

SCI-TECH

HEARINGS

1981

Major Issues Raised at the Hearings on
The Role and Status of Science and Technology in Alaska

1. Due to the proposed federal budget cuts, the State may soon be faced with the question of whether to increase its funding of scientific research.
 - The full impact of the budget cuts is not yet clear, but it appears they will seriously reduce current research programs in Alaska. Apparently, the Reagan administration expects the energy-producing states like Alaska to bear a greater share of the financial burden for obtaining basic scientific and resource information.
 - Particularly hard hit by the budget cuts will be research programs in alternative energy (geothermal, solar, wind, and possibly fossil fuels), environmental health, transportation technology, and recreation. In addition, the National Science Foundation's budget for arctic research will probably be cut by 50 percent.

2. The possibility of increased state funding raises the questions of research priorities and coordination.
 - Most people agree that research priorities should reflect the needs of Alaska. However, some scientists stated that these needs are currently being determined primarily by politics rather than through a balance of the scientific and political viewpoints.
 - The relative values of basic vs. applied research are controversial. Representative Abood and Gordon Zerbetz of the Alaskan Energy Center stressed the need for practical results with immediate positive effects. Representative Rogers and others emphasized the necessity for a continuum of basic and applied research.
 - Scientists stressed that the development of new knowledge is a necessity, not a luxury. Neil Davis pointed out that the actual money spent on development of new knowledge is far less than compilations of research and development expenditures suggest, since much of the science conducted within government agencies is procedural or a rehashing of known information.
 - Dave Hickok stressed the need for an arctic science policy to coordinate research, highlight problem areas, and establish partnerships between government entities, industry, and the science community. Congress and the Alaska legislature were deemed the only forums which could create and establish such policies.
 - Due to the lack of an arctic science policy on both the state and national levels research has, in many cases, been uncoordinated both between and within agencies. Because of this, surprising gaps have occurred in necessary basic data including hydrological data (e.g., snow surveys), soil information (e.g., permafrost), ice information and research, climatological information, and natural hazards (e.g., seismic).
 - University, industry, and government representatives seem to agree that there are appropriate areas of research for each sector. According to this consensus, the public sector should be responsible for research related to basic environmental understanding and the private sector for site and project specific knowledge as well as technological innovations.

3. The role of the Alaska Council on Science and Technology (ACST) was examined in discussing research priorities and policy.
 - At this point the purpose of and necessity for the ACST is unclear to some. Representative Abood questioned why "another layer of bureaucracy" was necessary to determine research needs. Abood queried why university scientists, for example, could not determine their research priorities without the ACST. ACST supporters countered that it was desirable to have an external source coordinate the research priorities of the state and the university. Senator Fischer requested that the ACST write a paper on its purpose (see attached).
 - Most of the scientists present lauded the ACST's efforts to prioritize statewide research. Fran Ulmer recommended that the ACST produce a 3 to 5 year plan for research.
 - State government representatives and scientists stressed the importance for the ACST to provide a two-way information exchange between the science community and decision makers.
4. Representatives from the news media stressed the need for scientists to communicate effectively and the public's hunger for factual, issue-oriented information.
 - Joe LaRocca pointed out that unless scientists could learn to communicate they were destined to be ignored, shunted aside, underfunded, and forgotten.
 - Doug McConnell suggested that commercial broadcasters do not have the resources to present complex, issue-oriented programming. In light of this, the responsibility of the State to provide factual unbiased information was questioned.
5. The importance of continuity, evaluation, and feedback in the legislative process was underlined.
 - Lee Gorsuch suggested that a small percentage of a program's cost should be spent to objectively evaluate whether the legislation was fulfilling its original intent. Social scientists could provide this analysis and feed the resulting information back to the legislature.
 - Gorsuch also stressed the importance of continuity in research and suggested the possibility of multiple year funding.

Annotated Agenda from the Hearings on
The Role and Status of Science and Technology
Senate and House State Affairs Committees
April 11, 1981, Juneau, Alaska

Overview of Alaska Science and Technology

"Alaska and U.S. Arctic Science Policy" — David Hickok, Alaska Division of the American Society for the Advancement of Science. Director of the Arctic Environmental Information and Data Center, University of Alaska.

To exploit desperately needed resources, conduct military operations, understand arctic health problems, and represent its other interests in the Arctic on an international basis, the U.S. must have a substantial and well-coordinated research program in Alaska and the Arctic generally. Congress and the Alaska legislature need to establish legislatively the partnerships between industry, state and federal government, the science community, and indigenous peoples which will be necessary to achieve a cohesive and long-term commitment to increasing our knowledge of the Arctic.

"Characteristics of Current Research in Alaska" — Dr. Larry Underwood, Arctic Environmental Information and Data Center, University of Alaska.

The Current Research Profile is an annotated listing of research projects which has been compiled and published by the University of Alaska for the past 7 years. The profile shows that some 1,674 research projects costing approximately \$183 million were completed, continued, or initiated in 1979. The federal government was the primary supporter (\$146 million), aided by the State (\$30 million), and others (\$7 million) of projects in the physical (\$68 million), biological (\$62 million), and social (\$52 million) sciences.

"Status and Direction of Federal Science in Alaska" — Walter Parker, Special Counsel to the Alaska Council on Science and Technology.

Federal programs have a "massive impact" on the success of state and private ventures through funding of basic research and the expertise which has been built up in federal agencies. The proposed federal budget cuts will severely reduce federal science programs in Alaska including cancellation of the National Oceanic Satellite System; reduction in LANDSAT programs; cancellation of programs in environmental health, transportation technology, parks and recreation, and alternative energy; reduction in monies available for fossil fuel research; and approximately 50 percent cuts in grants for arctic research by the National Science Foundation.

"Priority Needs and Other Alaska Science Issues" — Dr. T. Neil Davis, Chairman, Alaska Council on Science and Technology. Professor at the Geophysical Institute, University of Alaska.

Alaska can best ensure a viable economy and desirable quality of life in the future by investing in knowledge and people. We must commit a larger percentage of the "gross Alaska product" to research, and we must establish a science policy and research priorities which are based on the needs of Alaska as determined by a balance of the political and scientific viewpoints.

Public Interest in Science and Technology in Alaska

Joe LaRocca, Newsman.

Scientists must learn to communicate effectively with the general public, both directly and through the popular press, if they are to build broad support for, and understanding of, their goals. This means training scientists not to speak in the incomprehensible jargon of specialists. It also requires a significant budgetary commitment for professional public information dissemination.

Doug McConnell, Electronic Media Specialist.

The public is hungry for well-produced programs about Alaska and the multitude of issues which face us. Few commercial broadcasters have the time or resources to produce factual, unbiased programs, and federal sources of funding appear to be shrinking with the Reagan budget cuts. The State should consider funding informative, issue-oriented programs.

Science and Technology Needs and Priorities as seen by
Government, Industry and Public Witnesses

Fran Ulmer, Director, Division of Policy Development and Planning, Office of the Governor.

One of the key dilemmas before us is bridging the timing and communications gap so that scientific research can assist public decision makers. The Alaska Council on Science and Technology has a significant role to play in that effort by (1) continuing to identify research priorities, (2) building a 3-5 year research agenda, and (3) evaluating the proposed federal budget cuts and making recommendations for subsequent funding. Technological innovation is crucial to our economic growth, and we should be forging new partnerships between the public and private sectors to meet this challenge.

Rich Shafer, Manager, Environment/Safety/Security, Sohio Alaska Petroleum Company.

Industry accepts the responsibility to do research which will provide safe and efficient technology for oil exploration and production. Government should continue to provide long-term basic research including: mapping, satellite remote sensing, collection of weather and climate data, hydrologic data, oceanographic data, and broad geological and geohazard information, particularly as the industry moves into more difficult areas like the Beaufort and Bering Seas.

George West, Acting Vice President for Academic Affairs and Institutional Planning, University of Alaska.

The University of Alaska may lose a total of \$14.3 million (\$9 million in organized research) if the proposed federal budget cuts are passed. The devastating short-term impacts of this would include the loss of 96 professional appointments, 70 technical appointments, and 20 secretarial and administrative appointments. A reduction in qualified staff of this magnitude would impair the already modest ability of the university to conduct research in the physical, marine, agricultural, mineral, ecological and environmental, social, and economical sciences including Alaska issues and problems.

Wayne Meyers, Executive Director of the WAMI program (Washington, Alaska, Montana, Idaho health program).

Federal funding for health programs in Alaska has been continually reduced since the 1960's leaving not only substantial research gaps but little expertise available in the state. To counter this decline and confront the many health problems common to the Arctic will take a substantial financial commitment.

Lee Gorsuch, Director of the Institute for Social and Economic Research.

Legislators should consider allocating a small percentage of a program's cost to evaluate whether a particular piece of legislation is fulfilling its original intent. Legislators should also consider multiple year funding to provide continuity to long-term research projects.

Charles Logsdon, Agriculture Consultant.

To meet the Alaska Agricultural Action Council's goal of 500,000 acres in production by 1990 will require an increase in state employment of agricultural scientists from our current level of 16 to a minimum of 58. To coordinate and accomplish agricultural research efficiently, I recommend that the state fund the University as the prime research agency.

Phil Holdsworth, Placer Annex representing the Alaska Coal Industry.

Most of the research on coal will be done by the private sector on a project specific basis. The industry believes, however, that state involvement is important and appropriate in the following areas.

- Compilation of oil well drilling data and geologic mapping to define major coal basins.*
- Expansion of the university's Mineral Industry Research Laboratory sampling program.*
- Expansion of the state aerial mapping and photo interpretation project.*
- Continuation of the North Slope experimental surface mine.*

Tom Crafford, Geologist, Anaconda Copper Company.

Hard rock mining can, and should, be a vital part of Alaska's economy. To promote the industry the state should continue or expand its research in the following areas.

- Mapping and field work by the state geological survey.*
- Low level color aerial photography.*
- Methods to decrease turbidity downstream from placer operations.*
- Support of an outstanding program in arctic engineering at the University of Alaska.*

Gordon Zerbetz, Executive Director, Alaska Energy Center.

Research should be based on needs, rather than on the generation of information and knowledge for its own sake. Furthermore, properly structured and managed research programs can, and should, provide an economic return for users.

Steve Pennoyer, Commercial Fisheries Division, Alaska Department of Fish and Game.

The fisheries industry including commercial, sport, and subsistence efforts is the largest industry in Alaska. To manage this complex resource effectively will require a great deal of additional knowledge about the stocks and how to protect, enhance, and develop them.

April 13, 1981

THE ALASKA COUNCIL ON SCIENCE AND TECHNOLOGY AND ITS ROLE

The three primary purposes of the Alaska Council on Science and Technology are:

1. To provide an academy-like forum for the science and technology community to provide impartial advice to state government and assist in the development of science policy for the state;
2. To provide a mechanism to review state-funded activities in science and technology, to provide advice to state government on those activities and to provide a two-way channel of communication between state government and the science and technology community;
3. To award and administer monies appropriated for research and technology, and to promote and enhance the standards for research activities.

A major ongoing activity of ACST--one that relates to the first two purposes listed--is evaluation of the status of knowledge and current activities in each of the various fields of science and technology in Alaska, and determination of priorities for research in each of these fields. For this purpose the Council has used its authority to convene committees comprised of knowledgeable persons drawn from the academic community, state and federal agencies, industry and the public. Each ad hoc committee is asked to assess priorities from the viewpoint of what will most benefit Alaska. As each committee completes its work, the

results are transmitted in a short report to the legislature, executive branch agencies and other cognizant organizations and individuals. The current emphasis of this activity is upon setting immediate priorities, but as this need becomes better met the emphasis will shift more in the direction of long-range planning and assistance to the state in development of science policy.

For the purpose of developing policy, the Council is participating with the National Academy of Science's Polar Research Board in an ongoing effort to develop a more cohesive federal policy for Arctic and Alaskan science. Also for same purpose and for the purpose of assisting in the development of state policy, the Council is actively working with the Alaska Division of the American Association for the Advancement of Science, a group which traditionally has represented the scientific community in Alaska.

In the role of providing advice and assistance to state agencies, the Council has responded to requests from various agencies to assist in review of specific science-related proposals or in the establishment of procedures to solicit and evaluate proposals. These agencies or organizations include the Division of Policy Development and Planning, the Department of Commerce and Economic Development, Alaska Renewable Resources Corporation, University of Alaska, the Department of Public Safety, and the Department of Transportation and Public Facilities. As mandated by law, the Council has met with and coordinated with the Alaska Energy Center and the Alaska Renewable Resources Corporation. Currently, the Council administers for the Department of Public Safety research projects on the use of smoke detectors in rural residences and methods of obtaining water for fighting fire in winter.

The Council's role in the award and administration of monies appropriated by the Legislature is currently being carried out through the conduct of two grant programs. One, the Northern Technology Grants program is intended to help develop and encourage the use of low-cost and small-scale technologies appropriate to Alaska. The intent is to provide funds to persons with innovative ideas to assist in the development of those ideas into technologies useful to Alaskans. Areas involved are food production, waste disposal, recycling, transportation, building design, energy generation, and any residential or industrial enterprise which may be more efficient, less costly and less energy-intensive than methods now in use. Individual grants are limited to \$5,000; the total being awarded during FY 1981 is approximately \$260,000.

The second grant program provides funds for research on geophysical hazards and other areas of research determined by the Council. During FY 1981, approximately \$300,000 is being awarded on a competitive proposal basis for research in areas that include Alaskan natural hazards, Alaskan seismology, Alaskan minerals, Alaskan transportation, human life and health, and Alaskan rural primary and secondary education. As this is a new program this year, its establishment has required the Council to develop proposal review and research administration procedures that will be helpful in future to other agencies as well as being useful for the Council's purpose.

The FY 1981 operating budget for the Council is approximately \$250,000. With these funds the Council maintains a two-person staff and office in Juneau and conducts its activities using limited contractual and substantial volunteer labor.



