

UTILITY PROFILE

IV. UTILITY PROFILE

Introduction

The Municipality of Anchorage owns and operates eight municipal utilities -- the Anchorage Telephone Utility, Municipal Light and Power, Anchorage Water and Wastewater Utilities, Solid Waste Disposal and Refuse Collection Utilities, the Port of Anchorage, and Merrill Field Airport. Detailed information on each of these entities is contained in the 1988 Public Utilities Operating and Capital Budgets document. The intent here is to extract and summarize some utility information to provide an overview of these important municipal activities.

This section highlights some of the interrelationships which exist among general government functions and municipal utilities -- Intragovernmental Charges, the Municipal Utility Service Assessment, and Utility Revenue Distribution. Following a discussion of these linkages, summary income, expense, debt and rate data are also presented.

Intragovernmental Charges

The intragovernmental charge system is the mechanism used by the municipality to account for the costs of certain services provided by one unit of government for another. An intragovernmental charge (IGC) represents the cost for a service which one budget unit (servicer) provides to another (requestor). Net charges to utilities, operating grants and capital improvements are counted as general government revenues.

IGCs are an important linkage between the utilities and general government. General government provides many administrative services to the municipal utilities, e.g., financial services, insurance, purchasing, and management (mayor/manager). Utilities also provide services to general government, but in general these charges are handled through the regular customer billing procedures of the utilities, rather than through a charge-back system.

Table 4-1 summarizes the IGCs to utilities contained in the 1988 budgets. Charges to utilities are \$8.6 million, approximately 60% of the total of \$13.8 million IGC revenues in the general government operating budget. Figure 4-1 summarizes the changes in IGCs since 1984.

Major components of utility IGCs are for self-insurance and general liability funds, 30%; financial information system and accounting services, 23%; utility collections and remittance processing, 7%; purchasing, 6%; and information systems, 3%. Over the last few years IGCs to utilities have been declining as utilities have developed their own accounting and data processing capabilities. As utilities require fewer services from general government, and this source of revenue declines, the fixed costs of data processing and financial services will have to be spread among the remaining users.

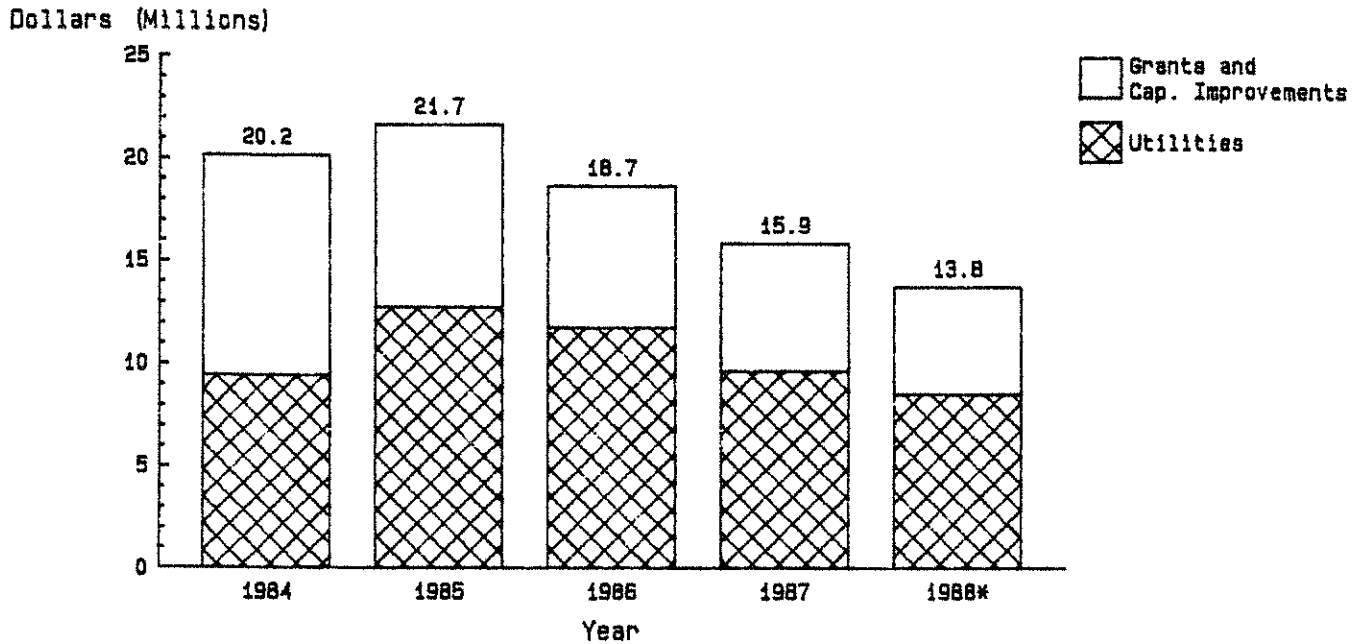
Table 4-1
 Summary 1988 Intragovernmental Charges to Utilities
 (millions of \$)

<u>Utility</u>	<u>Total IGCs</u>
Anchorage Telephone Utility	\$3.747
Port of Anchorage	.194
Municipal Light & Power	1.625
Airport	.089
Water and Wastewater Utility	2.459
Solid Waste	<u>.484</u>
Total	\$8.598

* 1988 Proposed Budget

Figure 4-1

**Intragovernmental Charges
 Utilities, Grants and Capital Improvements**



* 1984-1987 Revised Budgets, 1988 Proposed Budget.

Municipal Utility Service Assessment (MUSA)

Utilities receive general services provided by the Municipality to all residents and businesses in the service area, such as fire and police protection, and street maintenance. Therefore, utilities which are financially self-supporting help pay for these services through a Municipal Utility Service Assessment, which is analogous to property taxes paid by private property owners. The mill rate applied is the same as that applied against the value of private properties; however there are differences in the way in which the value of the property is assessed.

Municipal Utilities

Cost Approach: assessed value = (gross plant - depreciation) + land.

Private Utilities

Cost Approach: (as above)
or

Income Approach: assessed value = net revenue/capitalization rate

where net revenue = gross revenue less expenses; capitalization rate is composed of effective tax rate, expected yield and discount rate.

The income approach is often used by private utilities as the basis for appeal of the assessed valuation computed by the Municipality using the cost approach.

Table 4-2 below summarizes MUSA payments by utilities since MUSA was established by ordinance in 1976. Initially MUSA was applied to the telephone, electric and water utilities. Wastewater and refuse operations were included in 1986. Solid Waste, Merrill Field and the Port are exempt from MUSA. In 1987, the assessed value of utility properties to which MUSA applied was \$663 million, 5.5% of the total assessed valuation of taxable property in the Municipality. MUSA revenues are used in the Anchorage School District and General Government in the same ratio as other property tax collections.

Table 4-2
MUSA - Paid
1976 through 1987

	<u>ATU</u>	<u>ML&P</u>	<u>Water</u>	<u>Wastewater</u>	<u>Refuse</u>
1976	\$ 442,697	\$ 151,807	\$ 189,967	\$	\$
1977	1,377,659	413,977	511,488		
1978	1,535,844	438,165	556,425		
1979	1,441,795	386,054	444,280		
1980	1,371,645	560,770	386,704		
1981	993,613	415,750	301,638		
1982	903,976	347,822	279,134		
1983	1,287,223	501,860	394,504		
1984	1,476,534	678,860	492,830		
1985	1,524,465	870,427	887,751		
1986	1,656,906	1,024,755	1,298,888	1,424,184	24,527
1987*	<u>2,439,410</u>	<u>1,479,748</u>	<u>2,124,280</u>	<u>2,082,430</u>	<u>32,175</u>
	\$16,451,767	\$7,269,995	\$7,867,889	\$3,506,614	\$56,702

* 1987 estimated.

Utility Profit Sharing or Revenue Distribution

The Home Rule Charter for the Municipality of Anchorage (September 1975) provided that municipal utilities were to operate at a reasonable profit and that net profits from former City Utilities would be applied for the benefit of the old City Service Area for five years after unification. This was, in effect, the way in which the new Municipality "purchased" the utilities from the city. In 1978, the Assembly passed an ordinance which halved the payment rate (from 100% to 50% of net profits) and lengthened the payment period (from five to ten years) for ATU and the Anchorage Water Utility. The following chart details the actual payments which were made in conformance with these requirements.

Table 4-3
Utility Net Profit Distributions to Former City Service Area
1976-1985

<u>Years</u>	<u>Anchorage Telephone Utility</u>	<u>Municipal Light & Power</u>	<u>Anchorage Water Utility</u>	<u>Total</u>
1976	\$ 729,749	\$ 566,006	\$ 15,498	\$ 1,311,253
1977	913,619	608,456	291,823	1,813,898
1978	977,572	502,848	313,710	1,794,130
1979	1,046,002	473,938	337,238	1,857,178
1980	1,119,223	0	--	1,119,223
1981	1,197,568	222,951	--	1,420,519
1982	1,281,398	0	--	1,281,398
1983	1,371,096	0	--	1,371,096
1984	1,467,073	0	--	1,467,073
1985	1,569,767	0	--	1,569,767
	<u>\$11,673,067</u>	<u>\$2,374,199</u>	<u>\$ 958,269</u>	<u>\$15,005,535</u>

In 1985, the net profit distribution was succeeded by an ordinance providing for an investment return to all the residents of the Municipality from their ownership of the utilities. This Utility Revenue Distribution is analogous to the return paid to owners (investors) of private utilities. The Utility Revenue Distribution allows for a distribution to general government from surplus utility revenues. A maximum of 5% of gross revenues may be distributed "where prudent fiscal management permits." Payment is made following evaluation of revenues restricted by grants or contracts, cash needed for reinvestment in the utility, bond ratings, prudent cash flow and debt management considerations.

