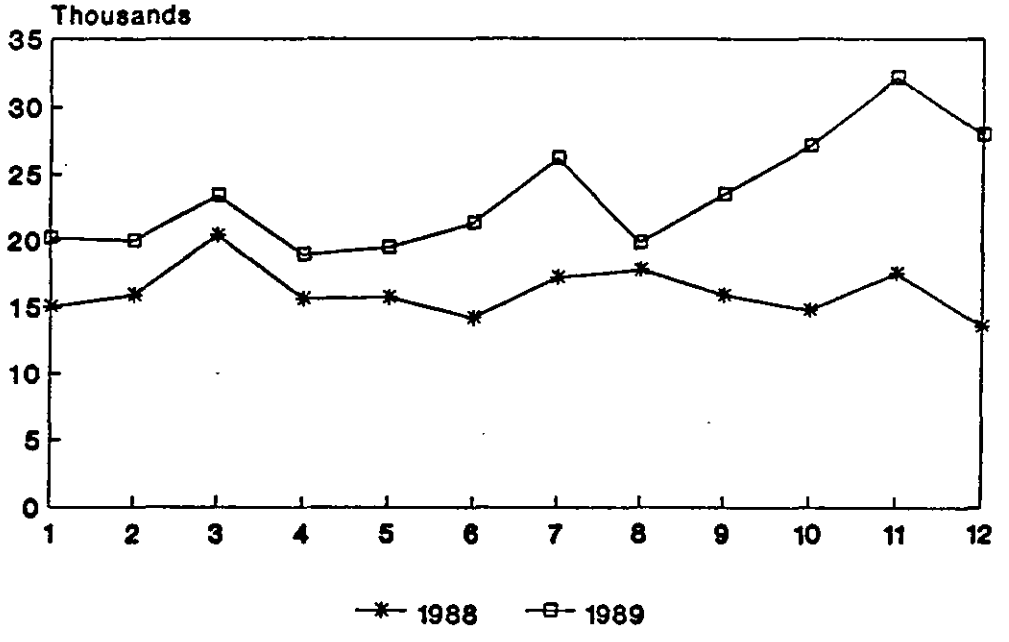
Valdez: General Government
1988 vs 1989 Monthly Expenditures



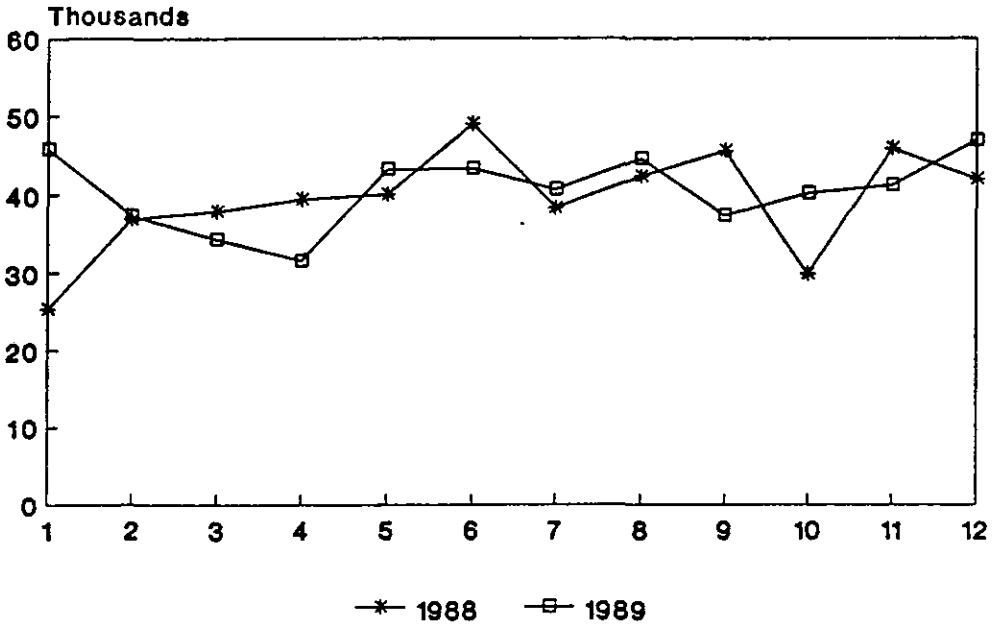
Valdez: Public Safety
1988 vs 1989 Monthly Expenditures



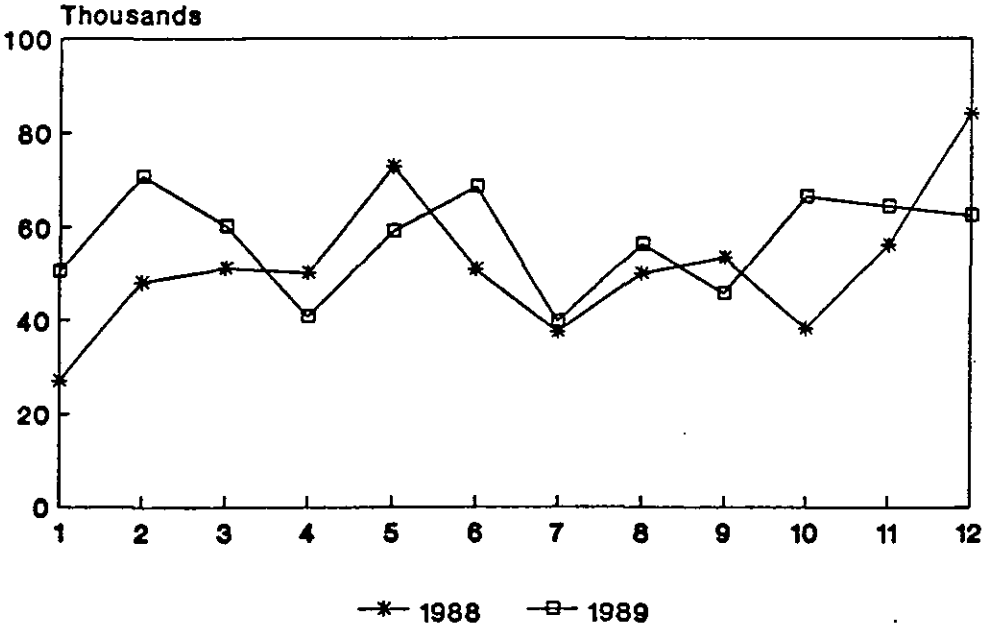
Valdez: Mental Health & Alcohol
1988 vs 1989 Monthly Expenditures



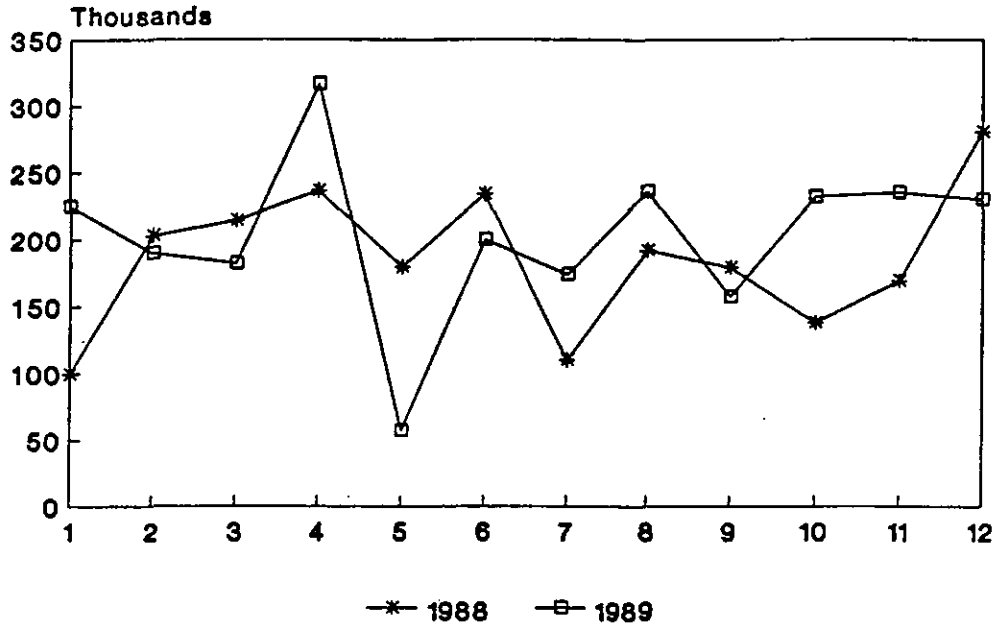
Valdez: Social Services
1988 vs 1989 Monthly Expenditures



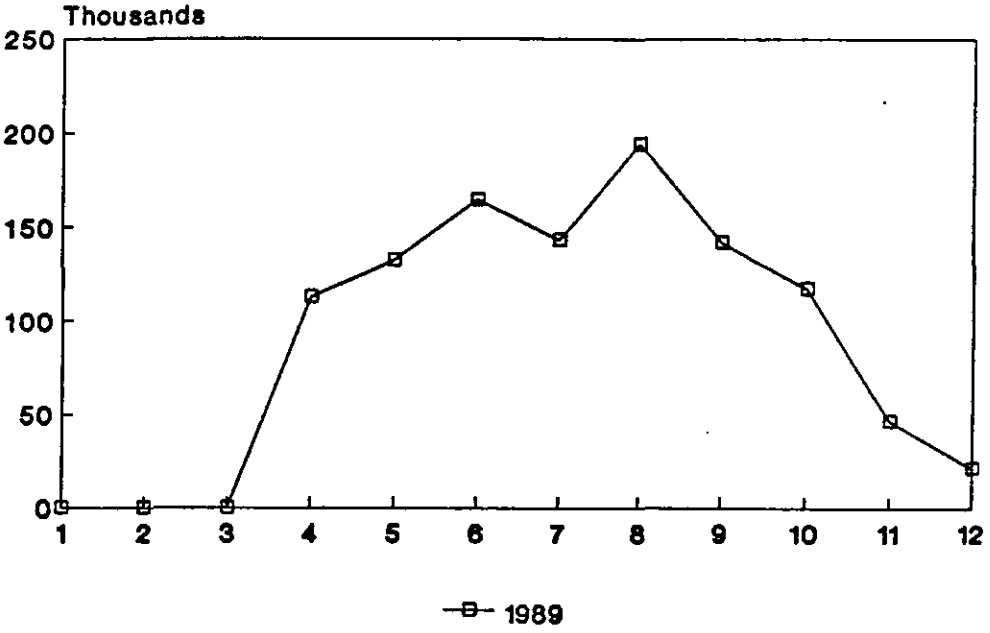
Valdez: Harbor/Dock
1988 vs 1989 Monthly Expenditures



Valdez: Public Services
1988 vs 1989 Monthly Expenditures



Valdez: Oil Spill Cleanup
1989 Monthly Expenditures



APPENDIX C

Group B Communities:
Annual Revenues and Expenditures
by Category and Community
FY87, FY88, FY89

This appendix presents available annual data for Group B communities for the following revenue and expenditure categories. In all cases capital grants and expenditures are excluded.

Revenues

Sales Taxes
Intergovernmental
Harbor/Dock Charges
Public Services Charges
Rents and Leases
Oil Spill-Related
All Other, excluding Capital
Total Revenues, excluding Capital

Expenditures

General Government
Health and Public Safety
Harbor/Dock
Public Services
Oil Spill Cleanup
All Other, excluding Capital
Total Expenditures, excluding Capital

The appendix is presented in two parts. Part one contains tables for each of seven Group B communities. Part two contains figures which are organized by category. All revenue categories are presented first, followed by all expenditure categories.

Revenues and Expenditures for Akhiok

	FY87	% of Total	FY88	% of Total	FY89	% of Total
REVENUES						
Property Tax	0	0%	0	0%	0	0%
Sales Taxes	0	0%	0	0%	0	0%
State Fish Tax	0	0%	0	0%	0	0%
Other Governmental (1)	35,740	41%	56,241	61%	61,730	64%
Harbor and Dock	0	0%	0	0%	0	0%
Other Service Charges	46,748	54%	23,060	25%	31,906	33%
Rents and Leases	0	0%	3,400	4%	2,400	2%
Oil Spill Revenue (2)	0	0%	0	0%	0	0%
All Other Revenue	4,750	5%	9,985	11%	0	0%
TOTAL REVENUES	87,238	100%	92,686	100%	96,036	100%
Population	93		93		93	
REVENUE PER CAPITA	938		997		1,033	

	FY87	% of Total	FY88	% of Total	FY89	% of Total
EXPENDITURES						
General Government	40,665	26%	24,397	24%	34,980	53%
Health and Safety	23,096	15%	4,724	5%	8,600	13%
Libraries	1,930	1%	42	0%	1,500	2%
Public Works	5,784	4%	260	0%	1,487	2%
Public Services	57,759	36%	70,293	70%	15,070	23%
Harbor/Dock	0	0%	0	0%	0	0%
Oil Spill Cleanup	0	0%	0	0%	0	0%
Other Expenditures	30,000	19%	35	0%	4,663	7%
TOTAL EXPENDITURES	159,234	100%	99,751	100%	66,300	100%
Population	93		93		93	
EXPENDITURES PER CAPITA	1,712		1,073		713	

Notes: (1) Excludes State Oil Spill Assistance
(2) Includes State Oil Spill Assistance

AKH_TABL.WK1

Revenues and Expenditures for Chignik

	FY87	% of Total	FY88	% of Total	FY89	% of Total
REVENUES						
Property Tax	0	0%	0	0%	0	0%
Sales Taxes	0	0%	0	0%	0	0%
State Fish Tax	110,528	20%	181,785	40%	288,144	50%
Other Governmental (1)	122,554	22%	53,875	12%	51,737	9%
Harbor and Dock	0	0%	0	0%	0	0%
Other Service Charges	207,135	38%	164,457	36%	154,135	27%
Rents and Leases	51,406	9%	15,264	3%	19,214	3%
Oil Spill Revenue (2)	0	0%	0	0%	0	0%
All Other Revenue	54,566	10%	39,649	9%	65,647	11%
TOTAL REVENUES	546,189	100%	455,030	100%	578,877	100%
Population	128		128		128	
REVENUE PER CAPITA	4,267		3,555		4,522	

	FY87	% of Total	FY88	% of Total	FY89	% of Total
EXPENDITURES						
General Government	140,783	29%	159,284	43%	185,605	51%
Health and Safety	45,854	9%	56,359	15%	69,401	19%
Libraries	0	0%	0	0%	0	0%
Public Works	12,674	3%	22,069	6%	8,091	2%
Public Services	214,246	44%	95,512	26%	89,435	24%
Harbor/Dock	0	0%	0	0%	0	0%
Oil Spill Cleanup	0	0%	0	0%	0	0%
Other Expenditures	75,192	15%	37,739	10%	13,908	4%
TOTAL EXPENDITURES	488,749	100%	370,963	100%	366,440	100%
Population	128		128		128	
EXPENDITURES PER CAPITA	3,818		2,898		2,863	

Notes: (1) Excludes State Oil Spill Assistance
(2) Includes State Oil Spill Assistance

CHK_TABL.WK1

Revenues and Expenditures for Old Harbor

	FY87	% of Total	FY88	% of Total	FY89	% of Total
REVENUES						
Property Tax	0	0%	0	0%	0	0%
Sales Taxes	3,090	2%	4,368	2%	5,745	3%
State Fish Tax	34,025	21%	235	0%	235	0%
Other Governmental (1)	77,364	47%	104,484	46%	105,599	51%
Harbor and Dock	1,809	1%	0	0%	0	0%
Other Service Charges	29,025	18%	43,876	19%	21,234	10%
Rents and Leases	17,757	11%	37,129	16%	46,377	22%
Oil Spill Revenue (2)	0	0%	0	0%	0	0%
All Other Revenue	1,371	1%	36,358	16%	28,481	14%
TOTAL REVENUES	164,441	100%	226,450	100%	207,671	100%
Population	322		322		322	
REVENUE PER CAPITA	511		703		645	

	FY87	% of Total	FY88	% of Total	FY89	% of Total
EXPENDITURES						
General Government	83,833	57%	72,893	33%	82,186	68%
Health and Safety	9,175	6%	9,405	4%	2,316	2%
Libraries	0	0%	5,966	3%	0	0%
Public Works	5,747	4%	5,642	3%	3,796	3%
Public Services	40,233	28%	35,447	16%	32,052	26%
Harbor/Dock	3,700	3%	0	0%	0	0%
Oil Spill Cleanup	0	0%	0	0%	0	0%
Other Expenditures	3,272	2%	93,860	42%	876	1%
TOTAL EXPENDITURES	145,960	100%	223,213	100%	121,226	100%
Population	322		322		322	
EXPENDITURES PER CAPITA	453		693		376	

Notes: (1) Excludes State Oil Spill Assistance
(2) Includes State Oil Spill Assistance

OHB_TABL.WK1

Revenues and Expenditures for Ouzinkie

	FY87	% of Total	FY88	% of Total	FY89	% of Total
REVENUES						
Property Tax	0	0%	0	0%	0	0%
Sales Taxes	11,552	5%	9,538	4%	11,204	4%
State Fish Tax	0	0%	1,929	1%	0	0%
Other Governmental (1)	95,673	40%	90,302	34%	62,404	20%
Harbor and Dock	0	0%	0	0%	0	0%
Other Service Charges	79,777	33%	95,750	36%	168,777	55%
Rents and Leases	17,148	7%	23,796	9%	19,387	6%
Oil Spill Revenue (2)	0	0%	0	0%	0	0%
All Other Revenue	37,468	16%	41,272	16%	43,100	14%
TOTAL REVENUES	241,618	100%	262,587	100%	304,872	100%
Population	204		204		204	
REVENUE PER CAPITA	1,184		1,287		1,494	

	FY87	% of Total	FY88	% of Total	FY89	% of Total
EXPENDITURES						
General Government	0	NA	159,580	48%	115,053	37%
Health and Safety	0	NA	17,339	5%	11,545	4%
Libraries	0	NA	0	0%	0	0%
Public Works	0	NA	3,740	1%	7,892	3%
Public Services	0	NA	142,120	43%	179,154	57%
Harbor/Dock	0	NA	0	0%	0	0%
Oil Spill Cleanup	0	NA	0	0%	0	0%
Other Expenditures	0	NA	6,449	2%	884	0%
TOTAL EXPENDITURES	0	NA	329,228	100%	314,528	100%
Population	204		204		204	
EXPENDITURES PER CAPITA	0		1,614		1,542	

Notes: (1) Excludes State Oil Spill Assistance
(2) Includes State Oil Spill Assistance

OUZ_TABL.WK1

Revenues and Expenditures for Port Lions

	FY87	% of Total	FY88	% of Total	FY89	% of Total
REVENUES						
Property Tax	0	0%	0	0%	0	0%
Sales Taxes	0	0%	0	0%	0	0%
State Fish Tax	0	0%	2,655	0%	0	0%
Other Governmental (1)	83,038	43%	96,163	4%	81,309	5%
Harbor and Dock	29,851	15%	30,170	1%	30,419	2%
Other Service Charges	31,443	16%	50,758	2%	32,630	2%
Rents and Leases	13,311	7%	31,217	1%	15,208	1%
Oil Spill Revenue (2)	0	0%	0	0%	143,688	10%
All Other Revenue	36,097	19%	2,239,318	91%	1,195,070	80%
TOTAL REVENUES	193,740	100%	2,450,281	100%	1,498,324	100%
Population	300		300		300	
REVENUE PER CAPITA	646		8,168		4,994	

	FY87	% of Total	FY88	% of Total	FY89	% of Total
EXPENDITURES						
General Government	60,069	31%	95,664	41%	91,576	26%
Health and Safety	24,243	12%	27,425	12%	24,315	7%
Libraries	13,086	7%	13,086	6%	13,141	4%
Public Works	37,247	19%	34,054	15%	37,885	11%
Public Services	23,456	12%	25,115	11%	31,361	9%
Harbor/Dock	29,465	15%	28,899	12%	33,391	10%
Oil Spill Cleanup	0	0%	0	0%	106,058	31%
Other Expenditures	9,077	5%	8,857	4%	9,119	3%
TOTAL EXPENDITURES	196,643	100%	233,100	100%	346,846	100%
Population	300		300		300	
EXPENDITURES PER CAPITA	655		777		1,156	

