

ALASKA LEGISLATURE SPECIAL COMMITTEE / SUBJECT FILES 86 / 2

130 S COMM 9: HOUSE SPEC. COMM. ON PERMANENT FUND 1977-78

Critique of Legislation for
Alaskan Municipal Bond Bank

The following comments result from a review of Alaska's Municipal Bond Bank legislation.

We are generally opposed to the use of the financing vehicle afforded by the legislation establishing the Alaska Municipal Bond Bank Authority. While we agree in principle that Alaskan municipalities will need assistance in entering the municipal debt market, we do not feel that this legislation offers a method of assistance commensurate with sound public finance. The following examples of the Act's deficiencies are cited:

1. The legislation allows the issuance of bond anticipation notes to provide municipalities a means of temporary financing. The current municipal market is evidence of the financial danger inherent in the sale of bond anticipation notes should it become impossible to fund such notes with the sale of bonds. The gap has narrowed substantially between documented disclosure requirements necessary for the sale of notes as opposed to bonds, and sound long-term financing is recommended should an option to sell notes or bonds exist.

2. The legislation makes it quite clear that Bond Bank obligations are not an obligation of the State, yet on the other hand it allows the establishment of a reserve fund for the benefit of bondholders. The reserve may be funded by legislative appropriation or from the proceeds of the sale of the bonds. Deficiencies in the fund may legally be made by the legislature through the use of a "moral obligation" certification/appropriation procedure.

The moral obligation pledge no longer provides the marketing advantage it once had. In addition, despite the fact that the bonds are not a direct obligation of the State, the moral pledge creates what can be construed as a contingency obligation for the State - an obligation which is unnecessary in a State with an already high debt load.

3. The legislation mentions little or no control over the debt policies of the participating municipalities. Recent municipal finance experience has demonstrated the value of State overview of municipal finance activities.

It is suggested, therefore, that this legislation be amended: to eliminate the power of the Bank to issue bond anticipation notes; to remove the moral pledge of the legislature to fund reserve fund deficiencies; and to provide for the establishment of a State administrative vehicle to overview and approve the financial planning and debt management of Alaskan municipal governments.

TEXT OF PROPOSED STATE OF ALASKA CONSTITUTIONAL AMENDMENT
TO CREATE A PERMANENT FUND

BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

SECTION 1. Article IX, Section 7, Constitution of the State of Alaska, is amended to read:

Dedicated funds. The proceeds of any state tax or license shall not be dedicated to any special purpose, except as provided in Section 15 and except when required by the Federal Government for state participation in federal programs. This provision shall not prohibit the continuance of any dedication for special purposes existing upon the date of ratification of this constitution by the people of Alaska.

SECTION 2. Article IX, Section 15, Constitution of the State of Alaska, is amended by adding a new Section to read:

State of Alaska Permanent Development Fund. A
minimum of 10% of all mineral lease rentals, royalties, cash bonuses
and mineral severance taxes received by the State shall be placed in a
State of Alaska Permanent Development Fund, the principal of which shall
be used solely, directly or indirectly for projects relating to the
industrial and economic development of the State. Such principal not
invested in aforesaid projects shall be invested in accordance with
Section . Transfers may be made from the Permanent Development Fund
to the General Fund in an annual amount not to exceed such annual income of
the Permanent Development Fund, net of all such annual income otherwise
pledged. Such annual income not so transferred to the General Fund shall
become part of the principal of the Permanent Development Fund. The
legislature may appropriate additional amounts to the Permanent Development
Fund which shall become part of the principal of the Fund.

SECTION 3. The amendments proposed by this resolution shall be placed before the voters at the next statewide election in conformity with Article XIII, Section 1, Constitution of the State of Alaska, and the election laws of the state.

SCOMM

9:30



NORTHRIM ASSOCIATES

April 21, 1977

Honorable Clark Gruening
House of Representatives
State of Alaska
Pouch V
Juneau, AK 99811

Dear Clark:

As your Interim Permanent Fund Committee works to hammer out differences between your approach and that proposed by the Senate side, I would like to urge you to keep in mind the various resources which are available to the Interim Committee during the eight or so months they will have to come up with a plan.

My guess is that it would be neither possible nor productive and certainly not cost-effective to attempt to staff the committees with all of the different kinds of people required to meet the challenge. And I assume that therefore you will actually only hire a few people: a top-notch administrator who can keep all the pieces moving and in order, and two or possibly three others who either know different parts of the state very well and/or have an overview of some/all of the various issues involved.

From that kind of core staff I would then think you would look for other resources to work with on a contractual basis -- individuals or groups who can provide a particular service on a part-time basis throughout the entire planning process or who have expertise in a specific issue area.

If, in fact, this is the approach you determine to be most constructive, I would encourage you to involve these various resource people or firms almost immediately. Their assistance in these early stages would most likely save you time and money in the long run.


We would like you to consider Northrim Associates as one of these resources. I am enclosing our prospectus to give you an idea of the variety of services we offer. Presumably your committees will seek the involvement of the Alaskan people in your planning process, and I can state quite unequivocally that no other firm in the state has Northrim's experience or capability in this area.

Honorable Clark Gruening
April 21, 1977
Page Two

You will also note in the prospectus that our video production manager, Tom Shackle, has done the kind of work for the Capital Site Selection Committee and the Alaska Public Forum which may well be applicable to your committee's needs.

In the meantime, if you have any questions about how we might be able to help, do let me know. I am sending a similar letter with a prospectus to George Hohman.

Sincerely,

A handwritten signature in cursive script that reads "Susan".

Susan L. Ruddy
President

SLR:cp
Enclosure



NORTHRIM ASSOCIATES

Northrim Associates, Inc., was incorporated in the State of Alaska in January, 1977.

The firm consolidates the experience and abilities of a group of long-time Alaskans who have been working in the related fields of information and communications since 1963.

Our goal is to assist our clients with their information gathering and communicating needs, and to provide the linkages which are necessary to make both activities productive.

Northrim's professional staff and associates bring with them considerable experience in journalism and public relations, survey and interface research, organizational and facilitative techniques required for public participation activities, program monitoring and evaluation, and media production.

CURRENT ACTIVITIES

The State of Alaska, Office of the Governor, contracted with Northrim in January 1977 to involve residents of Southwest Alaska in the Alaska Public Forum. In addition to handling logistics and promotion for sessions of the Forum in four Yukon-Kuskokwim and Bristol Bay communities, Northrim produced bi-lingual (Yup'ik/English) informational tabloids and video tapes which were distributed to all villages in the region in an effort to involve as many people as possible in the Forum process.

Under this same contract Northrim has produced audio-visual documentation of Alaska Public Forum activities statewide.

At the request of the State Division of Lands and Water Management we designed and implemented a training program which allowed agency staff to successfully culminate a two-year series of public hearings and citizen council meetings regarding a proposed Land Management Planning Study for the Delta Junction area.

In conjunction with the Alaska Native Foundation, Northrim is assisting village corporations established under the terms of the Alaska Native Claims Settlement Act of 1971 in the conduct of their short- and long-range planning. Northrim has developed a methodology and designed a survey instrument to determine village stockholder values and goals. The information-gathering process we have developed is uniquely suited to village application. It will serve both as an educational tool for stockholders and as a communications link between stockholders and their corporate boards who are charged with the responsibility of developing plans consistent with stockholder needs and desires.

EXPERIENCE

In recent years, members of the Northrim staff have:

*managed the Alaska Native Enrollment worldwide promotional effort for the Bureau of Indian Affairs (a unique public service advertising project which successfully informed approximately 12,000 Alaska Natives from Saudi Arabia to Singapore of their last opportunity to share in the benefits of the Alaska Native Claims Settlement Act of 1971);

*served as public relations counsel to Alaska Methodist University, and conducted a series of public workshops statewide to assist in defining Alaskans' perceptions of their postsecondary education requirements;

*worked on contract to the Capital Site Selection Committee to ensure that their public meetings were attended by a representative cross-section of residents of each community;

*assisted in the design, funding, and implementation of the Anchorage community council system;

*served as Director for the Anchorage Municipality's Behavioral Health programs, and in this capacity was responsible for all programmatic and fiscal matters, as well as planning, monitoring, public information and citizen participation activities;

*served as Director of the Alaska Native Human Resource Development Program, a postsecondary education project funded by the W. K. Kellogg Foundation, a position which required planning and public involvement;

*produced broadcast-quality audio-visual programs for the Capital Site Selection Committee, the Anchorage Child Abuse Board, the Alaska Humanities Forum, the Ketchikan Gateway Borough, the Anchorage Municipality, and others;

*conducted research and prepared a written report for the Bureau of Indian Affairs on the problems of urban Alaska Natives;

*conducted citizen surveys for the Anchorage Municipality to determine the major problems of the elderly in Anchorage, and to probe recreational behavior and preferences for planning purposes;

*served as Alaska Field Representative to the U.S. Commission on Civil Rights and, in this capacity, prepared a written overview of civil rights issues in Alaska;

*designed a postsecondary education delivery system for rural Alaska for the Alaska Federation of Natives, Inc., which was adopted and implemented by the University of Alaska.

*worked with a variety of boards and commissions in advisory, consultative, and executive capacities.

CAPABILITIES

Northrim Associates, Inc. is capable of providing the following:

Research Services

*interface research: identifying, collecting, compiling, analyzing and interpreting existing data and information in subject areas required by clients;

*survey research: methodology, sample and instrument design; interviewer training and supervision; pre-testing; field work, coding and data analysis; and presentation of a written narrative with recommendations.

Public Relations and Promotion

*public relations: design and implementation of overall programs intended to establish productive relationships between our clients and the publics they serve;

*promotion: design and implementation of projects for our clients to promote specific programs, activities, or products.

Public Participation

*design: development of plans to assist our clients in gaining the involvement of a specific public, or a variety of publics;

*management: planning and implementing all logistical activities involved in the conduct of a convention, conference, public hearing, public meeting, workshop, or seminar, including arrangements for on-site facilities, travel and lodging arrangements, etc.

*promotion: publicity of the event, notification of specific participants, provision of educational materials when necessary;

*facilitation: assistance to the client in choosing among the various approaches available, in designing the specific format to be used, and in conducting the sessions themselves. Our staff has experience in group problem solving, goals and values clarification, issue identification, prioritizing, etc.;

*follow-up: written and/or audio-visual reports and documentation for the client, and written reports for participants.

Audio-Visual Recording and/or Production

*documentary: consultation with the client regarding the various methods and applications of audio-visual documentation which may be relevant to a particular need, including simple audio and/or visual recording of a proceeding for reporting purposes, the use of this hardware to accomplish certain communications goals between a client and a particular public, etc. On-site or studio recording, editing, and production of final documentary.

*education/training: consultation and planning regarding the most effective means of producing audio-visual materials for education and/or training purposes, including content design, scripting, graphics, narration, etc. Full on-site or studio production capability.

Planning, Monitoring, and Evaluation:

This is perhaps the single most essential service which we provide for our clients. Thorough pre-planning, constant monitoring, and in-depth final evaluation are mandatory if we and our clients are to know if an information and communication program is effective.

*planning: may involve only consultation with the client, or it may require interface and/or survey research;

*monitoring: one or more of a variety of feedback systems should be initiated during the implementation phase so that we may determine with our client whether the original approach needs modification or resources need to be reallocated;

*evaluation: a final evaluative report will be presented to clients to assist them in judging the depth and breadth of information penetration, and the effectiveness of the particular communicative tools used in the project.

In addition to the services enumerated above, Northrim Associates, Inc., through working relationships with other firms, can provide:

- *in-depth social research
- *market research
- *advertising services
- *graphics design
- *organizational development

Northrim Associates:

Susan L. Ruddy

Jack R. Heesch

Thomas W. Shackle

Eric Ekvall

Claudette Palmer

SCOMM

9:31



PIE-WEST OUTLOOK

SANTA YNEZ OIL TRANSPORT CONTROVERSY

**By Land or by Sea?
The Critical Question in Southern California**

by Robert M. Wolcott

A MAJOR RESOURCE MANAGEMENT PROBLEM is plaguing the State of California, Exxon and the U.S. Department of the Interior (DOI). They disagree about oil and gas development in the Santa Ynez Outer Continental Shelf (OCS) unit of the Santa Barbara Channel, which is 20 miles wide, 60 miles long, bordering the coastal city of Santa Barbara.

The debate is whether Exxon should be allowed to process crude on tankers moored more than three miles off the coast in federal waters, then take the oil to refineries by tanker. Or should Exxon be required to construct and operate an onshore pipeline that would transport processed crude 140 miles south to the refineries at Long Beach?

But the issue is bigger than this. It also confronts the broader question of the state's power to regulate facilities within state jurisdiction needed to support development of any sort in federal waters.

After more than a year of negotiations, last March 3, the Coastal Zone Conservation Commission granted Exxon a permit to construct and operate Santa Ynez facilities, with the permit contingent on certain conditions.

Exxon asked to pipe crude oil from wells out in the channel onshore to be processed in Las Flores Canyon, and then pipe the processed crude back out 1/4 mile to an offshore terminal where tankers would pick it up and haul it to Long Beach for refining. But the commission, to satisfy the environmental standards of the Coastal Act, required Exxon to stop using the marine terminal by 1981, and transport crude through an onshore common carrier pipeline that would serve all Santa Barbara producers. This condition would:

1) Reduce air emissions from tanker loadings



Oil via tanker—an environmental risk

2) Eliminate the risk of marine oil spills

Continued on page 7

WE CAN HELP

PIE WEST DIRECTLY ASSISTS citizen groups through our Clearinghouse and Education programs. The Clearinghouse links economists with groups needing research assistance, advice or expert testimony. The Education program sponsors workshops and conferences designed to increase public awareness of economic issues.

Enclosed in this newsletter is a short survey for you to answer to help us aid citizen groups. The survey asks about your needs for PIE economists and results also will be used to set priorities for workshops in the coming year.

We encourage citizen groups to complete the survey and help us to serve you better.

TOWARD INDEPENDENCE

La Raza Centro Legal Seeks IRS Ruling

by Chuck Hoelscher

A PROPOSAL SUBMITTED to the IRS by San Francisco La Raza Centro Legal could, if approved, make it possible for Centro Legal, as well as other nonprofit legal assistance groups, to move closer toward self-sufficiency.

The proposal calls for a change in 501 (c)(3), the IRS code governing nonprofit corporations.

La Raza Legal wants to charge clients whose incomes are too high to get free services from Legal Aid or other such groups, but too low for them to afford legal fees of a private attorney. Centro Legal wants to charge on a sliding scale based on ability to pay.

PIE West economist Fred Doolittle did a study for La Raza that showed Centro Legal must be able to charge for its services on a sliding scale to survive.

Public interest groups around the country will also be affected by what the

Continued on page 2

Continued from front page

IRS does.

La Raza has already completed the first of a two-pronged effort to bring self-sufficiency. It has California Bar Association approval to charge referral fees for the four to five referrals it handles daily. Before, only the Bar could charge referral fees.

According to the PIE West study, the legal service group now draws more than half of its clients from the lower middle class and the small business community. The other clients are unable to pay anything.

Eighty per cent of Centro Legal's clients were born outside the United States in Spanish-speaking countries. Centro Legal, the only bilingual, bicultural legal center in San Francisco, is their only alternative for legal help.

Like many nonprofit corporations, La Raza Centro Legal is funded mainly by grants, which tend to decline over a few years, forcing groups to seek alternate



Yolanda Alcantar-Garcia: "Important community services"

funding.

Now sliding scale fees are necessary if La Raza Centro Legal is to continue, Doolittle's study concludes.