Alaska State Legislature

Senate

Committee on State Affairs

Official Business

Pouch V
State Capitol
Juneau, Alaska 99811

2-26-81

SUGGESTED APPROACH

Hearings on the Role and Status of Science and Technology
in Alaska before the Senate and House
State Affairs Committees

A. Overview of Alaska Science and Technology: A Panel Presentation
(45 minutes)

- Alaska and U. S. Arctic Science Policy - D. M. Hickok, AAAS, Alaska
- Who is Involved in Alaska Science; Areas of Greatest Emphasis - L. Underwood, University of Alaska
- Findings of Alaska Council on Science and Technology Hearings on the Status and Direction of Federal Science in Alaska - W. Parker, ACST
- Priority Needs and Other Issues connected with Science in Alaska - T. Neil Davis, ACST

(NOTE: The full text of reports on the above will be available; presentations will be summaries)

Questions and Dialogue between Legislative Members and the Panel
(30 minutes)

B. Public Interest in Science and Technology in Alaska: A Panel Presentation of newspaper, radio, and television individuals
(45 minutes)

Questions and Dialogue between Legislative Members and the Panel
(30 minutes)

C. Science and Technology Needs and Priorities
(3 hours total)

- 10 minute presentations by each Government, Industry, and Public witness (with filed statements)
- 10 minute committee dialogue for each witness

(9 Witnesses)

State of Alaska

-F. Ulmer, Office of the Governor,
DPDP
(or possibly Lt. Gov. Miller)

Oil and Gas Industry

-AOGA Representative or NPC Study
Representative

University of Alaska

-J. Barton, President

Sealaska Corporation

-B. Mallot, President

Health and Medicine
Community

-W. Meyers, WAMI

Resource Economics

- _____

Fisheries Industry

- _____

Agriculture Industry

- _____

Coal and Mineral Industry -C. Hawley or C. Herbert

SYNTHESIS: George Rogers



Alaska State Legislature

Senate Committee on State Affairs

Vic Fischer, Chairman • Pouch V • Juneau, Alaska 99811 • (907) 465-4954

Official Business

April 1, 1981

Copy

Mr. Max Beazley
Alaska Oil & Gas Association
3201 C Street, Suite 270
Anchorage, AK 99503

Dear Mr. Beazley:

Last week I sent you an invitation to speak at hearings on the role and status of scientific research and development in Alaska. These hearings are being held by the House and Senate State Affairs Committees in Juneau on April 11, 1981 from 9:00 a.m. to 1:00 p.m.

Enclosed please find a preliminary time schedule for the hearings. Please contact Nancy Groszek or Sumner Putnam at my office (465-4954) regarding your participation.

Understanding the significance of scientific research is important to the legislature, and I hope you will be able to participate in the hearings.

Sincerely,

Vic Fischer

NM:VF/pb

Enclosure

*- see back for list of the letter
was sent to*

Mr. T. Neil Davis
Alaska Council on Science & Tech
Pouch AV
Juneau,

Mr. W. Parker
same as above

Mr. Larry Underwood
Arctic Environmental Info.
and Data Center
707 A St.
Anch.

Mr. David M. Hickok
same as above

Mr. Dave Heatwole
Dist. Geologist
Anaconda Copper Co.
2550 Denali, Suite 1000
Anch.

Mr. Coe McFarland
Vice President
Placer/Annex
1 Calif. Bldg, Suite 2500
San Francisco, CA 94111

Dr. Charles Logdson
Agresouices
Box 387
Palmer

Steve Pennoyer
ADF&G
Juneau

Lee Gorsuch, Dir.
Institute of Social &
Economic Research
707 A St.
Anch.

Wayne Meyers, WANI
Med. Ed. Prog.
103 Arctic Health Research Ctr
U. of A.
Fairbanks

Byron Mallott
Board of Directors
Sealaska Heritage Found.
1675 C St
Anch.

President Jay Barton
U of A
101 Bunnell
Fairbanks

Office of Gov.
Juneau

Gordon Zerbetz
Energy Ctr
619 11th Av
Fairbanks

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWELFTH LEGISLATURE - FIRST SESSION

Relating to a call for Congressional
hearings on Arctic Science and Tech-
nology

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

WHEREAS the Arctic contains resources including petroleum, strategic minerals, and fish which are of vital importance to the nation; and

WHEREAS the Arctic has national strategic importance due to its location and whereas defense-related activities are particularly difficult in the Arctic environment; and

WHEREAS the Arctic environment poses unique health problems and effects which are not adequately understood; and

WHEREAS in many cases the scientific and industrial communities lack the site-specific information base to exploit Arctic resources, conduct military operations, or understand arctic health problems; and

WHEREAS the nation presently has only very limited scientific and technological expertise in arctic subjects; and

WHEREAS only a long-term, well-coordinated research program can develop this Arctic expertise; and

WHEREAS such a research program would require partnerships between government, industry, the science community, and others which do not presently exist;

BE IT RESOLVED by the Alaska State Legislature that Congress convene hearings on Arctic science and ^{policy} technology, ~~policy~~ and research coordination.

Copies of this resolution will be sent to President Reagan, the Secretaries of Defense, Energy and Interior, and the Alaskan Congressional delegation.

Testimony of Joe La Rocca
for the
Hearings on the Role and Status of Science and Technology in Alaska
before the
Senate and House State Affairs Committees

April 11, 1981

Your co-chairman has asked me to speak for the press on the public interest in science and technology, and to discuss my thoughts on methods of increasing communication between the scientific community and the general public.

Before I get into that, let me offer one small disclaimer. While I'm pleased to speak as a member of the press, I won't presume to speak for the press. Ask most of my colleagues, and they'll tell you that I'm more in the habit of speaking against them, than for them.

Newsfolk, in fact, are alot like scientists in at least one respect. When we're not talking to ourselves, we talk mostly to each other.

That's how we, like scientists, rationalize our assumptions; legitimize our biases; objectify our prejudices; reinforce our agruments; confirm our conclusions; fortify our egos; and secure our professional reputations.

Seriously though, I've long been persuaded that the scientific community in Alaska suffers from a chronic crisis of confidence. If I were critiquing a speech by someone who used that grossly alliterative phrase - "chronic crisis of confidence" - I'd probably accuse him or her of stating a contradiction in terms. How, I would rhetorically ask, my voice dripping with scorn, can a crisis be chronic? But in this case, I think the phrase is apt. The scientific community is, to a large extent, caught up in a critical phase which is both enduring and pervasive. If it weren't, we probably wouldn't be here today.

I suspect that each of us addressing you today thinks that his or her orientation in this context is the most compelling one. I do; at any rate.

I'm convinced that if scientists were able to communicate effectively with the general public both directly and through the popular press, they suffer none of the indignities which have long plagued them which is to be ignored, shunted aside, de-prioritized, unfunded, unheard, unheeded, and sometimes reviled by the community-at-large.

Unfortunately, the role of communications within almost any public institution whose principal function is not the delivery of information tends to be relegated to last place. The premise seems to be that if there are any funds left in the budget after everyone's administrative

research, travel, per diem, equipment and personal needs are taken care of, the remainder can be thrown at the public information or communications section. And institutions of science tend to be the foremost purveyors of that syndrome. Indeed, scientists seem to take an almost masochistic delight in spruning public understanding and acceptance and cultivating public apathy.

If scientists want to reverse that almost universal perception, they must make a real commitment to communicating with the public-at-large; and rather than toss budgetary leftovers at the public information section, give it a substantial percentage of the budget right off the top - even if the budget is very tight - and elevate it to the same status as the department's principal role.

Because when an institution is as dependent upon gratuitous public funding as research and scientific institutions are, the medium is as important as the message.

By suggesting that the communications function should be upgraded, I don't mean that scientists or the institutions with which they are associated should create propaganda mills designed to beautify the institutional carcass, which is what far too many public information sections tend to do.

What I do mean is that they should engage professional technicians trained in the art of translating scientific literature into plain but appealing English who also know how to utilize the full mix of media to convey it to John and Jane Doe in a meaningful and relevant context.

One of the most effective barrers to communication between scientists and the general public is scientific jargon, the effect - if not the intent of which - is to obfuscate rather than illuminate. I suspect that many scientists feel that the only way they can preserve their mystique is to cloak their dialogue in mysterious cadences and arcane phraseology. I would seriously suggest that the science curricula at both the undergraduate and graduate level include mandatory courses on non-scientific writing and speaking so that scientists can articulate their work and results in terms that non-scientists can fathom.

I think it's generally true that most scientific inquiries ultimately have some application to some definable end goal which is relevant to some public constituency. If the inquiry, the goal and the constituency can be linked together in a chain of symbiotic interaction through effective communications tool, then both science and the constituency will be mutually well-served. I don't mean to imply that scientists should try to be all things to all people; only that virtually every constituency should be able to extract something which is relevant to its interests from the endeavors of science.

And I think that building that broad constituency and fashioning that link through effective communication with the community at-large is the only way that the scientific community can hope to elicit the

support it needs to achieve the goals and satisfy the needs that some of those who preceded me have discussed. If scientists would stop talking to themselves and start talking to lay persons in terms they can comprehend about matters that are relevant to them, I think they can create a large and powerful advocate for science outside their own ranks which will give them considerable political clout. If only half the constituents who call or write their legislators to ask them where the hell their auto registrations or their tax rebate checks are would, for example, add a postscript or a footnote asking them to support funding for state takeover of the Naval Arctic Research Lab, the lab could not only be kept open, but probably substantially expended as well.

Let me give you one example of the kind of thing I'm talking about. I have here the Current Research Profile for 1979, published by Dave Hickok's shop, the Arctic Environmental Information and Data Center, which was loaned to me by Chris Noah. This edition lists and briefly outlines 1,674 research projects which were completed, continued or initiated during 1979.

As I browsed through it cursorily, I found scores of project descriptions, which even in bare outline, instantly piqued my interest, and made me wish I had before me the full report to read or the investigator to interview. If every investigator who submits a project resume to be published in the profile were to take just one hour or less of his time to write a full but concise narrative account of his or her research project along with an explanation of its implications, in clear understandable prose, then send or take it to one or more members of the press around the state, I suspect that a large number of them would be used as a basis for news or feature stories which would attract a large and interested audience. If for example, the authors of all of the 1,674 projects listed in the 1979 profile were to submit synopses of their projects, the 1979 scientific and research effort in Alaska would have earned a tremendous audience with little or no additional expense or work on the part of the investigators. At the same time, they would gain wide exposure for their efforts, and inform literally thousands of interested Alaskans about the results of their work, which could in some cases, lead to implementation or application of the results.

But more importantly, it would be one means of building that broad constituency which the scientific community so sorely needs to win the political support required to pursue the short and long-term policies and goals that are being addressed at these joint hearings.

One excellent, but all too rare example is the weekly scientific column that Neil Davis writes for publication in a number of newspapers around the state. They are interesting and often fascinating. I'm tempted to refer to Neil as Alaska's Carl Sagan, except that Sagan's material sometimes falls to the level of pseudo-scientific drivel, whereas Neil's never does, and he would suffer from the analogue.

Several years ago I wrote a piece which was somewhat critical of that year's Alaska Science Conference at the University of Alaska, Fairbanks, because of the failure of its organizers to make a concerted effort to attract political figures to the conference. It was yet another case of scientists talking to scientists. I suggested at the time if science were going to gain any ground in Alaska, it was going to have to become aggressively involved in the political brawl. While this gathering signifies a step in that direction, there's still a long way to go. It doesn't do the scientific community a hell of a lot of good, frankly, to make its pitch to the Brian Rogers and the Vic Fishers. They're already advocates of science. It's more important to work on those who aren't.

STATE OF ALASKA

JAY S. HARMOND, GOVERNOR

DEPARTMENT OF FISH AND GAME
OFFICE OF THE COMMISSIONER

SUPPORT BUILDING
JUNEAU, ALASKA 99801

April 21, 1981

The Honorable Vic Fischer
Alaska State Senate
Pouch V, State Capitol
Juneau, AK 99811

Dear Senator Fischer:

I appreciated your invitation to participate in last Saturday's panel and was sorry to have missed the opportunity to present information to your committee. Enclosed is written testimony which should provide your committee the information you requested. If you have any questions please let me know.

Sincerely,



Steven Pennoyer, Director
Division of Commercial Fisheries
(907) 465-4210

Enclosure

SCIENCE AND TECHNOLOGY NEEDS OF THE FISHERIES INDUSTRY IN ALASKA

Steven Pennoyer
Alaska Department of Fish and Game
Commercial Fisheries Division

The fisheries industry in Alaska, including commercial, sport, and subsistence, is the largest industry in the state, employing some 40 thousand commercial fishermen, ten to 15 thousand processing plant employees, nearly a thousand commercial processing operators, numerous professional sport fish guides, and with at least 10 thousand participants in the salmon subsistence fishery alone, plus some 200,000 licensed recreational anglers. The commercial fishery in 1980 was worth some \$500 million to individual fishermen and about a billion dollars in first wholesale value to the processors. The value of the subsistence salmon harvest is difficult to calculate in terms of replacement value, but it must be in the order of 25 to 30 million dollars. Recreational harvest also provides nutrient values to the participants. Recreational fishery values have not been adequately addressed, since an actual sale or transaction does not take place. Various studies have inadequately assessed the impact on the economy through tourism and consumer sales of goods, but the direct expenditure by anglers is about 14 million dollars per year. The value of the commercial, subsistence, and recreational fishery, of course, is multiplied throughout the economy beyond the direct value to the individual participant. The commercial fishery alone through direct taxes and licenses provides some 20 to 25 million dollars in annual revenue to the state.

These industries are based on a renewable resource which, with proper fostering, can be maintained and extended for future generations of Alaskans. There is no indication that the demand for fisheries products in the United States or worldwide will decrease. Rather, the reverse is likely. Whether this future will be in relatively scarce, high value luxury products as much of it is today, trend toward more volume at a lower price to satisfy protein requirements or, as is more likely, some variable mix of the two, is not completely forecastable at this time. Development of major protein fisheries such as groundfish is market-dependent and includes questions of international politics.

The continued health and growth of this industry is dependent on a number of factors, some dealing with the resource itself and the regulation of harvest on it, others with the marketing and harvesting technology, and still others with institutional factors such as government regulation, tax, and financial assistance. I will address the first two, both of which require research, monitoring, and implementation programs to be effective.

Industry, of course, is dependent on the resource itself and the abundance and availability of that resource. The major areas of concern are the (1) maintenance of reproductive success for major resources; (2) maintenance of existing fisheries; (3) optimization of biological and economic yield in these fisheries through the accurate identification of available annual surpluses for harvest and regulation of the fisheries to make those surpluses available in as economic a fashion as possible; and (4) the extension and development of both new and existing fisheries. A fifth category might be the nonreproductive requirements of the resource to sustain itself at a high yield--particularly habitat concerns.