Notes: (1) Excludes State Oil Spill Assistance
(2) Includes State Oil Spill Assistance

PTL_TABL.WK1

Revenues and Expenditures for Seldovia

	FY87	% of Total	FY88	% of Total	FY89	% of Total
REVENUES						
Property Tax	132,868	22%	136,495	23%	131,288	16%
Sales Taxes	58,515	10%	58,924	10%	55,122	7%
State Fish Tax	11,860	2%	9,692	2%	45,116	6%
Other Governmental (1)	148,707	24%	120,221	21%	90,172	11%
Harbor and Dock	121,425	20%	133,646	23%	195,062	24%
Other Service Charges	69,573	11%	75,970	13%	79,483	10%
Rents and Leases	14,962	2%	15,863	3%	17,256	2%
Oil Spill Revenue (2)	0	0%	0	0%	122,743	15%
All Other Revenue	52,681	9%	30,024	5%	70,307	9%
TOTAL REVENUES	610,591	100%	580,835	100%	806,549	100%
Population	535		535		565	
REVENUE PER CAPITA	1,141		1,086		1,428	

	FY87	% of Total	FY88	% of Total	FY89	% of Total
EXPENDITURES						
General Government	143,356	17%	97,533	15%	102,027	16%
Health and Safety	187,187	22%	152,667	24%	149,417	23%
Libraries	14,196	2%	0	0%	0	0%
Public Works	173,681	21%	175,274	27%	123,167	19%
Public Services	54,849	7%	57,818	9%	49,582	8%
Harbor/Dock	158,303	19%	112,852	18%	92,333	14%
Oil Spill Cleanup	0	0%	0	0%	89,277	14%
Other Expenditures	107,846	13%	46,255	7%	32,727	5%
TOTAL EXPENDITURES	839,418	100%	642,399	100%	638,530	100%
Population	535		535		565	
EXPENDITURES PER CAPITA	1,569		1,201		1,130	

Notes: (1) Excludes State Oil Spill Assistance
(2) Includes State Oil Spill Assistance

SDV_TABL.WK1

Revenues and Expenditures for Whittier

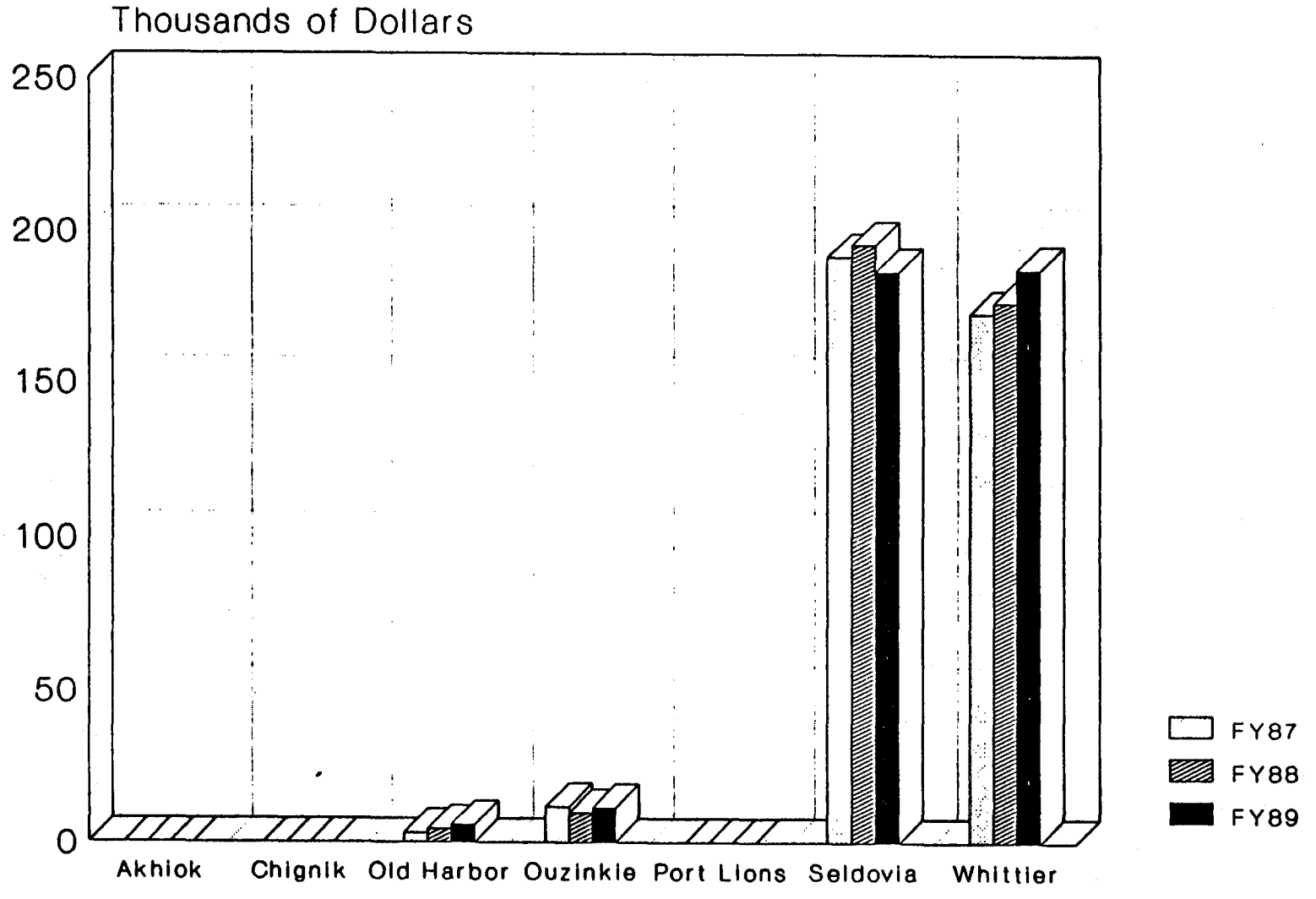
	FY87	% of Total	FY88	% of Total	FY89	% of Total
REVENUES						
Property Tax	88,463	6%	89,739	6%	98,747	5%
Sales Taxes	83,948	5%	86,196	6%	88,456	5%
State Fish Tax	12,775	1%	17,953	1%	55,863	3%
Other Governmental (1)	181,182	11%	195,539	13%	225,085	12%
Harbor and Dock	459,390	29%	414,068	27%	408,128	22%
Other Service Charges	201,610	13%	195,008	13%	223,412	12%
Rents and Leases	219,317	14%	206,405	14%	256,790	14%
Oil Spill Revenue (2)	0	0%	0	0%	132,571	7%
All Other Revenue	349,916	22%	319,347	21%	333,346	18%
TOTAL REVENUES	1,596,601	100%	1,524,255	100%	1,822,398	100%
Population	206		206		299	
REVENUE PER CAPITA	7,750		7,399		6,095	

	FY87	% of Total	FY88	% of Total	FY89	% of Total
EXPENDITURES						
General Government	355,158	22%	342,039	21%	390,367	21%
Health and Safety	299,462	18%	309,644	19%	375,835	20%
Libraries	20,676	1%	20,589	1%	27,970	2%
Public Works	193,401	12%	216,537	13%	195,835	11%
Public Services	221,779	13%	217,341	13%	228,404	12%
Harbor/Dock	498,164	30%	460,675	28%	501,647	27%
Oil Spill Cleanup	0	0%	0	0%	0	0%
Other Expenditures	57,281	3%	99,129	6%	119,495	6%
TOTAL EXPENDITURES	1,645,921	100%	1,665,954	100%	1,839,553	100%
Population	206		206		299	
EXPENDITURES PER CAPITA	7,990		8,087		6,152	

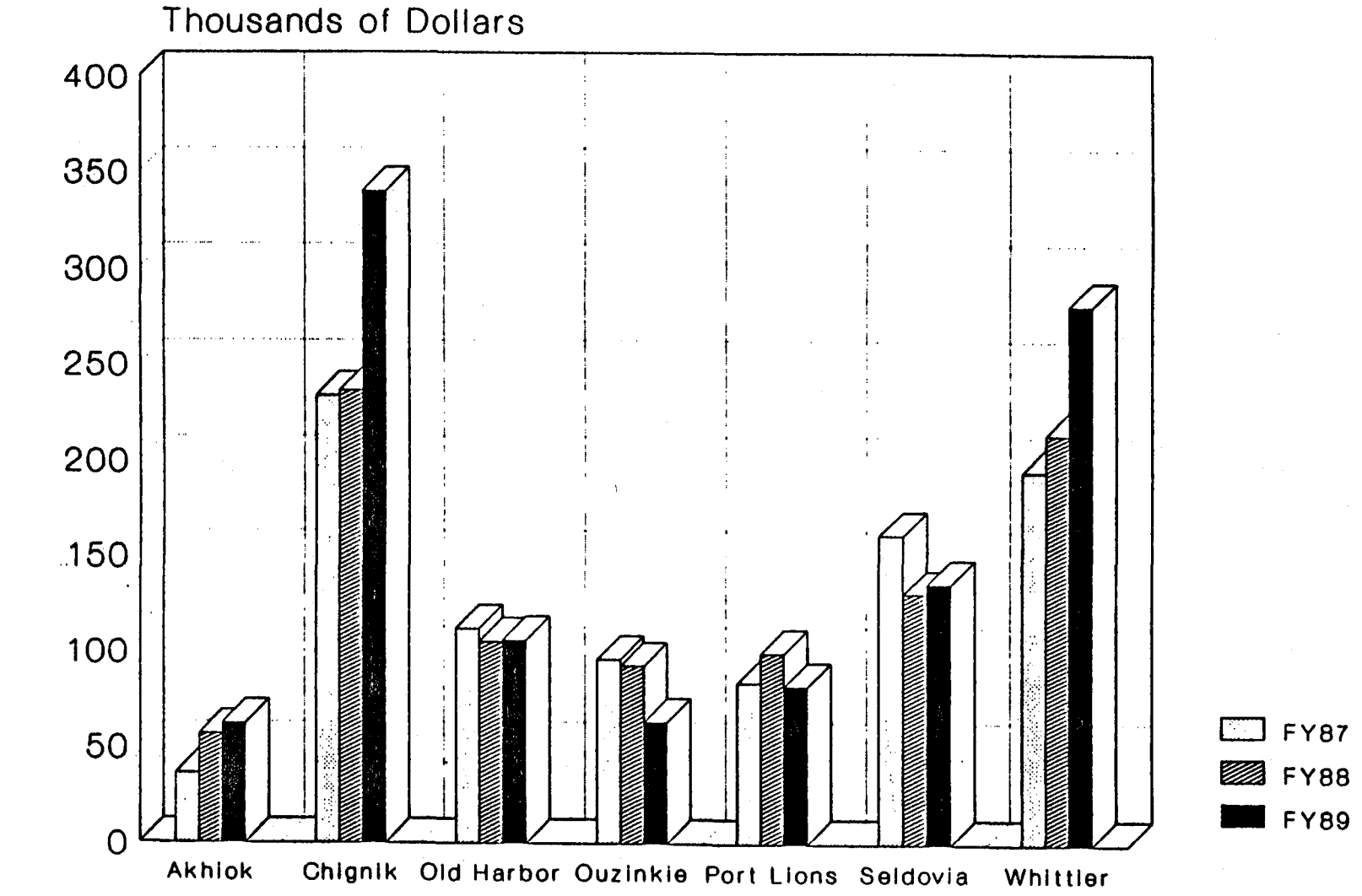
Notes: (1) Excludes State Oil Spill Assistance
(2) Includes State Oil Spill Assistance

WHT_TABL.WK1

Sales Tax Revenues
Group B Communities

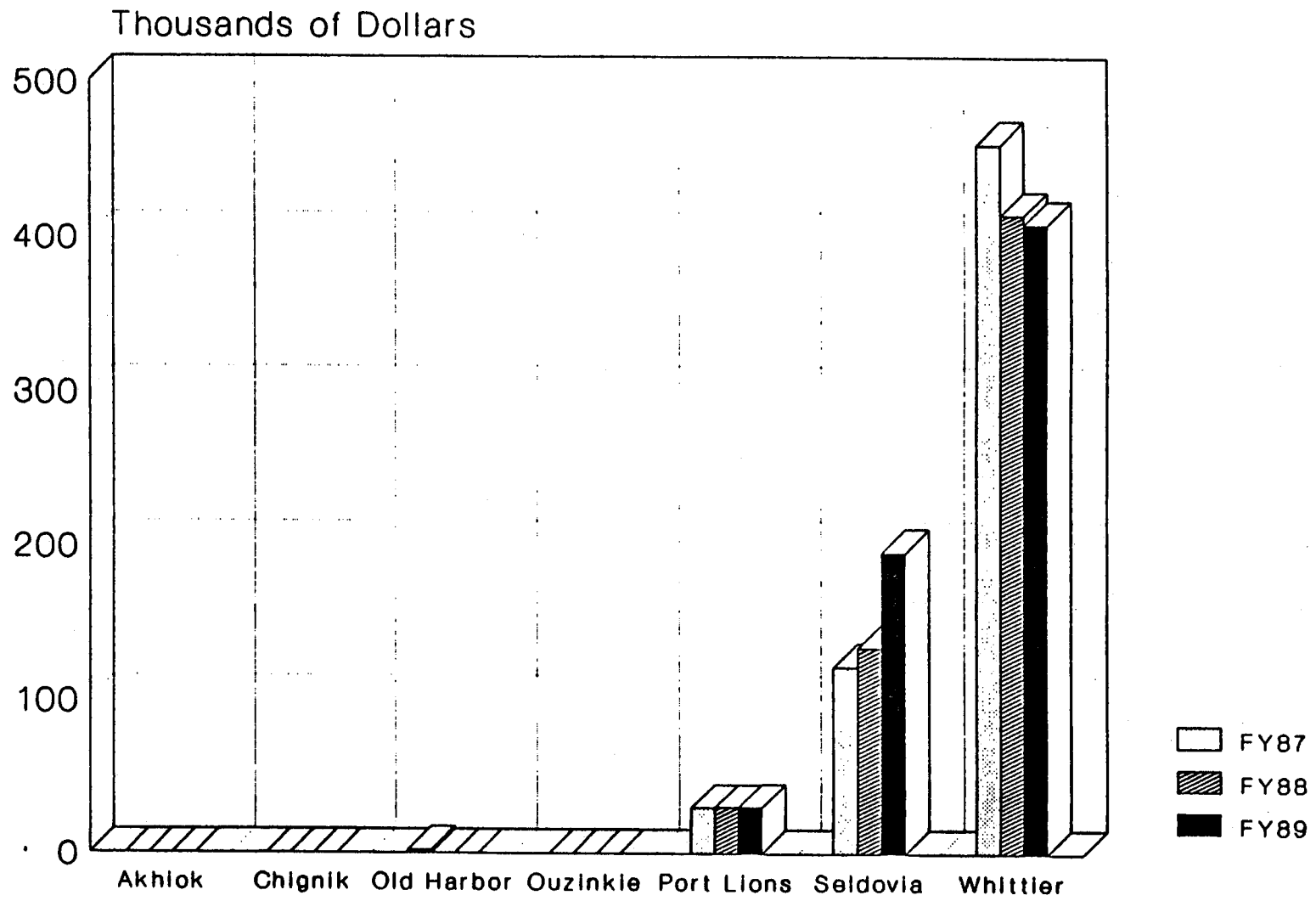


Intergovernmental Revenues
Group B Communities

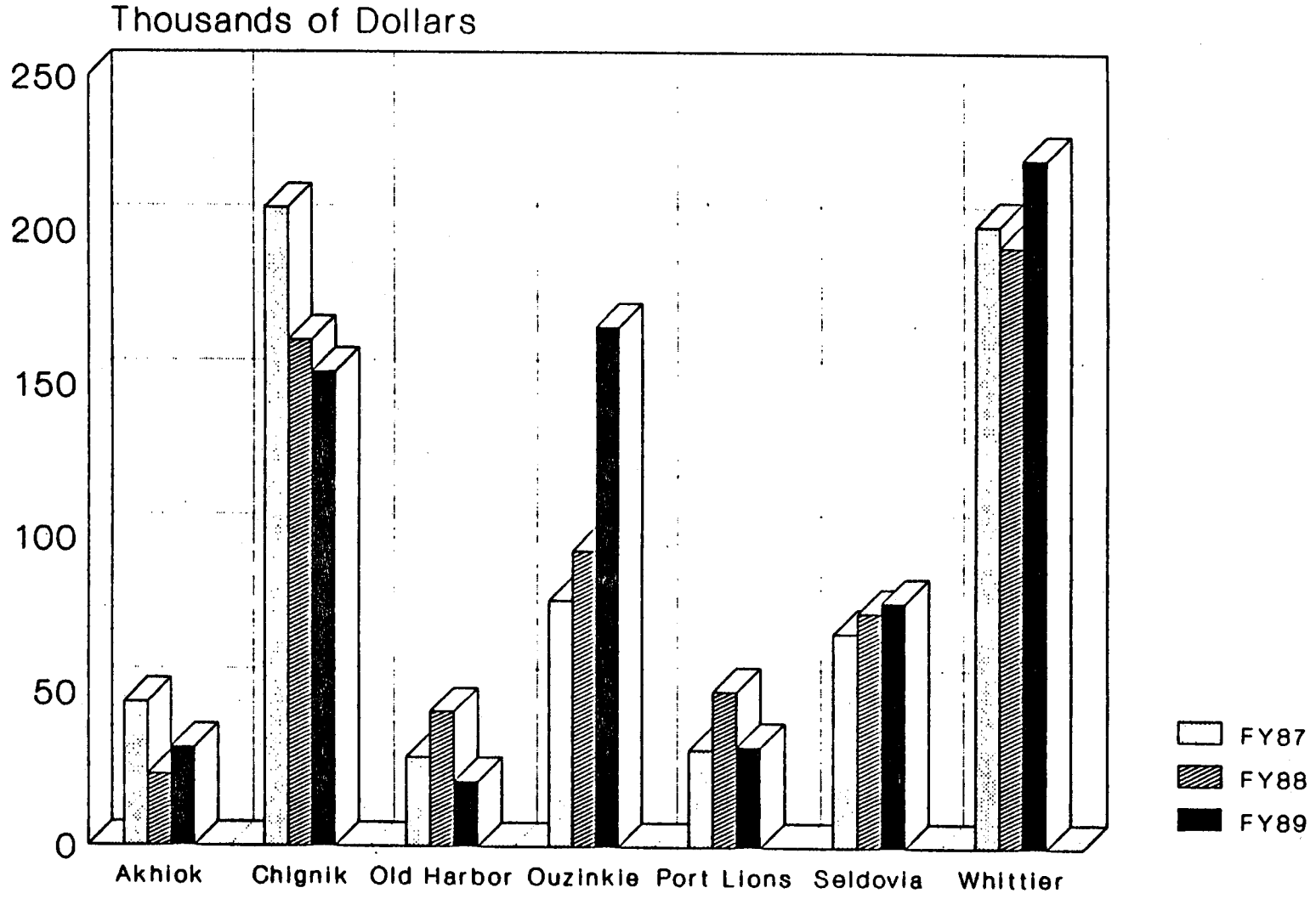


Excludes Capital Grants & Spill-related

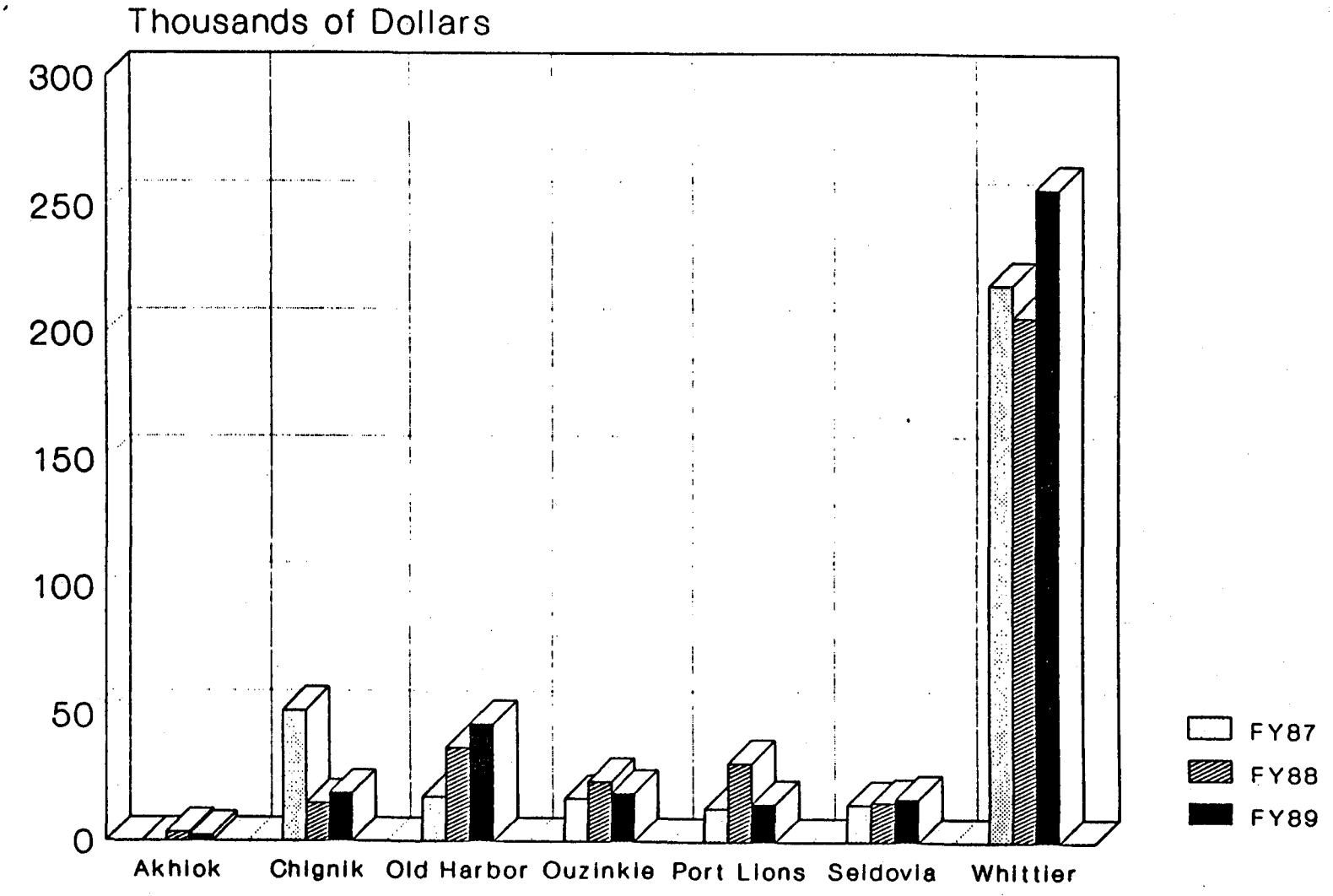
Harbor/Dock Revenues
Group B Communities