"Nonprofit hospitals and schools are allowed by IRS regulations to charge fees. They can charge anything they like," says Yolanda Alcantar-Garcia, Centro Legal spokeswoman. "But legal services don't have this method of self-support. Centro Legal should have the same methods of self-support. Centro Legal should have the same methods of self-support as nonprofit schools and hospitals. We, too, provide important community services."

If La Raza Legal gets its sliding fee approved (maximum fee would be \$50), legal groups all over the country will be in a better position to perpetuate themselves without federal, state or foundation funding. They will also be able to serve a large group of people they've had

to turn away before, those between poverty and the middle class.

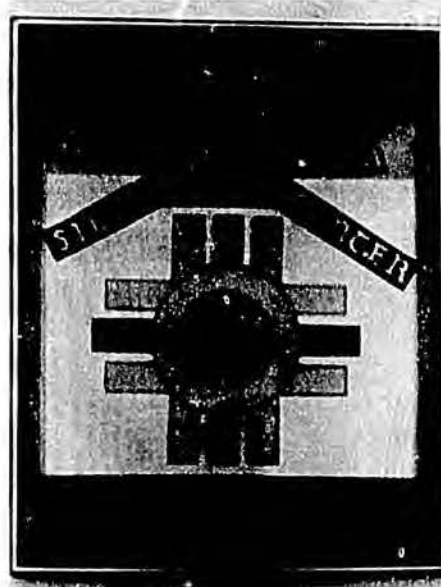
La Raza Centro Legal has been operating since 1973. Each year has brought more clients. Now, 48% of them come from the Mission (Latino) District of San Francisco, the rest are Latinos from throughout the city.

If allowed to advertise, La Raza's clientele both in and out of the Mission District would increase many times.

Centro Legal now provides assistance worth an average of \$212 a case. Its income from each case is zero.

In 1976, Centro Legal provided \$105,375 worth of legal services while receiving about \$76,000 in funding. Just to hold even, Centro Legal must find other sources of income.

This crisis caused by IRS regulations affects more than just La Raza Centro Legal; it affects the continuing existence of many nonprofit community legal groups.



Photos by Melinda Marble

SILKSCREEN TRAINING

Learning skills on the job

La RAZA SILKSCREEN CENTER provides on-the-job training in techniques of silkscreening and printing, including graphics and composing, and teaches business skills. Now supported by foundations, the Center wishes to become self-sufficient by expanding commercial accounts, while continuing to provide low-cost services to other nonprofit groups.

PIE's Michael Kavanaugh is developing revenue forecasts based on past performance, the purchase of new equipment and possible new markets, to assist the Center in developing a strategy for self-sufficiency.

PIE West Outlook is published quarterly by Public Interest Economics West. Offices are at 1095 Market Street, No. 604, San Francisco, CA 94103, (415) 626-6018. Copyright © 1977, Public Interest Economics West.

OUTLOOK

Coordinator: Susan Little
Design and Editing: San Francisco Study Center

PIE West

Director: Robert Wolcott
Education Coordinator: Sam Sternberg
Research Director: Michael Kavanaugh,
Administrative Assistant: Susan Little



Public Interest Economics Foundation

Board of Directors

Kenneth J. Arrow
Gerard M. Brannon
Charles J. Cicchetti
Allen R. Ferguson
Byron Kennard
Leonard Lee Lane
Robert R. Nathan
Lester C. Thurow
Robert M. Wolcott

Public Interest Economics West Board of Economic Advisors

Kenneth Boulding
George Break
Robert W. Clower
Allen Kneese
Daniel McFadden
Roger Noll
Richard Norgaard
Roy Radner
Polly Roberts
David Starrett

Board of Public Interest Advisors

Robert Girard, Chairman
State Issues Committee, Common Cause
Michael McCloskey, Executive Director
Sierra Club
Carl Pope, Executive Director
California League of Conservation Voters
JoAnn Clayton, Executive Director
Consumer Action

DIRECTIONS

by Robert M. Wolcott
Director, PIE West

ARMED WITH THE WISDOM of twelve months hindsight and a strong sense of achievement, PIE West is entering its second year. This is an appropriate juncture to reflect upon where we have been and what directions we intend to pursue.

I began PIE West in March of 1976, with the specific objective of involving concerned and talented economists in public debate. This end is realized through their conducting of disinterested, high quality analysis for citizen/public interest groups. The need for this derives from the obvious imbalance between the capacity of large private interests and government to purchase high-powered economic talent, and the inability of smaller, less well-heeled citizen groups to afford the same.

This community-oriented concept, though already operative in some other professions, had not been advanced by economists in the West; and, as our experience this past year has clearly demonstrated, the need is most evident.

The Clearinghouse Project we have developed to respond to this need involves recruiting economists from universities, research institutes, and the private sector to provide expertise on an ability-to-pay basis. During the year we completed more than fifty projects for citizens or community organizations, and I intend to see our efforts increased during this next year.

For myself, the experience of PIE West has been exciting and enriching. This process of linking disparate allies is

rewarding not only because we are continuously buttressing the underdog position, but also because we pursue truth in the commonweal.

As for the citizen groups we serve, I believe our experience clearly demonstrates that the use of an economist strengthens a group's position technically and lends public credence before commissions, courts and councils. During the year, PIE economists appeared before state and county courts, boards of supervisors, planning commissions and regulatory commissions. In some cases, the economist's analysis and representation was responsible for successfully resolving the issue.

Objective economic testimony can be of value to nearly every citizen

PIE Philosophy

PIE West economists will try to grant any non-profit organization's request that is in the public interest, which PIE defines as activities that will:

- Improve the general welfare by making more efficient use of human and natural resources.
- Increase responsiveness of the economy and political institutions to public needs.
- Decrease inequalities in income, wealth and economic power.
- Increase public understanding of the economic characteristics of current issues.

group. I have observed, however, that our assistance can be most effectively employed in the areas of energy pricing, environmental management, budgetary and tax policy, consumer issues and urban redevelopment policy. I select these areas for two reasons: First, the groups active in these areas tend to be the most organized and have clearly stated policies that give the economist a precise point of reference. Second, the profession itself has recently bred a substantial number of economists specializing in welfare, environmental, natural resource, and public finance issues. These economists, who are aggressively researching issues that require current policy decisions, tend to be more willing to become involved in the frays of public debate. Therefore as a matter of course, these economists stand to gain professionally from PIE participation.

Though not serving a direct advocacy role, our Research Program may ultimately contribute most to the long run public interest. By conducting professional research on contract basis, we are able to enlist the most talented economists to perform analytical work that serves the broad range of citizen groups and, in most instances, directly affects current public issues.

I sincerely hope we can continue to provide relevant assistance and that you, our readers, whether economist or interested citizens, will demand that of us.

PIE WEST'S EDUCATION PLANS

New Series of Economics Workshops in the Works

PIE WEST'S EDUCATION program convenes workshops, seminars and conferences to increase awareness of economic issues among those actively seeking to influence public policy. The topics of these meetings vary according to requests from citizen groups and current public policy significance.

During the past year, representatives from more than 100 citizen action groups attended workshops on four topics:

- Economics of rent controls, rent subsidies and code enforcement
- Transformation markets in the food industry
- Economics of preventative health care
- Municipal finance and the impact of the Serrano school budgeting decision.

Our next workshop will focus on developing community-based neighborhood banks as vehicles for investing residents' savings in housing and com-

mmercial development within their own community. Community banks are a way to keep money within neighborhoods in transition or considered to be poor risks by traditional lending institutions.

PIE West is expanding the Education program to include seminars for a variety of special interest representatives as a forum to explain and discuss policy issues before the Legislature.

Our first seminar will be June 24 in San Francisco. It will deal with how to change state pollution control from the present regulatory system to one of economic disincentives called emission charges. Dr. Allen Kneese, a member of PIE West's Board of Directors and an authority on this approach, will lead the seminar. Invitations have been extended to fifty people, representing a cross section of knowledgeable legislators, environmentalists and those being regulated.

by Sam Sternberg

PIE IN ANAHEIM

Two sessions in June

PUBLIC INTEREST ECONOMICS will sponsor two sessions at the Western Economic Association Conference in Anaheim, Calif. — June 20 - 23.

The first session — Food and Health Issues — features three papers: Retail Grocery Industry by Gene Adkins; Financing - The Case for Reform by David Bradwell; and Health Maintenance Organizations: Theory and Evidence by Hal Luft. Charles Bigelow, Michael Baldigo and J.A. Lennie will discuss.

The second session — Energy Development and the Public Interest — includes: Optimal Risk Sharing by Hayne Leland; Competition and Leasing by Polly Roberts; and Boom and Bust in Resource Regions by Edgar Rust. Discussing at this session will be Michael Yokell, Claron Nelson and John Jurewitz.

A SINGLE RATE FOR WATER

Can a rate structure effectively aid conservation?

by Helen Burke, Board Member,
East Bay Municipal Utility District

IN PAST YEARS of normal rainfall, East Bay Municipal Utility District (EBMUD) was a sleepy, special district efficiently serving water to 1.1 million people in Alameda and Contra Costa counties. Water then was a high-quality, low-cost commodity

in plentiful supply that helped attract new industry and housing to the area.

This second year of drought has changed all that. EBMUD now is a high-profile agency allocating a scarce resource. The goal now is to conserve water rather than encourage its use. So one question that arises is to what extent can rate structure affect this conservation.

EBMUD has a declining block rate structure typical of utilities. Before new rates were set, the first 4,000 cu. ft. per mo. cost 24 cents for 100 cu. ft. The next 396,000 cu. ft. was 22 cents/100 cu. ft.; more than 400,000 cu. ft. dropped to 18 cents per 100 cu. ft.

On March 22, the board adopted a rate increase to offset loss of revenues from water rationing. Except for "lifeline" block rate, the rate structure remains basically declining block.

Now, the rate for the first 500 cu. ft. in a month is 29 cents per 100. The next 3,500 cu. ft. per month is 39 cents a 100. The next 396,000 cu. ft. is 37 cents a mo. per 100. And more than 400,000 cu. ft. per month drops to 33 cents per 100 cu. ft.

The problem with the declining block rate is that it is based on the premise "the more you use, the less you pay," thereby providing little financial incentive to save water. District staff explain that the basis for this rate structure is that it costs the district less to serve a large volume of water to one industrial customer than relatively small quantities to thousands of homeowners.

Marin Municipal Water District (MMWD) in Marin County is an example of what a water district can do with pricing policies during an emergency. Marin has let the marketplace alone be the deterrent in water use by establishing a single rate for water — \$1.22/100 cu. ft. — significantly higher than EBMUD's. Penalty rates have been set considerably higher than EBMUD's. Marin's penalty is \$10 for each 100 cu.

ft. over the allocated amount up to 300 cu. ft. and \$50 per unit thereafter, whereas EBMUD's excess use charges go up at the rate of two, three and four times the unit cost, only reaching \$7.80/unit when 500 cu. ft. has been exceeded. To date, MMWD has been successful in meeting its goal of 57% cutback in water usage.

The question remains: To what extent can a rate structure at EBMUD ef-

fectively serve a conservation goal? EBMUD differs markedly from MMWD in several respects:

First, EBMUD is much larger than MMWD (about 300,000 vs. 50,000 accounts).

Second, EBMUD has a much larger proportion of heavy industrial users than MMWD (about 23%, whereas MMWD has little or none).

Third, EBMUD has wide disparities in climate and income, which affect consumption patterns within the district.

To accommodate this complex situation, EBMUD has adopted an allocation system reinforced by pricing policies, penalty charges and regulations prohibiting the wasteful use of water. So far, the district has succeeded in reaching the overall goal of reducing water use 35%.

As a minority of one on EBMUD's board, I voted against the rate increase because I favored adopting a rate structure that would reinforce conservation goals by discouraging the wasteful use of water. As a step in that direction, I advocated keeping the lifeline rate but establishing a single rate where every gallon of water would be worth the same as every other gallon of water.

Staff estimated the single rate at 37c /

COMPARISON OF RATE ALTERNATIVES

CURRENT CONSUMPTION

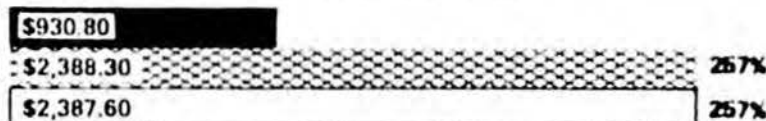
- OLD RATES
- ▨ CURRENT RATES
- SINGLE UNIT RATE (\$0.37)

Water Bill (Includes excess use charge)

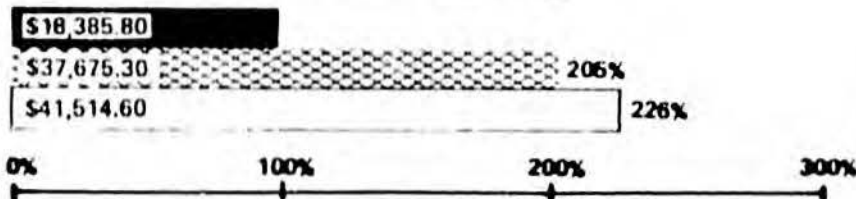
RESIDENTIAL — 22 Units Use (bi-monthly) (280 gpd)



COMMERCIAL — 4000 Units Use (monthly)



INDUSTRIAL — 100,000 Units Use (monthly)



per 100 cu. ft. in order to obtain the necessary revenues.

In comparing average monthly bills for current rates, proposed rates and the single rate, the impact of the single rate was shown to be slightly less in the residential sector, exactly the same for commercial, and slightly more in the industrial category. An industrial customer using 100,000 units, for example, would pay about \$4,000 more per month in rates.

While rate structure can reinforce conservation goals, it alone cannot do the job. It is generally agreed that water pricing is only partially elastic. In the past, water has been priced so low that, in the case of EBMUD, staff say the price would have to be tripled, quadrupled, or quintupled to affect demand significantly.

In view of MMWD's experience, it may be that Marin's \$1.22/100 cu. ft. price is sufficiently high to effectively curb demand.

The basic problem here is that EBMUD is an autonomous local agency with authority to set its own rates and taxes without review by outside agencies, such as the State Public Utilities Commission. Consequently, district



Helen Burke: A minority of one

staff attitudes tend to become ingrown and resist change. This is nowhere more evident than in the area of rate structure.

Recently, I talked to a member of the state PUC who indicated that cost of service is no longer considered the sole criterion for justifying rate structures. Other considerations, such as cost of the last unit of water supplied, as well as conservation goals might also be considered. He felt that in the future more utilities would adopt the single rate structure. Although the PUC is taking the lead in new approaches to rate-setting, district staff still cite them as authority for the cost-of-service approach.

District staff say the rate increase is temporary, necessary only during the

Continued on page 6

FIGHTING THE SCAVENGERS

Garbage Rate Battle in Emeryville

by Cheryl Allmon

EMERYVILLE NEIGHBORHOOD IMPROVEMENT ASSOCIATION (ENIA) and PIE West successfully investigated a whopping rate increase proposed by the Oakland Scavenger Company.

The rate hike for residents was cut almost in half by the Emeryville City Council and the industrial rate was raised.

It all began last July when the Emeryville Neighborhood Improvement Association learned that Oakland Scavenger proposed a 110% rate increase. ENIA began to investigate whether the increase was justified. Emeryville residents were faced with a hike from \$1.90 to \$4 a month.

Although one-fifth of Emeryville's residents are on low or fixed incomes, Bill Neukomm, ENIA staff director at that time, said, "This was really not a poverty case. Rather, the principle of the thing caused all the interest." This would have been the Scavengers' first rate hike since 1968. But it was too much money all at once and without prior notification that galled the residents.