Resource Knowledge--Management

This category generally covers the first three items mentioned above concerning brood stock, maintenance of fisheries, and optimization of yield. It basically includes all of the data gaps regarding the resource itself as they affect our ability to perpetuate the harvest of that resource consistent with our objectives. These data gaps include insufficient knowledge about the magnitude of the resource, its basic biology, its reproductive characteristics and requirements, its relation to the ecosystem of which it is a part, particularly the relationship of the harvest of it or other species on each other. Desirable outputs include definition and forecast of harvestable surplus by major reproductive stock; inseason management by identifiable stock units; and harvest management strategies that can be advanced to various user groups in deciding on allocative problems.

a. Reproductive requirements: Obviously we must safeguard reproductive brood stock of important commercial and recreational species. Generally this consists of defining numbers, characteristics, and distribution of breeding populations and regulating harvest to achieve them. When information on these requirements is lacking or ability to measure the actual brood stock is poor, management is necessarily conservative with potential loss of available harvest. In some cases these losses may be substantial. There are fisheries resources around the state that, despite management efforts, continue in a depressed state or are actually declining. In many cases this is a result of our inability to either refine the reproductive requirements or to obtain them. In certain mixed stock fisheries such as in Southeastern Alaska it resulted in less productive species being overharvested. The level of depression has often been in direct proportion to the complexity of the stock mixture, interacting fisheries, the number of stocks involved, and the lack of a good data base. Certainly further research is required on reproductive requirements, including studies of population abundance fluctuations as related to brood stock levels versus other environmental factors.

b. Maintenance of existing fisheries: In the context of science and technology needs I do not think I'll spend very much time on this category. Certainly the maintenance of existing fisheries requires annual projects to monitor the abundance of the resource and allocate harvest appropriately. Most of these resources fluctuate dramatically on an annual basis and the harvest must be tailored to these fluctuations. Even where the techniques are known sometimes very sophisticated resource assessment and monitoring programs must be carried out to support this activity.

c. Optimizing yield from existing fisheries: In many cases we have fisheries that are well managed from a stock status standpoint. We manage to preserve the basic reproductive quality of the resource and harvests are held at a relatively long term consistent level within the limits of natural fluctuations. This does not mean that we are realizing the maximum benefits available from these resources. Often improved ability to manage individual stock units with their differing levels of productivity will increase the annual surplus available in these various fisheries. Much of the work needed in this arena is not new or exciting in terms of technique, but rather an expansion of existing, relatively similar techniques to a broader number of stocks and fisheries. This area includes such things as inseason abundance estimators, stock separation, improved forecasts, better definition of brood stock requirements. We need an improved knowledge of the basic biology of the species and how it relates to associated species.

Aside from the more biological aspects of appropriate harvest levels by stock, we have also heard a great deal about industry preparation and quality of product. Obviously from a marketing standpoint, industry and fishermen need a better forecast to prepare for each season often in the face of resources demonstrating rather wide natural fluctuations. The longer in advance a forecast of some accuracy is made available, the better use that can be made of surpluses. Forecasts of a general nature can be made years ahead of time, refined further a year in advance of the season, and then updated as the season progresses. We have also heard a lot about fish quality and it is quite obvious that manageability and fish quality go hand and hand. For example, the better our forecasts and inseason run assessment by stock, the more latitude we can allow in terms of harvest of resources farther from their point of origin in the case of migratory species. This allows processing over a longer time period, prevents gluts, and often allows the harvest of a higher quality product.

Extension and Development of Fisheries

a. Developing fisheries: In this category marketing and economic information comes strongly into play. Nevertheless, there are also major questions about resource status, abundance, distribution, and the effects of harvest of that particular resource on other species either due to stock interactions or because of impacts of the gear use on associated fisheries. Generally agencies are not funded to carry on this type of work very well, since there is no established constituency clamoring that the work be done. However, a number of people are usually interested in getting into this type of operation. It requires an investment against a potential future return, not necessarily supported by any existing tax structure. In this arena from the state perspective, research on domestic groundfish fisheries, and perhaps particularly those around communities and inshore areas where small Alaskan boats are most likely to get involved, would have a high priority. Some herring fisheries are still expanding against a woefully inadequate data base, and there are opportunities in some of the bivalve fisheries, particularly if problems associated with paralytic shellfish poisoning are brought under control.

b. Extension of fisheries: Fisheries extension can be accomplished in some cases through supplemental production technology, particularly in the case of hatchery production of salmonids. This area shows real promise for contribution to the fisheries industry in Alaska, especially in areas of depressed fisheries. Development of brood stocks, precautionary measures to avoid disease problems, development of harvest management strategies to prevent overharvest of natural stocks dictate that the commitment to enhancement and rehabilitation must be long term, although significant short term gains are being made. Keep in mind, too, that Alaska is going to lose salmon habitat to logging, mining, industrial development, and population growth. Now is the time to develop and perfect rehabilitation and enhancement techniques.

Aside from the specific biological resource/management research considerations discussed above, there are a few other areas that perhaps should be highlighted.

Socioeconomic Characteristics of the Fishing Industry

There is a need for a comprehensive survey of the value of fish and wildlife resources to the state, to specific geographic areas, and to various communities. This survey should cover recreational, commercial, and subsistence values and include indirect benefits as well as direct benefits such as price paid to fishermen for their harvest. This should not be a one shot study which, while important as a data base, would be of limited usefulness as a predictor or continuing assessor of these parameters in a rapidly changing situation. Looking at world fisheries and marketing and what's happening in Alaska today demonstrate that these questions are going to be with us for a long time and the information should really be available to form the basis for annual planning. The recent dramatic changes in resource availability in such things as bottomfish, recovered salmon runs, the questions raised this year and last by Bristol Bay processing capacity, and exercise of legislation and regulations to respond to the question engendered by too many fish, show the dynamic nature of the problems we face. The state, or somebody, needs some ongoing, centralized entity to look into fisheries marketing and economics. The needed study should include an updating mechanism whereby the information generation and maintenance of a model of fisheries economics in the state is an integral part of the study recommendations.

Habitat Related Fisheries Questions

There are two primary priorities requiring more study and attention. First might be the effects of logging on fisheries. In Southeastern Alaska this has been a recurring question. There still exists uncertainty as to what the total impact of logging to date has been on the resource and an inability to quantify relative resource damage. We have some ideas of how to minimize damage, mostly based on inferential or commonsense parameters, but there are some really pressing questions to be answered regarding leave strips, the effect of canopy (or lack of it) on stream temperatures, log dumps, and other forms of estuarine disturbance.

The second priority habitat research concerns instream flow and hydroelectric development. Generally, we need to better understand the relationship between the volume of flow and fluctuations in flow and water temperature to production of fish in our various river systems.

Ecosystem Analysis

Resource management operates along a continuum from management of single species by themselves to management of a total ecosystem. Given the complexities of most ecosystems, it may never be possible to totally achieve something called ecosystem management. Nevertheless, we certainly cannot manage for single species with no regard to the effect on other species. Effects may be in terms of incidental harvest of associated species or the effects on the ecosystem as a whole of the removal of a large volume of fish. Our understanding of predator-prey relationships and impacts on stock reproduction are primary concerns.

Fisheries Technology

Another aspect of optimizing yield for fisheries includes research into fisheries technology. Particularly at current energy costs, if we can discover cheaper ways to harvest and process fish, coupled with improved quality and marketing of the product, both fishermen and industry would be the beneficiaries.

I have not suggested the priorities or given specific project proposals. I have tried to emphasize that the fishing industry requires a great deal of additional knowledge about the resource upon which it depends and means by which that resource can be protected, enhanced, and/or developed.

It was requested that we mention something on the effects of Federal budget cuts. Federal dollars in direct grants in aid to the states support a substantial part of our research on fisheries in Alaska.

Over \$700,000 in Federal funds is spent in cooperatively funded research programs on salmon forecasting, logging-habitat studies, shellfish indexing programs, salmon inseason abundance estimates and similar projects. Funding for these programs will probably be terminated in FY 82.

Potentially as damaging to the acquisition of needed fisheries knowledge may be reductions within the Federal program itself. We depend heavily on certain Federal research and resource monitoring projects dealing with stock assessment on groundfish and shellfish, Outer Continental Shelf oil and gas leasing impacts, high seas salmon interceptions, effects of logging and other development and various resources' population dynamics. Most of these programs are within the National Marine Fisheries Service. We do not yet know which specific projects may be dropped or even the magnitude of budget reductions overall affecting Alaska.

Hearings on the Role and Status of Science and Technology in Alaska before the Senate and House State Affairs Committees

A. Overview of Alaska Science and Technology: A Panel Presentation

- 9:00 a.m. ✓ Alaska and U.S. Arctic Science Policy - D.M. Hickok, AAAS, Alaska
- 9:10 a.m. ✓ Who is Involved in Alaska Science; Areas of Greatest Emphasis - L. Underwood, University of Alaska *AEIDC*
- 9:20 a.m. ✓ Findings of Alaska Council on Science and Technology Hearings on the Status and Direction of Federal Science in Alaska - W. Parker, ACST
- 9:30 a.m. ✓ Priority Needs and Other Issues connected with Science in Alaska - T. Neil Davis, ACST

(NOTE: The full text of reports on the above will be available; presentations will be summaries)

- 9:40 a.m. ✓ Questions and Dialogue between Legislative Members and the Panel
- 10:00 a.m. ✓ Break

B. Public Interest in Science and Technology in Alaska

Link between Public & Science

- 10:15 a.m. ✓ Statement from the Press *Joe LaRocca, Doug McConnell - bridging gap*
- 10:35 a.m. ✓ Questions and Dialogue between Legislative Members and the Press Representative

C. Science and Technology Needs and Priorities: 10 Minute Presentations by Government, Industry, and Public Witnesses (with filed statements). There will be 5 minutes for committee dialogue with each witness.

- 10:45 a.m. ✓ State of Alaska - Governor's Office *Fran Ulmer*
- 11:00 a.m. ✓ Oil and Gas Industry - AOGA Representative *Rick Shafers*
- 11:15 a.m. ✓ University of Alaska - J. Barton, President *George West*
- 11:30 a.m. X Sealaska Corporation - B. Mallot, President
- 11:45 a.m. ✓ Health and Medicine Community - *W. Meyers, WAMI*
- 12:00 a.m. ✓ Resource Economics - Lee Gorsuch, Director ISER
- 12:15 p.m. ✓ Fisheries Industry - Steve Pennoyer, ADF&G *W.A. ...*
- 12:30 p.m. *12 PM* Agriculture Industry - Charles Logsdon, Agresources *r local, disting. career*
- 12:45 p.m. *1:12-20* Coal Industry - Cole McFarland, Placer Annex *Phil Holdsworth*
- 1:00 p.m. *1:23-30* Mineral Industry - Dave Heatwole, Anaconds *Tom Crafford*
- 1:15 p.m. *1:30-37* Energy Center - Gordon Zerbetz, Director

ill. submit in writing

OUTLINE OF COMMENTS BEFORE JOINT STATE AFFAIRS COMMITTEE
ON THE ROLE OF RESEARCH AND ON
THE ALASKA COUNCIL OF SCIENCE AND TECHNOLOGY

By:
Frances A. Ulmer

General comments about original purpose of Governor's support for ACST.

Identify several areas which Council should concentrate on.

I Research is an important tool for management. Good decision depends on good information in both public and private sector.

- need to build the research capacity to provide us with the information we need to make good decisions;
- need to educate ongoing managers to use it, to ask for it; and
- need to continually strive to improve communications between research committee and decision makers.

Recognition of lack of confidence that research can be relevant, timely, actually impact decisions.

Build confidence and develop broad consenses on what's most important (among all sectors and the public) develop 3 to 5 year research agenda.

II Federal cutbacks in funding for research:

- need to analyze the proposed cuts;
- evaluate which are the most serious;
- identify those which State should lobby Congress to keep; and
- identify those which State should fund if feds don't.

NOAA OCSCEAP cuts \$20 million to \$16 million to \$8.6 million, how to make decisions without this information? Which decisions most imminent; which research most needed, first?

III Partnership between public needs and private needs for research.

Technological innovation economic growth for the 80's.

The U.S.A. has experienced serious productivity declines; Science and Technology can help. We need to contribute to this effort.

NGA efforts committee work on technological innovation:

California private sector bridge:

"Investment in Economic Strength" program.

Natl Gov Assn Mtg Feb Wash DC
1980

*Technological Innovation: Economic Growth in the 80's
Columbia A, Lower Level*

California Gov. Edmund Brown, Jr., vice chairman of the association's Committee on Transportation, Commerce and Technology, will serve as moderator for the day-long meeting. The conference will examine the potential of technological innovation for helping to solve such key national and state problems as unemployment and inflation.

The conference's overall purpose is to lay the framework for a policy on technological innovation to be drafted over the next 6 months by the NGA's Committee on Transportation, Commerce and Technology.

The conference will focus special attention on the potential of knowledge processing and resource-efficient technologies. At the same time, the conference will highlight the need for a better working relationship among business, labor and government to meet the challenges of heightened international competition and domestic resource and energy constraints.

A National Science Foundation study released last year found that state and local governments have moved in recent years to replace declining federal research and development support with their own funds. The NSF study found that in fiscal 1977 (the most recent year for which there was complete data) state and local governments provided about one-half of the funds expended on their R&D programs, with federal agencies accounting for most of the remainder.

NSF also found that, beginning in the mid-1960s, states began to develop policies for the use of science and for incorporation of R&D activity into program operations and into state planning at the highest levels.

In the past few years, the steady deterioration in the nation's economy and world trade posture has contributed to interest in high technology industries. California, for example, is proposing a \$15 million package of state incentives aimed at protecting and stimulating high technology industries in the state. A recent study indicates that nearly one of every four new manufacturing jobs in the state are in high technology industries. Other states also are looking at ways to stimulate similar industries: North Carolina last year committed \$1.8 million in state funds for a new microelectronics research center; Minnesota legislators are considering financing the expansion of a similar facility at the University of Minnesota; and Ohio has set up a \$5 million fund to make direct loans to high technology industries.

In Maryland, Gov. Harry Hughes worked for establishment of the Maryland Ocean Thermal Energy Conversion Corporation, which promotes commercialization of ocean thermal energy technologies as a means to spur employment in the state. Engineering plans and

designs for the technology were developed at Johns Hopkins University.

New Jersey Gov. Brendan Byrne, in his 1981 state of the state message, indicated that the state will undertake a major effort to attract new high technology industry, especially technology linking computers and communications.

Michigan Gov. William Milliken has proposed establishment of a technology-based innovation fund in the state Department of Management and Budget to fund developing research and technology and application projects.

In Colorado, 86,000 new residents are expected by 1990 as a result of technological advances that contribute to energy development of the state's natural resources. In Massachusetts, many economists attribute the relatively strong showing of the commonwealth's economy to successful efforts to attract high technology industries.

The panel discussions at the conference will investigate what the private sector, labor and government can do to spur technological innovation.