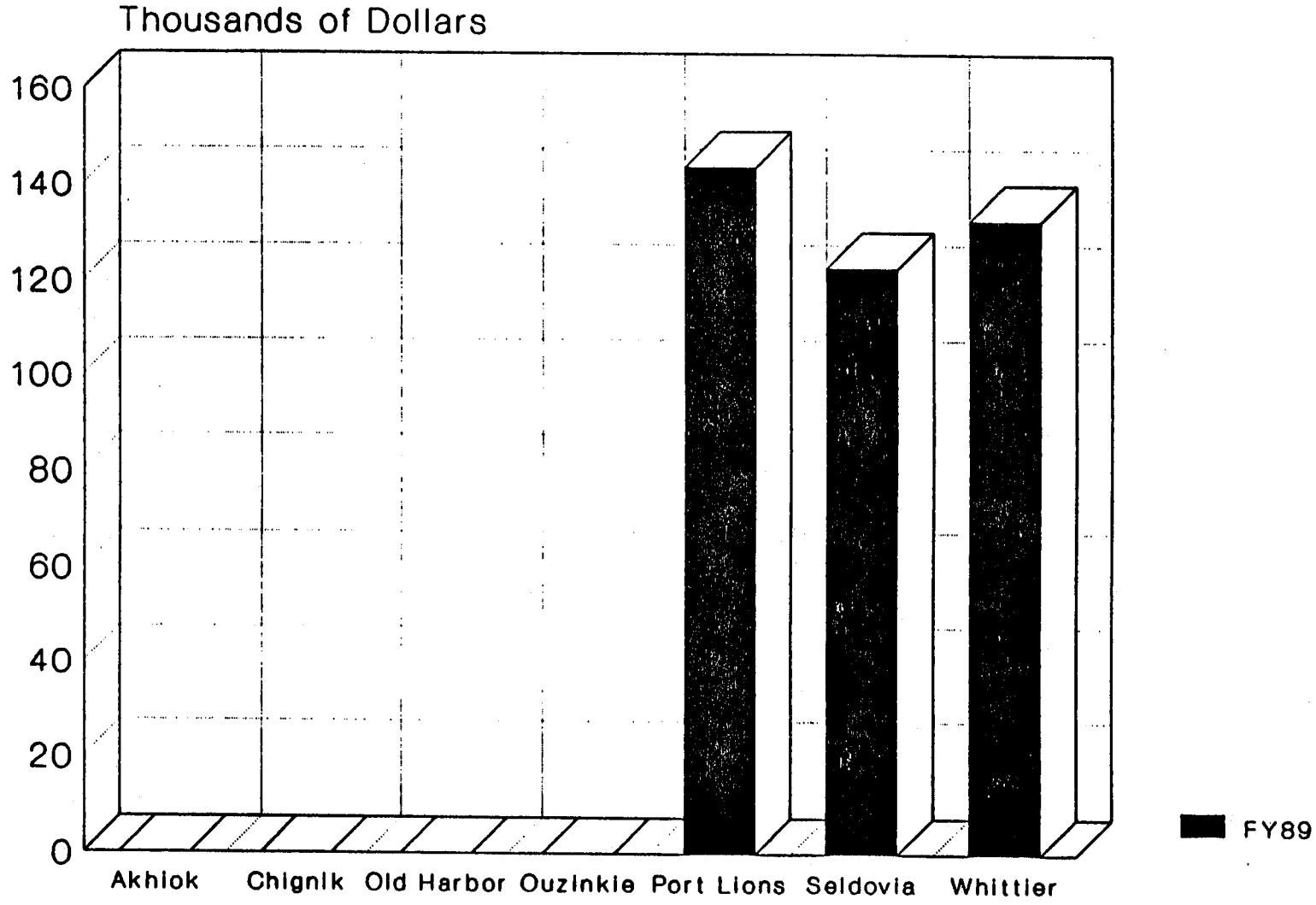
Public Services Revenues
Group B Communities



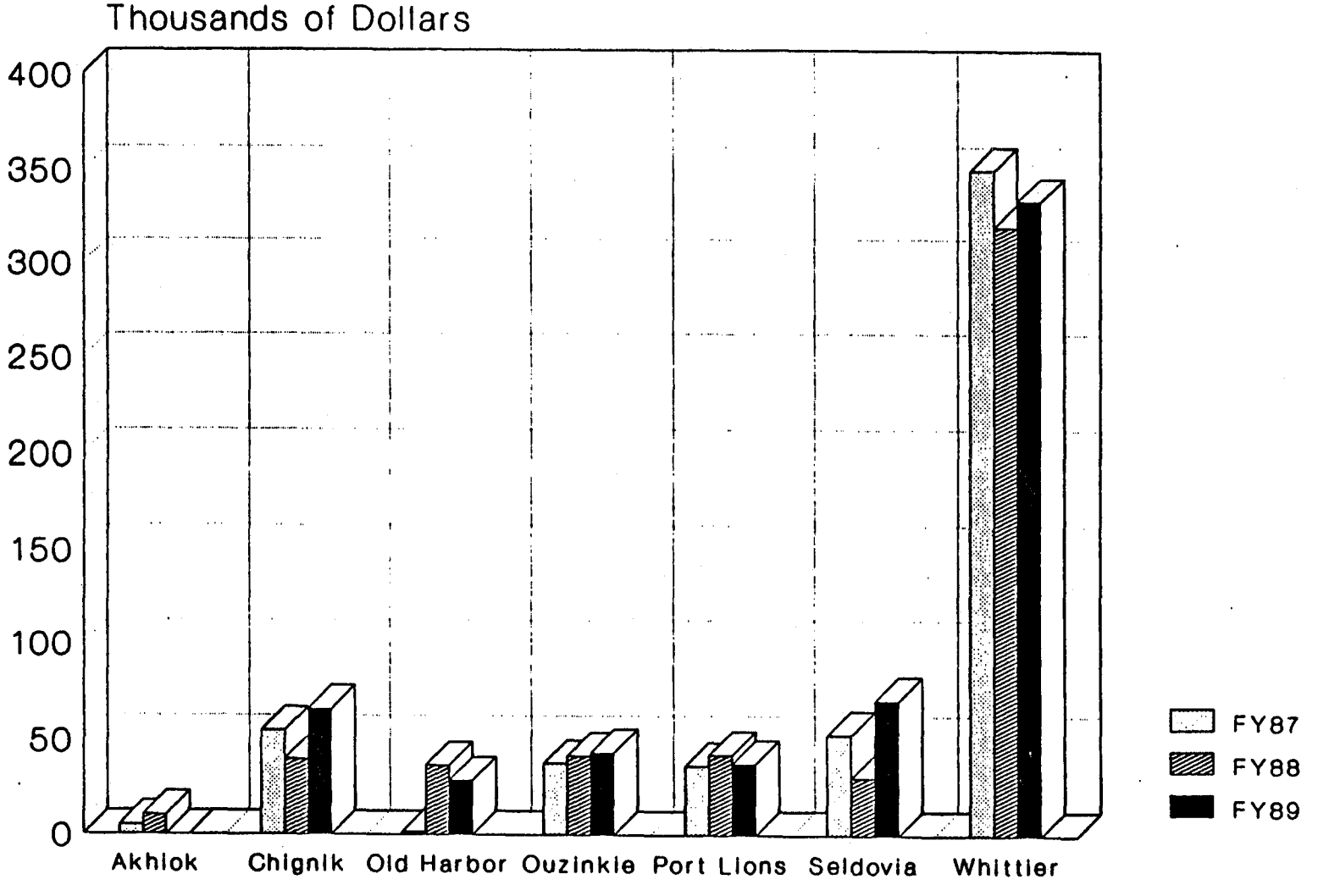
Rents & Leases Revenues
Group B Communities



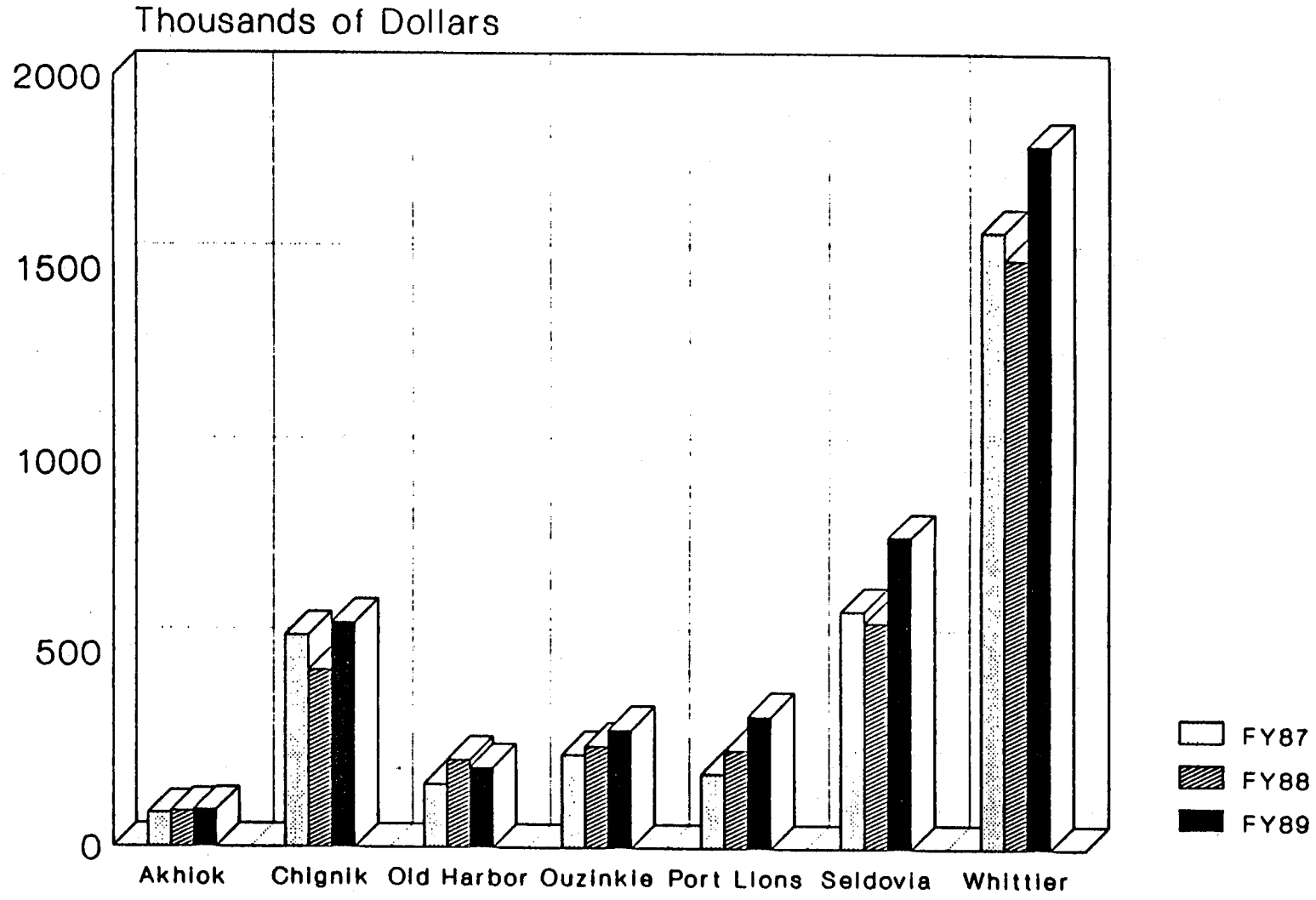
Spill-Related Revenues
Group B Communities



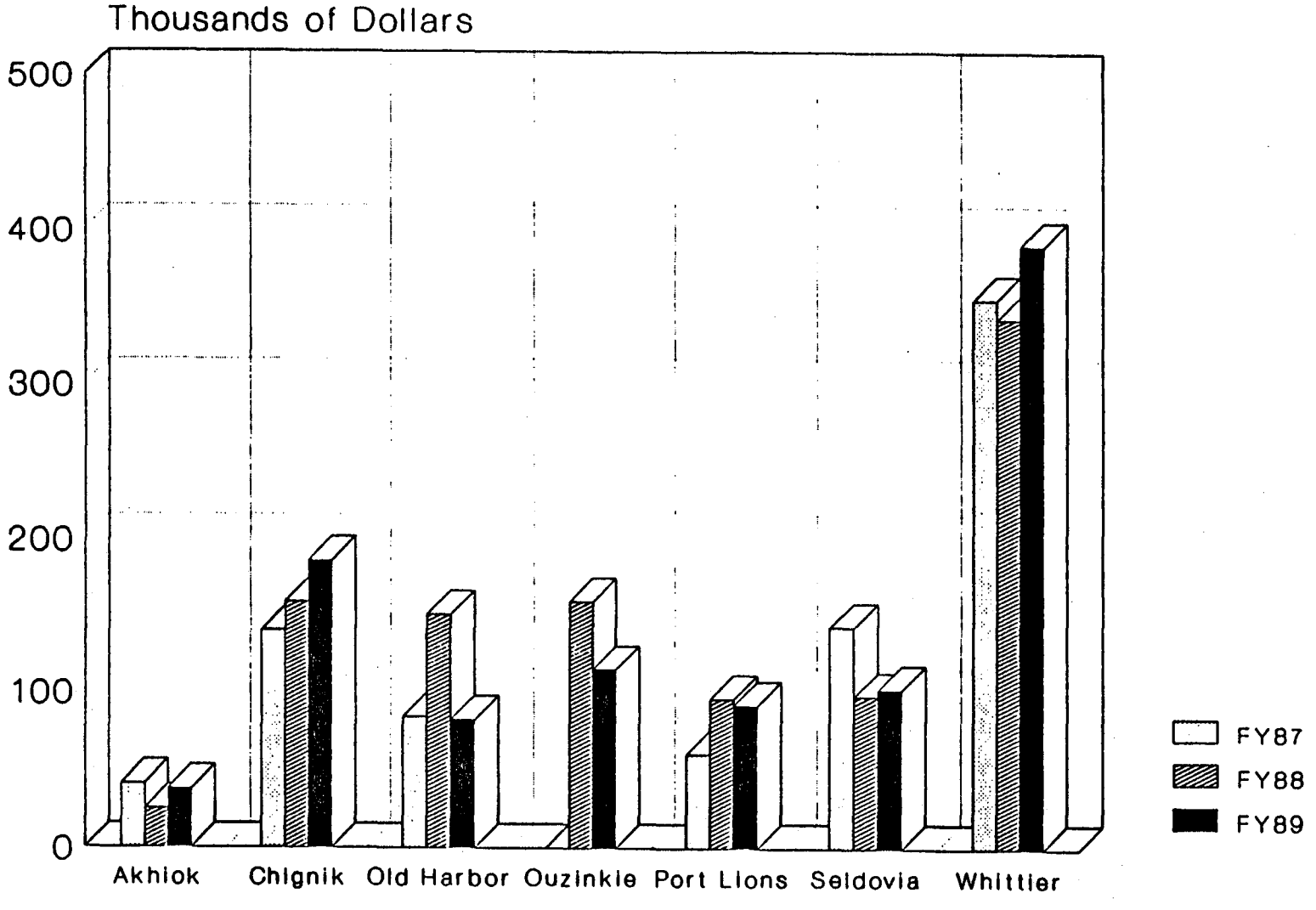
Other Revenues, Excluding Capital
Group B Communities



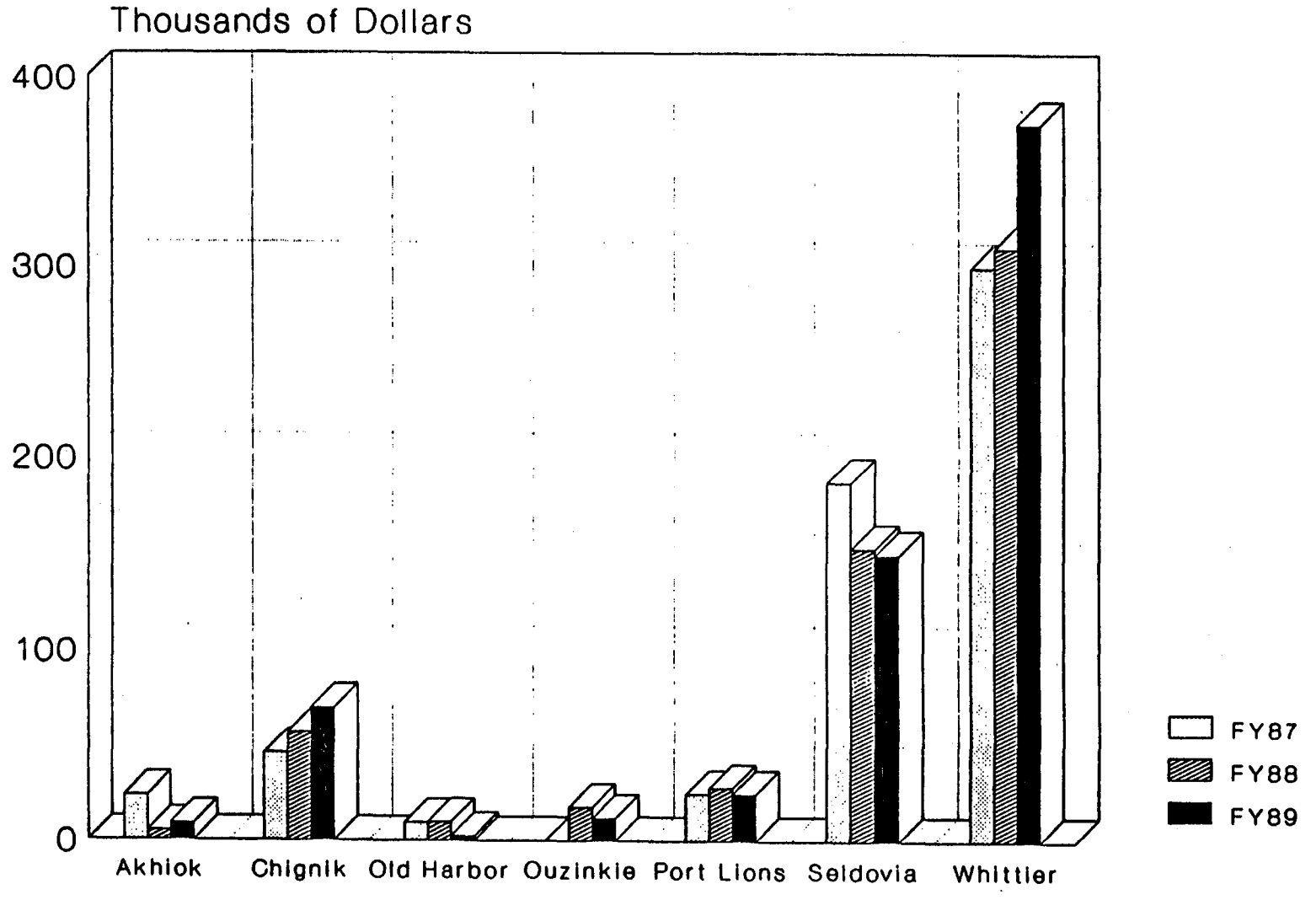
Total Revenues, Excluding Capital
Group B Communities