The ordinance applies to ATU, AWWU, and ML&P. To date, only ATU has met the evaluation criteria. The distribution from ATU was \$5,500,000 in 1986, \$6,300,000 in 1987 (plus \$700,000 in ATU wage freeze savings), and is proposed at a level of \$5,000,000 in the 1988 Operating Budget. These revenues have reduced the level of property taxes which would otherwise have been necessary to fund services at the levels provided over the last few years.

Fiscal Summaries

This section presents fiscal information pertaining to municipally-owned utilities. The information is not a complete fiscal picture of the utilities; rather, the charts provide a brief overview. More information regarding the financial history and the budget summaries for each of the utilities are contained in the 1988 Public Utilities Operating and Capital Budgets.

The municipal utilities are self-supported through user rates and have received no local tax assistance since 1984. The utilities have, in fact, eased the tax burden for general government, through the Utility Revenue Distribution and Municipal Utility Service Assessments (MUSA), as discussed in the previous section.

A brief description of some of the fiscal indicators used here may be useful.

Net Income is calculated by subtracting total expenses from total revenues. It is closely tied to utility rates as most revenues are from charges for services provided. If net income is large, it may indicate that rates are sufficient and will not need to be raised in the near future. If it is low or negative, a utility's equity is being eroded and it may be an indicator that a rate increase needs to be requested. In either case, expenses are monitored closely to be sure they are being kept as low as possible while still providing services to all customers.

Income and expenses for the regulated utilities, (Anchorage Water and Wastewater Utility, Anchorage Telephone Utility, and Municipal Light and Power Utility), are computed using methodology prescribed by the Alaska Public Utilities Commission (APUC). The major difference between the regulatory and non-regulatory approach is the exclusion of depreciation on contributed plant under the regulatory rules. Although other utilities, including Solid Waste Utilities, the Port of Anchorage, and Merrill Field Airport, are not regulated by the APUC, we have used the regulatory approach for all utilities.

Debt service coverage is determined by dividing income available for debt service (current net operating revenue with adjustments made for depreciation and debt service payments and, in some cases, MUSA and interest revenue) by the accrued debt service on revenue bonds for the year. Debt service coverage is an indication of a utility's ability to pay for existing debt as well as its ability to finance new debt. For a utility to issue new debt, it must satisfy a number of criteria in the bond covenants and be able to show that projected debt service coverage will be at least equal to the minimum requirement contained in its covenants. Projected debt service coverage is one of several indicators used by the utilities to determine when to file for a rate increase and the size of the increase needed.

All of the utilities have met their debt coverage requirements in recent years and have been able to issue new debt to finance their growth as needed. The minimum debt service coverage requirement contained in each utility's bond covenants is included as a benchmark on each of the following graphs. No debt service coverage graphs are included for the Anchorage Wastewater Utility, Merrill Field Airport or the Solid Waste Disposal Utility because those entities have not issued revenue bonds.

Anchorage Telephone Utility

The Anchorage Telephone Utility is the largest municipally-owned local telephone operating system in the United States. Figures 4-2 and 4-3 summarize ATU's actual revenues and expenses 1982-1987.

Figure 4-2
Anchorage Telephone Utility
Actual Revenues and Expenses

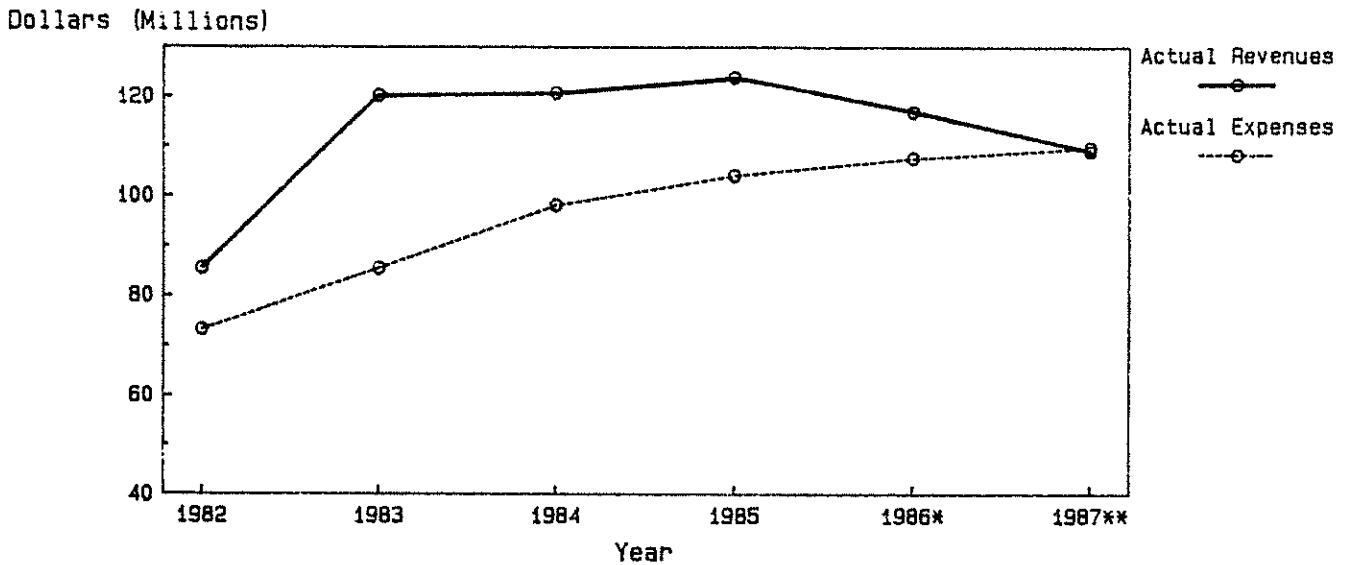
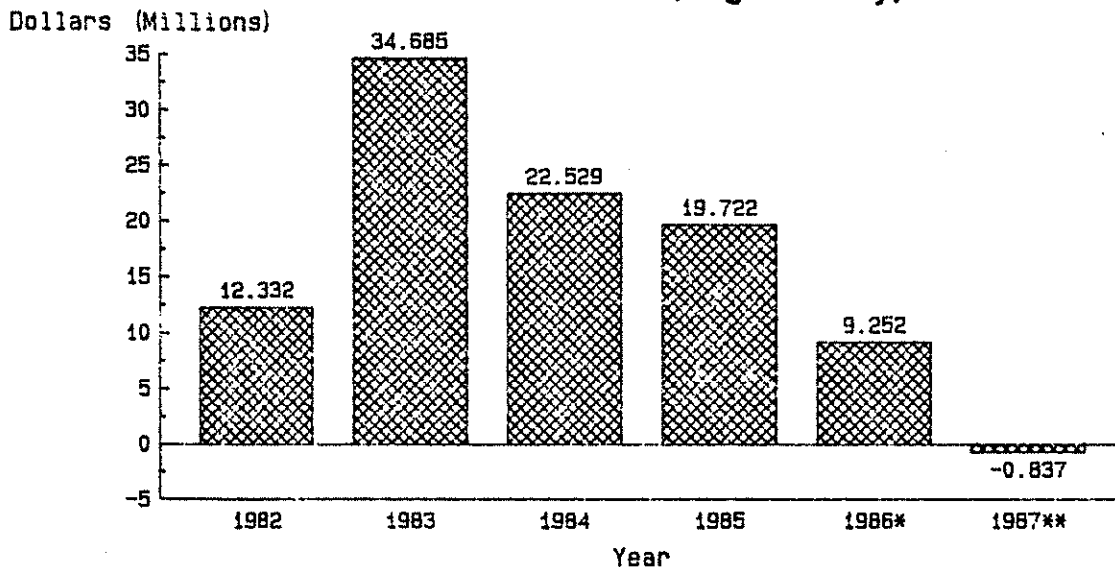


Figure 4-3
Anchorage Telephone Utility
Net Income (Regulatory)



1982 included \$6.0 million in prior year toll settlement.

