
Fiscal Year 1993



Annual Review

Institute of Social and Economic Research

University of Alaska Anchorage

In fiscal 1993, the Institute of Social and Economic Research (ISER) at the University of Alaska Anchorage continued the work it has done for 32 years: investigating Alaska public policy issues, teaching, and providing community service. Among the issues ISER looked at in the past year are:

- *Factors affecting Alaska's salmon markets*
- *Strategies for balancing future state budgets*
- *Social and economic effects of the proposed highway to Cordova*
- *Alaska Native self-government and subsistence*
- *Caribou management systems in Alaska and Canada*
- *Choices for improving public schools*
- *Economic value of Alaska's sport fisheries*
- *Long-term effects of limiting entry to the sablefish and halibut fisheries*
- *Methods for improving sanitation in rural Alaska*

ISER's faculty and research associates include economists, survey researchers, political scientists, and planners. The institute has a total staff of 20 and is affiliated with the School of Public Affairs. Lee Gorsuch, ISER's director, is also dean of the school. ISER is funded partly by the university and partly by grants and contracts with government agencies and private businesses and foundations. It does grant and contract work with the stipulations that its research is independent and that its findings are public. The institute received \$1.3 million in grants and contracts in fiscal 1993.

ISER carries out about 40 research projects in a year. Its findings are sometimes controversial, but they routinely serve as the basis for public policy discussions even among those who disagree with them. ISER faculty and research associates don't always agree about which policy questions or choices to study, but all research must meet rigorous standards for methodology. The institute stands behind the integrity of the work it produces. Findings are, however, those of individuals.

The institute makes its work available to all Alaskans. Periodicals summarizing research findings go out on a mailing list that includes several thousand public agencies and private businesses, libraries, news organizations, and individuals. Hundreds of books, reports, and other documents dating from 1961 are available at ISER's offices and at state libraries. Faculty members and research associates routinely present their findings to government agencies and private organizations. They also organize and take part in conferences and seminars on topics ranging from state fiscal strategies to reconciling development and conservation. They make their knowledge and experience available to businesses, agencies, and individuals inside and outside Alaska. The press often interviews ISER staff and reports research findings.

ISER faculty teach classes in public administration, survey research, and economics. They bring their knowledge of the state economy, the workings of government, and much more into the classroom. Whenever possible student interns take part in research projects. ISER's director and faculty also sit on a variety of university committees and contribute their time to community service organizations.

This Review describes ISER's 1993 work, discussing the issues involved, the findings, and resulting publications, conferences, and other activities.

Commercial and Sport Fisheries

Alaska's fisheries have become an increasing area of study for ISER. The commercial fisheries face changing world markets and growing catching power in the offshore fisheries. In the sport fisheries, resource managers want to learn more about the economic value of sport fishing to help them make decisions about management priorities and allocating fish stocks among users.

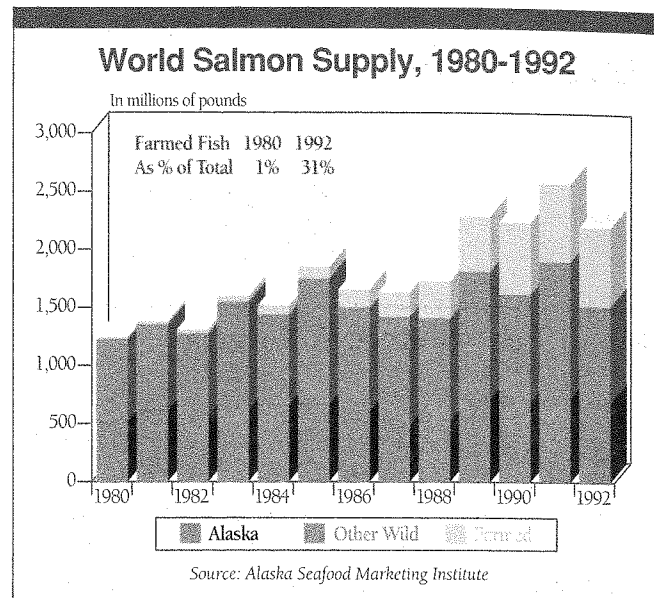
Alaska salmon fishermen saw prices boom in the mid-1980s, only to crash in the most recent years. In several publications, Gunnar Knapp, professor of economics at ISER, analyzed conditions in the commercial salmon fisheries. He and two other fisheries economists also wrote a report on the changing Japanese salmon market. Japan is the primary buyer of Alaska's wild sockeye, the state's most valuable salmon. But farmed salmon from Chile is quickly gaining ground in Japanese markets, raising a challenge to Alaska's sockeye market.