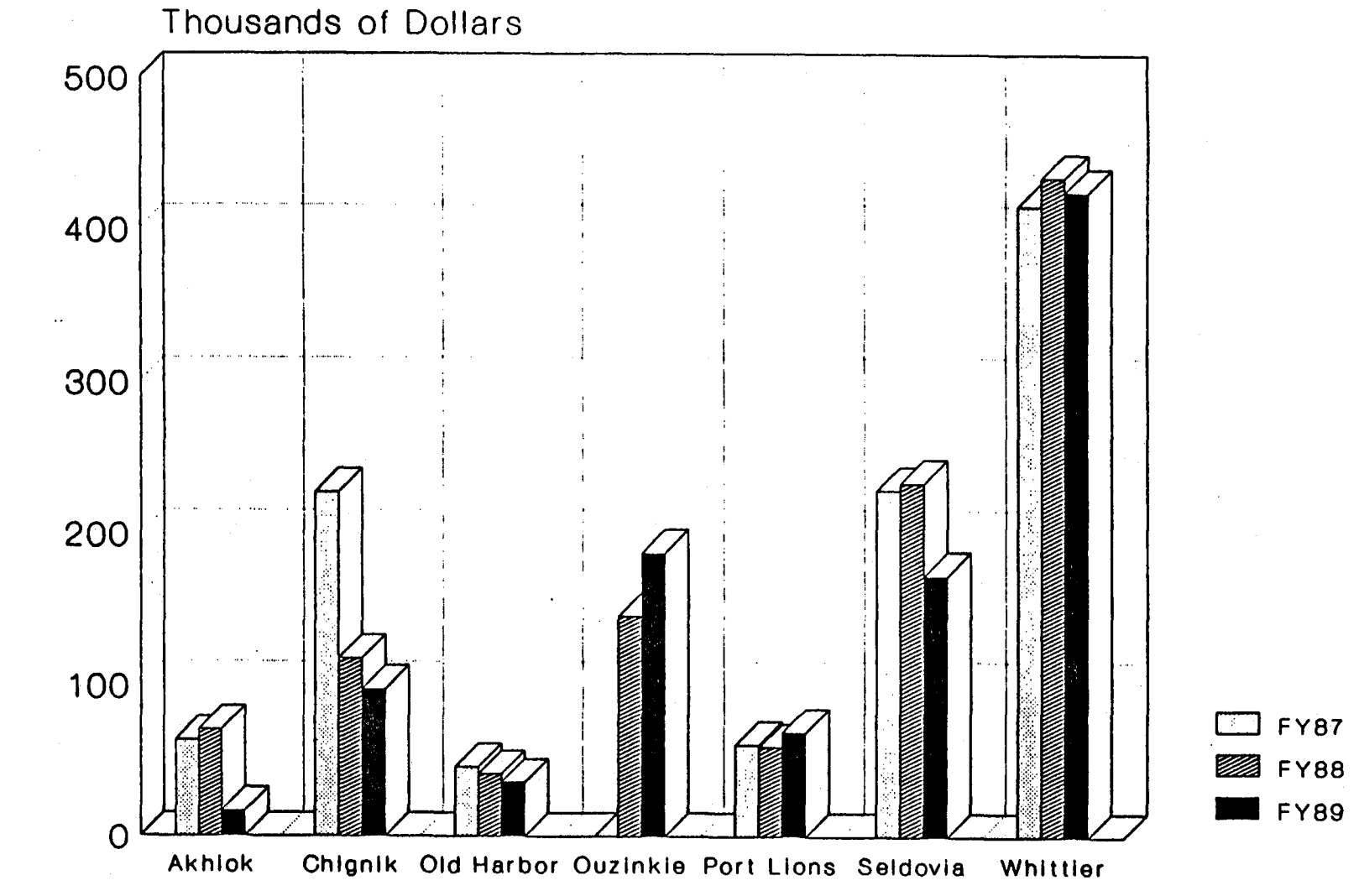
General Government Expenditures
Group B Communities



Health & Safety Expenditures
Group B Communities

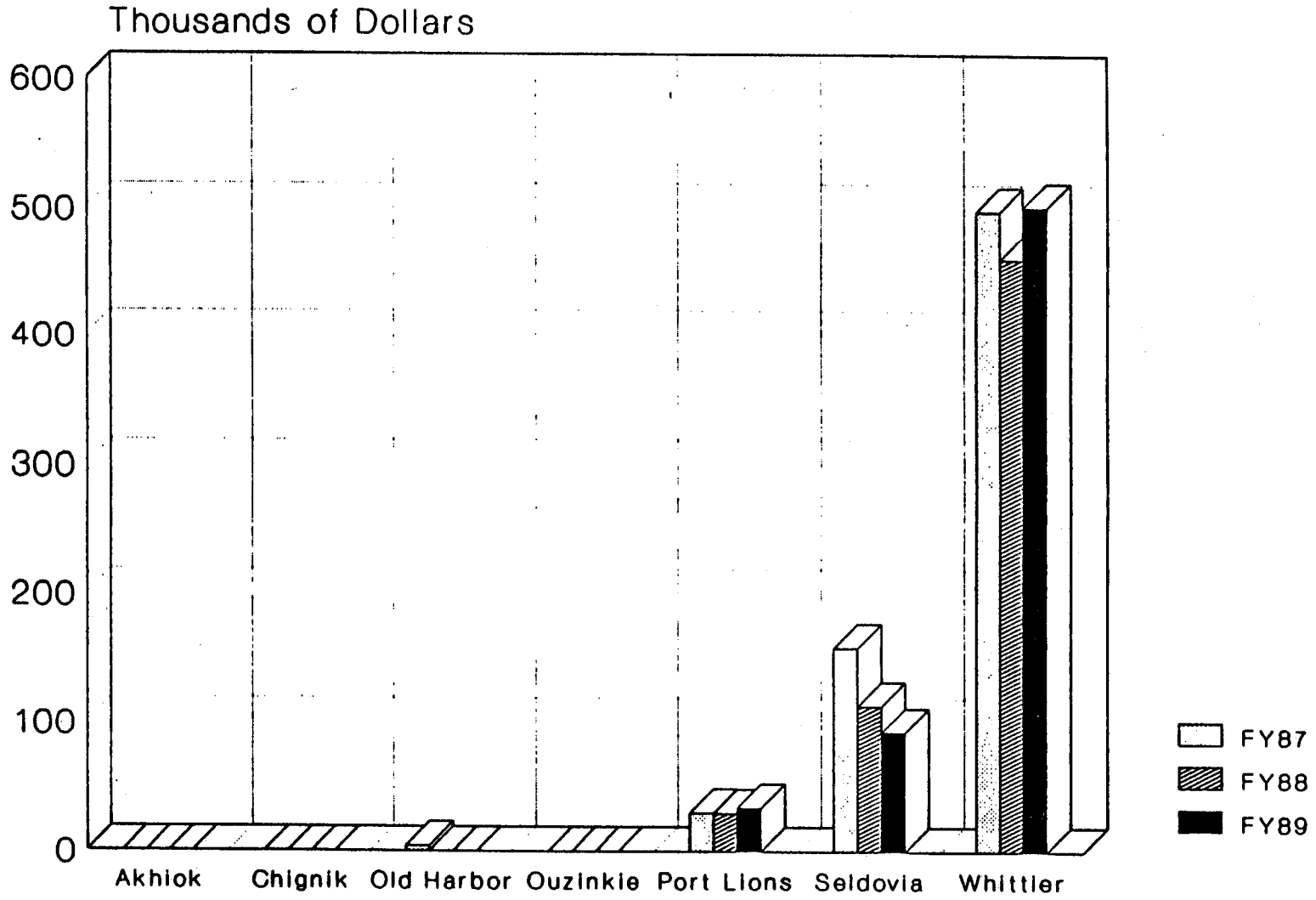


Public Services Expenditures
Group B Communities

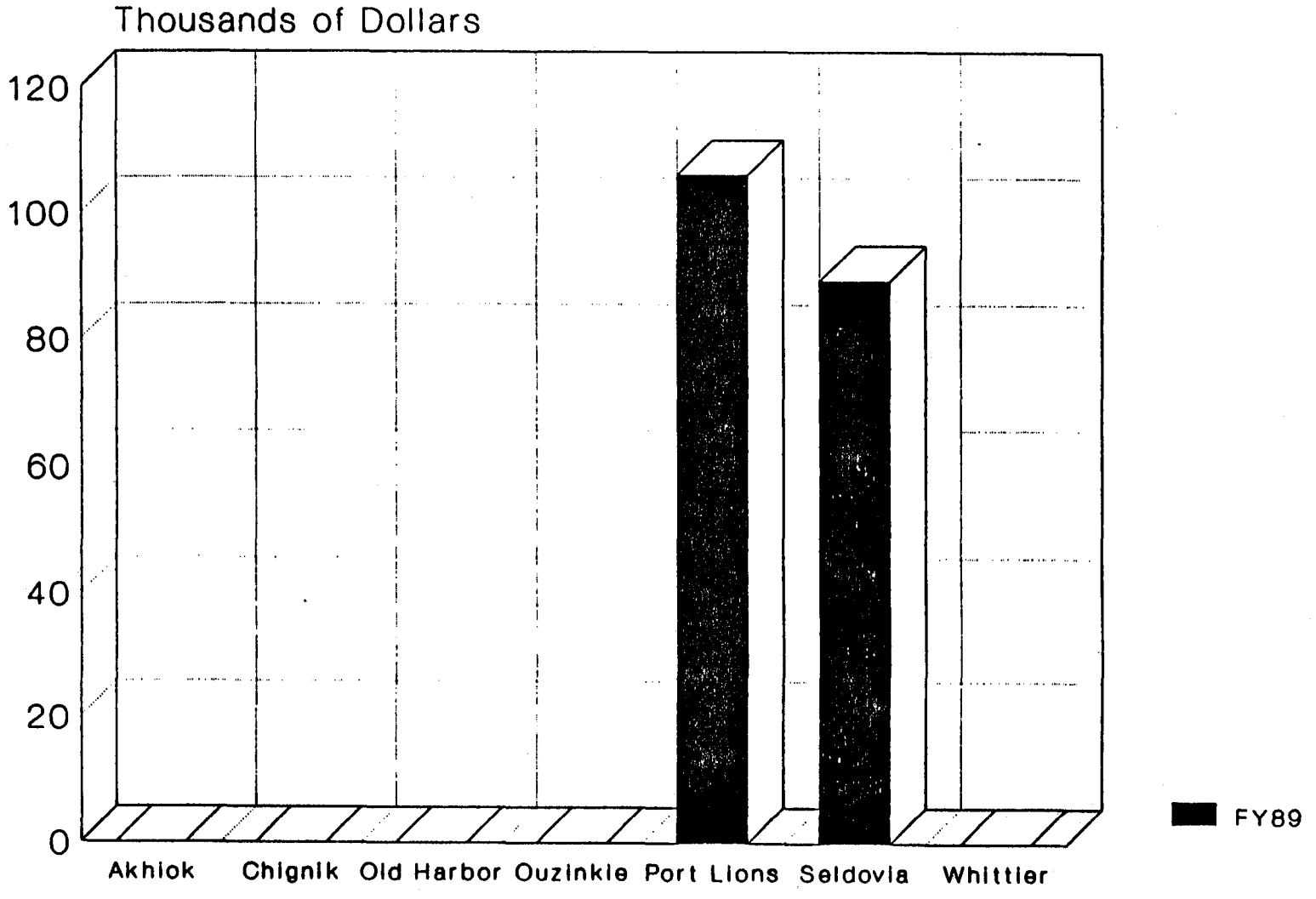


Exlcudes Harbor/Dock

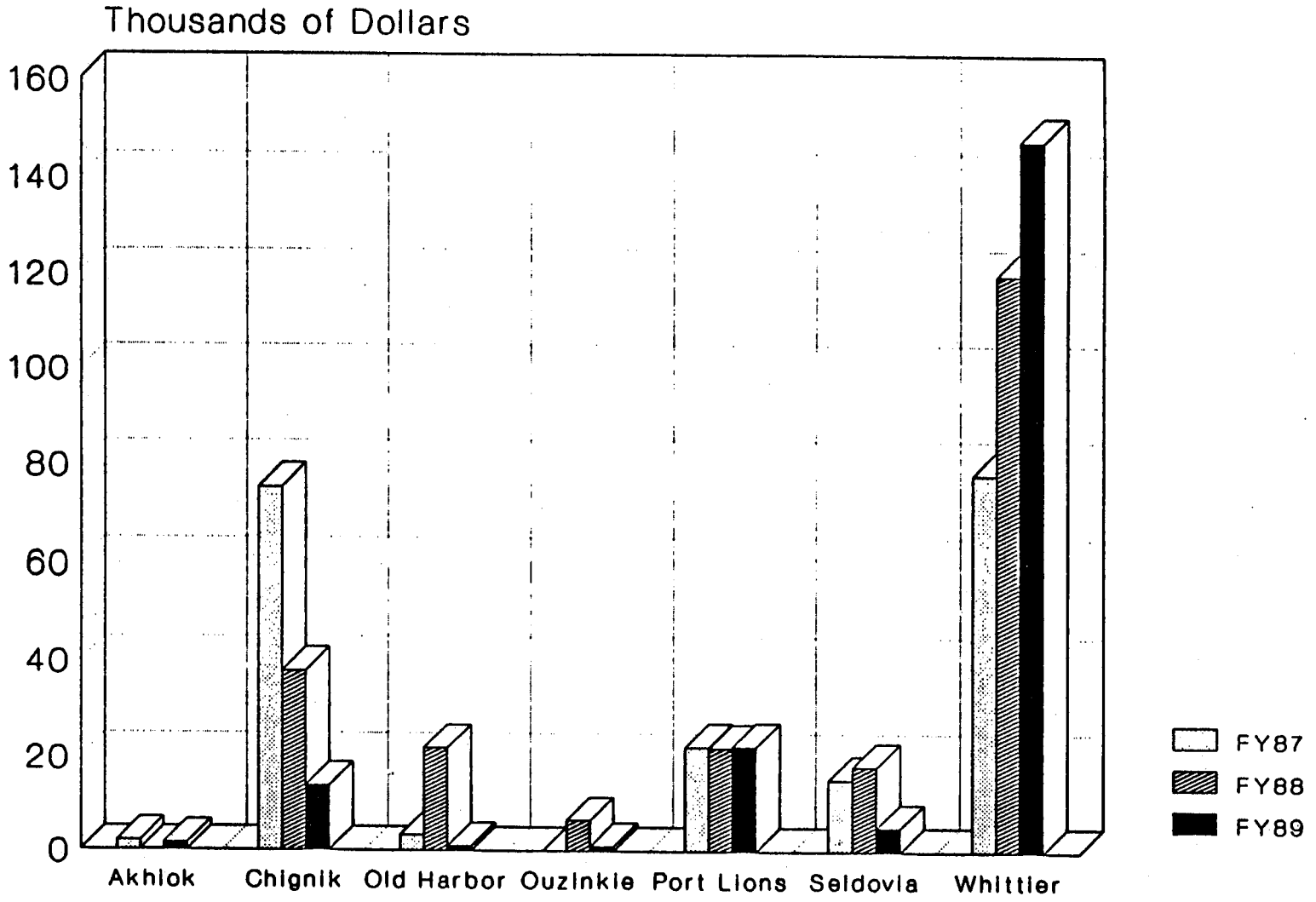
Harbor/Dock Expenditures
Group B Communities



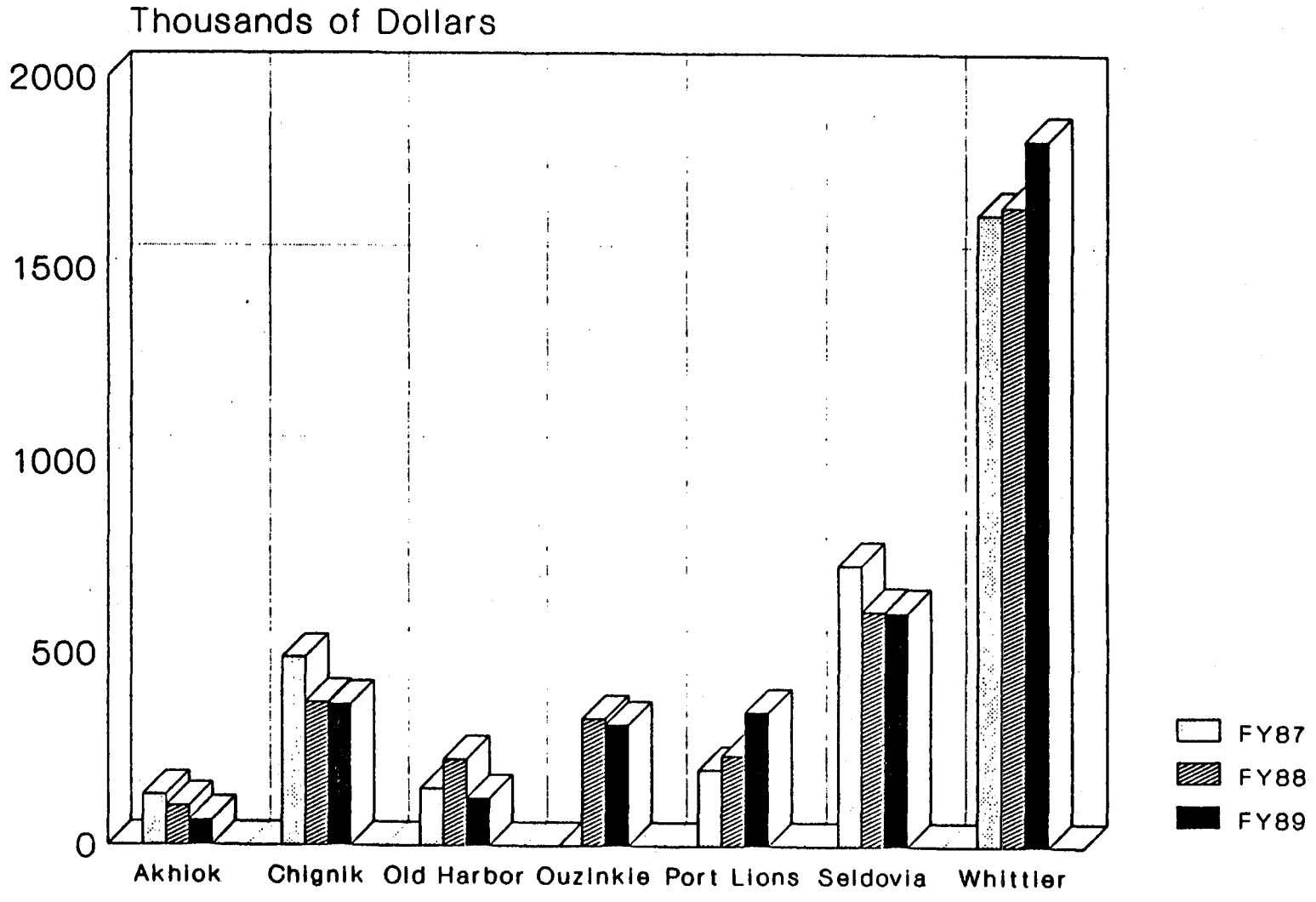
Oil Spill Cleanup Expenditures
Group B Communities



Other Expenditures, Excluding Capital
Group B Communities



Total Expenditures, Excluding Capital
Group B Communities



APPENDIX D

Group B Communities: Quarterly Revenues and Expenditures by Community and Category for Selected Group B Communities, 1988 and 1989

This appendix presents available quarterly data for the Group B communities of Old Harbor, Ouzinkie, Seldovia, and Whittier. The following selected revenue and expenditure categories are presented. In all cases capital grants and expenditures are excluded.