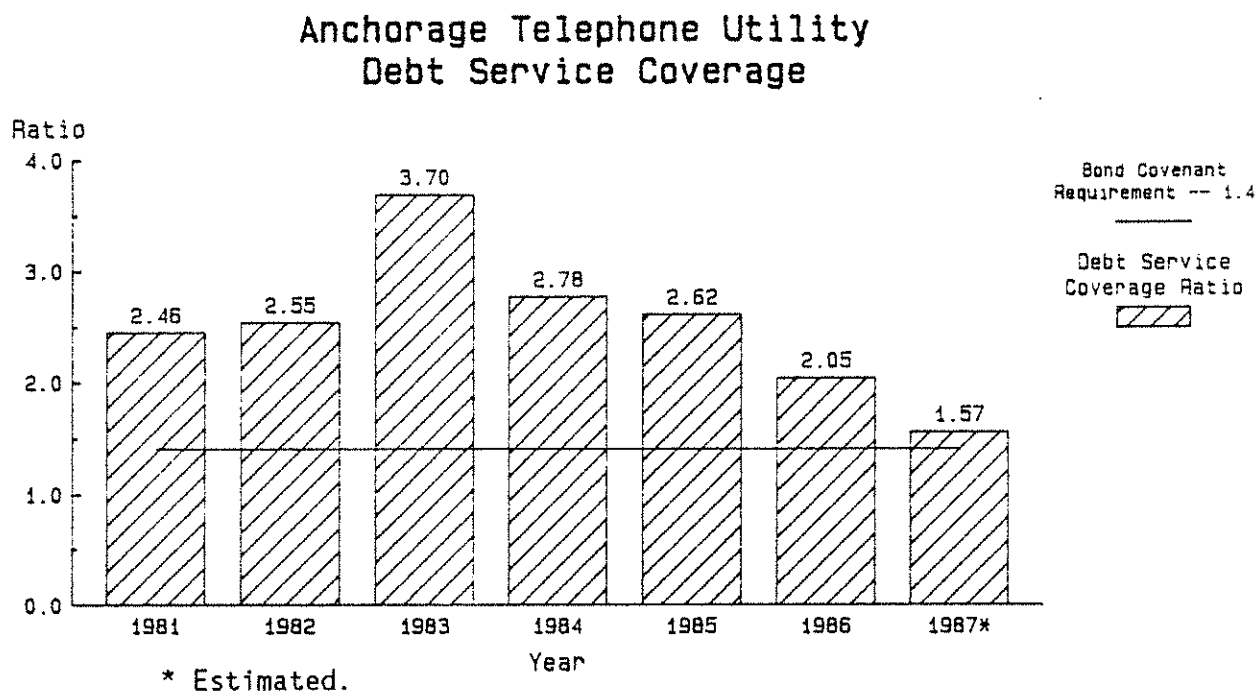
1983 included \$20.8 million in prior year toll settlement.

*1986 expenses and adjusted net income do not include refunding loss of approximately \$12 million

**1987 Estimated

As of December 31, 1987, ATU had \$193.7 million in revenue bonds outstanding. Current debt service payments are approximately \$22.3 million per year. Figure 4-4 shows the debt coverage ratio.

Figure 4-4



ATU is a major local employer as shown below.

Table 4-4
Anchorage Telephone Utility
Authorized Positions

1981	735	1988*	885
1982	692	1989*	835
1983	720	1990*	819
1984	785	1991*	773
1985	880	1992*	759
1986	918	1993*	716
1987	1007		

* 1988-1993 Projected

Actual number employed may differ from number of positions.

Source: Utility Budget Documents

The table below provides some comparative rates.

Table 4-5
Average Telephone Rate for
Single Party Service, Push-
Button Dialing Unlimited Calling*

<u>Cities</u>	<u>Average Telephone Rate</u>	<u>Cities</u>	<u>Average Telephone Rate</u>
<u>Anchorage Telephone Utility</u>	<u>\$10.02</u>		
Cities w/Population 125,000 - 350,000	14.00	Juneau, AK	\$12.40
Long Beach, CA	10.75	Fairbanks, AK	12.60
Honolulu, HI	15.85	Eagle River, AK	14.15
Buffalo, NY	20.94	Delta Junction, AK	33.80
Seattle, WA	13.63		

* These rates do not include subscriber line charge, customer premise equipment charge, or excise taxes.

There have been no rate adjustments since 1976. Projected rate changes are shown below:

Table 4-6
Projected Rate Increases
Anchorage Telephone Utility

<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
33%	0	25%	0	25%

Anchorage Water and Wastewater Utility

Figures 4-5 through 4-8 summarize revenue and expenses for water and wastewater operations.

Figure 4-5

Anchorage Water Utility Actual Revenues and Expenses

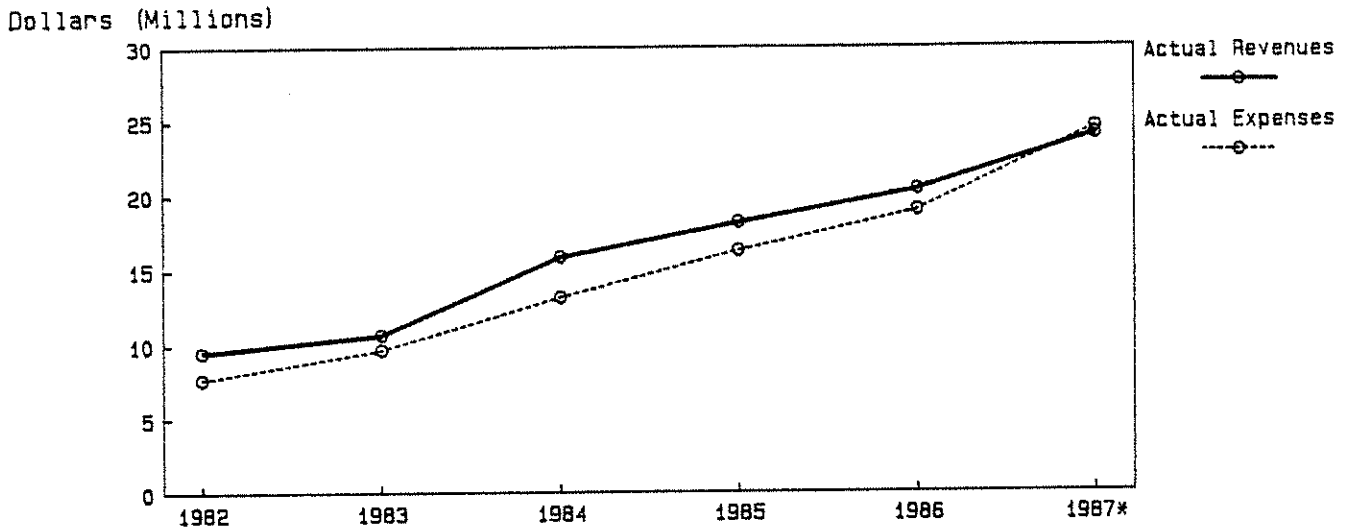
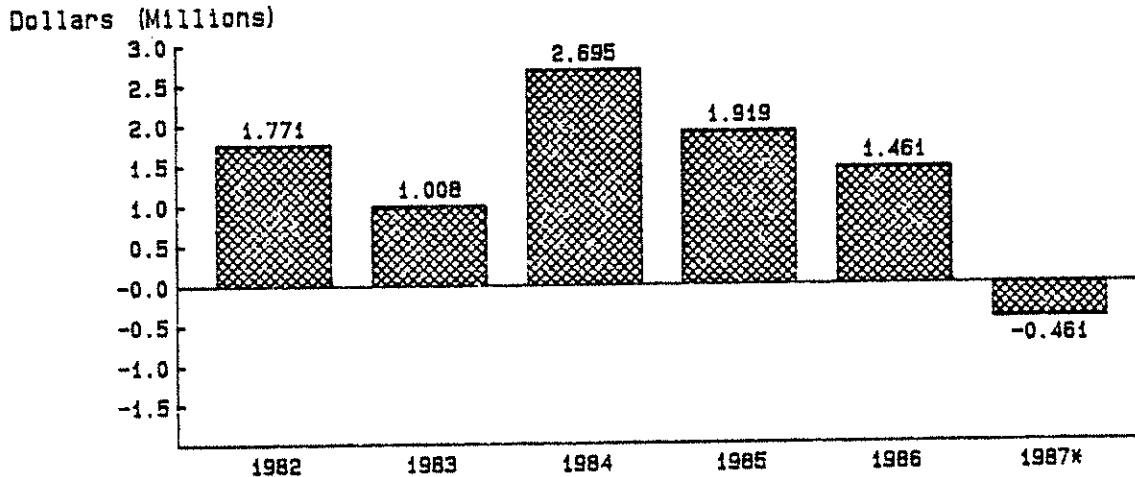


Figure 4-6

Net Income (Regulatory)



