

ALASKA'S ECONOMIC OUTLOOK:
IMPLICATIONS FOR ANCHORAGE

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Prepared for

The Municipality of Anchorage

April 1987

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INTRODUCTION

This paper examines Alaska's economic outlook and assesses how that outlook may affect the Anchorage economy in general and the Municipality of Anchorage and the Anchorage School District in particular. Below we briefly summarize our findings and then discuss the basis of those findings in more detail.

SUMMARY: CONDITIONS AND OUTLOOK

Overall Conditions

- o Most of Alaska's and Anchorage's growth from 1975 through 1985 can be directly and indirectly attributed to development of the huge Prudhoe Bay oil field and the tenfold increase in oil prices between 1973 and 1981.
- o Economic growth in Alaska in the mid-1970s was prompted largely by construction of the trans-Alaska pipeline. Rapid economic growth in the early 1980s was largely the result of state spending of billion-dollar oil revenues.
- o Deterioration of oil prices from their historic highs began in 1982 and by 1984 had already softened the Alaska economy. By 1985 the economy had stalled. The collapse in world oil prices in the spring of 1986 exacerbated the recession by further reducing government revenues and weakening business and consumer confidence.
- o State government revenues fell from a high of \$4.3 billion in 1982 to a projected \$1.6 billion in 1988. Under the high oil price scenario described later in the text and in Appendix A, state spending would increase moderately through 1995; under the low price case, state spending would be level for a few years and then decline moderately.
- o Although other sectors of the Alaska economy are expected to continue to grow, the state's critical dependence on oil revenues will persist throughout this decade and into the 1990s.
- o Anchorage is home to about half the state's population and work force, and economic conditions in Anchorage generally mirror conditions statewide.

The Employment Outlook

- o The best gauge of economic health in Alaska is employment. The state work force grew rapidly between 1980 and 1985. But the state lost 12,000 jobs in 1986 and is projected to lose 7,000 more in 1987.

- o Oil prices have been extremely volatile over the past decade and are likely to remain so for some time. Analysts looking at future oil prices therefore look at a range of possible future prices rather than a single specific price. Using low and high price cases developed by the Alaska Department of Revenue in December 1986, we project that Alaska could lose as many as 5,000 jobs annually through 1991 or that job loss could bottom out in 1987, with modest increases over the next several years.
- o If oil prices remain in the low range of projections, all sectors of the Alaska economy will lose more jobs in the coming years, but the government sector will be hardest hit because of declining revenues: from a peak of 91,000 government workers throughout Alaska in 1985, the number of government workers could drop to 76,000--down 15,000--by 1995. And since numbers of federal employees are expected to hold steady over this period, the losses will be concentrated in state and local government jobs. If oil prices are in the higher range, a projected 6,500 government jobs would be lost by 1989, but those jobs would be regained by 1995.
- o Anchorage's work force peaked at 134,000 in 1985. Basic industry jobs in Anchorage dropped 15 percent in 1986, while numbers of jobs in government and support sectors basically held steady.
- o Under assumptions of lower oil prices, Anchorage could lose 20,000 jobs--nearly 17 percent of its work force--between now and 1995. If oil prices are higher, the number of jobs in Anchorage is projected to hit a low in 1987, hold steady for several years, and then climb back toward 1985 levels by 1995.

Projected Population Changes

- o Alaska's population roughly doubled between 1965 and 1985, but it began declining in 1986. Even under more optimistic assumptions about future oil prices, Alaska's and Anchorage's populations are expected to grow little over the next 10 years. If oil prices are in the lower range, Anchorage and statewide populations will decline slightly.
- o Although Alaska's population is not expected to change much in the next decade, the composition of that population will change. Populations change either because of natural changes (births and deaths) or because people move into or leave a place. Many more people moved into Alaska than left it in the early 1980s. By 1986, that trend was reversed--and more people are expected to leave the state than move into it through 1995, even under more optimistic assumptions about oil prices. But a robust rate of natural increase among Alaskans is expected to offset emigration from the state: over the period to 1995, net natural increases in population are expected to add 10,000 persons per year to the state's population.

- o Sustained emigration from Alaska, combined with robust natural increases, implies that the proportions of both young and old Alaskans will be increasing while the share of working-age Alaskans will be declining. Also, the number of households is likely to decline and average household size may increase.

Changes in Income, Wages, and Prices

- o Real disposable personal income--income after taxes and adjusted for inflation--rose faster than either population or employment in both Alaska and Anchorage in the past decade, but it also declined more rapidly with the onset of the current recession. Directly contributing to the drop in real per capita personal income are the growing shares of Alaskans too young or too old to be in the work force, and the increasing number of working-age Alaskans who are unemployed. In other words, those who are working have more mouths to feed.
- o Declining employment will also put more downward pressure on wages, and the recession will reduce non-wage income from things like real estate holdings. Finally, the relatively high-wage industries like construction are being harder hit by the recession than are lower-wage industries like retail sales--an effect that will further reduce per capita personal income.
- o Anchorage's prices are still above the national average, but the gap between Anchorage and U.S. prices narrowed considerably over the past two decades: while Anchorage prices were about 50 percent above the national average in 1960, by 1984 that differential had dropped to about 25 percent.
- o In contrast to price trends, average wages in Anchorage climbed from about 50 percent above the national average in the late 1960s to almost double the national levels during pipeline construction in the mid-1970s. By 1984 the differential had dropped to 75 percent. And although figures for future years are not available, current and projected economic conditions suggest that the Alaska/U.S. wage ratio will drop at a faster rate than the Alaska/U.S. price ratio in the coming years. This means that Alaskans, who have enjoyed almost 20 years of increases in purchasing power, will experience several more years of real income losses.

The Financial Outlook for State and Local Government

- o State spending mushroomed in the early 1980s. Two of the big beneficiaries of increased state money were Alaska municipalities and school districts. State aid to municipalities grew from \$47 million in 1980 to \$705 million in 1985; state aid to schools grew from \$290 million to \$778 million during the same period. Local jurisdictions cut taxes and expanded services on the strength of those state dollars.

- o State spending in 1988 is projected to be less than half of what it averaged from 1981 through 1986. State capital grants to municipalities, which totalled \$2 billion in the first half of the 1980s, have been almost eliminated. State operating aid to municipalities has already been cut and is expected to be cut more. Likewise state aid to schools is expected to drop.
- o In 1985 and 1986, declining state and federal aid and increasing local property valuations made property taxes an increasingly important source of general government revenues in Anchorage. But in 1987 property valuations began to reflect the economic recession, dropping by an average of about 20 percent.
- o Reduced property values mean that the same rate of taxation brings in less revenue. And the amount that Anchorage property taxes can be raised to offset declining property values is limited by a tax cap enacted by voters in the early 1980s; that cap restricts tax increases under a formula that takes into account inflation and population changes.
- o Because Anchorage's population grew so quickly in the first half of the 1980s, inflation adjusted municipal expenditures per resident actually declined--and steep declines in expenditures per resident are projected for the coming years, unless local revenues are increased significantly above their current levels. But the legal tax cap is expected to hold tax collections in the next few years to roughly their current levels.
- o Municipal officials have estimated that if Anchorage tries to hold its current levels of services, employee compensation, and taxation, it could face a revenue shortfall of about \$30 million by 1990.
- o Confronted with such a potential shortfall, Anchorage voters could repeal the tax cap or urge their assembly members to reduce services or cut municipal pay--or some combination of those alternatives.
- o The Anchorage school district is similarly affected by falling state revenues and the tax cap--and school officials have estimated that at current levels of services, taxation, and employee pay, the district could face a shortfall of \$20 million by 1990. Alternatives for avoiding that shortfall are essentially the same for the school district as for the municipality.
- o Projected declines in population and school enrollment could help reduce financial pressures on the municipality and the school district.

THE ALASKA ECONOMY

The Alaska economy is structured by and responds to three major sets of forces. First, Alaska is part of the national economy and is affected by national economic trends and federal government policies. Second, it is a resource-based economy and a significant portion of its economic activity is determined by the prices and quantities of the resources it sells, primarily oil and secondarily fish. And third, partly because of the large revenues state government receives (relative to total state personal income), it is a regional economy in which the state government's use of its resource revenues significantly affects the pattern and pace of economic activity in the state.

National Economic Influences

As an integral part of the national economy, Alaska is affected by the country's overall economic performance and by the policies and practices of the federal government. National interest rates affect the availability and demand for money to finance such things as business expansion and home building.

Since many of the goods and services Alaskans purchase are manufactured in or provided from the lower 48 states, the national rate of inflation affects the costs of goods and services in Alaska. Although Alaska's cost of living is still higher than the national average, Alaska's rate of inflation--as measured by the Anchorage consumer price index--has over the past two decades been lower than the national inflation rate. This trend reflects the increased scale and efficiency of the Alaska economy. Alaska's current

economic recession will in all likelihood keep Alaska's inflation rate below that of the rest of the country in the immediate future.

Foreign exchange rates affect the purchasing power of foreign countries and therefore the relative attractiveness of Alaska's harvested resources such as fish. These exchange rates reflect U.S. foreign trade policies. Because of current large trade imbalances, particularly with Japan, most analysts expect exchange rates will tend to favor the export of U.S. goods and resources.

Federal policies also significantly impact the Alaska economy. Military bases in Alaska have been important elements of the state's economy since World War II. The number of active military personnel based in Alaska steadily declined from 33,000 in the mid-1960s to 23,000 in 1980. However, the Department of Defense has announced that it intends, and has already begun, to increase the number of active duty military personnel in Alaska by several thousand over the next few years.

The federal government's spending on large capital projects like highways and docks, on transfer programs (like Aid to Families with Dependent Children and Medicare), and on federal government workers based in Alaska are also important elements of the Alaska economy. In general, the trend over the past fifteen years has been for federal payments to state government to decline moderately. But during the same time, the number of federal civilian government workers in Alaska has held steady at around 17,000 to 18,000.