Revenues

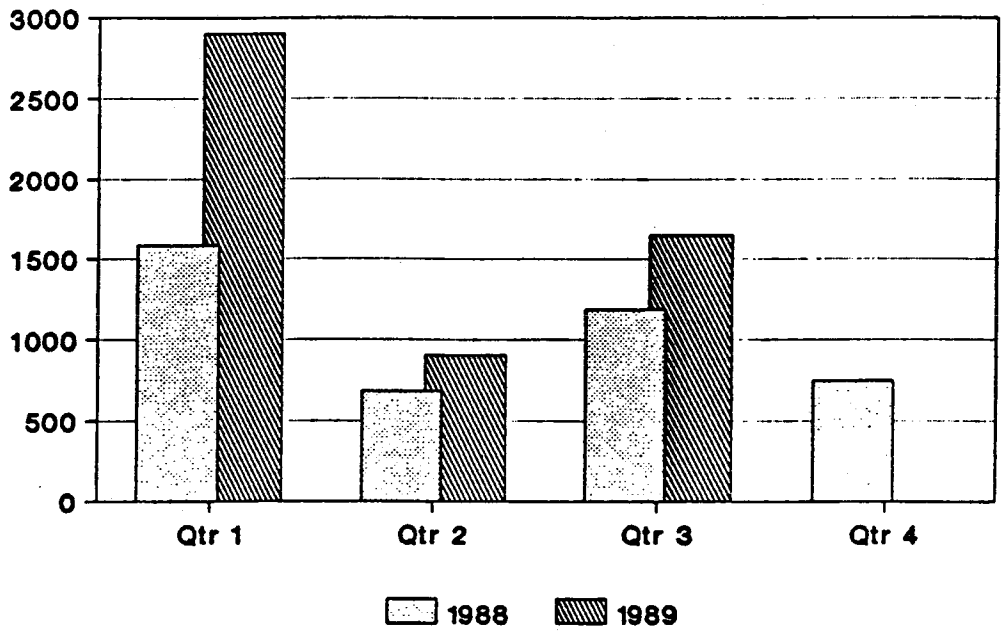
Sales Taxes
Health Clinic
Harbor/Dock Charges
Public Services Charges
Rents and Leases
Oil Spill-Related

Expenditures

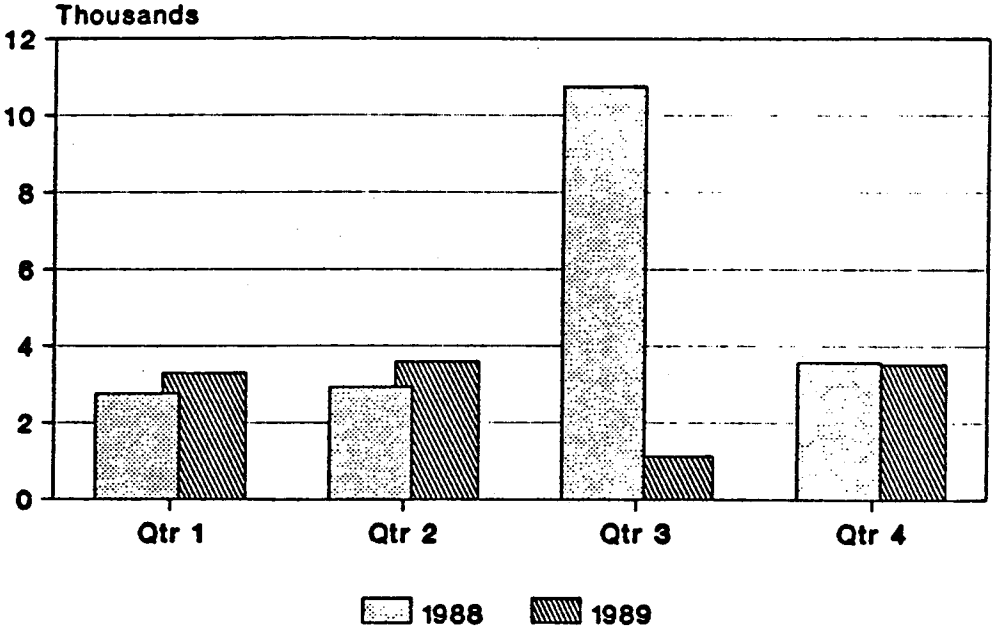
General Government
Public Safety
Health Clinic
Harbor/Dock
Public Services
Oil Spill Cleanup

The appendix is organized separately for revenues and expenditures by community, then by category. Revenues for all communities and categories are presented first, followed by expenditures.

Quarterly Sales Tax Revenues
Old Harbor

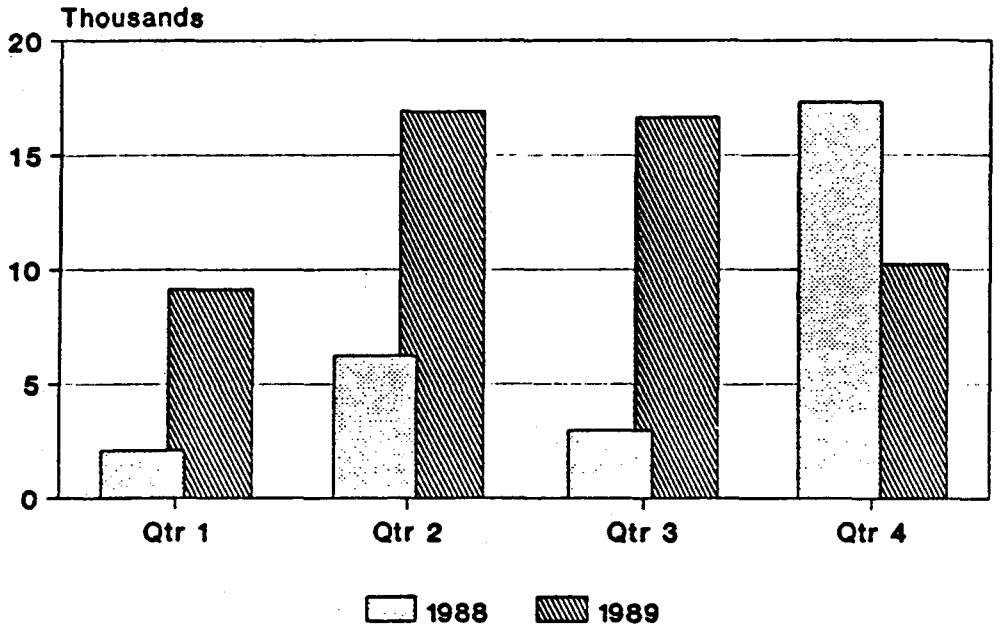


Quarterly Public Services Revenues
Old Harbor

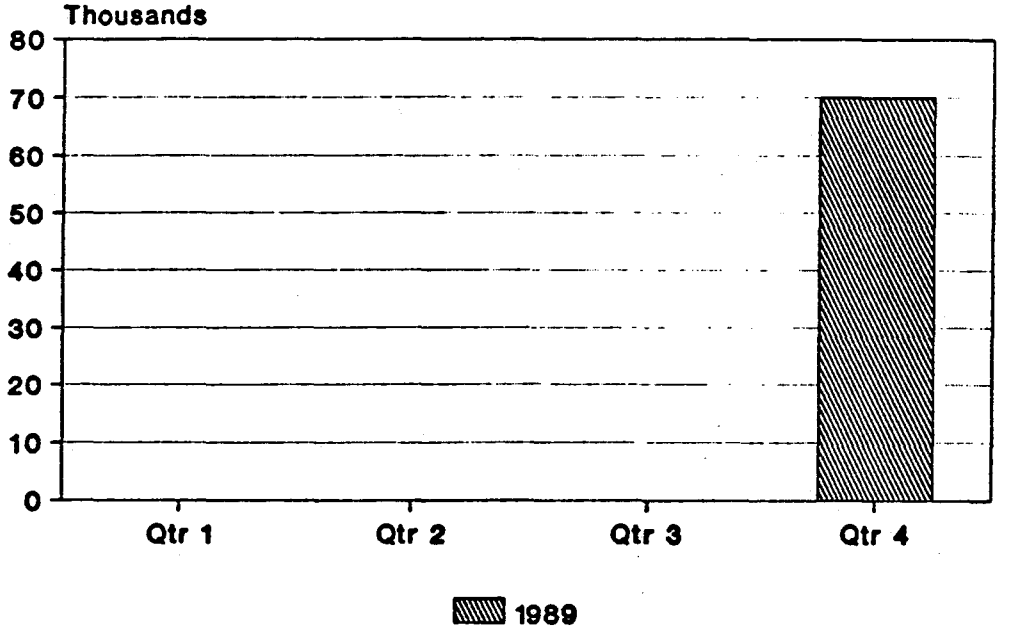


Excludes Harbor/Dock

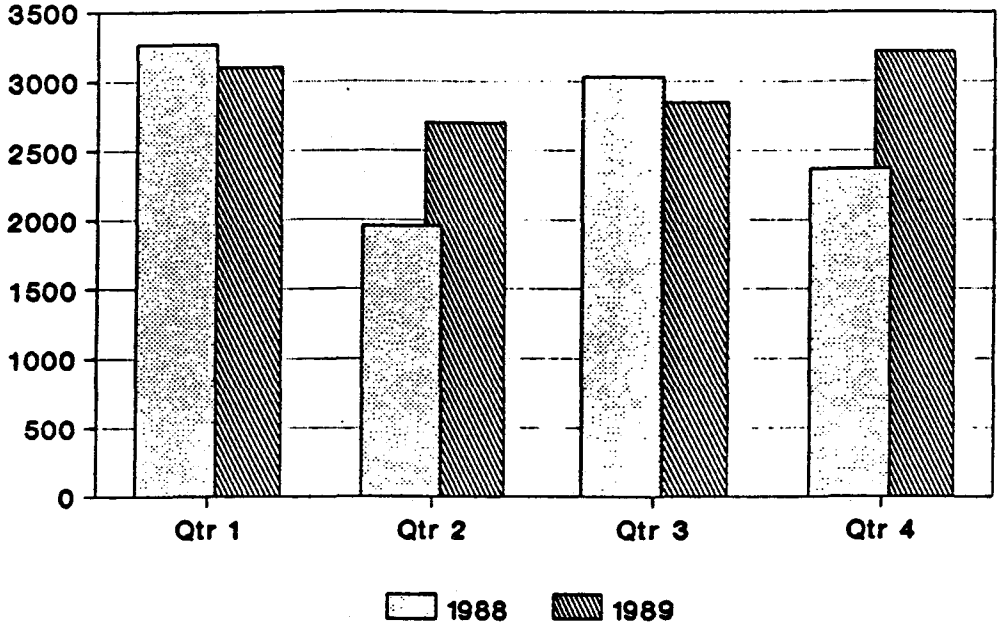
Quarterly Rents & Leases Revenue
Old Harbor



Quarterly Spill-Related Revenue
Old Harbor



Quarterly Sales Tax Revenues
Ouzinkie



Quarterly Public Services Revenues
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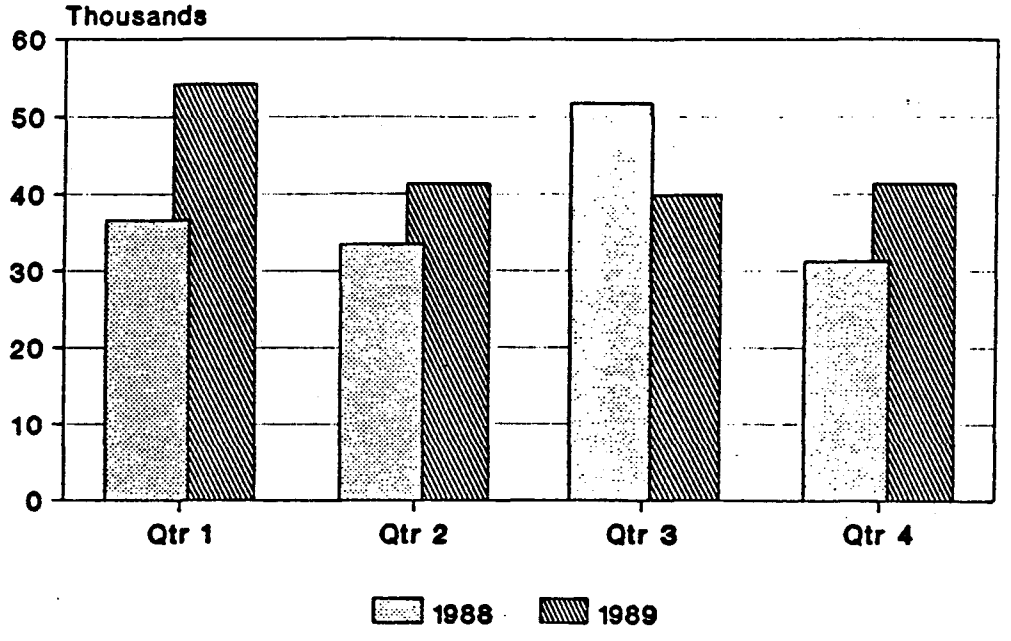
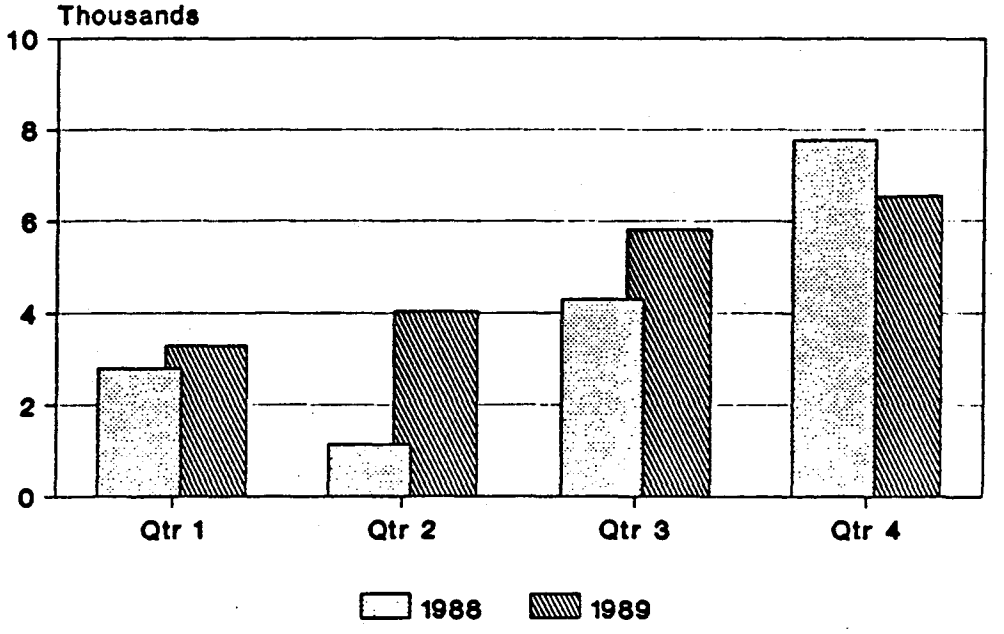


Excludes Harbor/Dock

Quarterly Rents & Leases Revenue
Ouzinkie



Quarterly Spill-Related Revenues
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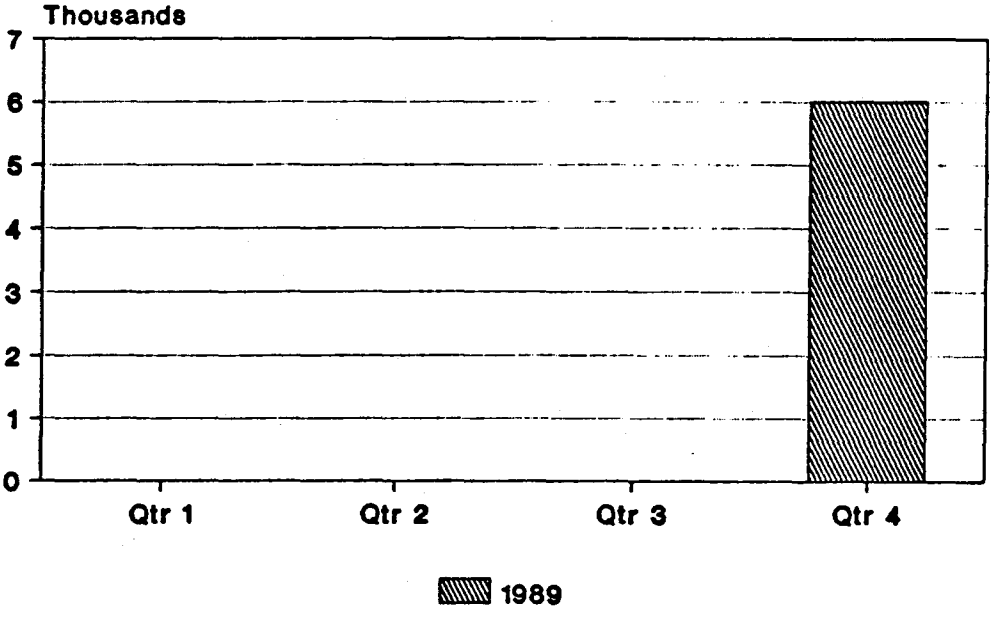
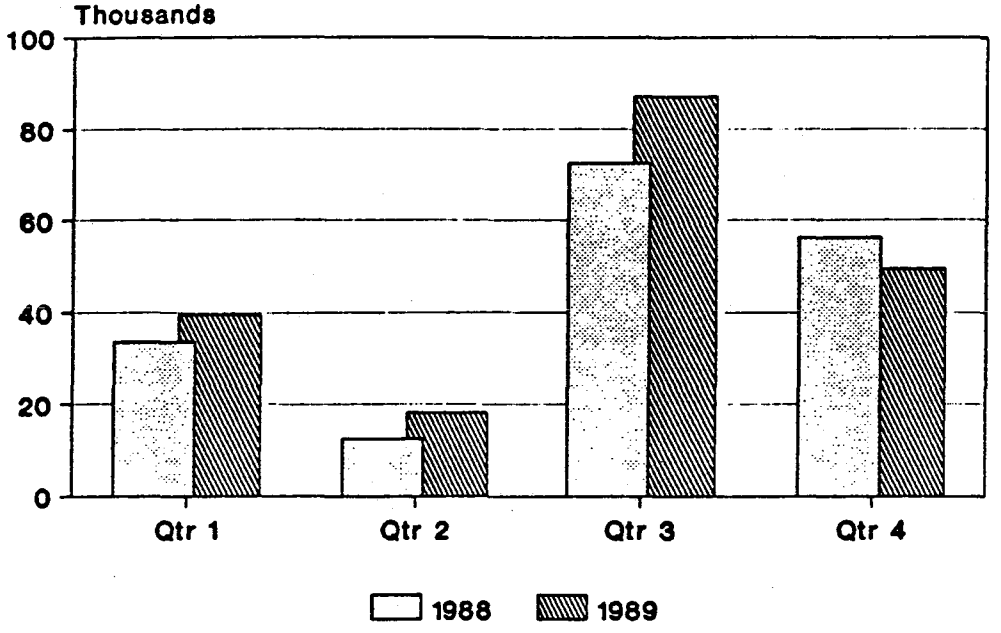


