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ISER RESEARCH SUMMARY

Institute of Social and Economic Research, University of Alaska Anchorage Feb. 1989, R. S. No. 41

Where Have All The Billions Gone? – Part II

In the early 1980s, Alaska's legislators and administrators had the pleasant job of spending more and more oil revenue as it flooded into the state treasury. Over the past three years, they've faced the less enviable work of cutting the budget as oil income recedes. Which kinds of spending have declined and which have continued to grow even as low oil prices reduce state revenues?

This research summary updates a 1987 ISER publication that describes how Alaska spent its money during the first half of the 1980s, when high oil prices and the state government's ownership of the huge Prudhoe Bay oil field combined to bring the State of Alaska tens of billions of dollars.¹ This publication adds spending in fiscal 1987 and 1988 – the years since the crash and subsequent instability of oil prices.²

An important point to remember is that these figures include spending done with the state's own revenues and with federal grants.³ Federal aid is mainly restricted to transportation projects, welfare programs, and some education programs. The major – and the most volatile – part of state revenue is oil revenue.

Table 1 shows annual state spending by category from fiscal 1979 through 1988. Figure 1 shows how much spending in each category increased from 1980 to the peak in the mid-1980s, and how much each has declined since. Figure 2 illustrates how the patterns of state spending looked before the advent of big oil revenues, during the boom, and after the crash.

Changes in State Spending, 1986-1988

• *Money for construction projects and special transfers to public corporations, to loan funds, and to the Permanent Fund were the first things to be cut as revenues fell. (See Table 1 and Figure 1.)*

¹ "Where Have All the Billions Gone?" *Alaska Review of Social and Economic Conditions*, February 1987, Institute of Social and Economic Research, University of Alaska Anchorage.

² The current fiscal year is 1989; it will end June 30, 1989. Spending information for that year won't be available until December 1989.

³ In fiscal 1987 and 1988, the State of Alaska received \$456 million and \$443 million in federal grants-in-aid. Total general fund revenues for those years were \$2.3 billion and \$2.8 billion. Almost all spending described in this summary was done through the general fund; some education, transportation, and other spending came through special funds.

• *By fiscal 1988, state capital spending was less than one-quarter of what it had been in 1985 – and much of that capital money was federal aid for transportation projects. In the peak spending year of fiscal 1985, state agencies, municipalities, school districts, and the University of Alaska spent \$1.6 billion in state capital money, as compared with about \$400 million in fiscal 1988.*

• *Transfers to public corporations like the Alaska Housing Finance Corporation (AHFC) and the Alaska Power Authority (APA) all but disappeared in the past two years. The exception was \$50 million transferred to APA in fiscal 1988 for construction of the Bradley Lake dam. Such corporations received \$1.9 billion in state money between fiscal 1981 and 1986.*

• *State transfers to loan funds have dwindled sharply. The student loan program received the largest infusions of general fund money in the past two fiscal years – \$61 million in fiscal 1987 and \$15 million in 1988. The state legislature in 1988 reduced state spending for student loans by creating a corporation to raise loan money through bond sales.*

State loan programs got \$1.2 billion in general fund money from fiscal 1981 through 1986. The money that went to public corporations and loan funds in the early 1980s was not simply spent in the same way, for instance, that state operating money is spent. Much of the money was used to create assets and reserves that continue to be of significant economic value to the state; it's beyond the scope of this review to try to assess that value.

• *Special deposits – beyond those required by law – in the Permanent Fund were discontinued after 1985. Between fiscal 1981 and 1985, the legislature made \$2.7 billion in special deposits in the Permanent Fund. Those special deposits substantially increased the principal of the Permanent Fund and its earning potential.*

• *The heaviest percentage cuts in the state operating budget have been in revenue sharing and other aid to municipalities. Those appropriations have dropped steadily since fiscal 1985 and by 1988 were more than 30 percent less than they had been three years earlier: \$166 million as compared with \$112 million.*

● *Some operations spending decreased between fiscal 1986 and 1987, and then increased in fiscal 1988. State agency spending and operating aid to schools increased about 5 percent between 1987 and 1988, and the appropriation for the University of Alaska increased about 1 percent.*

● *Despite the increases in 1988, spending for state agencies and for education remained below the 1986 highs. The biggest percentage cut after aid to municipalities was in operating money for the University of Alaska, which in fiscal 1988 was 14 percent less than it had been in 1986. Operating aid for Alaska's school districts—which includes the huge foundation program and other kinds of financial aid as well as reimbursement for school construction debt—was about 5 percent less in 1988 than it had been in 1986. Operating budgets of state agencies were down 7 percent from their 1986 levels.*

● *Cash payments to individuals, and in-kind benefits or services that have cash value to the recipients, have continued to grow throughout the 1980s. Those kinds of state spending—which we collectively call "distributions to individuals" in Table 1 and Figure 1—are of two kinds: those that are based on the need of the recipient, and those that are not. Those programs based on need include public assistance, Aid to Families with Dependent Children, Medicaid, and unemployment benefits. You would expect spending under such programs to increase during a recession, when more people are out of work. Medical costs have climbed rapidly in recent years, which also increases the costs of the Medicaid program.*

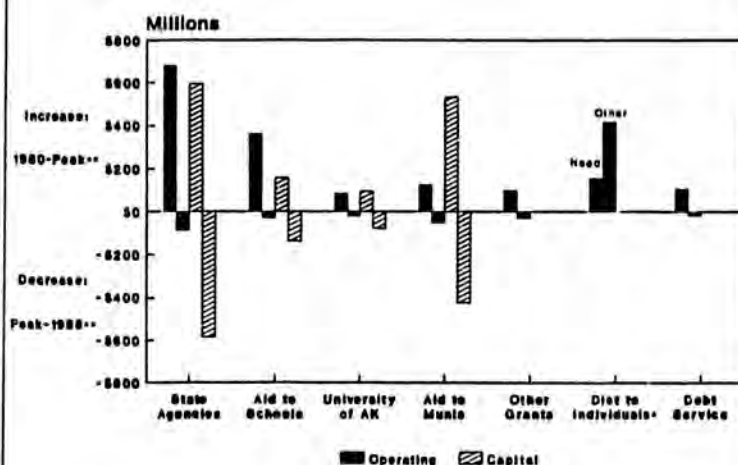
● *Cash distributions unrelated to need have grown the fastest in the past two years. Spending for those programs has grown more than spending for welfare and unemployment programs in the past several years. (Figure 1.) The biggest of these is of course the Permanent Fund Dividend program, which in 1988 paid Alaskans \$375 million from the earnings of the Permanent Fund. A much smaller but still substantial distribution program is the Longevity Bonus program, which pays \$250 a month to all those over 65 who have lived in Alaska at least a year. That program paid out \$50 million in fiscal 1988. Another program that does not make payments to individuals but which has cash value to them is the Power Cost Equalization program, which subsidizes the cost of electricity for rural Alaskans. That program cost the state about \$15 million in fiscal 1988.*

● *Even taking inflation into account, state spending in fiscal 1988 was still nearly double spending in 1980. (See Table 1, last line, "Total Spending in 1988 \$.")*

Spending Patterns, 1979-1988

● *The distribution of state spending is becoming more like it was before 1981. (Figure 2.)*

Figure 1. Growth and Decline of State Expenditures 1980-1988 (Dollar Change)



*Distributions to individuals based on need include primarily welfare and unemployment programs; other distributions include Permanent Fund Dividends, Longevity Bonus payments, and others.

**Most operating expenditures peaked in fiscal 1986, most capital expenditures in fiscal 1985. Distributions to individuals have increased throughout the 1980s and therefore show no decline.

o *Special spending made up about 11 percent of state spending in fiscal 1987 and 1988—but almost all that special spending consisted of Permanent Fund dividends. If we exclude Permanent Fund dividends, which didn't exist before fiscal 1983, special spending in recent years would be just about the same as it was in 1979 and 1980—less than one percent of total spending. During the years of high revenues, special spending made up 30 percent of total spending. (We define special spending as spending for items outside traditional government functions—transfers to public corporations and loan funds, extra deposits in the Permanent Fund, large one-time expenditures, and Permanent fund dividend payments.)*

o *State agencies accounted for about 40 percent of total spending in fiscal 1987 and 1988. Between fiscal 1981 and 1986, when special spending was soaring, spending by state agencies themselves accounted for only about 30 percent of total spending. In 1979 and 1980, before the advent of big oil revenues, state agency spending made up more than half of all spending.*

o *Aid to municipalities—both operating and capital—is on the decline. It made up 8 percent of state spending in the two most recent fiscal years, as compared with 11 percent between 1981 and 1986. Still, aid to municipalities remains almost three times higher than it was at the start of the 1980s, when it made up just 3 percent of state spending.*

Table 1
State Expenditures,^a Standard and Special, FY 1979-1988
(Operating and Capital, \$millions)

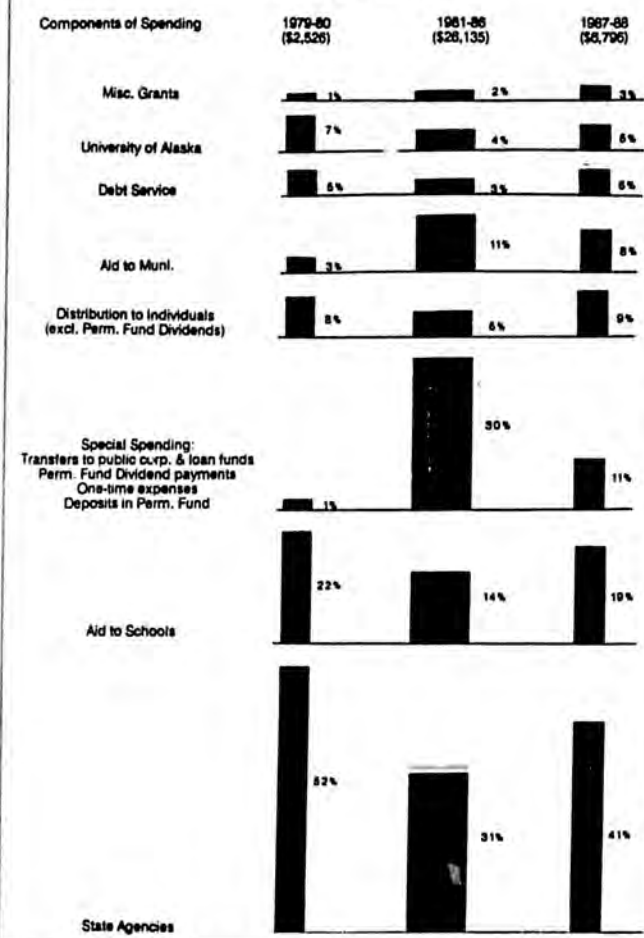
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
State Agencies^b										
Operating	\$431	\$493	\$647	\$868	\$996	\$1041	\$1146	\$1175	\$1033	\$1089
Capital	152	226	295	251	293	289	820	416	399	234
Total	\$583	\$719	\$942	\$1119	\$1289	\$1330	\$1966	\$1591	\$1432	\$1323
Aid to Schools^b										
Foundation Program	181	205	255	345	409	423	467	492	415	437
Bond Debt Reimb.	22	24	38	38	56	90	93	106	116	109
Other Financial Support	52	54	52	62	62	66	54	46	53	66
Capital Aid	15	7	28	65	42	76	164	48	45	26
Total	\$270	\$290	\$373	\$510	\$569	\$655	\$778	\$692	\$629	\$638
University of Alaska^b										
Operating	75	86	108	128	148	158	168	169	144	146
Capital	8	6	8	19	26	49	101	46	11	22
Total	\$83	\$92	\$116	\$147	\$174	\$207	\$269	\$215	\$155	\$168
Aid to Municipalities^b										
Operating	32	41	117	164	166	166	166	155	121	112
Capital	4	6	89	310	347	353	539	257	208	116
Total	\$36	\$47	\$206	\$474	\$513	\$519	\$705	\$412	\$329	\$228
Other Grants & Programs^b	\$18	\$16	\$23	\$69	\$74	\$84	\$116	\$99	\$86	\$86
Transfers to and Other GF Expenditures for Public Corporations^c										
APA	--	--	14	120	196	137	95	173	5	61
AHFC	4	4	557	265	150	--	--	--	--	--
AIDA	--	--	173	9	22	1	1	1	1	1
Alaska Railroad	--	--	--	--	--	--	35	--	--	--
Total	\$5	\$12	\$768	\$395	\$369	\$140	\$135	\$175	\$6	\$62
Loan Fund Transfers^c										
Enterprise	4	15	145	236	66	205	330	76	61	18
Other	--	--	96	4	--	--	2	2	--	--
Total	\$4	\$15	\$240	\$240	\$66	\$205	\$332	\$78	\$61	\$18
Distrib. to Individuals Perm. Fund Dividends^c										
Other ^b	99	107	143	177	189	231	279	294	292	305
Total	\$99	\$107	\$143	\$177	\$667	\$418	\$439	\$504	\$587	\$680
Deposits in Perm. Fund & Other GF Expenditures for Permanent Fund^c	--	--	\$900	\$801	\$402	\$303	\$301	\$3	\$3	\$4
Debt Service^b	\$60	\$70	\$97	\$94	\$143	\$166	\$175	\$164	\$162	\$157
One-Time Expenditures^b										
ANCSA Payment			293							
Rainy Day Acct			350							
Income Tax Refund & Other Refunds			162	4	5	2	1	2		
Other					\$40				<1	
Total			\$805	\$4	\$45	\$2	\$1	\$2	<1	
Total Spending (current \$)	\$1158	\$1368	\$4613	\$4030	\$4311	\$4029	\$5217	\$3935	\$3450	\$3364
Total Spending (1988 \$)	\$1619	\$1735	\$5416	\$4484	\$4711	\$4231	\$5348	\$3958	\$3456	\$3364

^aConsists almost entirely of general fund expenditures. Includes some transportation and education expenditures from other funds. Includes expenditures made with the state's own revenues and federal revenues the state receives.

^bStandard expenditures are spending for traditional government functions.

^cSpecial expenditures include spending for items outside the usual kinds of government spending.

Figure 2
Percentage Distribution of State Spending in the 1980s
 (Combined Operating & Capital in \$ Millions)



● *Aid to schools, by contrast, rose as a proportion of total spending in 1987 and 1988. It made up 19 percent of spending in the most recent years, as compared with 14 percent in the first half of the 1980s. This doesn't mean that the amount of state money going to school districts was shrinking during the years of high spending—quite the opposite was true. What it means is that as overall spending increased and new kinds of spending were added, the very substantial state aid to schools made up a smaller proportion. The State of Alaska has always provided big support for education; in 1979 and 1980, aid to schools made up 22 percent of state spending.*

● *State money for the University of Alaska moved up to 5 percent of total spending in the past two fiscal years. That compares with 4 percent in the years of high revenues. Nevertheless, state spending for the university remained below the 7 percent of total spending it had been at the start of the 1980s.*

● *Grants to non-profit organizations and others have increased steadily as a share of state spending in the 1980s. Such grants increased from 1 percent in 1979 and 1980 to 2 percent in the mid-1980s and 3 percent in the most recent fiscal years.*

Editor's note: More detailed information on state spending is available from ISER. Call 786-7710 or write ISER at the address below and ask for the technical appendix to this Research Summary.

RESEARCH SUMMARY (No. 41)
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ISER FISCAL POLICY PAPERS

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Institute of Social and Economic Research

University of Alaska Anchorage

THE ALASKA FISCAL GAP

by Oliver Scott Goldsmith

Alaska faces a problem that will be very tough to solve but is easy to explain: state government is spending more than it collects. The problem will get much worse as time goes on. If state general fund spending stays at the current level of \$2.25 billion (in 1989 dollars), we face a fiscal gap—the difference between current spending and projected revenues—that could soon grow to \$1 billion annually.

This budget crisis looms because oil production, which supplies 85 percent of the state's general fund revenues, will soon begin dropping as the huge Prudhoe Bay oil field is depleted. Likely new petroleum production, higher oil prices, and other economic activity in the coming decade won't be able to generate nearly enough tax and royalty income to replace the loss of Prudhoe Bay production.

Figure 1 shows projected oil production and state petroleum revenues over the next 20 years, based on the Alaska Department of Revenue's estimates from producing fields and our own estimates of new field production and per barrel revenue. Production is at its peak and will soon begin a long decline. Even assuming production from new fields such as West Sak—the timing of which is uncertain—production in 2000 will be only half of what it is today. Petroleum revenues

have already fallen to just half of what they were in the early 1980s, because oil prices are much lower now. If the real price of oil remains in the range where it has been for the last few years, petroleum revenues will drop by half again by 2000.

This figure does not include potential production and revenues from oil fields that may exist in the Arctic National Wildlife Refuge (ANWR). Such revenues would of course help reduce the budget shortfall in the next century. But under any reasonable assumptions (see the box on page 4) they would fall far short of revenues we've enjoyed from Prudhoe Bay, and could not reverse the downward trend. Also, future production from ANWR is extremely speculative right now. Congress would first have to open the refuge to exploration and oil companies would have to discover commercial quantities of oil; after such discoveries it would take years to bring new fields into production.

THE FISCAL GAP

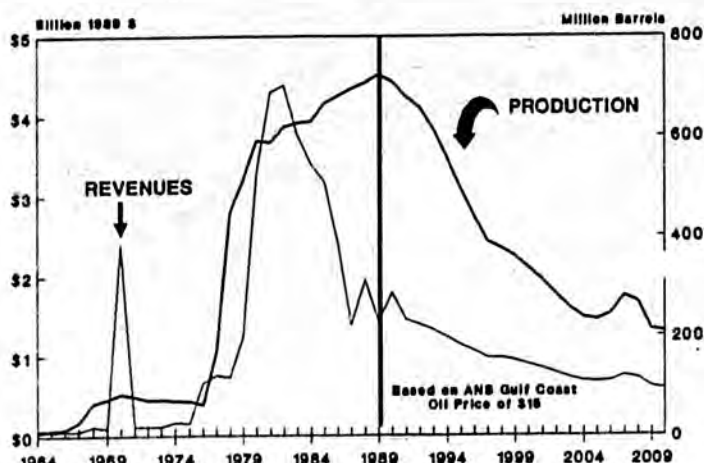
How shrinking production and revenues translate into trouble for Alaska is apparent in Figure 2. It shows the potential size of the future gap

This is the first in a series of *ISER Fiscal Policy Papers* that will examine aspects of state government spending. We intend these papers to focus the attention of state officials and of Alaskans in general on the serious budget crisis we face, and on the necessity for dealing with it soon. We hope this and later papers will provide policymakers with information and analysis they will need when making the difficult decisions ahead.

The author, Oliver Scott Goldsmith, is professor of economics with ISER. He has fourteen years of experience examining state spending. Lee Gorsuch, ISER director, is responsible for the design and presentation of this series. Linda Leask edited the paper.

The *ISER Fiscal Policy Papers* series is financed by a grant from ARCO Alaska.

FIGURE 1. PROJECTED ALASKA PETROLEUM REVENUES AND PRODUCTION



between general fund revenues and spending. If annual spending were held at its current level of about \$2.25 billion (in 1989 dollars), the gap between spending and revenues could be several hundred million dollars a year in the early 1990s and more than \$1 billion annually after the turn of the century. If future revenues turn out to be larger than we anticipate, the fiscal gap could be reduced for a short time but the overall picture would be the same. (See the box on page 4 for a description of how our results would change under different assumptions about future developments and other factors.)

Such a gap of course can't persist. We'll have to balance the budget by cutting spending, raising taxes, using savings, or some combination of the three. These changes will affect not only those who currently enjoy state services, work for state government, or pay taxes. Everyone who benefits from local government services like schools and street maintenance will also be affected. Budget cuts will also affect recipients of government transfers—including Permanent Fund dividends—and businesses that depend on the purchasing power provided by a large public sector.

Balancing the budget will affect all Alaskans, because the economy and people of Alaska are dangerously dependent on state government spending financed by oil revenues. Even now, after several years of recession and a precipitous drop in revenues, state government spending still

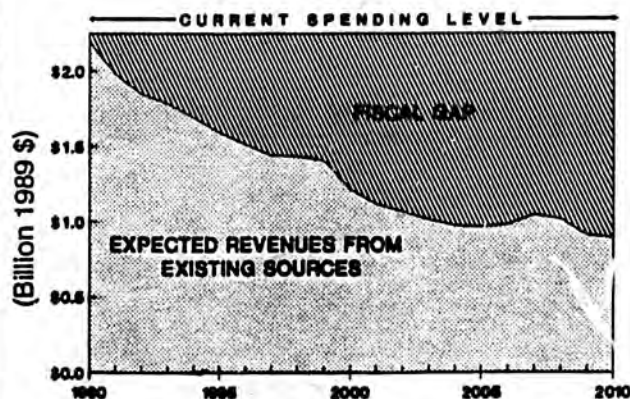
accounts directly and indirectly for more than one in four Alaska jobs.

Below we look at four possible ways to deal with the fiscal gap between now and the year 2010. Briefly, our four cases are: (1) Stumble From Year to Year; this case assumes that the state tries to maintain current spending for as long as possible by using all available reserves except the principal of the Permanent Fund and then cuts spending to match reduced revenues. (2) Deplete the Permanent Fund; this case examines what would happen if the state maintained the current budget level by spending the principal of the Permanent Fund. (3) Freeze the Budget; this case looks at how the

fiscal gap would be affected if the state did not adjust the budget for inflation—in effect cutting the budget by the annual rate of inflation. (4) Cut Spending and Raise Taxes; this case describes the combined effects of reducing state spending, reimposing the personal income tax, and eliminating the Permanent Fund dividend.

There are other possible combinations, but these four scenarios include the main options available to the state. We do not discuss, nor have we attempted to analyze, the enormous political difficulties inherent in exercising any of these options. Some would require changes in law or even amendments to the Alaska constitution. All would generate intense public debate, and most

Figure 2. PROJECTED STATE FISCAL GAP* (Difference Between Revenues and Spending)



*Projected at the current level of state general fund expenditures. Revenues include oil settlement estimate.

REAL VS. INFLATED DOLLARS IN FISCAL ANALYSIS

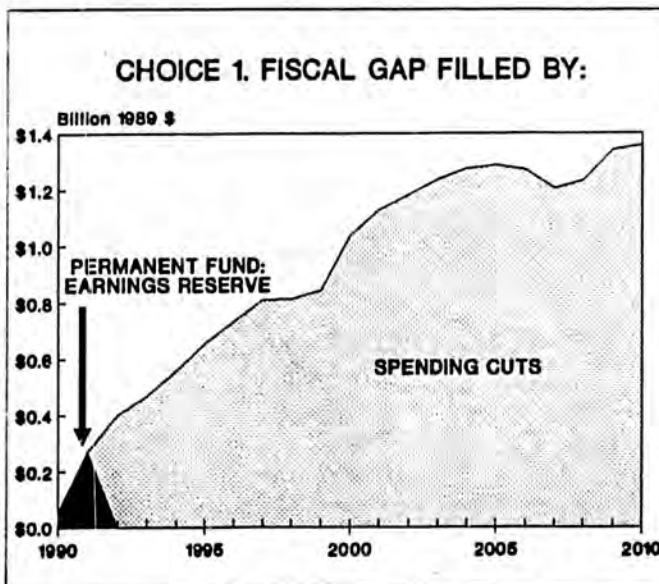
For simplicity and clarity all revenues and expenditures are presented in 1989 dollars. Using this technique eliminates the need to estimate the rate of inflation—the value of which has only a marginal effect on the rest of our analysis—and avoids the confusion that inflation can introduce when we try to compare the purchasing power of dollars received at different times. For example, \$1 of revenue collected in 2000 would have the purchasing power of just 61 cents, if inflation were 5 percent annually over the next decade. Our use of 1989 dollars throughout the analysis allows direct comparisons of current and future purchasing power.

The use of real dollars also corrects a misinterpretation that can arise in revenue projections that use nominal dollars. In such projections, the inflation-proofing portion of Permanent Fund earnings can appear to be a source of recurring revenues. In fact, inflation-proofing is just the portion of earnings needed to offset the devaluation of the fund principal by inflation. Because we use real dollars in our analysis, inflation-proofing does not appear as a separate revenue source, and we avoid any potential misinterpretation. This assumption does not preclude the policy option of appropriating inflation-proofing to fund government spending.

would face extremely strong opposition from specific groups or from Alaskans in general. This paper does not endorse any particular strategy to balance the budget. Rather, it describes in general the tradeoffs—who bears the pain—and the ramifications of the various choices.

Doing an analysis like this requires making certain economic assumptions. Those assumptions are summarized in the box on page 4 and in the individual case descriptions. We can't be sure that these assumptions will prove correct, but changing those assumptions in any reasonable way would not substantially alter our findings.

FISCAL CHOICE 1: STUMBLE FROM YEAR TO YEAR



In this case we look at what would happen if the state government budgeted from year to year, trying to maintain the current level of spending (\$2.25 billion in 1989 dollars) for as long as possible, using available fund balances but making no changes in current fiscal policies. The dividend

program would not be changed, the principal of the Permanent Fund would be retained, and no new tax measures would be enacted.

Revenues from the settlement of disputes with the oil companies over past royalty and tax payments, as well as with the federal government over ownership of leases in the Beaufort Sea, are an important element of our revenue estimates for the 1990s. The amount and timing of any settlement money the state might receive is extremely uncertain, but we assume for this and the other cases that the settlements occur regularly over the next decade in an amount equivalent to \$1.7 billion today. (See also the box on page 4 for an example of how changing this settlement total would change the analysis.) In reality the state may not be so fortunate as to receive a steady stream of income from this source, and the budget shortfall would pressure the state to accept quick negotiated settlements in these disputes.

Under these conditions, the Railbelt Energy Fund, the Earnings Reserve Account of the Permanent Fund, and other fund balances could balance the budget for a short time. A fiscal gap of \$400 million would open in 1992 and grow to an annual deficit of \$1 billion by 2000. In this scenario, state government and the economy would adjust to reduced state spending as discussed below and shown in the graphs on page 7.

Permanent Fund: The Permanent Fund would remain just about the same size (inflation-proofed) that it is today. Contrary to popular belief, future earnings of the Permanent Fund will not be able to replace petroleum revenues in the support of state government. Annual additions to the fund from petroleum revenues—which the state constitution currently requires go directly to the principal of the Permanent Fund—plus earnings would largely be consumed by the Permanent Fund dividend program, with little or nothing left

ECONOMIC ASSUMPTIONS USED IN ANALYSIS

If we changed the economic assumptions used in this analysis, the rate at which the fiscal gap grows would be different but the options for dealing with the gap would be the same. To focus on those options we held the economic assumptions constant throughout the four cases. The most important assumptions are listed below. (Full details on the assumptions are available from the author.)

OIL PRODUCTION: Alaska Department of Revenue estimate, Spring 1989, plus West Sak production scenario developed by author (oil companies recently announced postponement of West Sak exploration)

OIL PRICE: Gulf Coast delivered price for Alaska North Slope (ANS) crude averages \$15 a barrel (in 1989 dollars)

RETURN ON PERMANENT FUND: 3 percent annually, net of inflation

EMPLOYMENT GROWTH RATE: 1.75 percent annually, independent of government spending

SETTLEMENT REVENUES FROM PETROLEUM DISPUTES: \$1.7 billion (in 1989 dollars), received over 10 years

TAX REGIME: Reflects the Economic Limit Factor (ELF) as revised by the Alaska Legislature in June 1989

INFLATION RATE: 5 percent annually

RECURRING REVENUES (Non-petroleum revenues): 1 percent growth annually, net of inflation

for fund growth. The total amount available to pay dividends and the payments to individual Alaskans would stay fairly constant because population growth would roughly match growth in the total available for dividends. Dividends as a component of government spending would increase because of decreased spending in all other functional areas.

Revenues: With no new recurring revenues, general fund revenues would steadily decline to about \$1.2 billion in 2000. Permanent Fund additions and earnings would remain relatively constant because of the stable size of the fund.

Expenditures: Declining petroleum revenues would force significant budget cutbacks beginning in earnest in 1992. The general fund would need to be cut 18 percent that year to balance the

budget. Smaller annual cuts would be the rule over the next two decades. Expenditures in 2000 would be \$1.2 billion—equal to revenues collected that year. These cuts in state spending would mean underfunding many and eliminating some government programs; reducing transfers to local governments (creating pressure on local governments to increase taxes and try to shift government functions back to the state); and reducing financial support for individuals. Projected population growth would add to the problem of deciding how the cuts should occur. Uncertainty about the timing and magnitude of cuts from year to year would create continuing confusion and negative attitudes both within government and the private sector.

Alaska Employment: During the next decade 26,000 public and private jobs would be lost as

WHAT IF WE CHANGED THE ASSUMPTIONS?

A question likely to be asked is: How much longer could we maintain current spending if revenues turned out to be greater than we have assumed? If we used up the entire Permanent Fund (as discussed in Case 2), we could maintain current spending up until 2003. Alternate assumptions would add to the number of years that the current spending level could be maintained as follows:

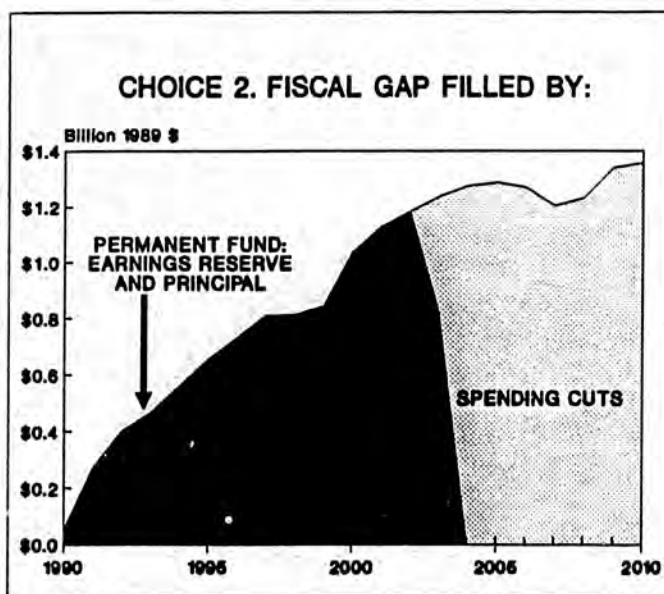
\$1 increase in the price of oil	1 year
Gas pipeline in the 1990s	1 year
ANWR production shortly after 2000	1 year
Petroleum settlements of \$3.4 billion	2 years

Another likely question is: What would be the cost of a one-year delay in closing the fiscal gap? Our analysis in Case 4 indicates that the state can sustain annual spending of about \$1.45 billion (in 1989 dollars) based on the current tax regime, compared with the current spending level of \$2.65 billion (including the approximately \$400 million paid in Permanent Fund dividends). The difference between current and sustainable spending—\$1.2 billion—approximates the loss in state fiscal assets associated with each year of delay in closing the gap.

state general fund spending was cut virtually in half. (For simplicity we assume public sector jobs would be eliminated in proportion to the budget cuts. Wage rate reductions could partially offset this job loss. We also assume that local governments do not raise taxes in response to less state fiscal support.) The drag on the economy created by a job loss of this magnitude would make it difficult if not impossible for the economy to grow, even assuming the private sector could generate new jobs at about the same rate projected for the national economy—1.75 percent annually. Total employment in Alaska in 2000 would be only slightly above what it is today.

Economic Well-Being: Annual percentage changes in employment would hover near zero for most of the next 10 years, with a dramatic drop when government spending was first reduced in 1992. Per capita general fund government spending would fall about 5 percent annually through most of the next 20 years.

FISCAL CHOICE 2: DEplete THE PERMANENT FUND



Another strategy for dealing with the budget crisis—the most drastic and one which would require an amendment of the Alaska constitution—would be to use the entire \$10 billion in the Permanent Fund to plug the fiscal gap and keep spending at \$2.25 billion (in 1989 dollars) for as long as possible. We do not endorse this strategy, but include it to cover the range of options avail-

able to the state. Under this scenario, the portion of Permanent Fund earnings now used to protect the principal of the fund from inflation would be spent, as well as the principal of the fund itself.

The first draw—\$400 million from inflation-proofing—would be required in 1992. Within two years, however, we would begin taking from the principal of the fund, and the withdrawals would grow rapidly—topping \$1 billion for the first time in 2000. The fund principal would be drawn down faster as time went on not only because of the growing fiscal gap but also because the shrinking Permanent Fund would generate less earnings each year. Under this scenario, the effects would be as discussed below and shown in the graphs on page 8.

Permanent Fund: More than \$6 billion from the Permanent Fund would be needed to fill the budget gap between 1992 and 2000. The last year of withdrawals would be 2003, when the Permanent Fund would be depleted. The Permanent Fund dividend would be an additional casualty, declining each year as the fund shrank and disappearing when the fund disappeared.

Revenues: Revenues flowing into the general fund would be the same as in Case 1, but the use of Permanent Fund earnings and principal would disguise the shortfall until 2003, when the Permanent Fund would be gone. By 2005, revenues would be about \$1 billion—60 percent less than the level expected in 1990. The additions and earnings of the Permanent Fund would fall as the fund itself shrank.

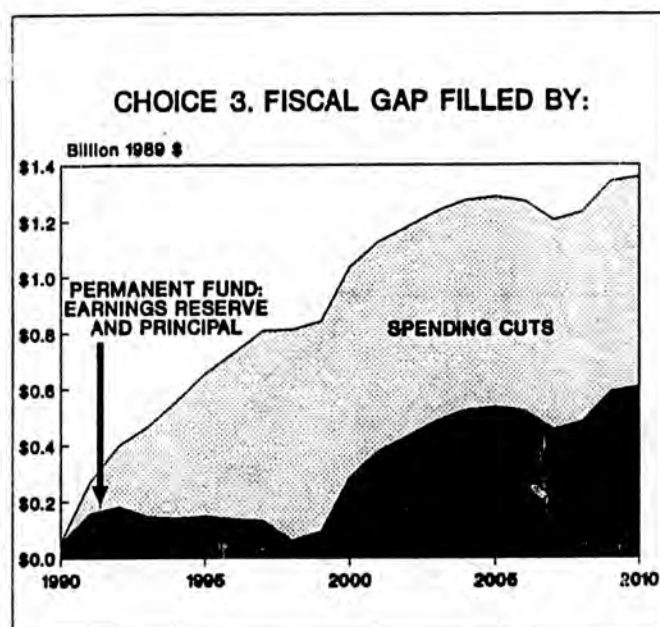
Expenditures: The Permanent Fund would prop up expenditures until 2003. Then a massive "forced transformation" of the public sector and the entire Alaska economy would occur because of the sudden drop in state general fund spending—from \$2.25 billion to \$1 billion in just two years. All public services at the state and local levels would suffer dramatic cutbacks.

Alaska Employment: Extreme dislocation and a serious economic recession would start in 2003. About 30,000 jobs—both public and private—supported by general fund spending would disappear over a two-year period. (To put such a drop in perspective, job loss during the 1985-1988 recession was about 25,000.) Even assuming

private industry would continue to generate jobs at the rate of 1.75 percent annually, by 2010 Alaska would still not have replaced all the jobs lost during the recession.

Economic Well-Being: Alaska employment would increase through 2002 because of growth in the private economy and constant general fund government spending. In the following two years, 12 percent of total state jobs would disappear. Despite constant government spending through 2002, per capita state general fund spending would decline because private economic growth would be drawing people to Alaska. Per capita state general fund spending would be cut nearly in half when the "forced transformation" occurred.

FISCAL CHOICE 3: FREEZE THE BUDGET



The forced transformation of the public sector and the severe recession described in Case 2 could be mitigated under a scenario in which the budget was held constant in nominal dollars—that is, not adjusted for inflation. Such a strategy would reduce the purchasing power of the budget each year by the rate of inflation.

The average annual rate of inflation in the coming years is expected to be in the neighborhood of 5 percent. If the budget were not adjusted for that inflation, the real dollar value (the effective purchasing power) of the budget would fall by 5 percent each year. If the state government imple-

mented a constant budget policy starting in 1991, the budget could be reduced to an arbitrary target level of \$1.5 billion (in 1989 dollars) by 1998.

A gradual policy like this would require a large amount of political discipline, but it would have several attractive features—even though it would not entirely solve the state's long-term fiscal problem. Public programs could be phased out on the basis of plans developed to minimize the effects of the budget reductions. The economy would not suffer the kind of massive shock described under Case 2, when state spending would be reduced by half in just two years. The effects of using inflation to cut the budget are discussed below and shown in the graphs on page 9.

Permanent Fund: This strategy at first glance appears to preserve the Permanent Fund, since the balance would hold relatively constant for several years after budget cuts ended. It would require use of portions of the annual appropriations for inflation-proofing during the 1990s. After 2000 continuing declines in revenues would force significant withdrawals from principal. By 2010 the fund principal would be only about \$3.5 billion, as compared with \$10 billion today. As the Permanent Fund shrank, the amount paid out as dividends would also fall off.