Federal policies also govern the use and disposal of large federal land holdings in Alaska. The oil and gas leasing of onshore and outer continental shelf lands plays a particularly important role in developing Alaska's important petroleum sector. And Alaska

also receives a significant portion of resource revenues collected on federal lands. Given the long lead times required to develop mineral resources, it is unlikely that the state will receive any large payments of shared mineral leases from the federal government within the next few years. The state does have a dispute with the federal government over rights to some offshore petroleum leases; if that dispute were settled in the state's favor, the state could collect hundreds of millions of dollars currently held in escrow accounts.

The U.S. extension of its jurisdiction over fishing to the 200-mile limit and the corresponding allocation of fish harvests within this economic zone have dramatically increased the proportion of the total allowable catch going to U.S. fishermen. This development is having an important effect on Alaska's fishing industry and on those southeastern and southwestern coastal communities most dependent on fishing.

Alaska's Resources

At the foundation of the Alaska economy are those resources Alaska sells to non-Alaskans. The extraction and harvest of Alaska's natural resources make up most of Alaska's basic or export sector. The largest, and most significant, of basic activities are those related to the exploration, development, and production of oil and gas. The petroleum industry accounted for about 44 percent of Alaska's estimated total gross state product in 1984. Over the past six years, approximately 85 percent of total state government revenues were derived from activities related to oil and gas

development. Some 14 percent of total employment in Alaska's basic industries in recent years was directly related to petroleum activities, including transporting and refining petroleum.

Most of Alaska's economic growth from 1975-1985 can be attributed to the development of and production from North America's largest oil field, located at Prudhoe Bay, and to the tenfold increase in oil prices between 1973 and 1981. The dramatic increase in the price of oil spurred increased exploration for and discovery of additional commercial oil fields on the North Slope. Correspondingly, the crash of oil prices (to below \$10 per barrel) in the spring of 1986 significantly reduced the incentives to explore for new oil or to increase the recovery of existing oil reserves and forced the abandonment of at least one smaller, marginal field. It also made the state's other exportable energy resources like coal and natural gas comparatively less attractive, at least in the short run.

Oil prices actually began falling as early as 1982, and that decline led to Alaska's current economic recession. State revenues plummeted from a high of \$4.1 billion in 1982 to a projected \$1.6 billion for 1988. Deterioration of oil prices from their historic highs had by 1984 already softened the state's economic growth. By late 1985, the economy had stalled. The spring 1986 collapse of oil prices exacerbated the economic recession by further reducing government revenues and weakening business and consumer confidence.

Although the petroleum industry has dominated Alaska's economy in recent times, other natural resource industries have historically been and remain important to the state's economy. Alaska's fishing

and tourism industries grew steadily over the past decade. That growth is expected to continue into the 1990s.

Expanding the fishing industry, which employs about 14,000 workers--on an annual average and including processing workers--and exports nearly one billion dollars worth of fish each year, depends on maintaining the fishing stocks, increasing the value of the product, and stepping up Alaska's participation in the emerging bottomfish fishery. Growing U.S. consumption of fish, along with higher prices and increased allocations of the allowable harvests to U.S. fishermen, bode well for Alaska's expanded participation.

Employment in Alaska's tourism industry has doubled over the past ten years. Alaska appears to be an attractive--even though expensive--tourist attraction. Furthermore, in the judgement of some analysts, the number of tourists now visiting the state is small relative to potential numbers. State government's aggressive efforts to promote Alaska as a tourist destination appear to be working.

Current low prices for a number of Alaska's minerals lessen the prospects that many of the state's mineral deposits will be developed soon. Several world-scale mining projects are poised for development, if lead, zinc, and molybdenum prices continue to increase. However, even if these projects are developed over the next decade, the economic impacts will be concentrated in the regions where the mines are located and will have limited overall effects on the state's economy.

The condition of the timber industry in Alaska is similar to that of the mining industry. Although timber prices appear to be

recovering from a ten-year slump, no significant increase in the commercial harvest of timber is expected.

With the exception of fish processing and some timber and petroleum-related processing, Alaska manufactures very little for export. Similarly, the bulk of the remaining economic sectors either support the basic industries (like some heavy construction and transportation activities, for example), or are supported by the local economy--like the finance, insurance, and real estate industries, for example.

The Regional Economy

Notwithstanding national economic influences, Alaska's geographic location and resource endowment make its economy distinct, even from that of its nearest neighboring region, the Pacific Northwest. This is not to suggest that the Alaska economy is unrelated to that of the Pacific Northwest, for indeed it is related. Rather, it is to emphasize that Alaska's is a regional economy whose pace and direction can best be understood by examining the economics associated with developing the region's natural resources, the economic rent (or revenues) it collects and spends from its resource developments, and the internal (or endogenous) growth of the regional economy.

Having already briefly reviewed the outlook for developing Alaska's resources, we now focus on the revenues the state receives from its resource developments. For the past eight years, state oil and gas related revenues have constituted 85 percent of all state revenues. For the foreseeable future, state revenues will continue to be inextricably linked to oil prices.

For example, in 1985 the U.S. Department of Commerce's Bureau of Economic Analysis estimated Alaska's total personal income to be \$9.5 billion dollars. In that same year, state government spent \$3.6 billion dollars. Twenty percent of the civilian work force is directly employed by state or local government.

State spending has been on a roller coaster. Recent analysis of state spending documents shows that state spending--excluding transfers, dividends, and federal receipts--increased from \$1.2 billion in 1979 to \$3.6 billion in 1985. Estimates of state spending in 1987 are around \$2.7 billion, and state revenue analysts are forecasting state revenues to be about \$1.6 billion annually from 1988 through 1990.

An increasingly important source of state revenues is earnings of the Alaska Permanent Fund. Alaska voters amended the state constitution in 1976 to create the fund and to require that 25 percent of all future bonus payments and royalties derived from the sale or lease of Alaska resources be deposited in the fund. By mid-1987 more than \$8 billion had accumulated in the fund. In previous years, the earnings of the fund were allocated by formula to pay each Alaska resident a dividend and to protect the principal of the fund from the effects of inflation. The remainder of fund earnings were held as a special reserve account called the undistributed income account.

The Alaska Legislature in 1987 has voted to use a portion of the undistributed earnings of the Permanent Fund to make up the current fiscal year's deficit. It is likely that several hundred million dollars of additional undistributed fund earnings will be used to fund a portion of next fiscal year's general fund budget. Projected

declines in state petroleum revenues will create political pressure to use increasing proportions of the fund's earnings to support general government. Similar pressure will build to reimpose a personal income tax in Alaska and to increase petroleum-related revenues. Under a personal income tax bill Governor Cowper has submitted, the state would collect an estimated \$250 million in fiscal year 1988 (approximately 12.5 percent of the projected general fund budget for that year).

Fueled by the dramatic increase in state spending, Alaska's population grew at a rate of about 5 percent per year in the first half of the 1980s. From 1980 to 1985 the state's population increased from 413,000 to 539,600. The recent sharp reductions in state revenues and state spending translate into a reduction in the state's work force, which will likely trigger increased emigration from the state. This emigration from Alaska will be increased if job prospects and relative wages and prices are better in other states, particularly those from which recent Alaska residents originally came.

THE ANCHORAGE ECONOMY

The Anchorage economy mirrors the state's economy. About half the state's population and work force live in the Anchorage region. Consequently, statistics reporting on Alaska's economic conditions also reflect Anchorage's conditions.

The Municipality of Anchorage is the state's service center. While the state capital is in Juneau, about 40 percent of all state workers are based in Anchorage. Similarly, while the statewide

administration of the University of Alaska is based in Fairbanks, approximately 46 percent of all university student credit hours are taught in Anchorage. The municipality also serves as the headquarters for most of the state's biggest industries. Major medical services are based in Anchorage, as are most financial, legal, and technical services. And, with the exception of southeastern Alaska--which is linked to Seattle by a ferry system--Anchorage is the transportation hub for the state, as well as the communications center. About 49 percent of active military personnel in Alaska are stationed at Anchorage bases.

As Alaska experienced both employment and population growth, so did Anchorage, and in roughly the same proportions. And as Alaska experiences an economic recession, accompanied by both job and population loss, so will Anchorage. Anchorage's economic outlook will also reflect that of the state's economy.

AN ECONOMIC REVIEW AND OUTLOOK

In the following pages we discuss key aspects of the state's and the municipality's recent economic history and preview the outlook for those same economic measures.

Before we assess the economic outlook, a few preliminary remarks about the assumptions we used to project future economic activity are in order. First, as mentioned earlier, petroleum-related revenues dominate the state and local economy. As oil prices rise and related revenues increase--particularly the state government's share of those revenues--the economy expands as government spends these additional dollars. Correspondingly, as the price of oil

declines and revenues decrease, the economy contracts because the state and local governments have fewer dollars to spend. The more dramatic the price change, the more dramatic the associated economic change.

At the start of the 1980s oil prices rose to historic highs, peaking in 1981 at approximately \$34 per barrel. State revenues climbed to a high of \$4.3 billion in 1982, representing the equivalent of \$9,500 per Alaska resident. Oil prices in real terms began steadily declining from this historic high after 1981, dropping to about \$26 per barrel by the fall of 1985. In 1986 oil prices bottomed out at less than \$10 per barrel and by mid-1987 stood at about \$18. Because of a one- to two-year lag in state spending of the oil revenues it received during the period of high oil prices, state and local economic activity did not peak until 1985. After 1985, the rate of economic growth began to decline. In the spring of 1986, the rate of employment had dropped 5 percent--while in 1981 it had increased 12 percent. Alaska has been losing jobs at the rate of about one thousand per month since the third quarter of 1985.