ENIA contacted PIE West to request an analysis of the Scavengers' rates and operating costs. The Scavengers had compiled a 12-page rate increase application that did not include actual costs but simply projected operating costs. There was also a lengthy study compiled by Price-Waterhouse for the Joint Refuse Rate Review Committee (comprised of representatives of all the municipalities served by the Scavengers) that recommended uniform garbage rates. However, the report failed to study differences in hauling costs between the various municipalities.

PIE West recommended accountant Andy Grimstad who met with Neukomm. "My part was to help Bill develop some sort of strategy to block the increase until proper data could be brought in to determine whether or not the increase was justified," Grimstad said. He composed 10 questions for ENIA to request such information as 1974-76 Scavenger income tax returns, and actual production costs.

Pressure on the city council increased to deny the rate raise until, with the City Manager's support on August 10, the council denied the increase until the Scavengers reported all costs and revenues. A month later, Oakland Scavenger Co. produced extensive data.

At this point, Grimstad left the project and recommended a masters student at U.C. Berkeley, who wishes to remain anonymous, to continue in his place. Neukomm and the new analyst went through the books and saw something wrong.

"It looked funny but that was all we could say because we had no independent figures," Neukomm said. "We eventually found inflated expenses such as the cost of sending three extra trucks to Emeryville when they really didn't send them."

There was also the much undeclared revenue from the money-making business of selling salvage. Furthermore, the Scavengers were exaggerating the actual cost of garbage collection in Emeryville, which is a relatively flat but compact city and should be an easy pickup route compared with surrounding cities.

In sum, expenses were inflated and revenue deflated.

After careful analysis, ENIA decided that a 50% to 55% increase for the Scavengers would be fair. Neighborhood and city business representatives formed a negotiating committee. They reviewed figures and concluded that if the proposed rate for industry was raised 5 cents per unit, then the proposed resident rate could be reduced to \$3 per trash can each month.

The Scavengers backed this plan and it was agreed to at the May 10 City Council meeting John Seseck, ENIA staff director, said.

"The company was forced to justify its rate increase and business was very instrumental in not giving up ground until a compromise was in sight. The rate increase became a rallying point for the residents of Emeryville and the strength that resulted from this controversy will hopefully be used again."

Continued from page 5

drought, and that the rate structure review underway — which ultimately will come before the board — is the proper place to discuss rate structure changes. My concern is that because we don't know how long the drought will last — some say we may be headed for a third dry year — what better time to consider rate structure change that encourages prudent use of water than during the worst dry year on record?

MILK PRICES

Why State Dropped Minimum

by Susan Little

THE CALIFORNIA DEPARTMENT of Agriculture eliminated minimum retail prices for milk on January 6. The effort to drop the minimum price started years ago but came to a head last year when the Berkeley Co-op set its milk prices below the minimum and the state took action within 24 hours.

Lois Salisbury and Sidney Wolinsky of Public Advocates served as the Co-op's legal defense during the months of hearings. PIE West provided Public Advocates with an expert resource in economist Polly Roberts of U.C. Berkeley, who prepared several papers and presented testimony.

Salisbury says that Sacramento deregulation has not had much impact because the state dropped the minimum there more than a year ago as an experiment; the half-gallon price has remained at 68 cents and 69 cents.

The retail grocery market in Southern California is more competitive than in the Bay Area.

San Diego was the first to show a city-wide drop, from 71 cents to 64 cents. Around Los Angeles the price came down at the beginning of March and settled at 64 cents.

In the Bay Area prices vary. Wherever there's a Co-op, competitors have cut prices to match the Co-op's 64 cents. Where there is no Co-op, prices have remained the same.

The big chains absorb these price drops by raising prices on other items, but the Co-op did not raise prices on other items. The Co-op management believes the price of milk, a basic food, should be as low as possible and that the prices of basic foods should not be used to subsidize less nutritious items.

Public Advocates is asking the state for attorney's fees for this case. Each 1 cent drop in the price of milk means annual savings of \$10 million to consumers.

Board politics are also involved in setting the district's rate structure. As an environmental activist, I have long been interested in using rate structure to accomplish conservation. The other six board members tend to represent the business community and have stated they do not wish to affect industry adversely in any way or to cause job layoffs. To date, this has included opposition to looking at any alternative

LOW PAY, BIG REWARD

Public Interest Profile

Clair VICKERY, assistant professor of economics at U.C. Berkeley, and a labor economist who has been part of class action suits and has testified about discrimination, unemployment and the federal welfare system, is not all altruist in her contributions to public interest work. She explains:

"The economic problems of public welfare issues are more interesting to me than private sector issues, and the opportunities to influence public policy add to the interest. Research is often grubby, tedious work but economists like to share their knowledge."

There is no money to speak of in public interest work. Vickery sometimes receives small sums, at most a few hundred dollars, as payment for services. She says she accepts the fee because she feels expert witnesses should be paid, but then she turns over the money to a needy campus group. Being paid to testify can be seen as compromising, she realizes, but actually most testimony grows naturally out of research with no strings attached. It's simply that, after investigating a problem, an economist "turns around and gives advice at the administrative, policy-making level," she said.

The pressures of academic life can conflict with working to influence public policy. "It's like trying to dance to two different tunes," Vickery says. The university rewards theoretical work, which is not always like pursuing the practical implications of public policy. She strongly believes basic research is valuable and that the university can provide the necessary time and support to do it.

"Economists investigate real world problems. The problems I can see concretely motivate my research," she explains. "Research consists of setting up a theoretical model and measuring it with data. In this way, economists can assist a

approach to rate-setting.

While I have concurred in other board members' concern about possible loss of jobs and cutback in production, I also feel the district can and should consider establishing an equitable rate structure that both rewards conservation and distributes equally costs of producing water and serving customers, as one weapon in its arsenal of conservation strategies.

HOSPITAL COSTS

Fresno Medical Center — Public vs. Private

THE 1975 - 1976 FRESNO COUNTY GRAND JURY recommended that the county consider awarding management of the county's only public hospital, Valley Medical Center (VMC), to a private firm.

This prompted West Side Rural Health Conference, Mejicanos Unidos, Centro La Familia, and Fresno County Legal Services to form the Community Coalition on VMC to study the public vs. private management of the 450-bed hospital.

"There is substantial reason to doubt that private management would benefit the San Joaquin community that uses the services of VMC, especially the low-income who are frequently unable to obtain medical services elsewhere," says Bill Plumb of the coalition.

The coalition asked for assistance from PIE West and Accountants for the Public Interest (API) in interpreting the financial statements and management proposals of the private firms. The coalition also wanted VMC's budget analyzed to better understand any changes in services or accounting procedures that the private firms might propose. The coalition successfully pressured the VMC management to respond to the same questions that the private firms will address in their bids.

API is now waiting to receive the proposals, review them, compare the Fresno experience to other county hospitals, then write a report this summer. PIE West provided the coalition with the names of several economists in the area who are available for consultations regarding methods of measuring hospital efficiency.

by S.L.

groundswell movement.

"That is the value of PIE: Citizens groups can receive technical assistance to support their positions in front of policy makers."

by S.L.

DOWNZONE DISPUTE Noe Neighbors Get Action

NOE VALLEY NEIGHBORS FOR ACTION WON A temporary victory on April 14 in their fight to maintain the quality of life in their neighborhood.

The San Francisco Planning Commission voted to continue until January 1978 controls that limit commercial development along upper 24th Street, the main business street in Noe Valley.

Until January, 24th St. had been zoned C-2, which allows commercial or office use on upper stories as well as the ground floor. But Noe Valley Neighbors, East-West of Castro Improvement Club, Friends of Noe Valley, and Business and Professional Association of Noe Valley favor rezoning to RC-3, which allows ground level commercial development but protects upper story residential units.

The growing commercial development was driving out residents as well as increasing noise, litter and congestion.

Frank L. Smith, economist at the University of San Francisco, assisted Noe Valley Neighbors by anticipating the arguments of the opposition and preparing rebuttals. Smith testified before the Planning Commission and said: "There is no evidence at all that the adoption of the zoning requested here would close the neighborhood against any expansion of business enterprise. There would still be room for a roughly 10% increase in the number of businesses over those already in place."

Smith also pointed out that the long term effects of "letting the market decide" the extent of commercial development can be disastrous: "What happens if a failure to rezone forces people out of their homes? Apart completely from their problem of finding housing they can afford, they take their buying power with them, including the taxes they pay . . . Failure to rezone in the best interests of neighborhood stabilization means a probable loss to the city, plus loss of buying power to new and established business.

"It's true that a short term gain could accrue to San Francisco in increased property values and taxes. But in the longer term it would also probably mean abandoned units and only paper evaluations."

When controls expire in January 1978, the application will be reviewed in the light of two Planning Commission studies concerning residential and industry and commerce zoning. Margy Ortiz of Noe Valley Neighbors is "optimistic" about the final outcome and plans to continue working with her neighbors to keep the neighborhood their own.

by Susan Little

Continued from front page

3) Reduce the need for other marine terminals, thereby reducing air emissions oil spill risks and the potential for vessel collisions.

Exxon objected, saying the oil reserves might not justify the cost of an expensive pipeline, and that the delay in production while the pipeline was being designed and the necessary permits obtained was too great.

The commission agreed production should not be delayed, which was why it would allow the marine terminal to be used until 1981. It also acknowledged that the pipeline might prove impossible or undesirable to complete and if so Exxon could continue using the marine terminal. The commission would decide desirability or the economic soundness of the pipeline. Exxon rejected this condition, primarily on the ground that a public agency could shut down its means of transporting crude. Exxon also insisted on retaining the right to decide the economic feasibility of the pipeline and wanted to set dollar limits on the cost.

A last-minute telegram

Negotiations broke down, but Exxon had planned for this eventuality. In 1973, Exxon had requested DOI to approve processing the crude in vessels moored in federal waters if state or local authorities rejected the marine terminal plan. DOI approved the offshore alternative provided Exxon would make "diligent, good faith efforts to construct and operate the onshore facility under reasonable terms and conditions."

Minutes before the Coastal Commission met last March to vote on the permit, DOI telegraphed to say it would approve the facilities in federal waters if the state refused the permit. DOI said later it took this step because "lessees of OCS tracts cannot be expected to produce oil in a timely and efficient manner if they must operate in a regulatory climate of excessive uncertainty. The second and related consideration is that public decision-making on environmental issues must proceed along rational lines in which risks are quantified and evaluated to the very limits of our ability, and a balance is struck between environmental and economic considerations."

Melvin Lane, Coastal Commission chairman, wrote DOI Secretary Kleppe asking him to rescind the permit. Lane wrote, "We were shocked and at a loss to understand how Under Secretary Frizzell could make the statement contained in his telegram without first discussing with us what efforts were made to obtain state approval and giving us an opportunity to explain to you the reasonableness of our conditions in our approval of the Exxon

development."

The state has brought suit against DOI on several grounds, including failure to review the commission's action on its merits, acting capriciously and exceeding its authority.

One month after Exxon received its conditional coastal permit, the Governor's Office of Planning and Research contracted with PIE West to analyze the Santa Ynez oil transportation question and to assess unshore economic effects of OCS development generally.

At about the same time, DOI evaluated the costs and benefits of three alternatives for transporting Santa Ynez crude from wellhead to market:

- 1) Onshore pipeline to refineries
- 2) Offshore storage and treatment plant (OS&T) with tankers to distribute.
- 3) Onshore facility with tankers loading crude from a marine terminal 1/4-mile offshore.

DOI found the onshore pipeline the most expensive, followed by OS&T, then the marine terminal.

In its analysis, PIE West economists Richard Norgaard, Sandra Baron and Robert Wolcott used the DOI evaluation as a stepping-off point. They critiqued assumptions, cost and benefit assessments and discount rates, and expanded the economic analysis of the three alternatives. The PIE-West report, *The Santa Ynez Petroleum Transportation Controversy*, has since been cited in the state's appeal to DOI to reconsider the offshore permit as well as in its case against Exxon in federal court.

PIE West's analysis generally supported the reasonableness of the Coastal Commission conditions. The principal conclusion was that instead of asking should the pipeline be built now, it was more appropriate to ask whether the Commission had been reasonable to grant the permit for five years with renewal contingent on proven reserves.

PIE economists also found that it is competitive to transport oil through a pipeline even with levels as low as those specified by Exxon, and about half the cost of tankers when other near shore deposits are run through the line.

Technical issues

The technical points of PIE West's analysis:

- 1) Resource estimates — U.S. Geological Survey reported Santa Ynez contains 730 million to 1.1 billion barrels of oil, more than half the recoverable reserves in the Santa Barbara Channel. Industry estimates the reserves at 2 billion to 3.5 billion barrels. However, DOI's analysis used a range of 93 million to 220 million barrels.

Continued on back page

which PIE West found to be too low.

- 2) Natural gas reinjection — An offshore storage and treatment facility requires reinjection of natural gas into the field because the state won't let Exxon build a natural gas pipeline until it abides by the permit's conditions. Assuming a conservative market value of the gas at 75 cents per 1,000 cubic feet and a 10-year delay in production, PIE West estimated a net loss of \$76 million.
- 3) Transshipment — Exxon contends that L.A. cannot use all of the S.Y. crude and that insufficient refinery capacity for the low gravity asphaltic crude will require transshipment to Benicia, on S.F. Bay, Exxon's only West Coast refinery. On this point, PIE West argued that a substantial portion of the crude is high gravity, which can be refined in L.A., and if the production period is extended that may be more appropriate for the L.A. market than overloading it with crude.
- 4) Pipeline versus tanker costs — PIE West determined that Exxon capital cost estimates were high compared with other 20-inch

pipelines. It also became clear that DOI's analysis had attributed 20 cents of the 37 cents per barrel operating cost to storage and terminal costs only for the pipeline option, not for tankers. PIE West determined this cost would be higher for tankers.

Economics of scale strongly affect pipelines because both pipe and pumping costs decrease as pipe size and throughput increase. By calculating peak production rates for Exxon's range of reserve estimates, PIE West demonstrated that the 20-inch line DOI assumed would be used to full capacity would actually be used only at the highest end of the estimate of reserves and then only for a few years.

- 5) Environmental considerations — PIE West addressed the environmental costs associated with both tankers and pipelines. Using DOI's sources of spill rates, PIE West concluded that the volume of oil spilled by tankers can be expected to be 45% greater than that spilled by a pipeline.

On air quality, the DOI analysis concluded that auto use can be expected to reduce commensurate with the increased hydrocarbon

levels resulting from rented tanker emissions, thus no environmental effect. PIE West dismissed this line of reasoning, concluding that over the life of the Santa Ynez field substantial air quality costs could result.

Where We Are Now

Resolution of the matter will have substantial repercussions for California, and may set a precedent for offshore operations elsewhere.

The state feels DOI is undermining state and local bodies responsible for controlling coastal development. The state also considers DOI negligent in failing to support its position with data, while state and local governments are sponsoring several studies on air quality, marine safety and oil spills.

Both the Carter and Brown administrations are concerned about this matter. Some court cases are proceeding toward a resolution and Secretary of the Interior Cecil Andrus has taken a special interest in the matter. Gov. Brown's office anticipates a final resolution of the matter in the next few months.

pie-west

PUBLIC INTEREST ECONOMICS

1095 MARKET ST #604, SAN FRANCISCO CA 94103

Non profit organization

U.S. Postage

PAID

Permit No. 11762

San Francisco, CA

PIE

San Francisco Study Center

April 20, 1977

Dear Friend:

1095 Market Room 620

John Markoff of the Pacific Northwest Research Center suggested I write to you to let you know about the services of Public Interest Economics West. PIE West is a consortium of economists who work with public interest organizations on the economic aspects of public policy issues. PIE West economists work on a free or low fee basis based on a group's ability to pay.