Revenues: General fund revenues would be the same as in Cases 1 and 2. The spending reductions would not be sufficient to produce a general fund surplus; such a surplus could in itself be a new source of earnings. Additions and earnings of the Permanent Fund would taper off after 2000 as the principal of the fund was spent.

Expenditures: State expenditures would fall off gradually but steadily each year until 1998 and then hold steady at \$1.5 billion through the next decade—but only because we would be using the principal of the Permanent Fund to supplement other revenues. After 2010 the Permanent Fund would be used up and a smaller "forced transformation" of the public sector and the economy would occur. Under this scenario, dramatic cuts in state spending—as much as 40 percent—would be forced by 2015 (not shown on the graph).

(Text continued on page 11)

Fiscal Choice 1: Stumble from Year to Year

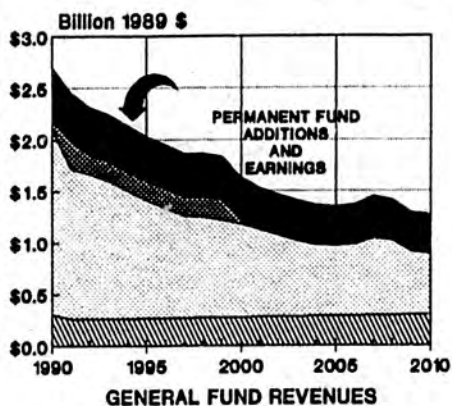
CASE ASSUMPTIONS

- **SPENDING:** General Fund spending based on availability of revenues up to \$ 2.25 billion (1989\$)
- **TAXES:** No new taxes
- **DIVIDEND:** Retain Permanent Fund dividend
- **PERMANENT FUND:** Leave Permanent Fund principal intact, continue contributions and inflation proofing, spend earnings reserve account
- **OIL PRICE (constant across cases):** Average ANS Gulf Coast oil price \$15 (1989\$)
- **SETTLEMENTS (constant across cases):** \$1.7 billion of oil settlements collected and spent over 10 years

PERMANENT FUND BALANCE

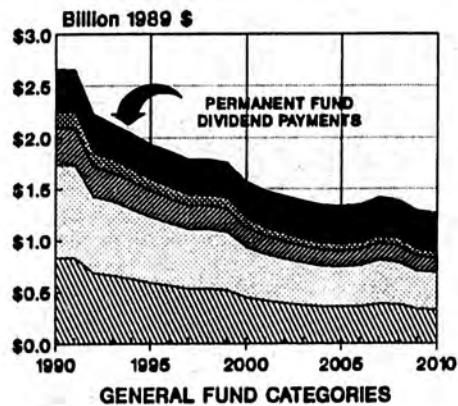


STATE GOVERNMENT REVENUES (Permanent Fund Included)



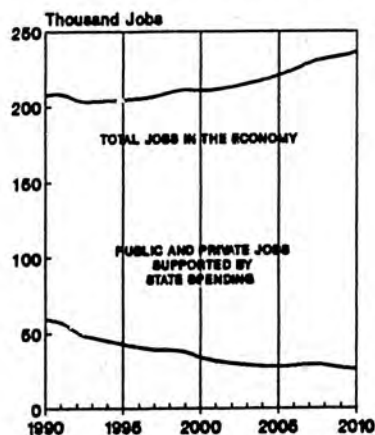
RECURRING OIL
SETTLEMENTS

STATE GOVERNMENT EXPENDITURES (Dividend Included)



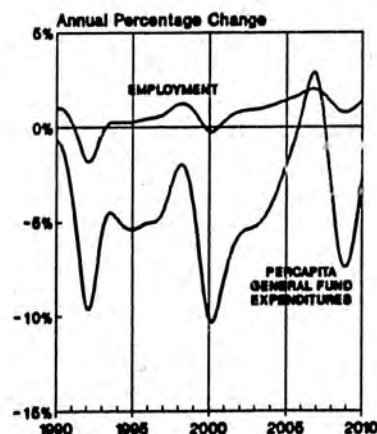
AGENCY OTHER
FORMULA CAPITAL

ALASKA EMPLOYMENT



Wage and Salary Employment Only

ECONOMIC WELL-BEING

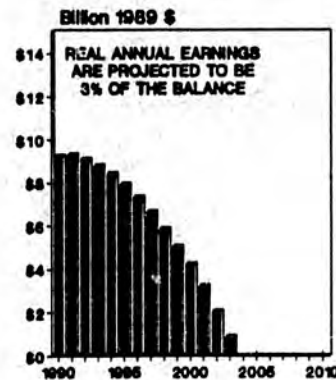


Fiscal Choice 2: Deplete the Permanent Fund

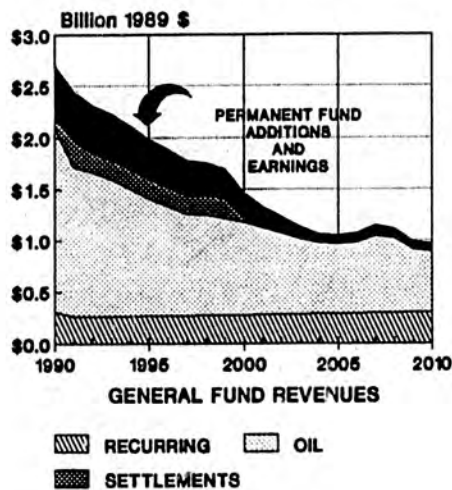
CASE ASSUMPTIONS

- **SPENDING:** General Fund spending based on availability of revenues up to \$ 2.25 billion (1989\$)
- **TAXES:** No new taxes
- **DIVIDEND:** Retain Permanent Fund dividend
- **PERMANENT FUND:** Use Permanent Fund principal to maintain spending as long as possible
- **OIL PRICE (constant across cases):** Average ANS Gulf Coast oil price \$15 (1989\$)
- **SETTLEMENTS (constant across cases):** \$1.7 billion of oil settlements collected and spent over 10 years

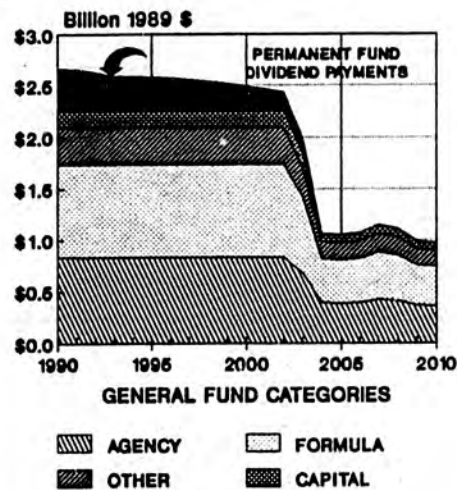
PERMANENT FUND BALANCE



STATE GOVERNMENT REVENUES (Permanent Fund Included)



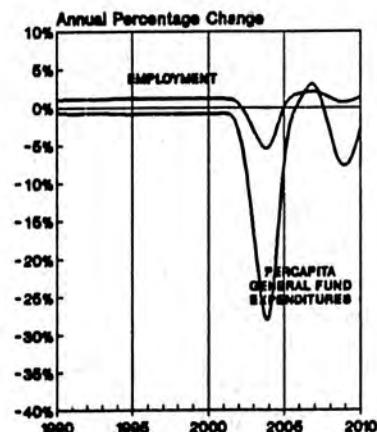
STATE GOVERNMENT EXPENDITURES (Dividend Included)



ALASKA EMPLOYMENT



ECONOMIC WELL-BEING

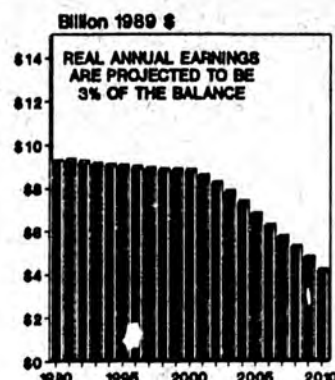


Fiscal Choice 3: Freeze the Budget

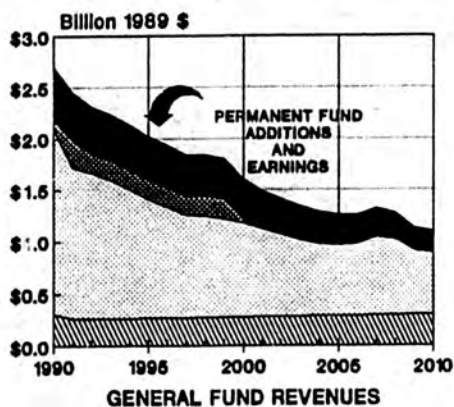
CASE ASSUMPTIONS

- **SPENDING:** General Fund spending constant in nominal dollars from 1991 to 1998. (The budget declines to a target of \$1.5 billion in 1989\$)
- **TAXES:** No new taxes
- **DIVIDEND:** Retain Permanent Fund dividend
- **PERMANENT FUND:** Use Permanent Fund principal to maintain spending at targeted level as long as possible
- **OIL PRICE (constant across cases):** Average ANS Gulf Coast oil price \$15 (1989\$)
- **SETTLEMENTS (constant across cases):** \$1.7 billion of oil settlements collected and spent over 10 years

PERMANENT FUND BALANCE

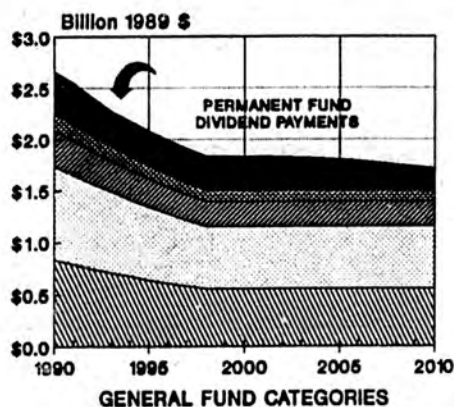


STATE GOVERNMENT REVENUES (Permanent Fund Included)



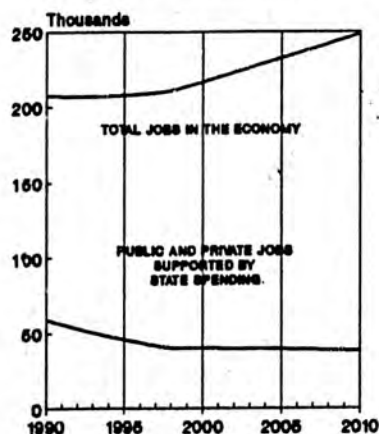
RECURRING OIL
SETTLEMENTS

STATE GOVERNMENT EXPENDITURES (Dividend Included)



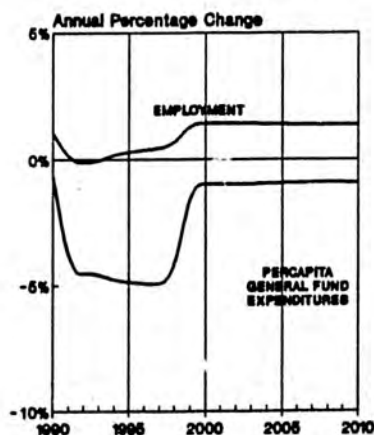
AGENCY FORMULA
OTHER CAPITAL

ALASKA EMPLOYMENT



Wage and Salary Employment Only

ECONOMIC WELL-BEING

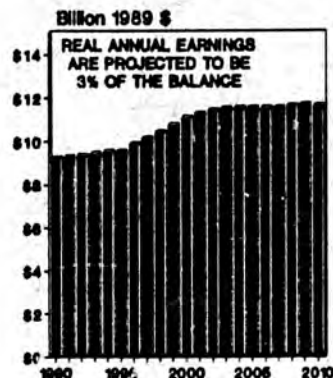


Fiscal Choice 4: Cut Spending and Raise Taxes

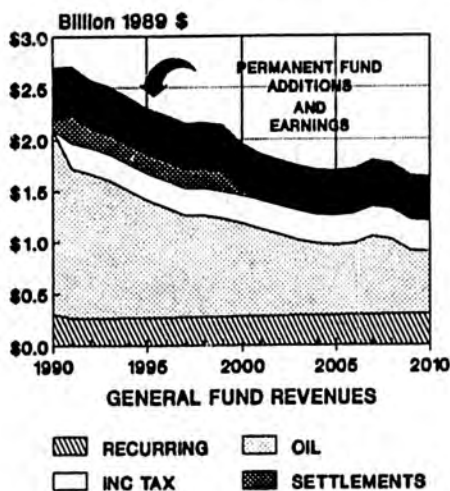
CASE ASSUMPTIONS

- **SPENDING:** General Fund spending is reduced 2.5% annually (1989\$) from 1991 to 2000. (The budget declines to a target of \$1.7 billion in 1989\$)
- **TAXES:** Personal income tax reimposed in 1991
- **DIVIDEND:** Permanent Fund dividend eliminated in 1995
- **PERMANENT FUND:** Leave Permanent Fund principal intact, continue contributions, spend earnings reserve account. Appropriate real earnings to General Fund. Use inflation proofing to fill revenue gap.
- **OIL PRICE (constant across cases):** Average ANS Gulf Coast oil price \$15 (1989\$)
- **SETTLEMENTS (constant across cases):** \$1.7 billion of oil settlements collected and spent over 10 years

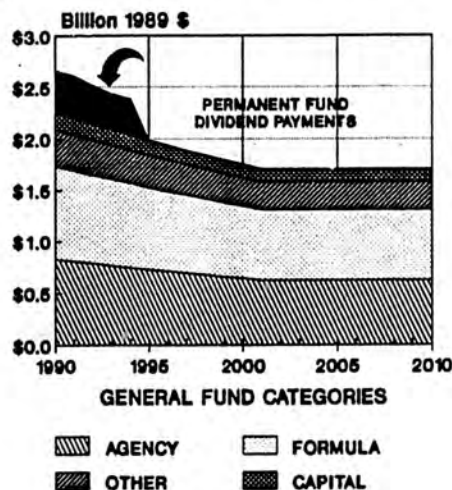
PERMANENT FUND BALANCE



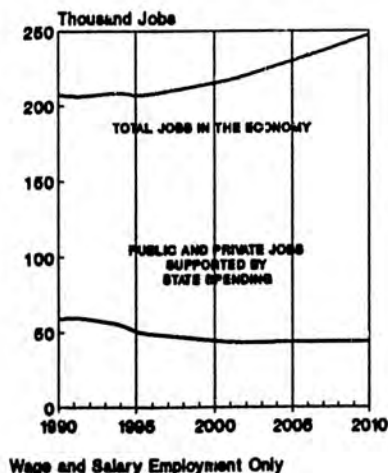
STATE GOVERNMENT REVENUES (Permanent Fund Included)



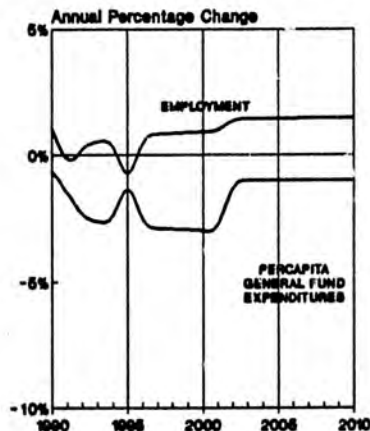
STATE GOVERNMENT EXPENDITURES (Dividend Included)



ALASKA EMPLOYMENT



ECONOMIC WELL-BEING

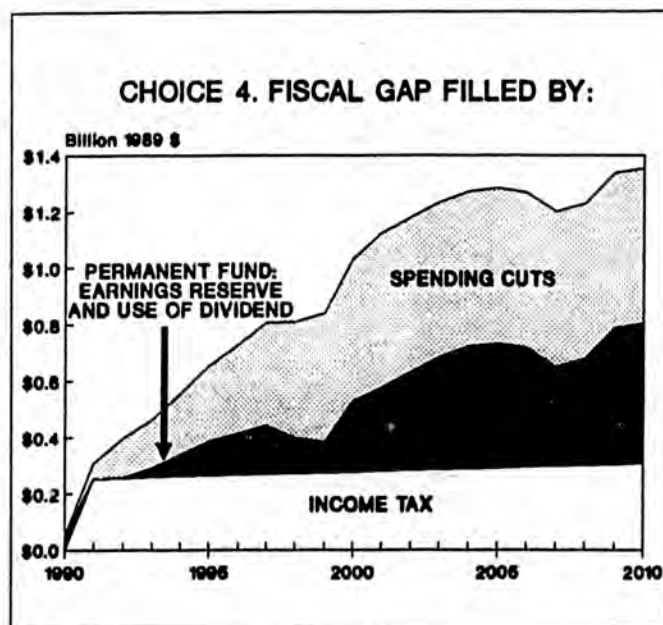


(Text continued from page 6)

Alaska Employment: The number of public and private jobs supported by state spending would suffer gradual attrition throughout most of the 1990s, dropping by about 20,000 over the decade. Private industry would be hard pressed to replace those jobs that had been supported by state spending. Total Alaska employment would stagnate until 1995 and only then begin a gradual increase. However, after 2010, when state spending dropped off very abruptly, a shock wave would again travel throughout the economy, eliminating public and private sector jobs and precipitating another recession.

Economic Well-Being: There would be little year-to-year change in Alaska employment until the late 1990s. In the following decade, modest growth in the private sector combined with stable public employment would result in small annual increases in employment. Per capita general fund state spending would decline every year for the next two decades, but the drops would be smaller after the 1990s. Again, both per capita state spending and employment would suffer after 2010, when state spending dropped sharply.

FISCAL CHOICE 4: CUT SPENDING AND RAISE TAXES



The cumulative budget reductions described in the first three cases, combined with the elimina-

tion of the Permanent Fund in the second and third, may be more than Alaskans are willing to endure. An alternative to those kinds of reductions would be for the state government to use new sources of revenues. The most likely sources are a personal income tax and the earnings of the Permanent Fund that now finance the dividend program. Those two together could contribute \$650 million annually—\$250 million from the income tax and \$400 million from the dividend program—to the general fund. In this scenario, we look at what would happen under one possible combination of these two new revenues. We assume the income tax is reimposed in 1991 and that beginning in 1995 the revenues now used to fund the Permanent Fund dividend program are instead used to supplement general fund revenues.

The state would still need to cut the budget, because at the current level of spending the fiscal gap would soon exceed the \$650 million generated by these new revenue sources. Furthermore, cutting the budget at the same time new revenues were added would distribute the pain between the taxpayers and the beneficiaries of public spending.

Our analysis suggests that the state is spending \$1.2 billion more annually than it can support in the long run, without an income tax (\$800 million in general fund spending and \$400 million in dividends). If we chose to reimpose the income tax and use the earnings of the Permanent Fund to support public spending, sustainable revenues would increase \$650 million annually and \$550 million in non-sustainable spending would remain. Thus the general fund budget would need to be cut to \$1.7 billion—about a 25 percent reduction. In combination with the revenue generating measures, such a budget cut would eliminate the fiscal gap not only in the 1990s but into the following decades as well—and the Permanent Fund would remain intact.

Depending on when the state receives settlements in tax and other disputes, this scenario might require budget cuts in years of increasing revenues. The state would intentionally collect more than it spent—thus setting aside a small balance of settlement reserves to smooth the transition to a smaller budget. Although that might be a rational decision when we consider the projected revenue decline in the later years, the plan would be tough to justify in the short run, particularly in the presence of fluctuating oil

prices. The effects of this fourth scenario are discussed below and shown in the graphs on page 10.

Permanent Fund: The principal of the Permanent Fund would grow slowly through the next two decades, with the addition of revenues from petroleum and withdrawals only of real earnings to fund government. The fund would have a continuing capacity to generate real earnings of \$400 million annually that could be used to support public spending. Individual Alaskans would, however, lose their annual dividends in 1995.

Revenues: Even with the addition of new revenues from the income tax, total general fund revenues would still fall under this scenario, because the new taxes would not completely offset lost petroleum revenues. But the drop would not be as dramatic as in the other cases—revenues independent of the Permanent Fund would be \$1.5 billion in 2000 and fall to \$1.25 billion in 2005. As noted above, the Permanent Fund would produce about \$400 million in real earnings annually, some of which could be reinvested in early years.

Expenditures: Annual budget reductions would continue for 10 years, cutting expenditures by 25 percent over the decade. (If the annual rate of inflation averaged 5 percent, then the budget in nominal dollars would be increasing at 2.5 percent in this case.) These cuts would of course reduce the level of government services, but the reductions would be much more gradual than in the other cases we've looked at. After 2000 expenditures could be maintained at the target level indefinitely.

Alaska Employment: About 12,000 public and private jobs supported by general fund spending would disappear as state spending declined. Another 3,000 jobs would be eliminated when the income tax was reimposed and 5,000 more when the dividend program ended. Although the rate of job loss from these government actions over a 10-year period would be gradual, private industry would have to create new jobs at a rate greater than 1.75 percent annually to produce significant total employment growth before 1996.

Economic Well-Being: The economy would con-

tract when the income tax was reimposed, and again when the Permanent Fund dividend was eliminated. Reimposition of the income tax would draw purchasing power out of the private economy. Elimination of the Permanent Fund dividend would shift purchasing power from an activity with a high multiplier to one with a lower multiplier—because the money would be spent not by thousands of individuals but by government. Per capita general fund spending would decline in the 1990s, but the loss would be less than in the other cases. In contrast, per capita discretionary income of Alaskans (not shown on the graph) would fall in this case due to the reimposition of the income tax and the elimination of the dividend.

TRADEOFFS AMONG STRATEGIES

We have described four ways—all of them painful—of dealing with the fiscal gap. In each case the level of public services—both aggregate and per capita—would fall. In each case the private economy would also suffer, since reduced public spending and transfers and increased taxes would mean less buying power. There is no strategy that would close the fiscal gap without creating pain, because the gap can only be filled by taking from somewhere in the economy.

In each case the pain would be distributed among citizens—present and future—in a different way. Those different distributions are the distinguishing features of each strategy. We recognize, of course, that the effects of balancing the budget will vary among individual Alaskans and in different areas of the state. For example, areas where state spending makes up a larger share of economic activity would be harder hit by budget cuts. Similarly, eliminating or reducing Permanent Fund dividends would affect the pocketbooks of low-income Alaskans more than those with higher incomes, while reimposing the personal income tax would have more impact on those with higher incomes. Despite these individual and regional differences, there are broad kinds of tradeoffs all Alaskans will need to consider; some of these are discussed below.

Present vs. Future Public Spending: If we spend less of our petroleum wealth now, more will remain for future needs—our own or those of

later generations. Should we discount the needs of the future, because such needs are not easily identifiable or because we think the wealth of future generations is currently underestimated? Or should we weight the needs of the future heavily because new public needs are continually being identified, the population is growing, and we may be overestimating future revenues?

Figure 3 shows state spending levels over the next 20 years under our four choices. All the choices show much lower spending by 2010—but how much we spend along the way varies sharply among the choices. Choice 1 and Choice 2 offer the biggest contrast in spending over the next decade; under Choice 1 we would continue current fiscal policy, using all available reserves except the Permanent Fund, while in Choice 2 we would prop up spending by draining the Permanent Fund. Although spending would obviously be much higher under Choice 2 over the next decade, by 2010 spending under both cases would fall to about the same level—but the Permanent Fund would be gone under Choice 2. Choice 3 also would prop up state spending by using the Permanent Fund, but at a slower rate. Spending under Choice 4 would be highest in 2010—but we would maintain that spending level without drawing on the Permanent Fund principal.

Figure 4 shows how each of our four choices would affect the Permanent Fund, our primary repository of oil wealth. The fund and its earning power would not last long if we opted to use the principal to prop up state spending. In Choice 2, the fund would be used up in 2003; in Choice 3 it would dwindle after the 1990s and be gone by 2015. The fund would increase somewhat under both Choices 1 and 4. But under Choice 1 the fund would be left intact while state spending shrank and the state government and the economy floundered from year to year. Under Choice 4, state spending would be stabilized and the economy would not be jolted by continuing spending cuts over 20 years—but it would be stabilized at the cost of a new personal income tax and the elimination of Permanent Fund dividends.

The most straightforward benefit to the average Alaskan from the Permanent Fund has been the annual dividends paid out of fund earnings. Figure 5 shows how dividend payments would be affected under each of our four choices. Under Choice 1, real dividend payments (in 1989 dol-

lars) to each Alaskan would remain fairly constant over the next 20 years, since population growth would roughly match growth in the amount available for dividends. Under Choice 2, the dividends would shrink over the next decade as the principal of the fund was being drawn down and its earnings reduced; the last dividends would be paid in 2004. The attrition of dividends would be somewhat slower under Choice 3, but the result would be the same: shrinking and then disappearing dividends by 2015. Under Choice 4, the dividend program would end in 1995 and the money that formerly went into that program would be shifted over to the general fund.

To conclude our discussion of spending, we should note that in the past decade the state government has spent part of its oil wealth in ways intended to stimulate future economic growth rather than simply to maintain current programs. Many of these ventures have so far had limited success, and it's outside the scope of this paper to assess their value to the state as investments. But to the extent that the state can use its oil wealth to promote economic growth, that kind of spending should be viewed as investment and distinct from spending that simply creates jobs and income in the present.

Present vs. Future Economic Activity: The Alaska recession that followed the "petrodollar boom" of the early 1980s demonstrated that a large portion of the economic activity stimulated by state spending of oil revenues could be sustained only as long as the flow of oil dollars continued. We can continue to spend oil revenues when we receive them, and immediately receive the benefits of the jobs and income produced by that spending. Alternatively, we can postpone spending some of the revenues and receive the economic benefits at some future time. The choice should depend on when those jobs and income will contribute most to the economy and on what we want to save for future generations. Until we make such a choice, the marketplace—essentially the OPEC cartel and the petroleum production cycle—will continue to dictate the booms and busts of our economy.

Figures 6 and 7 show how the number of jobs supported by state spending—including both public and private jobs—and the total number of jobs in Alaska would vary under our four choices. Under Choice 1, the number of jobs supported by

public spending would decline steadily for the next 20 years. Under Choice 2, spending of the Permanent Fund would keep such jobs at about their current level until the fund was exhausted in 2003—then many jobs would be eliminated quickly, and by 2010 there would be about half as many jobs supported by public spending as there are today. Under Choice 3, which involves more gradual use of the Permanent Fund, the number of jobs created directly and indirectly by state spending would drop somewhat by 2010—but not shown on the graph is a very sharp drop that would occur after 2010, when the Permanent Fund was depleted. As with the other cases, the number of jobs supported by state spending would also drop under Choice 4, but the decline would be somewhat smaller and the number of such jobs would stabilize after 2000.

How total jobs in the state—including both those supported by public spending and those by private industry—would fare under each of our choices depends largely on the timing of public spending and on whether the Permanent Fund is depleted. We assume in all cases that private industry in Alaska is able to generate new jobs at an average annual rate of 1.75 percent. Under Choice 1, it would take about 10 years for private growth to offset the job loss from reduced public spending. Use of the Permanent Fund would keep the number of jobs growing under Choice 2—until the fund was used up; then a severe recession would occur. By 2010 Alaska employment would be lowest under Choice 2. Under Choice 3, total jobs would grow slowly but steadily through 2010—but again, not shown on this graph is a sharp decline in jobs that would happen around 2015. Employment under Choice 4 would be slightly lower than under Choice 3, because in that case spending of the Permanent Fund would not be supporting jobs. However, unlike Choice 3, Choice 4 would not involve a recession in 2015.

Public vs. Private Consumption: How much we are able to consume as a state ultimately depends on the productive capacity of our basic industries—petroleum, seafood, tourism, mining, forest products and federal government spending. The split between public and private consumption does not affect this capacity unless government raises taxes so high that private economic incentives are adversely affected. However, the distribution of the benefits does depend

on that split. We have argued that the current rate of consumption can't be sustained (because public spending exceeds sustainable public revenues), but we have not suggested what the proper balance is between public and private consumption. Is public consumption in Alaska too large because of historical accident and because the only constraint on public spending seems to have been the availability of revenues? Or should we increase public consumption relative to private consumption to meet the continuing growth in those needs best served through public action? Do we need a large public sector to balance the dominant economic influence of a single commodity? Or does high public consumption hamper diversification in the private sector?

Gradual vs. Abrupt Transition: A gradual transition to a sustainable level of public spending would allow both the public and private sectors to adjust in ways that would minimize the pain from the loss of public services, income, and employment. At the same time, a gradual transition would be very difficult to manage politically and would have a lasting negative psychological effect on the state and population. A quick transition would not leave much time for adjustments and would cause some inefficiencies as public agencies, businesses, and individuals reorganized in the wake of budget cuts. On the other hand, the detrimental psychological effects would be short-lived.

Figure 8 shows the different rates of spending cuts under the four cases. The most drastic would be Choice 2, where state spending would drop by more than half shortly after 2000. Choice 1 would see sharp cuts in the early 1990s and then a continual downward drift for the next 20 years. Choice 3 would result in a fairly stiff drop in the early 1990s followed by relatively stable state spending through 2010—but then another sharp cut in the next decade. Under Choice 4 we'd see small but steady decreases throughout the 1990s but a leveling off after that.

Public vs. Private Economic Activity: Delivering public services requires hiring public employees—teachers, construction workers, office workers—and indirectly generates private employment. Delivering private goods and services requires hiring private employees—clerks, construction workers, office workers. Is the mix

Comparisons Across Fiscal Choices

Figure 3

STATE GENERAL FUND EXPENDITURES

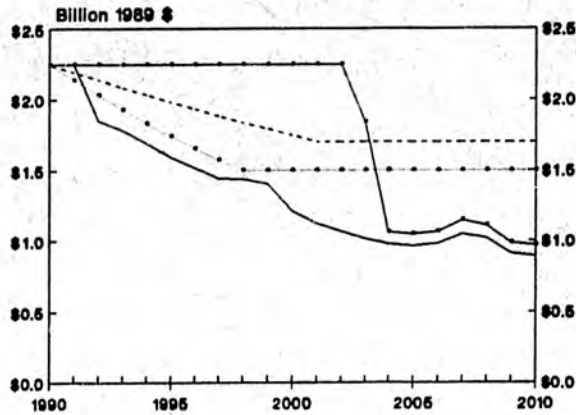


Figure 4

PERMANENT FUND BALANCE

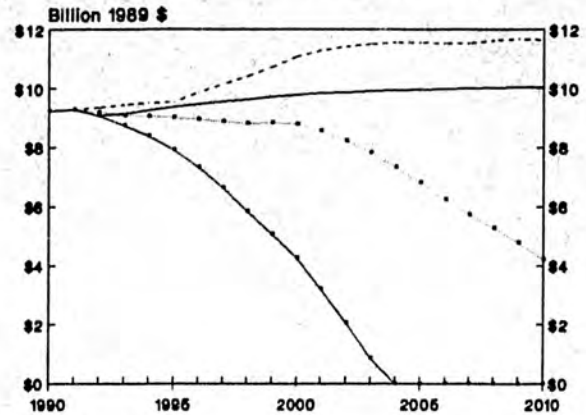


Figure 5

PERMANENT FUND DIVIDEND

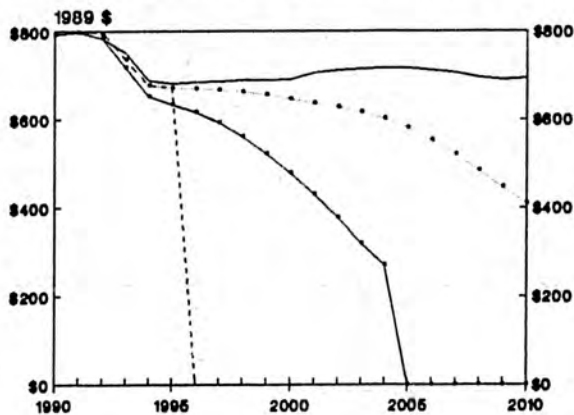


Figure 6

STATE SUPPORTED EMPLOYMENT

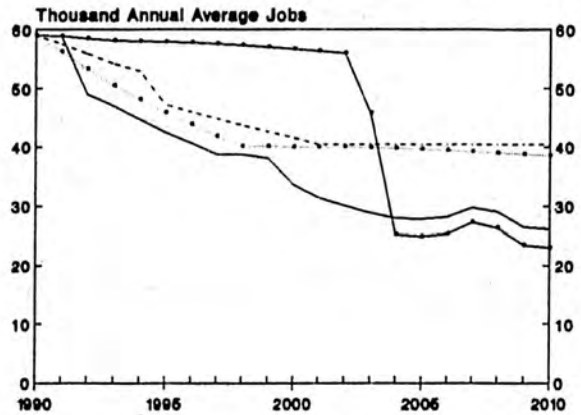


Figure 7

ALASKA WAGE AND SALARY EMPLOYMENT

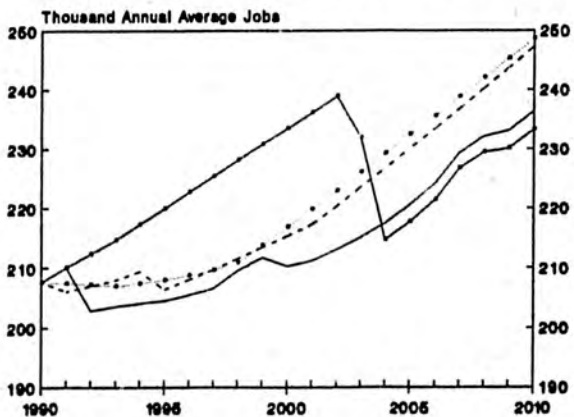
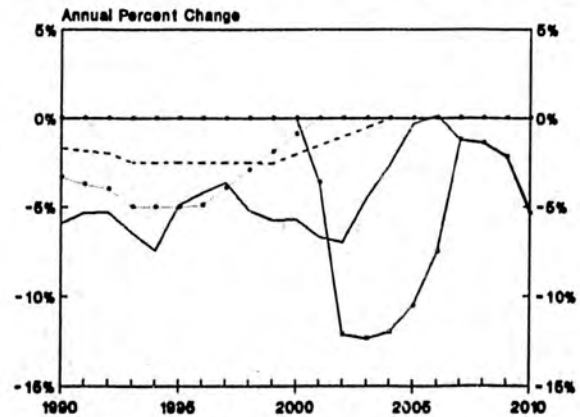


Figure 8

GENERAL FUND SPENDING: YEARLY CHANGE



Values have been smoothed.

SCENARIO

- 1 STUMBLE ALONG
- 2 USE PERMANENT FUND
- - - 3 BUDGET FREEZE
- - - 4 BUDGET CUT & TAXES

of public and private jobs in the economy an important consideration, independent of the mix of goods and services provided?

It would be if the economic multiplier—the capacity of one job to create other jobs—were significantly different for public and private jobs. However, there doesn't seem to be a significant difference between the multiplier effects of public and private jobs, since most of the multiplier effect in the Alaska economy comes from the successive re-spending of income earned as wages and salaries, independent of who writes the checks.

CONCLUSION: A CALL FOR ACTION

These cases show some of the consequences of four different choices for closing the fiscal gap facing Alaska. As we noted at the outset, we have not assessed the political difficulties of putting budget changes into effect—but of course we recognize that enormous difficulties will accompany any such plan. Further, we don't know whether the assumptions we've used in this analysis will turn out to be accurate. But whether the price of oil is higher or lower than we've assumed, or other circumstances are somewhat

different than we project, Alaska faces a serious fiscal problem. Despite the uncertainties always inherent in planning for the future, this analysis suggests positive action is warranted—and the sooner it is taken the better.

Differences among the four choices demonstrate that we can influence outcomes and change tradeoffs through public choices. For example, we can choose whether the Permanent Fund will be a lasting asset, throwing off income for future generations of Alaskans, or whether we will spend it to get ourselves through the next decade without sacrifice. We can decide on the mix of current versus future spending, total public versus private spending, and when to take the inevitable hit on the economy. With advance warning, we have an opportunity to plan spending reductions in an orderly fashion.

It is clear that what actions to take are political rather than economic decisions. Nonetheless, each decision will have significant economic consequences. Policymakers need information about the implications of different choices to make informed political decisions. Future issues of this series will seek to enlarge the scope of public information to help in this important public debate.

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ISER FISCAL POLICY PAPERS

No. 2, October 1989

Institute of Social and Economic Research

University of Alaska Anchorage

Facts and Fables of State Spending

Alaska's state government was suddenly and surprisingly rich in the early 1980s. We quickly learned to spend rich. And the best part about our overnight wealth was that it came at virtually no cost to us as individuals.

Not only did oil revenues from Prudhoe Bay development pay the bill for almost all state operations over the past decade, there were enough revenues left over to pick up some of the costs of local governments, repeal state personal income taxes, create a huge state savings account, and pay all Alaskans annual cash dividends.

Now we're facing the reality of much smaller petroleum revenues in the next decade—see the adjacent box. Many Alaskans think cutting the state budget will be fairly easy: we'll just "cut the fat" that bloated the budget in the 1980s.