While the state and local economies are by no means totally dependent on oil revenues, recent rapid economic growth and subsequent decline are directly attributable to the fluctuation in oil revenues. This critical economic dependency on oil revenues will persist throughout the balance of this decade and well into the 1990s. Consequently, to forecast economic activity during this period requires a forecast of oil prices. Because oil prices have fluctuated widely over the past ten years, most analysts use a range of prices rather than a specific price in preparing their forecasts.

For this economic overview we selected a range of possible high and low oil prices from the Alaska Department of Revenue's official December 1986 forecast. State analysts estimate there is only a 30 percent chance that oil prices will be as high as those used in the high case, but a 70 percent chance that oil prices will hit the level used in the low case. (See Appendix A for the real prices associated with the two cases.) Below when we talk about future economic activity in the state or the municipality, we will refer to either the high or the low cases.

Employment

Earned income (wages and salaries) represents 79 percent of total personal income in Alaska. Consequently, employment is the principal indicator of economic health in both Alaska and Anchorage. While measures of unearned income, including various transfer payments and investment earnings, are important, as are relative wages and prices, employment is the single best economic barometer in Alaska and in Anchorage.

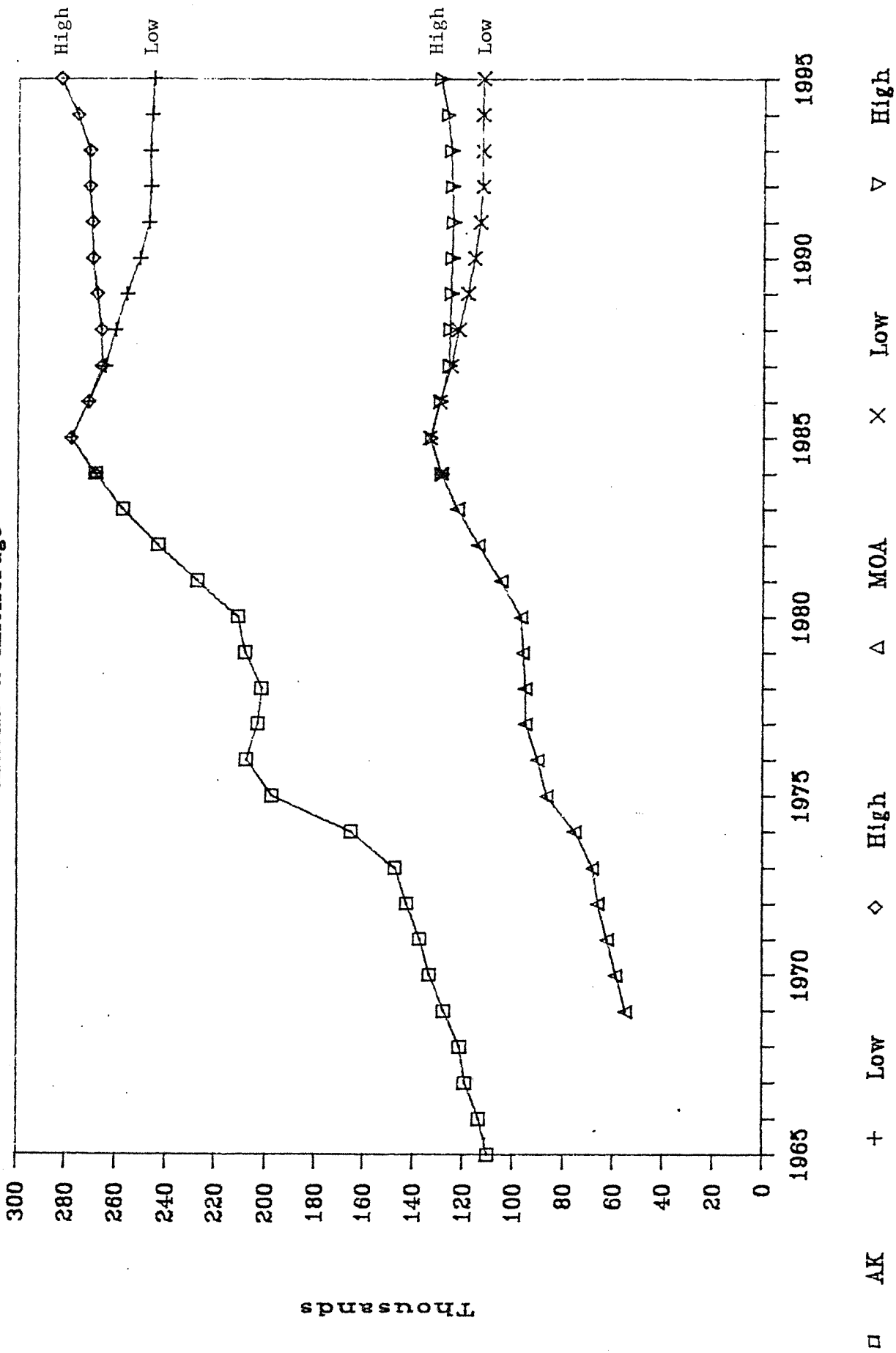
As shown in Figure 1, Alaska employment grew steadily from 1965 to 1974. Construction of the trans-Alaska pipeline spurred a rapid expansion in employment from 1974 to 1976. After the pipeline was completed, state employment remained relatively flat through 1979. Beginning in 1980, the work force began expanding rapidly, peaking in 1985 at approximately 280,000 workers. The state work force declined by an estimated 12,000 workers in 1986 and is projected to decline by about 7,000 more in 1987.

Figure 1 also shows work force projections beyond 1987 under the low and high cases. The low case projects statewide employment

Figure 1

TOTAL EMPLOYMENT

Alaska & Anchorage



dropping by about 5,000 workers per year through 1991 and then holding constant at 246,000 workers. The high case projects that the work force will bottom out in 1987 and post moderate increases for the next several years.

The Anchorage work force has a history similar to that of the state as a whole, but the fluctuations have been more moderate. The municipality's pipeline experience--both the increase and the subsequent decline in jobs--were less pronounced than the state's. The Anchorage work force peaked in 1985, at just under 134,000. In 1986, the basic sector in Anchorage experienced a 15 percent decline in numbers of jobs, while the support sector and the government sector held constant.

Looking ahead, the low case projects that over the period to 1995 Anchorage will lose about 20,000 workers and the work force contract about 16.8 percent. In the high case, Anchorage employment is projected to hit its low in 1987, hold essentially steady for several years, and climb toward 1985 levels by 1995.

The changes in the composition of the work force are shown in Figures 2 and 3, which divide the work force into three categories: the basic sector, largely those sectors exporting resources from Alaska; the government sector (federal state, and local governments); and the support sector, which includes all other sectors of the economy. Historically, the government work force increased in direct proportion to growth in the basic sector, while the support sector grew more rapidly. Changes in the support sector reflect changes in the national work force, as well as growth in Alaska's population, which permitted a greater variety of goods and services to be provided locally.