The first panel is expected to stress the importance of technological innovation for economic growth, jobs, and lower inflation and will include an evaluation on the expected directions of the American economy in the 1980s. The panel will emphasize the potential of information processing technologies for increasing productivity and relatively resource efficient economic growth.

The luncheon speaker, David Kearns, president and chief operating officer of the Xerox Corporation, will discuss the role American corporations need to play in the 1980s to promote technological innovation, both internally within the corporation and externally in working partnerships with other sectors of the economy.

The second panel will present a series of views on the role of labor in contributing to economic growth. Such questions as worker involvement at the workplace, worker purchase of stock, and the potential of labor pension fund investment for promoting technological innovation will be discussed.

The third panel will discuss the role of federal, state and local government in promoting technological innovation. The role of government in capital formation, research and development, working with universities, and increasing its own productivity through technology is expected to be discussed.

The final panel will stress such questions as the importance of increasing efficiency and productivity in the use of energy and resources and will introduce the technology exhibits that will be on display in conjunction with the conference.

PARTICIPANTS

GAR ALPEROVITZ

Gar Alperovitz is Co-Director of the National Center for Economic Alternatives, a Washington-based organization which conducts research and develops proposals for economic policy.

Dr. Alperovitz is Chief Economic Adviser to C.O.I.N. (Consumers Opposed to Inflation in the Necessities), a coalition of national consumer, labor, minority and religious groups. He has offered testimony before a number of House and Senate Committees, and served as legislative Director in the U.S. House and Senate. He and his Co-Director, Geoffrey Faux, are currently completing a book entitled Rebuilding America.

Dr. Alperovitz earned his B.S. degree from the University of Wisconsin, a M.S. degree from the University of California at Berkeley, and a Ph.D. in Political Economy from the University of Cambridge.

LES AUCOIN - Chairman, Industrial Innovation Task Force, U.S. House of Representatives

Les AuCoin is a United States Representative from Oregon and is Chairman of the Task Force on Industrial Innovation.

Congressman AuCoin has worked as a newspaper editor and journalist, and was elected to the Oregon State House of Representatives, where he served until his election to the U.S. Congress in 1975. Since his election he has served on various committees, including the Appropriations Committee and the Committee on Banking, Finance, and Urban Affairs. He was made chairman of the Task Force on Home Ownership in 1978.

Congressman AuCoin is a native of Oregon.

EDMUND G. BROWN, JR.

Edmund G. Brown, Jr. of California was first elected Governor in 1974 and re-elected in 1978.

He served as Secretary of State from 1971 through 1975.

He worked as a research attorney for the State Supreme Court and for a Los Angeles law firm. In 1969 he was elected to the Los Angeles Community College Board of Trustees.

Governor Brown is a graduate of the University of California and received his law degree from Yale University.

GEORGE E. BROWN, JR.

George Brown was first elected to the United States House of Representatives in 1962. He served for eight years, sought the U.S. Senate seat in 1970, and returned to Congress in 1972 as representative of the Riverside-San Bernardino area of California. He is a senior member of the Science and Technology Committee where he serves on the Subcommittees on Science, Research and Technology; Natural Resources, Agricultural Research and Environment; and Space Science and Applications.

Congressman Brown is a native of California. He graduated from the University of California at Los Angeles with a degree in Industrial Physics.

SOLOMON J. BUCHSBAUM

Solomon Buchsbaum is Executive Vice President, Customer Systems at Bell Laboratories. He is responsible for customer services, processor and common software systems, computing technology, design engineering, and military systems.

Dr. Buchsbaum joined Bell Laboratories in 1958, and became Director of the Electronics Research Laboratory in 1965. In 1968, he became Vice President in charge of research at the Sandia Laboratories. He returned to Bell Laboratories in 1971.

Dr. Buchsbaum received his B.S. and M.S. degrees from McGill University and his Ph.D. from Massachusetts Institute of Technology. He is a native of Poland.

BRENDAN T. BYRNE

Brendan Byrne is in his second term as Governor of New Jersey.

Governor Byrne served his legal clerkship with Judge Joseph Weintraub, who later became Chief Justice of New Jersey. He was made Essex County prosecutor in 1959, and served in that position until 1968 when he was appointed to the Public Utilities Commission. In 1970 he was appointed to the Superior Court, where he remained until his election to the Governorship.

Governor Byrne is a native of New Jersey and graduated from Princeton University School of Public and International Affairs. He received his law degree from Harvard University.

DONALD F. EPHLIN

Donald Ephlin is Vice President of the United Auto Workers Union.

From 1968 until 1977, Mr. Ephlin served as Administrative Assistant to Leonard Woodcock, who was director of UAW GM Department, and later became President of the United Auto Workers. In 1977, Mr. Ephlin was elected Director of UAW Region 9A which covers 50,000 UAW members in the northeastern United States.

Since 1971, Mr. Ephlin has been active in the development of union programs to increase employee participation and improve the quality of worklife. He served on the GM national Committee which initiated the quality of worklife.

Mr. Ephlin was born in Massachusetts. He currently resides in Michigan.

ROBERT C. HALL

Robert Hall is President of Satellite Business Systems, a position he has held since 1979.

Mr. Hall was employed by Control Data Corporation from 1961 to 1972, when he became first President, Chairman, and Chief Executive Officer of Securities Industries Associations Corporations. Before assuming his present position, Mr. Hall was Executive Vice President of the New York Stock Exchange.

Mr. Hall earned a B.S. in Mechanical Engineering from the University of Iowa. He is a native of Iowa.

HARRY HUGHES

Harry Hughes won election as Governor of Maryland in 1978.

Governor Hughes was elected to the Maryland Senate in 1958 and served until 1970. He won Senate Majority Floor Leader and Chairman of the Senate Finance Committee from 1965 until 1970. In 1971, Governor Hughes was appointed first Secretary, Maryland Department of Transportation, a position he retained until 1977.

Governor Hughes is a native of Maryland. He received his B.S. degree from the University of Maryland, and his LL.B. from George Washington University.

JAMES B. HUNT

James B. Hunt, Jr. is Governor of North Carolina. He was first elected in 1976, and reelected in 1980.

Governor Hunt served as an economic advisor to Nepal from 1964 to 1966. Upon returning to the United States, he practiced law in Wilson, North Carolina. As Assistant State Democratic Party Chairman, he supervised the reorganization of the party structure to allow greater participation by women, minorities, and young people. Hunt was elected Lieutenant Governor in 1972.

Governor Hunt was born in North Carolina. He earned his B.S. and M.S. at North Carolina University, and received a J.D. from the University of North Carolina School of Law.

DAVID T. KEARNS

David Kearns is President and Chief Operating Officer of Xerox Corporation. He is Director of Rank Xerox Limited and Fuji Xerox Company Limited.

Mr. Kearns was a Vice President in the data processing division of International Business Machines Corporation. In 1971, he became Corporate Vice President at Xerox. He has held various other positions at Xerox, including Vice President in charge of marketing, Vice President in charge of international operations, and Executive Vice President.

Mr. Kearns was born in Rochester, New York, and graduated from the University of Rochester with a degree in business administration.

FRANCIS KELLY

Francis Kelly is Executive Vice President in IDS Advisory, a division of Investors Diversified Services, Inc. The Advisory is responsible for the management of pension funds.

Mr. Kelly worked for eighteen years on Wall Street as an Investment Analyst, Economist, and Director of Research. He joined the Investors Diversified Services Advisory as a Senior Vice President-Portfolio Manager in January, 1980.

Mr. Kelly is a native of Scotland, where he studied philosophy, political science, and political economy. He holds an advance degree in Political Economy from the University of Edinburgh.

RICHARD D. LAMM

Richard D. Lamm is in his second term as Governor of Colorado.

Governor Lamm was an attorney for the Colorado Anti-discrimination Commission from 1962 until 1963. From 1963 until 1974 he practiced law in Denver, and served as a Professor of Law at the University of Denver from 1969 until 1974. In 1966 he was elected to the Colorado House of Representatives, where he served as Assistant Minority Leader from 1971 until 1974.

Governor Lamm is a native of Wisconsin. He earned his B.A. from the University of Wisconsin, and his L.L.B. from the University of California.

DELMAR L. LANDEN, JR.

D.L. "Dutch" Landen is director of Organizational Research and Development (ORD) for General Motors, a position he has held since January 1966. ORD coordinates quality of worklife activities throughout General Motors.

Dr. Landen is an Adjunct Professor of Management and Psychology at Wayne State University, and serves on the board of directors of the American Quality of Work Life Center. He is also a member of the Human Resource Advisory Committee of the American Productivity Center.

Dr. Landen obtained his B.A. and his M.A. in Experimental/Theoretical Psychology. He earned his Ph.D. in Industrial/Organizational Psychology from Ohio State University.

A.C. MARKKULA

A.C. (Mike) Markkula is Executive Vice President and Chairman of the Board of Apple Computer.

Mr. Markkula worked for four years as Marketing Manager at Intel Corporation. He also held key marketing positions at Fairchild Semiconductor Corporations, and Hughes Aircraft Corporation. He joined Apple Computer as Vice President, Marketing, in May 1977.

Mr. Markkula received his B.S. and M.S. degrees in electrical engineering from the University of Southern California.

WILLIAM G. MILLIKEN

William G. Milliken is in his third full term as Governor of Michigan.

Governor Milliken served as a State Senator from 1960 to 1964, and as Lieutenant Governor under Governor George Romney for four years. In 1964, Governor Romney became U.S. Secretary of Housing and Urban Development, and William Milliken assumed the Governorship. He was elected to a full term as Governor in 1970.

Governor Milliken served as Chairman of the National Governors' Association from 1977 to 1978. He is a graduate of Yale University.

WILLIAM C. NORRIS - Chairman, Chief Executive Officer, Control Data Corporation

William Norris is Chairman and Chief Executive Officer of Control Data Corporation. Mr. Norris founded Control Data in 1957.

Mr. Norris participated in the founding of Engineering Research Associates, a company that contributed to the development of digital computer technology. ERA merged into Sperry Rand Corporation, where Mr. Norris worked through mid 1957.

Mr. Norris has authored a series of booklets addressing the use of technology to solve society's problems. He assisted in the founding of City Venture and Rural Venture, organizations which plan and manage programs for redevelopment in low-income areas.

Mr. Norris is a native of Nebraska, and a graduate of the University of Nebraska, where he received a degree in Electrical Engineering.

ROBERT N. NOYCE

Robert Noyce is a founder and Vice Chairman of Intel Corporation. He served as President until 1975, and Chairman until 1979.

Dr. Noyce worked in the Research Division of Philco Corporation from 1953 until 1956, when he joined the Shockley Semiconductor Laboratory of Beckmann Instruments. In 1957, Dr. Noyce became one of the founders of Fairchild Semiconductors. In 1968, Dr. Noyce joined with others to found Intel Corporation.

Dr. Noyce is a native of Iowa. He received his B.A. degree from Grinnell College, and his Ph.D. degree in Physical Electronics at Massachusetts Institute of Technology.

THOMAS O. PAINE

Thomas Paine is President and a Director of Northrup Corporation.

Dr. Paine was appointed Deputy Administrator of the National Aeronautics and Space Administration (NASA) by President Johnson in 1968. He was appointed Administrator of NASA in 1969 by President Nixon. Dr. Paine directed NASA during the first Apollo Missions, including the first landing on the moon. In 1970, Dr. Paine returned to General Electric as a Vice President and Group Executive. In 1973 he was appointed Senior Vice President of GE for Science and Technology.

THOMAS O. PAINE - Continued

A native of Berkeley, California, Dr. Paine received an A.B. degree from Brown University. He earned an M.S. and Ph.D in Physical Metallurgy from Stanford University.

MARKLEY ROBERTS

Markley Roberts is a member of the AFL-CIO Department of Economic Research, where he has served since 1971.

Dr. Roberts was employed by the Washington Star from 1952 to 1957, when he took a position in Senator Hubert Humphrey's office. In 1961 he became a member of the AFL-CIO Department of Legislation, where he remained until 1971.

Dr. Roberts earned a B.A. at Princeton University, an M.A. and a Ph.D. in Economics from American University in Washington. Dr. Roberts' parents were missionaries residing in Shanghai, China at the time of his birth.

ROGER SANT

Roger Sant is director of the Energy Productivity Center of the Carnegie Mellon Institute where he has served since the summer of 1977.

Mr. Sant was assistant administrator of the Federal Energy Administration, Conservation Activities from 1974 until 1976. He has also been a Professor of Business at the Stanford School of Business.

Mr. Sant is the author of Least Cost Energy Strategy, published by the Mellon Institute in September, 1979.

Mr. Sant earned a B.S. from Brigham Young Institute, and a M.B.A. from Harvard Business School.

JOHN B. SLAUGHTER

John Slaughter is Director of the National Science Foundation.

Dr. Slaughter became Director of the Applied Physics Laboratory and Professor of the Department of Electrical Engineering at the University of Washington for Astronomical, Atmospheric, Earth and Ocean Sciences. He then served as Vice President and Provost of Washington State University at Pullman, where he remained until his appointment to NSF.

Dr. Slaughter earned a B.S. degree in electrical engineering, and a M.S. degree at the University of California, Los Angeles. He is a native of Kansas.

DOUG WALGREN

Doug Walgren of Pennsylvania was elected to Congress in 1976. He was made Chairman of the Subcommittee on Science and Technology in February, 1981.

DOUG WALGREN - Continued

Before his election to the House of Representatives, Congressman Walgren practiced law in Pittsburg. From 1973 to 1975 he was Corporate Council for Behavioral Research Laboratories, Inc.

Congressman Walgren earned a B.A. at Dartmouth and LL.B. from Stanford University. He is a native of Pennsylvania.



Alaska State Legislature

Senate Committee on State Affairs

Vic Fischer, Chairman • Pouch V • Juneau, Alaska 99811 • (907) 465-4954

Official Business

M E M O R A N D U M

TO: Legislators

FROM: Senator Vic Fischer ^{VF} and Representative Mike Miller

DATE: April 27, 1981

RE: Role and Status of Science and Technology in Alaska

Science in Alaska is big business. Nearly \$200 million are spent each year in the state on scientific research involving hundreds of projects. The results of such research may well provide a key to our future.

The House and Senate State Affairs Committees recently held hearings on the status of scientific research in Alaska. The most significant issues discussed were the impact of proposed federal budget cuts, the controversy over research priorities and coordination, the importance of providing scientific information to the public and decision makers, and the future role of the Alaska Council on Science and Technology in light of these issues. A summary of the major issues, brief excerpts of the presentations, recommendations, and a statement from the ACST on its role are attached.

Full proceedings are available in the Office of the Governor, Senate President, Speaker of the House, Senator Fischer, and Representative Mike Miller.