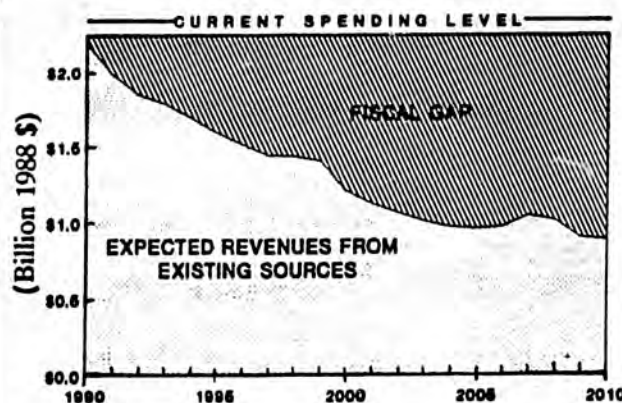
But as we'll make clear in this analysis, cutting the budget will by no means be easy. What some Alaskans regard as spending for "fat" others see as spending for essential services or entitlements. Many things contributed to the high spending of the past decade, and whatever is cut from the budget will hurt some Alaskans.

To make budget decisions, Alaskans need to know how the state actually spent its money in the 1980s. Many of the facts about high state spending have become obscured by fables about where the money went. This paper reveals the facts and discloses the fables about state spending in the 1980s and assesses how those facts will make budget cutting tough.

One important point that tends to get lost in all the talk about big spending is that even *before* Alaska was oil rich, our state government spent two to three times the average of other states. So the increased state spending fueled by oil revenues over the past decade started from a base that was already substantially above that of other states.

Also bear in mind that Alaska's population

PROJECTED STATE FISCAL GAP*
(Difference Between Revenues
and Current Spending)



Adjusted for inflation, state government revenues from existing sources will drop 50 percent between now and 2000, leaving a difference of \$1 billion between current spending and existing revenues. That substantial gap can only be closed by spending cuts, tax increases, use of reserves, or some combination of the three.

This is the second in a series of ISER Fiscal Policy Papers examining aspects of state government spending. We intend these papers to focus the attention of state officials and of Alaskans in general on the serious budget crisis we face, and on the necessity for dealing with it soon.

The authors are Oliver Scott Goldsmith, Lee Gorsuch, and Linda Leask. Teresa Hull prepared the graphics, and Alexandra Hill and M.L. Madden helped analyze the data.

The ISER Fiscal Policy Papers series is financed by a grant from ARCO Alaska.

Scope of Analysis

Much of our analysis is just of state spending, but we also look at local spending when appropriate. In Alaska the state often provides or pays for services that local governments provide for themselves in other states, without state aid. The fortunes of Alaska's local governments are very strongly tied to those of the state.

One final note that may be helpful in setting the stage for our spending analysis: *there is no absolute measure of what government ought to spend.* Generally, governments spend what citizens are willing to pay in taxes. Wealthier states spend more than poorer states. In this paper we compare Alaska's spending over the past decade with its own previous spending levels and patterns and with national averages. We aren't implying that those two comparisons should be the basis for determining future Alaska spending levels. Rather, we use these comparisons to help put Alaska's 1980s spending in some perspective and to help state officials and Alaskans in general think about what they want to accomplish with the more modest level of resources that will be available in the future.

doubled between 1967 and 1987, and inflation nearly tripled prices. Those factors together mean state spending would have to be six times larger today just to keep pace with population and prices. But state spending in 1987 was 16 times greater than in 1967—a much larger increase than can be accounted for by the combination of population growth and inflation.

The gap between Alaska state spending and the average for other states widened dramatically in the 1980s. Because Alaska had more money to spend it: (1) expanded existing programs; (2) delivered services in more expensive ways; (3) added many new kinds of spending; and (4) increased wages of public employees.

Those changes in state spending created economic and political forces that will complicate every step toward balancing the state budget. Among the many factors state officials will have to contend with are the importance of state money to individuals, municipalities, school districts, and the entire Alaska economy; the power of interest groups; the popularity and economic importance of the Permanent Fund dividend program and other special benefits; and the unwillingness of Alaskans to pay more taxes.

Our analysis is in three parts: (1) The Prudhoe Bay Ride—the source of big state spending; (2) Myths and Realities—perspectives on state spending; and (3) Between A Rock and A Hard Place—the difficulties associated with budget cutting.

The Prudhoe Bay Ride

The State of Alaska had a tremendous stroke of good fortune in 1968, when oil companies discovered the 10-billion barrel Prudhoe Bay field on state-owned lands on the North Slope. Development of that single oil field—the largest ever discovered in North America—became

responsible for several of the state's economic booms, culminating with the biggest in the 1980s.

Figure 1 shows the Prudhoe Bay ride—petroleum revenues the state has collected, largely from the Prudhoe Bay field—over the past 25 years. The figures are in 1988 dollars—which eliminates the effects of inflation and allows us to compare the buying power of revenues each year during that period.

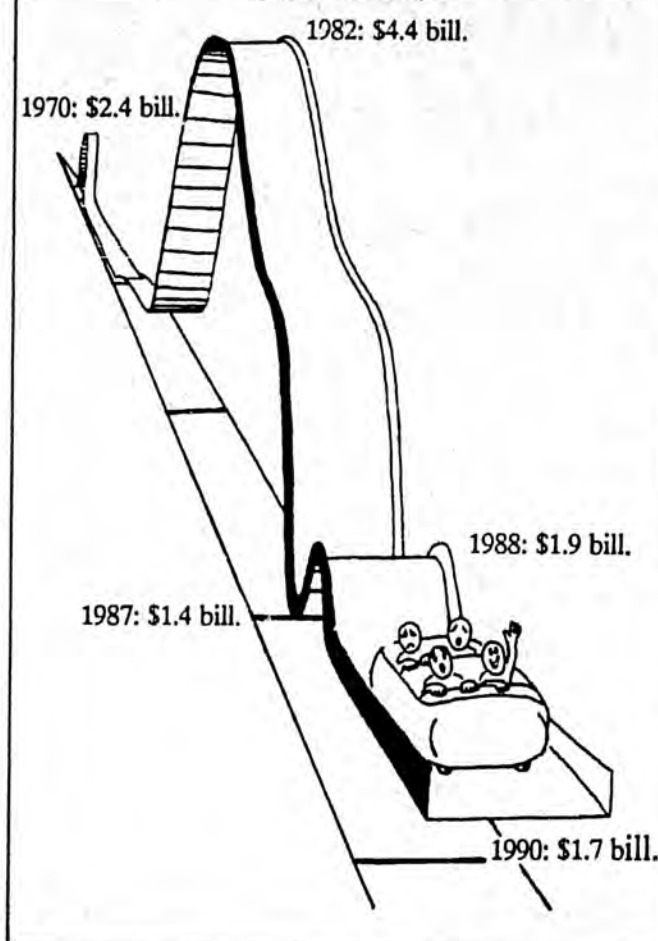
The state leased the Prudhoe Bay field to oil companies in a series of sales in the 1960s. The final sale, in 1969 (fiscal 1970), brought the state its first big petroleum revenues: \$900 million (\$2.4 billion in 1988 dollars). After that sale, Alaska's petroleum revenues returned to modest levels until the mid-1970s, when construction of the trans-Alaska pipeline to carry Prudhoe Bay oil was nearly complete. Taxes on Prudhoe Bay oil reserves and petroleum-related facilities sharply boosted state revenues in 1976.

In 1977 oil started flowing through the pipeline, and the state began collecting taxes on and royalties from North Slope production. Soon thereafter the world price of oil tripled. This tremendous increase in oil prices made the State of Alaska wealthy overnight. In just two fiscal years state revenues tripled, and by fiscal 1982 the state collected \$4.1 billion (or about \$4.4 billion in 1988 dollars) in petroleum revenues.

After 1982 oil prices began to slide. Nonetheless, through 1985 state petroleum revenues still exceeded \$3 billion a year. Then came the 1986 oil price crash. In fiscal 1987 petroleum revenues were slashed to just a third of what they had been in 1985. Oil prices and, correspondingly, state petroleum revenues, recovered somewhat after 1986. Still, for the past few years the state's annual oil revenues have been only about 40 percent of what they were in the peak year of fiscal 1982.

Driving Alaska's fiscal problem is the fact that expected revenues from existing sources will con-

**Figure 1. Alaska Petroleum Revenues
Selected Fiscal Years 1965-1990
(In 1988 Dollars)**



tinue to slide, as production from Prudhoe Bay declines. By 2000, real petroleum revenues are projected to be just about half of what they are today.

Myths and Realities

What did the state do with its petroleum revenues in the 1980s? Below we expose the myths and discuss the realities surrounding big state spending by analyzing it in two ways. First we describe overall state spending from fiscal years 1981 through 1988 (figures for fiscal year 1989 are not yet available) and identify where the money went and which organizations or individuals benefitted from it. We then examine the much-discussed higher Alaska per capita spending, showing where and why it differs so much from the national average. In the course of our discussion we debunk some commonly held myths.

Total State Spending, Fiscal Years 1981-1988

Figure 2 shows that a whopping \$34 billion (or around \$36 billion in 1988 dollars) passed through the state general fund from fiscal years 1981 through 1988—an average of about \$4 billion a year.

That \$34 billion includes not only operating and capital spending but also some savings and investments. The money went for many purposes inside and outside the traditional purview of government. The list below reveals that not only did government programs benefit from the revenue bonanza but so did schools, municipalities, public corporations, non-profit groups, and—not least of all—individuals. In fact, two-thirds of the total \$34 billion went for purposes other than state agency spending. In order of amounts received, the recipients of the state's largess were:

1. *State Agencies:* State agencies themselves spent about a third of the \$34 billion for their own operating and capital expenses.

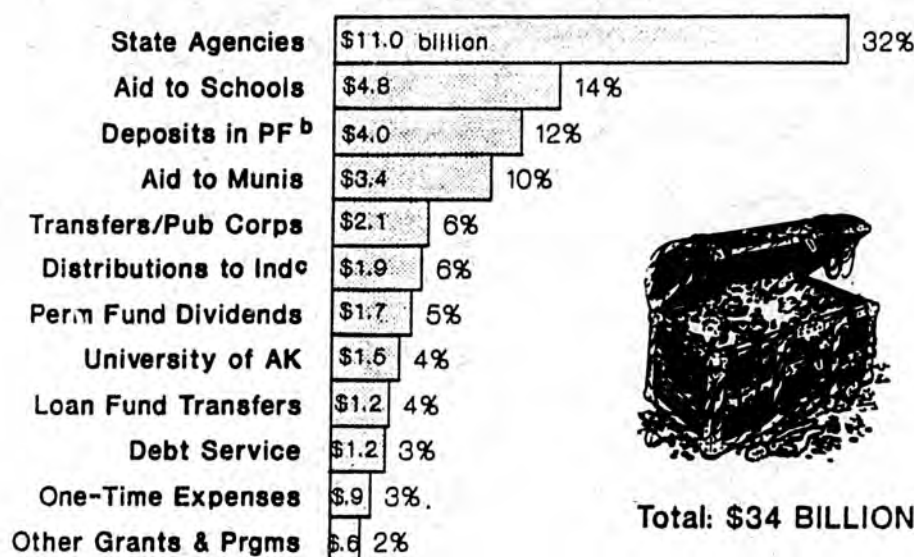
2. *Aid to Schools:* Alaska's urban and rural school districts got 14 percent—nearly \$5 billion—of the total. That includes operating and capital aid and reimbursement for school construction debt.

3. *Deposits in Permanent Fund:* Not all of the \$34 billion was spent. The legislature deposited \$2.7 billion of general fund money and another \$1.3 billion from the Undistributed Income Account into the Permanent Fund. These deposits of more than \$4 billion accounted for 12 percent of total spending and were in addition to \$2.8 billion that went directly into the Permanent Fund as required by the Alaska constitution.

4. *Aid to Municipalities:* Alaska's local governments were on the receiving end of about \$3.4 billion in state operating and capital aid—about 10 percent of the \$34 billion. State grants for capital projects were by far the biggest part of that aid.

5. *Transfers to Public Corporations:* The state's public corporations—which are quasi-state agencies that do everything from subsidize home mortgage interest rates to build dams—received

Figure 2. Total State Spending^a
FY1981-1988



Total: \$34 BILLION

^a Consists primarily of general fund expenditures, but also includes some transportation and education expenditures from other funds and \$1.3 billion transferred from the Undistributed Income Account to the principal of the Permanent Fund.

^b In addition to the Permanent Fund deposits mandated by the Alaska constitution.

^c Excluding Permanent Fund Dividends.

more than \$2 billion, or 6 percent, of the \$34 billion. These transfers to public corporations represent an investment, increasing the assets of the corporations. It is beyond the scope of this analysis to determine the current value of those investments. While there have been some significant investment losses, the corporations continue to hold substantial state-financed assets.

6. Distributions to Individuals: Individual Alaskans collected nearly \$2 billion—or 6 percent—of the total in cash or services through programs other than the Permanent Fund dividend program. Included among these distribution programs are the state's welfare programs, the Longevity Bonus program, and others.

7. Permanent Fund Dividend Program: This program alone paid Alaskans nearly as much as all the other state distribution programs combined in the 1980s—\$1.7 billion between fiscal years 1983 and 1988. Distributed dividends amounted to 5 percent of the total \$34 billion in expenditures.

8. University of Alaska: The statewide university system received \$1.4 billion in operating and capital funds from 1981 through 1988. That is about 4 percent of total state spending during that period.

9. Transfers to Loan Funds: Funds that loaned money to students, farmers, fishermen, and others received \$1.2 billion, or 4 percent, of state general fund money between 1981 and 1988. This money did not represent straightforward spending, because the state expects recipients to re-pay the loans. However, the amount that may ultimately be available to the state for other purposes is uncertain.

10. Debt Service: Debt service on just state general obligation bonds—excluding massive bonded debt held by the state's public corporations—cost Alaska about \$1.2 billion, or about 3 percent, of total spending in the 1980s.

11. One-Time Expenses: One-time special expenses cost the state about 3 percent of the \$34

Measuring State Spending

Reports of government spending often don't match. That happens because there are many ways to measure government spending. Among the most common measures are:

Appropriations: An appropriation is an amount government officials have approved for spending, but haven't actually spent.

Expenditures: An expenditure is an amount dispensed from a government account. Expenditures are mostly amounts actually spent, but they can also include amounts that are simply transferred from one government account to another.

Outlays: An outlay is an amount that actually leaves all government accounts.

Here's an example to illustrate differences in these three measures. A state *appropriation* for local government assistance becomes a state *expenditure* when the funds are transferred to local governments. Those transfers to local government become government *outlays* only when the local governments actually spend the money for intended purposes.

The timing of spending is an important difference among these three measures. Most operating expenditures and outlays do occur in the same fiscal year they are authorized by appropriations. However, the lag between some appropriations and expenditures can often exceed a year, particularly for capital projects, and the delay between expenditures and outlays can also be long. For example, in the early 1980s the state appropriated such large amounts for capital projects that it was impossible to expend it all in the year in which it was appropriated. Another kind of complication is that an amount the state records as an expenditure may not show up as an outlay. In the early 1980s, for instance, the state legislature appropriated \$2.7 billion to the Permanent Fund, and that transfer was recorded as a state expenditure. But it has never become an outlay because the money is still in the Permanent Fund. Another difference in the measures is that appropriations don't always result in expenditures—because there may be a shortfall of revenues or a change of policy.

What We Use: In this paper we use both government expenditures and outlays, because using two measures gives us a more complete picture of Alaska state and local government spending.

We use ISER's own calculations of total state general fund expenditures during the 1980s, to provide a full picture of where about \$34 billion went from fiscal years 1981 through 1988. Not all of that money became outlays—some went for special appropriations to the Permanent Fund, some went to public corporations, and some went to loan funds. More detailed information on these expenditures is available in the ISER publication *Alaska Review of Social and Economic Conditions*, "Where Have All the Billions Gone?" (February 1987) and the update, *Research Summary No. 41* (February 1989).

The second source we use is the U.S. Department of Commerce's record of state and local outlays, reported annually in *Governmental Finances*. That source allows us to compare outlays of Alaska's state and local governments with those of other states. Virtually all comparisons of spending among states use this source. Because some aspects of Alaska spending are difficult to compare with national averages, we have made some adjustments in the figures to make the comparisons more accurate. The major adjustment we made was to exclude from outlays the very large interest payments on bonded debt of public corporations—for Alaska, this is primarily debt of the Alaska Housing Finance Corporation. In the federal reports, these interest payments are not identified as being paid from funds of the corporations. Including these interest payments—which do not come out of general revenues—distorts spending comparisons both with previous Alaska levels and with national averages.

billion. The biggest of these expenses were a \$295 million payment the state owed Alaska Native corporations, and \$160 million refunded to individual Alaskans when the personal income tax was repealed.

12. Miscellaneous Grants and Programs: Non-profit corporations and others providing various kinds of services collected around \$600 million, or 2 percent, of total spending from 1981 through 1988. (Such organizations received additional state money through state agencies as well.)

Spending and Employment Changes, 1967-1987

Now that we've seen how much of total spending went to various recipients in the 1980s, we refute some spending myths by looking at changing levels and compositions of state and local spending and employment over the past 20 years.

Figure 3 is a complex graphic that shows several things about Alaska spending per capita relative to the average of other states in 1967, 1977, and 1987. The figure tells us: (1) how much more we spent than the U.S. average in each of those years; (2) how much Alaska's higher costs contributed to those differences; and (3) how the

composition of the extra Alaska spending changed over time.

Because Figure 3 is complex, we use Table 1 to help clarify the information it presents. Table 1 simply repeats the U.S.-Alaska spending ratios and the changing composition of Alaska's extra spending from 1967 through 1987—so the reader can more readily see the changes.

The bars for each year in Figure 3 show total Alaska per capita state spending—so, for example, in 1967 Alaska's state government spent \$742 per resident. The bottom portion of the bar shows the average spending per capita among all states—again, in 1967, the U.S. average per capita spending among state governments was \$265.

To find the difference between Alaska and U.S. average state spending, we could just divide \$742 by \$265—which would indicate that Alaska state spending was 2.8 times the national average that year. This is the unadjusted ratio of Alaska to U.S. average spending per capita. But because we know that costs in Alaska are higher, we need to subtract that portion of Alaska spending that goes just to pay higher costs, so we can compare real buying power.

The part of the bar just above the U.S. average, labeled COLA (cost-of-living adjustment), is the portion of Alaska state spending we estimate is necessary to buy in Alaska the same bundle of goods and services state governments in the Lower 48 provide. If Alaska only provided the same things other state governments provide, that would be the only cost adjustment we would have to make.

We know, however, that Alaska's state government provides things other states don't—and

those extras (labeled "Extra Spending" on the bars) also cost more to buy here than they would in other states. So we make a second cost adjustment—which is that portion of the Alaska-U.S. differential that the state spends just because the extra goods and services it provides cost more here than they would in other states. That second cost adjustment (COLA) is shown at the top of the bar.

This adjusted measure of how much government Alaska provides offers the better comparison, because it leaves out the differences that are solely due to Alaska's higher prices. With the two cost-of-living adjustments, we can see that Alaska state spending in 1967 was 1.8 times the national average — $(\$742 - \$117 - \$141) / \$265 = 1.8$.

Although a single year can't perfectly reflect the spending pattern of a decade, we picked 1967 and 1977 to contrast with 1987 because those earlier years show spending before Prudhoe Bay was discovered and during the pipeline construction boom. While spending was somewhat lower in 1987 than it had been earlier in the decade, we believe it still provides a good representation of spending in the 1980s. (Comparable figures for 1988 and 1989 are not yet available.)

In addition to Figure 3 and Table 1, we use Figures 4 through 9 to tell a story: the story of what happened to state and local spending over the last 20 years.

Text continued on page 8.

Table 1
Per Capita Alaska State Spending Compared to U.S. Average

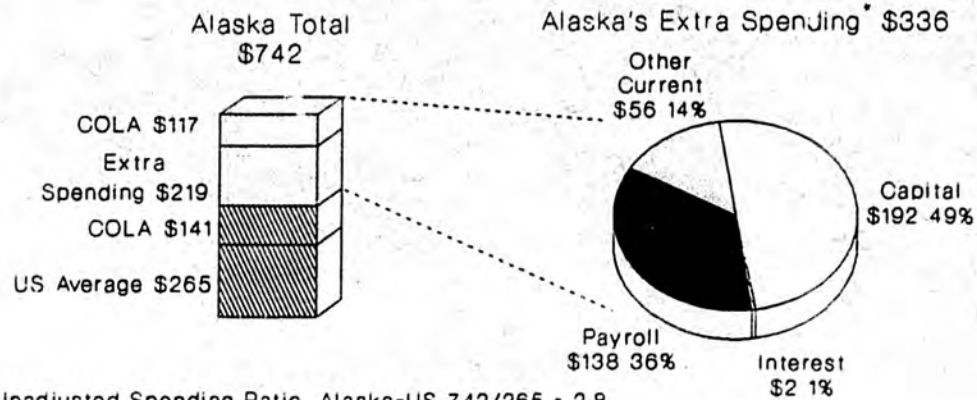
Fiscal Year	Unadjusted Spending Ratio	Adjusted Spending Ratio	Composition of Extra Spending					
			Capital	Payroll	Other ^a	Local Transfers	Interest	Permanent Fund Dividend
1967	2.8	1.8	49%	36%	14%	0%	1%	0%
1977	3.1	2.1	34	36	19	6	4	0
1987	4.0	3.1	12	23	25	23	1	16

^aOther current expenses include spending for programs unique to Alaska and extra spending for programs common to other states.

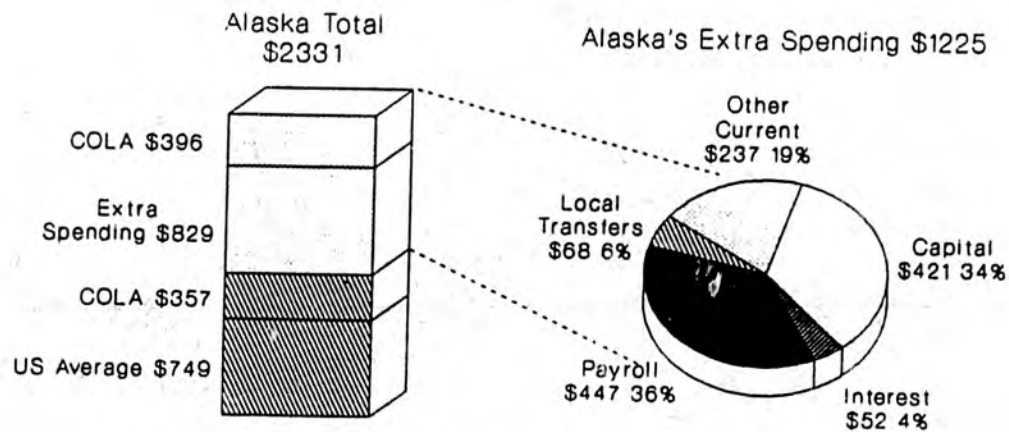
^bIn FY67 Alaska spent 30% less on transfers to local governments than the average of other states.

**Figure 3. Composition of Alaska State Spending Per Capita
(Nominal Dollars)**

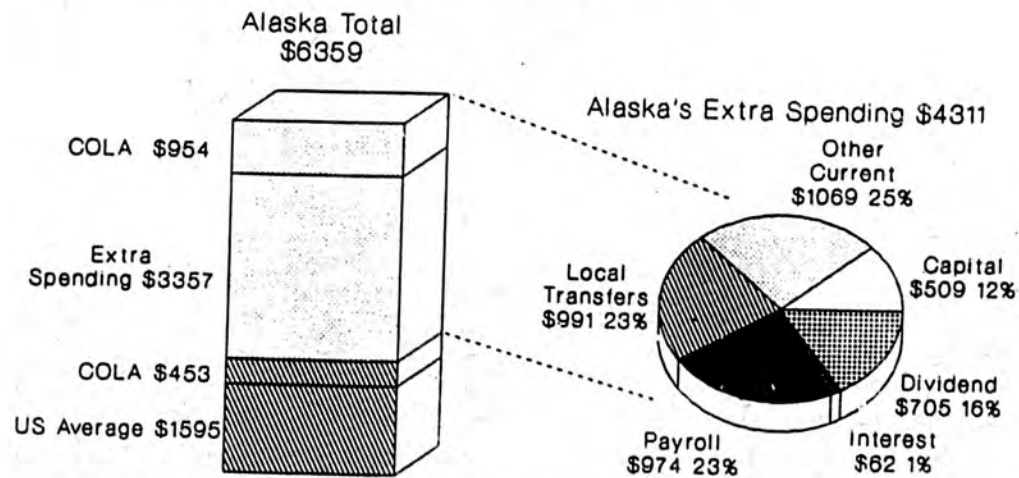
1967



1977



1987



The Alaska Cost-of-Living Adjustment (COLA)

All our numbers are in 1988 dollars, except those in Figures 2 and 3. That adjustment eliminates the effects of inflation so we can assess real changes in spending over time.

Also, in Figures 4, 5, 6, and 9, we've added an Alaska cost-of-living adjustment (COLA) to the U.S. average numbers. That adjustment takes into account Alaska's higher living costs and shows what the U.S. averages would be at Alaska prices. We also used this COLA in Figure 3 to determine how much of per capita Alaska spending is required just to compensate for Alaska's higher prices.

Our cost-of-living adjustment takes into account both the higher cost of living in Anchorage relative to the U.S. average, and the higher cost of living in other Alaska regions relative to Anchorage. The 1988 COLA is 24 percent, and is based on a 15 percent differential between Anchorage and U.S. average prices, multiplied by an 8 percent differential between Anchorage and other Alaska prices. So, a commodity that costs \$1.00 in the U.S. as a whole will cost \$1.15 in Anchorage and \$1.24 in the typical Alaska community. We calculated the Anchorage-U.S. differential with U.S. Bureau of Labor Statistics information. Our calculation of the differential between Anchorage and the rest of the state is based on the regional cost-of-living indexes reported in the *Alaska Geographic Differential Study* (prepared for the Alaska Department of Administration in 1985 by The McDowell Group), weighted by the proportions of state and local government employment in each region.

No cost-of-living adjustment is perfect. This one applies most appropriately to personal consumption and less so to the costs of construction. We know the relative cost of construction in Alaska is higher than the relative cost of labor — and higher construction costs in turn increase the overall costs of government. But since labor costs are such an important component of government costs, this COLA is an appropriate measure of a large part of the budget.

Text continued from page 6.

Some of the commonly held spending myths are:

Level of State Spending

Myth: Alaska state spending only soared above average spending among other states during the past decade.

Reality: Alaska's spending has historically been far above the national average. True, the gap did widen dramatically in the 1980s—but it started from a relatively high base.

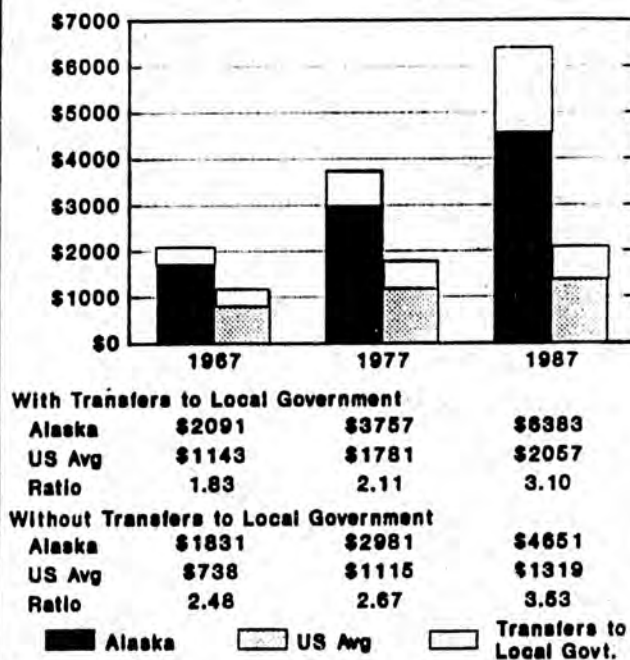
With no adjustment for living costs, state spending per capita in 1967 was 2.8 times the national average. Adjusted for Alaska's higher costs, that 1967 ratio was 1.8. (Figure 3). By 1977 the unadjusted ratio of Alaska spending to the average of other states had increased to 3.1, and the cost-of-living adjusted ratio was 2.1.

By 1987, unadjusted Alaska spending per capita had jumped to 4 times the national average; that ratio dropped to 3.1 times the national average with a cost-of-living adjustment. Overall, taking living costs into account, the gap between Alaska and U.S. average state spending increased moderately between 1967 and 1977 and

then jumped from 2.1 to 3.1 times the national average between 1977 and 1987.

Figure 4 shows that real Alaska per capita spending—minus the effects of inflation—tripled between 1967 and 1987, with the fastest growth in

**Figure 4. State Spending Per Capita
Alaska and U.S. Average
(In 1988 Dollars)**



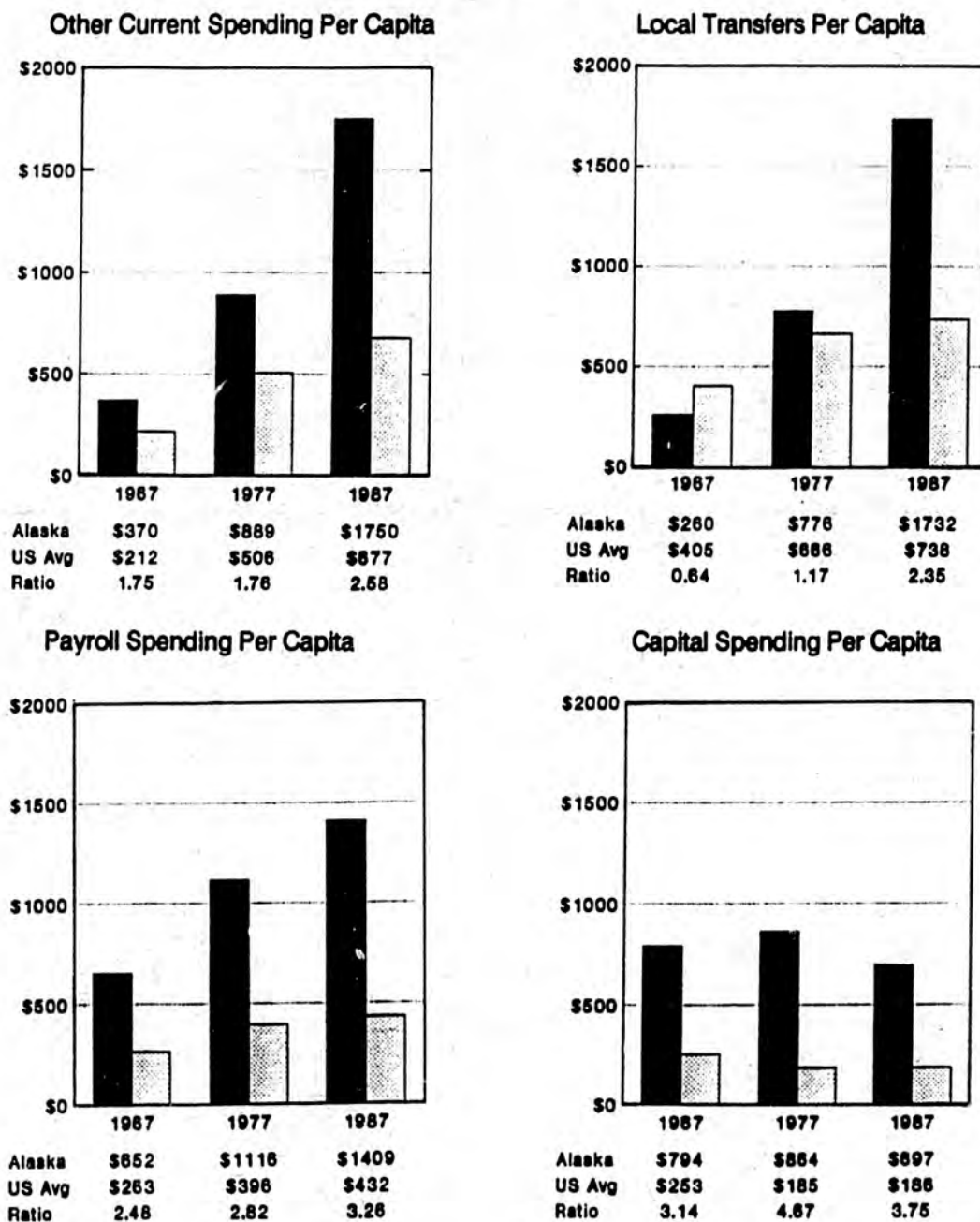
Note: U.S. averages are inflated by Alaska COLA.

the last decade. Alaska's spending growth far outpaced the rate among other states—even though the U.S. average increased a substantial 80 percent in that same period. The U.S. averages in this figure and in several later figures are cost-of-living adjusted; see the text box for an explanation of what that means and why we use that adjustment.

The four graphs in Figure 5 show how selected components of state spending per capita changed

over those 20 years. The sharpest increase in spending per capita was in transfers to local governments, which grew nearly sevenfold from 1967 to 1987. Spending for other current expenses (see note to Table 1) was also up dramatically—nearly fivefold. Payroll spending per capita doubled. Capital spending per resident, which in 1967 was highest relative to the national average, remained near the same level in 1987.

Figure 5. Changes in Selected Components of State Spending Per Capita
(In 1988 Dollars)



Note: U.S. averages are inflated by Alaska COLA.

Higher Living Costs

Myth: Alaska's higher living costs largely explain why the state spends three times the average of other states.

Reality: As Figure 3 shows, the additional amount Alaska spent to buy the same level of government as in the U.S. as a whole made up only a small part of total Alaska spending each year.

Living costs here have historically been higher than the national average, particularly in rural areas. Today Alaska costs remain higher—but the difference has shrunk over the past 20 years as Alaska markets grew bigger and transportation became more efficient. This change has been reflected in an inflation rate lower than the national average for most of this time. Yet, despite these relative declines, Alaska spending per capita continued to grow rather than decline.

Unique and Expensive Programs

Myth: Alaska's state government provides the same services as other states.

Reality: Alaska provides many programs unlike those in any other state; it spends more for functions common to all the states; and it delivers services in more expensive ways. Together, those factors accounted for close to 40 percent of Alaska's extra spending per capita in 1987. (The sum of "Other Current Expenditures" and the Permanent Fund dividend categories in Figure 3.)

Most of Alaska's unique programs were created or expanded in the past decade. The most obvious of these is the Permanent Fund dividend program, which is so large we list it in a category by itself in Figure 3 and Table 1. Excluding the Permanent Fund dividend program—which alone accounted for 16 percent of extra spending—special Alaska programs, methods of delivery, and the "Alaska Factor" described below accounted for most of the "Other Current Expenditures" shown in Figure 3, which made up 25 percent of the extra Alaska spending in 1987.

In 1977, "Other Current Expenditures" accounted for about 19 percent of the extra Alaska spending, and in 1967 14 percent. The Permanent Fund dividend program didn't exist in those years.

The Alaska Factor

Myth: Alaska's higher spending is mainly the result of special Alaska conditions not captured in a cost-of-living adjustment.

Reality: The conditions that have historically driven up government costs here—Alaska's huge size, widely scattered communities, small population, and harsh climate—still contribute to high service delivery and construction costs in the 1980s. But we would expect these factors to play a smaller role in state spending than they used to, because capital spending as a proportion of total state spending has declined sharply while transfers to individuals have increased substantially.

The cost of the "Alaska Factor" is included in "Other Current Expenditures" in Figure 3.

Transfers to Local Governments

Myth: Alaska's local governments became financially more independent in the 1980s as their tax bases grew.

Reality: Tax bases of urban governments in Alaska did increase sharply in the first half of the 1980s, but at the same time they cut tax rates, expanded services, and became more dependent on state aid. Transfers to local governments accounted for 23 percent of Alaska's extra spending in 1987, as compared with 6 percent in 1977. In 1967 transfers to local governments were below the national average, and do not appear in Figure 3.

Figure 6 shows that real per capita local spending (minus the effects of inflation) quadrupled between 1967 and 1987. That big increase in spending was attributable to two major factors: fast growth in local tax bases, particularly in Anchorage and other urban areas, which boosted local property tax revenues even as tax rates were being reduced; and sharp increases in state aid.