Public Interest Economics was founded 5 years ago in Washington, D.C. by an economist and a public interest organizer who saw that, time and time again, citizens who wanted to assert the public interest in policy discussions were outgunned by high-priced corporate and governmental experts. They felt that citizen groups needed access to that expertise at prices they could afford. So they put together a group of economists who would analyze data, do research and answer questions, and offer advice and testimony at public forums to represent the public interest.

PIE West, the first regional office of Public Interest Economics, opened in San Francisco more than a year ago to serve groups in the western region of the country. Since that time PIE West economists have helped dozens of groups ranging from local ethnic and neighborhood groups to statewide environmental, tax reform and utility rate reform organizations.

John suggested that your group might be able to use the services of a PIE West economist, or that you might know the names of other groups who could be potential clients. If you want help, or can recommend other groups, please contact me at the San Francisco Study Center. The Study Center is doing community outreach work for PIE West and letters should be sent to me here.

Thanks and keep PIE West in mind!

Sincerely,
Judy Pope
Judy Pope
PIE West Coordinator



Public Interest Economics-West is a nonprofit resource center providing economic expertise on a free or low fee basis to citizen groups throughout California. PIE-West's services are in three categories:

The Clearinghouse Project—Economists are linked with citizen groups to represent, from a technical perspective, the concerns of these groups before legislative, judicial and regulatory bodies. Examples:

A. Technical analyses of the impact of public investment projects such as urban redevelopment, mass transit, land reclamation, wastewater treatment, and institutional expansion.

B. Evaluate the impacts of private sector production and consumption on communities, consumers, minorities and the distribution of income.

C. Evaluate the impact of governmental regulation upon various economic sectors as well as assess the impact of fiscal and developmental restrictions such as tax laws, zoning, and code enforcement.

Public Education—PIE-West convenes meetings, workshops, seminars and conferences to focus on public policy issues. Meetings range from small informal discussion groups of local economic concern to large conferences devoted to expanding public awareness of the economic consequences of growth and energy choices.

Research—PIE-West will conduct independent economic research on issues of major public concern. The research will be conducted primarily on a contract basis.

Groups seeking to obtain technical assistance through PIE-West can contact the San Francisco Study Center for more information. P.O. Box 5646, San Francisco 94103. (415) 626-1650

economics as if people mattered

SCOMM

9:32

PROPOSAL

Examination of the Consequences
of Alternative Investments
of the Permanent Fund

Submitted to the

Alaska Permanent Fund Commission
Juneau, Alaska

by the

Public Interest Economics Foundation
1714 Massachusetts Avenue, N.W.
Washington, D.C. 20036

August 15, 1977

The Problem

It is PIE-F's understanding that the Governor and the Alaska Permanent Fund Commission (APFC) are faced with a complex set of problems in determining how best to invest the revenues to be received by the Permanent Fund (the Fund). The idea of maintaining, as a permanent part of the State's endowment, a financial fund to offset the disappearance of one set of the State's basic real wealth, much of its oil and gas, is obviously appealing. Effectively carrying out that mandate is, however, replete with practical and even some theoretical difficulties. For example, defining a "permanent" value for the fund in the face of continued inflation is itself not a simple matter.

There appear to be two basic problems only one of which is, as we understand, the responsibility of APFC. Determining how to invest the corpus is APFC's major mission but, this should perhaps not be carried out entirely without regard to the second problem, determining (by the Legislature) how to employ the earnings gained from the investment of the corpus of the Fund. This proposal is concerned exclusively with the former question.

There are a number of what might be considered contextual problems which can be partially solved or possibly exacerbated by the nature of the Fund's employment, but which in any event should be considered in making rational decisions as to the kind of investment of the Fund that would best serve the interests of the general public of Alaska. Among these contextual problem areas are:

- o uneven development of Alaska, the urban-rural differences;
- o the impact of any investment program on immigration and hence on land values, on the one hand, and earnings and amenities of present residents on the other;
- o problems of distribution of income and wealth;
- o problems of relations between white and native populations;
- o the difficult problems of stability--seasonality of employment, the "boom town" phenomenon";
- o the relative roles of the public and private sectors.

Obviously, deciding where the public interest lies in seeking solutions to these problems involves subjective judgments as to social and political values, as well as economic considerations. However, whatever one's beliefs about these problems, they will be affected by the uses to which the Fund is put and the way the Fund is managed.

There are similarly a number of sometimes incompatible criteria by which various possible uses of the Fund might be evaluated:

- o How can the benefits of the investment be kept in Alaska?
- o How can the uses of the Permanent Fund complement other State revenues or other income and wealth in the State?
- o Is it desirable to transform the dollar flows into the fund into some form of tangible investment in Alaska, intangible investment in Alaska? If the income potential is larger, should some of the funds be invested outside Alaska? The problem of local versus external investment may be particularly complex because of the fact that different segments of the population may benefit from one investment policy far more than from the other.

Preliminary thinking by the Public Interest Economics Foundation staff has led to the tentative conclusion that the major candidate areas for investment of the fund can, for discussion purposes, be usefully be grouped into such categories as:

- o infrastructure: highways, aviation facilities, sewer and water systems, public utilities (especially electricity);
- o seed funding to Alaskan cities for urbanization/development/redevelopment;
- o housing subsidies, either for areas where housing costs are particularly high or where needs are particularly great;
- o human capital "investment, education, health, training;
- o direct income redistribution transfer payments;
- o external investment.

The Commission or its staff may well have identified other areas of comparable or greater interest to it.

The problem of choosing the balance, among these (or other) main areas for investment, which would best meet the needs of the people of Alaska is

extraordinarily complex and difficult. This proposal is written in the belief that the Public Interest Economics Foundation can provide expert, impartial analysis that should help decision-makers to solve that problem, in light of the potential goals and contextual problems identified above.

The PIE-F Approach

The Public Interest Economics Foundation is, as is more fully described below, a not-for-profit public interest corporation committed to approaching economic and social problems with a high level of technical rigor and with the overall purpose of advancing the interest of the public at large.

The research and related capabilities of PIE-F suggest that, over time, we could usefully examine a substantial range of policy aspects of the investment decisions facing SIA, including its West Coast affiliate (PIE-West). In particular PIE-F has extensive experience in several of the areas of potential investment just specified: transportation, education, public utilities, mineral resources, health, financial institutions. The principals of PIE-F would be willing to come to Alaska to discuss a range of research possibilities. However, in order to present a reasonably concrete initial proposal, we propose here to examine investment in infrastructure--particularly transportation infrastructure and, possibly, electric public utilities. PIE-F would be willing to investigate some other areas of greater interest to SIA in which we are particularly well qualified. The details of the proposed work would of course be different, but the major thrust of the approach would be similar for many areas of potential investment.

Any category of investment encompasses an implied objective. In most instances, the objective may be expressed on a quantitative dimension, such as new housing units per annum; employment or income gains per period in a specific basic industry such as fishing or lumber; dollar value or square footage of redeveloped urban space.

In addition to the specific objectives measured by the quantified dimension, a variety of other public policy concerns/objectives inhere in each investment category. The committee may, for example, wish to know the effect which each unit of expenditure in each category might have upon

net immigration rates, land use and urbanization rates, resource consumption or public service demand.

Of the investment categories listed above, only one is specifically directed towards shifting the equity positions of income groups. All forms of public investment, however, have equity implications.

In addition to the productivity (benefits) accruing from a specific investment program, attendant public costs will arise. These costs will range in nature from secondary growth support systems (highway patrol, road maintenance, sewage treatment plant management) to costs of depleting stocks of finite resources to housing loan program administration costs. For each investment category PIE-F will identify and, where possible, quantify primary and secondary costs which can reasonably be anticipated.

A decision to pursue specific investment options will yield aggregate economic effects. Employment, income, and price levels in Alaska will be affected to some degree, though not in all instances to an empirically significant level. In addition to these aggregate variables, price and income changes will occur in specific industries and geographic areas. If, for instance, an ambitious housing subsidy program were chosen, it can be expected that there will be upward pressures on the price level associated with income and employment gains in selected areas.

In its role as an outside research resource, the PIE-F staff would not (at least initially) undertake to make recommendations, but would rather examine the full range of major consequences of investment in infrastructure (or other agreed area of investment). Preliminary analysis by the staff suggests that the following types of consequences would be suitable for analysis:

- o Efficiency of the overall economy, based on use of complementary resources, suitability of the investment to the needs of Alaska, costs, timing and, hence, the rate of return and present value of the flow of benefits to be expected.

- o Distributional impacts including rich/poor, native/non-native, old-timer/newcomer and incentives to migrate, and regional including urban/rural.

- o Stability criteria including seasonality of employment, boom-bust cycle, and vulnerability to fluctuations in export prices.

- o Public versus private sector involvement.

Additional consequences might be of great interest to the committee. Before beginning detailed data gathering and analysis, the list of consequences to be examined would be agreed upon between SIA and PIE-F, as would the specifics of the investments to be examined.

The problems are, of course, too broad to be examined exhaustively within the time and money resources proposed. It is PIE-F's intent to develop a systematic way of analyzing the consequences of infrastructure investments, to draw out the general character of consequences in qualitative terms and to the extent possible indicate orders of magnitude. The report is intended to provide a good qualitative base for understanding the implications of broad policy decisions concerning the advisability of major investment in the kinds of facilities to be examined.

Tasks and Schedule

These major tasks are envisaged:

- o Background
- o Field examination and information gathering
- o Analysis

Task One: Drawing on the resources in Washington, D. C. and on those in the San Francisco Bay area and Seattle, the study staff will develop a basic understanding of:

- o the legislative background, the history, and mandate of SIA;
- o such directly or indirectly related developments as the land allocations associated with statehood, the Native claims settlement;
- o the pipeline legislation and its economic implications. In this task the staff members will supplement their previous exposure to Alaskan affairs and will be led by Ms. Mary Clay Berry, author of The Alaska Pipeline: The Politics of Oil and Native Land Claims.

The initial background work will be performed in the lower forty-eight for reasons of economy. Once the materials readily available outside Alaska have been digested, the background explorations will move to Alaska. Key members of the team will come to Juneau and Anchorage to visit with members of SIA and officials in the Office of the Governor, the State Legislature, and their staffs. A visit will also be made to the University of Alaska, at least the Anchorage campus. The purpose of this part of the visit will be to complete development of background information.

Task Two: Largely in Alaska, probably as a continuation of the

same visit, information will be gathered on:

- o the particular kinds of infrastructure (or possibly other investment) under serious consideration for investment of Fund monies;
- o economic developments and forecasts;
- o availability of complementary resources;
- o kinds of consequences of particular importance to SIA;
- o relevant quantitative data, and
- o attitudes of various sectors of the population regarding use of the Fund.

During the early stages of the visit, agreement would be reached on all the major features of the research to be performed, such as the specific investment categories to be examined and the consequences to be explored. In addition avenues for obtaining additional information would be identified.

The second portion of the visit would be devoted to gathering the detailed information needed for the investigation.

Task Three: On the basis of the background information initially obtained, the objectives and details agreed in Alaska, the information gathered in Alaska and outside the State, the study team would perform the analysis. The analysis would specify to the fullest extent possible within the constraints of time and resources, the foreseeable consequences of the investment patterns analyzed. A report would be prepared. It would describe the project, the background, the information gathered, the analysis and the conclusions. It would also identify the limitations of the study and indicate areas where further research should be performed. A camera-ready copy would be delivered to the Committee. After delivery of the report, if the budget allowed and the committee desired it, key members of the PIE-F study team would come to Alaska to make oral presentation of the work and its results.

Schedule: Although a research project must be managed in a flexible way, and it is, therefore, impossible to be precise about all aspects of the schedule of completion a major undertaking such as that contemplated here, the following schedule appears to be realistic.

Work will get underway immediately upon receipt of written authorization to proceed.

Within four weeks the background work outside Alaska will be complete.

The fifth week would be spent in Alaska, largely completing

the background work and reaching final agreement on the content of the remainder of the work.

The sixth and, possibly the seventh week, some of the regular staff and the Alaska liaison person would devote to gathering information.

By the end of the twelfth week the analysis is to be completed.

During the remaining three weeks the analysis would be reviewed and the report put into final form, edited and typed. The camera-ready copy should be mailed fifteen weeks after authorization to proceed.

In the sixteenth week PIE-F representatives would be available to visit Alaska for oral presentations and discussions.

Management and Staffing:

The project will be under the direct supervision of Dr. Allen R. Ferguson, President of PIE-F. The study will be undertaken jointly by the Washington office and its West Coast office, PIE-West. PIE-West is managed by Robert Wocott who will be responsible for supervising the work to be performed there. We plan to designate Professor Richard Norgaard of the University of California as project manager. Ms. Mary Clay Berry has agreed to be a special consultant to the PIE-F team, advising on the background of the problem area. A resident of Alaska will be engaged on a part-time basis to provide liaison for PIE-F with Alaskan officials and to obtain information in addition to that gathered during the visit to Alaska.

It is intended that the remainder of the study team will be selected from among the individuals whose resumes are provided below.

Budget: PIE-F proposes to undertake the study on a cost plus fixed fee basis comprised of all direct costs, including fringe benefits, overhead on all direct costs computed at a rate of 70 percent, and a management fee of 12 percent. It is proposed that the total obligation of the State not exceed \$36,500.

The basis for the budget is shown in Table I. It should be noted that the budget does not include the costs of travel to or within Alaska or costs of food and lodging in the state. That estimate is omitted because until initial conversations are held with representatives of the state, it is impossible to determine the extent of such travel. Those costs would, of course, be added to the State's obligation under any forthcoming contract.

TABLE I: BUDGET

<u>Staff</u>	<u>\$/d</u>	<u>dd</u>	<u>amount</u>
Ferguson	220	11	2420
Wolcott	81	18	1458
Norgaard	160	25	4000
Berry	125	12	1500
Jr. Economist	52	60	3120
Sr. Economist	100	30	3000
Resident Advisor	100	8	800
Business Manager	69	3	210
Typist	50	12	600
			<hr/>
			\$17,108

Other Direct

Phone	200
Reproduction	175
Travel excluding Alaska	1250
Per diem excluding Alaska	315
Miscellaneous	150
	<hr/>
	3,090

\$19,198

Overhead @ 70% 13,438

32,637

Fee @ 12% 3,916

TOTAL: \$36,553

QUALIFICATIONS

General:

The Public Interest Economics Foundation (PIE-F) is not-for-profit public interest corporation--501(c) (3)--incorporated in the District of Columbia. It was established by a group of economists and public interest advocates with the primary purpose of involving economists more systematically in public policy decisions to advance the public interest.

PIE-F and its affiliate, the Public Interest Economics Center (PIE-C) --a 501(c) (4) corporation--carry out five interrelated programs: research, education, governmental relations and a clearinghouse program which provides liaison between professional economists and public interest groups and government officials, and publication of a newsletter Public Interest Economics.

PIE-West is the West Coast office of PIE-F. It concentrates on research, educational, and clearinghouse functions. It has contacts throughout the western United States extending into Canada. Its major research activities have concentrated on economics of resource use and environment.

The staffs of PIE-F, PIE-C and PIE-West are treated as a single pool and are interchangeably assigned to various projects and all three draw on the same pool of external expertise. This project will be undertaken as part of PIE-F's research program.

The conduct of PIE's research activities is unique in several respects. It is PIE's policy to carry out research programs in economics and related fields that can be expected to contribute to advancing the public interest.

As a public interest nonprofit research organization, PIE-F has as basic components two rather special sorts of groups:

- o two boards of advisors--a Board of Economic Advisors and a Board of Public Interest Advisors, and
- o a large complement of volunteer economists, as well as paid consultants, currently numbering over 800.