Knapp found that large harvests of wild salmon and the rapidly growing supply of farmed salmon are at least partly to blame for low salmon prices in recent years. The figure above shows that the world supply of salmon in recent years was roughly double what it was in 1980, with farmed salmon increasing from just one percent of the supply to 30 percent. The world salmon market has been permanently changed by the growing year-round supply of farmed salmon.

Knapp discussed his work with many Alaska fishermen's organizations, with the press, and at several fisheries conferences. Knapp's work was funded by the Alaska Department of Commerce and Economic Development, the Commercial Fishing and Agriculture Bank, and the Alaska Center for International Business at UAA. Knapp and research associate Teresa Hull maintain an extensive fisheries database.

In Alaska's offshore fisheries, American vessels in the 1980s took over the huge groundfish harvests that had previously gone to foreign vessels. But harvests leveled off in recent years, even as catching power in the offshore fleet continued to grow.

The North Pacific Fisheries Management Council asked ISER to examine potential economic effects of changes it was considering in management of pollock, the most common groundfish off Alaska. Terry Smith, formerly with ISER, and ISER economists Matthew Berman, Gunnar Knapp, and Eric Larson found,



among other things, that delaying the second half of the pollock season until late summer, when the fish are heavier, would increase the yield from the pollock harvest about 2 percent from 1993 through 1995.

Matthew Berman, associate professor of economics at ISER, also worked with the council staff to construct computer programming and simulation models of the North Pacific groundfish and crab fisheries. ISER hopes to continue studying offshore management policies. Recently Matthew Berman and Lee Huskey, professor of economics with UAA's School of Public Affairs, did preliminary work for an assessment of the long-term economic effects of limiting access to the sablefish and halibut fisheries. Later work could include developing an impact model to help assess the effects of different fisheries management policies.

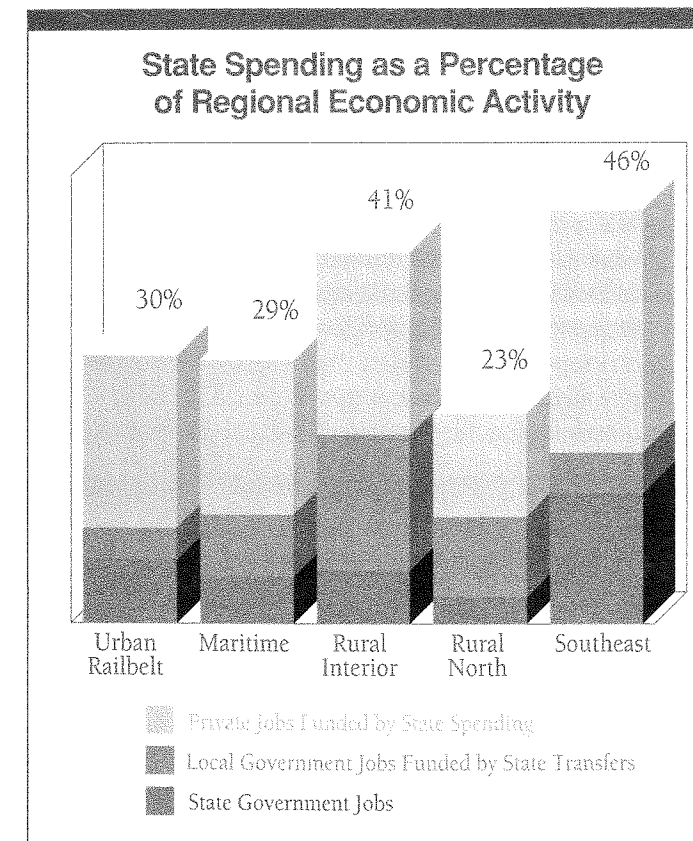
In other fisheries work, the Alaska Department of Fish and Game asked ISER to help assess the value of sport fishing to Alaska's economy. Jack Kruse, professor of public policy, and Virgene Hanna, research associate, designed and conducted the first phase of a statewide survey of how much Alaskans spend for sport fishing. About 1,350 households around the state reported what they spend for fishing gear, for vehicles and fuel they use to reach fishing locations, for food and other supplies while they are out fishing, and for other expenses related to fishing. Survey data collection is continuing through late 1993.