Figure 2

ALASKA EMPLOYMENT BY SECTOR

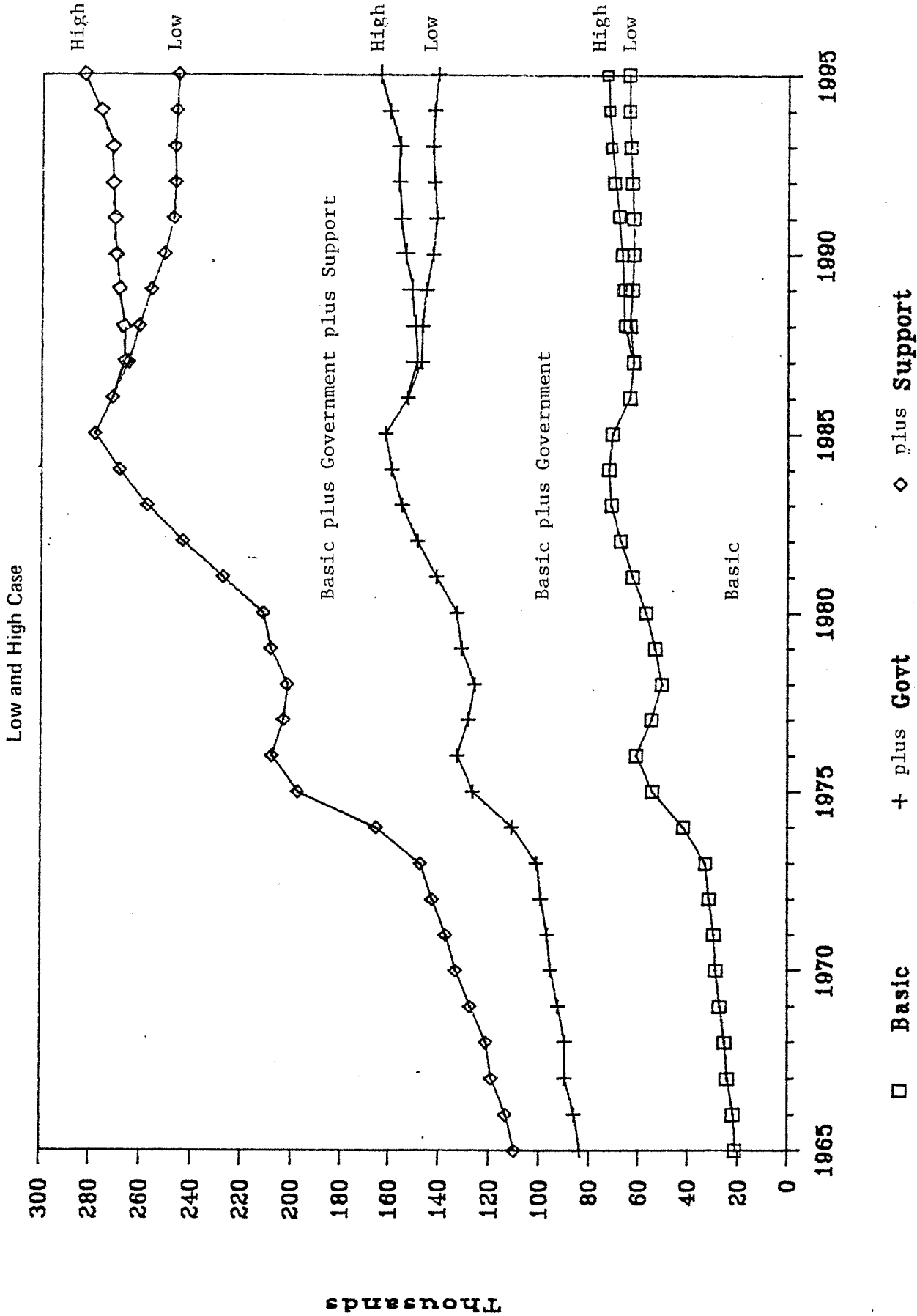
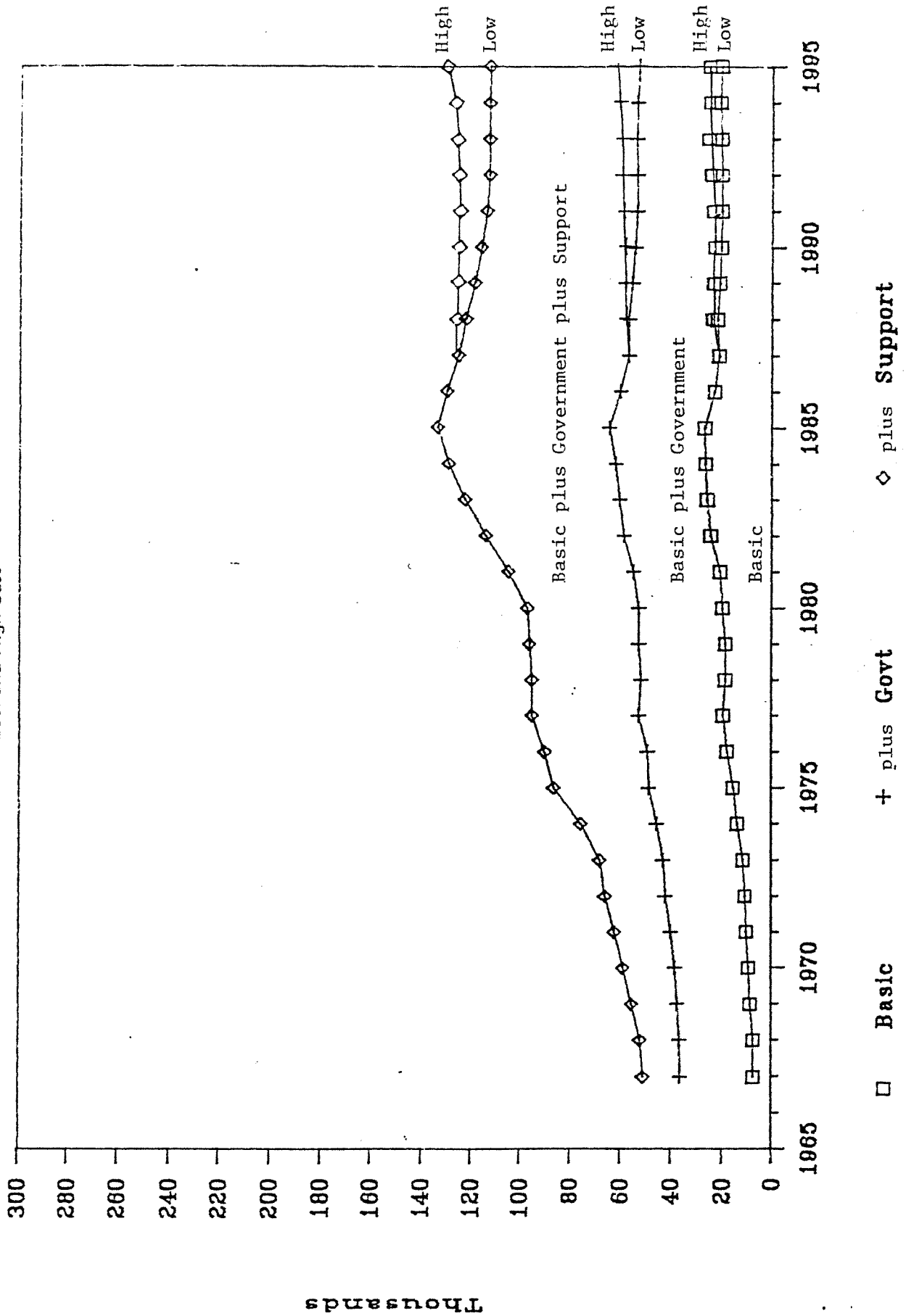


Figure 3

ANCHORAGE EMPLOYMENT BY SECTOR

Low and High Case



The low case projects that all sectors of the economy will lose jobs in the coming years, but government--because of declining revenues--will lose most: about 15,000 workers, falling from 91,000 in 1985 to a low of 76,000 workers in 1995. This represents a potential government work force reduction of 16 percent. And because federal government employment is expected to hold steady, the drop in jobs will be concentrated at the state and local levels. The high case projects that government employment will fall by about 6,500 workers by 1988-89, but rebound by the end of the forecast period. A similar, but more moderate, pattern of employment change is projected for the basic and support sectors.

Population

In response to increases in job opportunities, Alaska and Anchorage enjoyed a relatively steady growth in population over the past twenty years, with population roughly doubling between 1965 and 1985. Figure 4 shows that population growth in both the municipality and the state was flat for a few years in the late 1970s, increased rapidly during the early 1980s, peaked in 1985, and then declined in 1986. Under the projected high case, population growth will be modest in both Anchorage and the state over the next ten years; under the low case, relatively small population declines will persist.

However, while no significant population growth is expected over the next ten years, major changes in the composition of Alaska's population are expected to occur. Population changes are attributable either to natural changes (births and deaths) or to immigration and emigration. Figure 5 reports the contribution