The membership of the two advisory boards (see attached PIE-F brochure) reflects a broad range of political orientation and includes individuals of national stature as well as less prominent persons of special competence. These advisors have been genuinely involved in the activities of PIE-F, including PIE-West, and it has become a standard practice to use members of the Board of Economic Advisors as reviewers and advisors on particular research projects. Through these advisory boards and the hundreds of affiliated economists PIE-F/C is able to identify, evaluate and recruit on an ad hoc basis economists with virtually every kind of specialization from throughout the country.

PIE-F/C's research activities are organized to take full advantage of its own nuclear staff and regular consultants as well as its special access to outside professionals. It is typical practice to develop research teams consisting of regular staff, members of the board of economic advisors and temporary employees or consultants drawn in part from the list of PIE-F associates. The management plan for the present project is an example of this kind of organization.

In all PIE-F/C projects, a serious effort is made to assure high professional quality. Most of the projects have been under the direct supervision of an economist with a national reputation; frequently, pre-

liminary results have been reviewed and criticized by a team of members of the Board of Economic Advisors. In a number of instances new theory or methodology has been developed to cope with practical applied problems in an analytically rigorous and sound manner. In addition, senior members of the PIE-F/C research team have governmental, research and volunteer-sector experience.

Research Experience

In their five years of existence PIE-C/F have completed major studies in areas directly relevant to the requirements of the Alaska Permanent Fund Commission. Research has focused on governmental policy and its impact. Fields in which such studies have been performed range from the environment to health care. Major studies have covered: analysis of the effect of regulation and taxation on water quality invest, regulation and subsidization of railroads, the merchant marine, motor carriers, impacts of off-shore development, health care facilities, solid waste facilities, inland waterways, regulation of banking and the electric power industry. Other studies have been concerned with the distribution of the burden of costs of environmental protection, industrial noise regulation, materials policy and regulation of milk marketing.

Some projects that appear to be of particular relevance are briefly summarized below. The scope of PIE-F/C research activities is provided in the publications list attached.

1. Infrastructure and utilities

For the United States Railroad Association and for the State of Maryland, PIE-C undertook two major studies dealing with the consequences

of disinvesting in rail facilities. The study examined the obverse of the question: what are the social and economic impacts of increasing investment in infrastructure? The methodology would apply broadly to that question as well as to the question for which it was developed.

These studies resulted in the publication of two reports. The Impacts on Communities of Abandonment of Railroad Service (USRA-C-50010, Dr. Robert Gallamore) and Railroad Abandonments in Maryland for the Department of Economic and Community Development, State of Maryland.

For the National Association of Rail Passengers (NARP), PIE-F is creating a detailed research agenda on the question of Federal ownership of all (or part of) the railroad fixed plant (track, terminals, etc.) in the United States. The deteriorated condition of railroad track and other facilities and the poor financial condition of most American railroads have already created crisis situations (notably the Penn Central), but there is clear likelihood of further wide-spread collapse. Fundamentally the technology of freight transport and the demand for freight transport have changed markedly in the period since the railroads were organized and built.

For the Community Involvement Network PIE-F prepared a citizens' manual for electric utility rate reform. The large increases in electricity rates which have occurred more or less continuously in recent years have sparked wide-spread citizen action. Much of the reason for the upward rate spiral lies in the "declining rate" pricing system and the classification of customers into more or less isolated categories, both widely used in the United States. This system discriminates against

residential customers compared to industrial users and provides discounts to large-volume users within each class. Fundamental rate reform, implementing flat-rate ("fair share") peak-load electricity pricing and possibly "life-line" rates, is the only way to correct these problems and, at the same time, to assume most efficient use of additional plant capacity. The PIE-F manual explains a rationalized, equitable pricing system and advised citizen groups on how to proceed in bringing utility rates to issue and in participating in the hearing process. The manual clears the air on the economics of electricity rates in a readily understandable manner, spelling out rate reform goals for citizen groups.

PIE-C sponsored the preparation of a study as part of the Ford Foundation Energy Policy Project. The study by Charles Cicchetti, Edward Berlin, and William Gillen, entitled Perspective on Power: A Study of the Regulation and Pricing of Electric Power (Ballinger Books, 1975), dealt with the effect of existing and alternative forms of regulation in the electric power industry on efficiency, adequacy of investment and technological structure of that industry and, in turn, on the efficiency of the economy as a whole.

2. Environmental issues

A substantial amount of PIE-C/F's effort has been devoted to environmental economics. Three studies have dealt with water quality. One was undertaken for the Environmental Protection Agency and dealt with the distribution of the burden of the costs of water pollution control among various segments of the population. Two studies for

Experimental Technology Incentives Program included analyses of the effect on water pollution abatement technology of several regulatory changes: use of monetary penalties as supplements to rigid quality standards, the use of capital subsidies, the effects of postponement of compliance dates on abatement technology in the Delaware River Estuary (and in the automobile industry).

PIE-West has assessed the on-shore economic impacts of outer continental shelf oil and gas development for the California Governor's Office of Planning and Research. In addition, PIE-C/F has been active in analyzing and in educational and advocacy efforts related to the use of pollution taxes as a more efficient method of regulation in the entire environmental area.

We have just completed a study for EPA on solid waste management concluding that a charge on use of virgin materials in manufacturing would substantially and efficiently reduce solid waste.

3. Consumer issues

PIE-F/C has completed two projects of particular relevance to the consumers: a study of the impact of deregulation-marginal cost pricing of natural gas for the Center for Strategic and International Studies at Georgetown University and research on the potential economic impact of an effective national consumer education program of the Office of Consumer Education (The Effect on Residential Customers of Natural Gas Price Deregulation and Economically Rational Uniform Pricing and The Potential Economic Benefits of Consumer Education.)

4. Regulatory reform

PIE-F/C has also been deeply involved in the analysis of and in testimony and educational activities associated with the regulation and reorganization of railroads in the Northeast and Midwest with emphasis on the potential impact of change on efficiency and technology in the railroad system and, indirectly, on the rest of the transportation industries.

For the Antitrust Division of the Department of Justice, PIE-C undertook to study the effects of the regulation of ocean freight rate conferences by the Federal Maritime Commission on economic efficiency, competition and innovation in the ocean trades. The project resulted in testimony on four related topics: Professor Leonard A. Rapping, University of Massachusetts, on North Atlantic Pool (NAPA) and Freight Rates; Allen R. Ferguson, NAPA and Overtonnaging; Aaron J. Gellman, NAPA and Technological Change and Innovation; and Professor M.A. Adelman, Massachusetts Institute of Technology, NAPA and Competition in the Ocean Freight Industry.

Dr. Ferguson has testified for the House Merchant Marine and Fisheries Committee on the economic and technological impacts of the operating differential subsidy program.

5. State and financial studies

Although some studies have already been mentioned previously in other categories, it is relevant to this proposal to point out that PIE-F/C has undertaken the following studies for state governments in order to demonstrate our flexibility not only in dealing with national

agencies but also with state agencies: Hospital Capacity in Somerville, An Application of Certificate of Need Legislation, A Review and Evaluation of the Application by Tileston & Hollingsworth for a Variance from the Massachusetts Regulations for the Control of Air Pollution, (and Variance from Air Quality Regulations: the Criteria for the Grant/Deny Decision, (all three for the Department of Public Health of the Commonwealth of Massachusetts;) A Policy Analysis for Recycling Municipal Solid Waste in Minnesota, for the Minnesota Pollution Control Agency, and Railroad Abandonments in Maryland, for the Governor's Steering Committee, State of Maryland.

Three studies in banking and finance indicate another aspect of PIE-F/C's ability to deal with the concepts involved in the planned employment of Alaska's permanent fund: a book, The Banking System: A Preface to Public Interest Analysis, by Stanley W. Black III, Glenn Canner and Robert G. King, published in March 1975 and two studies prepared with a grant from the Stern Fund: Financial Interlocking Directorates; Feasibility Study and Interlocking Directorates among Financial and Non-Financial Corporations: Survey and Background.

RESUMES

Allen R. Ferguson

Robert M. Wolcott

Richard B. Norgaard

Steven J. Buchanan

Mary Clay Berry

Polly Roberts

Joseph "Pat" Weinstein

Edgar Rust

ALLEN R. FERGUSON
PRESIDENT
PUBLIC INTEREST ECONOMICS CENTER
PUBLIC INTEREST ECONOMICS FOUNDATION
1714 Massachusetts Ave., N.W.
Washington, D.C. 20036
(202) 872-0313

Education

Ph.D., Economics, Harvard University, 1949
M.A., Economics, Brown University, 1943
B.A., Economics, Brown University, 1941

PREVIOUS POSITIONS

Independent Economist, 1971-1972
Planning Research Corporation, 1965-1971. Director of Policy Research
Department of State, 1963-1965. Coordinator for International Aviation
The RAND Corporation, 1953-1958, 1960-1963. Senior Economist and
Deputy Head Logistics Department
Northwestern University, 1958-1960. Director of Research,
The Transportation Center
U.S. Government, 1951-1953. Industrial and Transportation Economist
University of Virginia, 1949-1951. Assistant Professor of Economics

EXPERIENCE DIRECTLY RELATED TO ALASKA:

In 1971-1972 consultant to the Office of Economic Opportunity. Reviewed the OEO-sponsored health delivery system in Alaska. Spent several weeks in Alaska, particularly in Nome and Bethel and villages in their hinterlands, also in Anchorage, Fairbanks and Juneau.

EXPERIENCE DIRECTLY RELATED TO INFRA-STRUCTURE ANALYSIS:

Extensive research in transportation analysis, highway, air, water and rail; in public utilities; in human resources, health, organization of human resources delivery systems, consumer education; environment.

OTHER EXPERIENCE

The Public Interest Economics Center and The Public Interest Economics Foundation are coordinate not-for-profit organizations in Washington whose overall function is to involve economists systematically in public policy. As co-founder and president of the organizations have overall responsibility for their funding and operation.

PIE-F research has concentrated in transportation, environment, health technology and banking. Although the research varies, if there has been a main thrust, that thrust has been in the direction of reducing governmental price and entry regulation in transportation, more effectively applying economic criteria for action in technology and health planning, and shifting the reliance in environmental regulation from rigid standards to some form of pricing mechanism.

Immediately prior to founding PIE-C and PIE-F, Ferguson worked as an independent economist undertaking planning studies for highway development in Sumatra and evaluation of health programs in Alaska for the International Bank for Reconstruction and Development and the Office of Economic Opportunity respectively; preparing studies opposing some forms of Federal subsidization, primarily for the SST and Lockheed; advising the Department of Education of the government of Manitoba.

At the Planning Research Corporation Ferguson was responsible for promoting and supervising civilian government research especially in economics and the social sciences. Previously, the corporation had engaged primarily in military research activities. Developed and supervised contract research covering such diverse areas as the evaluation of the Head Start Program, the first study of how the nascent Department of Transportation should implement PPB, a PPB planning study for the Manpower Administration, a study of urban manpower needs for the State of New York, other programs of research for such agencies as the Economic Development Administration, the Office of Telecommunications Policy. Among the private clients for which PRC economic research was performed under Ferguson's supervision were Boeing, Air Canada, the Regular Route Common Carrier Association.

In the Department of State, Ferguson occupied the newly created post of Coordinator of International Aviation. The office was designed to coordinate the activities of the Civil Aeronautics Board, the Federal Aviation Administration, the Agency for International Development and the Department of State in international aviation. The subject matter included establishing and facilitating U.S. policy on aviation in developing countries and on trade in aviation equipment; representing the United States government in multinational conferences. The single most demanding portion of the position was responsibility for the commercial air agreement negotiations between the United States and foreign governments. Served as head of the United States delegation in negotiations with several western European countries, and Canada, Japan, Nigeria, for example. In addition, played a substantial role in the rationalization of North Atlantic rates, resulting in their complete restructuring in 1964.

As the first full-time Director of Research at the Transportation Center at Northwestern University, performed and supervised studies of several aspects of transportation, such as forecasting the prices of used aircraft (at the time when the airlines were converting from piston to jet power), and some aspects of highway subsidization. The most important product was The Economic

Value of the United States Merchant Marine, published in 1961, which became the standard work in the field. Its conclusion, that the subsidization of the merchant marine was economically unsound, formed the basis for much of maritime policy of the federal administrations since that time.

At the RAND Corporation during the early 1960's performed research on arms control, deterrence, and the Berlin crisis. During the 1950's I was deputy and, for a year, acting Head of the, then new, Logistics Department, organizing research on Air Force supply, maintenance, transportation and procurement policy. The program succeeded in facilitating the introduction of some policies designed to reduce inefficiency in the Air Force logistics system. The policies were based on the application of newly developed inventory theory, application of computer technology and reorganization of the role and characteristics of air transport in the logistics system.

In the early 1950's Ferguson was an economist with the Office of Price Stabilization and with the Central Intelligence Agency.

At the University of Virginia taught the advanced economic analysis course for undergraduates and the course in transportation economics.

ADDENDA TO FERGUSON BIBLIOGRAPHY:

With Steve Buchanan and Bradley Gewehr, Citizen Involvement in Reforming Electric Utility Rates, prepared for Citizen Involvement Network, May 1976.

Statement Prepared for Subcommittee on Merchant Marine of the House of Representatives Committee on Merchant Marine and Fisheries at an Oversight hearing concerning the Operating Differential Subsidy (ODS)., February 26, 1976.

Statement Prepared for the Senate Subcommittee on Antitrust and Monopoly Legislation, Committee on the Judiciary, a step toward reducing the inequities and inefficiencies in the current system of price and entry regulation in transportation, December 10, 1975.

Beyond Keynes: Fairness and Growth, address delivered at the National Democratic Issues Convention in Louisville, Kentucky, November 22, 1975.

Statement Prepared for the House of Representatives Subcommittee on Transportation and Commerce, Committee on Interstate and Foreign Commerce in support of controlled transfer as the key ingredient in the reorganization of the rail system in the Midwest and Northeast, delivered on September 10, 1975.

SELECTED BIBLIOGRAPHY

With Leonard Lee Lane and Donald A. Stewart: The Economics of the Railroad Problem, prepared for the Sierra Club, August 26, 1975.

Statement Prepared for the House of Representatives Subcommittee on Interstate and Foreign Commerce, delivered on September 10, 1975.

Testimony Prepared for the House of Representatives Subcommittee on Transportation and Commerce, Committee on Interstate and Foreign Commerce, delivered on July 24, 1975.

Statement Prepared for the Senate Subcommittee on Antitrust and Monopoly Legislation, Committee on the Judiciary, delivered on December 10, 1975.

Beyond Keynes: Fairness and Growth, address delivered November 22, 1975 in Louisville, Kentucky at the National Democratic Issues Convention.

With Leonard Lee Lane, Transportation Policy Options: The Political Economy of Regulatory Reform, prepared for the Department of Transportation, 1975.

With Norman H. Jones and Albert Lowey Ball: Evaluation of Proposed Standards for Determining Rail Service Continuation Subsidies--A Public Interest Approach, prepared for the Office of the Public Counsel, Rail Services Planning Office, 1974.

Proposed Occupational Noise Exposure Regulation, Statement for EPA before Occupational Safety and Health Administration, 1975.

With Barry Slavsky: Evaluation of the Bolt, Beranek and Newman, Inc. Study of the Impact of Noise Control at the Work Place, prepared for the Office of Noise Abatement, Environmental Protection Agency, 1974.

With Donald Mitchell Smith and Victor Habib: The Gross Revenue Impact on Railroads in the Conrail Region of Placing User Charges on Barges, prepared for United States Railway Association, 1975.