Economists Scott Goldsmith, Matthew Berman, Gunnar Knapp, and Eric Larson will use the survey results to help measure the economic value of sport fishing. That work will continue through 1994.

Fiscal Policy

A major ISER research focus in recent years has been state fiscal policy in the face of declining oil revenues. A lot is at stake: nearly one in three Alaska jobs and as much as 40 percent of regional economic activity depend on state spending.

In the first half of the 1980s, a combination of high oil prices and high production from the Prudhoe Bay oil field (which the state owns) brought the state government billions of dollars in oil revenues. It used that money to expand and add government programs, fueling an economic boom. But oil revenues aren't as plentiful now, with declining production and lower oil prices. In recent years the state has balanced its budget through spending cuts and use of reserve accounts. But it needs a long-term plan to adjust to a level of spending Alaska can sustain over the long run. And because the entire Alaska economy has come to depend so much on state spending (see figure below), officials need to consider how different policies could affect the economy.



Between 1989 and 1992, ISER published seven papers assessing state fiscal policy. Scott Goldsmith, professor of economics, is the principal author of six of those papers. Lee Gorsuch, ISER's director, helped design the series and is a co-author. Other ISER authors include Alexandra Hill and Teresa Hull, research associates; Matthew Berman, associate professor of economics, and Linda Leask, editor.

The first six papers described the problem and examined various aspects of state spending and revenues in the 1980s. The seventh paper, published in July 1992, outlined one possible fiscal strategy for stabilizing Alaska's government and economy. That was to have been the last of the series, which was paid for by a grant from ARCO Alaska.

But additional grants from several Alaska businesses enabled ISER to continue the series. Tentatively, ISER plans three more papers. Work on the first began in fiscal 1993. It will be published this fall and will examine how the state's fiscal policy—including the Permanent Fund Dividend program, which puts cash in the hands of virtually all Alaskans—affected income distribution in Alaska in the 1980s, and how various possible methods of balancing the budget could affect future household income.

The *Fiscal Policy Papers* have received widespread attention and helped spark discussion and debate among government officials and individual Alaskans about what the state government should do. Not everyone agrees with Goldsmith's view of the problem or the potential solutions, but his work has played a big part in drawing attention to the issue. Goldsmith and Gorsuch have over the past several years made dozens of presentations on fiscal policy to government and private groups that range from the state legislature to the Alaska Credit Union League. Both have appeared on public service television programs.

When Governor Hickel organized an economic summit in Anchorage in November 1992, the potential strategy Goldsmith outlined in *Fiscal Policy Paper* No. 7 served as the basis for discussion. Goldsmith and Hill developed a computer model that allowed summit participants to suggest their own budget strategies and see the effects of different policies. Gorsuch and Goldsmith also helped organize the summit and made presentations. More than 100 leaders of government and industry from around the state attended.

Highway to Cordova

A big ISER project over the past year was assessing the likely social and economic effects of a highway to Cordova. The proposed Copper River Highway has for many years created controversy in Alaska.

Since the 1960s, the state government has tried several times to build a highway to Cordova, a fishing town on Prince William Sound with a population of about 2,500. Residents of the region that would be affected are sharply divided in supporting and opposing the highway. Past work was stopped by the 1964 earthquake, by opposition from conservation organizations, and by shifting state priorities.

The state now proposes to build the highway with federal aid, which requires preparing an Environmental Impact Statement describing the highway's potential effects. The Alaska Department of Transportation and Public Facilities contracted with ISER to assess potential social and economic effects.

Gunnar Knapp, professor of economics, led the project. It involved interviewing Alaskans inside and outside the study region, collecting data on the existing social structure and economy, and assessing how a highway would change the way of life and the economy in Cordova and other communities.