I urge your careful consideration of science issues and look forward to your comments.

/sq

Recommendations

1. The Alaska state legislature should transmit a resolution to Congress citing the importance of Arctic science in resource development, defense, and environmental health and requesting the Congress to convene hearings on arctic science policy.
2. The Alaska Council on Science and Technology should take all steps possible to communicate Alaskan interests in arctic science policy to the federal committee on Arctic policy established by section 1007 of the National Interest Lands Act.
3. The Alaska Council on Science and Technology should promote cooperative science programs between government and industry for resource developments.
4. The Alaska Council on Science and Technology should develop a program for information exchange between the science community, decision makers, and the general public.

Things to Remember

- Ask people to state name + affiliation for the record
- Be sure to get all written statements assembled.
- Limit testimony to 10 minutes

Members present - Vic + Mike

(1)

4/11-81

Senate House State Affairs Sci-Tech

0027
0034

Vic opens meeting + outlines agenda
Mike Miller makes opening statement
"Get Sci-Tech on the record"

0047

Thanks Chris Neuh

0061

Panel members pull up to table
Hickok, Underwood, Parker, Davis (?)

0070

- Requests they watch the clock.
- Vic explains "legislative participation limited"

0083

Dave Hickok - Present highlights of paper on
need for support for technology in
U.S. + Arctic - need for Arctic Policy
to be built in U.S. (beginning w/ E.L. Bell
Penthetts efforts → ? → LBJ - died with him)
Nat'l Sec. Advisor Kissinger → "no discussion of
Arctic science"

0129

Paper outlines needs in areas of Nat'l Resources,
Environmental Change, Climate Change,
Health + Welfare of people + Nat'l Security
Barriers to development of science policy
- Industries lack basic knowledge needed.

page 2

9:17
0144

- Efforts in polar science → Antarctic

- People in Arctic - deserves
some attention

Conduct of science in govt (Fed + state) is
procedural rather than oriented towards
developing ^{new} knowledge.

0168

(Hickock still) - Difference made by
indigenous people & their participation -
their sense of values.

If U.S. is to meet energy, mineral + defence
needs there can be partnerships -
state - fed govt, industry & science -
must be done soon

Arctic dilemma must be solved.

0199

- Vic asks for each panel member to give
name

0214

- Underwood, outlines CRP paper



physical, biological, social

page 3

Underwood

0228

Outlines breakdown by discipline - research being done in biological sciences, geology, oceanography, social sciences etc.

9:06

Trends (comparative) → gradual increase (34% 1976-7) in amount of research (1978-79 decrease 3%) - effect of tightening economy -

Where / Location projects. regional → South central at top of list...

Where home residence of scientists - more in South central ^{defense Forest NAS, NPS}

0278

Who conducts projects - Feds, State (Ug A) Governmental agency 1/2, State 1/2, academia 1/3

0298

- Vic - Did you make any comparison of \$ amounts

0301

Yes - project supports Fed (60%) State (25%?)

- \$ support - Fed (80%) state (16%)

Misleading as a lot of state % is Fed matching - Fed about actual 90%

200 Million > Total ~~output~~ cost -
~ 180 Million Fed

0324

- Has downward trend of 79 continued -
What is impact of Fed impact

page 4

on process of knowledge accumulation
in scientists.

0335 - Walt Parker -

Substantial reduction in Federal
monies - we will lose expertise of
Federal level.

(9:30)

Gaps in agency response - hydrology,
soils info., ice information, climatology

NOAA Fleet reduction → areas difficult to
replace - ^{specialized} research

Life sciences: environmental health -
programs have been largely eliminated.
State & private interests have not picked up
slack

Transportation - Increase in (6) surveillance
but not much new technology.

0440

Part's & Rec., Wildlife Research -
- Effect of Federal cuts continues -

Cancel all research + dev't in alternate
energy ~~or~~ or fossil fuel research.

0453

Upsurge in private sector - Fed programs either

(5)

Jack Fuller + Mitch Abood Show

Stationary or ⁱⁿ decline

0462

Walt - continues

Impact on support services

Emphasis taken off environmental & energy programs -

0480

Neil Davis - ACST

- Alaska's current investment in research + development too small (1/2 that of Canada in relation to GNP)

ACST in past two years has been examining research priorities - Developed by 13 ad hoc committees of scientists -

0533

Even after identifying areas to be emphasized management of programs + procedures must be developed. Systems in place - operating on a low level:

0566

- End Neil -

Introduction Mitch + Jack

0570

- Mike amazed by small amount of private investment. - Is it all petroleum related?

0578

Dave Hitchcock - Largely, yes. AOB A^{improvement}

page 6

0594

Vic " How do you define "Alaska Science"?

0601

Dave H. → Interface Arctic - Alaska Science

Vic → Underwood - you were talking about all Alaska

0621

Dave Underwood - our primary concern - future of research.
20-30 million need

0641

Mitch Abood - Four comparisons are of Alaska to other countries (Russia, Sweden, Canada) - we are merely a state - can't U.S. pick up 20-30 million.

D.H. of course - partnership of state + Feds

0655

Fuller - how much shared into is there between U.S. + other countries

0661

- W. Pinker - Not much - no formal mechanism - even w/ Canada ~~the~~ only individual relationship

D.H. - Some exchange of data base w/ AIIDC + Calgary

page 7

0698 N. Davis - Atmospheric, space, aurora
borealis

0686 - Fuller - how much further ahead ~~than~~ Russia
is in winter construction, ice technology

0698 W. Parker - Not any vigorous exchange

0700 ^{Russia} advanced soil science, permafrost, etc. - Russia
much further along. - N. Davis

0715 Abood - Private companies have volumes on
perma-frost (pipeline) if we can't apply
that information what good does it
do to repeat studies.

0740 Vic - To what extent is ACST going to come up w/
priorities

0744 - N. Davis - ongoing process rather than a point
in time

Re: oil companies research - they do not
know enough about basic physics of soil,
much is proprietary info which must be
bought

page 8

0762

view - partnership of industry + public sector necessary

0776

D.H. > do not have answers to how to bury pipeline - security of it.
Partnership between getting ahead of pipeline

(responsibility of public sector to learn certain facts

10:05

0793

- UF "How is ACST working out?" Do what extent are exec. legis. agencies showing an interest / being ~~more~~ affected in their activities.

0802

Neil Davis

- More interest from legis than exec. - limited in what we can do - we have had to rely on much volunteer labor. Increasing communication - 2 way - would like to see it improve.

0812

Size of operating budget. -

0824

UF How is grant money holding out (Northern Technology)?

Chris Noah - teaching out in Northern Tech - needed in research grant funds

0830

DA - larger question (ACST as a state Science Foundation - Nat'l Hazard Problems) not adequately funded.

(8)

0839 - VF Will you be coming to the legislature
& responding to priorities emerging from studies

0844 N. Davis - mm

0849 D. H. - ACST doesn't really care who gets
money

0853 Mitch Abbod - I do!
What about ice fog!!! as an example
Freight, aircraft

0875 VF - Jumps to Ben Franklin's defense

Mitch has practical interest in agriculture &
transportation

10:15
0857

Neil Davis - There may be no solution
to ice fog! By putting money into a
project like that we still hit on answers.
What is use of building RR that collapses
in 5 years.

0902 Mitch - doesn't object to Sci-Tech -
I'd go to Federal govt, someone
who's built a rail road!!!

0903 - VF - As someone who has been part of
scientific community I would not avoid
new for problem - Solutions are emerging &

0912 we can find ways to protect people.
I hope Council processes bringing
me answers.

0918 - Break.
10:15 Miller left.

0921 - B. Dohie Interest in Science & Technology
10:35
0930 Doug McConnell - Working in Alaska since 1973 -
converted public tv licenses - TV Pgm -
Alaska Advocates - Public TV media forum

Past decades years ahead - internally ^{strongly} assumed vision
resources etc. Choices must be made - 1. The
new advocacy info provided, we lag behind in
creating informed populations w/ the backdrop of democracy.
- Disparities - millions spent on Public TV.
system in little support for public programming
for information

0958 Linkage between SCI-TECH & importance of
public for progress in ^{publications} ^{regulation}
0964 ^{advocacy} ^{measures} - difficulty of governmental ^{word} ^{doing}
technical writing.
There is interest in modes for info.
Pete Carran KRM said - Donahis required to
deal w/ scope of issue - want to call
someone to get our advocacy info. - ^{we} ^{decide} ^{advocates}

10

0984

Orig cont.

Public is hungry for info about Alaska of well-produced.

0991

- Nat'l Science Foundation grant (format for broad dissemination) - 60 second slots for scientific tidbits - (Has been going on for 6 or 7 mos.)

1003

1045

Economics dictate against broadcasters working up their own material. We can provide this - there is a need. Funding usually comes from outside. Question state must ask -

1028

End long

1030

Joe LaRocca - speaks for loss of public interest of Sci-Tech.

- Disclaimer - planned to speak as member of press but will not speak for press -

Newsmen like scientists - talking to ourselves or to each other!! Scientific community suffers from "chronic crisis of confidence" - caught up in critical phase.

If scientists could communicate directly w/ public ^{via press} it would alleviate this problem.

Public is not priority esp. for science community.

1062

Scientists must make commitment to public at larger take public info off top of budget

(11)

Joe

1070

especially in light of their sustenance from donations,

- Professional technicians must be engaged for technical writing / media orchestration

1077

Science curricula should include a class in this skill.

1106

Definable goals + constituency should be linked together. Building that constituency & fashioning that link will enable scientific community to achieve their goals - a large advocacy group can be developed w/ clout (political & \$\$\$)

Inclusion of brief narrative account for media dissemination ~~for~~ those developing project proposals for profiles.

- Example - Neil Davis' column - Alaska's Carl Sagan - except Carl's material sometimes sinks to scientific level.

1120

- Doesn't aid scientific community to work on public issues. Brian Rogers - they are already advocates

1142

Abood to Doug -

How much info for the 60 second spots come from ACST.

(12)

1150 Doug - A lot from ACST, also at University
1155 other sources
Doug agrees to bring some ^{were running in last} ~~some~~ ^{night wind blew them} ~~off the air~~
(Brian Rogers shows)

1158 Mitch - problem of image of Alaska by U.S.
Can these 60-sec spots designed for use
outside too

Doug - ~~not~~ Not yet been an Alaskan team
program for national distribution - one
coming up on impact of T.V. ^{K.A.K.M.} on rural
Alaska. for Nat'l Distribution

We have important stories of national significance
K.A.K.M. also doing ~~one~~ on ^{rel.} of U.S. &
Western States | Stanford Commission / Saprobush Lab.
We now have the satellite technology at low
cost to go to lower 48. Actual distribution
network is cheap.

1158 VT - Doug - you emphasized ^{non-advocacy} public info.
Already happening

- Issue of petrochemical industry development
in Alaska, - people taking sides - current
project being done by industry (they are doing
snow job)

1202 How-Public involvement

1205 Doug - A Difficult challenge

1210

no prior experience, hard to gather information.
People need to extract it + present it.
Still no non-advocacy programs - need for
research

(Not lobbying for own group)

1228

Joe - It's been six months since irreversible
impact was begun (Reagan) isn't a mechanism
for dealing with it - Ovar Shell may or may
not come up w/ recommendations ~~with~~ in best
interests of states.

VF - Initial decision to go ahead w/ study
was done w/out public input.

1240

Joe - de facto decisions made
Have expertise readily accessible to
decision-makers so they can make informed
decisions - with the baseline data + banking
expertise. Support for scientific research
both pure + applied.

1250

Brian Rogers - how can public be made
aware -

Joe - assuming decision makers are involved -
research results will "fall out" into
public sector.

1267

Brian - what can we do?

JDC - also a function of scientists

Doug - cites training & background of scientists -
translation problem - got to be some
help in condensation & dissemination

JDC - "In a behaviourist

End Tape

11270

Tape 2

C. A look at specific needs

START

0002

11:15

0019

Fran Ulmer - DPDP - on behalf of Gov's office

3 areas where research can be produced in timely
enough fashion for decision making purposes

ACST

Examine Problems in that relationship

- Effective communication ACST can bridge
that gap.

0063

Agency managers need to be educated in role
of science & research.

Research agenda more long range than 1 year

3-5 year plan of
ACST can build agenda for long range research

15

Present: Vic, Brian, Mitch

0089

Fran

- Impact of Federal cuts - research cuts

- Evaluate most likely cuts

Identify - have Gov's office work w/
Congress - not too late to identify
some research areas.

Legislature - must evaluate which Federal
cuts will be alleviated by state. (special
session?)

0120

- Technological Innovation: Role in economic
growth. Bridging technical gap.

0147

- Recent national concern for productivity:
ACST consider kind of work being done on nat'l &
Fed level - private & public sector working
together to bridge the gap.

0168

Brian - 3-5 yr. research plan - Council has
representation of private sector, public sector,
administration - do you mean those groups are
no longer represented on council as was orig. intended?

0193

Fran - Not enough consensus has developed.

Climate not provided for evolving a plan -

Council has large role & difficult assignment -
getting Legislators interested.

(12)

0205

- Brian - white wine developing 5 year plan
what about funding already identified
projects.

0220

Fran - Can't always wait until whole picture develops
Mitch - need to exercise common sense -
need to simplify for average person.

VF - To what extent does Gov's budget review
Committee look at research components
of budget

0248

Fran - a piece of each agencies budget

VF - any effort made to see interrelationships,
coordinate research
2. get U of A involved in
agency research.

0257

Fran
- B + M but must done with a comprehensive
view of research.

Council can identify

0267

AOGA - Rick Shaber - manager env. safety &
sex. for Sohio. 9 year resident (petroleum
head) These comments my own views

- 0414 George West (U of A) Vice President of - Affairs
(Ray Burton out of country)
U of A represents largest & most varied pool of scientific expertise in state.
Only source of basic knowledge in Arctic science.
Now research conducted through centers, by people in programs, on wide scope of issues.
- Research
See Annual Report - Summary of hundreds of projects underway - Can provide data on which are Fed. funding.
- 0460 - Need for space, instrumentation, ^{new} programs - Faculty needs labs & office space. (60,000 more sq. ft.)
- 0471 (How much \$?)
- Need for field ~~lab~~ bases in Arctic
- 0491 - Need for sophisticated instrumentation.
Alpha Helix, electron microscope, etc.
- Areas in which research is needed
- soils, animal disease, water quality, volcanic & carbon dioxide research.
- ~ Impact of Federal cutbacks
Filling anticipated need: impact 14.3 million out of 3.5 million eliminated programs.