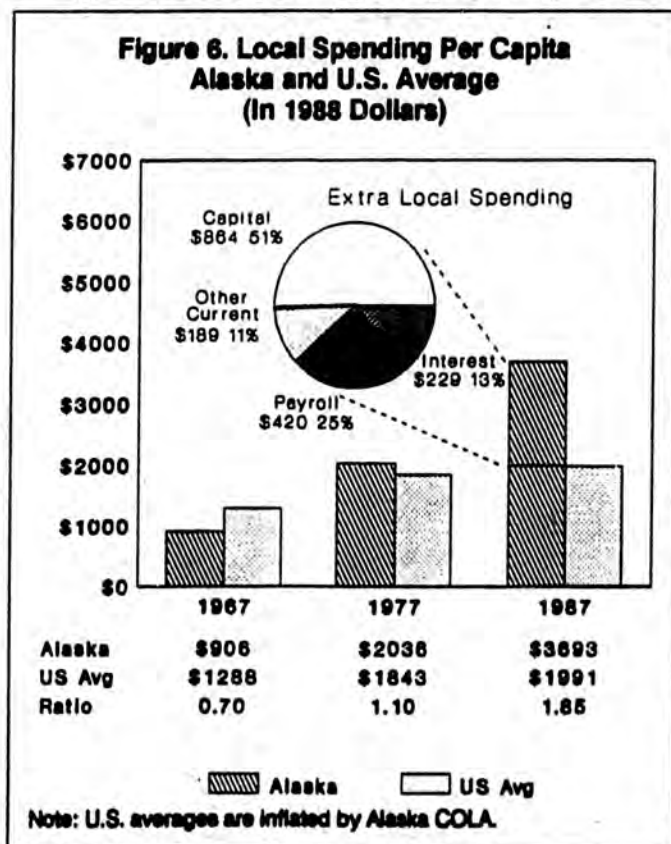
Figure 6 also shows that in 1967 real per capita spending by Alaska local governments was 30 percent below the national average and by 1977 just 10 percent above. By 1987, however, per capita spending by Alaska local governments was nearly double the average of other local governments. The pie to the left of the 1987 bars in Figure 6 shows what the extra spending (above the national average) was for: half was for capital

projects; 25 percent was for payroll costs; 13 percent was for interest on bonded debt; and the final 11 percent was for a variety of other current expenses.

An increasingly expensive function for local jurisdictions in recent times has been elementary and secondary education. Prior to the 1970s, the costs of public education for Alaska's Native population were borne primarily by the federal government. Locally controlled Regional Education Attendance Areas (REAs) were created to operate the dozens of new schools built throughout rural Alaska in the 1970s and 1980s, and the former Bureau of Indian Affairs (BIA) schools that were transferred to the state. The state pays all the costs of those rural districts, and more than two-thirds of the costs of urban ones. The state also reimburses school districts for 80 percent of the principal and interest costs on bonds sold to finance school construction. Finally, also adding to the increased cost of schooling in Alaska in the 1980s was the fact that school-age children made up an increasing proportion of the population.

More Workers and Higher Pay

Myth: Alaska spending is high mainly because



the government has too many workers who are paid too much.

Reality: Alaska's payroll costs—determined by the number of workers and their pay—accounted for 25 percent of Alaska's extra spending in 1987, which was less than the 36 percent payroll costs contributed in 1967 and 1977. That means fast growth in overall state spending outpaced growth in payroll spending.

Even though the *proportion* that payroll contributed to higher costs declined, the *per capita spending* for state payroll increased sharply from 1967 to 1987. (Figure 5.) Real per capita spending (minus the effects of inflation) for payroll costs more than doubled between 1967 and 1987. (The benefits portion of personnel costs appear in the "Other Current Expenditures" category in Figure 3.)

Myth: State employment is a lot higher than it used to be.

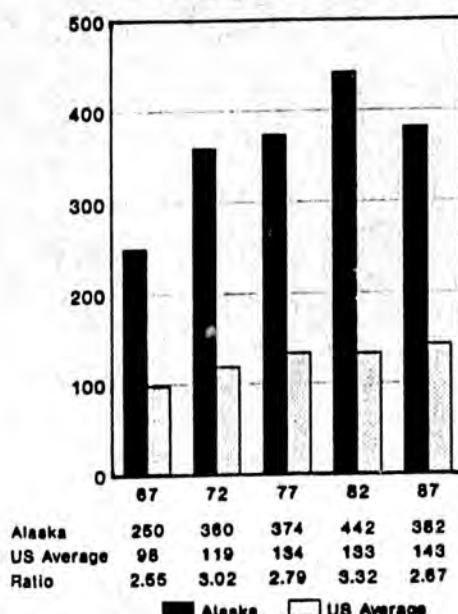
Reality: Yes and no. As Figure 7 shows, there were about 50 percent more state workers per resident in 1987 than there were in 1967—382 workers per 10,000 residents as compared with 250 per 10,000 residents. So yes, Alaska did add a lot of state workers over the past 20 years.

But notice that in 1987 the ratio of Alaska workers to the U.S. average was about the same as it had been in 1967. In both years, Alaska had about 2.6 times the national average of state workers per 10,000 population. State employment intensity peaked in the early 1980s at the height of the state spending boom, but declined about 14 percent between 1982 and 1987.

In part Alaska has always had more workers per capita because that is the nature of sparsely populated states; delivering services requires a certain number of government workers, whether the population is relatively larger or smaller. Also, the state government here has traditionally provided a number of services that in other states are provided by local governments. However, state employment per resident did not decline as local government employment increased, as we might have expected. Nor did economies of scale associated with the state's large population growth over the past 20 years become apparent.

Myth: Local government employment soared along with local government spending in the 1980s.

**Figure 7. State Government Jobs*
Per 10,000 Population**



*Jobs are full-time equivalent.

Reality: Local government employment did increase 70 percent between 1967 and 1987 (Figure 8.) But during the same period local spending quadrupled. (Figure 6.) So it's clear that much of the bigger local spending went into capital projects and other things that did not require as many new workers. Also, as we mentioned above, the rural school districts known as Regional Education Attendance Areas (REAs) were established in the 1970s. Some of the new local employment in rural areas is school employment.

Notice that in 1967 Alaska local employment was 25 percent below the average for other states: Alaska had 217 local workers for every 10,000 residents, as compared with the national average of 287. By 1987, Alaska local employment—despite vigorous growth—was still just 4 percent above the national average: Alaska local jurisdictions had 368 workers per 10,000 population, as compared with the average of 353 for local governments elsewhere. Local employment intensity in Alaska was higher in the early 1980s, but declined about 3 percent between 1982 and 1987.

Part of the reason why Alaska local employment in the 1980s is so close to the national norm, while state employment is so much higher, is that even today many areas of rural Alaska have only minimum local government structures, and the state and federal governments provide numerous local services.

Myth: State government wages are just high enough to cover Alaska's higher living costs.

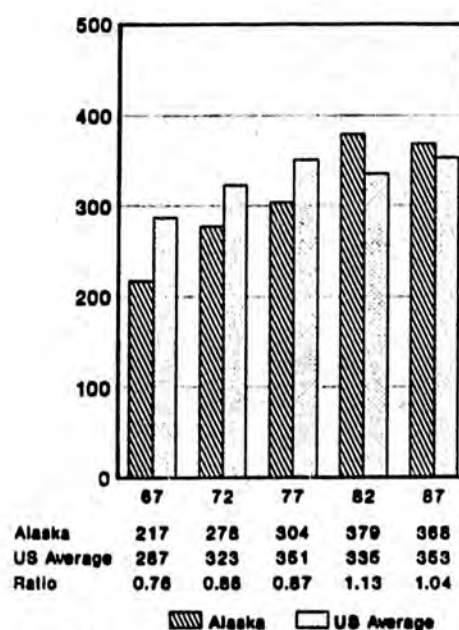
Reality: State government wages more than compensate for higher living costs. Figure 9 shows that in 1987, even after adjusting for Alaska's higher costs, state workers on average earned 25 percent more than state workers elsewhere.

In the 1960s, by contrast, when Alaska living costs were much higher relative to the national average, higher Alaska government wages did just about cover higher living costs. By 1977, real Alaska government wages had moved to about 8 percent above the national average.

Part of the reason why Alaska state wages in 1987 were above the national average is that there were substantial wage increases over the past 20 years. But those increases came mainly at two times: during the pipeline boom of the mid-1970s, and during the peak of the state spending boom in the early 1980s.

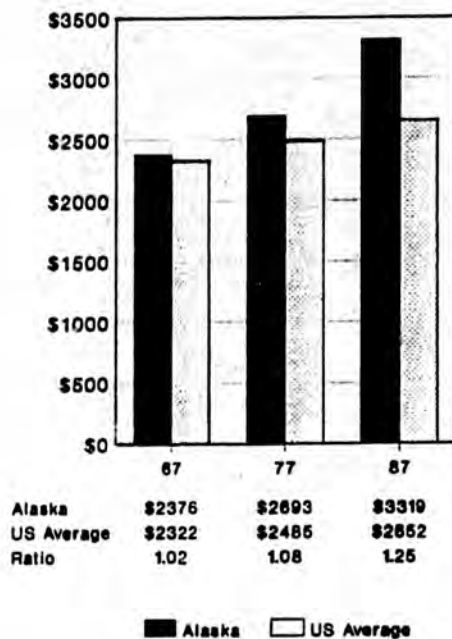
The severe Alaska recession in the late 1980s has held down government wages. But Alaska state workers are still doing better relative to state workers elsewhere because the recession also held down prices here. So in the past few years inflation in Alaska has been lower than the national rate, and buying power in Alaska has not

**Figure 8. Local Government Jobs*
Per 10,000 Population**



*Jobs are full-time equivalent.

Figure 9. State Government Wage*
(In 1988 Dollars)



*Average October earnings, full-time employees; excludes benefits.
Note: U.S. averages are inflated by Alaska COLA.

been eroded as much. Alaska's relatively high wages are of course not confined to government and are in large part the legacy of numerous economic booms.

Permanent Fund Dividend Program

Most Alaskans know that their annual dividends come from the earnings of the Permanent Fund.

What they may not realize is that in calculating the difference between Alaska and national average spending, the federal government counts the dividend payments as part of state spending. In 1987 those payments accounted for 16 percent of Alaska's extra spending. The program did not exist in 1977 or 1967. Whether we want to admit it or not, Permanent Fund dividends are a new and major source of state spending.

Capital Spending

Myth: Alaska can develop its infrastructure without adding to the costs of government.

Reality: Capital spending, like other kinds of spending, adds to Alaska's higher costs of government. It increases cash outlays and indebtedness, and usually adds other costs for operating and maintaining the new facilities and improvements.

In 1967, overall state spending was much lower than it is today, and at that time capital spending accounted for half of Alaska's extra spending per capita. By 1977 this capital spending accounted for about a third of the extra. But in 1987, a year when the state capital budget was smaller compared with the other spending components, capital spending added just 12 percent to Alaska's higher per capita costs. What does not show up here, but which we know did happen in the 1980s, is that capital spending by local governments—with state grants—replaced some state capital spending.

A less obvious cost of capital spending is operating and maintaining the new facilities after they're constructed. Since Alaska does not build the cost of operating and maintaining new and improved capital stock into the cost of construction, it is not surprising that those operation and maintenance costs also push up the state budget. Those higher operation and maintenance costs (unless they are deferred) show up as part of the growing "Other Current Expenditures" category in Figure 3 and Table 1.

Myth: Alaska paid as it went for capital projects, and therefore did not incur much new debt in the 1980s.

Reality: That would appear to be true, if we look only at the fact that interest on general obligation bonds contributed just 1 percent to Alaska's extra spending per capita in 1987, as compared with 4 percent in 1977 and almost nothing in 1967. (Figure 3.) We know that the state paid outright for hundreds of capital projects in the early 1980s.

However, Alaska's municipalities and school districts incurred a great deal of new bonded debt in the 1980s. The state government pays most of the costs of school debt. Figure 6 shows the extra debt burden of Alaska local governments; some of that debt is paid by state transfers.

And at the same time, the state's public corporations—particularly the Alaska Housing Finance Corporation—were taking on billions of dollars in bonded debt, on which they pay hundreds of millions of dollars a year in interest.

Those interest payments aren't reflected in Figure 3, because they come out of corporation funds rather than general fund revenues. Nonetheless, the good credit of the Alaska treasury stands behind those loans.

Free Government

Myth: Alaskans carry a heavy tax burden for the services we get.

Reality: Alaskans pay low state and local taxes relative to other Americans. Alaska has no state personal income or sales taxes, and local property tax rates — although they have risen in the past few years — are still often lower than they were in the 1970s. Also, Alaskans receive cash payments from the state under the Permanent Fund dividend and Longevity Bonus programs. In many cases, payments Alaskans receive outweigh the state and local taxes they pay.

Finally, the state widened eligibility for a number of programs in the 1980s — so that regardless of need or income, Alaskans could borrow money at below-market rates, get subsidized home mortgage loans, and qualify for a number of other special benefits. The fact that individual Alaskans paid little for government and received handsome benefits from it certainly encouraged big spending growth in the 1980s.

Between a Rock and a Hard Place

The discussion above reveals that there was no single culprit responsible for Alaska's higher spending in the 1980s. And it's apparent that the new and different ways the state spent its money in the past decade have become very important to local governments, school districts, and individual Alaskans, among others. Even if all Alaskans agreed on the necessity for reducing state spending (which not all do) we would still confront difficulties and complexities in deciding how to cut state spending or add taxes to close the projected state fiscal gap. Proponents of budget cuts must consider the following:

1. Special Interests: It may be no exaggeration to say that every state expenditure has its constituency and many have lobbyists and PACs (political action committees) as well. Each of

these constituencies has very direct and often substantial economic interests in seeing particular kinds of state spending continued. These constituencies organize and devote time, effort, and money to protecting their interests. Collectively, these special interest groups tend to overpower any ill-defined or unorganized public interest in fiscal restraint, including legislative commitment to that restraint.

2. Economic Dependence: More than one in four jobs in Alaska can be traced to state and local government spending. Major cuts in state spending will inevitably reduce income and eliminate jobs. And depending on how the cuts are made, some regions of the state will feel the effects more than others. Last winter ISER analyzed for the governor's Office of Management and Budget the potential impacts on the economy of a \$350 million across-the-board cut in the state's budget. That report documented the widespread effects of such a cut, and it had a chilling effect on legislative resolve to cut the budget.

3. Economic Climate: Alaska's severe recession in the late 1980s took a heavy toll on the economy. We lost jobs and population. Banks failed. Businesses and individuals went bankrupt in unprecedented numbers. Property values plummeted and thousands of homes went into foreclosure. Local governments realized heavy tax losses as property values fell. Having seen such losses in the past few years, Alaskans understandably are not receptive to either reduced aid and services or increased taxes — both of which will reduce income and employment.

4. Financial Dependencies: Municipalities came to rely on much higher state aid in the 1980s. The state has already begun to reduce some of that aid; between 1986 and 1988, for instance, the state cut municipal operating aid nearly 30 percent. And even as state aid began to decline, the 1985-88 recession slashed property values and reduced local tax bases. So urban local governments that expanded services and cut property taxes in the 1980s now find themselves with smaller tax bases, less state money, and voters who have refused to approve just about all proposed new taxes. Rural municipalities — most of which have very small or non-existent tax

bases—are in an even more precarious position as state aid drops.

Similarly, urban school districts also came to depend on more state money in the 1980s. The state's school foundation program, which pays most of the costs of urban schools, grew rapidly. Also, the state pays 100 percent of the capital costs of REAAs and reimburses the other school districts for 80 percent of the principal and interest payments they make on bonded debt. State reimbursement of school construction debt mushroomed from \$38 million in 1982 to \$109 million in 1988. That debt reimbursement is a policy that the state legislature can change any time it chooses. But to do so would transfer the legal obligation to repay that debt to local property taxpayers—who would certainly be unreceptive to such a move.

5. Unwillingness to Pay: Alaskans in the 1980s became used to paying low state and local taxes. The state personal income tax, which provided 24 percent of state revenues in 1977, was repealed in 1980, and property taxes were cut in many municipalities in the early 1980s. In the face of falling state aid and reduced tax bases, local governments have raised property taxes in the late 1980s. Still, in 1987 Anchorage residents paid the lowest state and local taxes among big city residents around the country. But coming out of a severe recession and having become accustomed to low taxes, voters have said no to virtually all moves to raise taxes.

6. Increasing Demands: Even though Alaska's population declined during the recession, ISER forecasts moderate population growth—one to two percent a year—in Alaska during the 1990s. A growing population will put increasing demands on a shrinking budget. Furthermore, the segments of the population expected to grow the fastest—school-age kids, the elderly, and residents of small, rural places—are also the most expensive to serve. So, while overall population growth will be moderate, groups that are expensive to serve will be growing fast, creating pressure to increase rather than decrease state spending.

There will also be new demands for state services unrelated to population growth. Some will be mandated by the federal government, as is the case under the federal welfare reform require-

ments. Others will result from developments we can't predict.

Even political pressure to reduce the federal deficit could shift federal program responsibilities on to state and local governments. In fact, such transfers of responsibility have been a fact of life over the past 20 years.

7. Expensive Service Delivery: The state in the past decade created some service delivery systems that give local residents more control, but which are also more expensive. For example, before the 1970s, rural Native students who wanted to attend high school had to leave their villages for regional boarding schools. But over the past decade, the state established a whole new system of rural school districts—the Regional Education Attendance Areas (REAAs). Those districts are directed by locally-elected boards but are paid for entirely with state money—and are of course a lot more expensive than the old rural school system. Similarly, creation of a host of local or regional offices and advisory boards for various state programs all contribute to an expensive system of delivering state services in rural areas. However, efforts to re-centralize these services is likely to encounter strong resistance from the affected regions.

8. Sacred Cows: The Permanent Fund dividend program, established in 1982, has become in its brief history an important force in the Alaska economy and, in the minds of many Alaskans, an entitlement program. ISER reported in 1989 that Permanent Fund dividends accounted for 7 percent of personal income in rural Interior areas and created more than 2 percent of all jobs in the Alaska economy. Aside from the economic force of several hundred million dollars going into the Alaska economy each year, the dividend program has become to many Alaskans an entitlement program akin to various traditional programs that are—unlike the dividend program—based on need or personal contributions. The Longevity Bonus program, which makes monthly payments to Alaskans over 65, irrespective of financial need, is another popular and entrenched state program. Legislative efforts to tamper with either the Permanent Fund dividend or the Longevity Bonus program have been met with anger and indignation. Other free or low-cost benefits include subsidized loans; capital projects

not financed by general obligation bonds but by direct state grants; and subsidized electric rates for rural residents.

In 1987 the dividend program and other special programs were responsible for something in the neighborhood of 40 percent of the extra spending per capita that Alaska does relative to the U.S. average. Reducing, much less eliminating, these sacred cow programs is likely to be regarded as political suicide.

9. Contingent Liabilities: Even while the state was paying outright for hundreds of capital projects, the state's public corporations (most notably the Alaska Housing Finance Corporation but others as well) were taking on billions of dollars in bonded debt. That debt is currently paid for through funds of the corporations. But should the corporations ever be unable to meet their obligations, the creditworthiness of the state would be affected. Eliminating the financial reserves of these corporations to raise current revenues could jeopardize their solvency. Municipal and school debt also represent contingent liabilities.

10. Wage Reduction Resistance: Alaskans—including both government workers and many in private industry—have grown used to wages that

are higher than the national average, even after an adjustment for Alaska's higher living costs. Despite the downward pressure that the recent recession put on wages, in 1987 Alaska government wages remained 25 percent above the national average, after a cost-of-living adjustment. Even though higher payroll costs are responsible for about a quarter of Alaska extra per capita spending relative to the U.S. average, Alaska's public employees are well-organized and are not likely to willingly accept wage reductions to help reduce state spending.

11. Easy Cuts Behind Us: The state has already made what could be called the "easiest" budget cuts—largely cuts in capital spending. It has also cut back on aid to municipalities—which it had increased so much in the halcyon days of the early 1980s. The kinds of cuts the state must now consider are ones that will have a more direct effect on services or benefits.

To challenge the notion that Alaska need not cut state spending but simply raise revenues, the next paper in this series analyzes the history of state revenues and the capacity of the economy to support additional taxes for state and local government.

It is easier to make a suggestion than to carry it out.

Aesop's Fables

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ISER FISCAL POLICY NOTE

No. 2, April 1990

Institute of Social and Economic Research

University of Alaska Anchorage

How Oil Prices Affect the Fiscal Gap

by Scott Goldsmith

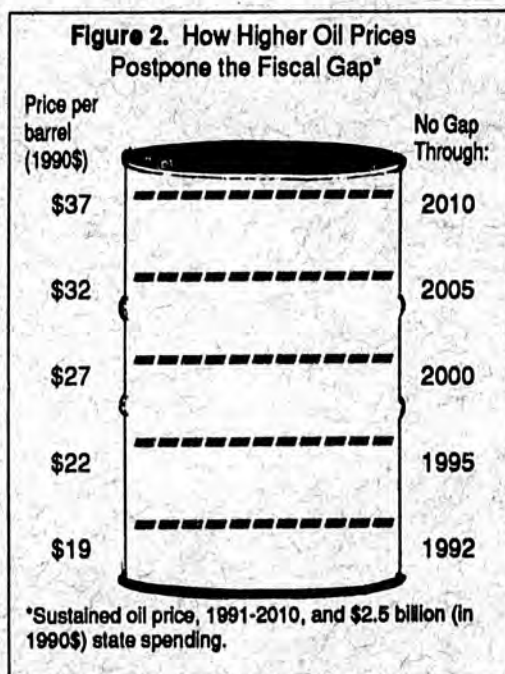
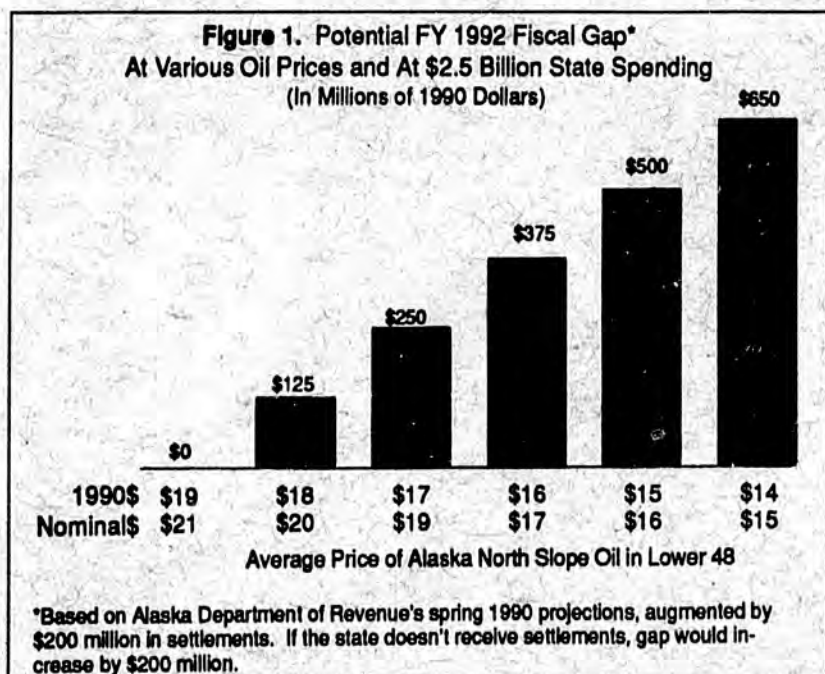
A \$5 difference in the price of a barrel of oil could mean the difference between a balanced state budget and a \$650 million shortfall in FY 1992. And the higher the price of oil, the more time Alaska has until the fiscal gap opens. (Figures 1 and 2.)

The spot price for oil has fluctuated dramatically in early 1990, falling from \$19 to \$14 per barrel within a few weeks and most recently rising again. We've been reminded once more of the inherent instability of oil markets and prices. Although most Alaska oil is sold at prices determined by long-term contracts, contract prices do follow trends in spot prices.

The State of Alaska is exceptionally vulnerable to falling oil prices because (1) petroleum revenues supply 85 percent of its income; and (2) petroleum production is declining.

In its ongoing series of *Fiscal Policy Papers*, ISER has emphasized that even with stable or rising oil prices Alaska must prepare for smaller revenues because of declining North Slope production. How soon a fiscal gap (a shortfall in what we collect from existing sources as compared with what we spend) appears and how wide it is depends primarily on two variables—the price of oil and the level of state spending.

Here we estimate the timing and size of the state fiscal gap at the currently proposed \$2.5 billion level of spending and at various oil prices. The analysis is based on existing revenue sources and on the state's receiving \$200 million annually in settlements of petroleum disputes through 2000. Adding new revenue sources would change the picture, as we discussed in *Fiscal Policy Paper #3*.



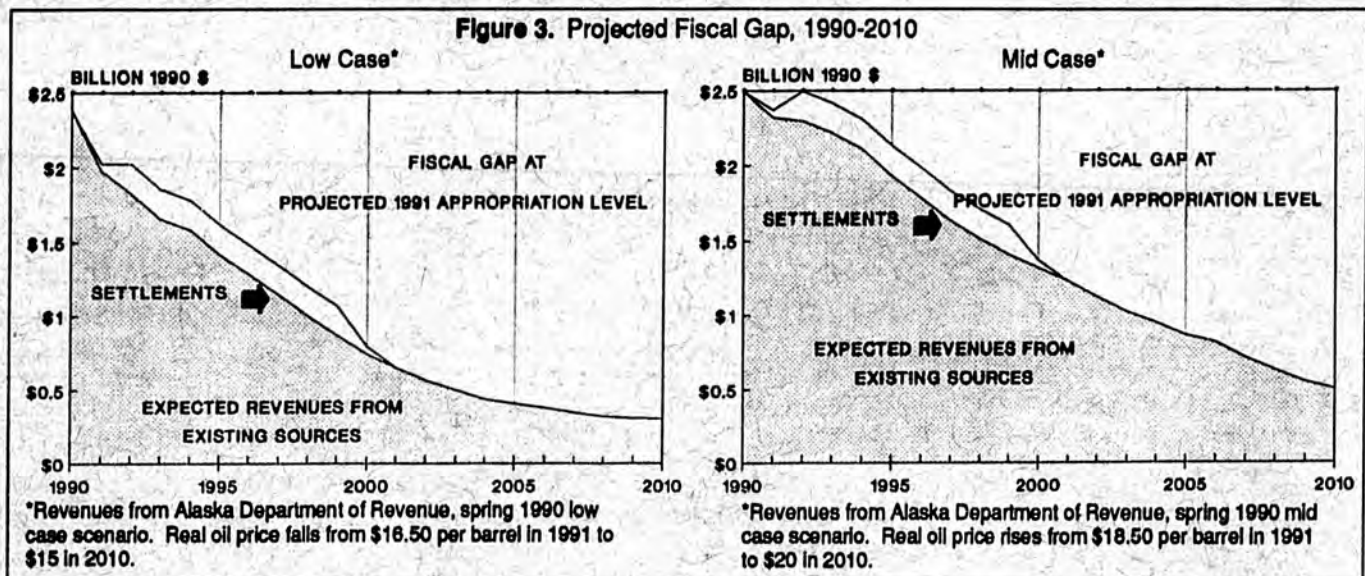
This fiscal note is an offshoot of ISER's *Fiscal Policy Papers*, a series examining Alaska's looming budget crisis as petroleum revenues decline. The author, Scott Goldsmith, is professor of economics with ISER and has 14 years of experience analyzing state spending. This work was funded by a grant from ARCO Alaska.

We present the figures primarily in 1990 dollars, an adjustment that eliminates the effects of inflation and makes state buying power and prices comparable over time. Our findings are presented in Figures 1 through 3 and summarized below.

- With real oil prices at \$19 per barrel and with \$200 million in settlement payments, the 1992 budget would balance, if state spending were at \$2.5 billion. At real prices between \$18 and \$14 per barrel the fiscal gap would vary from about \$125 million to \$650 million. (Figure 1.)
- A state fiscal gap would open in 1993, if real oil prices were at \$19 per barrel. Figure 2 shows how various oil prices (in 1990 dollars), sustained from 1991 through 2010, would postpone the fiscal gap, if real state spending were held to \$2.5 billion annually. Oil at \$22 per barrel would delay the gap through 1995; \$27 per barrel oil would push the

gap back through 2000; \$32 per barrel oil would delay the gap through 2005; and \$37 per barrel oil would postpone the gap through 2010.

- Once the fiscal gap opens it will grow steadily—but it would grow much faster at lower oil prices. Figure 3 shows that if the Department of Revenue's spring 1990 low-case scenario (real oil price falling from \$16.50 per barrel in 1991 to \$15 in 2010) proves accurate, the gap would start at about \$500 million in 1992 and grow quickly to about \$800 million by 1995 and more than \$1.5 billion by 2000. If the department's mid-case scenario (real oil price rising from \$18.50 per barrel in 1991 to \$20 in 2010) proves accurate, the gap would open at about \$100 million in 1993, increase to \$300 million by 1995, and stand at around \$1 billion by 2000.



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ISER FISCAL POLICY PAPERS

No. 3, February 1990

Institute of Social and Economic Research

University of Alaska Anchorage

Alaska's Potential Tax Revenues

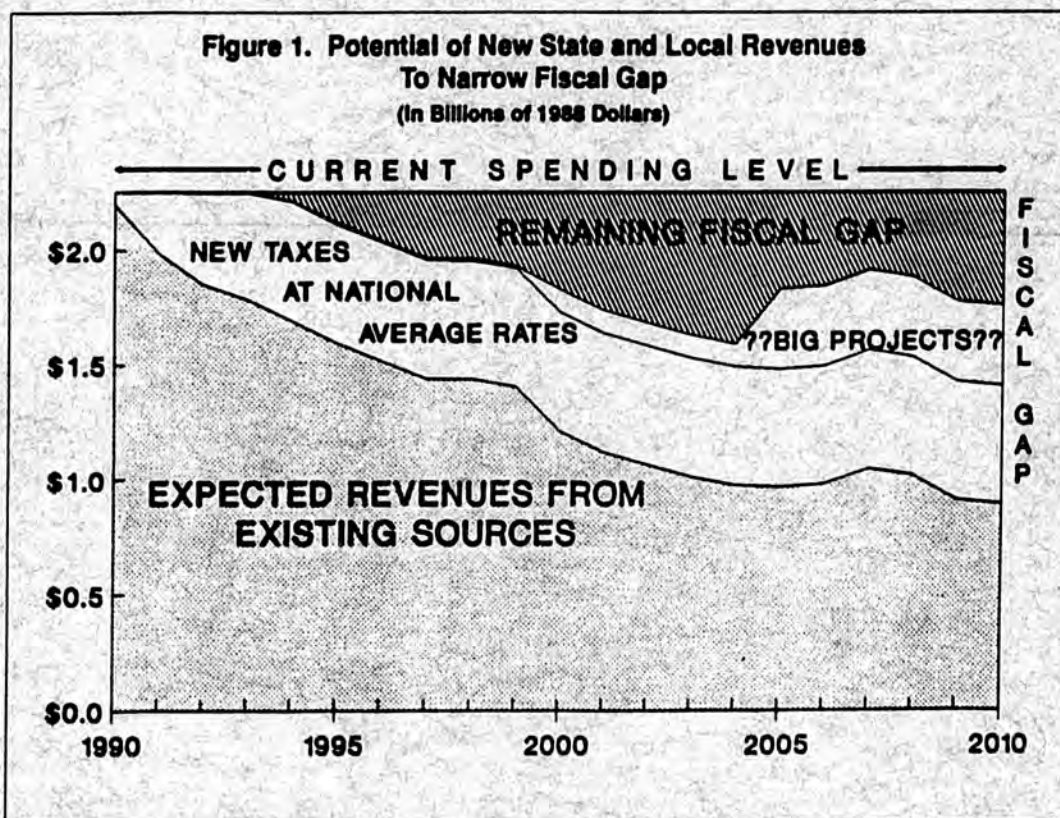
Spend more and tax less was the philosophy of Alaska's state and local governments in the 1980s. They spent two to three times more per capita than governments in other states, but taxed individuals and businesses only about half as much. They were able to do that because high petroleum revenues paid for most of state government and a lot of local government.

But in the 1990s we can expect to see them spending less and taxing Alaskans more. We estimate that Alaska's state and local governments could collect about \$500 million more from the existing tax base, if they taxed individuals and businesses at national average rates.

The Alaska Legislature isn't likely to raise taxes this year, but interest in taxes is bound to grow in the 1990s, as declining production from the giant Prudhoe Bay field draws down state revenues. By 2000

falling petroleum revenues will leave a \$1 billion gap in the state budget. (Figure 1.) Alaska's local governments will also feel the effects of the fiscal gap, because they rely heavily on the same source of money — dwindling state petroleum revenues.

Economic developments that are at best uncertain right now could, were they to occur, yield very substantial revenues by 2005. If the gas pipeline from the North Slope were built, and if oil were discovered and produced in the Arctic



This is the third in a series of ISER Fiscal Policy Papers examining aspects of state government revenues and spending. We intend these papers to focus the attention of state officials and of Alaskans in general on the serious budget crisis we face, and on the necessity for dealing with it soon.

The authors are Oliver Scott Goldsmith, Matthew Berman, Lee Gorsuch, and Linda Leask. Alexandra Hill and M. L. Madden helped analyze the data. Teresa Hull prepared the graphics.

The ISER Fiscal Policy Papers series is financed by a grant from ARCO Alaska.

National Wildlife Refuge, together those developments could contribute in the neighborhood of \$350 million a year (in 1988 dollars).

In 2000, if individuals and businesses were taxed at national average rates (rather than at current rates), those additional taxes would fill about half the projected fiscal gap. By 2005, if uncertain big developments were to occur, revenues from those developments and taxes at national average rates together could fill about 70 percent of the projected gap. (Figure 1.)

This paper analyzes potential revenues for Alaska governments, and is a complement to the spending analysis in Fiscal Policy Paper # 2. We hope policymakers will consider these analyses together as they decide how to balance spending cuts and revenue increases in the 1990s. Some Alaskans believe the state government should balance its budget just through spending cuts. But cutting \$1 billion would reduce the state budget by 40 percent. It seems unlikely Alaskans would tolerate the drastic drop in services that would follow if the state cut its budget nearly in half.

To estimate potential revenues, we need a standard against which to measure Alaska tax efforts. We use *national average tax rates*: we examine how much tax Alaska's state and local governments currently collect, and estimate how much different tax collections would be if tax rates were at national averages. We're *not* estimating the maximum amount government could squeeze out of taxpayers. Nor are we suggesting that national averages are the appropriate tax rates for Alaska. Policymakers here will have to make decisions about tax rates in the light of specific Alaska circumstances. (The box on page 14 further describes how we estimate Alaska tax levels and U.S. averages.)

In our analysis we look separately at taxes paid by individuals and businesses and by resource industries. Individuals and businesses in Alaska carry perhaps the lightest state and local tax burden in the nation. Comparing taxes paid by resource industries in Alaska with national averages for resource industries is complicated by the difficulty of measuring the appropriate tax base. But we roughly estimate that Alaska's two biggest resource industries — petroleum and commercial fishing — pay just about the same rates in Alaska as they do nationwide. For petroleum that national average is about 12 percent of its *value added* (the petroleum industry contribution to the

gross national product), and for commercial fishing in the neighborhood of 4 to 5 percent of that industry's value added. Alaska's mining and timber industries, however, appear to be taxed considerably below national averages.

These are rough estimates, intended to give readers an idea of the relative level of taxes on resource industries. How to measure the taxes paid by and the tax capacity of resource industries in Alaska has been and will continue to be bitterly debated. We're not suggesting that our method shows the appropriate level of taxation. Our analysis provides a method of comparing resource industries that is consistent with comparisons of individuals and businesses. It is not meant to serve as a substitute for a detailed analysis of the specific circumstances of each resource industry in the state.

Small changes in our estimates of the percent of value added each industry pays in taxes would make little overall difference to Alaska revenues, except for changes in the petroleum estimate. But as time goes on, changes in the petroleum estimate will make less difference to revenues. That is true because the Alaska petroleum tax base is shrinking and therefore reducing petroleum revenues.

Regardless of differences of opinion about the size of the resource tax base, one point remains clear: individuals and businesses in Alaska pay a lot less state and local tax than they do in other places, and governments here are going to look at individual and business taxes to help balance the budget in the 1990s.

Before we move into our analysis we'd like to emphasize one more point. Alaska is not only a

What Fiscal Gap ?

Many Alaskans don't believe the state faces a fiscal crisis. They note that current state revenue projections put annual revenues at or above \$2.3 billion (the current level of spending) for the next five years. But those projections assume revenues will remain at that level because inflation will push up the price of oil. To be consistent, forecasters must also assume that inflation would likewise push up the cost of government. Using the state's assumptions about inflation in oil prices, we calculate that by 1995 the government would need almost \$2.9 billion to maintain today's purchasing power. While no one has a crystal ball to predict future oil prices, even relatively optimistic forecasts suggest the state will confront major revenue shortages within a few years.

tax collector but also a resource owner. When Alaska became a state, the federal government recognized that it had a small tax base as compared with more industrialized states, so it granted Alaska ownership of 104 million acres and the resources on those lands. Part of Alaska's resource revenue therefore comes from taxes, and part—in the case of petroleum, a very substantial part—comes from royalties and other payments it collects as a resource owner. It's important to keep that distinction in mind when we talk about U.S. and Alaska tax rates. Whether Alaska collects a fair return on its ownership of resources is a separate issue from how its tax rates compare with those of other states.