For the project, ISER survey researchers Jack Kruse and Virgene Hanna conducted a telephone survey of 800 Alaska households. Economists Gunnar Knapp, Steve Colt, Eric Larson, and Matthew Berman looked at the potential economic effects of the highway, including effects on tourism, commercial fishing, resource development, and hunting and fishing. Research associates Alexandra Hill, Virgene Hanna, Teresa Hull, and Marybeth Holleman compared social and economic conditions in other coastal communities on and off the highway system and examined potential effects of a highway on public facilities and social services in the region.

Throughout the project Knapp and colleagues at ISER took care to emphasize that they were taking no position for or against the road: they were collecting data from all sources, listening to all viewpoints, and assessing potential effects. ISER's findings are summarized in the draft EIS to be

published later this year, and detailed in a four-volume ISER technical report that will be issued when the EIS is published.

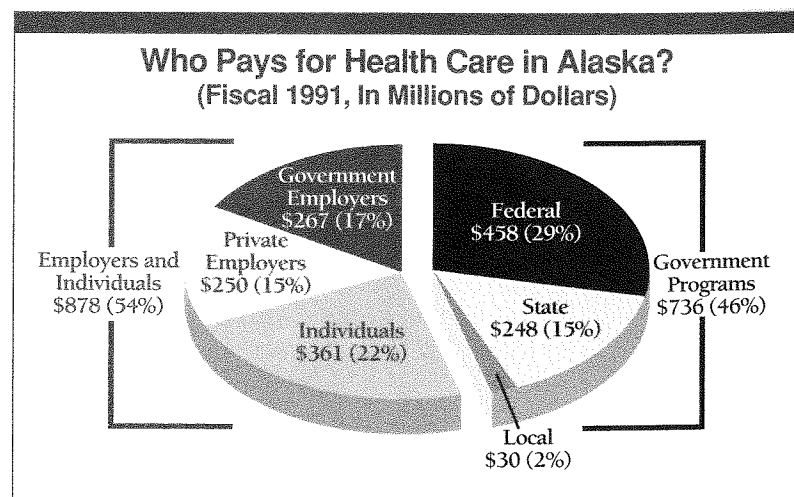
Health Care

Like other Americans, Alaskans are worried about the staggering costs of health care and of health insurance. For two years ISER worked with the state's Health Resources and Access Task Force to get better information on health care costs.

Health care in Alaska cost an estimated \$1.6 billion in fiscal 1991. That was triple the cost of health care a decade ago; it was 50 percent more than the 1990 cost of operating Alaska's public schools; and nearly as much as the 1989 cost for military bases and personnel and equipment in Alaska.

Alexandra Hill and Scott Goldsmith of ISER and the state's task force jointly developed estimates of 1991 health care costs. The figure below shows estimates of who pays for health care in Alaska. Government—either as an employer or as a provider of programs for the elderly, the poor, and others—pays roughly two-thirds of health care costs. The federal government pays the biggest single share. Individual Alaskans pay about one-quarter.

Much remains unclear about health care costs and what is driving them. Exact figures on total health care spending in Alaska aren't available, because much goes unreported. There is no comprehensive information on employers that self-insure—that is, employers who pay all or part of their employees' medical bills themselves, rather than pay insurance premiums.



We know that per capita health care costs in Alaska are significantly above the national average, but the difference cannot be entirely explained by Alaska's higher living costs and small markets.

The state task force has now been disbanded, after making recommendations to the legislature for improving Alaskans' access to health care. Several health care reform bills were introduced in the 1993 legislative session. None of those bills were enacted, but health care reform will be on the legislature's agenda again during the next session.

Education

Improving America's public schools has become a national priority, and ISER has consistently been involved in examining possible school reform in Alaska.

ISER's director, Lee Gorsuch, has studied public education issues in Alaska for 20 years and was formerly on the Anchorage School Board. During fiscal 1993, he helped design the pilot program for a small-class-size project approved by the legislature to test whether smaller classes make a significant difference in how much students learn. That project began this fall in four schools and will run for the next three years. Gorsuch also sits on the School Performance Oversight Committee and works with the commissioner of the Department of Education. That work is a follow-up to a report Gorsuch and others on the governor's Commission on School Choice wrote in 1992, assessing choices Alaska had for changing its public school system.