(15)

0288

Rich Shater - refers to Mrs Beasley
Forum of support for research

L P ~~R~~ C

(?)

- ABSORB - Beaufort Sea research

Link w/ Canadian research in oil spill
Technology.

0323

Current projects include examining impact of
discharge oil on shoreline / bowhead whale
population study.

Benefits of basic research accrue to society
generally - public should pick up cost.

mapping, weather data, hydrologic + oceanographic
+ geo-hazard info.

0350

Rich Shater -

Attempt may be made to shift economic
burden to oil companies. Gov't should expand
our knowledge - State can take a role in
sponsoring research projects w/ best benefit
to Alaskans

0377

0390

End Rich's presentation.

UF - What is extent to which this kind of work
is ~~copyright~~ proprietary?

0400

RS - Usually info is eventually released -
sometimes immediately

0408

End Rich

- 0665 Neil: ^{prioritizes}
legislators ACST → dissemination
- 0671 - Mitch - U of A more qualified to do that than ACST.
- 0695 Brian - Council to identify research needs - U of A folks carry out research
If money goes ~~into~~ directly to scientists it will end up being spent on their specialties (their priorities necessarily linked to areas of expertise)
- 0693 Mitch - cannot see benefit
- 0694 Brian - Council also identifies needs
- ~~Mitch~~
0700 - VF often takes external pressure - cross-fertilization
This is part of ACST role
small grant program encourages alternative solutions to small problems
- 0729 Brian - Agencies have developed research components - ACST may orchestrate some of these independent efforts -
designate appropriateness of agencies

0745

Brisen (cont)

roles of basic research - what good does it do!?! Example of rapid development of telecomm. in state due to 1950's investigation of atmospheric disturbances.

0766

- Mitch favors "experts" per se. (Acknowledges value of individual creativity - but prefers a big "think-tank" as vehicle.

0777

12:10

~~George~~ West - University is a "think-tank" but they don't have a broad perspective (ALST)

0798

Wayne(?) Meyers, WAMI - Health + Medicine
No health related think-tank -
it will take front end money to develop nucleus of expertise.

Background - Federal funds were formerly abundant during Alaska's territorial status. Fed presence of GAs have been withdrawn - not a Federal priority.

Arctic Health Research Center - cloaked by Feds in 1964 - state ^{UGA} was going to pick up slack but UGA hit mgmt problems & state spent money on petroleum presence preparation.

(22)

0831

W. Meyers

In addition to identifying research needs you need nucleus of expertise (H & D) to determine if time + state of art permit specific efforts.

Science projects - improving science education
NSF - Fed grant - limited longevity.

0856

"Closet researchers"

Dr. Stiller - DHSS

Robert Grouse

Anchorage center for disease in Lower Yukon
"serum hepatitis" - liver cancer - Lower Yukon +

Kuskokwim - interdicted from research perse -

They gather data - stretch the limitation.

0877

Applied U.S. basic research -

Short term return - Alcoholism research

- 16 million per year

0889

Office of Alcoholism awareness on new perspectives
genetic perspective. Example of suggestive area
for basic research we are not in position to
move forward with these. Sociological & Anthropological
perspectives not sufficient, however.

0918

Real Health - Soc. Delivery

24

1008

relevant dialogue

1030

W. Meyers

1040

v.f. suggests body to do onsite research.

1053

WAMI force an educational thing, costs borne by state - states keeping dollar commitments. Some decline in Washington

Not germane to discuss ins & outs of WAMI at this time!!!

1067

1070

1:40

End Wayne

1080

re: Economics - Lee Gorsuch ISEK Director
Post-ANCSA period as a genuine social experiment.
Extensive endowment of natural resources -

Can it be translated into a way of life which translates into people being better off than before -
- Lee - Alaska in a period of experimentation

1106

Legislators might share scientific approach -

Draft legislation - compile data - subject it to analysis - Bridging common gaps

Ex: Housing Mortgage Assistance Program
+ determining success of programs

23

0922

W. Meyers

Need for recruitment of rural & native students for health care research.

0933

Seasonal studies on health factors
Hypothermia studies, Arctic industrial
medicine, high latitude populations highest
incidence of gonorrhoea in Northern U.S.

0953

Dr. Barton appointing group to prepare
recommendations for 10 year priority
plan for health research - (MAY) ^{Report} 9-81,
3-82

W. Meyers states own recommendations
of where centralized activity will be, links, role
of telecommunications & rural components.
End Wayne.

0961

0967

~~W~~ Mitch - how many years studying gonorrhoeal/alcoholism,
Celsin fever

W. Meyers - fetal alcoholism - 1973, 1975 - acknowledged
little research on it in Alaska - Natives are
more prone - a grudging acquiescence of this - that is state of the
art.

0992

Mitch - what are we doing to counteract
gonorrhoea - education - what is your intention

0997

W. Meyers - Public info programs, immunization
programs emerging - some improvement witnessed.

(19)

\$ 50 million

0558 7.4 million in salaries (96 professors) & admin too
Will impair all research.
Need for long term commitment to research & scientific development on part of state etc.

0578 Brian - How can public be made more aware?

0580 - ~~David~~ ^{George} West - Translating into to public

0589 - Brian - suggests Through U of A we "pick up what we've lost"

0603 Mitch - What part of U of A research has been transmitted to benefit of people.

0611 - ~~David~~ West - cites caribou - reindeer disease work & breakthroughs

Mitch - Is there relationship between U of A group Science Council & ACST? Couldn't U of A do function of ACST. Mitch stresses need for relationship between U of A & ACST & PEOPLE (results) - Is this not duplication.

0645 ~~David~~ West - let Neil Davis respond. Some money comes to U of A through ACST.

Neil Davis

0651 - Science Council cannot do research itself. Council is in role of policy issues, ~~to~~ entering contracts, granting funds

(12:00)

(25)

1124

Lee

Legislative goals are subject to empirical analysis but we lack data acquisition + analysis + application to data.

Hydroelectric experimentation / Education

little objective assessment of programs into which money has been put - little evaluation, analysis + feedback to legislature + "mediary".

1146

PCF proportions, continuity, feedback

↓
of effort
to
output
↓
delivery
to
evaluation

approach to
research + eval.
has to be continuous
consider multiple
year funding

Re: Mr. L. R. Roca
McLornell
lack of feedback into
decision making /
political processes

Step up

provide

we can give

ISER - Social + Economic Sciences will be most drastically affected - 75% of funds Fed - NSF being totally reduced 25%.

Fearful of inability to provide analytic tools in the future

1188

More spent on animals than demography

Hearings on the Role and Status of Science and Technology in Alaska before the Senate and House State Affairs Committees

A. Overview of Alaska Science and Technology: A Panel Presentation

9:00 a.m. American Assn for Advancement of Sci + Tech
Alaska and U.S. Arctic Science Policy - D.M. Hickok, AAAS, Alaska

9:10 a.m. Arctic Env + Data Center
Who is Involved in Alaska Science; Areas of Greatest Emphasis - L. Underwood, University of Alaska

9:20 a.m. Findings of Alaska Council on Science and Technology Hearings on the Status and Direction of Federal Science in Alaska - W. Parker, ACST
special counsel to ACST

9:30 a.m. Priority Needs and Other Issues connected with Science in Alaska - T. Neil Davis, ACST

(NOTE: The full text of reports on the above will be available; presentations will be summaries)

9:40 a.m. Questions and Dialogue between Legislative Members and the Panel

10:00 a.m. Break

B. Public Interest in Science and Technology in Alaska

10:15 a.m. Statement from the Press Joe LaRocca, Doug McConnell

10:35 a.m. Questions and Dialogue between Legislative Members and the Press Representative

C. Science and Technology Needs and Priorities: 10 Minute Presentations by Government, Industry, and Public Witnesses (with filed statements). There will be 5 minutes for committee dialogue with each witness.

10:45 a.m. State of Alaska - Governor's Office Fran Ulmer

11:00 a.m. Oil and Gas Industry - AOGA Representative Rick Shafer

11:15 a.m. University of Alaska - J. Barton, President George West

11:30 a.m. Sealaska Corporation - B. Mallot, President

11:45 a.m. Health and Medicine Community - W. Meyers, WAMI

12:00 a.m. Resource Economics - Lee Gorsuch, Director ISER

12:15 p.m. Fisheries Industry - Steve Penmoyer, ADF&G
written only

12:30 p.m. Agriculture Industry - Charles Logsdon, Agresources

12:45 p.m. Coal Industry - ~~Cate McFarland~~ Placer Annex Phil Holdsworth

1:00 p.m. Mineral Industry - ~~Dave Heatwole~~ Anaconda Tom Crawford

1:15 p.m. Energy Center - Gordon Zerbetz, Director

(0226) Gordon-

(0270) Vic & Brian question basic assumption of goal-based research - concern w/ reduction of basic research - we are living off old basic research discoveries.
Concern that this is happening on a national level.

Frequently a justification for research can only appear after the fact.

(0290) VF the need to balance immediate needs w/ long range view.

(0301) VF Thanks all - Imp. of addressing those who are not already advocates!

Response to science -

Hopes this is an awakening to total scientific need rather than being sold on specific needs packages

ACST a good vehicle

27

1190

Need to use resources to improve quality of life.

1201

Mitch - we are not using vehicles in place in an effective manner
What about Reagan's economic recovery plan
How are we viewed by lower 48?

1206

UF - The extent to which we can use social & economic science research to alleviate current problems.

1245

Reemphasize need for portion of funding for evaluative & developmental programs
Mitch left.

~~1252~~

Charles Logsdon → ^{Ag resources} Agriculture

1272

- Starvation & malnutrition lower worldwide than ever despite higher population
a tenuous situation - a bad crop year could have great political implications.

1297

Charles - Numbers of Federal & State scientists in field. State to state comparison of # of ag scientists.

1302

Who is involved in ag. research

Contract negotiations rather than creation of separate research division.

1323

Cites different groups which have research needs from state agencies to ARRL, to ^{CFAB} + private corporations.

Farmers not only beneficiaries - marketing, processors & consumer

1338

Increased Alaskan production may be regarded as an intrusion. This situation should be examined & met.

1348

Concentrate research in University for the most parts Technology transfer needs support -

Fed budget cuts - cites agencies & programs affected.

1360

Key of Ag Block - Alaska maybe part of Federal Omnibus (grant?).

Overview of AB situation - state Ag. establishment has marked goals & objectives - personnel & \$ for working on it may be provided !!

1385

VF Area of particular interest this year AB - especially monitoring feedback

1393

Loysdon - agrees

29

1394

Phil Holdsworth
Coal industry - Plaver Annex
current status. written by Cole McFarland

1:10

- Fire sampling, analysis - Fairbanks U.S.A
program should be expanded.

1410

Arctic Research Center - environmental quality
preservation

Difference between coal resources + reminable
coal. (recoverable).

1438

Alaska's coal must compete in world markets

1. Imp. of gathering data
2. expansion of sampling to define coal quality
+ characteristics.
3. expansion of current state program of compilation
of data base through aerial mapping + interpretation
4. Continued participation by state (DNR) for
pullman to supply rural locations.

Mineral Industry

Tape 3

0020

- Tom Crawford - Anaconda lawyer
- Hardrock mining U.S. currently reliant on
foreign sources.

Platinum, Chrome, Nickel in Alaska.

Known deposits in USSR / Yukon. NO
incentive for Alaska. Exploration has been
provided.

Currently known deposits \$54 billion value

(30)

center jammed
the numbers are a guess now

6075 ?
(11)

Tom Crawford -

expense & time consuming nature of
scientific research - number of publications
not equatable w/ increase in knowledge.

Field mapping should be primary thrust of
states program in minerals

0120
(53)

Aerial mapping - Review of existing
stuff

Placer mining - research on decreasing
turbidity

Challenges posed by Alaskan environment -
engineering hazards & info should be provided -
UgA!

6870
(79)

End Tom

0180
(90)

Gordon Zerbetz - Ex. Dir. Alaska Energy
Center - former comm. of APUC.

Consensus acquired at AEC Board meeting.

RelD difficult to tell if people are talking about

(0123)

same phases of product development

Research should respond to needs not just generate knowledge to fill gaps.

Research + development -

Fed cutbacks may not be primary concern - rather Alaska's wealth + resultant decrease in funding by Fed's.

Thrust of Center's work:

Identify statewide research capability

(0170)

Oppose concept of percentile ^{budget} approach to research.

Relevance of research is stressed - Association of research + need.

(0187)

Brien - What about research in general - a lot of major gains in basic research ~~are~~ were not anticipated. It sounds like AEC is saying "cut out basic research"

(0212)

You were speaking to your own research needs? Brien questions if it is possible to know of a "pay-off" (specific) before beginning.

SUBCOMMITTEE

ON

ALASKA'S

FUTURE

July 29, 1981

M E M O R A N D U M

TO: All Legislators
FROM: Sen. Vic Fischer *Vic*
RE: Forthcoming seminar

Terry Stimson and I are putting together a workshop to discuss some issues of Alaska's relationship to the nation and the world. The focus will be on Alaska's future and the trends and external developments that will effect the economic and political environment in which Alaska's development occurs.

We anticipate that this workshop will occur in September. If you are interested in additional information as arrangements proceed, please advise:

Laura Fleming
c/o Fischer
511 West 4th Ave., Ste. 5
Anchorage, Ak. 99501
(907) 278-3654

MEMORANDUM

TO: Senator Victor Fischer

FROM: Gordon Harrison

SUBJECT: Legislative workshop "The Potential of Policy"

DATE: November 12, 1981

You have requested written comments from me regarding a summary of the recent workshop "The Potential of Policy". I had prepared a summary statement to present at the end of the final session but as you will recall, an animated discussion had begun toward the end of the day that would not be laid to rest, and it consumed the time set aside for my remarks. Now, with a transcript of the proceedings available, these remarks seem inappropriate. Instead of writing down my earlier summary (which attempted to restate the essential points of each speaker, among other things), let me here offer some general comments about the workshop and the subject of legislative planning in general.

As I perceived it, there were two objectives for the workshop---one was explicit and the other was implicit. The explicit objective was stated by Senator Stimson in his introductory remarks, namely, to recommend procedures that will enable the legislature to identify and address policy issues when they are still somewhat distant, and do not have the urgency of a crisis. The other objective was implied by the presentations of many of the people requested to prepare papers (for example Ylvisaker, Tussing, Cooley, Wilson, Holthaus, Mitchell)---namely to identify trends shaping Alaska's future and the policy issues likely to emerge in the years ahead. Thus, the workshop set out with a closely related but distinct set of purposes: one dealt with procedure (what mechanism can best deal with future issues?) and the other with substance (what is the future of Alaska?). John Havelock indicated early on that the discussions scheduled for the first day were intended to explore the substantive question, and the discussions scheduled for the second day were to seek an answer to the procedural question.