The next section of this paper briefly describes state and local revenues since Alaska became a state, and the following section compares existing Alaska state and local tax levels with national averages. Then comes our analysis of potential new revenues. Finally, we look at some of the economic, political, and social issues that will make raising taxes difficult.

History of Revenues

Figures 2 and 3 show historical per capita state and local revenues, in 1988 dollars. Putting all the

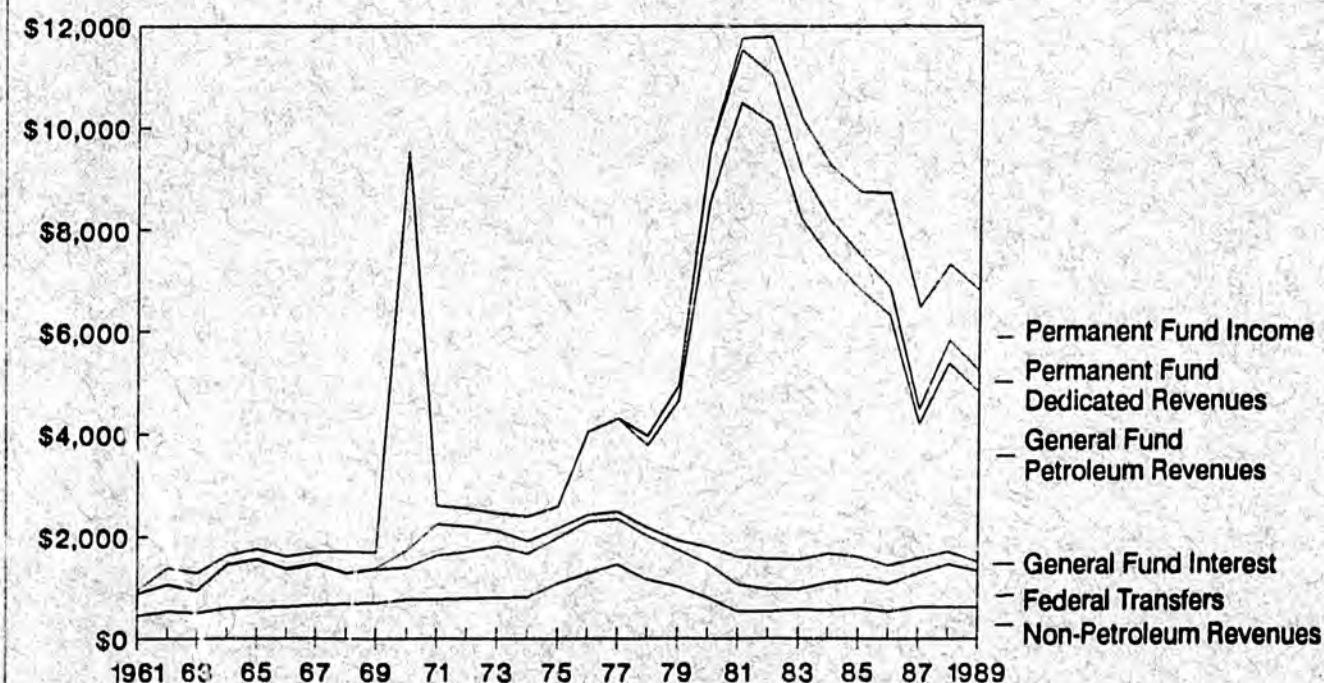
figures in constant dollars per capita reveals the real changes over time in levels and sources of revenues, independent of changes in prices and population.

The two figures illustrate the growing importance of petroleum revenues to Alaska's state and local governments, and the volatility of those revenues.

Before the discovery and development of North Slope oil, federal transfers made up close to half of the state's relatively modest revenues, and taxes and other charges paid by individuals and businesses made up most of the rest. In the past 15 years, petroleum revenues multiplied state income, but also made it subject to sudden shifts up and down. Petroleum revenues have been declining since the early 1980s, but by the end of the decade real per capita state revenues were still about seven times larger than they had been when Alaska became a state.

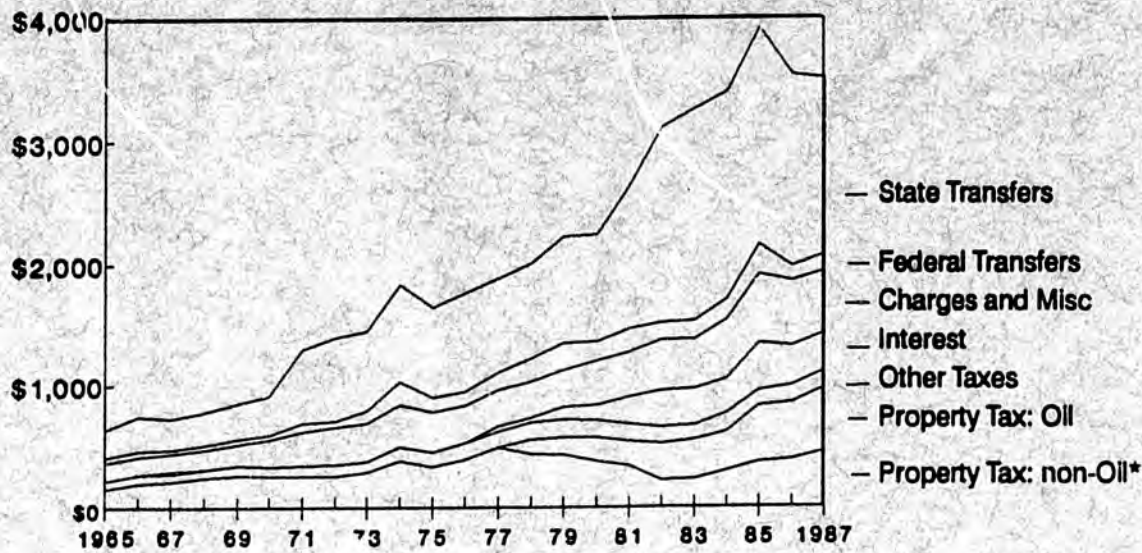
Local government revenues also grew dramatically over the past 15 years, with the biggest source of growth being state aid—which was fueled by petroleum revenues. Taxes on oil property also became a big source of income for the North Slope Borough and Valdez and a

Figure 2. Alaska State Revenues Per Capita
(In 1988 Dollars)



* Non-petroleum revenues include taxes and other charges paid by Alaska individuals, businesses, and resource industries other than petroleum.

Figure 3. Alaska Local Revenues Per Capita
(in 1988 Dollars)



* Including taxes on Cook Inlet petroleum prior to 1977.

smaller but still significant source for the Fairbanks North Star Borough and the Kenai Peninsula Borough. Local revenues began dropping with declining state aid in the late 1980s. (The most recent figures available for local revenues are from 1987; figures from the two most recent years would likely show further drops.) Still, as of 1987 real per capita local revenues were about four times larger than they had been in the mid-1960s. But because non-petroleum taxes fell as petroleum revenues rose, municipal budgets are very vulnerable because they now rely so much on non-sustainable revenues.

Tax Burdens: Alaskans and Other Americans

In this section we look at how state and local taxes Alaskans paid compare with what other Americans paid in 1967, 1977, and 1987. We picked those three years because they represent very different economic periods in Alaska: the early years of statehood, before North Slope oil discoveries; the economic boom time accompanying construction of the trans-Alaska oil pipeline; and the period of high petroleum revenues.

By comparing Alaska state and local taxes with taxes elsewhere we're not implying that national averages ought to be the model for Alaska. But

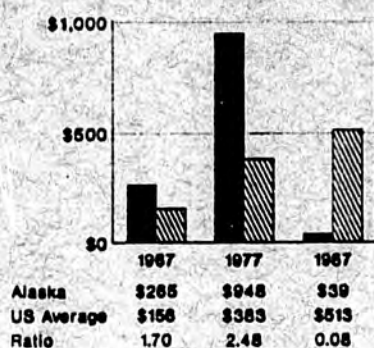
these kinds of comparisons do give us a measure of relative tax burdens. We look first at comparative state taxes, then at comparative local taxes, and finally at combined Alaska state and local tax effort as compared with U.S. averages. Remember that we are talking only about state and local taxes. The other major taxes are of course federal taxes. Because the federal income tax is progressive—that is, it taxes higher incomes at higher rates—and Alaskans generally have high nominal incomes, Alaskans pay about 10 percent more federal income taxes than the national average. (However, that difference used to be much larger, when the federal tax structure was much more progressive than it is now.)

State Government Comparisons

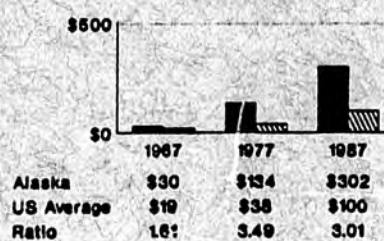
Figure 4 compares taxes, federal transfers, and resource revenues collected by Alaska's state government and state governments nationwide on average in 1967, 1977, and 1987. The numbers are in 1988 dollars per capita—a comparison that adjusts for both price changes over time and population differences. The U.S. figures are also inflated by an Alaska cost-of-living adjustment; that adjustment puts the purchasing power of a dollar in Alaska and nationwide on par. (See box on page 6.)

**Figure 4. State Revenue Per Capita
Alaska and U.S. Average
(in 1988 Dollars)**

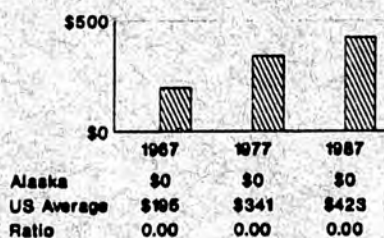
Income Tax ^a



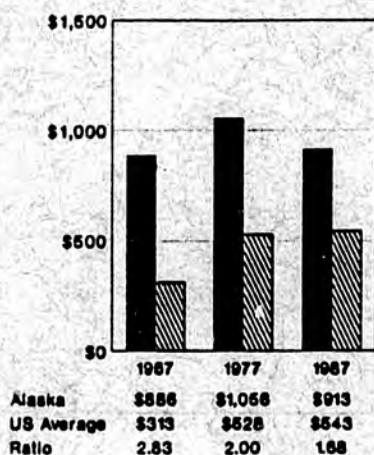
Interest



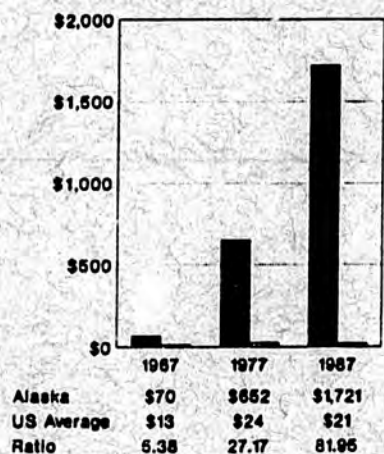
General Sales Tax



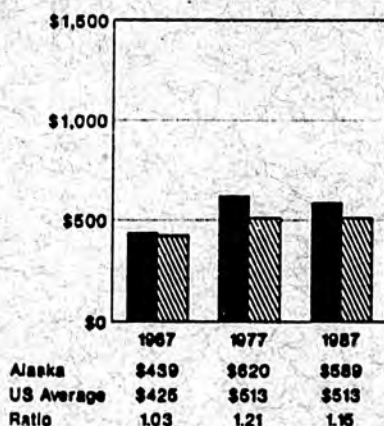
Federal Transfers



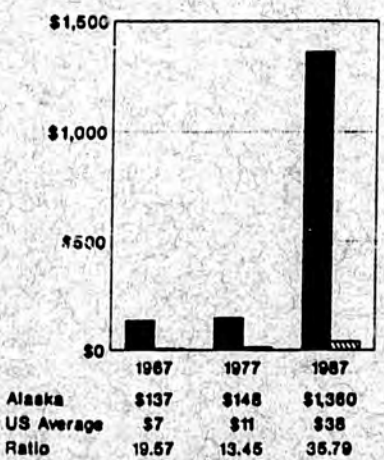
Resource Taxes ^b



Other Taxes, Charges and Miscellaneous



Resource Ownership Revenues



■ Alaska ▨ US Average

Note: U.S. averages are inflated by Alaska COLA.

^a Excludes petroleum corporate income tax.

^b Includes petroleum corporate income tax and property tax.

The Alaska Cost-Of-Living Adjustment

All our numbers are in 1988 dollars, except as noted. That adjustment eliminates the effects of inflation so we can assess real changes in taxes collected over time.

Also, in Figures 4, 5, and 6 we've added an Alaska cost-of-living adjustment (COLA) to the U.S. average numbers, which takes into account Alaska's higher living costs and shows what the U.S. averages would be at Alaska prices.

Our cost-of-living adjustment takes into account both the higher cost of living in Anchorage relative to the U.S. average, and the higher cost of living in other Alaska regions relative to Anchorage. The 1988 COLA is based on a 15 percent differential between Anchorage and U.S. average prices, multiplied by another differential between Anchorage and other Alaska prices. The differential is 8 percent for state government revenues and 11 percent for local government revenues, reflecting a greater concentration of state government activity in lower cost areas like Anchorage and Juneau and more local government activity in higher cost areas. So, a commodity that costs \$1.00 in the U.S. as a whole will cost \$1.24 in a typical location of state government and \$1.27 in a typical local government area. We calculated the Anchorage-U.S. differential with U.S. Bureau of Labor Statistics information. Our calculation of the differential between Anchorage and the rest of the state is based on the regional cost-of-living indexes reported in the *Alaska Geographic Differential Study* (prepared for the Alaska Department of Administration in 1985 by The McDowell Group), weighted by the proportions of state and local government employment in each region.

Income Tax: Until 1980, Alaska had both a personal and a corporate income tax; the personal income tax was eliminated in 1980. Alaska's per capita income taxes were high as compared with the national average—70 percent higher in 1967 and two and a half times as high in 1977, when non-residents working on the trans-Alaska pipeline paid substantial Alaska income taxes. The income tax was high in part because it was tied to the federal income tax—which at that time taxed higher incomes at much higher rates than is true today. Also, Alaska has historically had a large number of seasonal, non-resident workers who paid state income taxes.

Across the country 40 states tax personal income and 3 more states tax a portion of personal income. The income tax rates start as low as 1 percent and range as high as 12 percent on higher incomes. Alaska and 45 other states tax corporate income, at rates also ranging from 1 to 12 percent of net income.

Federal Transfers: Alaska's per capita federal transfers have always been higher than average—because of minimum entitlements for some programs, substantial grants for highways, and shared revenues from federal lands. In sharing revenues from federal lands, Congress recognized that high federal land ownership in Alaska and other western states reduces the states' tax capacity.

But the difference between per capita transfers to Alaska and to other states narrowed a great deal over the past 20 years. In 1967 (a year when federal highway grants were high), Alaska's per capita federal money was nearly three times the

national average; by 1987 it was just 68 percent above the national average.

Other Taxes, Charges, and Miscellaneous Revenues: This category includes selective sales taxes, user fees, and other kinds of charges for state services. Alaska has always collected somewhat more than the national average per capita in such revenues. The state government here provides a number of services other states don't, and pays for them partly through user charges. Alaska's state ferry system is a good example. Since different states provide different services, the comparative per capita level of these kinds of charges is not particularly meaningful as a measure of relative burdens.

Interest: Alaska's per capita interest on the general fund balance has always been somewhat higher than the national average. Alaska's general fund is bigger (per capita) than that of other states, and a bigger balance earns more interest.

General Sales Tax: Alaska's state government has never imposed a general sales tax. Nationwide, 45 state governments have sales taxes, with rates varying from 3 to 7.5 percent. State sales tax burdens nationwide have roughly doubled in the past 20 years—moving from about \$200 per capita to more than \$400 per capita (in 1988 dollars, with an Alaska cost-of-living adjustment).

Resource Taxes: We would expect Alaska's per capita severance taxes to be higher than the national average, because Alaska is a resource-rich state with a small population. And we would expect the national average severance tax per capita to be low, because the relative value of resource

production in most states is low as compared with Alaska's. Alaska has many natural resources but less industrial infrastructure than most states. More industrialized states, by contrast, have factories and other business property in their tax bases.

Even in the 1960s, when Alaska's only oil production was in the Cook Inlet area, state severance taxes here were considerably higher than the national average. In 1987 severance taxes in Alaska were about \$1,700 per capita, as compared with about \$20 nationwide.

Resource Ownership Revenues: This category includes royalties, rents, and bonuses Alaska receives because it owns resources under terms of the statehood act. Almost all of these revenues are from petroleum, but small amounts are also from timber and land sales. Alaska per capita ownership revenues in 1987 (a year of low oil prices) were about \$1,400, as compared with about \$40 nationally.

Local Government Comparisons

Figure 5 compares revenues collected by Alaska's local governments and local governments around the country in 1967, 1977, and 1987. Again, the comparisons are in per capita 1988 dollars, with the U.S. figures inflated by an Alaska cost-of-living adjustment.

State Transfers: State transfers have always made up a substantial share of revenues for Alaska's local governments. But in the 1960s, when the state government had just a modest income, per capita state aid to local governments in Alaska was only about half the national average. In 1977 state aid to Alaska local governments was a bit above the national average. By 1987, local governments in Alaska received nearly twice the state aid that other local governments in the U.S. did.

Property Taxes: Alaska's per capita property taxes were below the national average in the 1960s and 1970s, and are still about 20 percent below the national average today, if we exclude taxes the North Slope Borough collects on petroleum property. Although several local governments in Alaska collect taxes on petroleum property, only the North Slope Borough has the combination of small population, high mill rates, and extremely valuable petroleum property that would distort the per capita comparisons in Figure 5. Part of the reason Alaska's per capita col-

lections are lower than the average is that mill rates are lower, but the small or non-existent tax bases in certain areas of Alaska also bring down the per capita average.

Charges and Miscellaneous Revenues: Because the services local governments pay for with user fees vary substantially around the country, per capita user fees don't reflect relative tax burdens. The miscellaneous revenues in Figure 5 include charges and user fees of various kinds; these kinds of charges went up much faster in Alaska than in other states in the 1980s. In 1987 local governments in Alaska collected about 50 percent more per capita in miscellaneous revenues than did local governments elsewhere.

Federal Transfers: There's no clear pattern in federal transfers to Alaska local governments as compared with the national average; in 1967 and 1977 Alaska governments got less than the national average and in 1987 somewhat more. Because federal transfers to local governments are relatively small, transfer levels from year to year may vary substantially.

Other Taxes: This category includes mainly sales taxes, but in several states also income taxes. Local governments in 29 states impose general sales taxes, and in 11 states local jurisdictions levy income taxes. Selective sales taxes are also common at the local level.

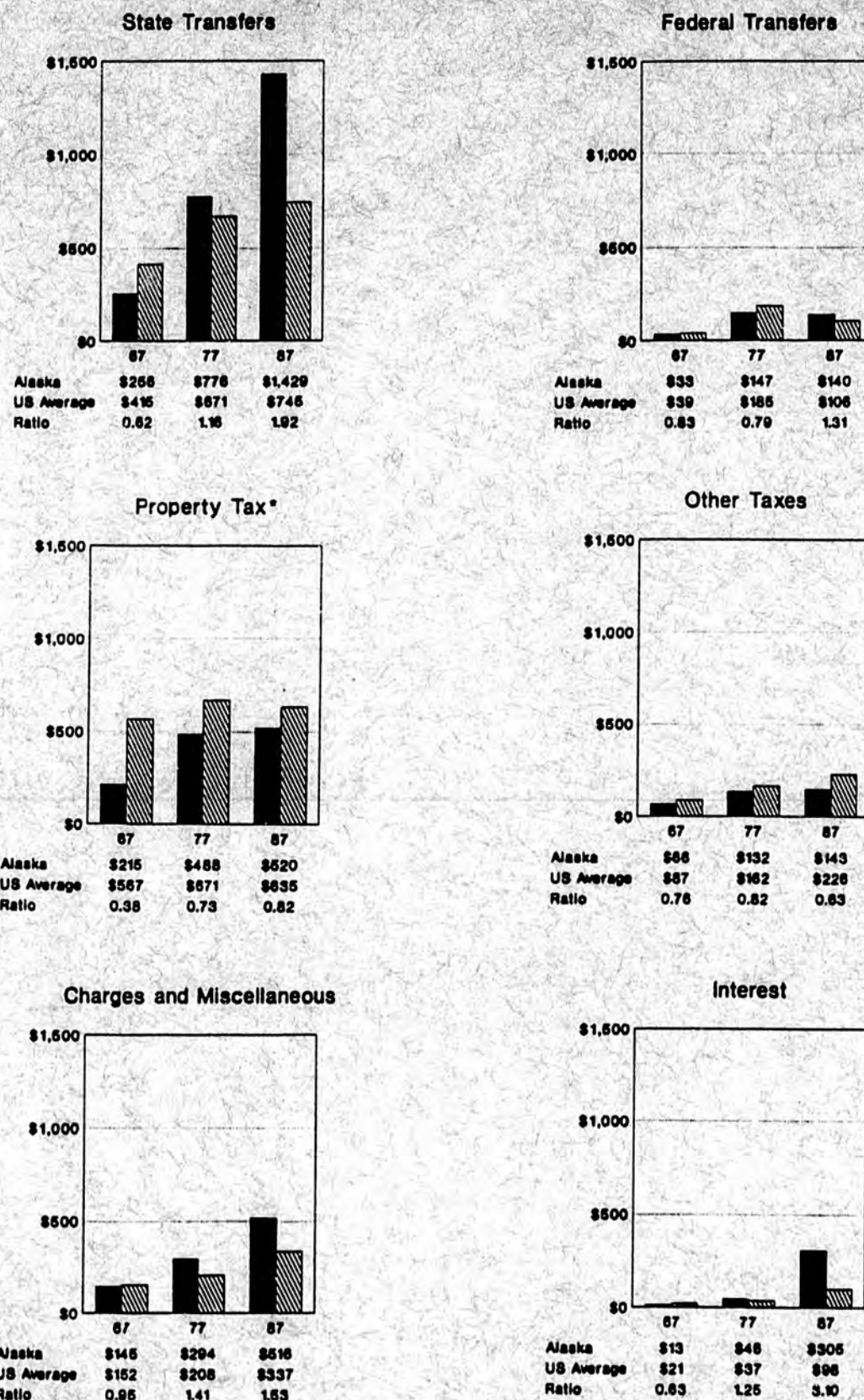
Per capita sales taxes levied by Alaska governments have always been below the national average, but the gap widened over the past 20 years. In 1987 per capita sales and other taxes nationally were about 35 percent higher than in Alaska — while in 1967 the difference was around 20 percent.

Interest: Alaska's local governments didn't have big enough fund balances to earn much interest in the 1960s. They did better — slightly above the national average — in the 1970s. But in 1987 per capita interest collected by local governments in Alaska was three times the national average. Part of the reason interest was high in the mid-1980s was that many municipalities were collecting earnings on unspent capital grants and other cash balances.

Combined State and Local Taxes on Individuals and Businesses

Figures 4 and 5 show that petroleum taxes lightened the tax burden on individuals and businesses in Alaska in the 1980s. To make that change

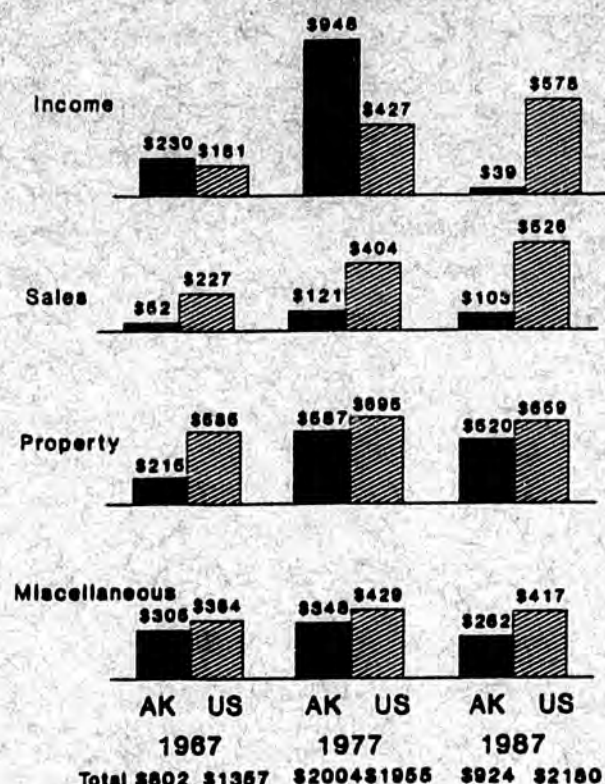
**Figure 5. Local Government Revenue Per Capita
Alaska and U.S. Average
(in 1988 Dollars)**



*Excludes North Slope Borough oil property tax revenues.
Note: U.S. averages are inflated by Alaska COLA.

■ Alaska ▨ US Average

**Figure 6. Combined State and Local Taxes per Capita
Excluding Resource Taxes***
Alaska and U.S. Average
(In 1988 Dollars)



Note: U.S. averages are inflated by Alaska COLA.

*Excludes petroleum corporate income, state property and severance taxes; fisheries taxes; and North Slope Borough oil property taxes.

more clear, in Figure 6 we combine state and local taxes paid by individuals and businesses and exclude resource industry taxes (which we examine separately below). We also exclude user fees and charges, because services provided vary from state to state. Again, the figures here are in 1988 dollars, and the U.S. figures have been inflated by an Alaska cost-of-living adjustment, so we're looking at equivalent buying power across the years and between Alaska and other states.

Figure 6 shows that per capita individual and business taxes in Alaska were lower than the national average in 1967 and 1987. In 1987, the most recent year for which we have figures, per capita state and local taxes nationwide were about \$2,200, as compared with less than half that amount—about \$900 per capita—in Alaska.

In 1977, however, Alaska per capita taxes were slightly higher than the national average. That happened in part because non-residents working in Alaska paid substantial state income taxes that year.

Sales, property, and other taxes per capita have historically been lower in Alaska. Income taxes were considerably higher than the national average before the personal income tax was repealed in 1980—and that repeal accounts for the drop in total Alaska taxes between 1977 and 1987.

Looking for Money: Potential Revenues

State and local officials will have to fill the pending fiscal gap by cutting their budgets and finding new sources of revenues. We don't know yet how much of each they'll try to do, or when, but in this section we look at how much new revenue they might be able to realize.

State revenues increase for two reasons. New or expanded development can increase the tax base. If the government taxes that expanded base, revenues will increase. Or the government can increase taxes—by adding new taxes, raising existing tax rates, or taxing parts of the base that haven't been taxed before. A third but smaller potential source of new revenues is state assets not currently managed to maximize general revenues. Finally, four other factors that are not entirely predictable right now could ease the future fiscal crisis, if they were higher than we anticipate:

settlement payments from litigation; earnings of the Permanent Fund; oil prices; and federal aid. Unfortunately, these factors could also worsen the crisis, if they were lower than we anticipate. Below we'll first briefly discuss those four variable factors, then broadly assess the potential for state assets to generate revenues. Then we'll look at potential revenues from higher taxes and new development.

Up or Down Factors

Settlement Payments: In the last four years the state received between \$71 million and \$419 million annually (\$227 million average) in settlements of disputes with oil companies and the federal government. Over the next decade the state expects to collect a substantial portion of the more than \$5 billion currently in dispute. The amount and timing of future payments is extremely uncertain. Our revenue projections (shown in Figure 1) assume that the state will receive \$1.7

billion (in 1988 dollars) over the next 10 years. If those payments turn out to be larger or we receive them sooner than we assume, the budget crisis would be eased—but if for some reason the payments are smaller or we receive them later, the fiscal gap would be wider.

Permanent Fund Earnings: Our projections assume real (adjusted for inflation) earnings of the fund will average 3 percent annually over the next 20 years, which is consistent with the target of the Permanent Fund Corporation. So far the fund has enjoyed an average real return of 5 percent a year, but earnings in individual years have ranged from zero to 11 percent.

Oil Price: Our projections assume a constant real (adjusted for inflation) price of \$15 a barrel for North Slope crude delivered to the U.S. Gulf Coast, which is approximately equal to the official State of Alaska estimate. Oil prices in 1989 were extremely volatile, ranging from \$12 to \$20 per barrel.

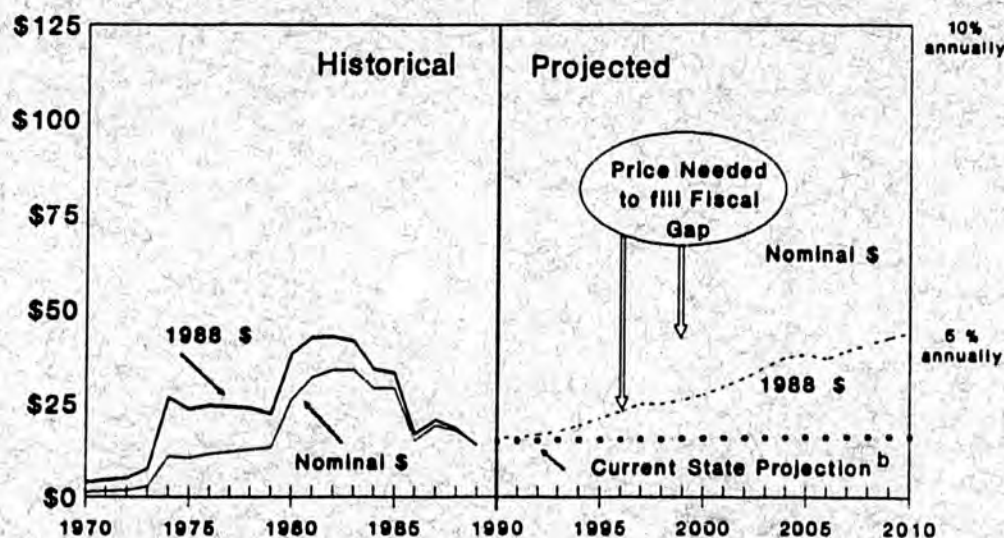
Oil production levels are more predictable than prices. North Slope production has already started to decline, and will continue to do so over the next 20 years. To compensate for falling production between now and 2010, the nominal oil price (before subtracting inflation) would have to rise 10 percent a year and the real price (in 1988 dollars) 5 percent annually. (See Figure 7.) Oil

would have to sell for \$47 a barrel in 2000 and \$122 a barrel in 2010—or, in 1988 dollars, \$27 a barrel in 2000 and \$44 a barrel in 2010.

Federal Government: Before the days of high petroleum revenues, Alaska relied heavily on federal aid. Some Alaskans see increased federal aid in Alaska as a means of easing the coming state fiscal crisis. But given the federal government's own large budget deficit and the trend toward less federal assistance nationwide, it seems unlikely that Alaska could increase its share of aid. Even maintaining current levels in such programs as highway assistance or keeping our current share of federal resource royalties will be difficult. In our projections we assume little future change in federal aid; if in fact federal aid declined substantially, the state budget would be under more pressure.

The federal government could, however, improve the state's revenue picture by lifting the ban on the export of North Slope crude oil and repealing the Jones Act, which requires cargoes being shipped between U.S. ports to be carried in American ships. Those changes in federal law—which are not under active consideration—would increase the wellhead value (the market value minus transportation costs) of North Slope oil by \$2 to \$4 per barrel, thus increasing both the state's tax base and its owner interests in oil.

**Figure 7. World Oil Price^a
Historical and Projected
(Dollars per Barrel)**



^a Saudi Light at Ras Tanura

^b Alaska Department of Revenue, Fall 1989 middle case projection, in 1988 \$.

Using State Assets

The Permanent Fund is only the largest of a number of state assets that potentially could produce annual revenues to support government services. The state currently reports \$3.1 billion of equity in public corporations and state enterprise funds. The biggest of these by far is the Alaska Housing Finance Corporation. Others include the Alaska Railroad Corporation, the Alaska Industrial Development and Export Authority, the Commercial Fisheries Revolving Loan Fund, the Power Development Fund, the Student Loan Corporation, the International Airport Fund, the Agricultural Loan Fund, and the Housing Assistance Fund.

Right now the income produced by those assets is largely earmarked for continuation of specific programs. Many of these assets earn below-market rates of return, because they are intended primarily to create non-monetary benefits — such as lowering the cost of doing business, expanding the economic base, and better educating Alaska's work force. Although we are not advocating such a policy, the state could sell these assets and invest the proceeds in ways that would maximize returns to the state. Before doing so, the state would need to determine what benefits would be lost.

The potential sustainable income from sale of these assets is difficult to predict, because their market value may differ from values reported in state financial documents. But it's unlikely that it would exceed \$100 million annually. Less radical shifts in management of these public corporations and enterprise funds could, however, divert a portion of the income from their activities to the general fund.

Taxes: How High?

Types and rates of state and local taxes vary a great deal around the country. Every state makes political decisions about the benefits of government spending versus the loss in private purchasing power and economic disincentives created by taxes. But to make some assessments of Alaska's ability to generate taxes as compared with current tax collections we need some standard measure of comparison.

We estimate how much more tax Alaska might be able to generate by applying the average tax rates among state and local governments nationwide to Alaska's tax bases. (See the box on page

14.) Calculating the difference between what Alaska now collects and what it could collect at national average tax rates gives us an estimate of potential new tax revenues. Notice that we are using *national average rates* as a measure of comparison: the potential tax revenues we discuss below are representative rates and not maximums. A number of states of course have taxes substantially above the average, just as others are below.

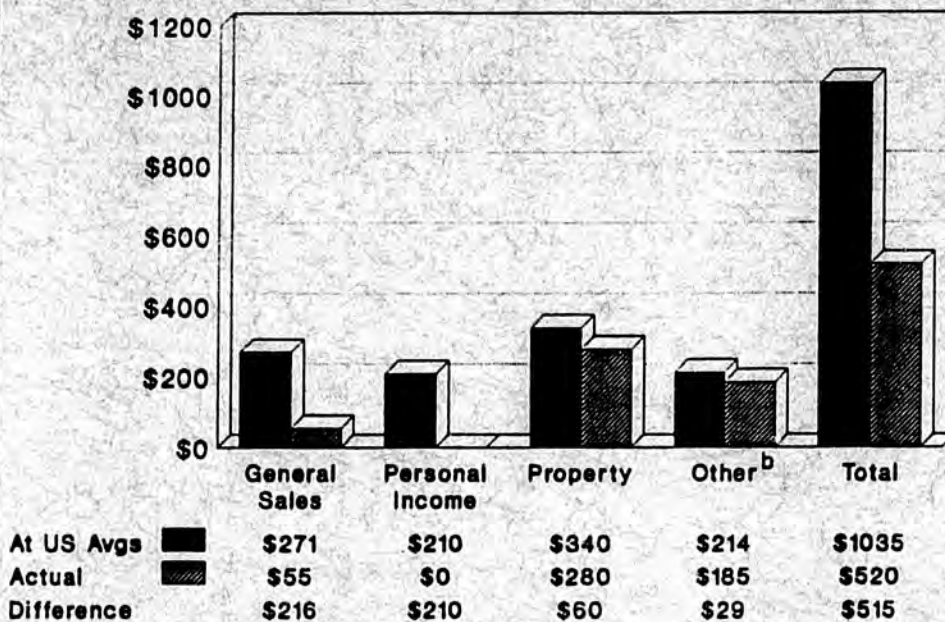
We're not advocating that the state and local governments here suddenly raise tax rates to national averages. Changes in Alaska's tax scheme in the coming years will depend on political realities at the state and local levels and must be tailored to specific Alaska conditions. National averages simply serve as a benchmark to give Alaskans an estimate of how much of the fiscal gap taxes could fill, if state and local governments here raised taxes to those averages.

In making these estimates we did not explicitly consider how increased tax rates might shrink the tax base or how restructuring of the tax schedule might make the burden more equitable. Also absent from our estimate is any consideration of current tax evasion and foregone revenues from tax credits. Notwithstanding these tax issues we didn't examine, we are confident that our estimates provide a good overall picture of potential revenues from taxes.

Individual and Business Taxes: Figure 8 shows that individual Alaskans and businesses (excluding resource production) pay about half the national average in overall state and local taxes. (The black bars show how high Alaska taxes would be at national average rates, and the striped bars show actual tax payments.) However, the figure also reveals wide differences among the various types of taxes. Property taxes and those in the "other" category, which includes selective sales taxes and non-petroleum corporate income taxes, approach the national tax averages. In contrast, general sales taxes in Alaska are only about one-fifth the national average, mainly because we have no state general sales tax. Most apparent is Alaska's lack of a personal income tax at either the state or local level.

Altogether, imposing state sales and income taxes at national averages and increasing property and local sales taxes to national averages would generate about \$515 million for state and local governments each year. That would virtually

**Figure 8. Alaska State and Local Taxes
Paid by Individuals and Businesses
Actual and at Estimated U.S. Average Rates^a
(In Millions of 1988 Dollars)**



^a Based on 1985 tax base calculations. Excludes taxes paid by petroleum and other resource producers.