Figure 4

POPULATION 1965-1995

Alaska & Anchorage

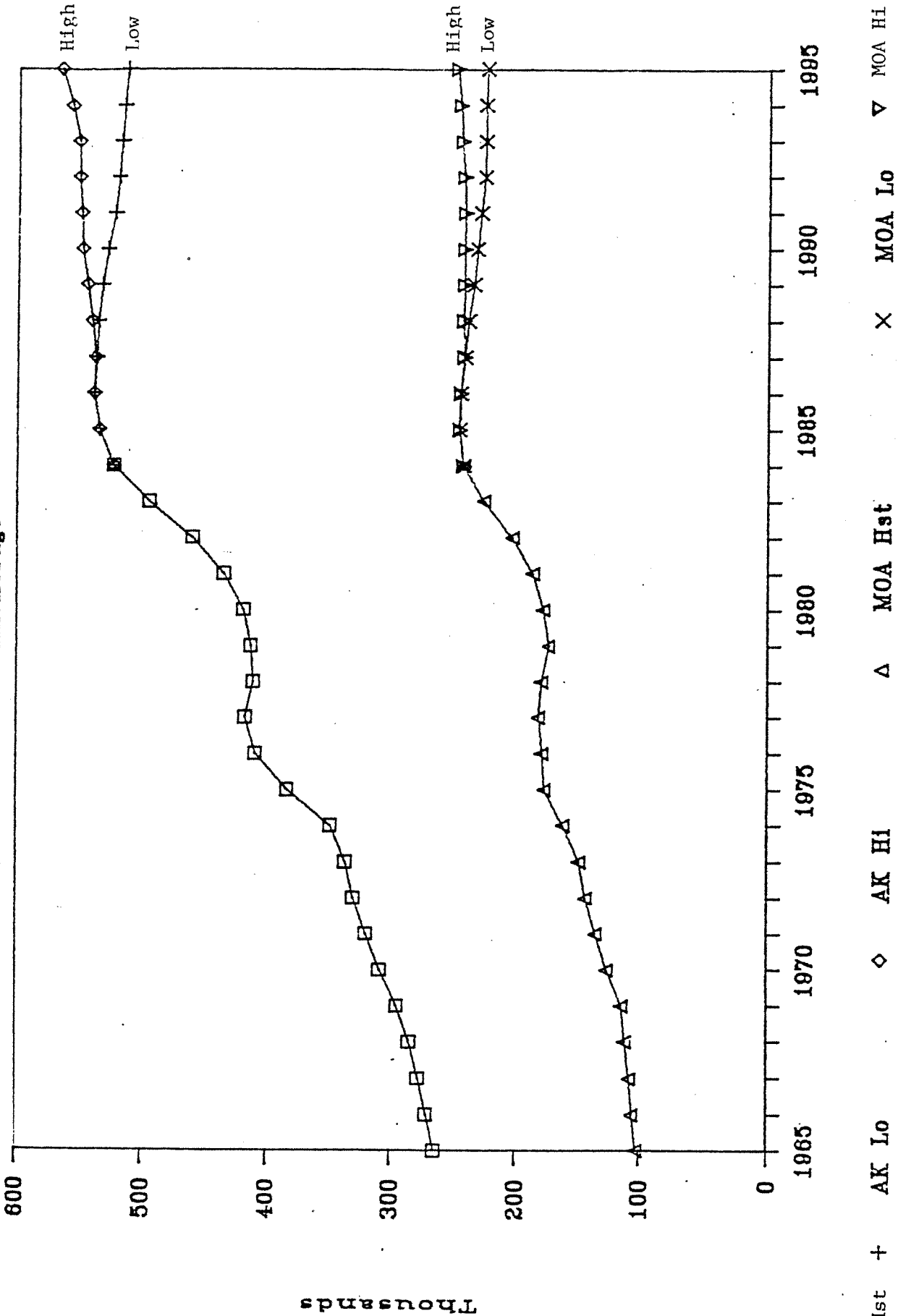
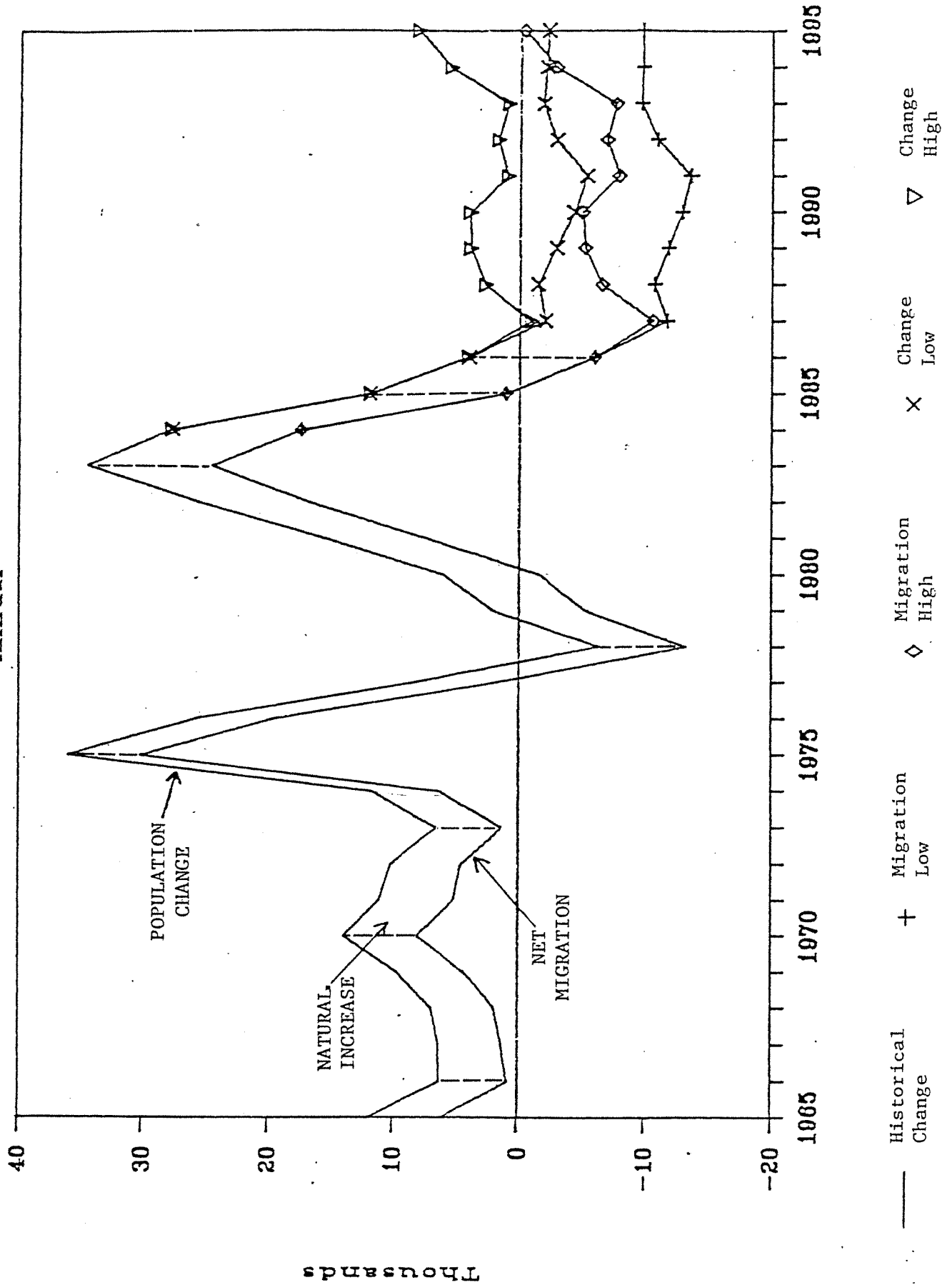


Figure 5

COMPONENTS OF POPULATION CHANGE

Annual



migration and natural increase made to Alaska's population change in recent years. The migration number reported is a net figure, or the difference between the number of people moving into Alaska and the number moving out. If the net migration is positive, more people moved into the state than left it. So, in 1975, approximately 30,000 more people moved to Alaska than left the state. However, by 1978 about 5,000 more people left the state than moved to it.

Figure 5 shows that in 1983 25,000 more people moved into Alaska than moved out. By 1985, however, the net migration was almost zero, and in 1986 more people left the state than moved in. The trend of more people leaving that state than moving in is projected to continue through 1995, even under the high case. In the low case, approximately 10,000 more people are projected to leave the state annually through the mid-1990s than move to Alaska.

Offsetting this projected emigration are large increases in net natural population growth. To illustrate, in 1985 when net migration was almost zero, Alaska experienced a net natural increase of approximately 12,000. As a consequence, Alaska's population increased about 12,000. Over the projection period, net natural increases in population are expected to add about 10,000 people annually to the state population. Net natural increases under the low case projections are somewhat smaller than under the high case, reflecting the effects of fewer residents of child-bearing age.

A sustained net emigration from Alaska, combined with a relatively robust net natural increase, implies that the proportions of both young and old Alaskans will be increasing, while the proportion of working age will be declining. It also implies that

the number of households will decline and that average household size may increase.

Personal Income

Alaska's and Anchorage's real disposable personal income rose faster than either population or employment in the past decade, but also declined at a faster rate over the past year. Figure 6 charts this history and projects a continuing sharp decline for 1987 and 1988 and then a leveling off for the balance of the projection period.

Directly contributing to this decline in real disposable per capita income is the increase in the proportions of the total population who are very young, old, or out of work. In other words, workers have more mouths to feed. Furthermore, real declines in employment will, on the average, pressure real wages down, and the recession will erode non-earned income from such in-state investments as residential and commercial real estate. The imposition of new taxes would also further reduce disposable income relative to earned income. And finally, a change in the composition of the work force will also lower the per capita disposable income average. Relatively high wage industries--such as construction--are expected to lose more jobs than low wage industries--like retail sales.

Figure 7 shows historical changes in the ratio of Anchorage's average wages and prices to those of the U.S as a whole. Anchorage prices are still above the national average, but the gap between Anchorage and other U.S. prices has steadily declined over the past two decades, with a brief disruption in the mid-1970s when pipeline