Quarterly Sales Tax Revenues
Seldovia



Quarterly Harbor/Dock Revenues
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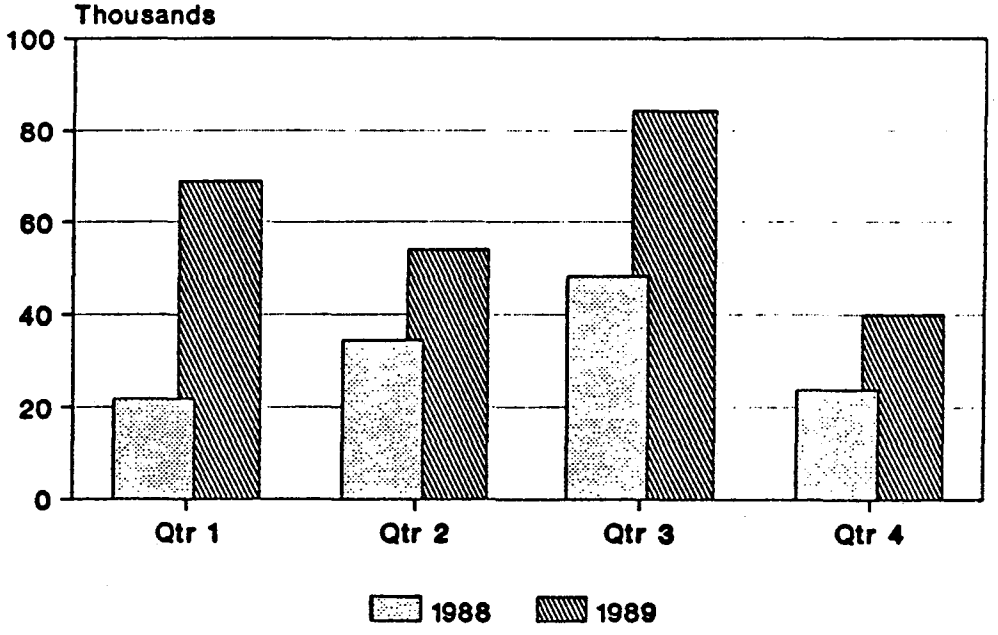
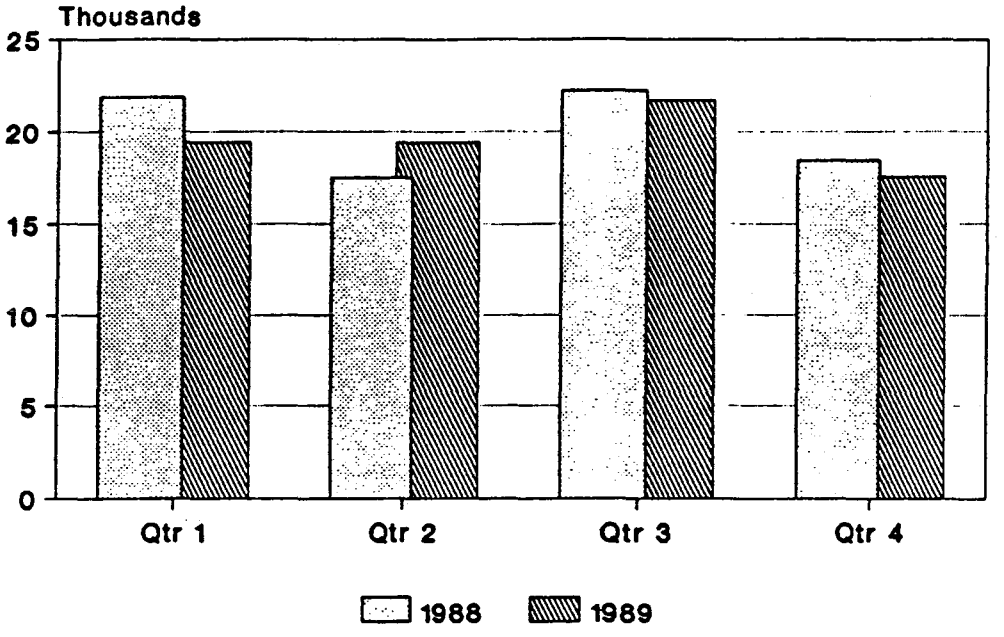
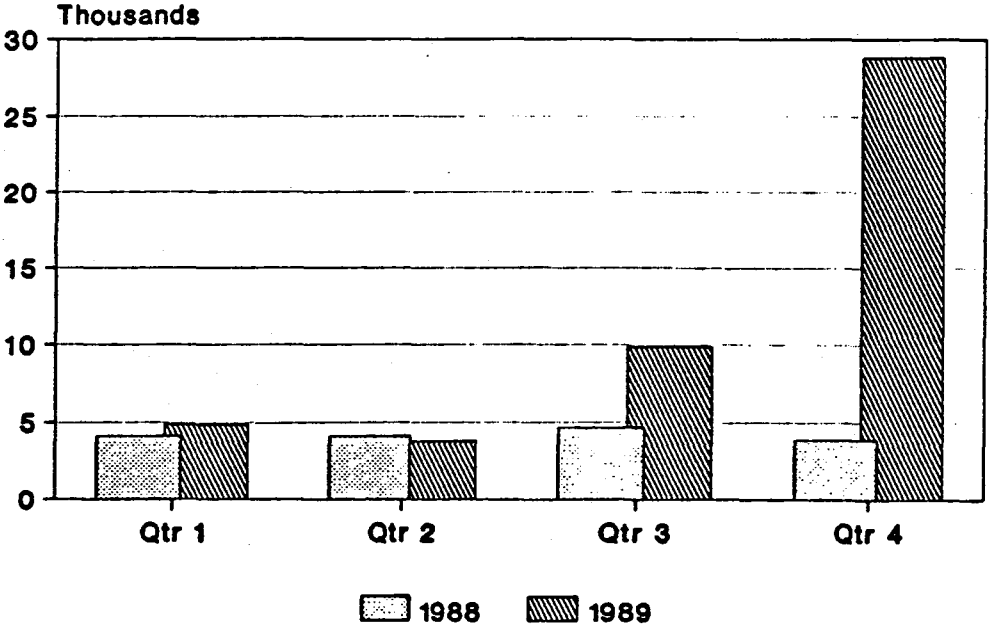


Quarterly Public Services Revenues
Seldovia



Excludes Harbor/Dock

Quarterly Rents & Leases Revenue
Seldovia



Quarterly Spill-Related Revenue
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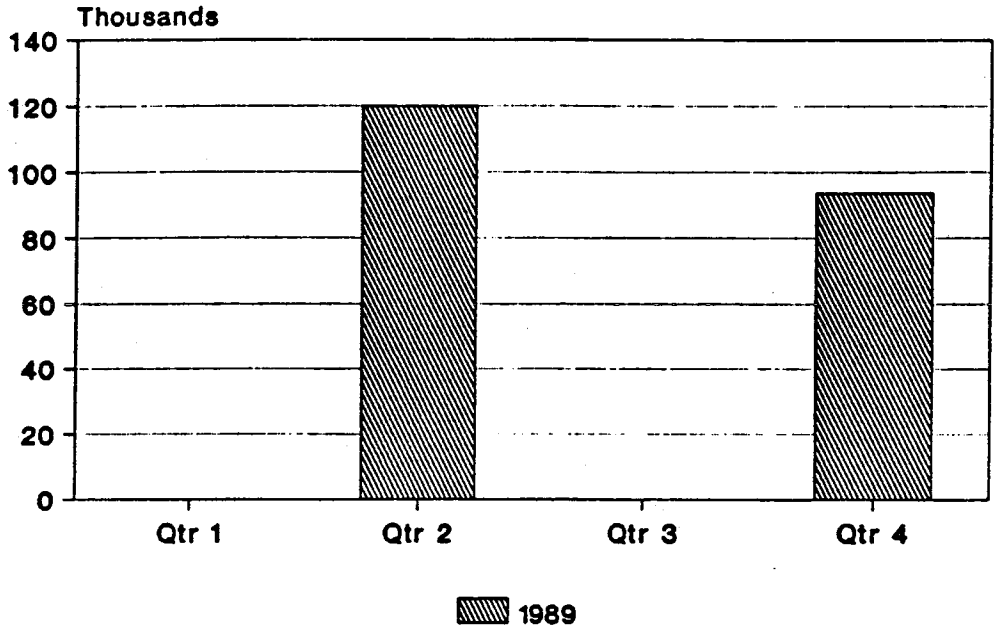
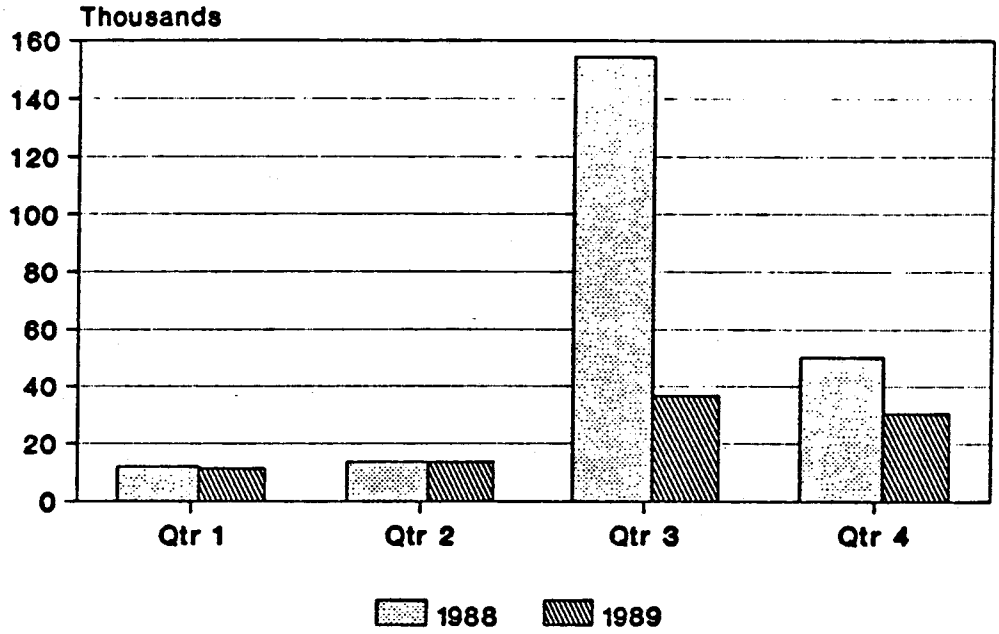
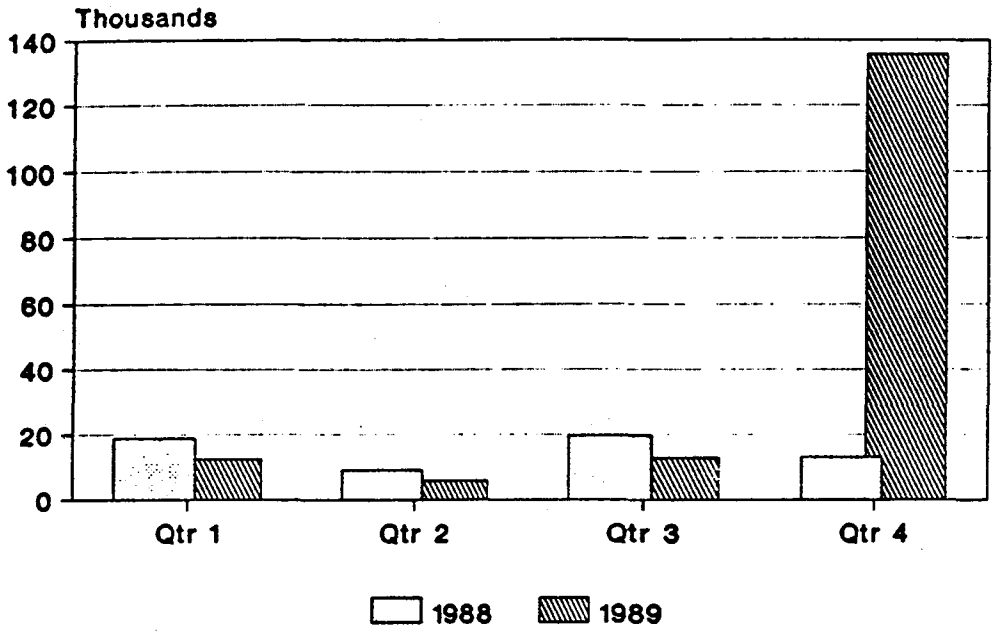


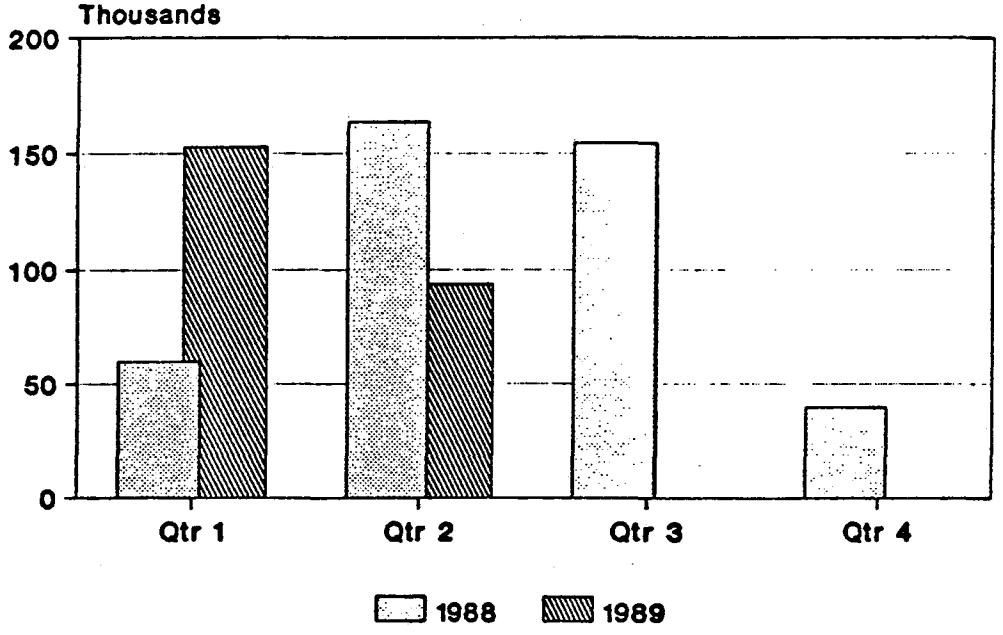
Quarterly Sales Tax Revenues
Whittier



Quarterly Health Clinic Revenues
Whittier



Quarterly Harbor/Dock Revenues
Whittier



Quarterly Public Services Revenues
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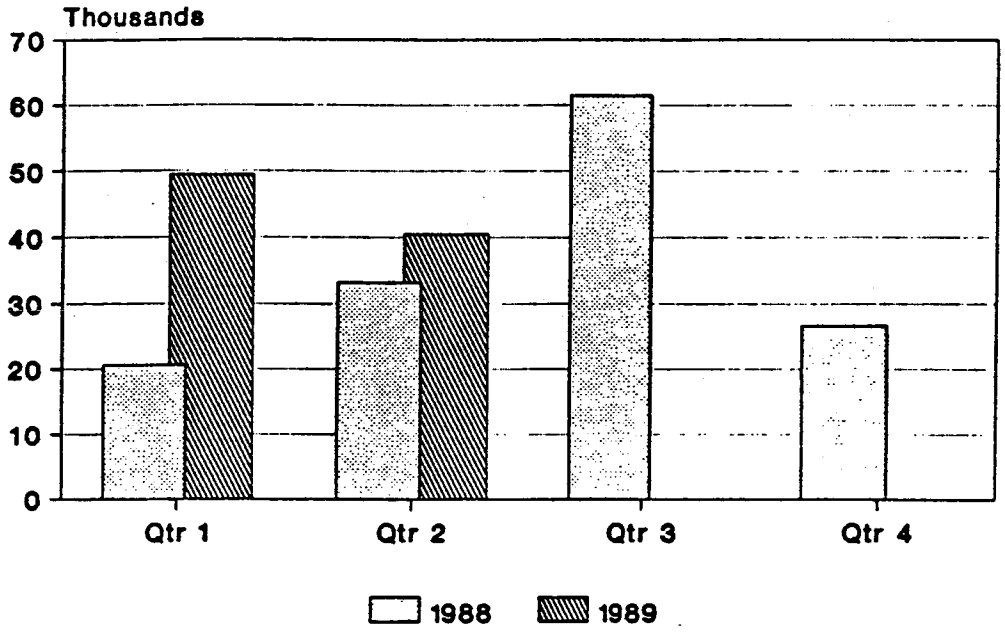
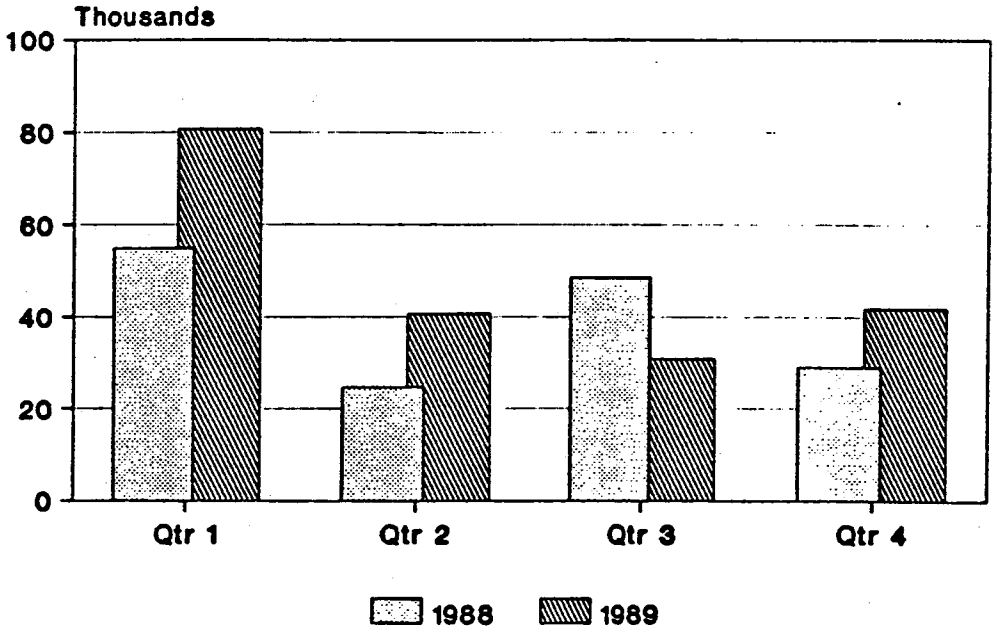