With others: A Policy Analysis for Recycling Municipal Solid Waste in Minnesota, prepared for Minnesota Pollution Control Agency, 1975.

With others: Community Impacts of Abandonment of Railroad Services, United States Railway Association, 1974.

With Albert Lowey Ball and Victor Habib: Hospital Capacity in Somerville, prepared for Blue Cross of Massachusetts and the Massachusetts Department of Public Health, 1973.

With Marc Roberts and Arthur Snow: Variance from Air Quality Regulations: The Criteria for the Grant/Deny Decision, prepared for the Massachusetts Department of Public Health, 1973.

With Norman H. Jones et al: Project Evaluation--Project Scoring for the Economic Development Administration, Planning Research Corporation, 1966.

With others: Railroad Abandonments in Maryland, prepared for the Governor's Steering Committee on Railroad Abandonments, 1973.

A Design for the Evaluation of the Comprehensive Health Care Program in Alaska, prepared for the Office of Health Affairs, OEO, August 1972.

With others: A Review and Evaluation of the Application by Tileston and Hollingsworth of Boston, Massachusetts, for a Variance from the Massachusetts Regulations for the Control of Air Pollution, prepared for the Department of Public Health of the Commonwealth of Massachusetts.

"The Role of Neighborhood Health Centers in Economic Development", Neighborhood Health Center Seminar Program, Berkeley, California, January 1972.

"Economics for the Age of Aquarius", New Priorities, Fall 1971.

"Why the SST is Not Good Business", The Wall Street Journal, March 23, 1971.

"Status of the American Economy", National Committee for an Effective Congress, Research Project, 1970.

"Liberty and Justice in 1970", ibid.

With A. Dobson et al: A Manpower Strategy for Urban Development in the State of New York, prepared for Social Development Planning Commission of the State of New York, Planning Research Corporation, 1970.

"Program Budgeting and Consistency in Transportation Policy", Papers, Ninth Annual Meeting, Transportation Research Forum, September 1968.

With others: A Planning-Programming-Budgeting System for Transportation, prepared for Office of the Undersecretary of Transportation, U.S. Department of Commerce, Planning Research Corporation, 1967.

"Tactics in a Local Crisis", Journal of Conflict Resolution, June 1963.

"Deterrence and Disarmament", paper, the RAND Corporation, November 1962.

"Mechanics of Some Limited Disarmament Measures", American Economic Review, May 1961.

With others: The Economic Value of the United States Merchant Marine, The Transportation Center, Northwestern University, 1961.

"A Marginal Cost Function for Highway Construction and Operation", American Economic Review, May 1958.

"Air Force Logistics", Aeronautical Engineering Review, January 1957.

With G.B. Dantzig: "The Allocation of Aircraft to Routes--An Example of Linear Programming Under Uncertain Demand", Management Science, October 1956.

With G.B. Dantzig: "The Problem of Routing Aircraft: A Mathematical Solution", Aeronautical Engineering Review, April 1955.

"Empirical Determination of a Multi-Dimensional Marginal Cost Function", Econometrica, July 1950.

Technical Synthesis of Airline Costs, unpublished Ph.D. thesis, Harvard University, 1949.

With E. Ames: "Technological Change and the Equilibrium Level of the National Income", Quarterly Journal of Economics, May 1948.

ROBERT M. WOLCOTT
DIRECTOR
PUBLIC INTEREST ECONOMICS WEST

Education: University of Cincinnati, Cincinnati, Ohio
Ph.D candidate (degree expected 9/77)
Dissertation topic - "The Welfare Impacts of a
BTU Based Energy Pricing Policy"

Xavier University, Cincinnati, Ohio
M.A. Economics 1968-1969
Thesis - "An Economic Analysis of the Urban Renewal
Program in Cincinnati, Ohio"

Xavier University, Cincinnati, Ohio
B.S. Economics 1964-1968

Experience: Director, Public Interest Economics West. Responsible
for the overall administration of the Western regional
office of the Public Interest Economics Foundation.
Areas of responsibility include direction of a five
person technical staff, financial management, research
contract negotiations and fundraising as well as review
and revision of Public Interest Economics West programs.
Principal areas of expertise in economic research
include energy pricing, regional fiscal impact analysis,
environmental and energy regulation and welfare impact
assessment.
3/1/76-present

Regional Economist, Region IX, U.S. Environmental Protection
Agency. Principal economic policy advisor to senior staff
of the Region IX Agency Office. Responsible for evaluating
the social and economic impacts of regionally implemented
environmental control strategies, inclusive of the monitoring
of contracted analyses and individual performance. Specific
focus directed towards the public finance of surcharge trans-
portation in California and other transportation analysis
related to selected air quality problems.

Other selected areas of investigation have encompassed
public utility rate schedules in California and Arizona,
macroeconomic impacts of the EPA sewage treatment construc-
tion grant program, design of an air quality management pro-
cess nationally, criteria design for inflationary impact
statements and cost effectiveness review of alternative air
quality strategies.

Overall concern in this position has been directed towards specifying the distributional impacts of environmental and energy strategies and sensitizing regional policy makers to these effects. Conducted numerous lectures within government and area universities on economic and environmental analysis and policy.

2/13/74 - 2/27/76

Economist; Assistance Branch, Systems Management Division, Office of Solid Waste Management Programs, U.S. Environmental Protection Agency. Delivery of technical assistance to local governments in the area of solid waste management, focusing on operations research and economic analysis of local programs. Position involved the review of technical economic policy studies and contract monitoring. While in position commissioned to co-author study for the National Commission on Productivity in the area of Solid Waste Management Productivity.

12/4/73 - 12/1/72

Project Coordinator; Over the Rhine Urban Renewal Project, Department of Urban Development, City of Cincinnati, Cincinnati, Ohio.

Responsible for overall implementation of designated urban renewal plans, focusing on the coordination of all Federal, State and local involvement. Conducted detailed analysis of the problem of housing abandonment and evaluation of current rehabilitation programs.

9/1/70 - 12/1/72

Teaching Fellow; Department of Economics, University of Cincinnati, Cincinnati, Ohio.

Part-time instructor of "Principles of Economics" series.

9/1/70 - 12/1/72

Publications: The Santa Ynez Petroleum Transportation Controversy, with R. Norgaard and S. Baron; a paper submitted to the California Governor's Office of Planning and Research; July 1976.

The Regional Economic Impacts of Outer Continental Shelf Oil and Gas Development, with S. Baron, M. Kavanaugh and S. Little; a paper submitted to the California's Office of Planning and Research; November 1976.

Productivity in Solid Waste Management, with G. Garland, J. Quinn, and R. Weisl; a report prepared for the National Commission on Productivity; June 1973.

The Economics of Residential Housing Abandonment; a paper prepared for the City of Cincinnati, Department of Urban Development; June 1972.

RICHARD B. NORGAARD

EDUCATION

Ph.D., Economics, The University of Chicago, 1971
M.S., Agricultural Economics, Oregon State University, 1967
A.B., Economics, University of California, Berkeley, 1965

PRESENT POSITION

Associate Professor of Agricultural and Resource Economics

HONORS

Ford Foundation Fellowship, 1968-1970
Federal Water Pollution Control Administration Graduate Trainee, 1965-1967

EXPERIENCE DIRECTLY RELATED TO ALASKA:

Reviewed two papers by Hildredth and Ferris and Wayne Thomas on Alaskan agriculture for Federal-State Land Use Planning Commission, 1977.

Consultant, Department of Natural Resources, Alaska, Petroleum Leasing Policy, 1976-1977.

Currently supervising five student interns in Alaska with government and public interest groups studying environment and resource problems and counselling, 1976-1977.

Supervised dissertations and government study papers on land use planning and mineral development in Alaska, 1972-1973.

Consultant, CEQ, Deep Water Port Study project, Alaska Port Supply through 2000 A.D., 1972-1973.

Consultant, Institute of Social Economic and Government Research for successful research proposal, \$1 million, NSF, "Man in the Arctic."

River Guide on the Copper River. Consultant to ISEGR on Environmental Impact Report on Pipeline Project, Summer 1971.

Research Associate, ISEGR University of Alaska, Ford Foundation Project on Land Use Planning and Development, Summer 1970.

U
Selected Professional Experience and Service:

Member, Energy and Resources Council, University of California, Berkeley,
since 1976.

Member, Advisory Board, and Consultant to Public Interest Economics--West,
since 1976.

Consultant, Office of Energy R&D Policy, National Science Foundation, 1974-75.

Consultant, Office of Pesticide Programs, Environmental Protection Agency,
1974-75.

Consultant, Energy Policy Project, The Ford Foundation, 1973-74.

Contributing Editor, Environment, Scientists Institute for Public Information since 1973.

Member, Cotton Study Team, Study on Problems of Pest Control: A Technology Assessment, Environmental Studies Board, National Academy of Sciences--National Academy of Engineering, 1973-74.

Consultant, South Pacific Division Comprehensive Port Studies, U. S. Army Corps of Engineers, 1972-73.

Consultant and Research Associate, Institute of Social, Economic, and Government Research, University of Alaska, 1970-71.

Member, Pest Management and Research Advisory Committee, President's Council on Environmental Quality, 1971-72.

Instructor, Economics, Oregon College of Education, 1967-68.

River Guide and Photographer, American River Touring Association, National Geographic Society, and Conservation Organizations, periodically since 1959.

Professional Associations:

American Association for the Advancement of Science

American Economics Association

Federation of American Scientists

Review Work:

American Journal of Agricultural Economics

Environment

Journal of Environmental Economics and Management

Land Economics

Selected Publications:

Academic Articles

"The Economics of Improving Pesticide Use," Annual Review of Entomology, Vol. 21 (1976).

"Scarcity and Growth: How Does It Look Today," American Journal of Agricultural Economics (December, 1975).

With Darwin C. Hall, "Environmental Amenity Rights, Transactions Costs, and Technological Change," Journal of Environmental Economics and Management (December, 1974).

"Resource Scarcity and New Technology in U. S. Petroleum Development," Natural Resources Journal (April, 1975); see, also, Comment and Reply in Land Economics (February, 1976).

With Allan C. Lichtenberg, "Energy Policy and the Tax Treatment of Oil and Gas Income," Natural Resources Journal (October, 1974).

With Darwin C. Hall, "On the Timing and Application of Pesticides," American Journal of Agricultural Economics (May, 1973); see, also, Comment and Reply in August, 1974, issue.

"Petroleum Development in Alaska: Prospects and Conflicts," Natural Resources Journal (January, 1972).

"Streamflow and Sediment Deposition in the Lower Columbia," Water Resources Research (October, 1971).

"Streamflow Fluctuation, Bar Roughness, and Bed Load Movement: A Hypothesis," Water Resources Research (June, 1968).

Professional Reports

With Rob Wolcott and Sandra Baron, "The Santa Ynez Petroleum Transport Controversy," prepared for the Office of Planning and Research, State of California, September, 1976.

"An Evaluation of Integrated Pest Management Programs for California and Arizona Cotton," in Evaluation of Integrated Pest Management Programs for Cotton in the United States, prepared under the supervision of Rosmarie von Runkler for the Environmental Protection Agency and Council on Environmental Quality, 1975.

With Darwin C. Hall and Pamela True, "The Performance of Independent Pest Management Consultants in San Joaquin Cotton and Citrus," California Agriculture (October, 1975).

With Hayne E. Leland, "An Economic Analysis of Alternative Outer Continental Shelf Petroleum Leasing Policies," prepared for the Office of Energy R&D Policy, National Science Foundation, September, 1974.

"Alaska Petroleum Development and Supply to the Lower West Coast: 1980-2000," West Coast Deepwater Facilities Study, Supplement II to the Petroleum Consumption and Supply Study, North and South Pacific Divisions, U. S. Army Corps of Engineers, June, 1973.

"An Analysis of Irrigation Benefits and Costs Attributable to New Melones Dam," testimony presented in Environmental Defense Fund, Inc., et al. versus Ellis Armstrong et al. [C-72-1057] on September 27, 1972, in U. S. District Court, Northern California, San Francisco. Also presented to the Water Resources Control Board, State of California, Sacramento, December 5 and 11, 1972.

With Scott R. Pearson and Hayne E. Leland, "Petroleum Taxation and Pipeline Regulation in Alaska," presented at the 23rd Alaska Science Conference, Alaska Division of the American Association for the Advancement of Science, Fairbanks, Alaska, August 17, 1972.

With Arlon R. Tussing, George W. Rogers, Victor Fisher, and Cregg Erickson, Alaska Pipeline Report, Institute of Social, Economic, and Government Research, University of Alaska, August, 1971; also published as an Appendix to the Trans-Alaska Pipeline Environmental Impact Report.

STEVEN J. BUCHANAN
SENIOR ECONOMIST

EDUCATION

Colorado School of Mines, B.Sc., Geophysics, 1969

The Johns Hopkins University, currently completing Ph.D. thesis
Economics

PREVIOUS POSITIONS

Associate Staff Physicist, The Johns Hopkins University
Applied Physics Laboratory, 1969-1972

EXPERIENCE

Transportation Research - At PIE-C Mr. Buchanan co-authored a major study of the community impact of railroad abandonments (disinvestment) in the Northeast. A computation procedure using a model of the firm provided quantitative estimates for several measures of economic impact. The resulting estimates were used by the United States Railway Association to evaluate rail abandonment recommendations. Mr. Buchanan also authored a PIE-C study of public ownership and operation of the fixed railroad facilities in the U.S. PIE-C has pursued several research and legislative activities addressing the problem of surface freight transportation regulation. Mr. Buchanan has been substantially involved in most of these efforts.

Regulatory Research - Mr. Buchanan has been involved extensively in the PIE-C work on innovation and federal regulation being conducted for the Experimental Technology Incentives program of the Bureau of Standards. This work has included writing a background study of the regulatory process as it relates to innovation incentives, preparing preliminary regulatory experiment designs, and performing a study of antitrust considerations for cooperative industry research and development projects. At PIE-C Mr. Buchanan has written economic impact assessments of the Consumer Product Safety Commission's Bookmatch standard and the proposed OSHA industrial noise regulations.

Public Utilities - Mr. Buchanan has also written a study of FCC cable TV regulation, which proposes revisions to the existing regulations. In the electric utility field Mr. Buchanan has written a handbook for public participation in rate hearings which is being disseminated by the Citizen Involvement Network. The handbook presents the case for marginal cost pricing of electricity in laymen's terms and gives practical guidance for citizens' groups in achieving electricity rate rationalization.

Environmental and Educational Research - Mr. Buchanan is the senior researcher and author of a study of the effects of product charges on the municipal solid waste problem. At PIE-C he also was co-author of a study of the economic impacts of consumer education.

Buchanan resume -2-

Public Lands - During his graduate work Mr. Buchanan co-authored a study of theory and policy issues relating to common property resources. The National Audubon Society funded the study, which focussed primarily on the problems of wildlife and administration of public lands.

Quantitative Modeling - At the Johns Hopkins Applied Physics Laboratory Mr. Buchanan developed a digital simulation of a centrally controlled transportation network. The simulation was used subsequently to identify optimal routing strategies in a prototype transit system for the Department of Transportation. Mr. Buchanan also acquired substantial experience in real time applications and computer modeling of radar detection and deception techniques.

Name: Mary Clay Berry

Address: 1207 Duke Street
Alexandria, Va. 22314

Telephone: 549-6304

Born: January 24, 1938 in Washington, D.C.

Education:

I attended public and private schools in Maryland and Kentucky and was graduated in 1955 from The Masters School in Dobbs Ferry, N.Y.

1959 B.A. Smith College

1961-63 Coursework for M.A. in political science at the New School for Social Research in N.Y.C.