Figure 6

PER CAPITA REAL DISP PERS INC 1965-1995

Alaska & Anchorage

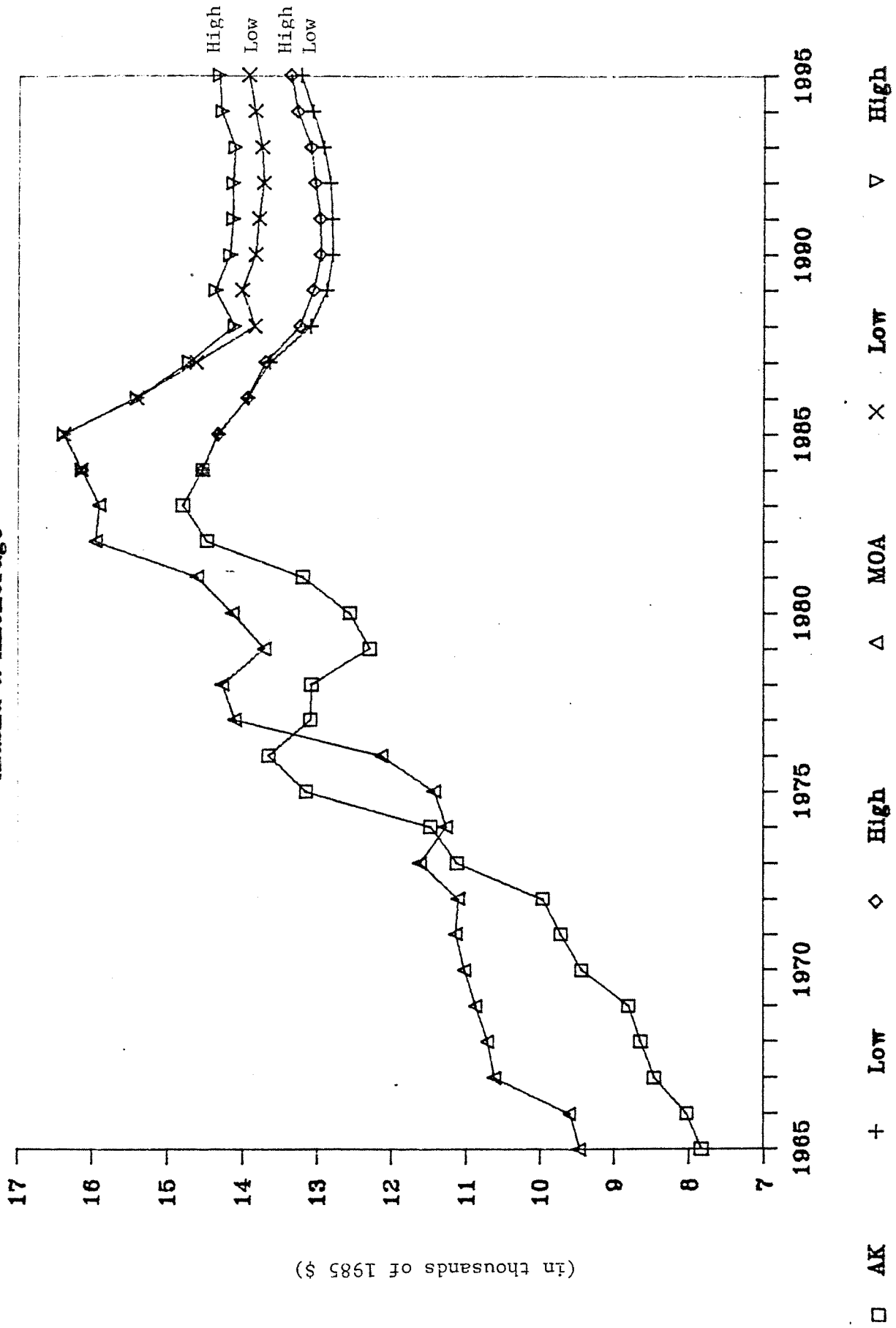
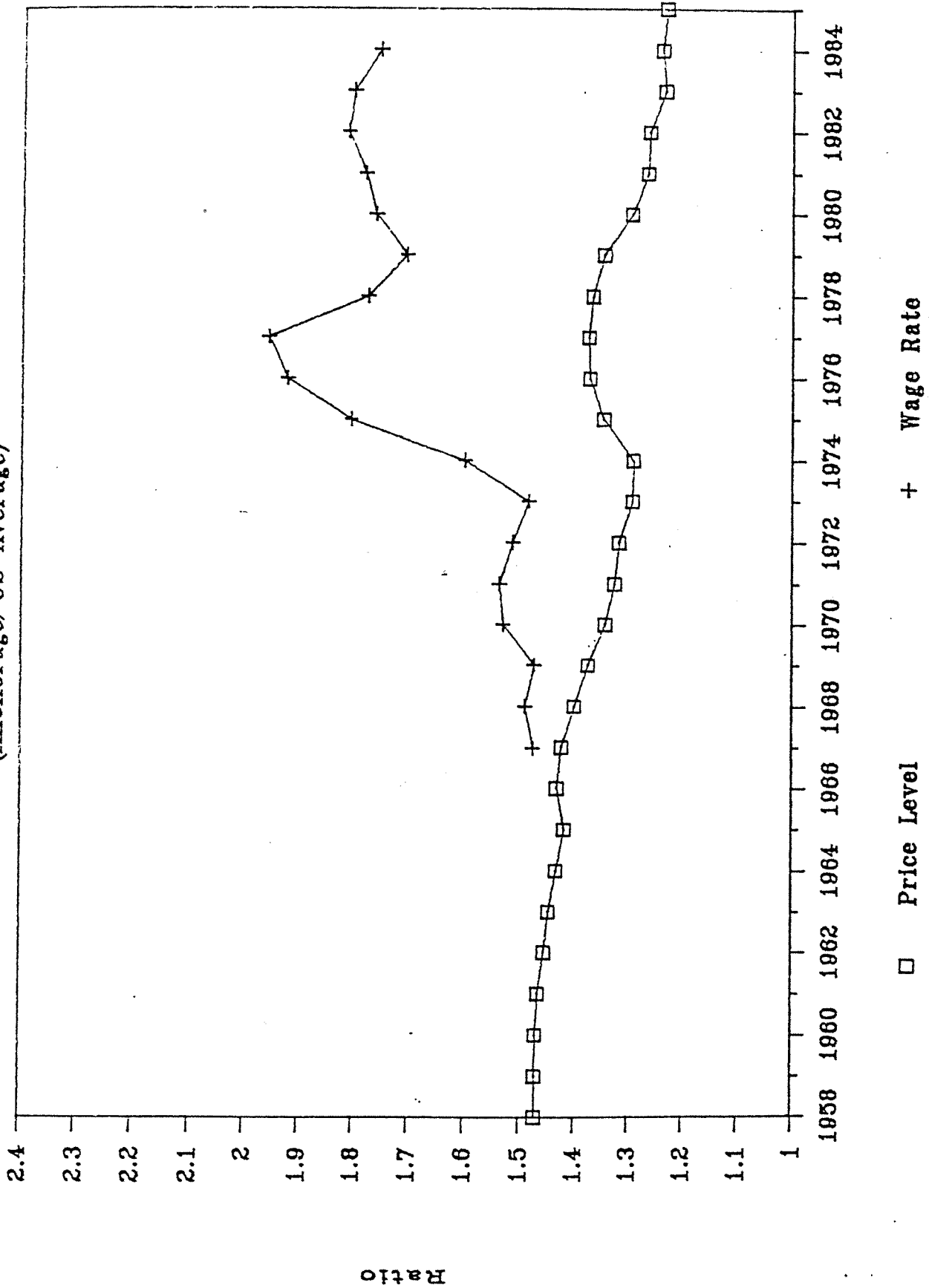


Figure 7

AVERAGE WAGE & PRICE LEVEL RATIOS (Anchorage/US Average)



construction pushed up Anchorage's rate of inflation. While Anchorage prices were almost 50 percent above the U.S. average in 1960, by 1984 that gap had narrowed to 25 percent.

In sharp contrast to price trends, average wages in Anchorage climbed from 50 percent above the national average in the late 1960s to almost double the national average in the mid-1970s. By 1984, that differential had dropped to about 75 percent. Although figures for future years are not available, current and projected economic conditions suggest that average wage ratios will continue to decline at a much faster rate than the price ratio. The consequence of this is that Alaskans who have enjoyed almost twenty years of continuing increases in purchasing power will experience a few more years of real losses.

State Revenues and Expenditures

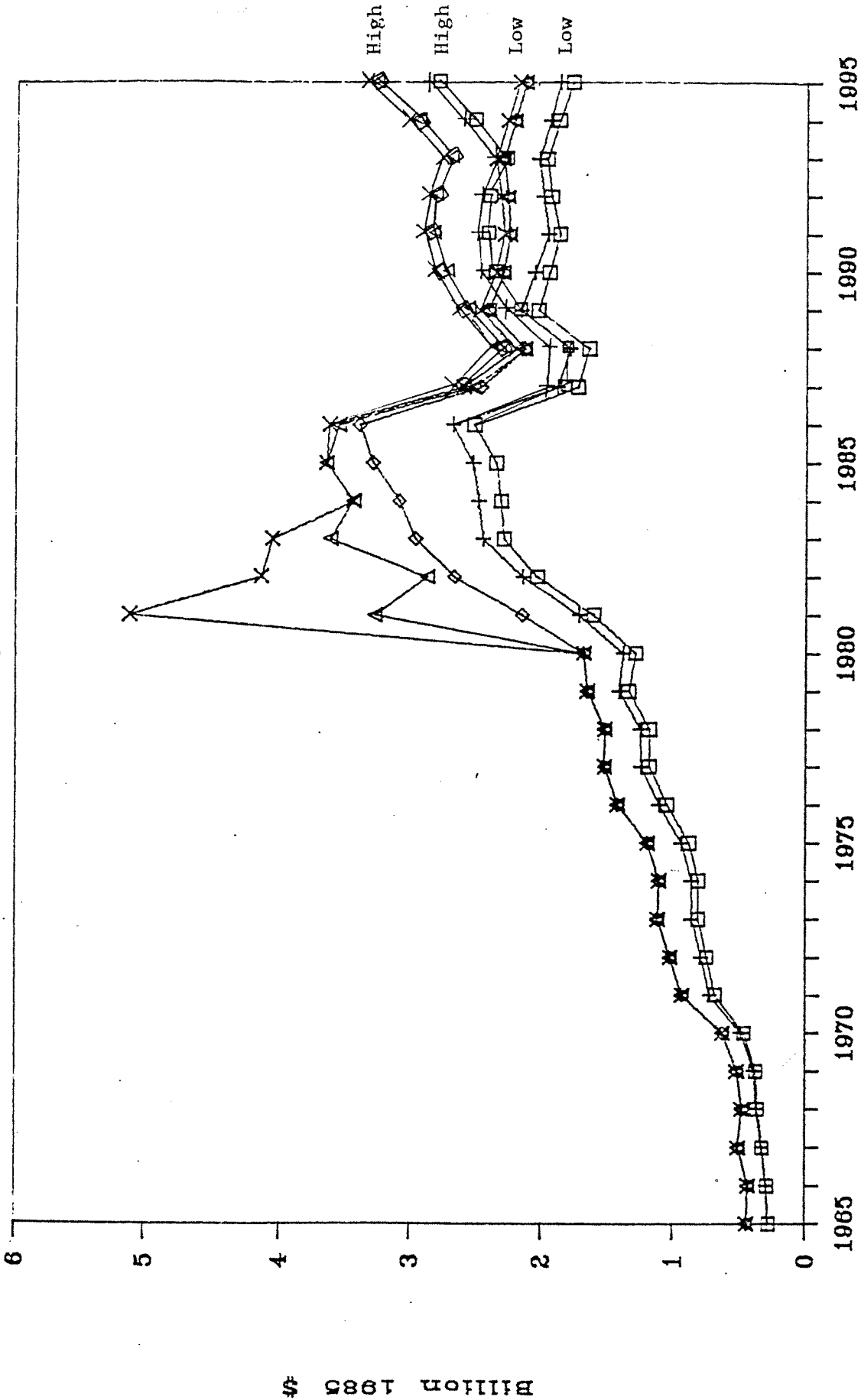
State spending of its oil revenues was the primary cause of the rapid acceleration in economic activity in Alaska in the early 1980s. While state spending was the equivalent of about 20 percent of disposable personal income in Alaska in the early 1970s, by the early 1980s that percentage had grown to over 60 percent. The 1986 crash in oil prices and state revenues halved this percentage in the space of two years.

Figure 8 summarizes state general fund spending over the past two decades and projects future revenues (and spending). If we eliminate state expenditures for special operations and special capital projects, we see that state spending steadily increased for 20 years, peaked in fiscal year 1986, fell steeply in 1987, and is projected to decline more in 1988. Under the low case scenario, but

Figure 8

GENERAL FUND EXPENDITURES

Low and High Case



□ Regular Operations
 + Debt Service
 ◇ Regular Capital
 △ Special Capital
 X Special Operations
 □ Special Operations

Note: Includes restricted and unrestricted accounts. Categories are cumulative; the high point in each year is the sum of the categories.

assuming partial use of Permanent Fund earnings and reinstatement of the personal income tax, state spending is projected to increase moderately in 1988 and to remain relatively level for the balance of the projection period. Under the high case scenario, state spending would increase moderately over the projection period, as higher oil prices resulted in higher revenues and more oil production.