Excludes Clinic and Harbor/Dock

Quarterly Rents & Leases Revenues
Whittier



Quarterly Spill-Related Revenues
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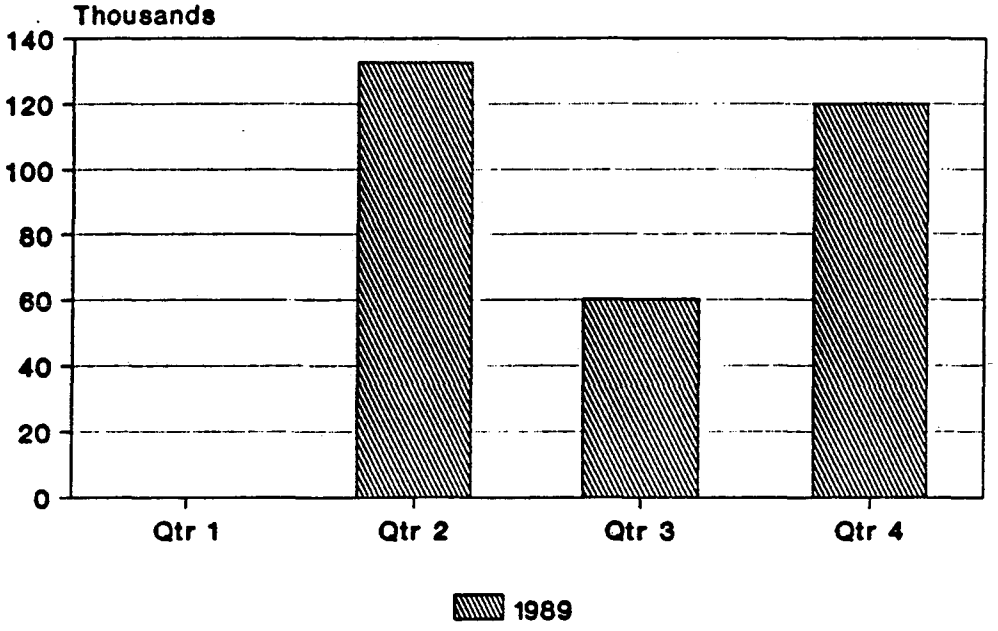
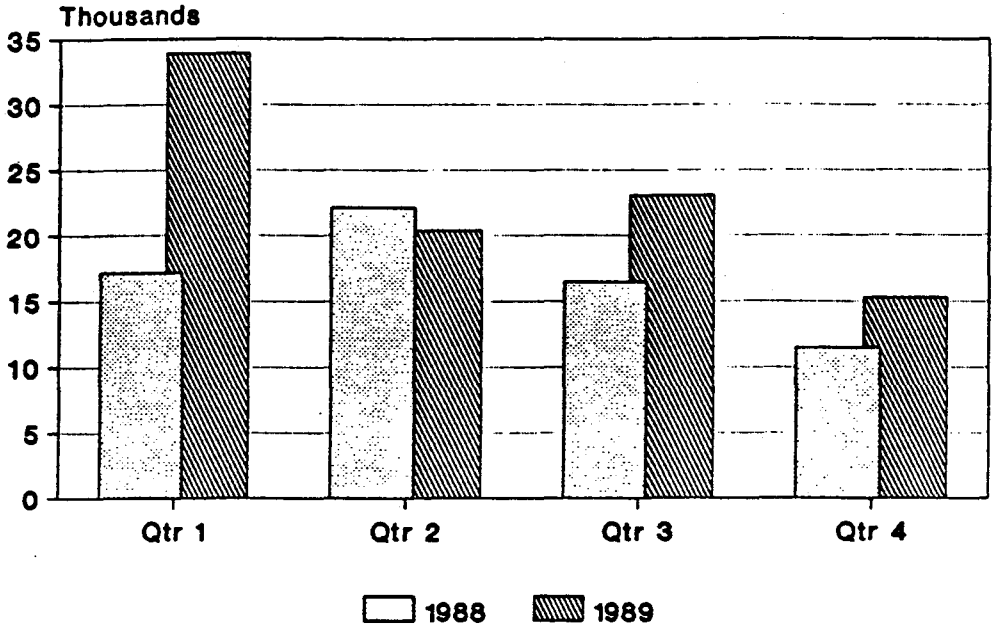
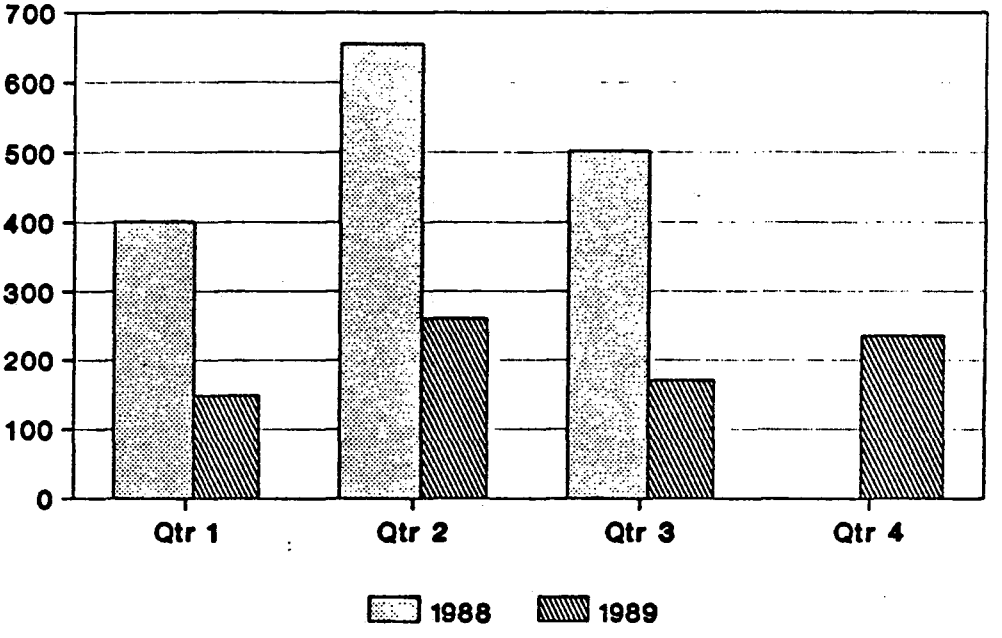


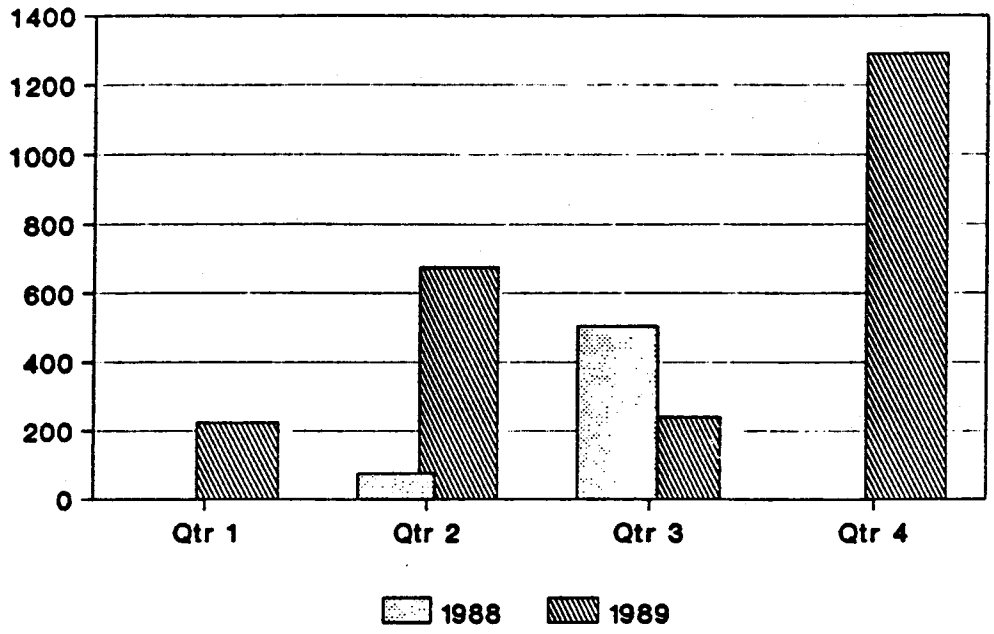
Quarterly General Gov't Expenditures
Old Harbor



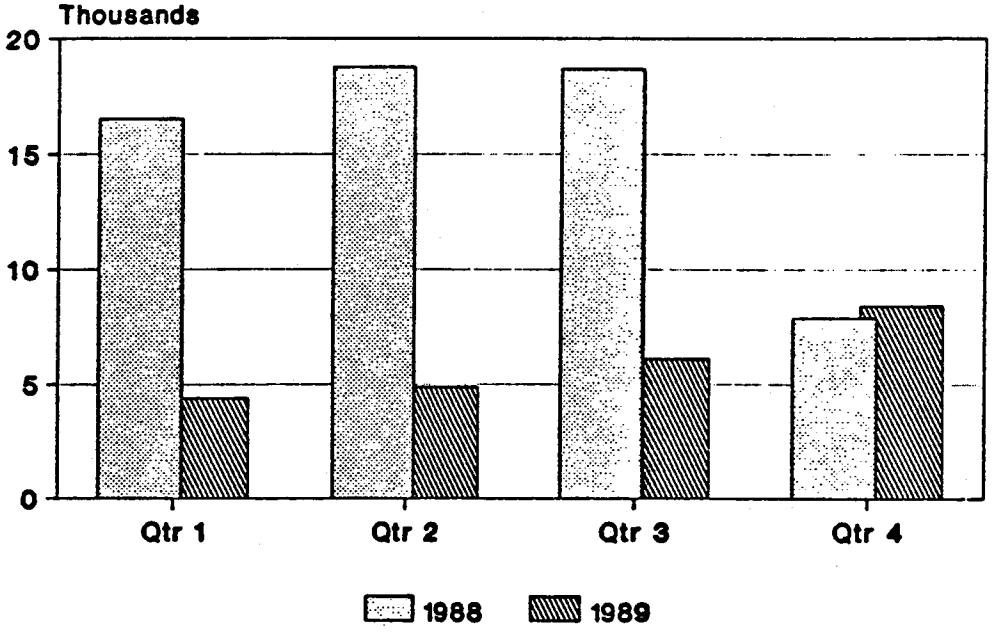
Quarterly Public Safety Expenditures
Old Harbor



Quarterly Health Clinic Expenditures
Old Harbor

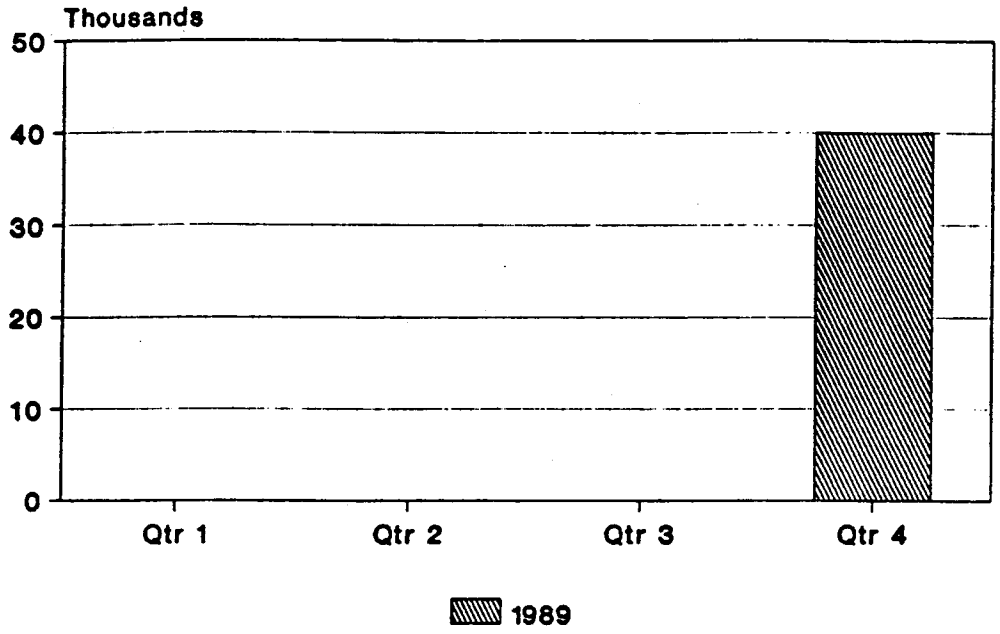


Quarterly Public Services Expenditures
Old Harbor

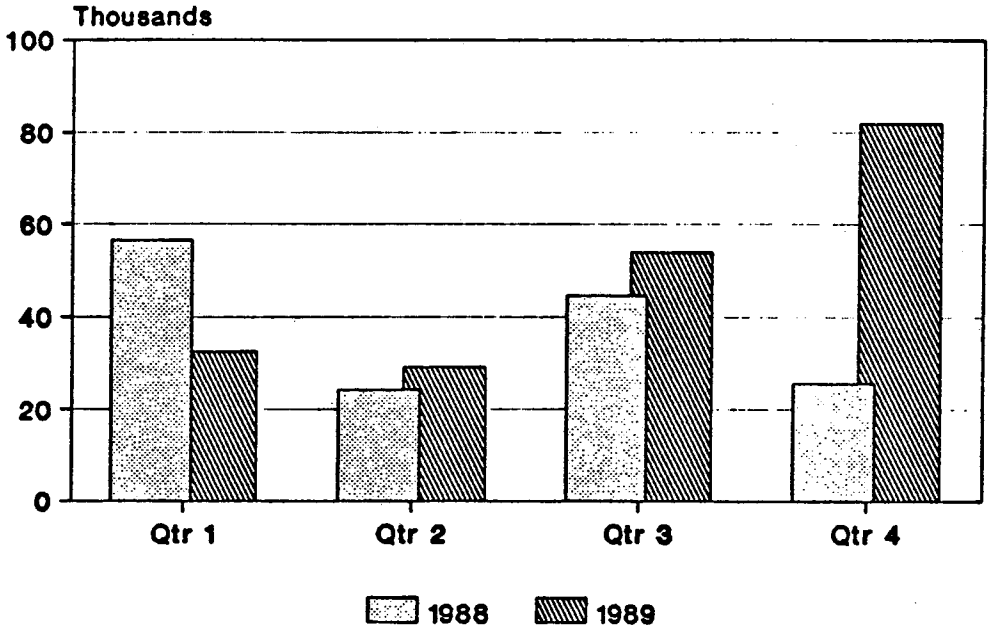


Excludes Clinic & Harbor/Dock

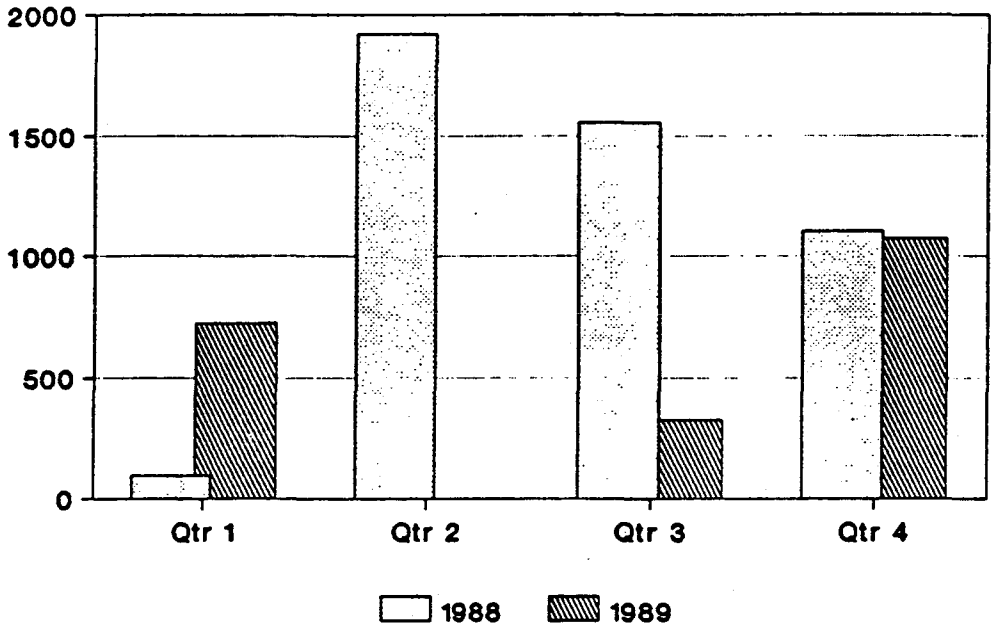
Quarterly Oil Spill Expenditures
Old Harbor



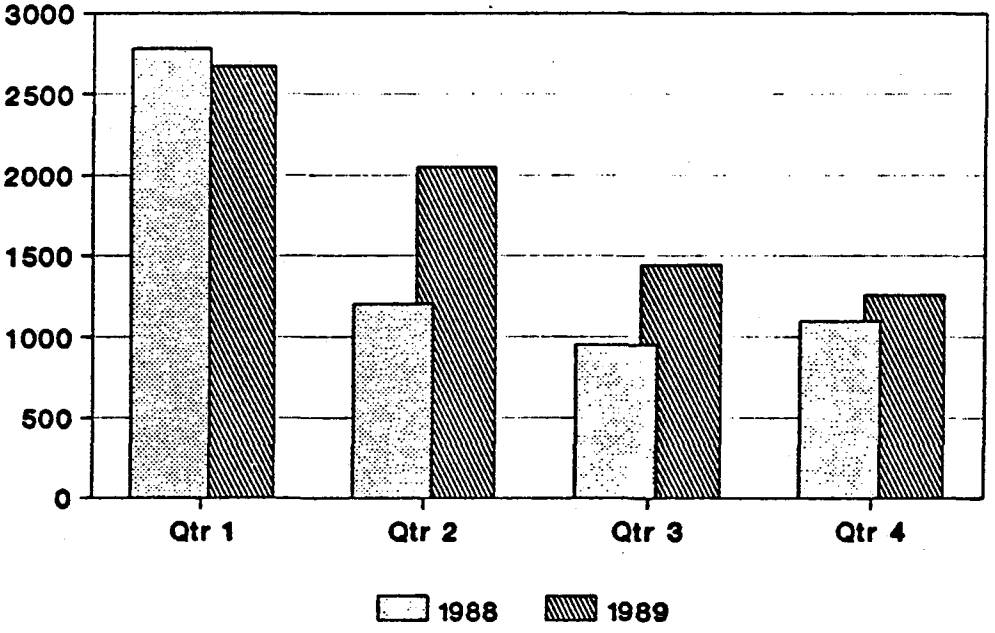
Quarterly General Gov't Expenditures
Ouzinkie



Quarterly Public Safety Expenditures
Ouzinkie



Quarterly Health Clinic Expenditures
Ouzinkie



Quarterly Public Services Expenditures
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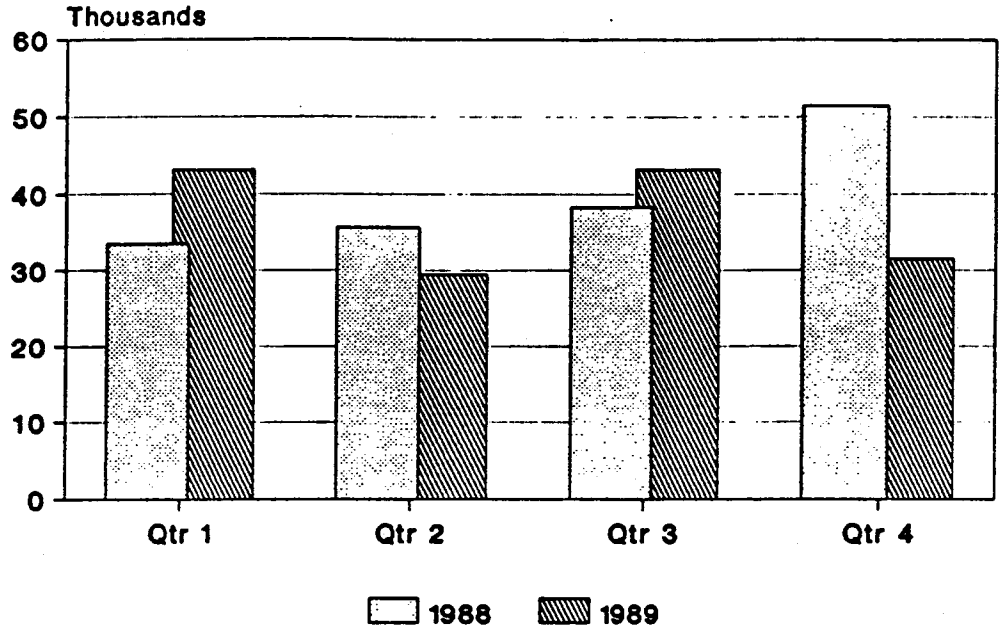
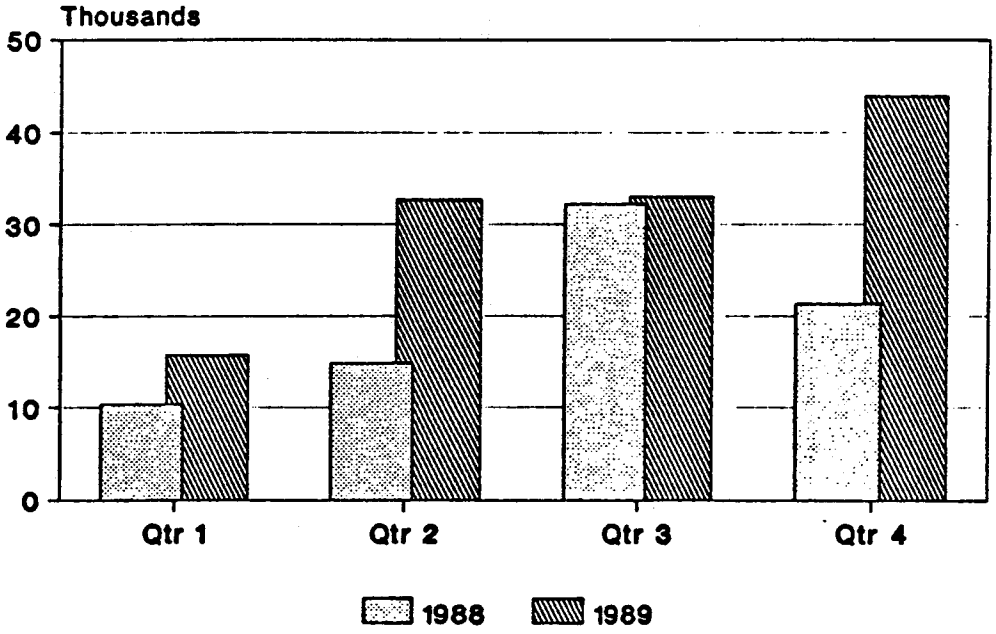