* Estimated

Figure 4-7

Anchorage Wastewater Utility Actual Revenues and Expenses

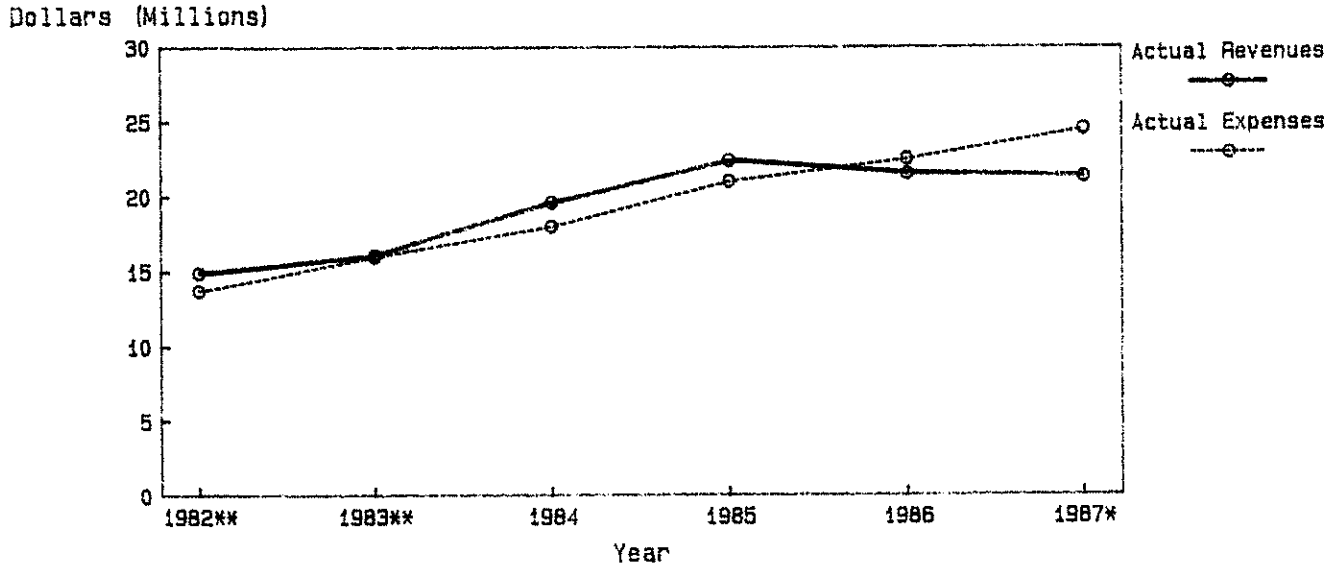
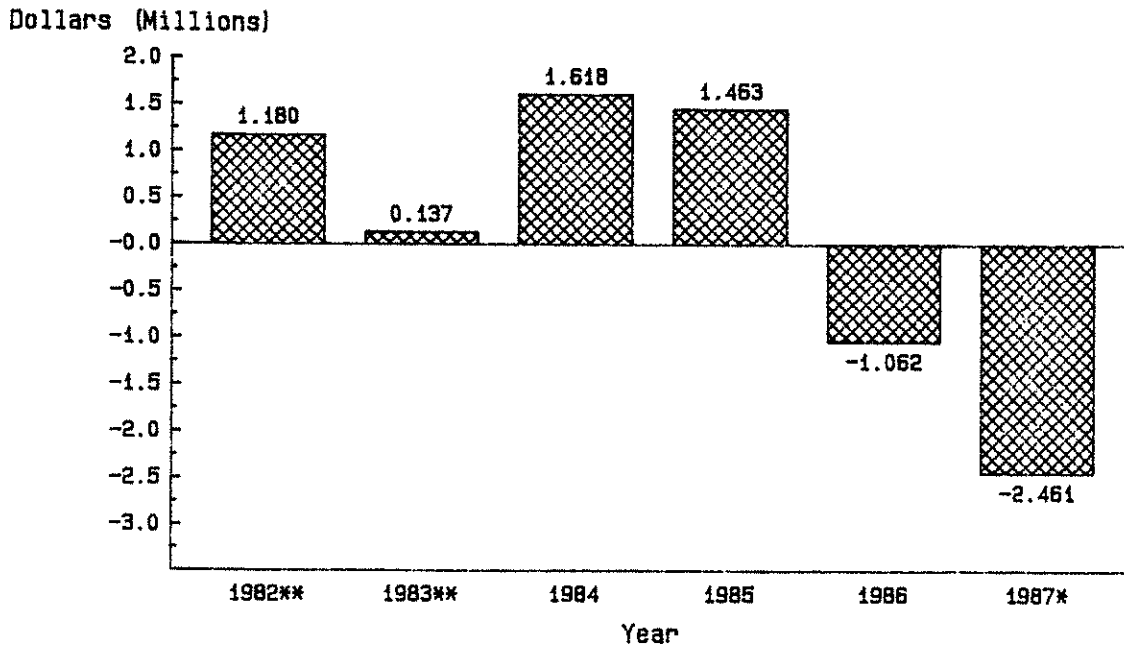


Figure 4-8

Net Income (Regulatory)



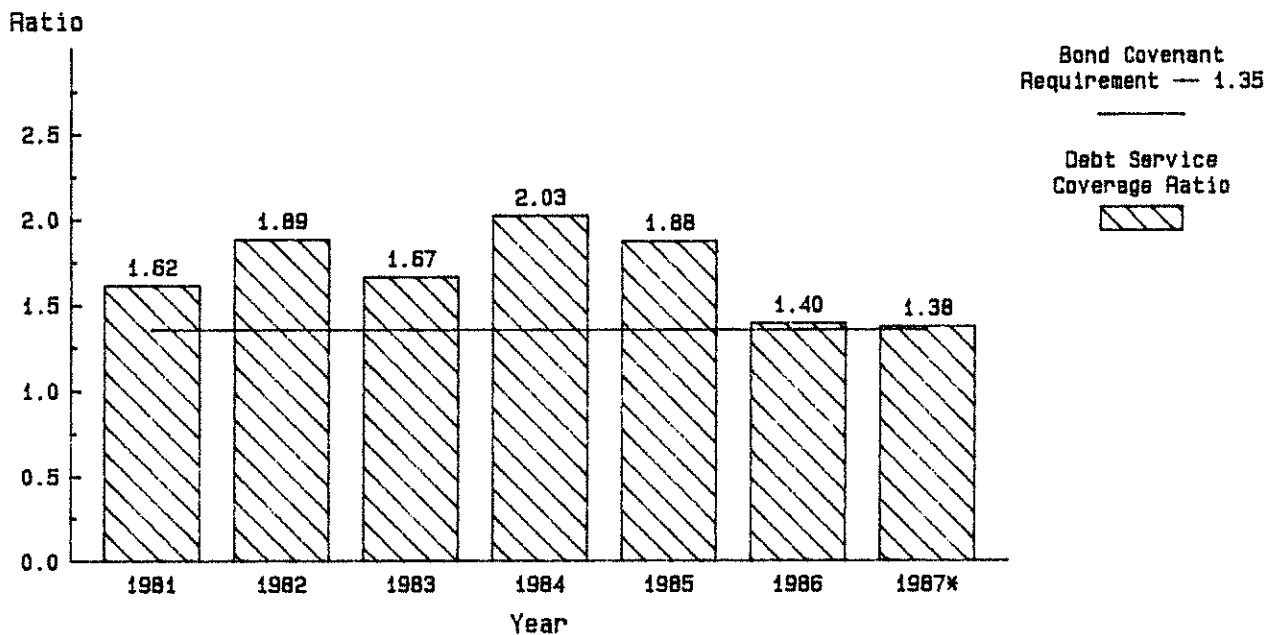
* Estimated.

**Includes \$3.6 million operating transfer from areawide general fund each year for 1982 and 1983.

As of the end of 1986, the water utility had approximately \$50.2 million in revenue bonds and \$55.1 million in general obligation bonds outstanding, with combined debt service payments currently averaging about \$9.8 million per year. Wastewater has approximately \$88.3 million general obligation bonds outstanding with current debt service of about \$11.6 million annually. Debt coverage ratio applies only to revenue bonds and therefore is only shown for the water utility.

Figure 4-9

Anchorage Water Utility Debt Service Coverage



* Estimated

Table 4-7 shows employment history of AWWU.

Table 4-7
AWWU
Authorized Positions

1981	202	1986	315
1982	229	1987	330
1983	247	1988*	312
1984	284	1989*	314
1985	299	1990*	315

* Projected

Number of employees may be different than number of positions.

Table 4-8 shows some comparative rates for water and wastewater services; while Table 4-9 summarizes the history and timing of rate requests and approvals.

Table 4-8

Comparative Water and Wastewater Rates
Based on Assumed Water Usage
of 8000 Gallons Per Month*

<u>Utility</u>	<u>Water Rate</u>	<u>Wastewater</u>
Anchorage Water & Wastewater Utility Anchorage, Alaska	17.15	15.85
Boise Water Corporation Boise, Idaho	17.81	
Boise City Sewer Boise, Idaho		12.46
Middlesex Water Company Middlesex, New Jersey	14.71	
Middlesex County Sewage Authority Middlesex, New Jersey		11.20
San Jose Water Company San Jose, California	13.18	
City of Santa Fe California		11.25
Spokane Suburban Water Co. Spokane, Washington	12.75	
City of Spokane Washington		8.85
West Lafayette Water Co. Lafayette, Indiana	15.74	
Lafayette City Hall Lafayette, Indiana	9.23	10.65
York Water Co. York, Pennsylvania	25.45	
York City Hall York, Pennsylvania		11.22
College Utilities Fairbanks, Alaska	43.07	32.29

*Rates as of 8/5/87

Table 4-9

Anchorage Water and Wastewater Utility
Rate Increase Summary
1976 Through 1987

	<u>Date Requested</u>	<u>Total Requested</u>	<u>Date Approved</u>	<u>Total Approved</u>
<u>Water</u>				
	Jul '76	73.00%	Feb '77	51.40%
Original	Sep '81	22.95%		
Amended	May '82	25.89%	May '82	25.48%
	Jul '83	18.88%	Mar '84	14.10%
Original	Dec '85	23.22%		
Amended	Apr '86	19.55%	Oct '86	15.03%
Original	Feb '87	19.97%		
Amended	May '87	25.11%	Aug '87	25.11%
<u>Sewer</u>				
	Feb '80	25.90%	Jul '81	13.42%
	Dec '81	28.78%	Jan '83	27.16%
	Jan '85	69.53%	Jul '86	61.64%

Municipal Light and Power

Revenues, expenses and net income for the power utility, calculated on the regulatory basis prescribed by the Alaska Public Utilities Commission, are shown below.