State spending more than tripled from 1980 to 1981, going from a \$1.4 billion budget to one of \$4.6 billion. Over the next five years state spending averaged about \$4.3 billion per year, peaking at \$5.2 billion in 1985. (The peak year of spending lagged the peak year of revenues by several years because a big share of capital spending did not take place until 1985.) Included in this mushrooming state spending were voluntary contributions to the Alaska Permanent Fund, cash dividends paid to individuals, and grants made to major public corporations and loan funds.

General government expenses also increased sharply over the same period. State aid to municipalities increased from \$47 million in 1980 to \$705 million in 1985, and aid to schools increased from \$290 million to \$778 million during the same period.

State spending for next fiscal year is projected to be a little less than half of what it averaged from 1981-1986. As a consequence, voluntary contributions to the Alaska Permanent Fund have stopped, as has additional capitalization of public corporations. State capital construction activity has been drastically reduced. Major reductions in state agency budgets and loan programs are also projected. State capital grants to municipalities have been almost eliminated, and future state municipal assistance will also be significantly reduced. Aid to schools is also expected to be reduced.

LOCAL EFFECTS OF REDUCED STATE AID

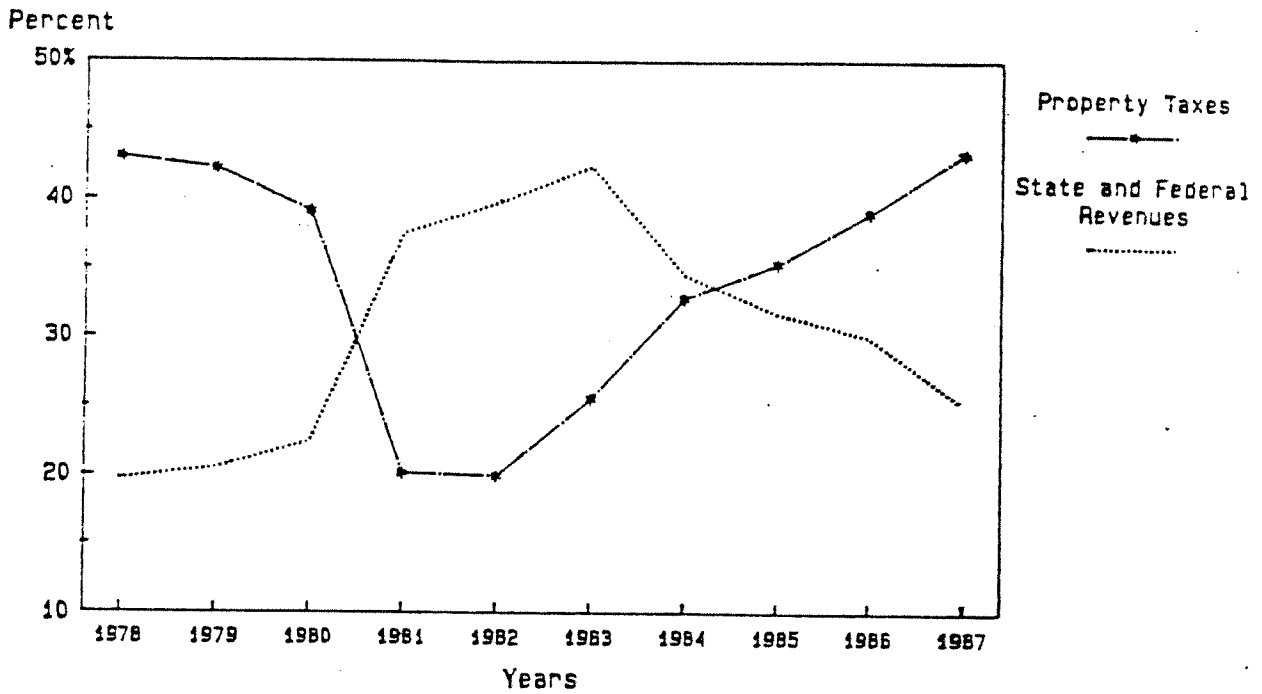
Just as the Anchorage economy reflects the state economy, so too does local government finance reflect the financial condition and outlook of state government. Figure 9 shows the percentage of the Municipality of Anchorage's general government operating revenues which came from local property taxes between 1978 and 1987, compared to the percentage from state and federal revenues. The pattern is clear. In 1978, before the advent of large state revenues and big increases in state aid to municipalities, local property taxes made up nearly 45 percent of general government operating revenues and federal and state aid together about 20 percent. By the early 1980s, when the municipality was receiving much more state funding, the proportions of state/federal revenues to local property tax revenues had reversed themselves. However, by 1985 and 1986 local property taxes once again contributed a bigger share to local operating revenues than did state and federal aid. That change was caused by a combination of declining state and federal aid and significant increases in local assessed valuations.

By 1987 Anchorage's assessed valuations caught up with the economic recession that had started a year earlier. Assessed valuations on the average fell about 20 percent in 1987. Consequently, the revenue generating power of the pre-existing ratio of property taxation also declined by a corresponding amount. The municipality's operating budget for 1987 was reduced by approximately 6 percent in partial response to the loss in local property values.

Figure 9

SUMMARY FISCAL TRENDS INFORMATION

Property Taxes and State/Federal Revenues
As % of General Government Operating Revenues

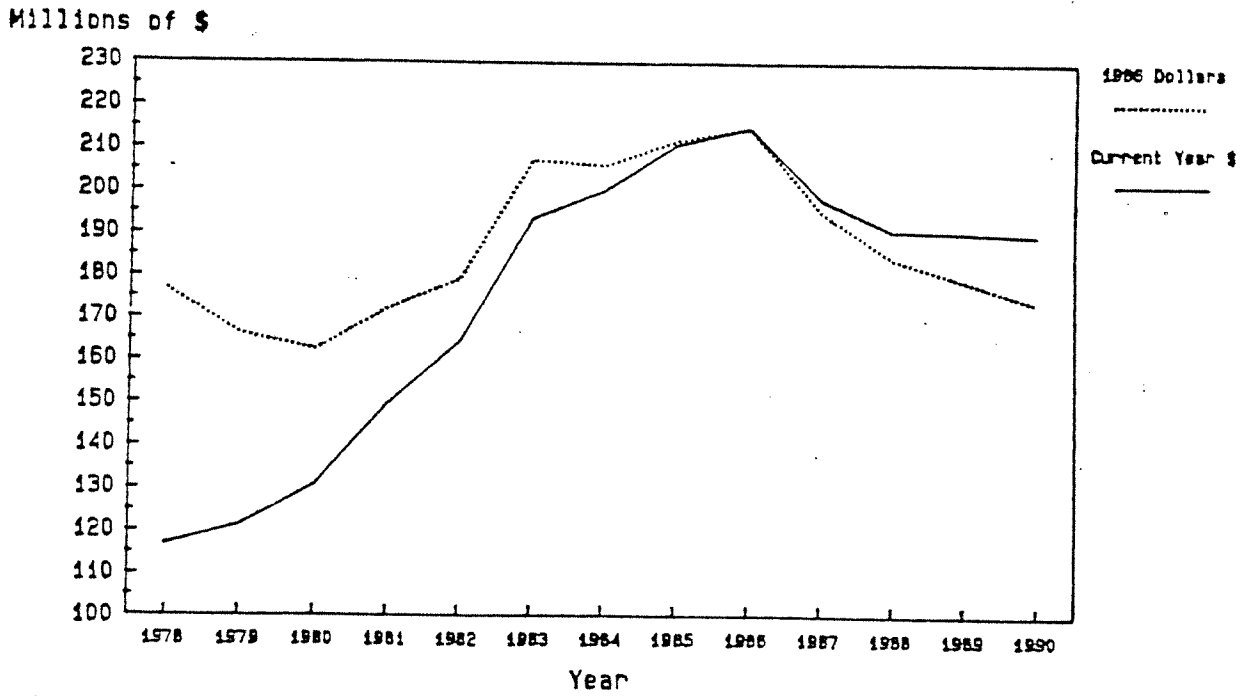


Figures 10 and 11 chart the municipality's budgeted operating revenues and show budgeted expenditures in real (or inflation adjusted) per capita terms for the period from 1978 through 1990. Figure 10 shows budgeted operating revenues increasing steadily from 1980, peaking in 1986, and steadily declining through 1990, assuming the municipality continues to collect the same level of property taxes each year.

Figure 11 essentially converts Figure 10 into budgeted expenditures per resident. Because of the rapid population growth Anchorage experienced in the early 1980s, expenditures per resident declined moderately in the first half of the 1980s, and steep declines are projected for the balance of the decade, unless local revenues are significantly increased above current levels. In fiscal planning exercises, municipal officials have projected a possible revenue gap of \$30 million by 1990, if the municipality maintains current levels of services, compensation, and taxation.