Excludes Harbor/Dock

Quarterly General Gov't Expenditures
Seldovia



Quarterly Public Safety Expenditures
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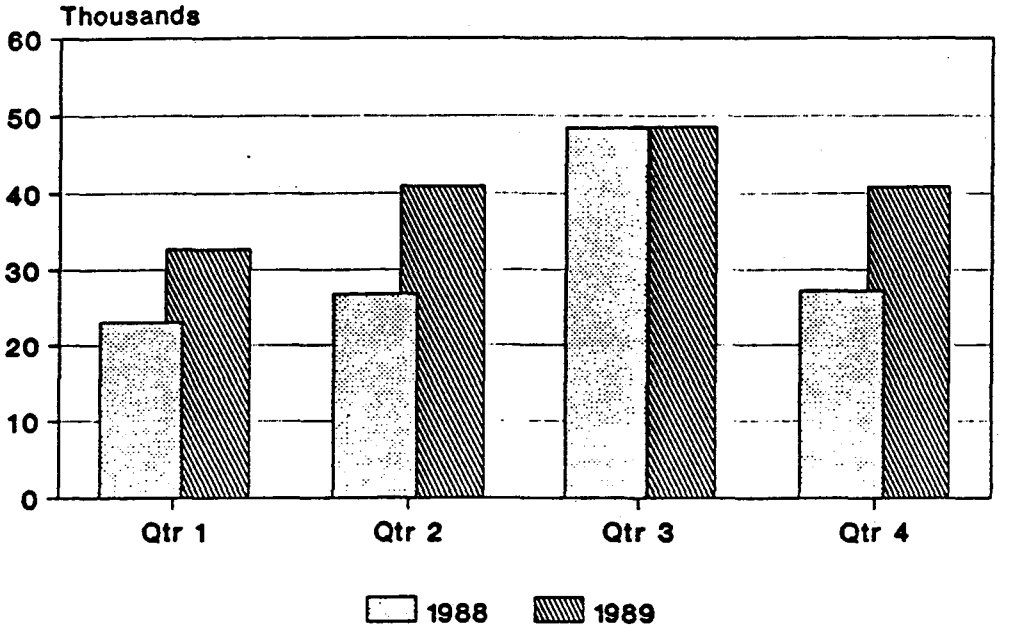

Quarterly Harbor/Dock Expenditures
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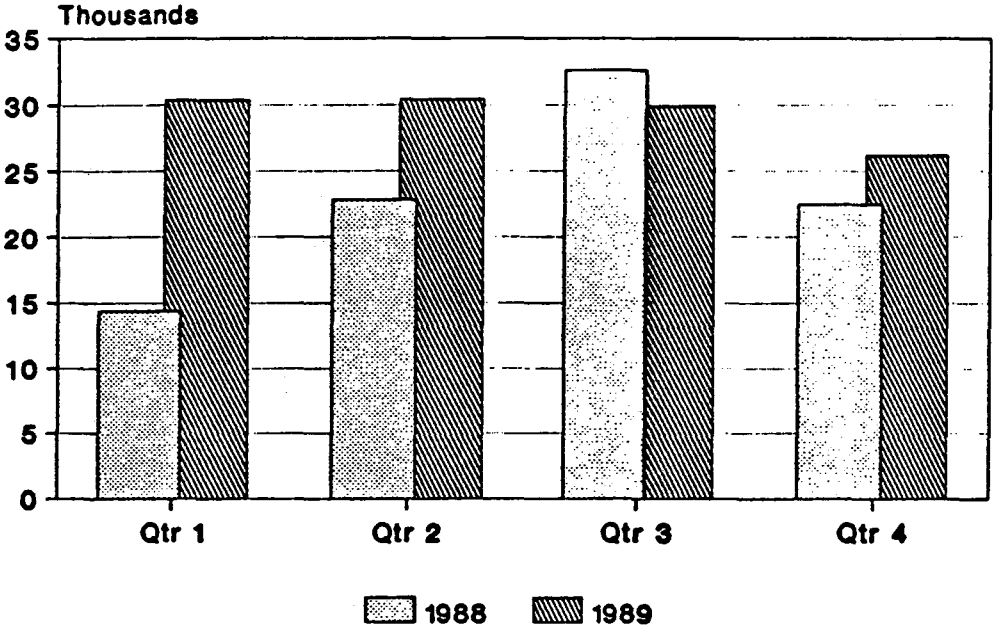
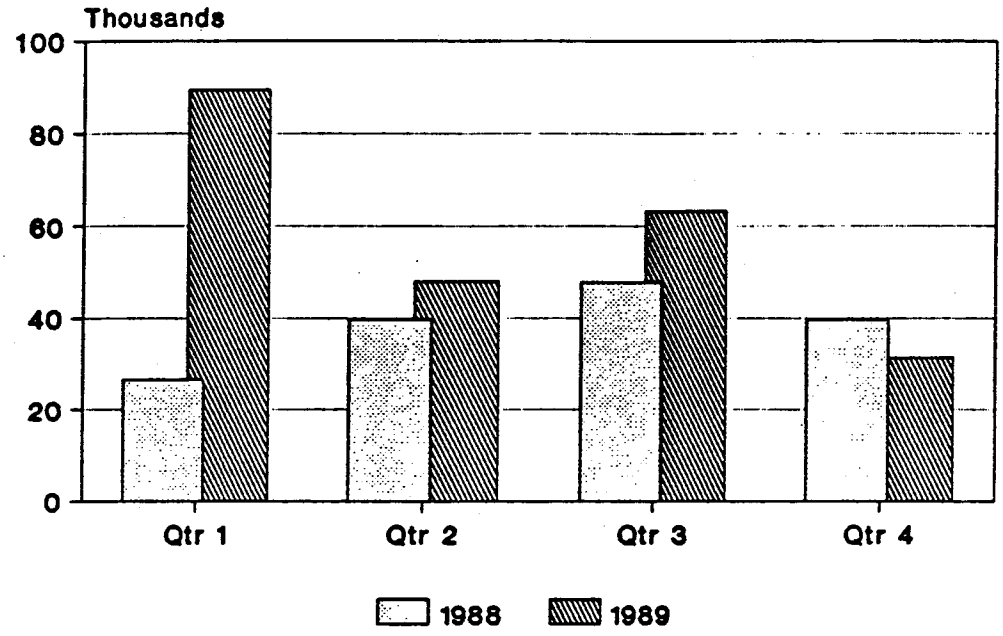
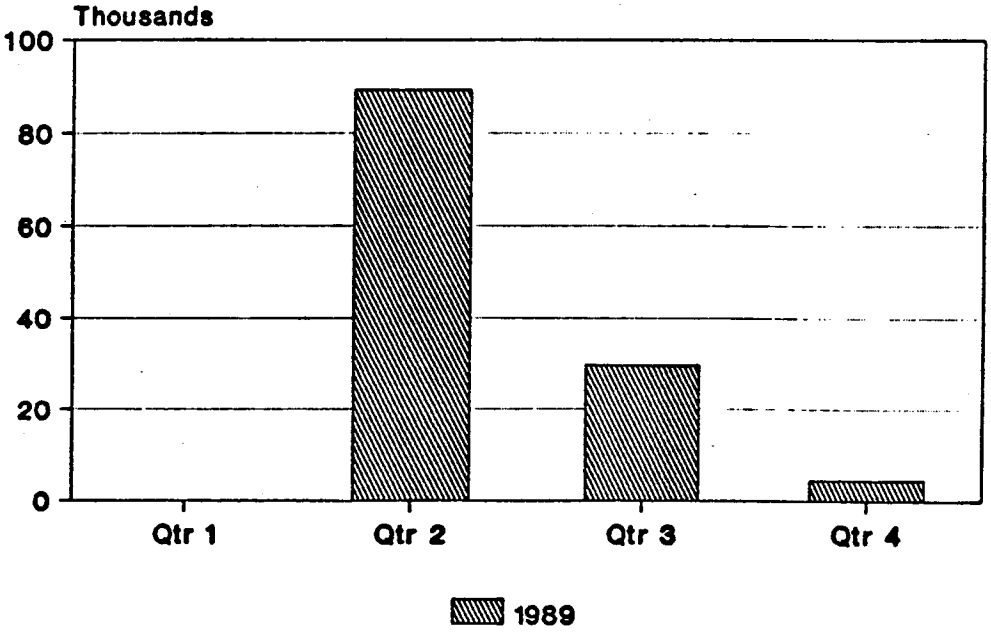


Quarterly Public Services Expenditures
Seldovia

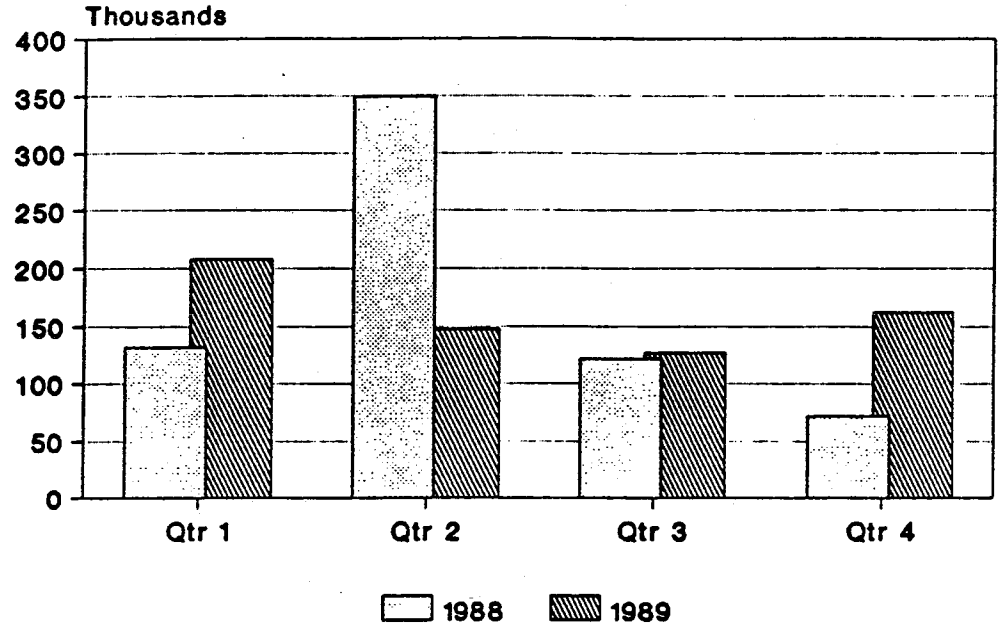


Excludes Harbor/Dock

Quarterly Oil Spill Expenditures
Seldovia



Quarterly General Gov't Expenditures
Whittier



Quarterly Public Safety Expenditures
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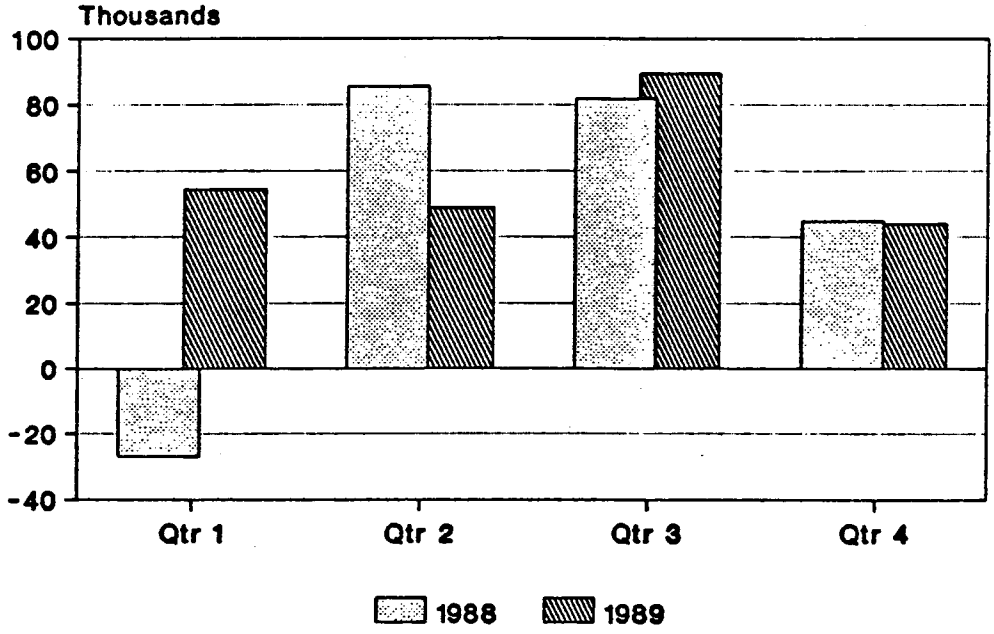

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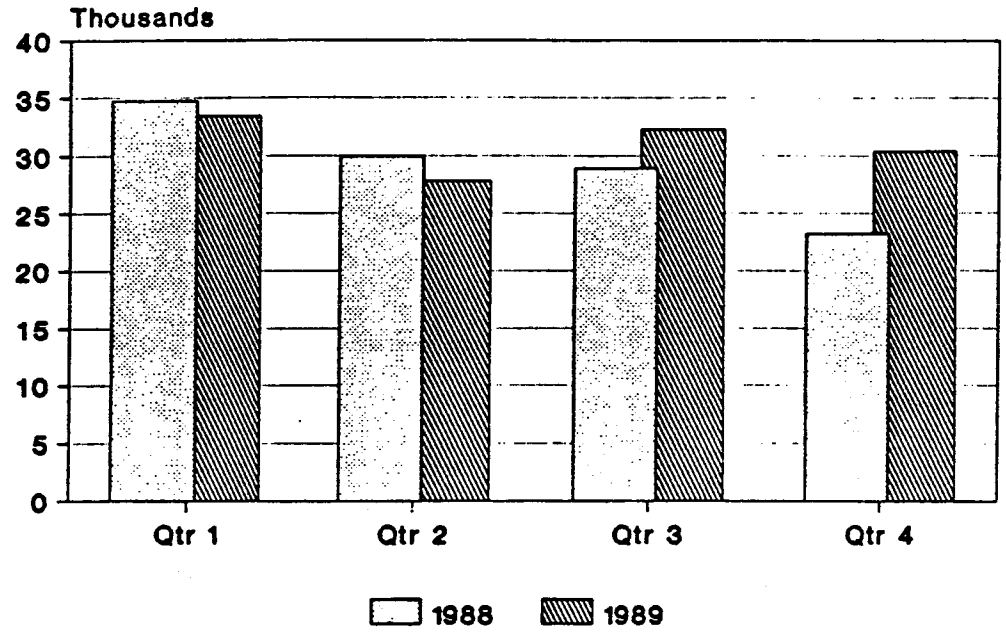

Quarterly Harbor/Dock Expenditures
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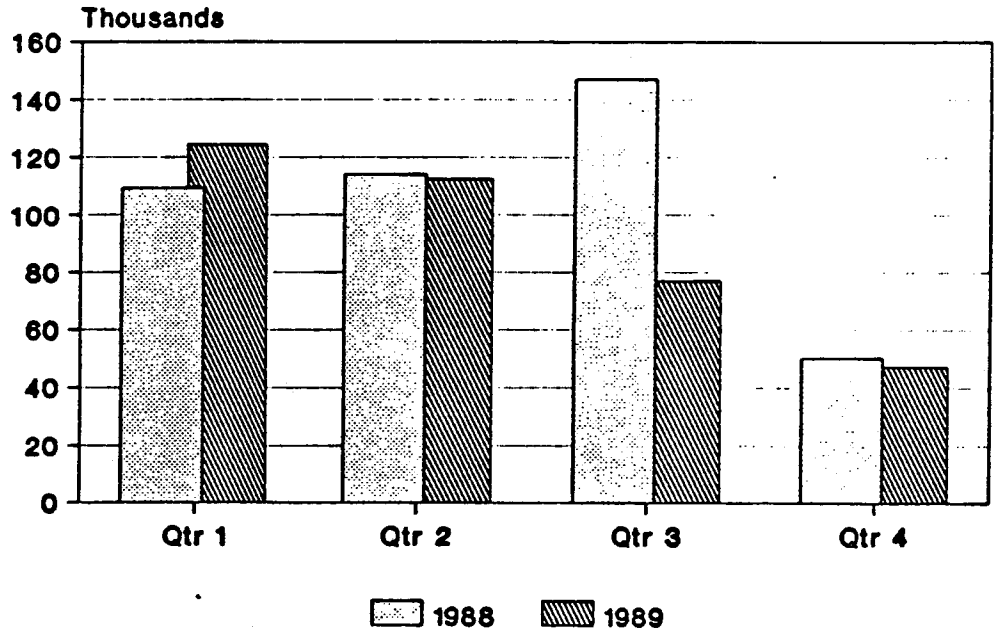

Quarterly Public Services Expenditures
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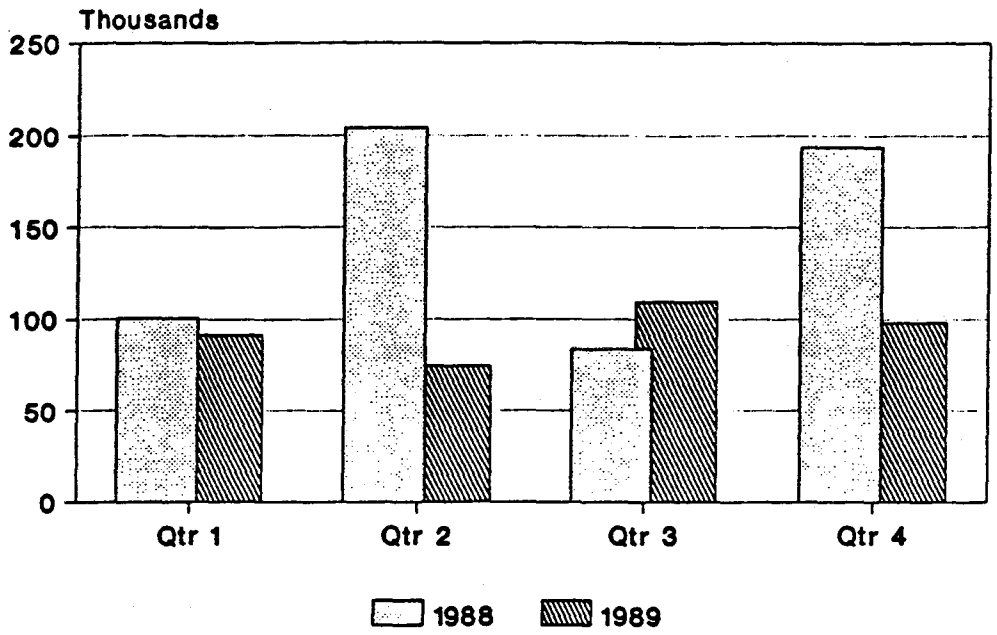

Excludes Harbor/Dock

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