Figure 4-10

Municipal Light and Power Actual Revenues and Expenses

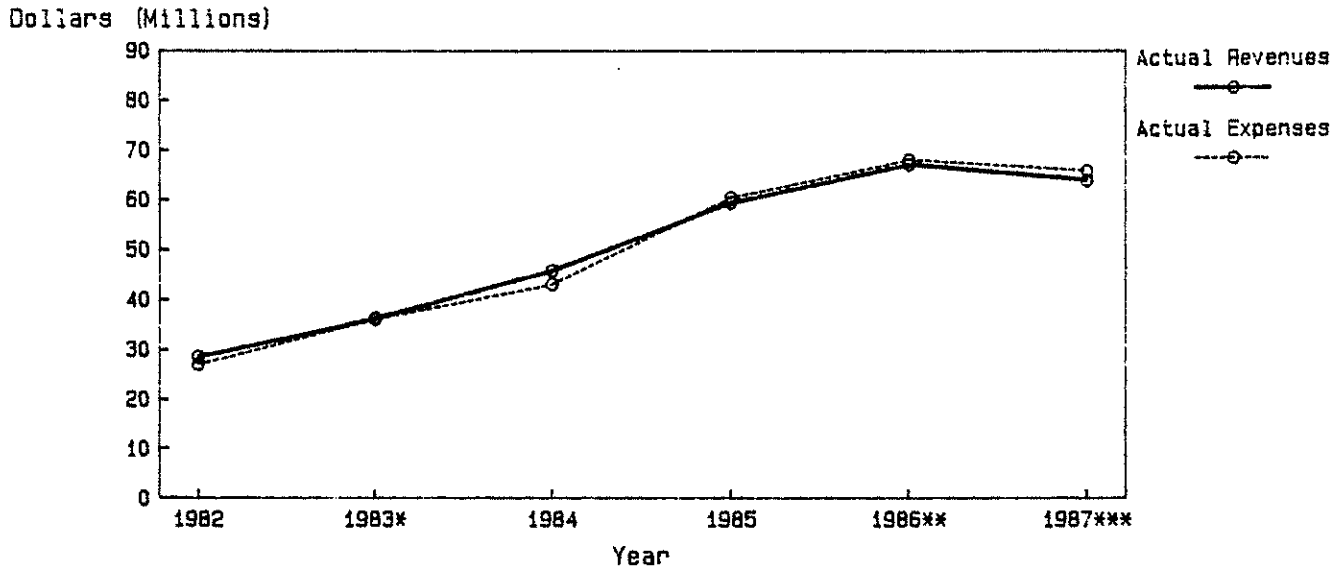
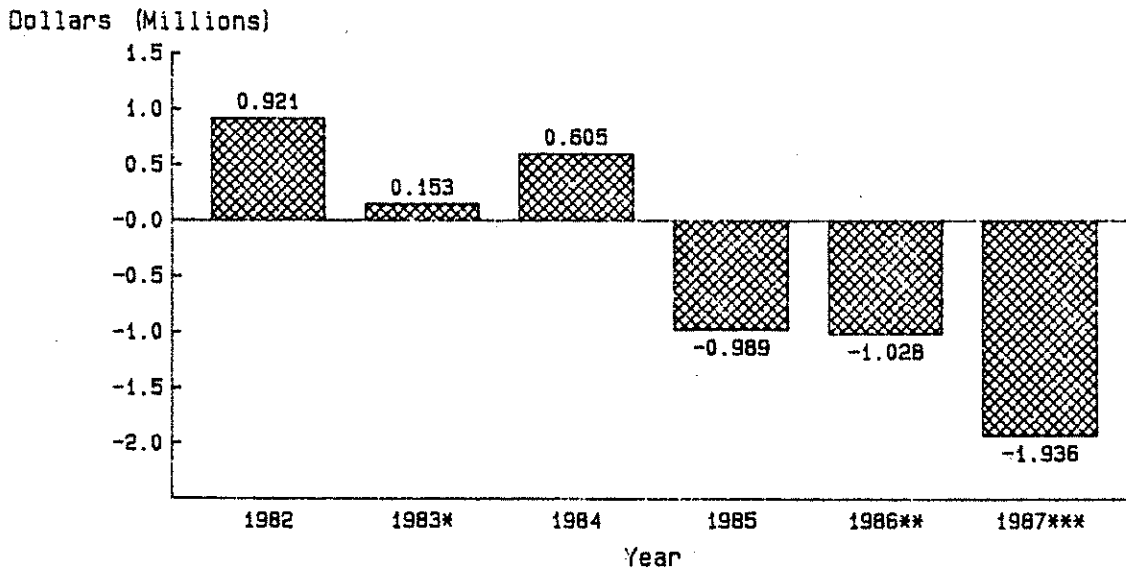


Figure 4-11

Net Income (Regulatory)



* Gain on refunding of \$14.9 million not included.

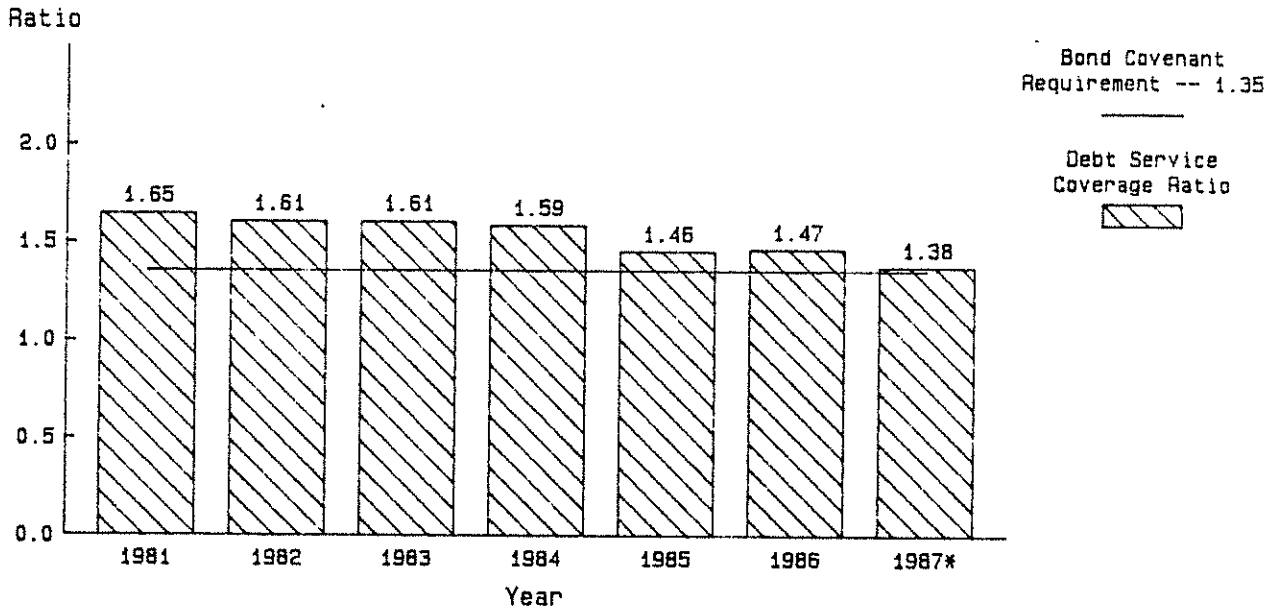
** 1986 expenses and adjusted net income do not include refunding loss of \$19.7 million.

***1987 Estimated.

Municipal Light and Power had \$211.46 million in revenue bonds outstanding as of December 31, 1986. Debt service coverage is shown below.

Figure 4-12

Municipal Light and Power Debt Service Coverage



* 1987 estimated.

The following table compares ML&P's typical billings to those of selected electric utilities in Alaska and elsewhere in the United States.

Table 4-10
Comparison of Average Revenues and Typical Billings

Utility	1986 Average Total Retail Sales (c/kWh)	Typical Billings*			
		Residential	Residential	Commercial	Commercial
		(500 kWh)	(1,000 kWh)	(1,500 kWh) 12kW	(10,000 kWh) /40kWh
Municipal Light & Power	6.968	\$37.81	\$ 71.13	\$129.53	\$ 806.70
Chugach Electric Association	6.474	40.18	74.10	178.89	699.70
Fairbanks Municipal Utilities	9.465	46.00	81.00	155.00	1050.00
GVEA (Fairbanks, Alaska)	9.465	53.66	88.56	168.22	1007.40
Matanuska Electric Assoc. (Palmer)	8.598	53.81	97.61	168.42	781.10
Consolidated Edison Co. of New York	12.768	67.59	128.91	301.36	1340.73
Florida Power & Light Co.	7.181	29.85	74.98	91.22	686.90
Georgia Power Co.	5.671	32.10	69.95	167.28	850.35
Houston Lighting & Power Co.	5.385	36.97	78.41	130.04	640.78
Los Angeles Department of Water & Power	6.698	35.55	71.70	112.24	704.00
Portland General Electric Co.	4.998	25.47	50.81	97.60	543.60
Sacramento Municipal Utility Dist.	5.226	42.48	82.30	110.38	822.45

* Compiled by ML&P staff based on rates in effect August 31, 1987. Includes fuel adjustments in effect. Sales and franchise taxes are not included.

The following table shows the rate increases granted to ML&P by the APUC in the last 10 years.