Despite Mr. Havelock's best efforts at steering the workshop, it simply did not want to leave the substantive question. We never did get to the matter of legislative procedures. I certainly do not believe that the workshop failed as a result. Indeed, I am not sure that this particular group of people were very well equipped by experience and training to deal with the matter of legislative mechanisms, and that their recommendations might not have been useful to the legislature in any case. On the other hand, these people were fascinated with, knowledgeable of, and eager to talk about Alaska, its problems and prospects for the future. About this

there was much wisdom and insight expressed.

My own response to the two days of discussions about Alaska's future is the fear that Alaskans may be steadily moving away from, rather than toward, a common vision of the "good society" for Alaska. Although I have no first hand knowledge of the time, my impression of the early period of statehood was that Alaskans shared to a high degree a consensus and optimism about their future. The major issue that separated people before and shortly after statehood was whether Alaska was financially prepared for statehood. This was primarily a concern of the propertied interests, who feared increased taxation. The majority of people, however, urban and rural, shared a common resentment against federal management and a common idealism and enthusiasm about the possibilities of self-government through statehood.

At the present time there appears to be a number of very deep and divisive conflicts among Alaskans. These have resulted from population growth and oil wealth. The urban/rural split, about which Don Mitchell and others spoke so eloquently, seems to be the most serious of these conflicts. It has several dimensions. One concerns an equitable division of public wealth from Prudhoe Bay; another concerns land use, mainly conflicts between subsistence and recreational uses of fish and wildlife.

The conflict between development and conservation, which has become something of a cliché these days, is still very profound. This conflict arises anew with every development proposal, including offshore oil leasing and onshore mining and petroleum development. The question of whether to build a petrochemical plant in Anchorage, for example, is an issue that could split Alaska's largest city into warring factions.

Another fundamental cleavage among Alaskans today is over the legitimacy of state and local government authority in general. The widespread optimism of twenty years ago about the ability of state government to promote development and the general welfare of Alaska's citizens has turned to disillusionment and widespread pessimism. The Libertarian and other "fringe" political parties that question the basic scheme of things are making significant advances.

I raise this matter of polarity in Alaska society because it relates to an underlying theme of the workshop discussions, that Alaskans in general and the legislature in particular need a "vision of the future." It is only with a uniform view of the goals of our society that long term governmental policy can be developed, and the success or failure of policy be measured.

The legislature is broadly representative of our society, and it will have a common vision of Alaska's future only to the extent one exists in society as a whole. Because I sense that Alaskans are moving away from, rather than toward a consensus of the "good society" I fear that the legislature will find it very difficult to set long term policy goals by means of a rational

planning process. Thus, my foregoing observations relate to the question of legislative procedures and mechanisms for policy planning, because the form that these take must reflect the political realities of the legislature and the state. A planning agency that serves a legislature with a high degree of consensus on major policy issues would be much different from one that served a legislature with little consensus. My own view is that there is little consensus about major issues in Alaska, and that for a legislative planning mechanism to be useful and effective it must attempt to accomplish only what is possible within the situation. An Alaska legislative policy planning agency would fail if it set about its business on the presumption that plans could be developed and implemented like they are in the executive branch, where in contrast to the legislature, a single and coherent vision of the future needs to be held by only one person, that is the governor.

The questions of an appropriate planning mechanism for the legislature, and I am sorry that it never received much discussion at the workshop. An excellent point of departure for consideration of the problem was the presentation by John Rasmussen of Batelle. Rasmussen's concept of a Pacific Northwest Forum is one that is readily adaptable to Alaska. It appeals to me because 1) it is issue oriented (that is, each forum would concentrate on one specific problem, rather than cast around in search of problems and future policy issues); 2) it would draw on people with expertise and responsibility for the issue at hand; 3) it would include labor and industry as well as other interest groups, the university, and government; 4) it would bring different levels of government together (state, federal and local); 5) it would not be an extension of the legislature, but rather an independent body with its own director and staff.

It seems to me that another workshop would be very valuable that focused exclusively on the question of procedures and mechanisms. It would include people with relevant interests and experience, including people with knowledge of legislative planning bodies in other states. This is, however, the subject of another memorandum. I will be pleased to discuss it with you in the future at your convenience.

M E M O R A N D U M

TO: Senator Terry Stimson
FROM: Gordon Harrison *gsh*
SUBJECT: Legislative workshop "The Potential of Policy" *gsh*
DATE: November 12, 1981

You have requested written comments from me regarding a summary of the recent workshop "The Potential of Policy". I had prepared a summary statement to present at the end of the final session, but as you will recall, an animated discussion had begun toward the end of the day that would not be laid to rest, and it consumed the time set aside for my remarks. Now, with a transcript of the proceedings available, these remarks seem inappropriate. Instead of writing down my earlier summary (which attempted to restate the essential points of each speaker, among other things) let me here offer some general comments about the workshop and the subject of legislative planning in general.

As I perceived it, there were two objectives for the workshop ---one was explicit and the other was implicit. The explicit objective was stated by you in your introductory remarks, namely, to recommend procedures that will enable the legislature to identify and address policy issues when they are still somewhat distant, and do not have the urgency of a crisis. The other objective was implied by the presentations of many of the people requested to prepare papers (for example Ylvisaker, Tussing, Cooley, Wilson, Holthaus, Mitchell)---namely to identify trends shaping Alaska's future and the policy issues likely to emerge in the years ahead. Thus, the workshop set out with a closely related but distinct set of purposes: one dealt with procedure (what mechanism can best deal with future issues?) and the other with substance (what is the future of Alaska?). John Havelock indicated early on that the discussions scheduled for the first day were intended to explore the substantive question, and the discussions scheduled for the second day were to seek an answer to the procedural question.

Despite Mr. Havelock's best efforts at steering the workshop, it simply did not want to leave the substantive question. We never did get to the matter of legislative procedures. I certainly do not believe that the workshop failed as a result. Indeed, I am not sure that this particular group of people were very well equipped by experience and training to deal with the

Memo
Sen. Stimson
Nov. 12, 1981
page two

matter of legislative mechanisms, and that their recommendations might not have been useful to the legislature in any case. On the other hand, these people were fascinated with, knowledgeable of, and eager to talk about Alaska, its problems and prospects for the future. About this there was much wisdom and insight expressed.

My own response to the two days of discussions about Alaska's future is the fear that Alaskans may be steadily moving away from, rather than toward, a common vision of the "good society" for Alaska. Although I have no firsthand knowledge of the time, my impression of the early period of statehood was that Alaskans shared to a high degree a consensus and optimism about their future. The major issue that separated people before and shortly after statehood was whether Alaska was financially prepared for statehood. This was primarily a concern of the propertied interests, who feared increased taxation. The majority of people, however, urban and rural, shared a common resentment against federal management and a common idealism and enthusiasm about the possibilities of self-government through statehood.

At the present time there appears to be a number of very deep and divisive conflicts among Alaskans. These have resulted from population growth and oil wealth. The urban/rural split, about which Don Mitchell and others spoke so eloquently, seems to be the most serious of these conflicts. It has several dimensions. One concerns an equitable division of public wealth from Prudhoe Bay; another concerns land use, mainly conflicts between subsistence and recreational uses of fish and wildlife.

The conflict between development and conservation, which has become something of a cliché these days, is still very profound. This conflict arises anew with every development proposal, including offshore oil leasing and onshore mining and petroleum development. The question of whether to build a petrochemical plant in Anchorage, for example, is an issue that could split Alaska's largest city into warring factions.

Another fundamental cleavage among Alaskans today is over the legitimacy of state and local government authority in general. The widespread optimism of twenty years ago about the ability of state government to promote development and the general welfare of Alaska's citizens has turned to disillusionment and widespread pessimism. The Libertarian and other "fringe" political parties that question the basic scheme of things are making significant advances.

I raise this matter of polarity in Alaska society because it

relates to an underlying theme of the workshop discussions, that Alaskans in general and the legislature in particular need a "vision of the future." It is only with a uniform view of the goals of our society that long term governmental policy can be developed, and the success or failure of policy be measured.

The legislature is broadly representative of our society, and it will have a common vision of Alaska's future only to the extent one exists in society as a whole. Because I sense that Alaskans are moving away from, rather than toward a consensus of the "good society" I fear that the legislature will find it very difficult to set long term policy goals by means of a rational planning process. Thus, my foregoing observations relate to the question of legislative procedures and mechanisms for policy planning, because the form that these take must reflect the political realities of the legislature and the state. A planning agency that serves a legislature with a high degree of consensus on major policy issues would be much different from one that served a legislature with little consensus. My own view is that there is little consensus about major issues in Alaska, and that for a legislative planning mechanism to be useful and effective it must attempt to accomplish only what is possible within the situation. An Alaska legislative policy planning agency would fail if it set about its business on the presumption that plans could be developed and implemented like they are in the executive branch, where in contrast to the legislature, a single and coherent vision of the future needs to be held by only one person, that is the governor.

The question of an appropriate planning mechanism for the legislature is one that interests me a great deal, and I am sorry that it never received much discussion at the workshop. An excellent point of departure for consideration of the matter was the presentation by John Rasmussen of Batelle. Rasmussen's concept of a Pacific Northwest Forum is one that is readily adaptable to Alaska. It appeals to me because 1) it is issue oriented (that is, each forum would concentrate on one specific problem, rather than cast around in search of problems and future policy issues); 2) it would draw on people with expertise and responsibility for the issue at hand; 3) it would include labor and industry as well as other interest groups, the university and government; 4) it would bring different levels of government together (state, federal, and local); 5) it would not be an extension of the legislature, but rather an independent body with its own director and staff.

It seems to me that another workshop would be very valuable that focused exclusively on the question of procedures and

Sen. Stimson
Nov. 12, 1981
page four

mechanisms. It would include people with relevant interests and experience, including people with knowledge of legislative planning bodies in other states. This is, however, the subject of another memorandum. I will be pleased to discuss it with you in the future at your convenience.



Senate Committee on State Affairs

Vic Fischer, Chairman • Pouch V • Juneau, Alaska 99811 • (907) 465-4954

Official Business

Tentative Agenda

The Potential of Policy

A Legislative Workshop

To identify long term trends and national and international forces influencing Alaska life and explore the potential for Alaska policy influence on the future.

Moderator: John Havelock Reporter: Gordon Harrison

Wednesday, September 2

12:00 noon	Introduction: Senator Terry Stimson: the Objectives of the Committee Luncheon session:* Paul Ylvisaker: "Prospects for Change" - an overview of national and international social, political and economic trends in the 80's and 90's
1:00-1:45	Discussion
1:45-2:00	Break
2:00 p.m.	Session I The Dynamics of the Alaska Resource Base
	1. Arlon Tussing: The context of Alaska petroleum development
	2. Richard Cooley: Alaska resources in the context of environmental trends
2:40-3:20	Discussion
3:20-3:30	Break
3:30 p.m.	Session II National and International Social and Economic Trends
	1. Blenda Wilson: The evolution of education and human development programs and philosophies
	2. John Rasmussen: Trends in regional cooperation
4:10-5:00	Discussion

* Both luncheons will be working sessions with discussion to follow each luncheon presentation

(over)

Thursday, September 3

- 9:00-11:45 Roundtable (small group) discussions: Assignments to be announced
- 12:00 noon Luncheon: Tom Dinell: "Prospects for Policy: Alaska and Hawaii in the Pacific Rim Context"
- 1:00-1:45 Discussion
- 1:45-2:00 Break
- 2:00-2:40 Session I: The Character of Alaska Society
1. Don Mitchell: Evolution of the two Alaskas: the urban/rural dichotomy
 2. Gary Holthaus: Reflections on the polytonal nature of Alaska social interests
- 2:40-3:20 Discussion
- 3:20-3:30 Break
- 3:30-4:00 Session II: The Prospects and Limits of Policy
A Panel:
Stephen Reeve: Resource Management and Planning;
James Souby: Refining the Executive Branch Role;
Jamie Love: Structural Issues in State Policy Development and Implementation
- 4:00-4:40 Discussion
- 4:40-5:00 Workshop Summary: Gordon Harrison



Senate Committee on State Affairs

Vic Fischer, Chairman • Pouch V • Juneau, Alaska 99811 • (907) 465-4954

Official Business SUBCOMMITTEE ON ALASKA'S FUTURE SENATOR TERRY STIMSON, CHAIRMAN

September 2, 1981

THE POTENTIAL OF POLICY -- A Legislative Workshop

Notes and transcriptions of Day 1 -- on the Potential of Policy

List of Tapes from -- THE POTENTIAL OF POLICY -- A Legislative Workshop

September 2, 1981

Day 1 - Tape 1 - Side 1

John Havelock - open

Sen. Terry Stinson

Sen. Arliss Sturgulewski

Paul Ylvisaker (Prospects for Change)

--Tape 1 - Side 2

Paul Ylvisaker (discussion)

Arlon Tussing (The context of Alaska petroleum development)

--Tape 2 - Side 1

Arlon Tussing

Richard Cooley (Alaska resources in the context of environmental trends)

--Tape 2 - Side 2

Richard Cooley

Arlon Tussing

Discussion

--Tape 3 - Side 1

Blenda Wilson (The evolution of education)

Discussion

--Tape 3 - Side 2

Discussion

SUMMARY OF "THE POTENTIAL OF POLICY" A LEGISLATIVE WORKSHOP

John Havelock- opened the workshop with an introduction and greeting to all that were attending. He emphasized that leadership in all areas, both legislative and executive branches of government are parochial, short-term interests. He turned the program over to Senator Stimson with the thought that we are here for the next two days looking for the rationality of why we should be optimistic for the future of Alaska.

Senator Terry Stimson-welcomed all the participants with the statement that he wanted to accomplish two goals at this workshop. One, to establish a procedure for taking a systematic approach to decision making; and two, to determine Alaska's role in the future and how this role will work together with the systematic approach that has been worked out. Stimson said that Alaska has always been able to deal with poverty, but it has never dealt with wealth. This is our challenge. As a legislator he was tired of making knee-jerk decisions about important policy questions. These decisions should follow some rational process and that's why we are here today.

Senator Arliss Sturqulewski-was introduced by the moderator (Havelock) and carried Stimson's idea of the process into an example of this year's legislature. She believes "the bush" has to get what it can because that's the way the system works and posed that question of how this group or the process this group is working on, can change that outlook. It takes 4-6 years to accomplish policy and yet the constituent does not yet give you that kind of time. Also, when looking at the administration's policy goals, it is the agencies who should establish policy for their departments and they have not done that. She gave this year's energy legislation (hydro) as an example of spending the money before policy is developed.