^b Other taxes include selective sales taxes and non-petroleum corporate income tax.

double current tax collections. (We don't include charges and user fees here because those kinds of charges support different services in different locations, making comparisons meaningless. Also excluded are the potential net proceeds of a state lottery, which we estimate could be \$10 million annually.)

Resource Production Revenues: Alaska collects both taxes on and ownership payments from resource extraction. In this section we compare the rate of taxation of the resource base across states and specifically exclude ownership payments. Our estimates are necessarily rough approximations, given the difficulties in valuing each resource base.

Figure 9 compares tax rates on resource industries in Alaska and nationwide in 1987 (the most recent year for which we have figures) by showing the approximate percentage of their value added (the industry contribution to gross national product) paid in taxes, excluding income

taxes. (The box on page 14 provides further discussion of our tax base calculations.)

Figure 9 shows that some resources are taxed at much higher rates than others nationwide. For instance, mining (which is primarily coal mining) nationally paid about 14 percent of its value added in taxes in 1987. The oil and gas industry paid the next highest rate nationally, or about 12 percent of its value added. The other industries paid in the neighborhood of 4 to 5 percent of their value added in taxes nationally.

In Alaska, petroleum, far and away our most important resource, paid just about the same percentage of its Alaska

value added in taxes as it did nationally — about 12 percent. (The Alaska Legislature in 1989 changed the formula for calculating severance taxes on petroleum — the Economic Limit Factor, or ELF. Although the change increased 1989 tax collections by about \$150 million over what they would have been, the legislature essentially restored 1989 tax rates to their 1987 levels. So the tax percentage we show is still a valid approximation.)

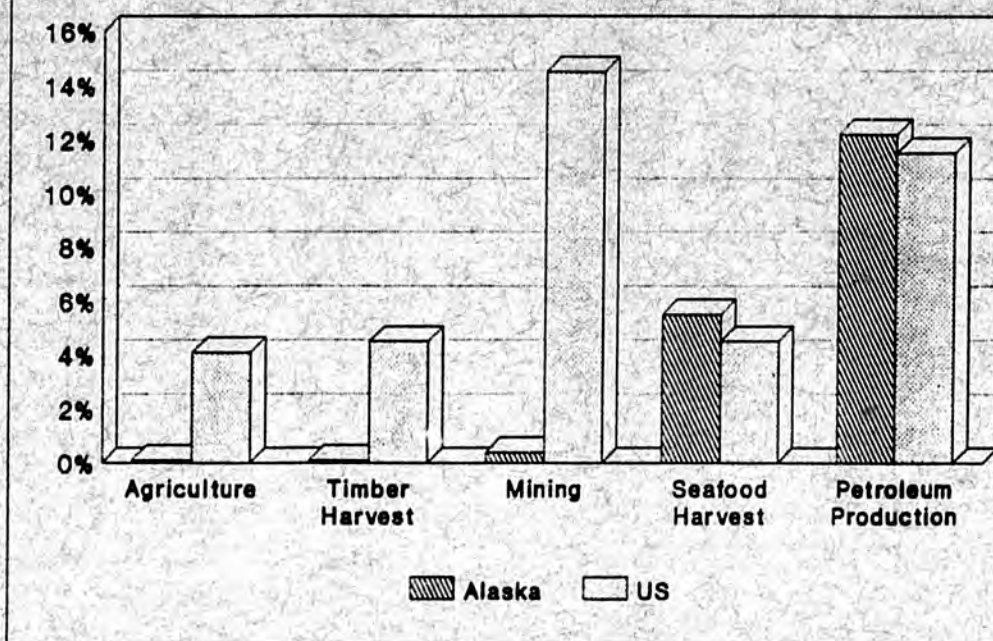
Alaska's next most important resource, commercial fishing, also was taxed roughly as much in Alaska as nationally in 1987 — around 5 percent of its value added. Other resource industries in Alaska paid little tax. Mining in Alaska paid less than 1 percent of its value added in taxes in 1987, as compared with 14 percent nationally. Agriculture and forestry in Alaska paid much less than 1 percent in taxes, as compared with about 4 percent nationally. (We weren't able to make comparisons for tourism because of the difficulties in identifying taxes paid and tax base.)

Figure 10 shows actual taxes paid by Alaska's resource industries in the late 1980s and estimates of what taxes would be at U.S. average rates. Modest changes in the national rates have an insignificant effect on collections, except of course for petroleum.

At national average rates, the petroleum industry in Alaska would pay about \$1.2 billion in taxes. (We make that estimate by applying the national average rate for petroleum in Figure 9 to the industry's Alaska tax base). The seafood harvesting industry would pay about \$31 million at the national average rate for that industry.

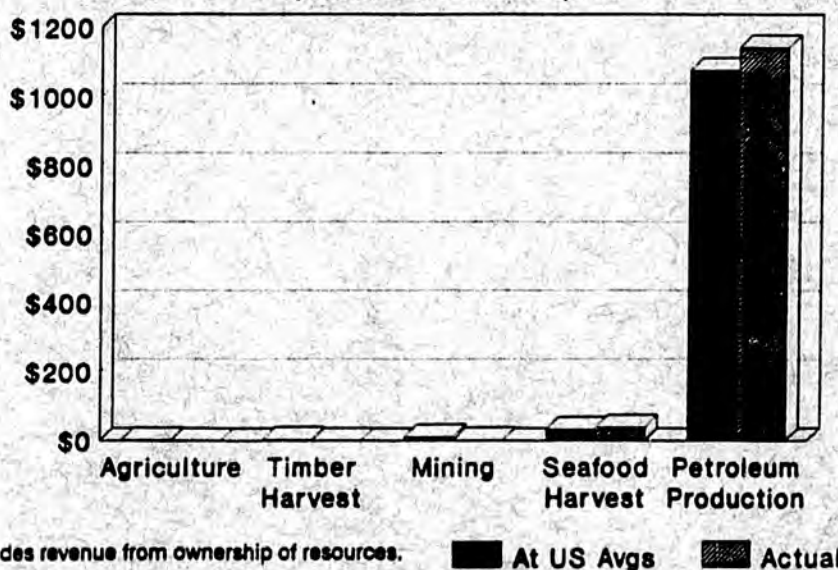
The severance tax, property tax, and special income tax on petroleum, and the raw fish tax, are the primary resource taxes in Alaska. Resource taxes collected from these industries in Alaska are consistent with national rates.

Figure 9. Alaska and U.S. Resource Industries Taxes as Percent of Value Added (1987)



Alaska's mining, timber harvesting, and agriculture industries have much smaller tax bases than petroleum and fishing, and those smaller tax bases are taxed at rates considerably below the national averages. Alaska has no production tax on timber harvesting. Instead of a production tax on mineral extraction, Alaska has a mining license tax on net operating income. Were these industries to pay taxes at national average rates, the state would collect (at current production levels) approximately \$10 million more annually.

Figure 10. Alaska State and Local Taxes Paid by Resource Production Industries Actual and at Estimated U.S. Average Rates (In Millions of 1988 Dollars)



Note: Excludes revenue from ownership of resources.

■ At US Avgs ▨ Actual

As an owner of resources (as distinct from a tax collector), Alaska receives considerable revenues—again, mostly from the sale of oil and gas, but also smaller amounts from timber, minerals, and land sales. These payments to the state are

Estimating Alaska Taxes and U.S. Average Rates

To calculate taxes Alaska's state and local governments collect as well as average collections of other state and local governments we use the U.S. Department of Commerce's *Governmental Finances*, unpublished data from the U.S. Bureau of Economic Analysis, and ISER's MAP database.

To estimate revenues Alaska's state and local governments might collect from tax changes we apply *national average tax rates* to Alaska's tax bases. This measure of tax potential does not reflect some preferred amount of taxes, or the maximum amount, or the level taxes could reach before they began to create economic disincentives. Rather it's a standard for comparing Alaska's tax effort with that of other states, taking into account the tax bases of each state as well as taxes collected.

We derive our estimates of additional tax potential using published and unpublished data from the U.S. Department of Commerce, the ISER MAP database, the Advisory Council on Intergovernmental Relations (ACIR), and the research agency of the Alaska House of Representatives.

At the heart of our estimates of tax potential are of course estimates of Alaska's tax bases. In our analysis we use one set of tax bases for individual and business taxes and another for resource industry taxes. (We exclude resource ownership revenues since they are generally paid to private owners).

Individual and Business Taxes: Our calculations of Alaska's bases for individual and business taxes are modifications of ACIR estimates, and reflect the specific base for each tax, such as retail sales, property values, corporate income, or gasoline consumption. We then apply national average tax rates to each tax base.

Resource Industry Taxes: For the tax bases of resource industries we use the amount of value each industry contributes to the gross national product—what economists call "value added". Value added consists of wages, depreciation, rents, interest, and payments to other factors that add value to production, as well as profits received and taxes paid. The national average tax rate for each industry is the ratio of all taxes paid (except income taxes) to value added as reported by the U.S. Department of Commerce. We estimate the additional tax potential of Alaska resource industries by applying the national average rate to the Alaska value added of each industry, based on ISER calculations. So, for example, if an industry pays 5 percent of its value added in taxes nationally while in Alaska it pays 3 percent, Alaska governments could collect 2 percent more of the industry's value added in taxes to reach the national average.

Our method of measuring the resource tax base is not meant to serve as a guide to the appropriate level of taxation of any resource. Such a determination would require a much more detailed analysis that is beyond the scope of this paper.

similar to those private owners of resources would require from developers. Only petroleum royalties, which came close to \$1 billion in fiscal 1988, are large enough to supply a significant share of the state's budget needs. In contrast, the state gets no ownership return from the commercial fisheries. The market value of ownership of that resource is reflected in the value of limited entry permits for the fisheries, which exceeds \$1 billion. If the state taxed the value of those permits, which are a form of property, at the same rate as oil property, it could collect about \$20 million annually.

Economic Development

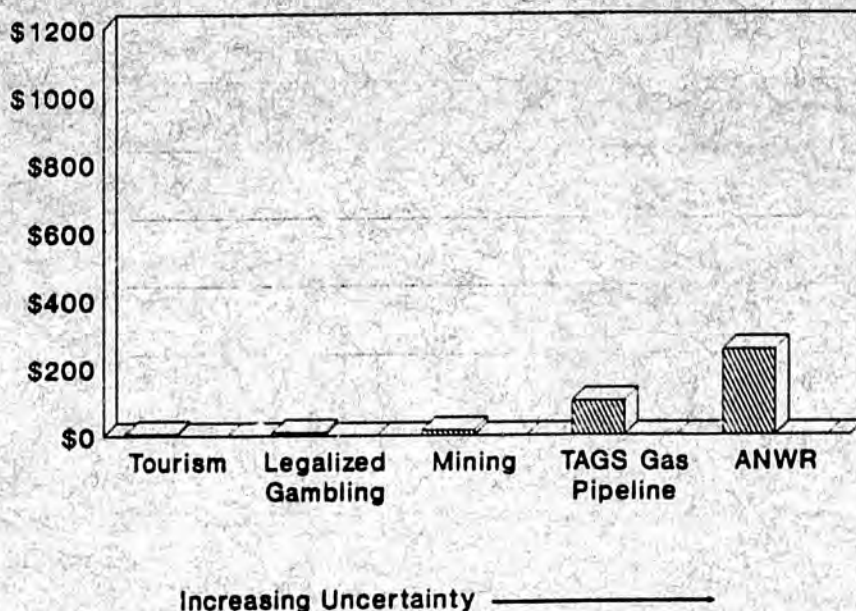
Economic development—both expansion of existing activities and new developments—has the potential to generate revenues to help fill the state fiscal gap as well as create jobs and income for Alaskans. For example, in our analysis of the fiscal gap, we assume the state will collect petroleum revenues from production greater than the current official estimates, because of

technological advances and further discoveries. Figure 11 shows some estimates of possible revenues from new or significantly expanded activities not already included in our projections because they are less certain. The less certain developments are further to the right in the figure. The estimates are intended to convey a sense of the order of magnitude of potential new revenues, not to serve as precise predictions.

Growth in the tourism industry in the next decade (with no changes in industry taxes) could add \$5 million annually to the state treasury in fees and ownership payments as well as local property and sales taxes. Legalized gambling (not including a state lottery) could produce \$5 to \$10 million in state amusement and local property taxes. (We're not advocating that gambling be legalized; it's one of the possible revenue sources that have been discussed, so we include an estimate of its revenue potential.)

New mines could generate \$15 million annually through license and income taxes and local

Figure 11. Possible Revenues from Expansion of Industry
(In Millions of 1988 Dollars)



The Arctic National Wildlife Refuge is not open to petroleum exploration right now and it's uncertain when it will be. Should Congress open the refuge, the oil companies would have to find commercial fields and undertake the development necessary to transport oil from the refuge before the state could realize a sustained flow of tax revenues.

property taxes (again, with no changes in existing tax laws). We will have better estimates of mining revenues over the next couple of years, as two big new mines begin producing.

These revenues would be divided between state and local governments, with local governments collecting property taxes and the state government collecting resource taxes. The revenue potential of these developments is somewhat restricted because Alaska has no personal income tax.

The developments that could produce the biggest revenues are petroleum-related but they are very uncertain right now. Two such developments (but by no means the only possible ones) would be construction of a gas pipeline to transport North Slope natural gas, and the discovery and development of large oil reserves in the Arctic National Wildlife Refuge east of Prudhoe Bay. In 2000 North Slope gas could be contributing about \$100 million (in 1988 dollars) annually to the state treasury. However, the gas pipeline won't be built until the gas producers find buyers for North Slope gas.

A discovery in the wildlife refuge one-third the size of the Prudhoe Bay field could be generating \$250 million (in 1988 dollars) in annual state revenues by 2005. (The estimated probability of a commercial discovery in the refuge is 19 percent.)

all the likely and less certain developments shown in Figure 11 were to occur, state and local governments might be collecting about \$380 million (in 1988 dollars) in additional revenues by 2005.

Between a Rock and a Hard Place

None of us is eager to pay more taxes. Many Alaskans believe that a combination of higher oil prices, spending cuts, and new revenue sources will make it unnecessary to raise taxes as petroleum revenues drop. But because we are facing a \$1 billion shortfall within the next 10 years, we regard that view as unrealistic. After all, \$1 billion is three times more than all the individuals, businesses, and non-petroleum resource industries currently pay in state taxes every year.

It seems inevitable, given the small likelihood that resource development will raise enough revenues to fill the fiscal gap in the near future, that we'll have to fill some of that gap by raising taxes. Of course there are political and social as well as economic issues involved in raising taxes. In Fiscal Policy Paper #2 we outlined a number of reasons why cutting the budget would be tough. Some of the same factors, plus others, will make raising revenues as tough or tougher than cutting the budget:

1. Economic Disincentives: Alaska is an expensive place to do business, independent of state and local tax levels. Developers come to Alaska, or expand their operations here, only when the profits from development outweigh the costs. Although tax levels are of less significance to firms than are many other market factors, higher taxes are nevertheless a real addition to the cost of doing business, and raising taxes on businesses or individuals reduces Alaska's competitiveness in national and world markets.

2. Economic Climate: Alaska is still emerging from a severe recession that cost the state jobs and population, forced down property values, and pushed thousand of individuals and businesses into bankruptcy. Alaskans are understandably not receptive to tax increases — which will reduce income and employment in the private sector and, in the minds of many, slow the pace of economic activity.

3. Special Interests: For every tax paid or proposed there is a constituency with an economic interest in keeping rates low or non-existent. These interest groups are well-organized and well-financed to fight tax increases or new taxes.

4. Unwillingness to Pay: Alaskans have grown accustomed to low state and local taxes. Even though individual Alaskans carry the lightest state

and local tax burden in the nation, many Alaskans believe they're already paying more than enough for government services.

5. Tax the Other Guy First: Just about everyone is convinced that he's already paying his fair share of taxes, and that if taxes have to be raised somebody else should pay. We have a natural tendency to try to devise taxes that would be paid by non-residents — but this method of "tax exporting" has its limits, and even non-residents can respond to the disincentives created by taxation by taking their business elsewhere.

Despite these arguments against taxes, in the typical state taxes and user fees paid by individuals and businesses necessarily represent the cost of public services the government provides. But in the past decade, when petroleum revenues paid for almost everything, Alaska lost the link between what residents pay in taxes and what they receive in services. When citizens aren't aware of the cost of services, public spending is no longer restrained by a sense of the value of services provided. To regain the balance between taxes and spending, citizens must gradually shoulder more of the cost of government. Higher taxes will quickly focus attention on those aspects of government spending that taxpayers feel aren't worth the price.

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Big Ticket Spending: Transfers and Labor Costs

The State of Alaska spends 75 percent of its operating revenues in two ways: transferring money to individuals and local governments, and paying salaries and benefits of state workers. Anyone considering how the state should cut its budget has to understand where most of the money goes—and to recognize that transfer payments and labor costs tend to grow with population and inflation.

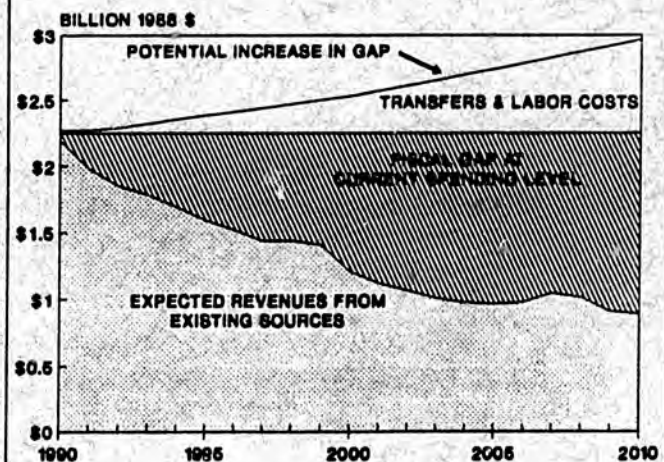
Petroleum revenues, which have paid for most of state government in the past decade, are on a decline that will continue over the next two decades as production from the huge Prudhoe Bay field drops. Dwindling petroleum revenues could leave a \$1 billion hole in the state budget by 2000, as Figure 1 shows.

But that projected gap is based on the *current* level of spending. If in fact transfer payments and labor costs grow with population and inflation, the gap between revenues and spending could easily be as large as \$1.3 billion by 2000—or 30 percent larger than we have projected in earlier Fiscal Policy Papers. Growing transfer payments and labor costs would contribute about equally to that increased gap.

This paper profiles state transfer (grant and claim) programs and labor costs (including both payroll and benefits), which together account for three of every four dollars the state spends on general operating expenses. (See the box on page 2.) This analysis is a complement to Fiscal Policy Paper 2, in which we examined why Alaska

spends much more per capita than any other state. In that paper we reported that while special Alaska conditions—huge area, small population, harsh climate, for instance—do increase government costs in Alaska, those factors account for a relatively modest share of Alaska's higher spending. More important are the realities that (1) Alaska has a number of unique programs; (2) Alaska spends more for traditional government services; and (3) Alaska pays its average employee significantly more, even if we take into account Alaska's higher living costs.

Figure 1. Potential of Growing Transfers and Labor Costs To Increase Fiscal Gap*



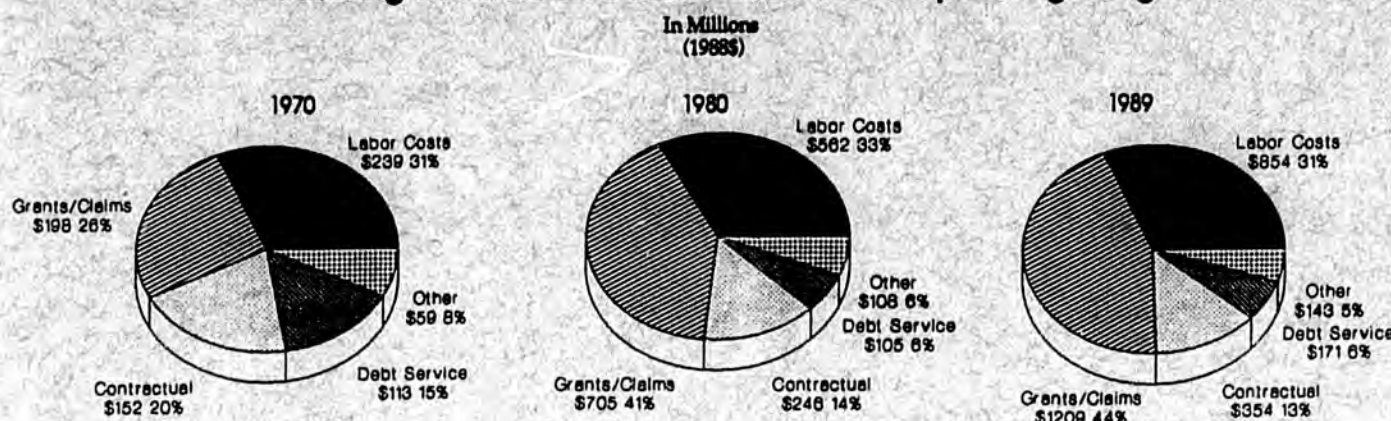
*Projected at the current level of state general fund expenditures. Revenues include oil settlement estimate.

This is the fourth in a series of ISER Fiscal Policy Papers examining aspects of state government revenues and spending. We intend these papers to focus the attention of state officials and of Alaskans in general on the serious budget crisis we face, and on the necessity for dealing with it soon.

The authors of this paper are Scott Goldsmith, professor of economics at ISER; Jay Hogan, former director of the Alaska Division of Budget Review; and Lee Gorsuch, ISER director. Linda Leask is the series editor. Tracey Bradford and Teresa Hull prepared the graphics.

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Measuring Transfers and Labor Costs in the Operating Budget



To measure the importance of transfers (grants and claims) and labor costs (payroll and benefits) in the state budget we use total operating expenditures as the base. This definition excludes Permanent Fund earnings as well as capital expenditures but includes operating expenditures from restricted funds, the most important of which are federal funds. (The fiscal gap calculation in Figure 1 is just for the state unrestricted General Fund. It excludes programs paid for with restricted funds.)

The pie charts above show that grants and claims and labor costs made up most of the operating budget in 1970, 1980, and 1989. But while the labor cost share held fairly steady at around 30 to 33 percent, the grants and claims portion grew from 26 percent in 1970 to 44 percent by 1989. Because of that big increase in the share of grants and claims, transfers and labor costs increased from 57 percent of the operating budget in 1970 to 75 percent in 1989.

Contractual, the next largest part of the budget, includes not only contracts the state issues for services but also some grants to local jurisdictions; these are very difficult to sort out. The percentage of the budget dedicated to debt service (this category also includes some miscellaneous expenses) dropped from 15 percent in 1970 to 6 percent by 1989; that happened because the rest of the budget grew so quickly in the 1980s and because the state paid cash for capital projects. The remaining "other" category includes travel, commodities, and equipment.

This paper examines how the two biggest categories of spending affect the state operating budget. If Alaska is to balance its budget in the coming years, state officials will have to consider ways of re-structuring transfer programs and holding down employee costs.

We profile the 10 largest state transfer programs and state payroll and benefits in single-page summaries that make up most of this paper. Lack of space prevents us from including all the unique Alaska programs (some of which are not transfer programs) and the many smaller transfer programs. We conclude by looking at the implications of our analysis for state officials dealing with declining revenues.

Largest State Transfer Programs

We profile nine transfer programs paid for with general fund money, and one—the Permanent Fund dividend program—paid for with earnings of the Permanent Fund. These nine general fund programs paid individuals and local governments \$970 million in 1989, and the Permanent Fund dividend program paid individuals another \$440 million. Some Alaskans

would argue that we shouldn't include the dividend program in a discussion of general state spending, because it is not paid for with general fund money. We include it because the Permanent Fund dividend program represents very substantial spending and it is state-funded. The legislature can if it chooses use the earnings of the Permanent Fund for other purposes. The dividend program is *not*, however, included in our calculation of the fiscal gap in Figure 1.

We want to emphasize that within the broad category of "transfer programs" the individual programs are vastly different and have to be considered very differently. The 10 transfer programs we profile (which account for 83 percent of all transfer payments) fall into three types:

Programs that provide income to Alaskans, are unique to the state, and are funded at the discretion of the legislature: These programs are the Permanent Fund dividend program, the Longevity Bonus program, and the Power Cost Equalization program. These programs make payments to individual Alaskans without regard to income. The legislature could eliminate them

Adjusting for Inflation

All figures in this paper are in 1988 dollars, except as noted. That adjustment eliminates the effects of inflation so we can assess real changes in spending over time.

without affecting traditional government functions.

Programs that aid local governments and school districts: These programs are Revenue Sharing, Municipal Assistance, School Foundation, School Debt Reimbursement, and Pupil Transportation. Alaska will have to decide how much local aid to provide based on the needs of local governments, their own sources of revenues, and other factors.

All state governments provide some aid to their local governments. How much they provide depends partly on decisions about which level of government should provide the services and which level should collect the taxes. There are advantages in collecting taxes at the state level and spending them at the local level; for instance, if the state collects the taxes it can equalize them across jurisdictions.

Programs that help needy Alaskans: These are the public assistance and the medical assistance programs for Alaskans with low incomes, few assets, or disabilities. The public assistance programs include Aid to Families with Depend-

ent Children (AFDC) and Adult Public Assistance (APA). The chief medical assistance program is Medicaid. Some assistance programs are paid for entirely by the state but the largest are mandated by the federal government and funded jointly by the federal and state governments. The state's ability to change these programs is consequently more limited than it is for other transfer programs. The potential for change is also more limited because, unlike the unique Alaska transfer programs that make payments regardless of income, these welfare and medical assistance programs provide basic income and services for needy Alaskans.

Pages 4 through 13 profile the state's largest transfer programs, summarizing past, current, and projected costs, program beneficiaries, and major program changes. The profiles also reveal which programs were established only in the 1980s, after the state began collecting big petroleum revenues; which are based on need; and how each broadly compares with programs in other states.

(Text continues on Page 15)

Five Alternatives: The Range of Future Program Costs

A number of alternatives exist for changing state transfer programs to cut or control costs in the future. The 1990 legislature has already moved to contain future state costs for construction of district schools by eliminating the open-ended reimbursement program for school bond indebtedness and replacing it with a school construction fund (see page 8). It also increased the required length of residence for individuals to qualify for the Permanent Fund dividend and the Longevity Bonus programs (see pages 4 and 5).

For any of the 10 transfer programs we profile, state officials would have to consider alternatives specific to each program before making major changes. We do not analyze all the specific alternatives that might exist for each program but rather show the potential range of costs for each program by 2000 through five standard alternatives. These five standard alternatives measure potential changes relative to current expenditures. They estimate future costs if the program continued to provide the same level of service per beneficiary; if the program were eliminated; and if several intermediate changes were made. We're not advocating these standard alternatives for any program. The five standard alternatives we use (with some exceptions for specific programs) are:

Maintain Real Expenditures Per Recipient: Keep real expenditures per recipient at same level by allowing costs to rise with increasing number of beneficiaries and with inflation.

Cap Expenditures Per Recipient: Hold future payments to each recipient at the current nominal level (costs rise with growing number of beneficiaries but not with inflation).

Cap Expenditures at 1989 Level: Hold total program expenditures at the 1989 nominal level (costs not increased for either more beneficiaries or inflation).

Target Most Needy: Narrow the number of recipients for each program by targeting the most needy (as defined for each program).

Eliminate Program: Do away with the program entirely.

Permanent Fund Dividend Program

Expend. 1989: \$438 million (Perm. Fund earnings)
 Growth 1980-89 (1988 \$): +\$424 million
 Expend. per capita (1988 \$): 1980-0; 1989-\$794
 Expend. cuts from peak: No cuts
 Beneficiaries: 1980-0; 1989-503,000 (est.)
 Existed before 1980: No
 Based on Need: No
 Comparable programs, Other U.S.: None

Description: Makes annual payments to all eligible Alaskans using approximately 50 percent of the earnings of the Permanent Fund. The 1989 dividend of \$873 will go to about 503,000 Alaskans for a total of \$438 million. The state recently increased the program residency requirement from six months to two years.

Purpose: Pay individuals a direct share of oil wealth; give Alaskans an incentive to keep Permanent Fund intact. Originally the program was to have paid higher dividends to longer-term residents; that restriction was declared unconstitutional in 1982.

Special Features: The federal government would reduce welfare and medical assistance payments of recipients but the state reimburses the federal government for these payments. In 1989 "hold harmless" payments for this program were about \$10 million.

Program Changes:

1980—Program established, with amount of dividend tied to length of residence.

1982—Following a U.S. Supreme Court ruling, program modified so all residents of at least six months would receive equal dividends.

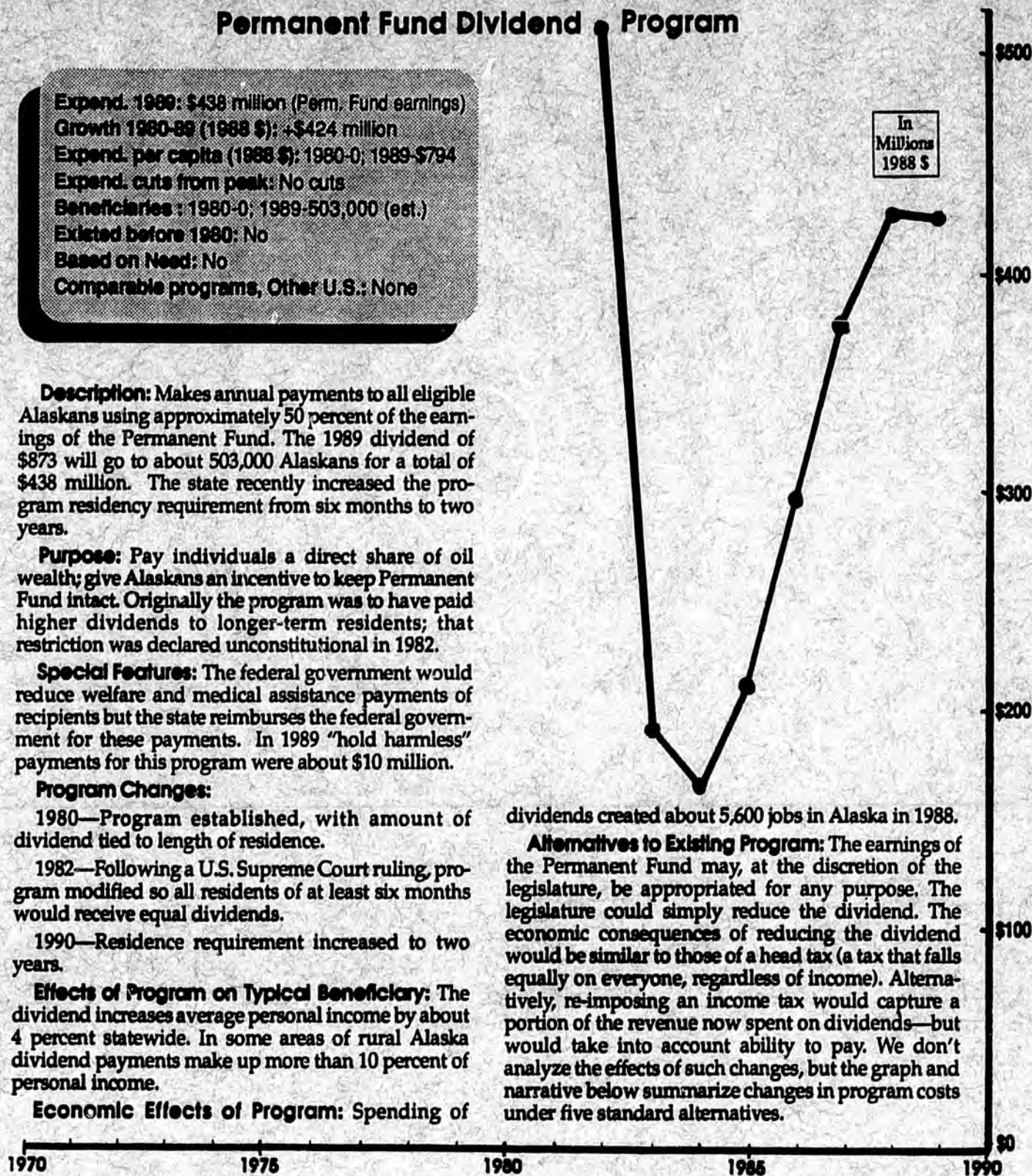
1990—Residence requirement increased to two years.

Effects of Program on Typical Beneficiary: The dividend increases average personal income by about 4 percent statewide. In some areas of rural Alaska dividend payments make up more than 10 percent of personal income.

Economic Effects of Program: Spending of

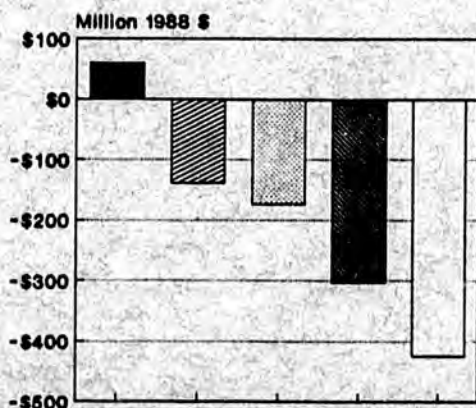
dividends created about 5,600 jobs in Alaska in 1988.

Alternatives to Existing Program: The earnings of the Permanent Fund may, at the discretion of the legislature, be appropriated for any purpose. The legislature could simply reduce the dividend. The economic consequences of reducing the dividend would be similar to those of a head tax (a tax that falls equally on everyone, regardless of income). Alternatively, re-imposing an income tax would capture a portion of the revenue now spent on dividends—but would take into account ability to pay. We don't analyze the effects of such changes, but the graph and narrative below summarize changes in program costs under five standard alternatives.



Possible Change in Program Cost By 2000

General Remarks: Legislature appropriates 50% of Permanent Fund earnings; appropriation divided among eligible population.



- **Maintain Real Expend. Per Recipient:** Costs \$60 million higher, if dividend grows with population and inflation.
- ▨ **Cap at 1989 Expend. Per Recipient:** Costs reduced \$138 million, if expenditures not increased for inflation but the number of recipients grows
- ▤ **Cap at 1989 Expenditure:** Costs reduced \$174 million, if payments not increased either for inflation or population growth
- ▥ **Target Most Needy:** Costs reduced \$303 million, if dividends distributed only to the 25% of population with lowest incomes
- **Eliminate Program:** Costs reduced \$424 million

Longevity Bonus Program

Expend. 1989: \$53 million (General Fund)
Growth 1980-89 (1988 \$): +\$35 million (207%)
Expend. per capita (1988 \$): 1980-\$40; 1989-\$97
Expend. cuts from peak: No cuts
Beneficiaries: 1980-7,000; 1989-18,000
Existed before 1980: Yes
Based on Need: No
Comparable programs, Other U.S.: None

Description: Pays \$250 per month to all Alaskans over 65 who have lived in the state at least two years. About 18,000 Alaskans, or 3 percent of the total population, received payments in 1989.

Purpose: At first limited to those over 65 who had lived in Alaska at least 25 years and were here at the time of statehood; the "longevity" bonus was intended to share oil wealth with pioneers and help them stay in Alaska. In 1984 the courts declared the residence requirement unconstitutional, so the state expanded the program.

Special Features: The federal government would reduce welfare and medical assistance payments of eligible recipients but the state reimburses the federal government for these payments. In 1989 "hold-harmless" payments for this program were \$ 4.4 million.

Program Changes:

1972— Program established with \$100 payments per month.

1976-1981—Payments periodically increased.

1984—Program expanded to all Alaskans over 65 with six months residence.