Table 4-11
Municipal Light and Power
Rate History

Date of Filing	Requested	Increase Granted	Date Granted
March 1986	16.13%	13.53%	February 1987
November 1983	10.77%	9.27%	April 1985
April 1982	14.98%	14.98%	September 1982
February 1980	29.56%*	35.06%*	October 1981
January 1979	17.23%	14.40%	July 1979

* Includes adjustments to base gas cost in permanent rates. This is the last time that gas cost adjustments were included in rate cases.

Solid Waste Services

Solid Waste Services includes the Refuse Collection Utility and the Disposal Utility. The information for these activities is presented separately below.

Figure 4-13

Solid Waste Services - Refuse Collection Actual Revenues and Expenses **

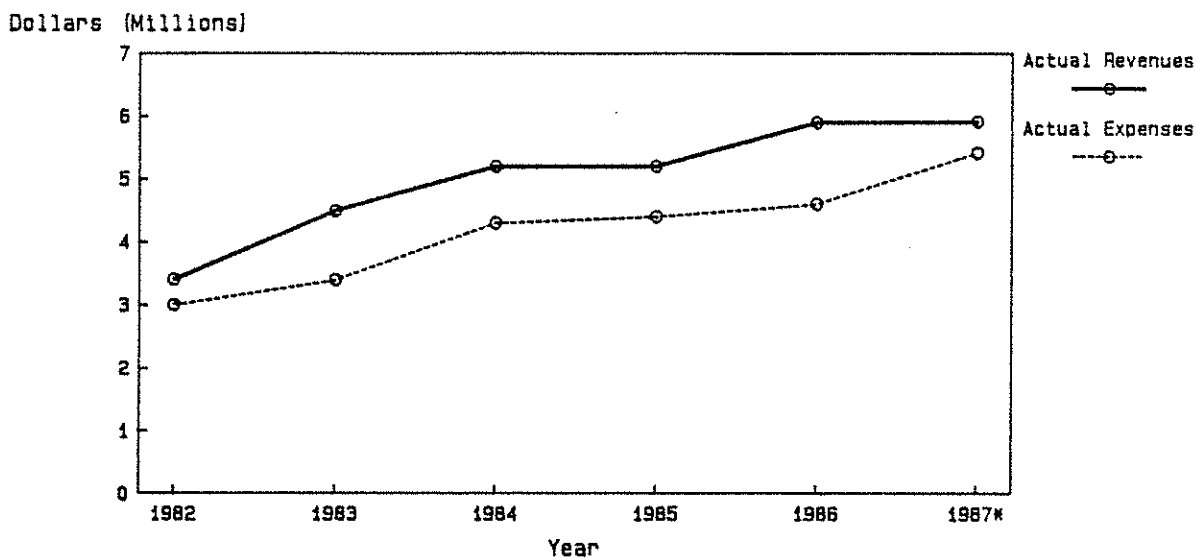
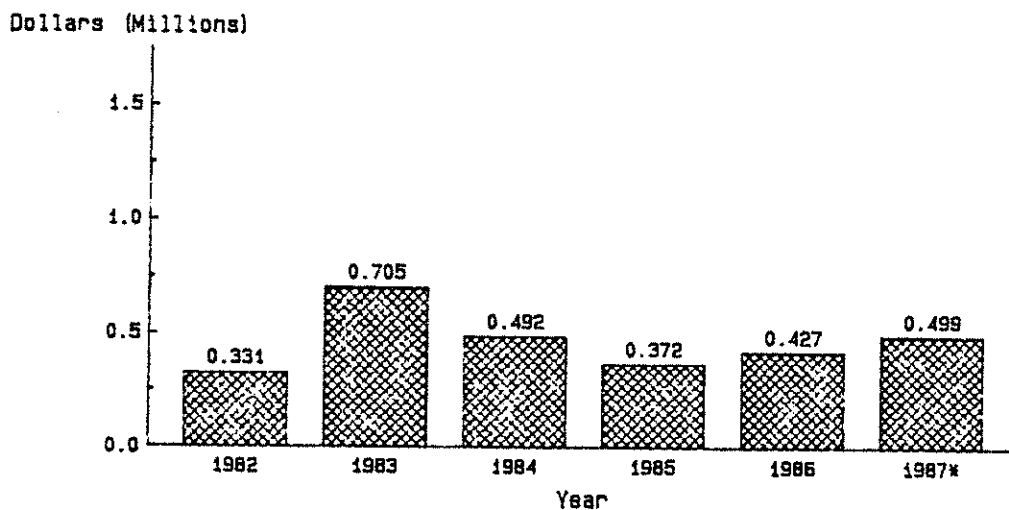


Figure 4-14

Net Income (Regulatory) **



* Estimated.

**Same methodology used to compute net income as used in regulated utilities.

Figure 4-15

**Solid Waste Services - Disposal
Actual Revenues and Expenses ****

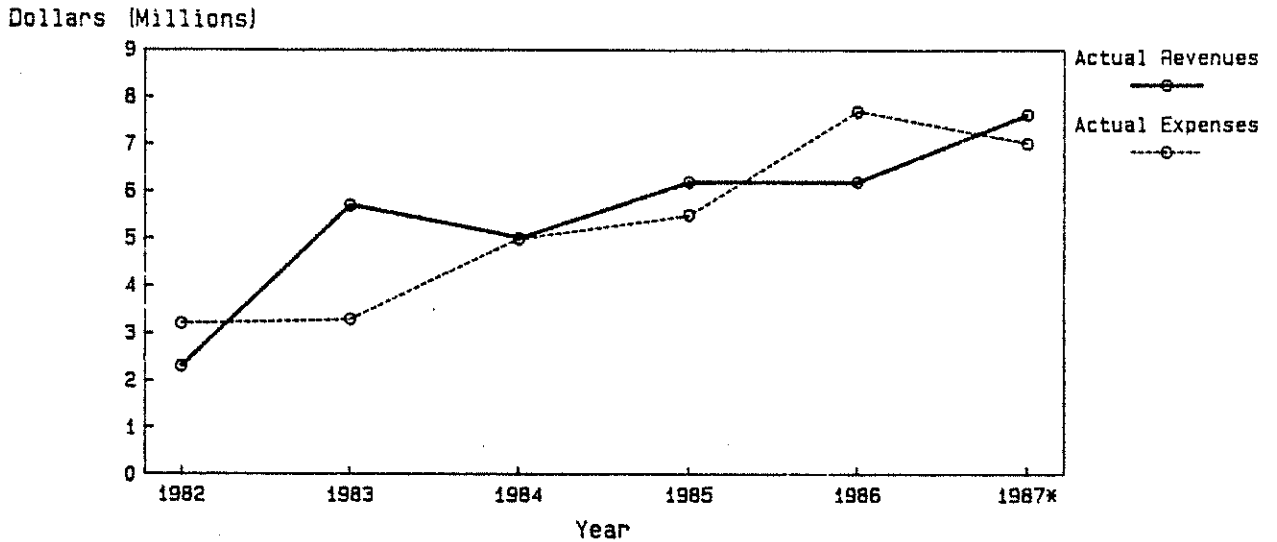
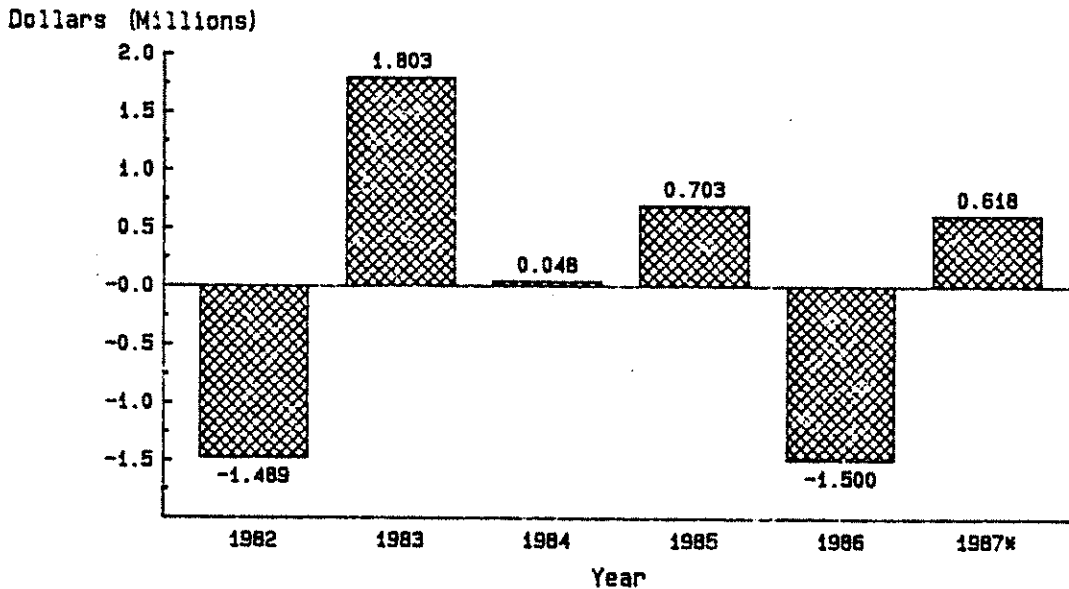