Experience Directly Related to Alaska:

Author The Alaska Pipeline: The Politics of Oil and Native Land Claims.

Reporter, Washington correspondent for the Anchorage Daily Times and the Fairbanks News-Miner.

Experience:

1959-60 Editorial assistant, House Beautiful, N.Y., N.Y.

1961-63 Researcher, CBS News, N.Y., N.Y.

1964-65 Reporter, Paris Daily Enterprise, Paris, Ky.

1965-66 Reporter, Providence Journal-Bulletin, Providence, R.I.

1967-71 Reporter, Griffin-Larrabee News Bureau, Washington, D.C. (I was the Washington correspondent for first the Trenton (N.J.) Times and later the Anchorage (Alaska) Daily Times and the Fairbanks (Alaska) News-Miner.)

1971-present Freelance writer, Washington, D.C. During this period, I wrote The Alaska Pipeline: The Politics of Oil and Native Land Claims (published in 1975 by Indiana University Press); worked as a consultant and writer for the Ford Foundation's Energy Policy Project and the Natural Resources Defense Council, a public service law firm

specializing in energy; wrote a Washington column for Money magazine (primarily dealing with tax, banking, and energy matters and their effect upon the middle class consumer); and, from February 1976 to February 1977, was a Fellow of the Alicia Patterson Foundation, writing about the lobbying process. I am presently completing a book based upon work done on the Patterson Fellowship.

Other:

1970 recipient of the American Political Science Association's Public Affairs Reporting Award for coverage of the settlement of the Alaska Native land claims.

1976-78 Member, Board of Directors, Burgunda Farm Country Day School, Alexandria, Va.

References:

Donald R. Larrabee, Griffin-Larrabee News Bureau, 1237 National Press Building, Washington, D.C. 20004 554-3579

Richard Nolte, Director, Fellowship Program, Alicia Patterson Foundation, 535 Fifth Avenue, N.Y., N.Y. 212-697-0868

Edward L. Strohbehn, Attorney, Natural Resources Defense Council, 917 15th Street N.W., Washington, D.C. 20005
737-5000

EDGAR RUST, Ph. D.

Mr. Rust is both a practicing planner and a recognized authority on the dynamics of urban and regional growth and decline. His ground-breaking study, No Growth: Impacts on Metropolitan Areas, is currently receiving favorable reviews in the major journals. His career has combined original research, policy studies and practical implementation in work in the fields of city planning, housing, transportation and regional development.

EXPERIENCE:

- 1977 to present Research Associate, Urban and Rural Systems Associates. Economic and demographic studies of the impacts of Alaskan Outer Continental Shelf marine minerals development.
- 1974-1977 Associate and Principal Analyst, Berkeley Planning Associates. Case studies of planning for assisted housing, and analysis of a national sample of housing assistance plans. Study of labor mobility programs. Development of regional sub-state economic monitoring system*. Assessment of needs and mitigating measures for populations of declining rural areas*. Analysis of relocation requirements of the severely handicapped. Analysis of Alaskan rural settlement patterns.*
- 1973-1974 Research Associate, Scientific Analysis Corporation. "A Study of the Consequences of Metropolitan Stability or Decline."*
- 1972-1973 Postgraduate Research Planner, Institute for Urban and Regional Development. Model design and calibration, policy testing for "National Interregional Demographic Accounts," a simulation of the future distribution of population and income levels among U.S. metropolitan areas.
- 1966-1971 Urban Planning Director, Building Systems Development, Inc., San Francisco, California. Self-Help Housing Methods study for the U.S. Office of Urban Research and Technology.* Improvement of public housing management and maintenance procedures of the San Francisco Housing Authority. Study of housing maintenance costs in government housing.* HUD In-Cities Housing Research and Development Program. Study design of the San Diego County Transportation Research and Implementation Program. Study of lower income regional housing needs and resources for the Metropolitan Detroit Citizens' Development Authority.* Consulted to the cities of Waterbury, Connecticut and Juneau, Alaska, in urban planning. Consulted to private firms on diversification opportunities in the building industry.

*Project Director or Manager

1965-1966 Urban Planner, Skidmore, Owings and Merrill, San Francisco. Data gathering, area planning and development control aspects of the Market Street East General Neighborhood Renewal Plan for Philadelphia, Pennsylvania.

1963-1965 Planning Assistant II, Planning Department, Anchorage, Alaska. Prepared and conducted public review of zoning ordinance. Administered part of zoning and subdivision caseload. Prepared first capital improvements program and annual review procedures. Prepared population projections, street and highway plan, subdivision ordinance, and special issue studies. Drafted proposed post-earthquake building restrictions.

EDUCATION:

1961 Williams College, B.A.

1963 Massachusetts Institute of Technology, M.C.P.

1974 University of California, Berkeley, Department of City and Regional Planning, Ph.D.

OTHER:

Awards:

1961 Graves Essay Prize, Williams College

1975 Student Award for Outstanding Achievement, American Institute of Planners

Consulting:

1975, April Associated Building Industry

1975, March Department of Regional Economic Expansion, Canada

1972 San Francisco Development Fund

1965 Kaplan and Gans, Planners, San Francisco

Teaching:

1967-1971 and
Fall 1976

Lecturer, Department of City and Regional Planning, University
of California, Berkeley.

Professional Affiliations:

Member American Institute of Planners

Publications and Reports (Principal author unless otherwise noted):

No Growth: Impacts on Metropolitan Areas, Lexington, Mass: Lexington
Books, D.C. Heath & Co., 1975. 229 pp.

"The Dynamics of Rural Community Growth," in Proceedings of the Third
Asian Pacific Social Development Seminar, Cultural and Social Center for the
Asian and Pacific Region, Seoul, Korea, 1976.

"Old West Sub-State Monitoring System: Background and Priorities." Report
No. 1 for the Old West Regional Commission. February 1976.

"Old West Sub-State Monitoring System: Data Source Catalog." Report No. 2
for the Old West Regional Commission. February 1976.

"Old West Sub-State Monitoring System: Recommended Sub-State Monitoring and
Outreach Procedures." Report No. 3 for the Old West Regional Commission. March 1976.

"The Evolving Pattern of Village Alaska." Report written for the Federal-State
Land Use Planning Commission for Alaska. March 1976. (By William Alonso and Edgar
Rust.)

"Adaptation or Reversal: Policies for the Quality of Life in Declining Portions
of Montana, North Dakota, and Wyoming." Prepared for the Old West Regional Commission.
March 1975. (By Edgar Rust and William Alonso.)

Metropolitan Areas Without Growth. Ph.D. Dissertation, Department of City and
Regional Planning, University of California, Berkeley, 1974. Also prepared for the
Center for Population Research, U.S. Department of Health, Education and Welfare,
and published by Scientific Analysis Corporation, San Francisco, 1974.

"Administration Polarization and Metropolitan Employment Changes." Prepared for
Economic Development Administration, U.S. Department of Commerce, May 29, 1973.

Publications and Reports (cont'd):

Large-Scale Self-Help Housing Methods, San Francisco Building Systems Development, Inc. Prepared for the Office of Urban Research and Technology, U.S. Department of Housing and Urban Development.

Vol. 1: Analysis of Context, January 30, 1970

Vol. 2: Analysis of Alternative Building Methods, May 1970

Vol. 3: Recommendations, May 1970

Vol. 4: Summary, June 1970

"Utilities: A Report on the Potential for Boeing Involvement in Earth Surface Life Support Systems," Building Systems Development, Inc., December 1970 (with William Meyer, et al.).

"The Economics of Mutual and Self-Help Housing Methods," and "The Range of Self-Help Construction Procedures and Their Technical Characteristics," in Self-Help Housing in the U.S.A., Cambridge: The Organization for Social and Technical Innovation, Inc., June 1969 (with Michael Berline).

"Position Paper on Management of the Housing Development Process," In-Cities Experimental Housing Research and Development Project, April 1969.

"Lower Income Housing Requirements of Metropolitan Detroit," Building Systems Development, Inc. Prepared for the Metropolitan Detroit Citizens' Development Authority, June 1968.

"Brief Analysis of 82 Cities," Building Systems Development, Inc. Prepared for the U.S. Department of Housing and Urban Development, July 1968.

"Housing and Neighborhood Development Strategies," in Report to the Waterbury Non-Profit Development Corporation, Cambridge: The Organization for Social and Technical Innovation, July 1967 (with Rapy Iredale).

"Study Plan for TRIP," San Diego: The San Diego County Comprehensive Planning Organization, March 1967 (with Greg Salas and Robert Whorf).

"Intra-Metropolitan Migration: Six Boston Area Municipalities" (M.C.P. Thesis), Massachusetts Institute of Technology, June 1963.

Conference Papers Delivered:

"Impacts of Urban-Industrial Growth on an Evolving Village System: The Experience of Rural Alaska." Conference on Rural Development, Department of Social Welfare, Provincial Government of Taiwan, 1976.

Conference Papers Delivered (cont'd):

"The In-Cities Housing Research and Development Program." U.L.I. Housing Conference, Chicago, 1968.

"Metropolitan Non-Growth:Lessons from the U.S. Experience." Youngstown State University Conference on Metropolitan Decline, 1977.

"The Next Appalachia: Must Every Energy Boom Go Bust?" Western Economics Association, 1977.

POLLY ROBERTS

ECONOMIST

Education:

B.A., Radcliffe, 1966, in Physics, PEK
Graduate School, Harvard, 1966-1969; Ancient Near Eastern Languages
Graduate School, Berkeley, 1970-1971; Ancient Near Eastern Languages
Graduate School, Berkeley, 1972- : Agricultural and Resource Economics,
Ph.D. Candidate, June '77.

Employment:

Harvard Cyclotron Lab, summer, 1965.
Ralph Nader's Center for the Study of Responsive Law, 1970.
Clear Creek magazine, Publicity Director, 1971.

Publications:

Study of pesticide regulation, in Sowing the Wind, (Nader Report on USDA),
by Harrison Wellford, Grossman, 1971.
Study of farm subsidies, in The Politics of Land Use (Nader Report on
land use in California), by Robert Fellmeth, Grossman, 1973.
Power and Land in California, A Summary. (Summary of above report, 1971)
Statement, in Farmworkers in Rural America, 1971-72, Hearings before the
Senate Subcommittee on Migratory Labor, Part 1, p. 125, Sept. 21, 1971.
"The Research Subsidy", Ibid, Part 5B, p. 3841. Biases in research at the
land grant colleges.
"Behind the Lead Curtain", review of lead pollution hazards, in Clear
Creek, May, 1971.
"Farmland Tax Breaks: How Not to Stop Urban Sprawl", in California
Homeowner, April, 1973.
"Parks for Fun and Profit: The Story of Point Reyes", in Not Man Apart,
August, 1972.
"California Without the Milk Stabilization Act", in Dairy Scope, June,
1974.
"The Pricing of Local Services and Effects on Urban Spatial Structure",
to be published in proceedings of June, 1974, conference, same title,
chairman and editor, Paul B. Downing.
"Low Density Policies: the Price Communities Pay", with Keith Roberts,
The Real Estate Appraiser, March-April, 1975.
"Property Taxes and Land Value Taxes", The Real Estate Appraiser,
September-October, 1975.
"Making Dollars and Sense out of Fiscal Impact Analysis", Planning,
August, 1976, reprinted in Environmental Comment, (a publication of
the Urban Land Institute), October 1976.

Activities:

Sierra Club, Bay Chapter Urban Environment Subcommittee
Henry George School of Social Science, President, 1974-75 term.
League of Women Voters, 1975-76 property tax study.
Coordinator, Conference on Bay Area Urban Growth: Yes or No? Up or Out?
Oct. 31/Nov. 1, 1975.

JOSEPH "PAT" WEINSTEIN

Mr. Weinstein is a city planner and educator with a broad range of experience in economic and labor studies, housing market analyses, educational planning, and criminal justice. He has worked with both private and public sector clients in the preparation of analytical reports, in the evaluation of policy issues, and in the provision of technical assistance.

Mr. Weinstein has developed substantial expertise and understanding regarding the State of Alaska as a result of his involvements in an Alaskan public policy survey, the Department of Labor Alaska Manpower Study, and major socioeconomic assessments of the Arctic Gas pipeline and the feasibility and projected impacts of Alaskan North Slope off-shore drilling. In addition, he has given expert testimony on Alaskan-related matters before the Federal Power Commission and the Berger Commission in Canada.

EXPERIENCE:

- 1976 - present Project Director, Socioeconomic Studies Program of the Alaskan Outer Continental Shelf Petroleum Development. Responsible for direction and coordination of all field and research staff on this contract with the Bureau of Land Management, which focuses on Alaskan communities and their capacity to undergo significant social, economic, and environmental change as a result of resources development.
- Project Director, Petroleum Public Opinion Survey in Alaska. Responsibilities include directing a study of Alaskan attitudes towards taxation and economic development.
- 1974 - present Research Director, Alaskan Arctic Gas Socioeconomic Impact Study. Assessed the social and economic impacts of both the Alyeska and Arctic Gas pipelines upon the State of Alaska. This comprehensive study was undertaken in compliance with the NEPA requirements of the Federal Power Commission and Department of Interior Regulations. Particular emphasis was placed on an in-depth analysis and projection of future needs in the following areas: health, housing, social services, education, public safety, revenue, population, labor and employment, economic development, and governance.
- Subsequently testified on socioeconomic impacts of petroleum development in Alaska before the Federal Power Commission and the Berger Commission in Canada.

Project Coordinator, Region X DOL Alaska Manpower Study. Responsible for coordinating major research effort in Alaska involved with analysis of manpower and labor force changes over period from 1974-1980.

Project Director, Bay Area Revenue Sharing Study. Collected revenue sharing data on local communities and evaluated in terms of impact upon future expenditure policies of selected Bay Area foundations.

Project Director, Evaluation of Citizen Participation in the Goal Setting Process of California Schools. Directed a case study analysis of 24 selected school districts throughout the state, focusing on the kind and level of citizens' involvement. Recommendations from the study were presented to the Joint Committee on Educational Goals chaired by Assemblyman John Vasconcellos.

Senior Staff, Oakland Public Schools Master Plan Citizen Committee. Assisted in the reformulation of the Citizen's Master Plan structure to reflect the experiences of the Committee's first three years. Drafted recommendations and outlined submission for foundation funding.

1972 - 1973

MARSHALL KAPLAN, GANS AND KAHN, City Planners, Consultants
Senior Staff, San Antonio River Corridor Study. Worked with local officials to develop education and criminal justice 20-year plans for central area of this Texas city. Organized regional education planning body. Designed and assessed housing market questionnaire.

Project Director, Homewood Terrace Housing Market Study. Analyzed the potential for housing of a 9-acre site in San Francisco. Recommended appropriate housing package and schedule given the unique characteristics of the site.

Consultant, Westside Planning Group, Fresno. Developed information questionnaire and packet to assist community based group in organizing around education issues.

Senior Staff, Valencia Housing Market Study. Evaluated performance of four-year-old Southern California New Town; made specific recommendations relating to physical lay-out, design, housing mix, absorption schedule, and management policy.

Consultant, Harbor Bay Isle Housing Market Study. Assisted in the reformulation of absorption schedule after local legislation changed the zoning of a particular site in Alameda, California.

Recruitment Director, Urban Technical Services. Charged with contacting, screening, and selection of professionals to be a part of a HUD program which places these skilled people in small towns throughout the United States.

Project Director, Rancho San Diego. Analyzed California education legislation and the resultant education funding sources to assist the Title VII New Town outside San Diego in the provision of educational services to its future residents. Comparison was also made to other Title VII communities in other states.

Senior Staff, Relocation Technical Assistance Guide. Developed information system and data base for local relocation officials meeting new federal relocation requirements.