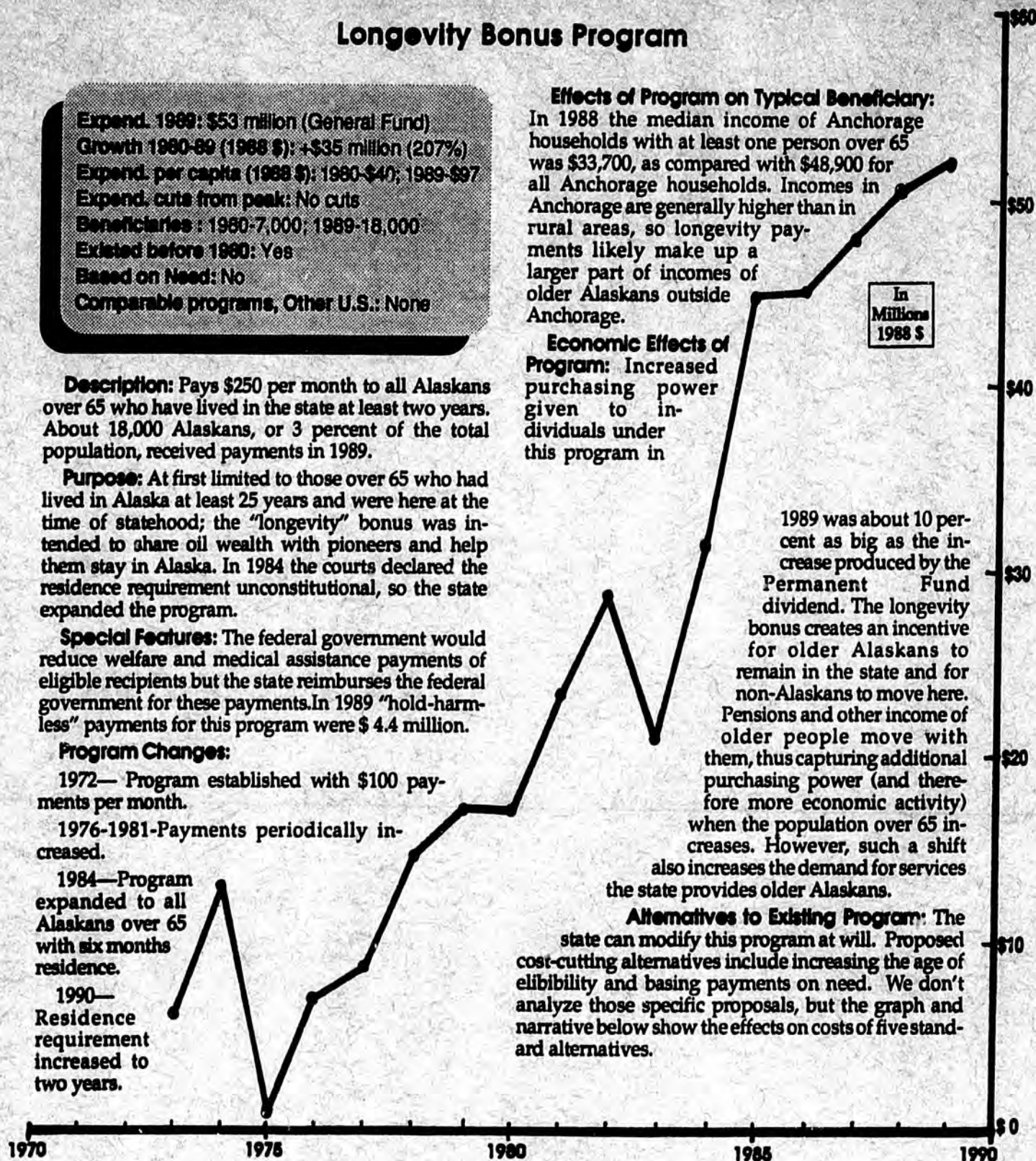
1990—Residence requirement increased to two years.

Effects of Program on Typical Beneficiary:
 In 1988 the median income of Anchorage households with at least one person over 65 was \$33,700, as compared with \$48,900 for all Anchorage households. Incomes in Anchorage are generally higher than in rural areas, so longevity payments likely make up a larger part of incomes of older Alaskans outside Anchorage.

Economic Effects of Program: Increased purchasing power given to individuals under this program in

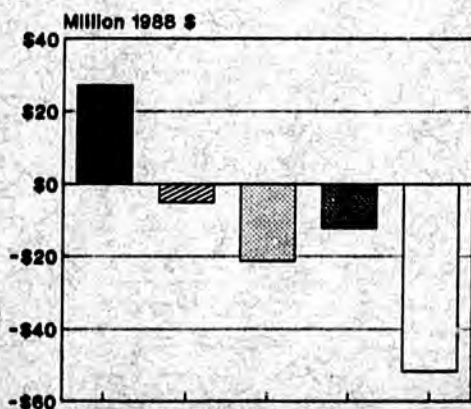
1989 was about 10 percent as big as the increase produced by the Permanent Fund dividend. The longevity bonus creates an incentive for older Alaskans to remain in the state and for non-Alaskans to move here. Pensions and other income of older people move with them, thus capturing additional purchasing power (and therefore more economic activity) when the population over 65 increases. However, such a shift also increases the demand for services the state provides older Alaskans.

Alternatives to Existing Program: The state can modify this program at will. Proposed cost-cutting alternatives include increasing the age of eligibility and basing payments on need. We don't analyze those specific proposals, but the graph and narrative below show the effects on costs of five standard alternatives.



Possible Change in Program Cost By 2000

General Remarks: Appropriation is fixed amount per recipient, with no automatic increase for inflation.



- Maintain Real Expend. Per Recipient:** Costs \$27 million higher, if payments increased with population and inflation
- Cap at 1989 Expend. Per Recipient:** Costs reduced \$5 million, if payments not adjusted for inflation but number of recipients grows
- Cap at 1989 Expenditure:** Costs reduced \$21 million, if expenditures not increased for inflation or population growth
- Target Most Needy:** Costs reduced \$12 million if definition changed to eliminate 50% of those currently eligible
- Eliminate Program:** Costs reduced \$52 million

Power Cost Equalization Program

Expend. 1989: \$18 million (General Fund)
Growth 1980-89 (1988 \$): +\$18 million
Expend. per capita (1988 \$): 1980-0; 1989-\$33
Expend. cuts from peak: No cuts
Beneficiaries: 1980-0; 1989-60,000
Existed before 1980: No
Based on Need: No
Comparable programs, Other U.S.: None

Description: Subsidizes electricity bills for rural customers, based on cost of power but without regard to income. Payments are made to rural utilities, which then reduce customers' bills (including commercial and public consumers) on use up to 750 kwh per month. The program excludes utilities in or near urban areas and in communities where electricity from state hydroelectric projects is available.

Purpose: To reduce electricity bills in rural areas.

Special Features: Proponents describe this program as the rural counterpart to the state-subsidized hydroelectric projects built in the early 1980s and to the railbelt energy fund—which is a reserve account set aside several years ago to help pay for future electrical generation along the railbelt from the Kenai Peninsula to Fairbanks. (How the railbelt energy fund will actually be used is still an open question, however.)

Program Changes:

1980—Program established

1981, 1984—Subsidies increased

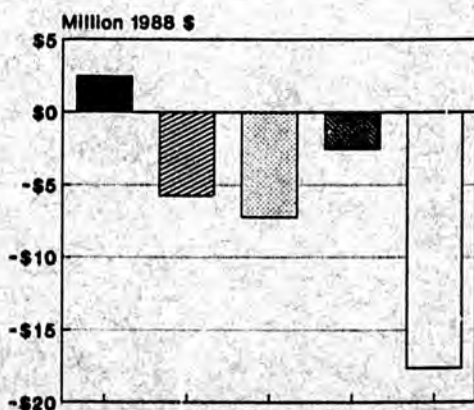
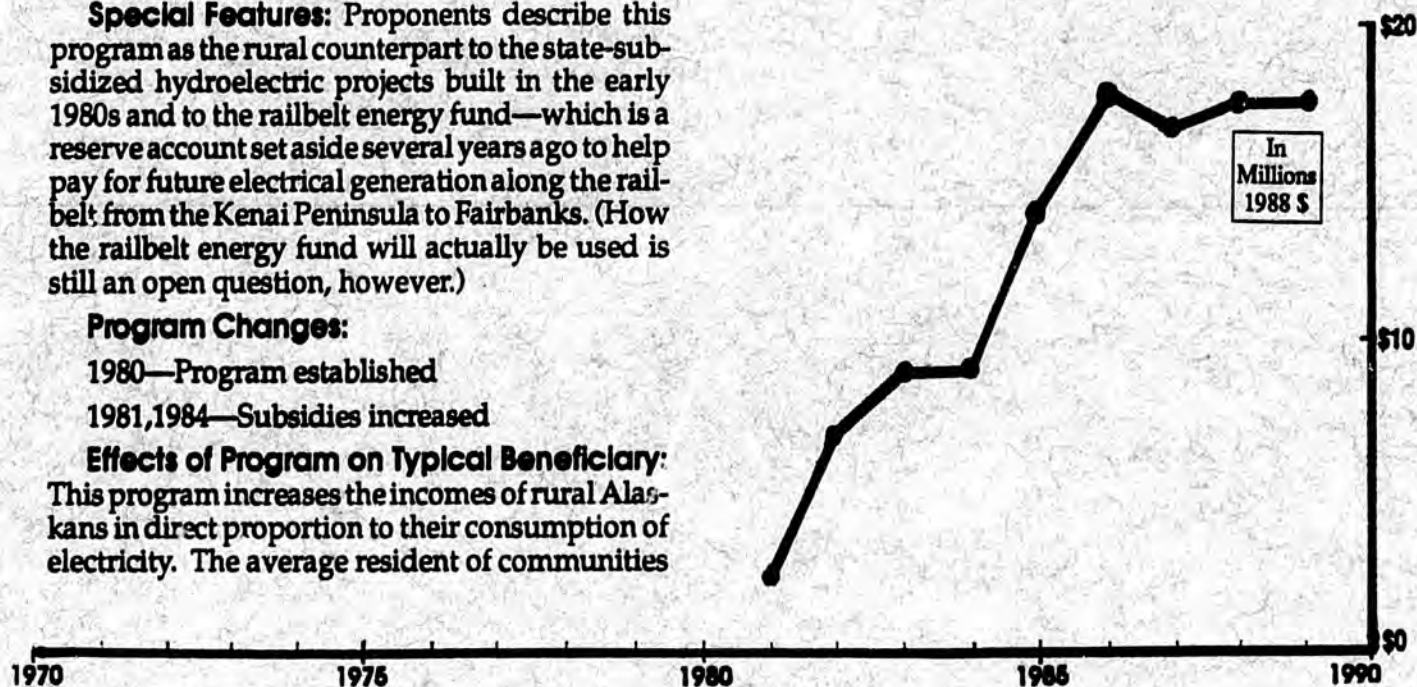
Effects of Program on Typical Beneficiary:

This program increases the incomes of rural Alaskans in direct proportion to their consumption of electricity. The average resident of communities

served by this program received a benefit of \$275 in 1989, which reduced the average rate for a kwh of electricity by more than 50%.

Economic Effects of Program: This program not only increases personal income but also use of electricity in communities served. By subsidizing costs for consumers it promotes inefficient use, and by paying utilities based on cost it creates no incentive for more efficient generation.

Alternatives to Existing Program: Costs under this program could go significantly higher if customers took full advantage of the 750 kwh per month subsidy it allows; only 45% of eligible kwh were consumed in 1989. Lawmakers could redesign the program formula to create incentives to reduce use of high-cost electricity and to generate electricity more efficiently. Conversion to a fixed rebate per customer would be one method. We don't analyze specific changes, but the graph and narrative below describe the effects on program costs of five standard alternatives.



Possible Changes in Program Cost by 2000

General Remarks: No automatic inflation increase; appropriation prorated by formula.

- Maintain Real Expend. Per Recipient:** Costs \$2.5 million higher, if increased with inflation and population; could increase faster if customers used full subsidy (see text above)
- Cap at 1989 Expend per Recipient:** Costs reduced \$ 6 million, if not increased for inflation but number of recipients grows
- Cap at 1989 Expenditure:** Costs reduced \$ 7 million, if costs not increased for inflation or population growth
- Target Most Needy:** Costs reduced \$ 2.5 million, if definition changed to eliminate 25% of those currently eligible
- Eliminate Program:** Costs reduced \$ 18 million

School Foundation Program

Expend. 1989: \$457 million (General Fund 93%; Federal 5%; Other 2%)
Growth 1980-89 (1988 \$): +\$237 million (116%)
Expend. per capita (1988 \$): 1980-\$486; 1989-\$827
Expend. cuts from peak (1988 \$): 10%
Students: 1980-85,000; 1989-104,000
Existed before 1980: Yes
Based on Need: Partially
Comparable programs, Other U.S.: Direct comparison not possible. Different states support education through different programs.

Description: Pays about 60 percent of operating costs of city and borough schools (with the balance mostly paid by local taxpayers) and 75 percent of operating costs of Regional Education At-

tendence Areas (REAs) (with the balance paid by federal aid). The program's allocation formula is based on enrollment, area costs, size of school, and special programs provided. Allocations are reduced by federal education funds and local tax base. The required local tax effort is subtracted from a district's formula allocation to determine actual payment. Foundation program payments were cut in 1987; in 1989 they were about 10 percent below payments in the peak year of 1986.

Purpose: To help local jurisdictions pay for education and insure that all Alaska children have adequate public schools, regardless of the size of the local tax base.

Program Changes:

1959—Support program established

1970-80—U.S. Bureau of Indian Affairs turned its

schools over to state, increasing state costs.

1976—
State-operated rural school

system eliminated; REAs created and funded through the foundation program.

1976—As a settlement in *Tobeluk* (Molly Hootch) court case, the state agreed to build high schools in dozens of small villages. Students from those villages had previously gone to boarding schools, some outside Alaska.

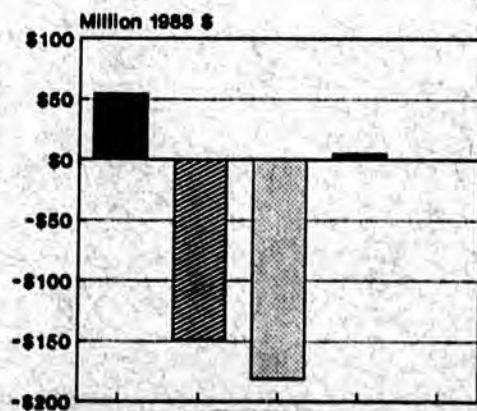
1988—Teachers' retirement funding (\$27 million in 1987), which had been funded separately, rolled into the foundation program—which means less money for school operations.

Effects of Program on Typical Beneficiary: In fiscal 1988 the program paid about \$327 million, or \$3,700 per student, to Alaska's 33 city and borough school districts. The same year it paid \$107 million, or about \$8,500 per student, to the 22 REAs.

Economic Effects of Program: Increases local purchasing power by increasing education spending and decreasing local property taxes. Public schools are also major employers throughout Alaska, particularly in rural areas.

Alternatives to Existing Program: Short of restructuring the school system, the only alternatives for containing costs are changing the formula elements to shift more of the cost to local jurisdictions or applying narrower definitions of what constitutes basic education. We do not look specifically at the effects of such changes, but the graph and narrative below show the effects on costs of five standard alternatives.

1970 1975 1980 1985 1990



Possible Change in Program Cost By 2000

General Remarks: No automatic inflation increase; appropriation is prorated by formula.

- Maintain Real Expend. Per Recipient:** Costs \$55 million higher, if increased with inflation and growing number of students
- Cap at 1989 Expend. Per Student:** Costs reduced \$149 million, if increased for number of students but not for inflation
- Cap at 1989 Expenditure:** Costs reduced \$181 million, if not increased for either inflation or growing number of students
- Target Most Needy:** Costs \$5 million higher, if 1989 expenditures cut 10% by reducing aid to districts most able to pay
- Eliminate Program:** Not applicable because the state constitution requires provision of basic education

School Debt Reimbursement Program

Expend. 1989: \$109 million (General Fund)
Growth 1980-89 (1988 \$): +\$75 million (249%)
Expend. per capita (1988 \$): 1980-\$72; 1989-\$197
Expend. cuts from peak: Yes (see text)
Beneficiaries: 1980-360,000; 1989-455,000
Existed before 1980: Yes
Based on Need: No
Comparable programs, Other U.S.: None

Description: The state currently pays 80 percent of the debt service on bonds city and borough districts sell to finance school construction. Under legislation passed in 1990, future state aid for school construction will come from a new school construction fund, to be a part of the capital rather than the operating budget and to be administered by the Department of Education.

Purpose: To help school districts pay for new schools and ease the burden of those schools on local taxpayers.

Special Features: For 20 years this program was an open-ended commitment of state funds. It has been described as the urban counterpart to the state practice of paying for rural school construction through the capital budget.

Program Changes:

1970—Reimbursement program established, at 50 percent of local debt service payments.

1977-1985—The legislature several times changed annual reimbursement levels before setting the current rate of 80 percent. Also some restrictions on reimbursable costs were imposed.

1990—Legislature eliminated open-ended reimburse-

ment for new school debt and replaced it with a school construction fund.

Effects of Program on Typical Beneficiary:

This program has benefited cities and boroughs, since only they have

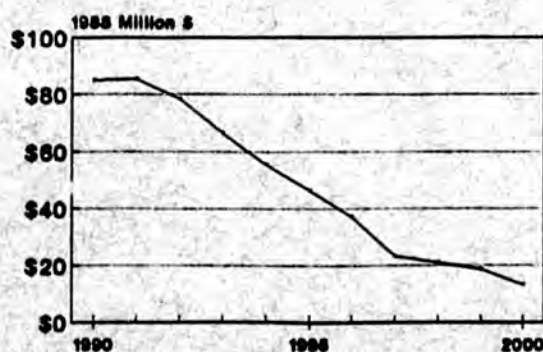
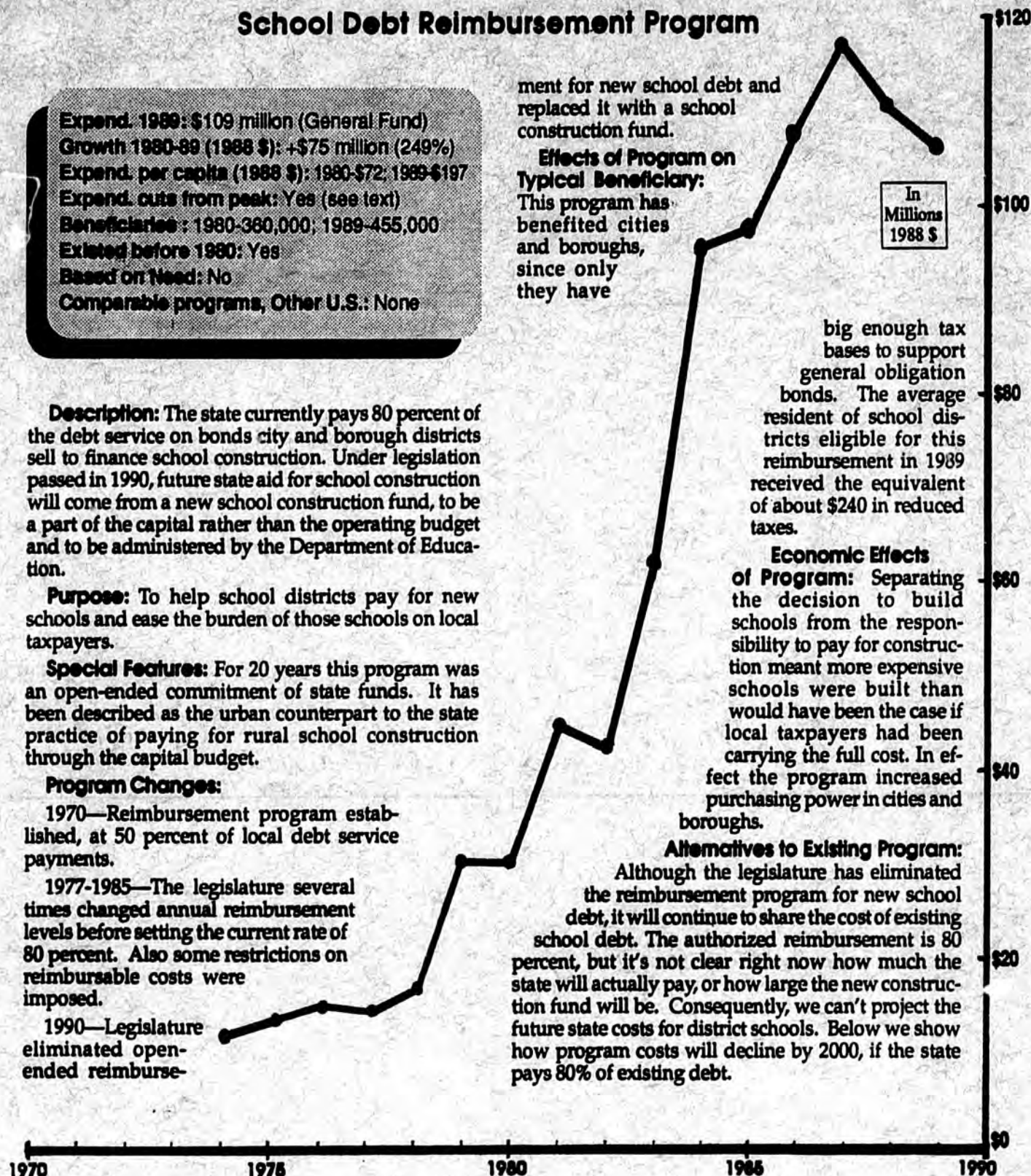
big enough tax bases to support general obligation bonds. The average resident of school districts eligible for this reimbursement in 1989 received the equivalent of about \$240 in reduced taxes.

Economic Effects of Program:

Separating the decision to build schools from the responsibility to pay for construction meant more expensive schools were built than would have been the case if local taxpayers had been carrying the full cost. In effect the program increased purchasing power in cities and boroughs.

Alternatives to Existing Program:

Although the legislature has eliminated the reimbursement program for new school debt, it will continue to share the cost of existing school debt. The authorized reimbursement is 80 percent, but it's not clear right now how much the state will actually pay, or how large the new construction fund will be. Consequently, we can't project the future state costs for district schools. Below we show how program costs will decline by 2000, if the state pays 80% of existing debt.



Program Phaseout of 80 Percent State Reimbursement

The \$70 million drop in debt by 2000 will not be all savings to the state, because part of it will be replaced by as-yet undetermined spending from a school construction fund. The governor has proposed \$50 million for that fund for fiscal 1991, but the legislature has not yet approved an amount.

Pupil Transportation Aid

Expend. 1989: \$25 million (General Fund)
Growth 1980-89 (1988 \$): +\$5 million (25%)
Expend. per capita (1988 \$): 1980-\$46; 1989-\$45
Expend. cuts from peak (1988 \$): 4%
Students Transported: 45,000
Existed before 1980: Yes
Based on Need: Yes
Comparable programs, Other U.S.: Direct comparison not possible. Different states support education through different programs.

Description: Reimburses school districts for most costs of transporting students to and from school on most routes; also pays up to 90 percent of the purchase price of school buses. Payments are adjusted annually for cost-of-living increases.

Purpose: State law requires school districts to transport students who are not within defined walking distances of school.

This program reduces transportation costs for districts (and the burden on local taxpayers).

Program Changes:

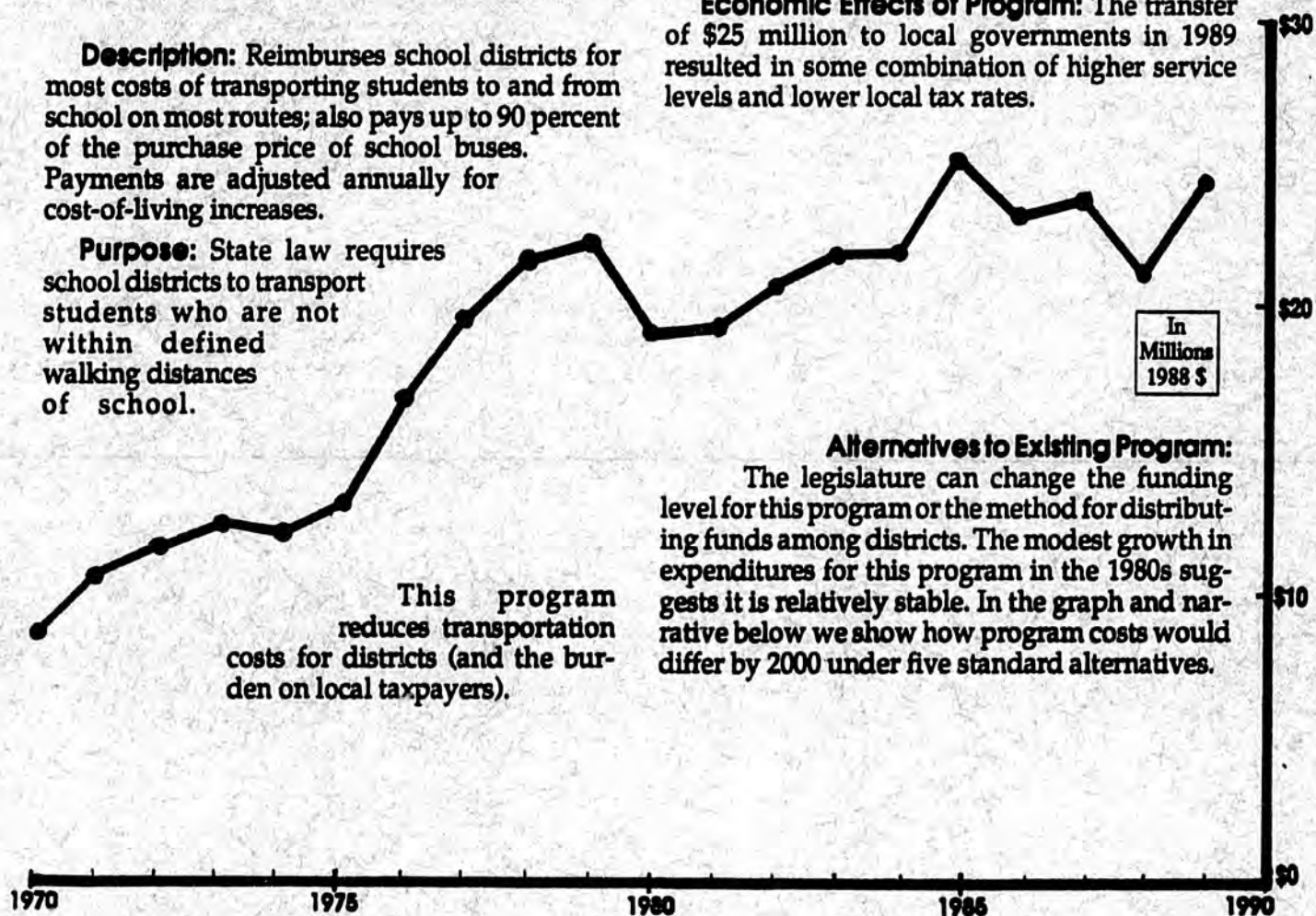
1966—Program established for public schools.

1972—Program expanded to cover private schools, if routes are similar to those used by public schools.

Special Features: In other states transportation costs are sometimes incorporated into foundation grants for education.

Effects of Program on Typical Beneficiary: The average cost for each student transported in school districts served by this program was about \$550 in 1989.

Economic Effects of Program: The transfer of \$25 million to local governments in 1989 resulted in some combination of higher service levels and lower local tax rates.

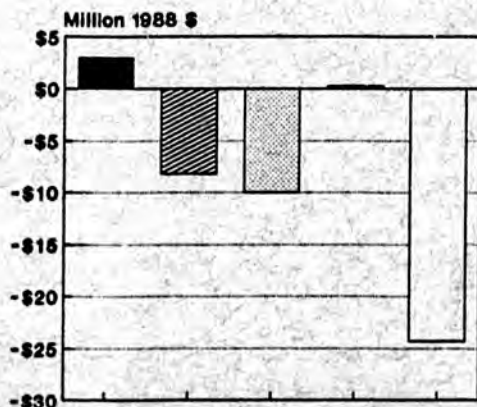


Alternatives to Existing Program:

The legislature can change the funding level for this program or the method for distributing funds among districts. The modest growth in expenditures for this program in the 1980s suggests it is relatively stable. In the graph and narrative below we show how program costs would differ by 2000 under five standard alternatives.

Possible Changes in Program Cost by 2000

General Remarks: Payments adjusted for inflation. Appropriation prorated.



- Maintain Real Expend. per Recipient:** Costs increase \$3 million, if increased with population and inflation
- Cap at 1989 Expend per Recipient:** Costs reduced \$8 million, if increased for number of students but not for inflation
- Cap at 1989 Expenditure:** Cost reduced \$10 million, if not increased either for inflation or more students
- Target Most Needy:** Costs virtually unchanged, if definition changed to eliminate 10% of those currently eligible
- Eliminate Program:** Costs reduced \$24 million

Revenue Sharing Program

Expend. 1989: \$41 million (General Fund)
 Growth 1980-89 (1988 \$): +\$6 million (17%)
 Expend. per capita (1988 \$): 1980-\$80; 1989-\$74
 Expend. cuts from peak (1988 \$): 32%
 Beneficiaries: 1980-420,000; 1989-535,000
 Existed before 1980: Yes
 Based on Need: Partially
 Comparable programs, Other U.S.: Similar

Description: Makes per capita categorical and tax equalization grants to 153 municipalities and 102 unincorporated places. Each local jurisdiction receives a minimum amount, independent of population; an amount based on services provided; and an amount based on local tax effort. Payments are also adjusted for regional cost differences. Revenue sharing payments have declined steadily since their peak in 1985.

Purpose: Initially established to encourage municipalities to provide more local services. Since 1980, the program has also been used to assure each municipality at least a minimum amount of shared revenues—\$25,000 in 1989.

Program Changes:

1970—Program established, paying per capita amounts to induce local governments to provide specific services.

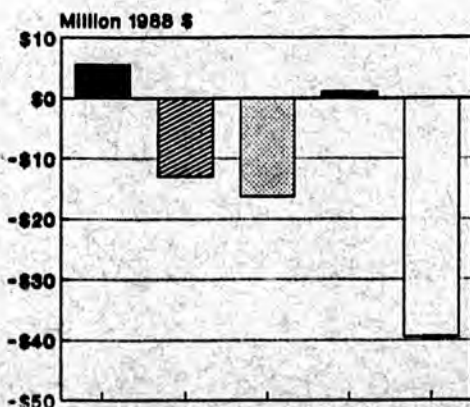
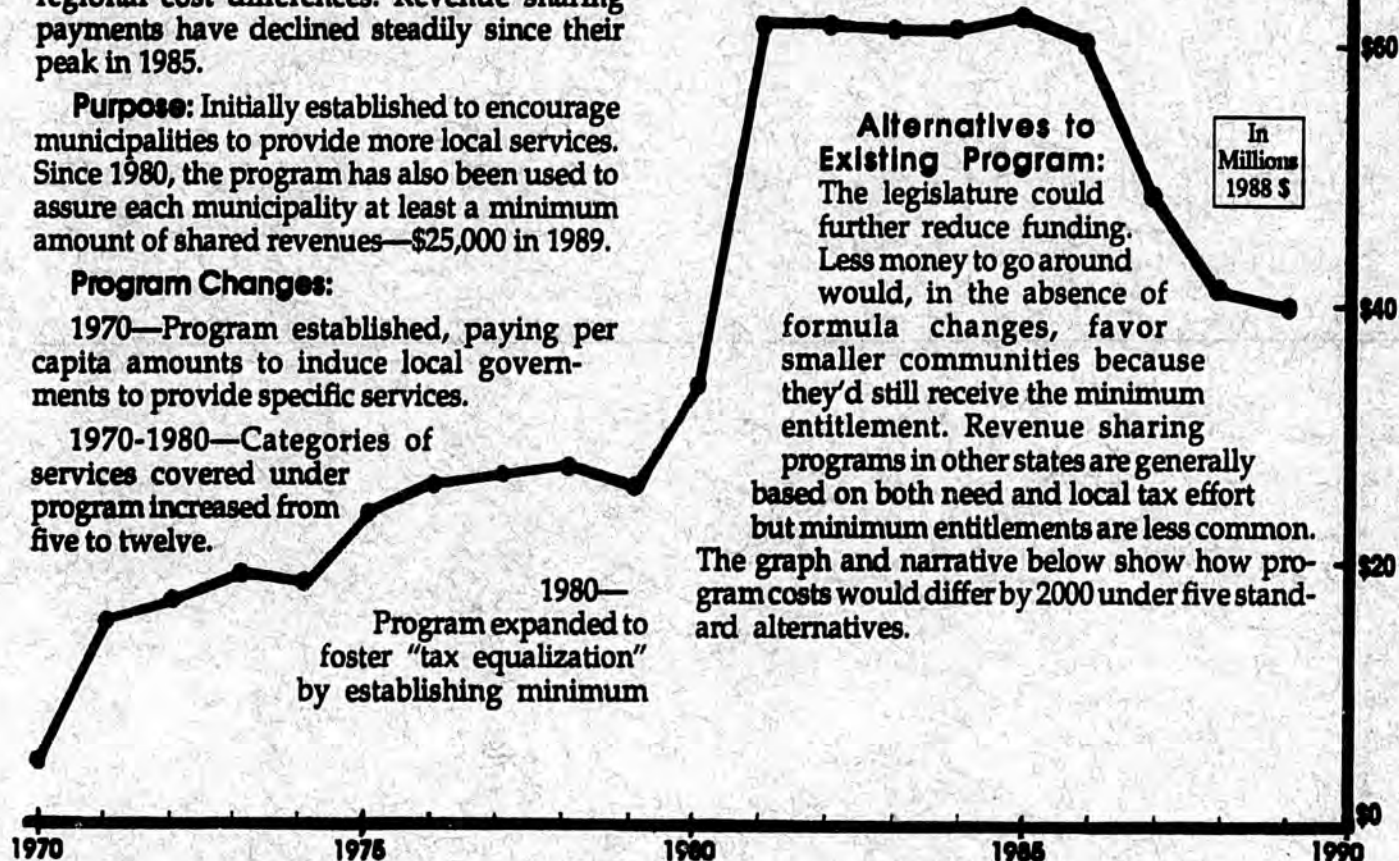
1970-1980—Categories of services covered under program increased from five to twelve.

1980—Program expanded to foster "tax equalization" by establishing minimum

aid level and basing allocations partially on need.

Effects of Program on Typical Beneficiary: All Alaskans benefit from this program, because all communities receive a share. In 1989 the average community received the equivalent of \$76 per resident under the program. Because of the program's minimum allotment and formula allocation, payments varied considerably among communities, with smaller places generally receiving higher per capita amounts. For example, Bettles received \$642 per capita in 1989 while Fairbanks received \$45 per capita.

Economic Effects of Program: Revenue sharing increases local purchasing power through higher government spending, or reduced taxes, or both.



Possible Changes in Program Cost by 2000

General Remarks: No automatic inflation increase; appropriation prorated by formula.

- Maintain Real Expend. Per Recipient:** Costs increase \$ 6 million, if increased with inflation and population
- Cap at 1989 Expend. per Recipient:** Costs reduced \$ 13 million, if payments increased for population growth but not inflation
- Cap at 1989 Expenditure:** Cost reduced \$ 16 million, if payments not increased for either population growth or inflation
- Target Most Needy:** Costs increase \$ 1 million, if local matching funds today replaced 10% of program costs
- Eliminate Program:** Costs reduced \$ 39 million

Municipal Assistance Program

Expend. 1989: \$56 million (General Fund)
 Growth 1980-89 (1988 \$): +\$47 million
 Expend. per capita (1988 \$): 1980-0: 1989-\$102
 Expend. cuts from peak (1988 \$): 31%
 Beneficiaries: 1980-0: 1989-520,000
 Existed before 1980: No (see text)
 Based on Need: No
 Comparable programs, Other U.S.:
 Probably none

Description: Makes equal per capita grants to all organized municipalities in the state. The base of the program is \$10.8 million (the amount formerly shared with local governments from the gross business receipts tax under the shared taxes program), which is distributed as the former tax revenues were. Amounts above that base are distributed among organized municipalities on a per capita basis. Statutorily the legislature can appropriate 30 percent of corporate income tax receipts (which are mainly from petroleum) but in practice appropriations have been set by the legislature independent of taxes collected. Payments under this program have declined more than 30 percent from the peak in the mid-1980s.

Purpose: To distribute oil revenues to municipalities and to help reduce local taxes.

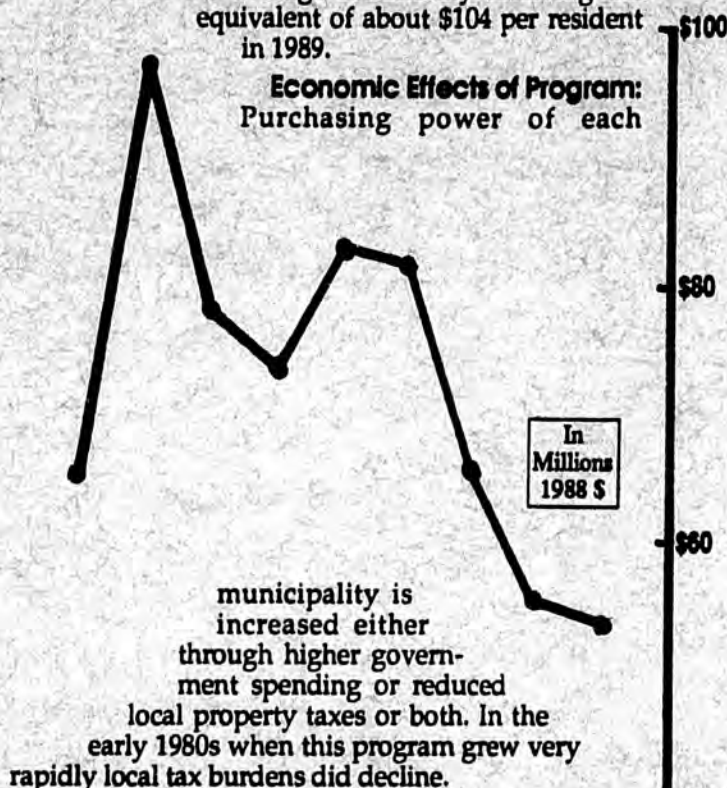
Program Changes:

1978—Program established as part of shared taxes program, to be funded with 10 percent of state corporate income taxes; no substantial payment made until fiscal 1981.