Figure 4-16

Net Income (Regulatory) **



* Estimated

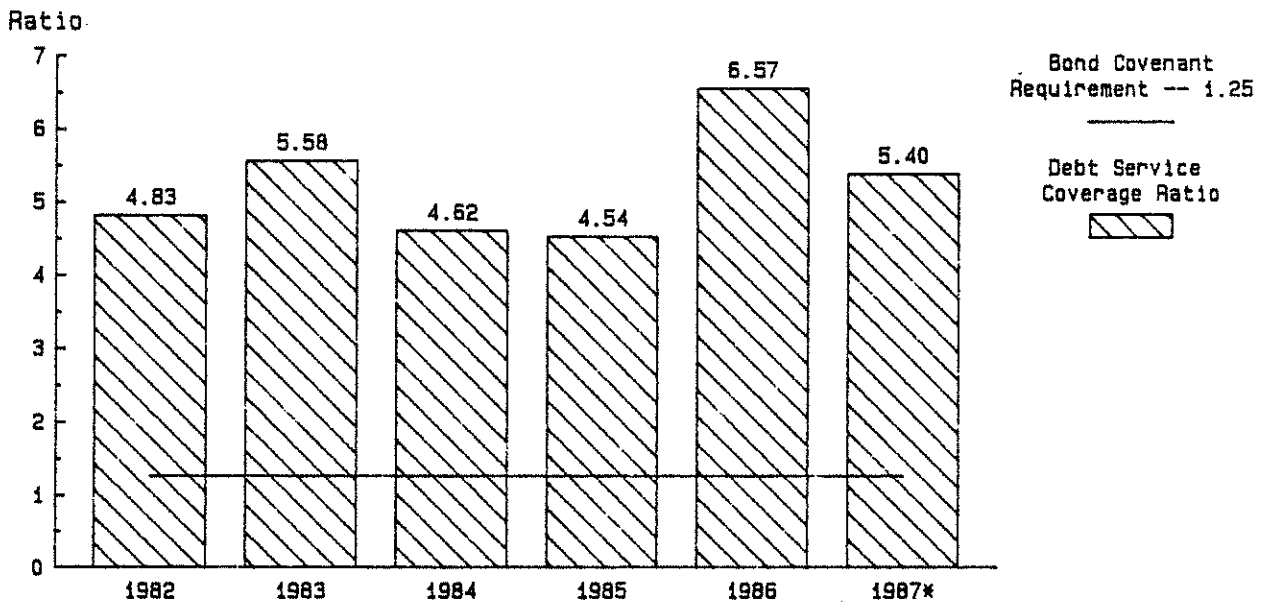
**Same methodology as used in regulated utilities.

1982 loss due to use of fund balance to reduce taxes. 1983 profit due to replenished fund balance. (Solid Waste was part of general government). 1986 loss due to accounting adjustment to reflect closing of shredder plant.

Solid Waste Services had \$25.6 million of outstanding general obligation bonds at the end of 1986, with current debt service of roughly \$2.5 million per year. Refuse Collection had \$1.8 million in revenue bonds outstanding, the coverage for which is shown below.

Figure 4-17

Solid Waste Services - Refuse Collection Debt Service Coverage



* Estimated. No Refuse Revenue Bonds Issued prior to 1982. No Disposal Revenue Bonds Issued.

A few comparative rates for refuse collection in other Alaska communities are shown below.

Table 4-12
Refuse Collection
Comparative Rates

<u>Utility</u>	<u>Approved</u>	<u>Residential Monthly</u>	<u>Commercial Monthly</u>
MOA Refuse Collection	01/01/86	\$13.60	\$43.30
Anchorage Refuse (interim)	04/03/87	12.24	58.11
Anchorage Refuse (permanent)	proposed	12.46	59.15
Eagle River Refuse	07/25/86	11.01	43.98
Channel Sanitation (Juneau)	12/26/84	18.44	84.27
Peninsula Sanitation (Kenai)	05/01/84	10.13	40.08
Wasilla Refuse	11/24/86	20.00	65.00

It is difficult to make a valid comparison between the solid waste disposal rates charged in Anchorage and those charged in other communities. The type of disposal facility (landfill or waste-to-energy), the age of the landfill, the level of environmental protection, the location of the landfill relative to population centers and the use of transfer facilities all complicate the comparison. In addition some communities fund their disposal facilities fully or in part with tax dollars. There are currently no disposal systems in Alaska that are comparable to the Anchorage system. King County and the City of Seattle, Washington have similar systems in that they utilize a lined sanitary landfill supported by transfer stations.

Table 4-13
Solid Waste Disposal Rates

<u>Utility</u>	<u>Cars</u>	<u>Pickups</u>	<u>Commercial</u>
MOA Solid Waste Disposal	\$5 fixed	\$ 5 fixed	\$33/ton
King County, Washington	\$6.50 fixed	\$47.50/ton	\$47.50/ton
City of Seattle, WA	\$4 minimum	\$ 9 minimum	\$56.00/ton

Rate history and projections are shown below:

Table 4-14
Rate History - Solid Waste Services

Refuse Collection

<u>Date</u>	<u>Residential</u>	<u>Commercial</u>
November 22, 1977	\$ 7.00	\$21.75
August 26, 1981	9.00	25.00
January 19, 1983	11.00	32.25
January 1, 1984	11.80	37.65
January 1, 1986	13.60	43.30
January 1, 1988	15.60 (1)	49.80 (1)

(1) Proposed in 1988 Budget

Solid Waste Disposal

<u>Date</u>	<u>Per Ton</u>
June 1, 1977	\$ 5.00
January 18, 1983	10.00
January 1, 1984	18.00
May 1, 1985	21.00
April 1, 1987	33.00
January 1, 1988	39.00 (1)
January 1, 1989	45.00 (1)

(1) Approved by Assembly in March, 1987 as Steps 2 and 3 of phased rate increase.

Port of Anchorage

Figure 4-18

Port of Anchorage
Actual Revenues and Expenses **

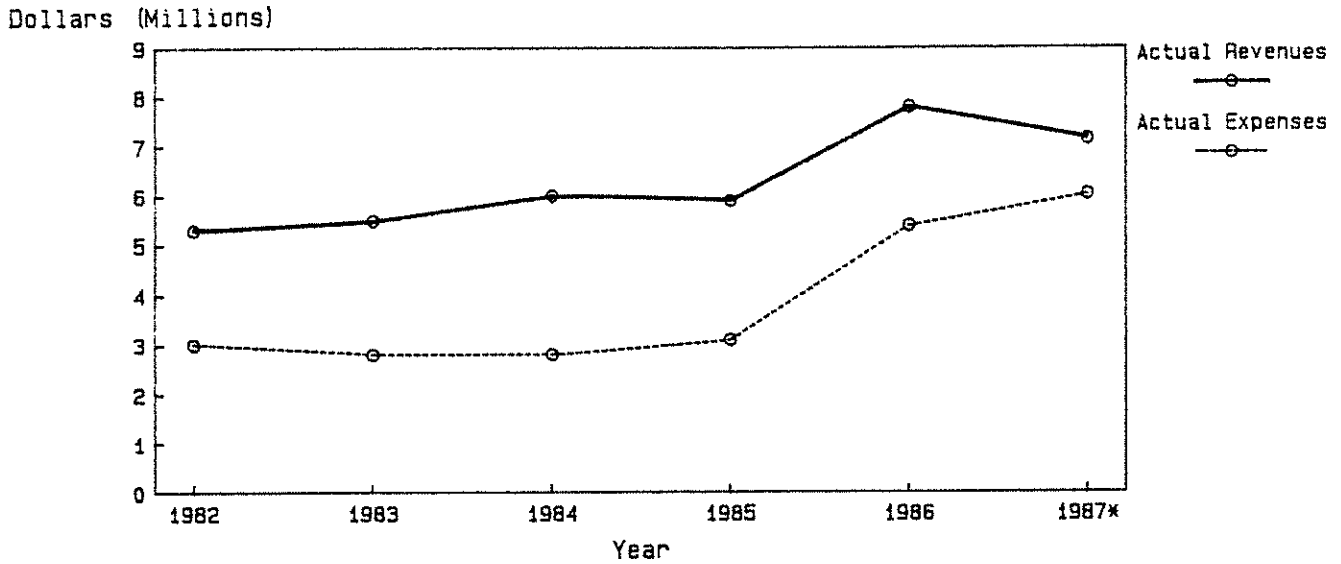
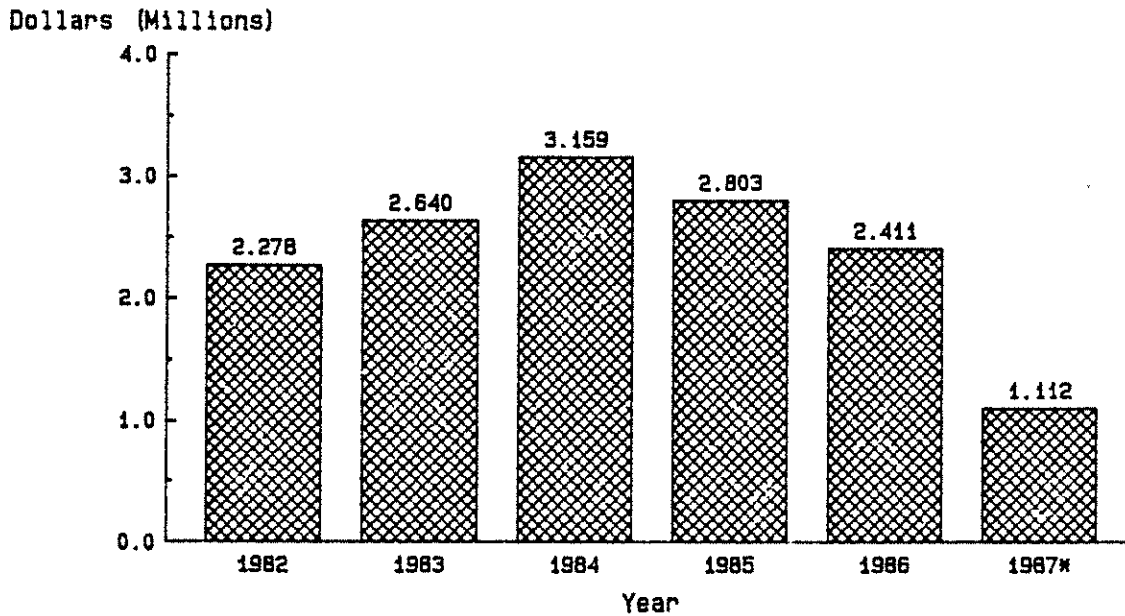