1970 - 1971

Planner, Oakland Model Cities, Oakland, California. On a consultant contract to City Demonstration Agency, assisted in the preparation of yearly plan, managed education projects, sought federal funds for model school, and analyzed economic potential of various Model Cities-funded businesses providing services to the Port of Oakland.

EDUCATION:

Wesleyan University	BA	Social Studies	1967
Harvard University	MAT	Education	1970
University of California, Berkeley	MCP	City Regional Planning	1972

SCOMM

#9:33

DEVELOPMENT OF COTTAGE INDUSTRIES AND
APPROPRIATE TECHNOLOGIES FOR ALASKA

By Brian Rogers

Prepared for use of the
Alaska State Legislature
House of Representatives
Special Committee on the
Alaska Permanent Fund

December 15, 1977

(FINAL REPORT)

"Appropriate technology reminds us that before we choose our tools and techniques, we must choose our dreams and values, for some technologies serve them, while others make them unobtainable."

-Tom Bender

RAIN: Journal of Appropriate
Technology

"I am convinced that non-renewable resources need not necessarily be the sole basis of the northern economy in the future. We should not place absolute faith in any model of development requiring large-scale technology. The development of the whole renewable resource sector -- including the strengthening of the native economy -- would enable native people to enter the industrial system without becoming completely dependent upon it.

"An economy based on modernization of hunting, fishing and trapping, on efficient game and fisheries management, on small-scale enterprise, and on the orderly development of gas and oil resources over a period of years -- this is no retreat into the past; rather, it is a rational program for northern development based on the ideals and aspirations of northern native peoples.

"To develop a diversified economy will take time. It will be tedious, not glamorous, work. No quick and easy fortunes will be made. There will be failures. The economy will not necessarily attract the interest of the multinational corporations. It will be regarded by many as a step backward. But the evidence I have heard has led me to the conclusion that such a program is the only one that makes sense."

-Justice Thomas R. Berger
NORTHERN FRONTIER, NORTHERN HOMELAND
The Report of the Mackenzie Valley
Pipeline Inquiry: Volume One
April 15, 1977

DEVELOPMENT OF COTTAGE INDUSTRIES AND
APPROPRIATE TECHNOLOGIES FOR ALASKA

I. INTRODUCTION TO APPROPRIATE TECHNOLOGY

- Criteria for appropriate technologies
- Research and development institutions
 - Public and governmental
 - Semi-public and universities
 - Private non-profit and for-profit

II. INTRODUCTION TO COTTAGE INDUSTRY

- Criteria for cottage industries
- Alaska opportunities for cottage industries

III. PROBLEMS OF APPROPRIATE TECHNOLOGY POLICIES

IV. RECOMMENDATIONS

- Grants and loan programs through existing institutions
- Potential new grant and loan programs
 - Alaska Enterprise Investment Fund
 - Alaska Renewable Resources Corporation
- Building design applications
- Appropriate Technology Conference
- Utility regulation
- Solar easements

V. RESOURCE MATERIALS USED IN PREPARATION OF THIS REPORT

VI. APPENDICES

- Projects funded by the National Center for Appropriate Technology
- New Alchemy Institute's "Ark"
- Proposal for an Alaska Appropriate Technology Conference
- Energy Accounting for Analysis of Alternative Energy projects
- Sample Solar Easement legislation
- Sample Solar Tax Credits legislation
- Montana Alternative Energy Research, Development and Demonstration legislation
- Analysis of Building Codes, with emphasis on rural areas
- Budget of California Office of Appropriate Technology

The concept of "appropriate technologies" has developed in response to the growing realization that not all technological development is appropriate to the changing needs of society. Some technologies may act to further the goals and ambitions of the users, while others may threaten their established way of life. No technology is value-free; each technology affects society in some way or another.

The appropriate technology movement grew in large part from the followers of Dr. E.F. Schumacher, author of "Small is Beautiful: Economics as If People Mattered." Schumacher noted that technological development, particularly in the developing nations of the Third World, did not always meet the needs of the people who used the new technologies. He called for the establishment of "intermediate technologies", technologies which were somewhat between primitive techniques and the large-scale high-technology of the industrialized world.

In 1965, Schumacher founded the Intermediate Technology Development Group (ITDG), which has since been developing small-scale and low-cost alternatives to developing countries in the areas of agriculture, building design, food, cooperatives, health, transportation, power and industry.

From Schumacher's initial concepts, the idea of appropriate technologies developed. Appropriate technology recognizes that some technologies are appropriate for regions with small populations and extensive resources, while others are appropriate for regions with limited resources and large populations. The questions "appropriate for which people?" and "appropriate for what area?" have to be asked about any new technology. But the idea of appropriate technology goes a little further. While no hard-and-fast rules can apply, the following criteria are generally accepted for appropriate technologies:

(1) The technology is small-scale; it requires a small workplace and a small number of workers to operate.

(2) The technology is low-cost (which implies that it should not depend too much on the importation of expensive materials or components or high-cost energy sources).

(3) The technology is simple; it should be relatively understandable by a user who does not have specialized training.

(4) The technology is reliant on renewable energy sources -- sun, wind or water -- rather than on fossil fuels.

(5) The technology is flexible enough to meet changing needs of its users.

In addition, appropriate technologies generally minimize the transport of goods, make expensive or unavailable financing and management services unnecessary, develop human potential rather than substituting for it, and tend toward decentralization of production, thus establishing self-sustaining local economies.

Since the establishment of ITDG in 1965, quite a number of institutions and organizations have been involved in development of intermediate and appropriate technologies. At first, many of these groups were involved in the developing nations, which were seen to have the greatest need for technological innovation on a level somewhere between the existing local technologies and those of the industrialized Western world.

Since the Arab oil embargo of 1973, however, there has been a growing realization of the need of the industrialized countries for technologies which are less dependent on rapidly-depleting fossil fuels. In addition, many people feel the need for technologies which are less costly than existing technologies, for technologies which are more personal and less bureaucratic.

Research and development of appropriate technologies and dissemination of information about these technologies is currently being undertaken by three types of institutions:

(1) Public: government agencies are directly involved with research and development.

(2) Semi-public: university research institutes and extension centers are involved with research, development, and dissemination of technological information.

(3) Private: non-profit (and occasionally for-profit) corporations and individual entrepreneurs are developing appropriate technologies.

The best U.S. example of direct involvement of government agencies is the California Office of Appropriate Technology (OAT). This office was created in 1976 by Governor Jerry Brown, who charged it with developing technologies ". . . which are less harmful to people and the environment than the technologies of the past." The OAT, which is administratively located in the Governor's Office of Planning and Research (OPR), acts as a clearinghouse for information about people and groups involved with appropriate technology throughout the state. In addition, the OAT conducts several on-going programs: training of solar technicians (with funding through CETA), demonstrating innovative ideas for conservation and self-reliance to state residents, experimenting with on-site waste water disposal and drought-tolerant gardens, and various other educational programs.

The OAT assists and advises the Governor and state agencies in developing and implementing new technologies in the areas of recycling, building design, waste disposal, transportation, agriculture, energy and energy conservation. The office is not only a source of information, but also initiates research and demonstration projects and is trying to identify and remove legal and insti

tutional barriers to decentralization, conservation, and small business and industry.

A steering committee composed of the California State Architect (who originated the idea of a state OAT), the Assistant to the Governor for Issues and Planning, and the director of OPR sets policy direction for the OAT. Funding presently comes from the Governor's discretionary account, but is expected to become a component of the state operating budget in the future. Additional funding for some projects comes from the federal government (such as the CETA solar technician training program). The office currently has a staff of five; it is intended that the office will remain an (appropriately) small one.

On the federal level, \$3 million has been allocated by the Community Services Administration (formerly OEO) to fund a National Center for Appropriate Technology (NCAT). NCAT, located in Butte, Montana, is intended to be a center for technical assistance and resources for Community Action Programs and grass roots organizations involved in research, development and demonstration of appropriate technologies. The staff of 50 will operate a research and information service, along with a library, telephone service, and appropriate technology workshops. NCAT hopes to reach low-income communities with appropriate technologies which will provide meaningful employment, will be simple to maintain, and will make the communities more self-sufficient. NCAT is currently training individuals from various rural Community Action Programs in appropriate technology, with the hope that these people will disseminate the information in their local communities.

NCAT plans several projects in Alaska, according to one staff member. Currently planned is a project for the North Slope Borough in village power plant training and operations. It is hoped that funding will be available from the Department of Energy for over \$100,000 for the project. If funding is available, people from seven villages will be trained in maintenance and operation of

village power plants. The project is currently short approximately \$70,000 for a building to house the training program. The building would be used to demonstrate fuel cell technology when the training program is completed. Other Alaska proposals currently being considered by NCAT include a village hydropower survey in Kodiak, funding of appropriate technology development for the Musk Ox Project in Unalakleet, and a possible regional newsletter on Alaskan appropriate technology development.

In 1975, Congress also allocated \$20 million to the Agency for International Development (AID) to spend on the promotion of appropriate technology in the developing countries between 1976 and 1978.

A laboratory facility for integrated food and energy production was completed in late 1976 for the Prince Edward Island provincial government in Canada. Built with federal, provincial and private funds, the facility, called "The Ark", is a "bioshelter", a home which is completely self-sufficient in energy and food production. The Ark was built for the P.E.I. government by researchers from the New Alchemy Institute, a private appropriate technology research and development institution. The Ark received \$350,000 in funding from the provincial government, and is currently being operated as a demonstration facility for P.E.I. residents.

University and university-related research and development of appropriate technologies is a rather recent phenomena. While many local appropriate technology groups originated in universities (the Technology Consultancy Centre in Ghana, the Regional Adaptive Technology Centre in the Phillipines, and the Division of Micro-projects in Eindhoven, Netherlands, are three examples of such groups), few universities have undertaken appropriate technology programs. To date, only one country -- India -- has considered giving degrees in appropriate technology.

Quite a number of universities are involved in some aspect of appropriate technology research, development, though. Many have extensive research activities which, though geared primarily towards large-scale technological development, have spinoff benefits to appropriate technology research. Several are directly involved with creation of intermediate technologies. In the U.S., this has been primarily through efforts of students who are interested in appropriate technology, rather than being a policy set by the universities themselves.

Private individuals and institutions, however, have been the prime movers in appropriate technology research, development, demonstration and information distribution activities. England's Intermediate Technology Development Group (ITDG), as mentioned earlier in this report, has been developing intermediate technologies for developing countries since its creation in 1965. ITDG also publishes the quarterly "Appropriate Technology" magazine, which details tools and processes for developing countries, and serves to transfer information about appropriate technologies between various institutions and groups.

In the United States, several appropriate technology groups have been started in recent years. Publications such as RAIN: Journal of Appropriate Technology, CoEvolution Quarterly, Alternative Sources of Energy Magazine, The Mother Earth News, and others have served as the information sources for individuals and groups throughout the country which are involved in appropriate technology research and development. A network of these individuals and groups has developed, somewhat loosely, as people exchange ideas and information and pass them on.

The New Alchemy Institute of Woods Hole, Mass., is a good example of a private group involved in appropriate technology research. The New

Alchemists have been involved with developing highly productive integrated small-scale agricultural systems and related support technologies. They have created several bioshelters, one of which was The Ark, commissioned by the Prince Edward Island provincial government, and built by researchers from New Alchemy Institute in conjunction with Solsearch Architects of Cambridge, Mass., and Souris, P.E.I.

Several excellent source books for appropriate technology have been published in the U.S. In particular, RAIN's "RAINBOOK" and the "Appropriate Technology Sourcebook" published by Volunteers In Asia, help individuals to find information needed in research and development. Many of these individual entrepreneurs, tinkerers, and inventors who are unaffiliated with any appropriate technology groups are developing the technologies which are used throughout the U.S. and the world. It is these individuals that a policy for appropriate technology must reach, yet these individuals are often least interested in getting involved with government grants, loans or other government activities. Most experimenters complain of a lack of adequate capital; yet few see a ready solution which does not take too much time away from actual research and development work.

Development of cottage industries for Alaska and development of appropriate technologies for Alaska are closely related. Since much of the technology used in Alaska is imported from the lower 48, the technology is not always suited to the special environmental situation in Alaska. Many of the potential small businesses in Alaska will be dependent on new technologies, or on existing technologies which are adapted to Alaska's climate and population.

"Cottage industry," like appropriate technology, is a term referring to a way of looking at the problems of economic development, and a size of enterprise. In any type of enterprise, there is a range in possible sizes of business. Cottage industries are production facilities which lie at the smallest-scale end of this range. As with appropriate technology, there are several other generally-accepted criteria for cottage industry.

In general, a cottage industry involves:

- (1) production of a product which is made from locally-available materials.
- (2) small units of production -- typically a home or home workshop.
- (3) a small workforce, usually an individual, family, or cooperative, where the persons performing the labor have a direct involvement in management decisions.
- (4) an orientation towards fulfillment of local production needs, rather than production for export (though mail-order export of some products is necessary for some types of cottage industries).
- (5) management and technical skills which are available at the local level, rather than those available only with outside training and experience.

Numerous examples of cottage industries exist in Alaska today, and the potential for expansion, particularly in rural areas, is quite large. The following list gives examples of the types of locally-available resources which could be used and the products which might be produced in local cottage industries. (It should be noted that this list is in no way comprehensive, and is intended to be illustrative only.):

	Resource available	Products
I. Food production		
-existing agricultural production	berries rose hips mushrooms	jams and jellies, syrup, wine tea, vitamin C mushrooms
-potential cultivation	vegetables herbs berries, mushrooms	local market produce herbs and teas as above

	<u>Resource available</u>	<u>Products</u>
II. Fish and shellfish	herring clams & mussels salmon	pickling, drying, smoking food and by-products terminal net fishery
III. Game and domesticated meat & by-products	reindeer and caribou goats and cows chicken & other fowl	food, fur, by-products milk, meat meat, eggs, by-products
IV. Forest products	birch spruce fir diamond willow other	flooring, furniture, syrup, firewood rough & finished lumber, logs, furniture, firewood, crafts rough & finished lumber, crafts firewood furniture, tourist-oriented crafts sawdust, slabwood, firewood
V. Minerals and rock	jade clay gold, copper building stone other stone	jewelry, carved products pottery jewelry flagstone, building construction solar collectors, saunas, etc.
VI. Recycled materials and waste	bottles cans paper organic materials	refill, glass remanufacture, crushed glass products metal recovery and re-use recycle for paper, heat from combustion, cellulose insulatio fertilizer, home compost
VII. Energy	solar wind thermal (geothermal and waste heat) biomass (wood and agri- cultural)	individual home heat, hot water, other heating needs individual and community electric generation home heat, greenhouses, etc. firewood for home heat, alcohol from grains for heat and gasoline additive
VIII. Building design	wood paper and sawdust	building materials insulation

In addition to production, cottage industries need support services, which can be cottage industries in their own right. Many small businesses are hampered by lack of management abilities and technical skills needed to deal in the modern business world. This problem is acute in the rural areas of Alaska. The opportunity exists for entrepreneurs to develop small-scale support service businesses -- from transportation and communications to management services and technical production. Some of these businesses fall within the definition of cottage industries, while others (such as boat-building for fishing, etc.) are intermediate-scale and require outside materials. In order for many cottage industries to operate, there must be adequate transportation facilities, to move the product to markets within the state. Many cottage industries require small warehouse space or machine shops to fabricate the tools necessary for the industry. Cold storage facilities for agricultural and fish products are necessary, and provide an opportunity for appropriate technological innovation to cut costs of small operations. Any program for cottage industry development will have to take these factors into account, and may thus require large-scale industrial or business development for full development of the small industries.