Gorsuch and research associate Teresa Hull also continued ongoing work with two programs intended to bring businesses into school reform efforts. One program is Alaska's Youth: Ready for Work, which is designed to help businesses define what skills they want in young job-seekers, and to assess how those skills could be incorporated into schools. The other is the National Business Roundtable—a group of executives from 200 of the nation's largest corporations—that has a nine-point agenda for increasing academic achievement among American students. The roundtable looks at how a state's education practices and reforms compare with the roundtable's goals.

Economy and Government

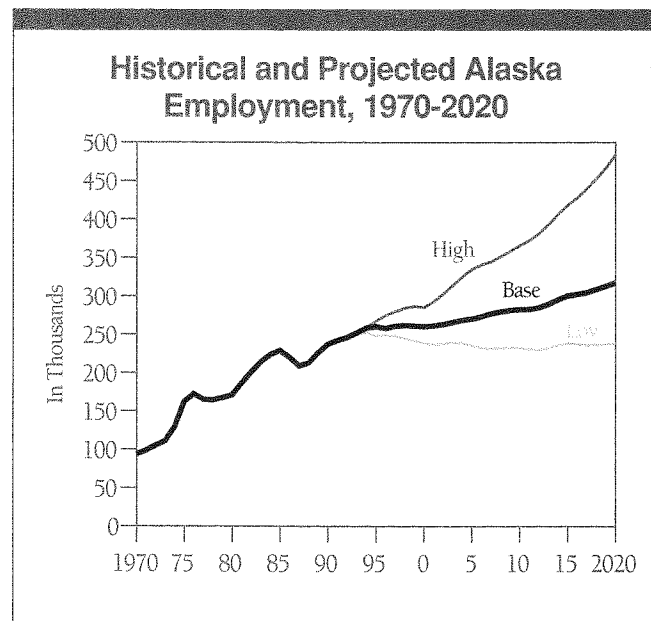
ISER regularly monitors changes in Alaska's economy and in state and local governments. That work in fiscal 1993 included completion of a new book on Alaska's governments and new economic projections.

This past year Thomas Morehouse, professor of political science at ISER, and Gerald McBeath, professor of political science at the University of Alaska Fairbanks, completed the book, *Alaska's Politics and Government*. It traces state and local government development from the time Alaska became a U.S. colony through the 1992 elections, looking in particular at how Alaska's unique political culture has shaped its politics. The authors describe Alaska's rapid evolution from a territory with very limited government to a wealthy state with strong state and local governments. But they also discuss why its economic stability is still threatened by volatile world markets for natural resources, and how that potential instability affects the state's government and politics.

The book will be published by the University of Nebraska Press in late 1993 and is part of a series that will include a book for each state. The books will be distributed nationally and will likely be used as class texts. This is the latest of several books on Alaska's governments that Morehouse and McBeath have written or edited over the past 15 years.

As part of tracking Alaska's economy, ISER economist Scott Goldsmith annually prepares long-term projections of Alaska population and employment. These have become the most consistent and widely used projections in Alaska. He completed his most recent projections in August 1993, for a project funded by Chugach Electric Association and other southcentral Alaska utilities—which have a crucial interest in knowing about their future markets.

Goldsmith projects that population and employment will most likely grow at an average rate of close to one percent annually through the year 2000 (the base case in the figure on the next page), as Alaska moves into a period of slower growth. Less likely but still possible events could make growth slower or faster. The projections are made with the MAP computer model, which incorporates hundreds of variables on the Alaska economy and a number of assumptions about future economic conditions. The model was developed nearly 20 years ago and is updated regularly to reflect changes in the structure of the Alaska economy.



Teresa Hull, ISER research associate, maintains the huge database the MAP model uses. That work requires collecting and incorporating data on all aspects of the economy from dozens of federal, state, local, and private sources. Information that goes into the database ranges from personal income to gross state product. This database itself is a valuable reference source. Hull also maintains the economic indicators database. Unlike the MAP database, which is used to trace longer term trends in the economy, the indicators include information useful for monitoring month-to-month changes in economic activity.

In other work, economists Matthew Berman and Eric Larson of ISER and Bradford Tuck of the School of Public Affairs assessed the sustainability of Alaska's gross state product.

Alaska Native Issues

How changing social and economic conditions affect Alaska's Native people has been a research focus of ISER's since its beginnings.