Figure 4-19

Net Income (Regulatory) **



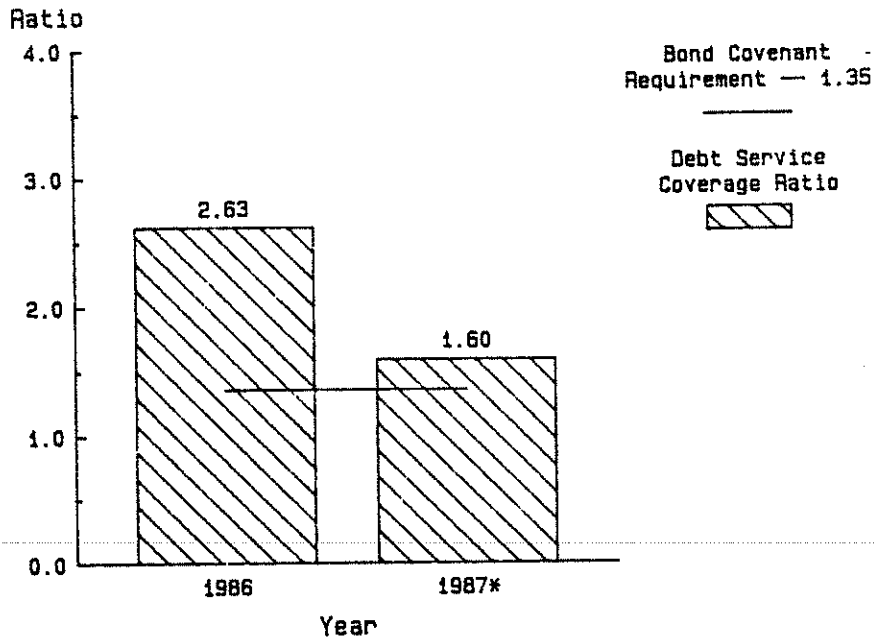
* Estimated

**Same methodology used as for regulated utilities.

As of December 31, 1986, the Port had \$9.9 million in general obligation bonds and \$27.2 million in revenue bonds outstanding. Combined debt service is currently about \$4.6 million per year. The coverage ratio for the revenue bond portion (approximately \$2.9 million in 1988) is shown in Figure 4-20.

Figure 4-20

Port of Anchorage Debt Service Coverage



* Estimated.

No Port Revenue Bonds outstanding prior to December 1985.

A summary of rate changes is shown in Table 4-15.

Table 4-15
Port of Anchorage
Rate Changes Percent of Increase

Revenue Category	1980	1981	1982	1983	1984	1985	1986
Preferential Usage Agreements	0	15.0%	0	0	0	0	20.0%
Port Industrial Park	8.0%	3.6%	22.8%	3.5%	7.9%	3.3%	27.2%

Merrill Field Airport

Figures 4-21 and 4-22 summarize the airport's income picture, calculated on the regulatory basis.

Figure 4-21

Merrill Field Airport
Actual Revenues and Expenses **

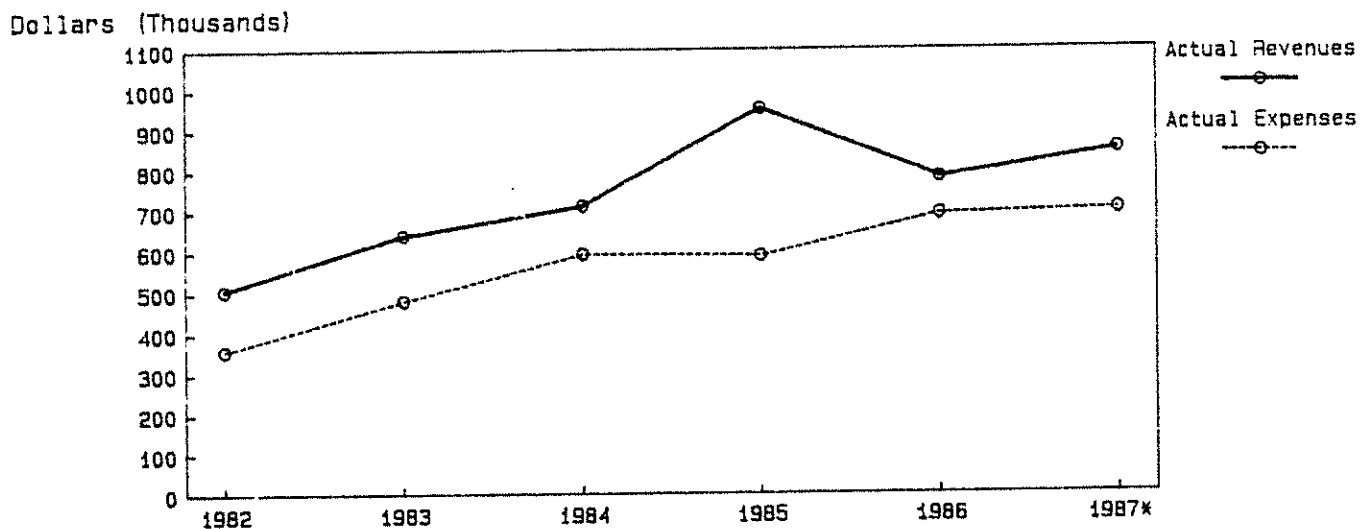
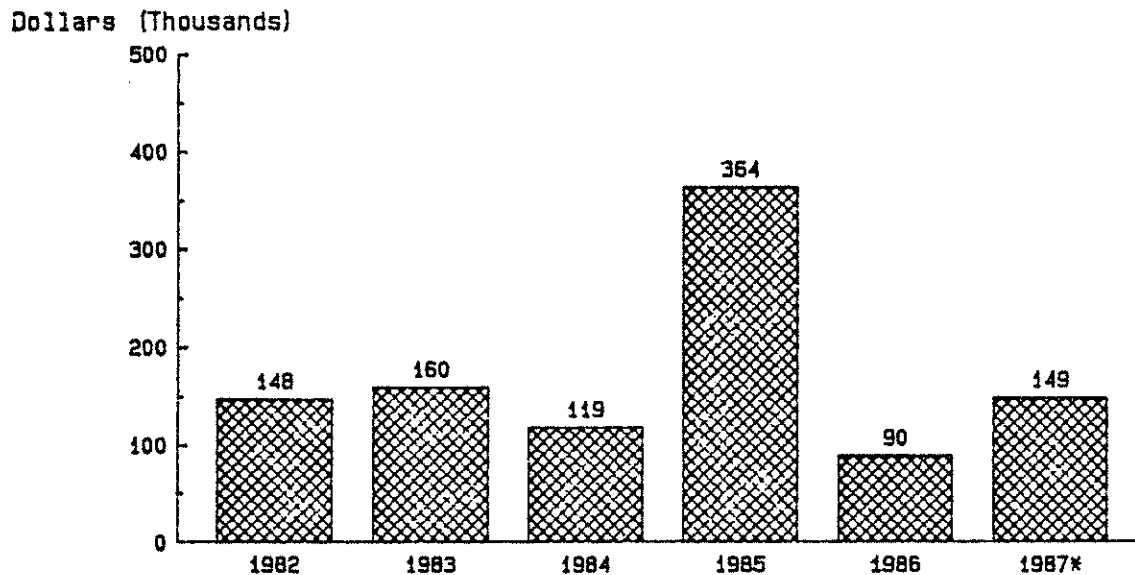


Figure 4-22

Net Income (Regulatory) **



* Estimated

**Computed using methodology applied to regulated utilities.

The airport debt outstanding was \$14,000 as of the end of 1986. The 1987 proposed general obligation bond package contains \$2 million in matching funds for a public aviation terminal at Merrill Field.

The table below summarizes rate changes at Merrill Field.

Table 4-16
Merrill Field -- Summary of Rate Changes
Percent of Increase

<u>Revenue Category</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
Lease/Access Fees	5.9	--	--	11.1	15.0	8.7	8.0
Transient Parking	--	--	--	50.0*	--	--	--
Permanent Parking	--	--	--	12.7	--	--	--

*Increased from \$2 to \$3.