1981—Program separated from shared taxes and base increased to 30 percent of corporate income taxes after a change in tax law substantially reduced corporate income taxes.

Effects of Program on Typical Beneficiary: All residents of organized municipalities (97 percent of the state population) benefit from this program, with the average community receiving the equivalent of about \$104 per resident in 1989.

Economic Effects of Program: Purchasing power of each



Alternatives to Existing Program: The program distributes revenues on a per capita basis, irrespective of municipalities' need or ability to raise their own revenues. As petroleum revenues decline this program will shrink if sharing oil revenues remains its objective. Since the Revenue Sharing program, which pre-dates Municipal Assistance, is based largely on need and ability of communities to pay, Municipal Assistance could be incorporated into that program. We don't analyze that specific alternative, but in the graph and narrative below we describe the effects on program costs of five standard program alternatives.



Possible Changes in Program Cost by 2000

General Remarks: No automatic inflation increase; appropriation prorated by formula.

- **Maintain Real Expend. Per Recipient:** Costs increase \$ 8 million, if increased with population and inflation
- ▨ **Cap at 1989 Expend per Recipient:** Costs reduced \$ 18 million, if payments increased for population growth but not inflation
- **Cap at 1989 Expenditure:** Costs reduced \$ 22 million, if not increased for either inflation or population growth
- ▤ **Target Most Needy:** Costs reduced \$ 23 million, if program reduced to 50% of 1989 per capita level
- **Eliminate Program:** Costs reduced \$ 54 million

Public Assistance Programs

Expend. 1989: \$84 million (General Fund 57%; Federal 32%; Other 9%)
Growth 1980-89 (1988 \$): +\$36 million (81%)
Expend. per capita (1988 \$): 1980-\$107; 1989-\$151
Expend. cuts from peak: No cuts
Beneficiaries: 1980-19,000; 1989-26,000
Existed before 1980: Yes
Based on Need: Yes
Comparable programs, Other U.S.: Similar; but Alaska payments maintained by unique "hold harmless" provision (see text).

Description: Aid to Families with Dependent Children (AFDC), the largest assistance program, has historically made monthly payments to poor single parents with children. Recent changes in federal law will soon make it possible for poor families with both parents present to collect AFDC payments. The federal government shares the costs of this program (\$60 million in 1989). State discretion in setting monthly AFDC payment levels and eligibility guidelines is limited. Nearly 20,000 persons in 8,000 households (or about 3.7 percent of the population) collected AFDC payments in 1989.

The state pays all the costs for two other assistance programs. The Adult Public

Assistance (APA) program (\$19 million in 1989) makes monthly payments to Alaskans who are poor, over 65, blind, or disabled; these payments are supplements to federal Supplemental Security Income payments. General Relief (\$1 million in 1989) makes emergency rent and other payments for indigent adults. About 6,500 adults, or just over 1 percent of the

population, received APA payments in a typical month in 1989.

Purpose: To help Alaskans who otherwise have little or no income.

Special Features: Program costs include "hold harmless" payments the state makes to the federal government on behalf of recipients of Longevity Bonuses or Permanent Fund dividends. These payments keep public assistance recipients from losing their benefits.

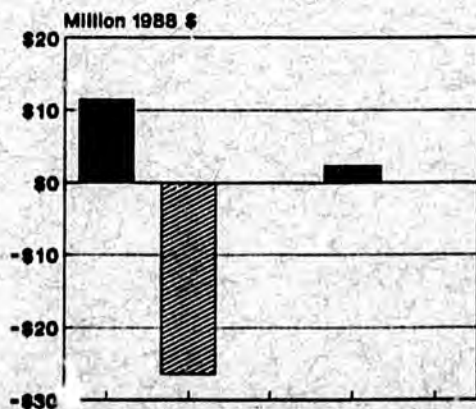
Program Changes: A number of changes in federal and state law over the years have broadened eligibility and increased payments. The long-term trend has been for the federal government to shift more program responsibilities to the states. Also, states will be required to pay a substantial

share of the costs of recent federal welfare reform.

Effects of Programs on Typical Beneficiary: The average AFDC household (a mother and one child) collected \$7,800 in 1989. The typical payment for APA recipients in 1989 was \$3,360.

Economic Effects of Programs: Increases purchasing power of poor Alaskans. Newly required AFDC job training could help AFDC recipients move back into the job market.

Alternatives to Programs: Since AFDC is basically a federal program, the state has limited authority to change it. The state has broader authority over the APA and General Relief programs. But for these programs that supply basic income for poor Alaskans, cost saving and other efficiency measures are probably the only reasonable alternatives for reducing program costs. Consequently, below we analyze only three alternatives.



Possible Change in Program Cost By 2000

General Remarks: Automatic cost-of-living adjustment could be eliminated.

- Maintain Real Expend. Per Recipient:** Costs \$12 million higher, if payments increased with inflation and population, and if the federal government maintains its current share of costs; otherwise state costs could be much higher
- Cap at 1989 Expend. Per Recipient:** Costs reduced \$26 million, if payments increased for population growth but not inflation
- Reduce Recipients:** Costs \$2 million higher, if the circumstances of 10% of those currently eligible could be improved so they didn't need public assistance

Medical Assistance Payments

Expend. 1989: \$129 million (General Fund 49%; Federal 51%)
Growth 1980-89 (1988 \$): +\$75 million (148%)
Expend. per capita (1988 \$): 1980-\$120; 1989-\$234
Expend. cuts from peak: No cuts
Beneficiaries: 1980-N/A; 1985-19,900; 1989-37,500
Existed before 1980: Yes
Based on Need: Yes
Comparable programs, Other U.S.: Similar, but Alaska payments maintained by unique "hold harmless" provision.

Description: Medicaid and General Relief Medical pay medical costs for eligible low-income and disabled Alaskans. The federal Indian Health Service provides medical services to Natives.

Medicaid (\$113 million in 1989) accounts for about 90 percent of payments. Alaskans whose low incomes, limited assets, or disabilities qualify them for Adult Public Assistance (APA) or Aid to Families with Dependent Children (AFDC) also qualify for Medicaid. The federal and state governments split the costs of Medicaid roughly 50-50.

General Relief Medical (\$8 million in 1989) is paid for entirely through the state general fund and covers only urgent medical costs of unemployed adults who can't qualify for other aid.

Purpose: To provide medical care for low-income

single parents, children, disabled persons, and the elderly.

Special Features: Program costs include "hold harmless" payments. See Public Assistance profile. The spiraling costs of medical services are rapidly driving up

the cost of medical assistance programs. The medical cost component of the Anchorage consumer price index (CPI) increased 52% between 1983 and 1989, while the overall index increased just 12%.

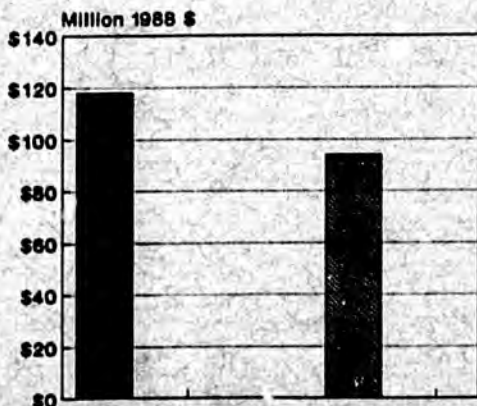
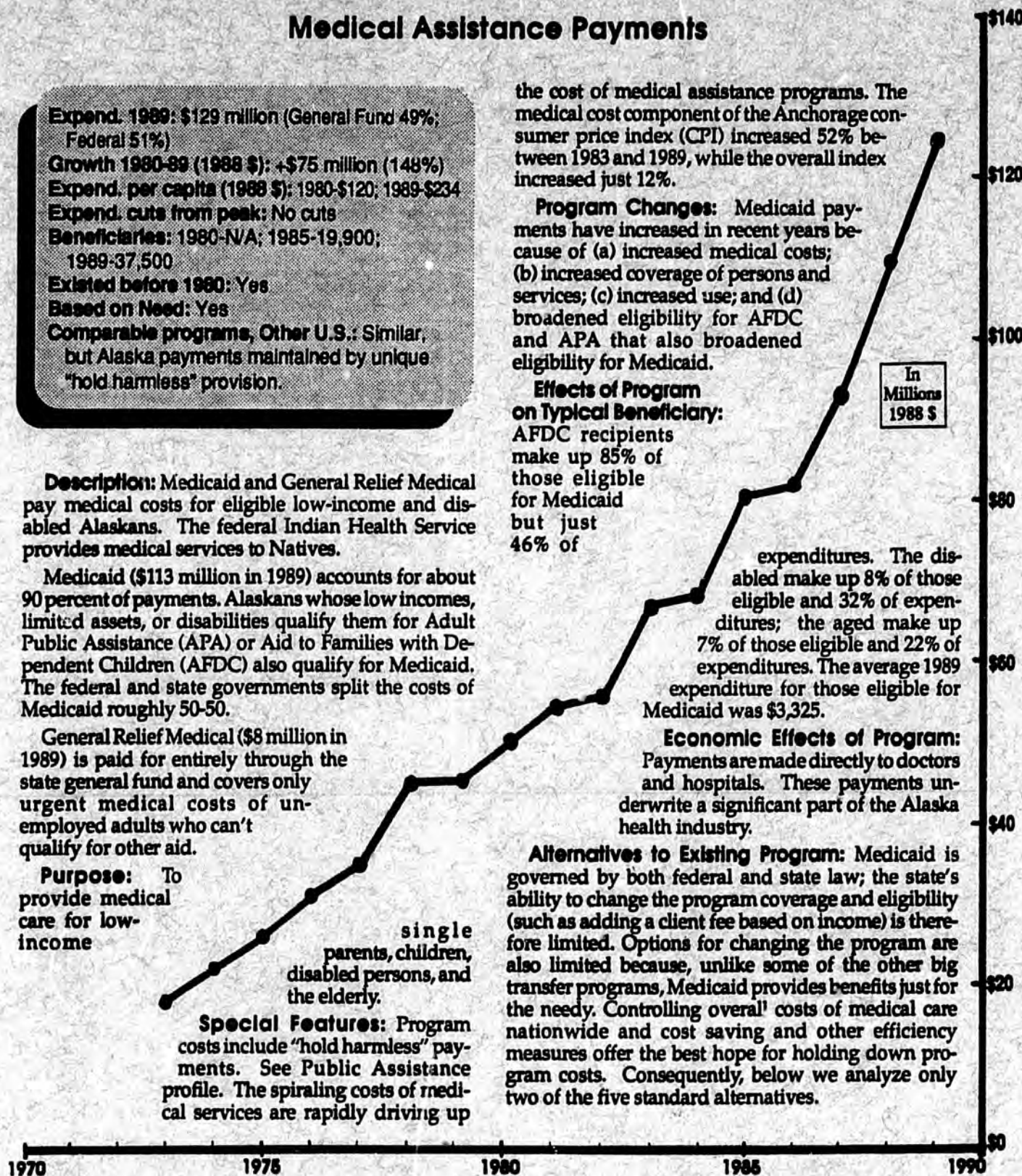
Program Changes: Medicaid payments have increased in recent years because of (a) increased medical costs; (b) increased coverage of persons and services; (c) increased use; and (d) broadened eligibility for AFDC and APA that also broadened eligibility for Medicaid.

Effects of Program on Typical Beneficiary: AFDC recipients make up 85% of those eligible for Medicaid but just 46% of

expenditures. The disabled make up 8% of those eligible and 32% of expenditures; the aged make up 7% of those eligible and 22% of expenditures. The average 1989 expenditure for those eligible for Medicaid was \$3,325.

Economic Effects of Program: Payments are made directly to doctors and hospitals. These payments underwrite a significant part of the Alaska health industry.

Alternatives to Existing Program: Medicaid is governed by both federal and state law; the state's ability to change the program coverage and eligibility (such as adding a client fee based on income) is therefore limited. Options for changing the program are also limited because, unlike some of the other big transfer programs, Medicaid provides benefits just for the needy. Controlling overall costs of medical care nationwide and cost saving and other efficiency measures offer the best hope for holding down program costs. Consequently, below we analyze only two of the five standard alternatives.

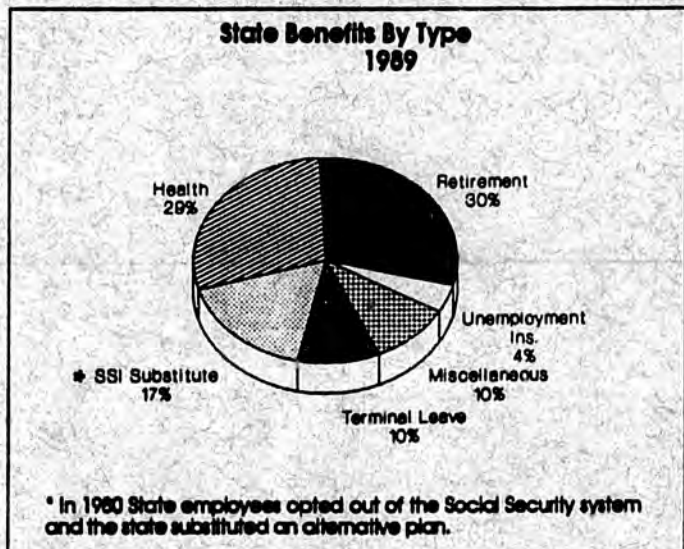
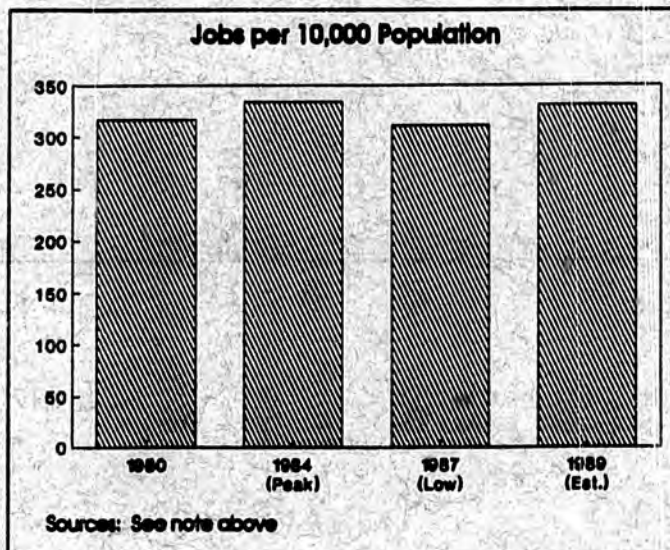
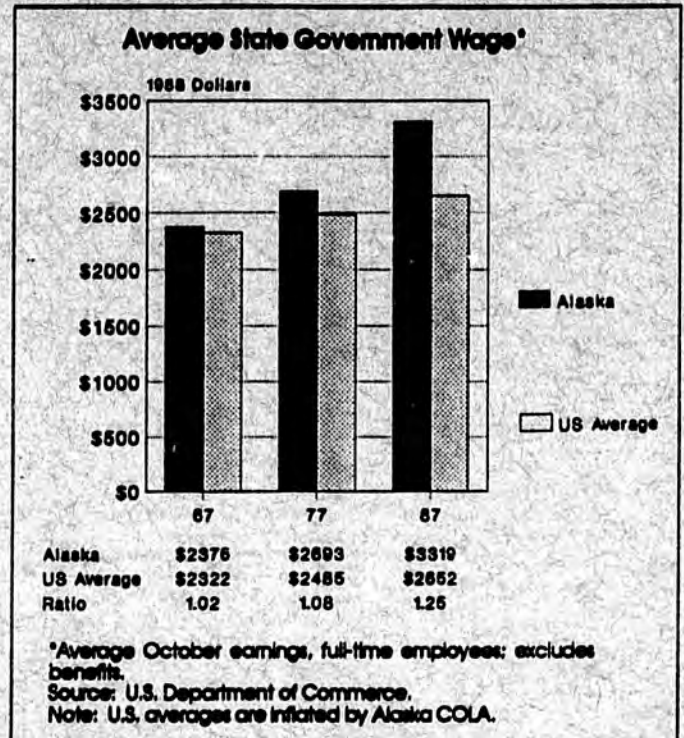
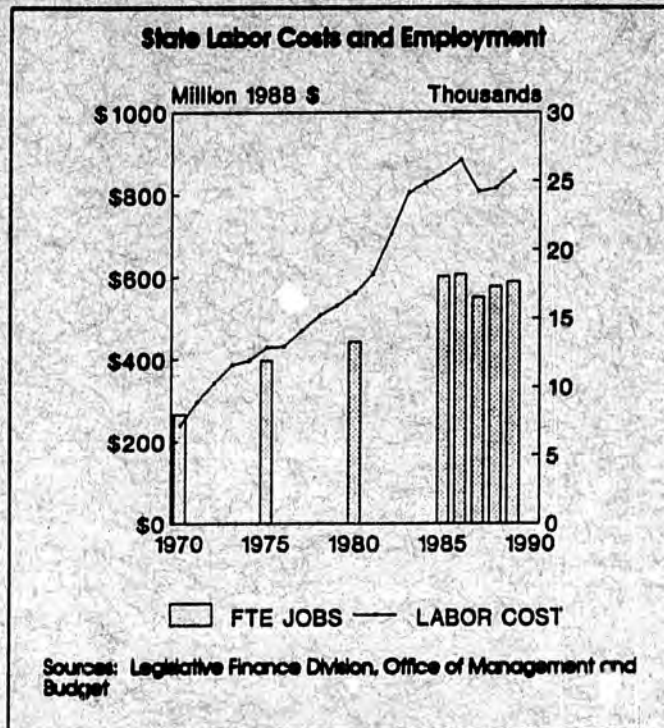


General Remarks: Program is driven mainly by rising medical costs as reflected in the "medical care" portion of the consumer price index.

Maintain Real Expend. Per Recipient: Costs \$118 million higher, if costs increased by medical cost inflation and population growth and if the federal government maintains its share of medical costs

Reduce Recipients: Costs \$94 million higher if circumstances of 10% of those currently eligible could be improved so they no longer needed assistance

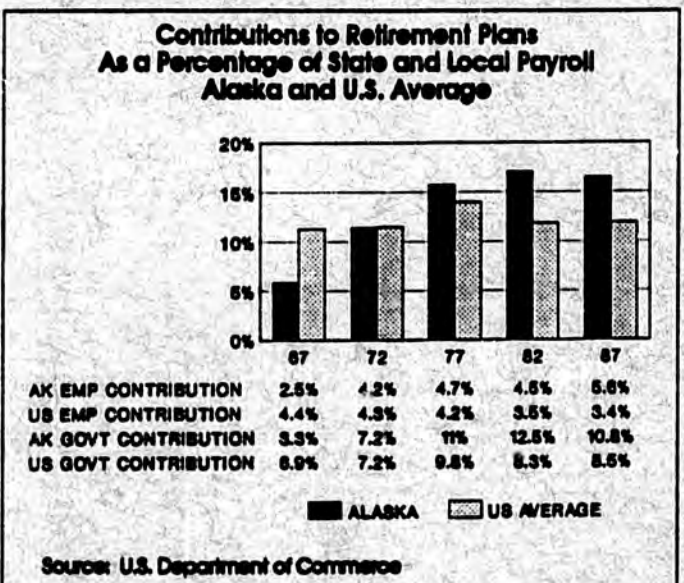
State Payroll and Benefits



- Factors Increasing State Employment**
- 1. Population growth increased program beneficiaries
 - 2. Existing programs augmented
 - 3. New programs added
 - 4. Regulatory and management requirements increased

State Employee Health Insurance Premiums
1985 - \$ 2,618; 1989 - \$ 5,184; 1990 - \$ 4,615

Source: Task Force, Health Care Cost Containment



State Payroll and Benefits

Real state labor costs (in 1988 dollars) rose sharply and steadily from about \$238 million in fiscal 1970 to \$885 million in 1986, as both the numbers of state employees and wage and benefit levels rose. (See the top left graph on the facing page.) The severe recession of the late 1980s forced layoffs and held down wages, but labor costs began rising again in fiscal 1988.

It's important to consider not only the total number of state workers but also the number in relation to the Alaska population. In fiscal 1989 the state had more employees than in the budget-cutting year of 1987, but still about 3 percent fewer than in the peak year of 1986. And as the graph in the middle of the facing page shows, there were about 5 percent fewer employees *per 10,000 population* than in the peak year of 1984.

The table at the bottom of page 14 summarizes some of the reasons why state employment grew in the 1980s. It underscores the fundamental point that government services require government employees. Because of the many new state programs added since 1980, state employment in traditional government programs has declined as a percentage of population.

The growth in labor costs at the end of the decade was primarily the result of a growing number of state employees and higher benefit costs rather than wage hikes. The average wage of state workers changed little in the late 1980s. But substantial wage increases in the period from 1977 to 1987 left average Alaska state wages 25 percent above the national average in 1987. There are of course differences in wages among occupations, and the mix of occupations in the state work force influences the level of the average. We don't know how the mix of occupations among Alaska state workers may differ from the mix in other states.

At the end of the 1980s the rising costs of state benefits, which add 33 percent to employee costs over and above payroll, got a lot of attention. Costs for employee health insurance (which make up 29 percent of benefits) nearly doubled between 1985 and 1989, causing the state to look for ways of holding down premiums. Through negotiations with employee unions and other measures, the state was able in 1990 to reduce monthly health insurance costs per employee by about 10 percent.

The other big benefit cost is for retirement plans (30 percent of benefits). State employees and the government both contribute to retirement plans. In 1987 employee and government

Table 1. Summary of 10 Largest Transfer Programs

Total 1989 Expenditures:		\$1.4 billion
(Gen. Fund 59%; PF 31%; Fed. 9%)		
Real Increase in Transfer Payments, 1980-89 (In 1988 \$):		
Total Transfers:		+242%
Gen. Fund Transfers:		+138%
Projected Growth in Gen. Fund Transfer Payments by 2000 (In 1988\$) (with no program changes):		
Additions*		\$160 million
Percentage Change in Program Size, 1980-89 (In 1988\$):		
PF Dividend	**	Med Asst. +148%
Power Cost Eq.	**	School Foundation +116%
Muni. Asst.	**	Pub. Asst. +81%
School Debt Reim.	+249%	Pupil Trans. +29%
Longevity Bonus	+207%	Revenue Shar. +17%
(State Population Growth +27%)		
Programs That Didn't Exist Before 1980:		3 of 10
Programs Based on Need:		5 of 10
Programs Unique to Alaska:		5 of 10
Program Expend. Cut Between 1985 and 1989:		5 of 10
* (Does not take into account phaseout of School Debt Reimbursement program; see page 8)		
** (Programs didn't exist in 1980)		

contributions to Alaska state and local retirement plans amounted to 16.5 percent of state and local payroll, compared with about 12 percent nationally. Both Alaska employee and government contributions are above the national average.

Conclusions

Reducing or at least containing transfers and labor costs offers the best hope for cutting state spending in the leaner times ahead. But any cost-cutting moves will be difficult and complicated. Table 1 summarizes salient points about the 10 largest state transfer programs. From the table and earlier material we conclude:

1. Transfer programs are big and growing. Between 1970 and 1989 transfer programs increased from 26 to 44 percent of the total operating budget. Unless capped, the largest transfers will add another \$160 million (in inflation-adjusted dollars) to state general fund spending by 2000. The largely uncontrollable and escalating costs of state participation in such federal transfer programs as Medicaid will require offsetting reductions in other programs just to keep the budget at the current level.

2. Popular state transfer programs that distribute part of the state's oil wealth without regard to need or traditional public purposes will increasingly compete with longstanding government programs as oil revenues decline. Last year the state spent almost as much for the Permanent Fund Dividend program (\$440 million) as it did for the state's largest traditional transfer program, the School Foundation program (\$456 million). As the state's fiscal gap

widens, continuation of Alaska's unique transfer programs that are not based on need will begin to undermine the traditional role of Alaska state government.

3. Few of the state's transfer programs were cut significantly in the late 1980s, and most of those that were have begun growing again. In most cases the programs began growing again because the number of beneficiaries increased; that resurgent growth illustrates the difficulty of holding state spending to current levels without program policy changes.

4. Only half the state's largest transfer programs are based on financial need. The programs for the poorest Alaskans, the public assistance and the medical assistance programs, accounted for just 15 percent of all the money paid out under the 10 largest transfer programs.

5. Across-the-board cuts in transfer programs would put a disproportionate burden on low-income Alaskans. Beneficiaries of state transfer programs range from school children to those over 65 with low incomes. To avoid imposing unintended hardships, state officials will need to consider the basic government purposes each program serves and how such purposes would be affected by policy changes or spending cuts.

6. A partial alternative to reducing or eliminating services is designing a more effective or efficient delivery system. Beneficiaries of many of Alaska's transfer programs have little incentive to contain costs. Restructuring programs to create incentives for savings and to require some contribution from beneficiaries who are able to pay could make the programs more efficient and less costly.

The School Foundation program, because it is the state's largest transfer program and because providing for public education is a constitutional

obligation of the state, is a prime candidate for re-examining the efficiency and effectiveness of service delivery.

7. Cost-cutting alternatives would all reduce economic activity by taking purchasing power out of the economy. While the state cannot avoid the negative social and economic effects of cost-cutting, it can take actions and adjust policies to reduce or mitigate them. Similarly, planned and phased reductions could enable beneficiaries to anticipate and prepare for reduced aid.

8. State labor costs have historically grown as Alaska's population grew, and will tend to do so in the future. If Alaska simply adds workers as the population grows over the next decade, increased labor costs will widen the projected fiscal gap. To avoid reducing or eliminating services requires looking for ways to deliver them more efficiently.

9. State labor costs are back on the rise. State officials considering how to contain labor costs should look at components of those costs:

a. *Wages*—While the average wage of state workers did not increase in recent years, in 1987 it remained about 25 percent above the U.S. average, after a cost-of-living adjustment.

b. *Numbers of workers*—The absolute number of state workers and the number per 10,000 population both increased in the late 1980s.

c. *Benefits*—Benefits make up 25 percent of labor costs. Retirement contributions of Alaska's public employees and state and local governments remain 38 percent above the national average. The state pays 100 percent of the costs of state employee health insurance. Those costs nearly doubled between 1985 and 1989. The state was able to reduce health insurance premiums about 10 percent in 1990, but because of the rising costs of medical care, the upward trend in these payments will be hard to offset.

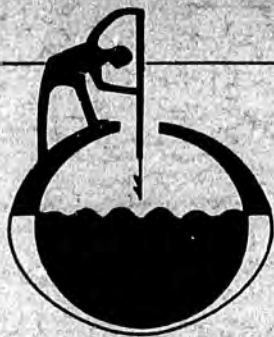
ISER Fiscal Policy Papers

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ISER FISCAL POLICY NOTE

No. 3, August 1990

Institute of Social and Economic Research

University of Alaska Anchorage

Oil Price Surprises and the Budget

By Scott Goldsmith

Oil prices soared following the recent Iraqi take-over of Kuwait. As we go to press it is uncertain what will happen next in the Middle East crisis and to oil prices.

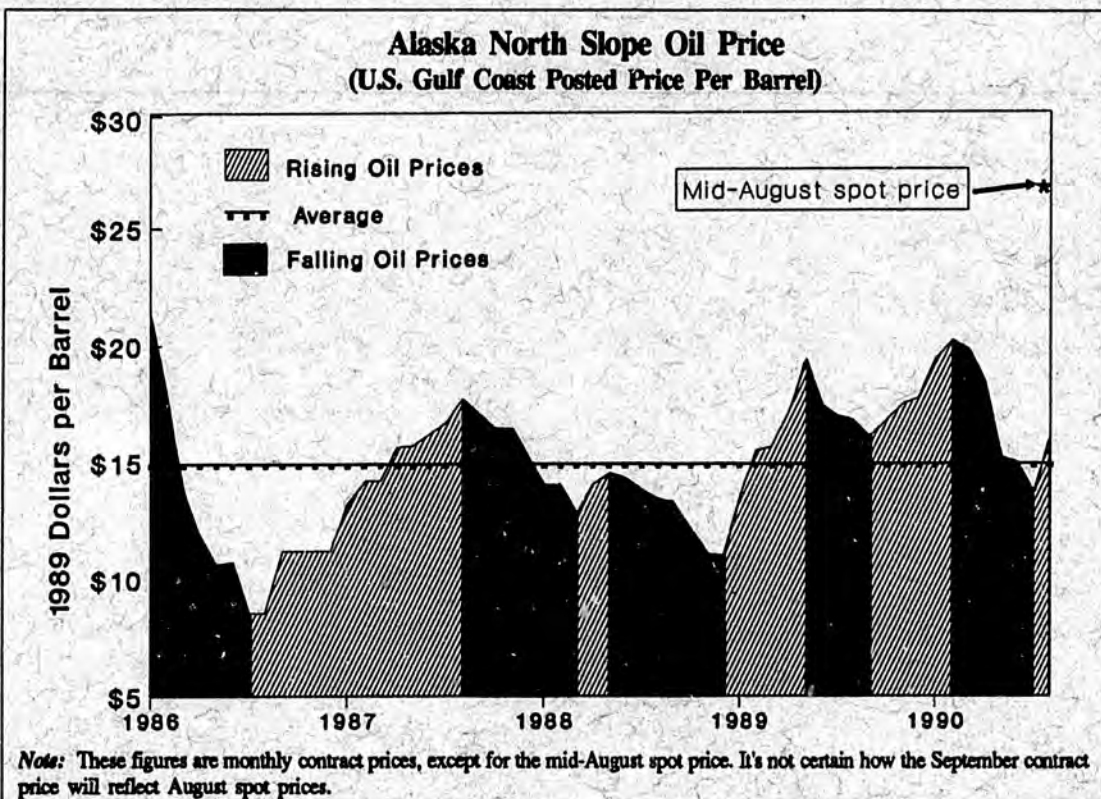
Before the crisis, oil prices had dipped sharply. The sudden big changes in oil prices this summer have made plain once again that the price of oil today doesn't predict the price of oil tomorrow.

Unfortunately, policymakers drawing up state budgets each year tend to use the price of oil prevailing during the legislative session as the basis for predicting oil prices and therefore state petroleum revenues. Those revenues make up about 85 percent of state income.

In three of the past four years, periods of rising oil prices coincided with the time the legislature was in session—from January to May. But overall during that period nominal prices fell 26 times, most recently after the 1990 legislative session. Figure 1 shows the continuous motion in real (adjusted for inflation) oil prices by month since 1986.

Right now it looks as if the latest price spike will balance the budget for the coming year. But just a few weeks ago it appeared the state would be hundreds of millions of dollars short in fiscal 1991, causing Governor Steve Cowper to veto \$325 million from the \$2.9 billion budget enacted earlier by the legislature.

Alaska has been through repeated episodes of exhilaration and anxiety as the price of oil moved up and down. Oil prices fluctuate because they're controlled by the Organization of Petroleum Exporting Countries (OPEC) cartel, to which both Iraq and Kuwait belong.



This note is an offshoot of ISER's *Fiscal Policy Papers*, a series examining the looming state fiscal crisis as petroleum production and therefore state petroleum revenues decline. The author, Scott Goldsmith, is professor of economics with ISER. Copies of the *Papers* and *Notes* are available at no charge from ISER. This work was funded by a grant from ARCO Alaska.

The cartel assigns production quotas to each member, but when prices are high OPEC members exceed their quotas and when prices fall they cut production.

So there is no stable production level and no stable price, but rather an endless cycling. From the time of the price crash in early 1986 until the Iraqis invaded Kuwait, the price continually fluctuated within a range of roughly \$10 to \$20 per barrel. (See the box below for a description of various published oil prices.) Under ordinary market conditions (which don't exist today), demand and supply keep the price within that band.

Recognizing the volatility of oil prices, policymakers could reduce the potential for error in estimating

petroleum revenues by using some *average* of past prices rather than current prices as a basis for the budget. (Notice in Figure 1 that the average real price over the past four years was very close to the price just before the current crisis began.) Instead of monitoring day-to-day changes in oil prices, policymakers could focus on a more critical problem for the state: the fiscal implications of the long-term decline in petroleum *production*. These production declines will create a budget shortfall of increasing proportions as the decade goes on. Higher oil prices can delay the onset of the fiscal gap but not close it.

Which Is The Real Oil Price?

Different prices exist for every quality of crude oil, delivered to every different location, under every type of contract, and at every time. *Contract prices* for crude oil change infrequently, while *spot prices* (price for tanker loads) and *futures prices* (prices for future delivery) fluctuate daily. To further complicate matters, the relationship between prices of different crudes at different locations changes continually, because of market conditions and other factors.

The key price for calculating the State of Alaska's petroleum revenues is the average Alaska North Slope (ANS) *wellhead price*. That price is not readily available, but a good proxy is the *U.S. Gulf Coast posted price* for ANS—which is the price we use in this note. Some of the commonly quoted oil prices are described briefly below.

OPEC Price: The official target price of the cartel is a weighted average of the prices of several crudes produced by OPEC and others, assuming cartel members adhere to their quotas. The actual price can differ, depending on market conditions.

Saudi Light FOB Persian Gulf: The price quoted for delivery to Persian Gulf ports of a crude which is the dominant product of Saudi Arabia and is similar in quality to ANS crude. This price—a bit less than the OPEC price—is the starting point for the Alaska Department of Revenue's price projections.

West Texas Intermediate Spot Price at U.S. Gulf: The price for a crude traded on the Gulf Coast that has lower sulfur content than ANS crude, and therefore sells for about \$2 a barrel more.

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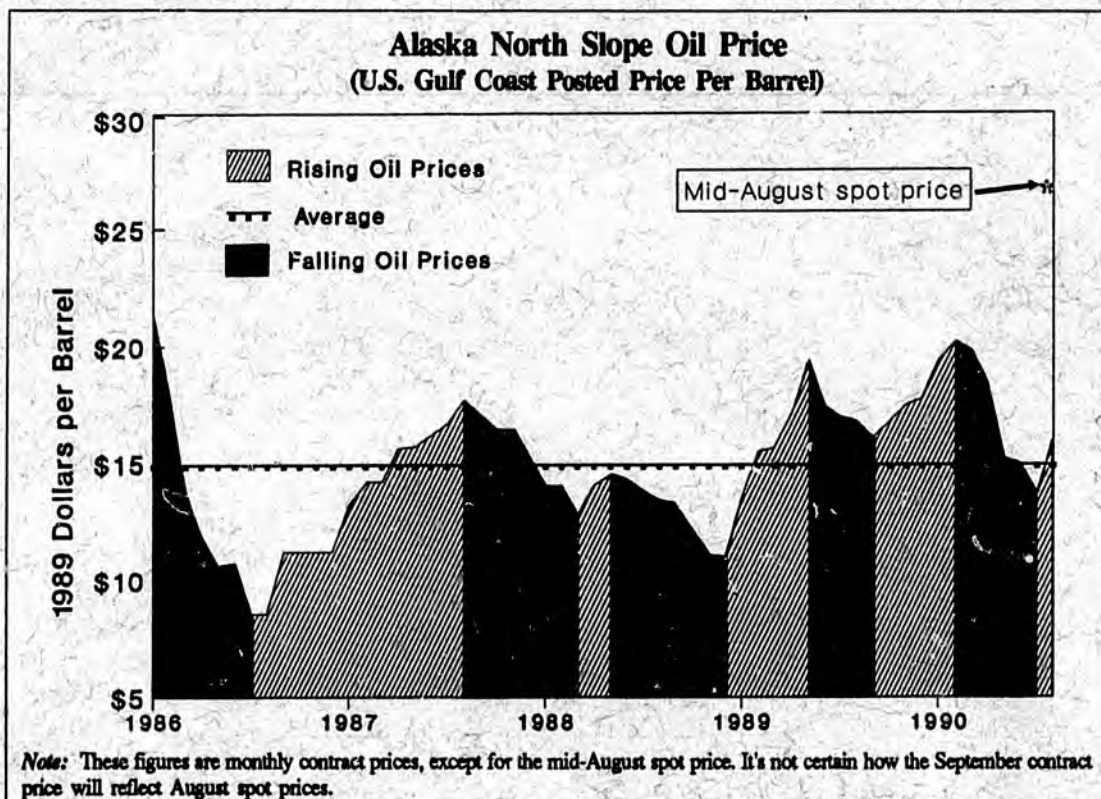
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