Thomas Morehouse, professor of political science at ISER, has for a number of years been looking at self-government issues Alaska Natives face. Recently he began examining what room for accommodation there might be among groups that hold fundamentally opposing views about who should be entitled to subsistence rights to Alaska's fish and game. This issue has sharply divided Alaskans, and legislation and judicial decisions have not resolved it.

Federal law gives rural residents (who are primarily Alaska Native) subsistence preference, but the Alaska Supreme Court has ruled that the state constitution forbids using residence as the sole basis for determining subsistence eligibility. The issue has been stalemated for several years, with the federal government taking over management of hunting and some fishing on its lands and the state using a combination of traditional use, residence, and other factors to determine subsistence preference on lands it manages. Morehouse's work, to be completed later this year, will look for possible ways to move past the stalemate. He is also examining how Alaska Natives might use international human rights law to advance self-government.

Matthew Berman, associate professor of economics, has begun examining the problem of high rates of violent death in Alaska. In work to be published this winter, he will use data from the 1980 and 1990 censuses to analyze trends and patterns in violent deaths.

Also in fiscal 1993, Lee Gorsuch, ISER's director, and Steve Colt, research economist, began a comparative analysis of how five southeast Alaska communities that were not authorized to form village corporations and that received no village land under the 1971 Alaska Native Claims Settlement Act differed from communities that received such benefits. (Native residents of those communities did receive some cash payments.) This work is for the U.S. Forest Service, the Bureau of Land Management, and the Bureau of Indian Affairs.

Community Issues

Over the past year ISER began several projects involving issues of concern to small Alaska communities.

Last year Jack Kruse, professor of public policy, and Virgene Hanna, research associate, began work on a project comparing caribou management systems for the Western Arctic caribou herd in Alaska and the Beverly and Qamanirjuaq herds in Canada. The study focuses on the state management system in Alaska and on a joint provincial-territorial-federal-Native system in Canada. It is examining how better data and consensus on management techniques could help reduce fluctuations in the size of caribou herds. In the past, caribou herds have been subject to what appear to be very sudden declines. This is an important issue for rural Alaskans who rely on caribou for food. This project will continue in 1994.

After the 1989 oil spill in Prince William Sound, communities in the region formed a Regional Citizens Advisory Committee to help find better ways of dealing with any future oil spills. ISER is working with the committee to develop mitigation plans, which could include community response organizations and adoption of methods of protecting subsistence resources and the commercial fishing and tourism industries. Jack Kruse, ISER professor of public policy, Thomas Morehouse, professor of political science, and Marybeth Holleman, research associate, last year collected data and worked with residents of Cordova and other communities affected by the spill. This project will continue in 1994 and will likely also include an economic analysis by Steve Colt, research economist, to provide communities with better economic baseline data.

In another project, ISER's director Lee Gorsuch and research economist Steve Colt began work with the state's Rural Sanitation Task Force to help develop a plan for improving rural environmental health and sanitation in Alaska. Some villages lack safe water and sewer systems altogether, and some have systems that are inadequately maintained. This project is intended to improve coordination among the several federal agencies with responsibility for rural sanitation and to determine what is needed to bring better sanitation to Alaska's villages. This fall Gorsuch and Colt will also be writing two policy papers on rural sanitation for the Environmental Protection Agency. Both the plan and the papers will be presented to the U.S. Senate.

Energy Issues

In fiscal 1993 ISER looked at several energy issues important to rural and low-income Alaskans.

Eric Larson and Alexandra Hill, ISER research associates, led a project assessing the feasibility of Dillingham residents' establishing a fuel cooperative—to allow them to buy fuel in bulk at a cheaper price. Research associate Teresa Hull and research economist Steve Colt also took part in the project. Establishing a cooperative would require a loan from the Alaska Energy Authority to buy a fuel storage tank. The researchers found that a cooperative could make fuel available at a lower price, but only if it could capture at least half the Dillingham market.

ISER research associate Alexandra Hill also prepared an economic profile of Lime Village for the Alaska

Energy Authority, to help the AEA assess the economic feasibility of building an electrical generating plant in the village, which has about a dozen households. Hill interviewed village households and collected economic data from other sources. She found that while village residents have limited incomes, they currently spend a significant share to pay for operating private generators. If they had a community plant, what they now spend for private generators would help pay for the community system.