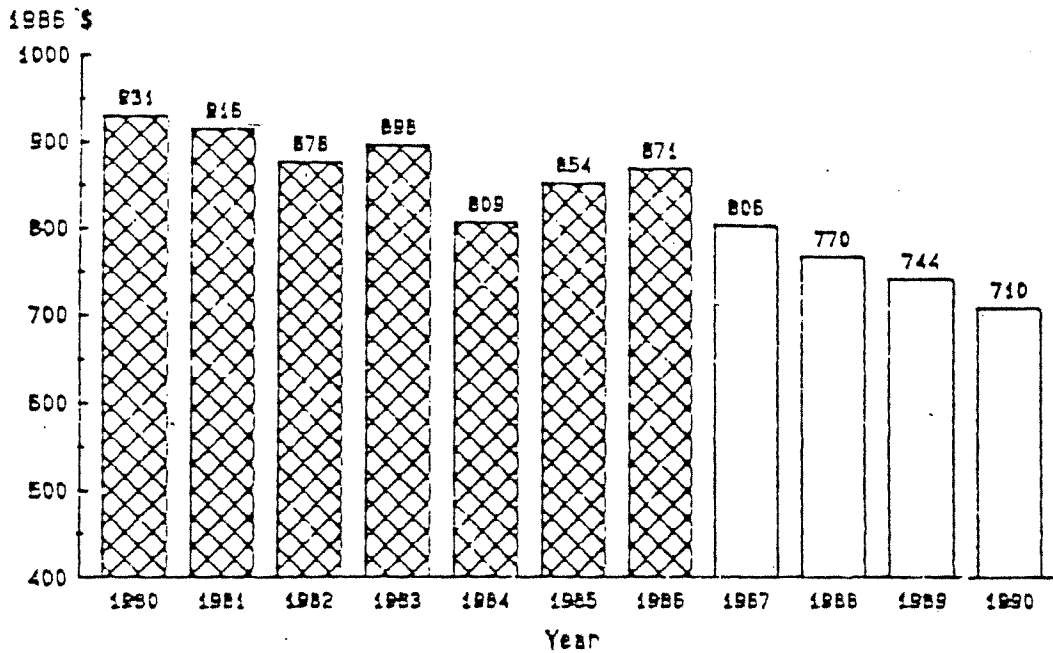
In the early 1980s Anchorage voters enacted a charter amendment referred to as Proposition 24 or a "tax cap", which limits tax increases to the prior year's tax level adjusted for inflation and population changes. Anchorage's population is projected to decline in the coming years and the Anchorage rate of inflation is expected to be modest, partially reflecting the state's economic recession. The effect of the tax cap is to hold collected revenues over the next few years close to current levels. While projected tax revenues would remain relatively constant for the balance of the 1980s, the drop in assessed valuations means that effective tax rates will have to increase to generate current levels of revenues.

Figure 10
 Budgeted Operating Revenues
 General Government Purposes



Source: MDA Revised Budgets 1978-1986; Proposed Budget 1987; Fiscal Model Projections 1988-1990.

Figure 11
 Budgeted Expenditures Per Capita
 Inflation Adjusted - 1986 Dollars



Source: MOA Revised Budgets 1980-1986; Approved Budget 1987; Fiscal Model Projections 1988-1990.

Confronted with a potential fiscal gap of \$30 million, Anchorage voters could repeal the tax cap charter provision, or urge their assembly members to reduce services or cut pay of municipal employees--or Anchorage residents could press for some combination of all three alternatives.

The outlook for the Anchorage School District is somewhat comparable to that of the municipality. The budgets of both the municipality and the school district are approved by the municipal assembly and both are subject to the local tax cap. The major difference between the two institutions is that the school district gets a much larger share of its revenues from the state government than the municipality does.

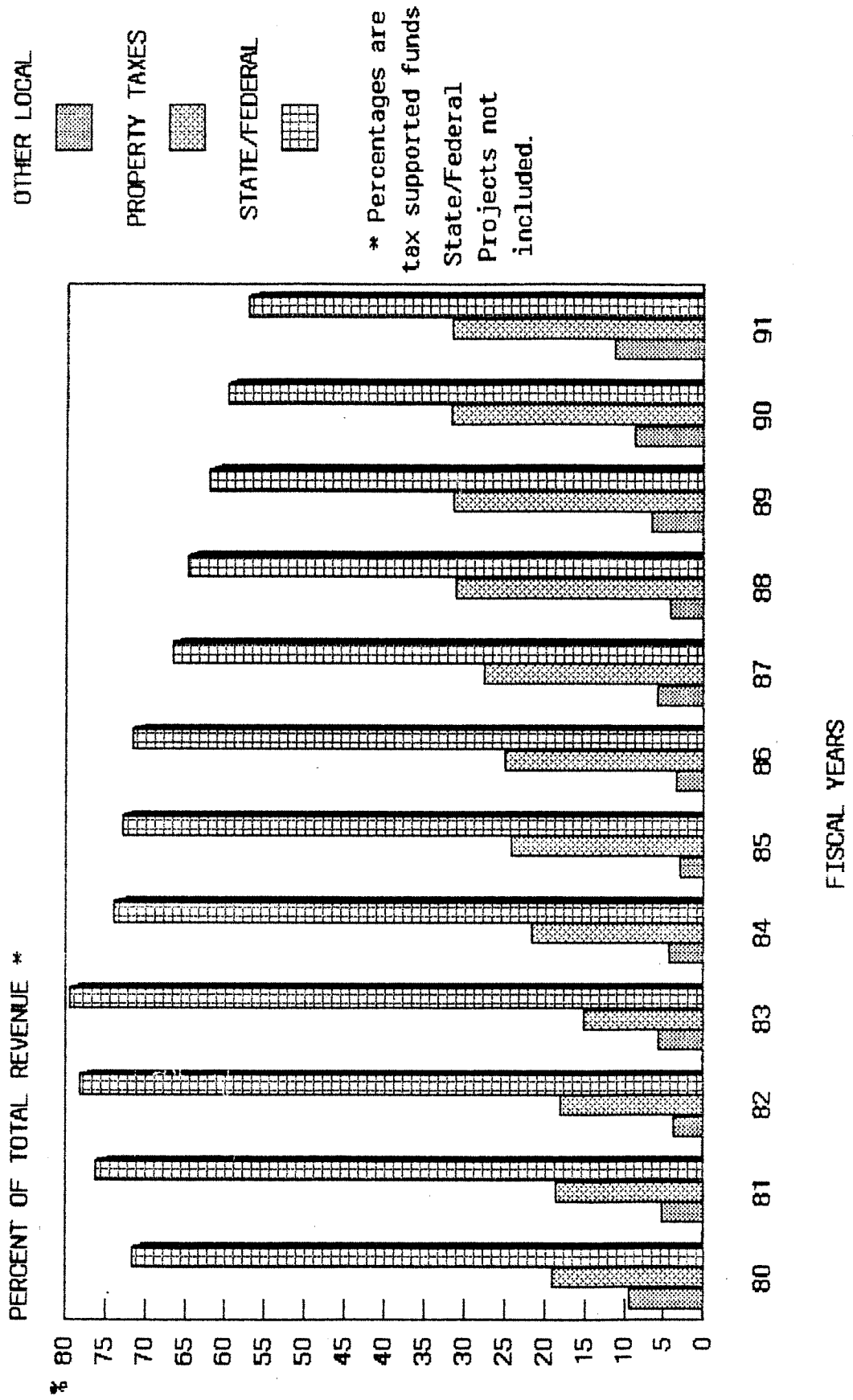
Figure 12 reviews the composition of the school district's revenues over the past seven years. The figure also projects a possible future composition, if local revenue contributions hold constant over the projection period and state aid declines by 2 percent per year. As with the municipality, if the school district were to maintain current levels of service, compensation, and taxation, it could see a revenue shortfall of \$20 million by 1990. The alternatives available to the school district to close this potential fiscal gap are the same ones that are available to the municipality and the tax cap constraint is also similar.

Alleviating some of the financial pressure on the municipality and the school district is the projected decline in population and enrollment. School district enrollment peaked in fiscal year 1986 at just over 40,000 students. The number of students declined by about 500 this year, and the district is forecasting a loss of an additional 1,400 students next year. Because of the composition of

Figure 12

ANCHORAGE SCHOOL DISTRICT

PROPERTY TAXES/OTHER LOCAL/STATE AND FEDERAL REVENUES



the Anchorage population, the school district has many more students in the early grades than in high school. Consequently, unless the projected emigration from Anchorage results in a disproportionate number of young families leaving, the school district's enrollment declines will be offset by the matriculation of the large number of students in the lower grades.

APPENDIX A

SUMMARY OF MAP MODEL ASSUMPTIONS: CASE III [MU87.3]

- A. PETROLEUM REVENUE ASSUMPTIONS: DOR DEC 1986
30% (S86.4) CASE AND 70% CASE (S86.N5)
- B. FISCAL ASSUMPTIONS: PERMANENT FUND EARNINGS USED,
INCOME TAX IN, DIVIDEND OUT
- C. INDUSTRY ASSUMPTIONS: MODERATE GROWTH (S86.N5)
- D. NATIONAL VARIABLE ASSUMPTIONS: MODERATE GROWTH

DESCRIPTION (a)

A. PETROLEUM REVENUE ASSUMPTIONS

***1. Real World Oil Price (1986 \$)	<u>YEAR</u>	<u>30% CASE</u>	<u>70% CASE</u>
	1987	\$12.28	\$13.08
	1988	\$13.14	\$15.78
	1989	\$12.99	\$16.79
	1990	\$12.75	\$16.65
	1995	\$12.41	\$17.57
	2000	\$12.24	\$19.30

Alaska Department of Revenue (DOR) December 1986 30% and 70% Cases. (According to DOR, the 30% Case has a 70% chance of being exceeded, whereas the 70% case has a 30% probability of being exceeded.)

***2. Severance Taxes Based on 30 and 70 percent probability projections published by the Alaska Department of Revenue. After 2000, revenues remain constant in nominal dollars (DORD6.30 and DORD6.70). No change in tax regulations. Partial TAPS settlement revenues included [RPTS].

***3. Royalties Based on 30 and 70 percent probability projections published by the Alaska Department of Revenue. After 2000, revenues remain constant in nominal dollars (DORD6.70) [RPRY].

4. Bonuses Alaska receives \$500 million over the period FY 1989 to 1992 in settlement of disputed offshore leases in Beaufort Sea [RPBS].

(a) Codes in parentheses indicate ISER names for MAP Model SCEN_ case files, and codes in brackets indicate MAP variable names.

***Indicates an assumption different from Case I.