Last spring, research economist Steve Colt analyzed the effects of selling the City of Thorne Bay's electric utility to a private utility or a non-profit cooperative. He compared costs of service, rates, and fiscal burdens to the state's Power Cost Equalization program under several options for selling the utility.

For the Alaska Housing Finance Corporation, ISER began investigating the success of the state's home weatherization program in reducing energy costs for low-income Alaskans. Steve Colt, research economist, is leading that project, working with Marybeth Holleman, research associate, and Linda Brooks and Liz Talbot, student assistants. The project—which covers gas-heated houses in Anchorage, the Mat-Su Valley, and the Kenai Peninsula—involves looking at about 600 homes weatherized under the program in 1991 and 1992. Researchers interviewed residents of about 200 of the weatherized houses and obtained gas consumption data from ENSTAR natural gas company. The analysis will be completed this fall.

Research Support

ISER's support staff in fiscal 1993 made improvements in organization, equipment, and publications.

ISER's business manager, Marcia Trudgen, and Darla Siver, database specialist, last year took part in a major project of the School of Public Affairs: establishing a consistent school-wide system of internal accounting. Representatives of all units of the school participated, extending ISER's accounting system to other units and making additional improvements. Trudgen and ISER's director worked with research associates to develop a new system of classification that will more accurately reflect job responsibilities and work of research associates. Trudgen also monitored ISER's spending of \$1.7 million, oversaw subcontractors, and helped prepare project budgets. Royce Howell and Linda Grant, administrative assistants, worked with

Trudgen. Siver updated ISER's mailing list, entered and edited hundreds of responses from 1993 telephone surveys, and maintained a contract database.

In fiscal 1993, Jim Kerr, ISER's computer systems analyst, increased the institute's computing power by installing 11 new computers and maintaining and upgrading the other 20 computers, printer networks, and the local area network. Working with the University of Alaska's computer network, he played a critical role in establishing high-speed connections between ISER and the university's network. He also wrote custom computer programs to generate random samples for several ISER telephone surveys. He has been instrumental in maintaining ISER as a U.S. census data center and tape depository and in making census data available to the public. He has developed custom programs to access and create special data files and reports from the 1970, 1980, and 1990 censuses. Most recently he and Matthew Berman, associate professor of economics, merged census and state data files for an analysis of violent deaths in Alaska.

Over the past year Linda Leask, ISER's editor, and Monette Dalsfoist, editorial assistant, produced publications from 2 to 200 pages long and on topics from the pollock fisheries to health care. They improved ISER's desktop publishing capability with new graphics programs, formats, and colors. Under contract with the Alaska Department of Transportation and Public Facilities, they edited and formatted the 250-page draft Environmental Impact Statement for the proposed Copper River Highway. They work closely with ISER's research staff, preparing not only publications but also slides and other presentation graphics, summaries of research projects, and more. They also prepare

publications for other organizations, answer information requests, and keep an inventory of publications.

Classes Taught

ISER faculty taught a number of graduate and undergraduate classes in fiscal 1993:

Matthew Berman, associate professor of economics: *Cost-Benefit Analysis* (graduate), Fall 1992; *Comparative Economic Systems* (undergraduate), Spring 1993

Steve Colt, research economist: *Introduction to Microeconomics* (undergraduate), Summer 1993

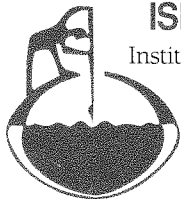
Scott Goldsmith, professor of economics: *Mathematics for Economists* (undergraduate), Spring 1993

Gunnar Knapp, professor of economics: *Economics of Resources* (undergraduate), Fall 1992; *Introduction to Principles of Market Economics* (at Magadan International Pedagogical University, Magadan, Russia), February 1993

Jack Kruse, professor of public policy: *Research Methods* (graduate), Spring 1992

Thomas Morehouse, professor of political science: *The Policymaking Process* (graduate), Fall 1992; *Administrative Policy Seminar* (graduate), Fall 1992; *Resource Policy Administration* (graduate), Spring 1993

For more information about ISER's work and specific studies or publications, call Linda Leask at 786-7710.



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