Paul Ylvisaker (Dean, Harvard Graduate School of Education, Cambridge, Mass.)

This is one of my periodic visits to Alaska. I guess they have been occurring every two years and this one is as refreshing for me as all of them have been. It's a combination of an Alaskan welcome and Hawaii weather. It's something hard to beat. Since Tom Dinell brought us the Hawaiian weather, I'll bring you some Boston irrelevancies. The courage I have in coming back, is somehow Alaska has survived my every assault and I don't have that bad a conscience.

If you all share the charge I've been given which is to give you an overview in 15 minutes of the social, political and economic trends from now to the year 2000 . . . I suppose a name like mine gets a title like that every time. I don't approach it with as much trepidation as I should or as I once did. There's an advantage to getting older, which is not so much that you get enough wisdom to talk to a crowd like this, but you realize how few years you have left to repent. I have not reached the point of an old Harvard professor who used to end every lecture and speech by saying, "okay I'll tell you again, history is going according to my schedule."

There is a gloominess that goes with looking ahead. We are only three years away from George Orwell's 1984, but if any of you are terribly worried about that, I found in England a generation ago a gentleman that Orwell had originally titled the book 1948. The publisher refused to accept it with that. Orwell was talking about things that he thought had already happened in his time. The gloom one sees in that is not some distant future, it's the insidious kinds of things that are already with us. I do know though, if you look forward all things sort of take on a melancholy feel. So, I no longer have that kind of gloom. Optimism with me, is a matter of age as well as faith.

Let me try to divide these remarks into three categories. I will deliberately stay as abstract and as lofty as the title suggests simply to set a frame for the way I see the world that I travel quite a bit. I do have a chance to get around it quite a bit in various things that I do. A lot of that world also comes to Harvard which is one of the advantages that I must say in thanks to Alaska, the increasing flow of Alaskans who have come to Harvard and particularly the graduate school of education has been fabulous. There is a freshness of verve, a willingness to look anew that these ,quote, students bring to us which I deeply appreciate. Among other things I've also had a chance, being a part of a international corporation of foundations that deals with 36 countries, most of them developing, that the perspective that I'm going to give you comes from that kind of quick flight around the globe. Then we can descend very easily in the remarks that all of us will make following, to how it applies to Alaska. You are on this globe a major geographical section of it. A very strategically located. Again, I want to say, without apology, to say that what I'm going to say in the next 15 minutes will be of the character of a quick 15 minute flight around the globe and what I see in the next 20 years.

There are three great determinants of change. One of those has to do with demography and population. Another has to do with technology. And the third has to do with ideas and values. So let me just talk within the frame of those three great determinants and suggest some of the things that I see happening that are pervasive in just about every society now that I've seen and experienced.

Take first of all population and demography. There's a fateful attraction between two trends that are now going on in the world. The first is the aging and the slowing in growth of the majority of the native populations. I use native here for those who are born in those countries, not the peculiar way in which we use

native Americans. But the aging and the slowing in the growth of the industrial and particularly the American nations populations. In the U.S. the average age of our population is 30+. That is of the native white, particularly the majorities. Against that trend in the industrialized nations of the slowing and the aging, you've got the younging and the constant growing of the third world. The third world does not just apply to the geography of the world, it has also to do with representation of those nations and that spirit within our own population. So, if you take a look within the U.S. you would see what is our 30+ average age and growing, you see within the U.S. representations in the minorities where the average age is in the low 20's. If you look at the Hispanic population of the U.S. the average age is probably around 18 or less and the same thing goes for the rapidly increasing populations within it. But half the world's population I suppose, when you add the third world, is probably around 18 or lower in the Latin American countries. So you've got this confrontation of contrasting trends and what happens is that a fateful attraction of the younger poorer populations moving towards the older industrial populations because higher per capita income, higher standards of living are attached to those industrial majorities of an older age.

In the next 20 years the movement of the third world young toward the places of the older industrialized populations is going to be growing incredibly. In the U.S. now, in the last ten years, half of our net population growth came from immigration, legal and illegal. That's now numbering somewhere between a million and million and half currently coming into the U.S. But, when we did some numbers recently and took a look at the twenty nations who are sending most of our immigrants to us, they will grow in the next 20 years by about 62-63%. Include in that group Mexico which will grow by 100%. You still don't have a handle on that number, the exact numbers, those flows of populations will accelerate.

Ted Hessberg, president of Notre Dame, who headed the select commission on immigration which reported to the Congress to which Reagan has recently responded. Ted in a phone call with me discussing said Paul, I think were going to have to anticipate that sometime between now and the year 2000, you can see famine striking India or abject poverty facing Latin American countries and 100 million of these people picking up a bag of food and walking into Europe or the U.S. and he said the ironic part of that is that they will get philosophic and religious justification from every pope who has ever talked to them. Saying that human being has the right to move. We accept that right within the U.S. We do not accept that right for obvious reason for people born outside our own territory. But those out of necessity, and ambition will probably begin more and more asserting that right, that they can move. It is for politicians the question dealing with this migration on the scale because it is now estimated that by the year 2010, 95% of our net growth in America will be by immigration. That presumes that you will have control in some way of the vast movements of the undocumented and illegal but so great will be the asmodic(?) pressure that you have to accept number of this kind. For politicians, this is a no win game. Your caught between wanting to welcome, it's in the American tradition, taking political refugees, economic refugees, wanting low cost labor, needing them in shops and factories or on the pipeline, you want that you accept that and at the same time there's a an absorption capacity that any nation has that is never going to be determined except politically and emotionally, I suppose. But a politician in the middle of that will try not to deal with some of those questions, but will be forced, I suppose, to take positions. I mentioned, I hope not trigamatically(?) because we have shown a great absorption capacity in the past. My guess is were going to have to follow (develop) some devices now exercising both control and expressing the traditional American welcome to a process that is inevitable. Fidel Castro has been said to remark one day that when he looked at his population

he's ready to send a million more to the U.S. just to keep his economy in balance. So you can see this developing. I don't know what language count is up here but I did a count recently and discovered in Cambridge, Mass. there are 37 different languages spoken by the parents of school children. In Colorado Springs that number is 45. In Atlanta it is up in the 50's. In Arlington, Va. it's 70. In Los Angeles it's 83. Chicago 87. London 127. Showing the social diversity that one can expect now within any one population and this will be around the world. Alaska, you are obviously an attraction point with your wealth. You are a magnet and despite your climate, which I expect technology will overcome, you will become even more an attraction point during this period of time. But know in dealing with that, you are going to be having a kindred experience with every other community in the world, either the ascending population or the returning.

The second major area of causes of change come from technology. I'll mention four factors but I want to talk about two immediately. Again, the dance between two different trends and looking towards resolution. One is the increasing cost of transportation. For the first time in American history cost of transportation are starting to be moving up relatively to other things rather than moving down. Against that trend the decreasing cost of communication. With the chip--the computers, with discs that are now going to be taking satellite television, I think it's estimated now that certainly we will have in place in the 80's, 45 satellites each with about 27 channels available to all parts of the population. Already in Alaska I discover that you have expanded into which classrooms here have had classrooms in Africa in video in relationships to each other. So we expect that with the aging of the majority population, the mobility of the ageing population will decrease encourage by the wealth which allows them access to this kind of communication. The increasing mobility still of the younger

poorer population flowing towards those areas has to be superimposed on this technological shift. But I would guess that now in Alaska within ten years the coming of cable, with all the microcomputers that's feeding into this, the video disc, one video disc with 110,000 images that you can place on it means that in the most remote Alaskan village, you can have a library that is the equivalent of the Library of Congress; the Louvre with all its art treasures, available to you. So that while you may train your kids to stay in the village --in the village is where all the cultures will come together, both physically and through the technology. I don't know what's going to happen to our society when communication is going to be so utterly complete and cheap. It probably does mean you won't travel so much, why?--It's going to be right in your own living room.

Two other technology areas that you are going to have to keep an eye on is the shift to the service economy. You've been largely in the primary in just growing your own post industrial society gradually, but clearly as Anchorage grows and Fairbanks and these other communities and as the technology of communication increases the service industry will grow. This will force, I hope you avoid the mistake we have created in the industrialized states when we use old fashioned tax systems that have damn near destroyed the Bostons' and the Newarks' and the Clevelands' relying primarily on the property tax and then when you discover the service industry which are utterly mobile can avoid the property tax and then a big sector of the service economy is nonprofit which doesn't pay tax but is a vital part. You have to grow a different type of tax system if you are going to attract and hold the service industries in traditional political structures. So again it would be interesting for you to take a look at the development of the service economy and see how your tax systems are going to have to adapt to it. Finally, and this is gloomy but everywhere I go now, the nuclear proliferation

and threat has to be counted as a reason for making us all pessimistic. Recently conference was held in Aspen, the 15th annual conference among world leaders on atomic proliferation and the threats. They emerged from that more melancholy than they have ever emerged from any of them. Where the prospect of miniaturization of weaponry which could be in the hands of terrorists and entire communities being held terrorized by this kind of threat. I mention simply because I'd be a fool not to but it's one of those things that is so haunting to me that I just like mention and run away from it.

The third area has to do with ideas and values. Again, there is this kind of fuga (?) dance between two different perspectives on what is happening to all of us. Ultimately I think values and ideas drive us more than either technology or population, although I wouldn't want to separate. One is the deep instinct that all of us have; we watch this rapid change coming from sources that have many things that are out of our control. There's a deep urge in all of us for survival on our own terms. Keep what you've got. Let the other fellow get what he can. And then to go back to the basic, what was, what was good. There's a dialogue now between people who think of reform in an older tradition which means going back to simple forms of life. Or reform of the kind that we've thought about which is to keep moving with technology and social trends and so forth and try to stay out in advance of it. There is in every one of us, which I suppose expressing itself in the moral majority or in the wish to clean up government and get rid of that heavy tax burden and to wipe it out, a deep deep wish. I don't to disrespect that except that all ideas and values that begin to get an extreme expression that become as dangerous as what they try to oppose. Against that, keep them out--no more immigrants--slow down technology--I can't deal with it, the world's spinning so fast I want to get off. I had a wonderful dialogue with one of the great thinkers anthropologists of the People's Republic

Fa Chao Tung (?) who symbolically called me in that dialogue the white devil, representing a culture that is obsessed with technology and thinks of human potential as the individual at the expense of the group. He said those two sicknesses we have to keep out of our society. He grinned at me because we have a nice relationship and I told him, while I respected that I also said why is it your people are so hungry for both of the values that we represent. It was a good debate.

The second one though is the accelerating release of human energy potential that is occurring in this society. This is a complex, troublesome often fearsome society that we are moving into but human potential is growing at such a rate that sometimes I think the waste of that potential is the greatest danger that we face. Now how do you deal with that. Another friend of mine a former head of the Univ. of Mexico who was spending some time with us at the school of education is excited as a child when he deals with American population, because he says, never in history has there been a mass population that has been so totally educated, exposed and energized. He said you have to expect in the next 20 years an explosive expression of these energies. He says it is exciting to watch and when you contrast it to his own population with a heavy class structure, with a peasantry poorly exposed to education and opportunity, you can see what he means. And then he adds to that a total population that has been reasonably well fed with the physical energy is as high. Now when you face the fearing element in us that wants to go back and the braveing element in us that wants to move forward and see how this energy can be expressed, I think you see the dilemma now of anyone of us, politicians, technicians, or whatever that are trying to make something of a future that is going to be so changing. The challenge is to a politician to begin to understand why the fears are there, but not to be held back by them. And if I am nervous about present trends and speaking not as partisan (?), it would be that we are in danger now of

trying to simplify and in the process destroy the very ingredient the very mechanism by which we are going to cope in the future. I would hope that even if we cut back expenditures of government that we do not cut back the civilized capacity to lead and to cope.

Arlon Tussing (Economist) Prudhoe Bay is the heart of the Alaska economy. You all know that. In 1960, the Alaska economy is exactly as it is today without Prudhoe Bay oil. Tussing showed what it would take to replace Prudhoe with some other industries. It would be equivalent to the world's entire fishing fleet. Prudhoe is roughly equal to 5-6 times as much as the total coal output. Two events made Prudhoe what it is today. The 1973 OPEC embargo and the 1978 Iranian revolution. And the world will not continue paying what it is presently paying for oil, which is being proven by the present world glut. The world is in a massive flight from oil and we are now just seeing it here, now.

Since the discovery of oil at Prudhoe, the cost of a well in comparison to one in Texas has and will drop from 50-1 to 5-1. Prudhoe is the 2nd or 3rd largest natural gas find ever in North America. It could equal 5% of U.S. consumption for 20 years or 100% of U.S. consumption for 1 year.

If Prudhoe had been discovered offshore, Alaska would still have a population of 200,000, most of whom would be passionately against oil production.

Richard Cooley (Professor, University of California, Santa Cruz) The first study in Alaska was done in 1938 on land use planning and the outcome of that report said that there was no reason to force development of Alaska because it was destined to happen in its own time and in its own way.

Shortly after statehood I wrote a book on land policy in Alaska. And the issue still remains of whether you develop it wholehcg or you preserve it. There have beer. a number of landmark studies and impetuses that have happened since then, ANCSA, ANILCA, the federal-state land use planning commission. It is now the '80's and we are going to have to work out a lot of the decisions that have been made. So, we are only at the beginning. There is much work still to be done to implement the land-use decisions that have already been made. The '80's might turn out to be the most critical time for Alaska.

Blenda Wilson (Senior Associate Dean, Graduate School of Education, Harvard)

The school, education, as we know it traditionally is being bombarded by the technology that we spoke of earlier. (HARD TO UNDERSTAND TAPE) . . .



Alaska State Legislature

Senate Committee on State Affairs

Vic Fischer, Chairman • Pouch V • Juneau, Alaska 99811 • (907) 465-4954

Official Business

SUBCOMMITTEE ON ALASKA'S FUTURE SENATOR TERRY STIMSON, CHAIRMAN

September 3, 1981

THE POTENTIAL OF POLICY -- A Legislative Workshop

Notes and transcriptions of Day 2 -- on the Potential of Policy

List of Tapes from -- THE POTENTIAL OF POLICY -- A Legislative Workshop

September 3, 1981

Day 2 - Tape 1 - Side 1

John Havelock - open

Tom Dinell - (Planning in Hawaii)

--Tape 1 - Side 2

Tom Dinell

Discussion

John Rasmussen (Trends in Regional Cooperation)

--Tape 2 - Side 1

Don Mitchell (Alaska - The urban/rural split)

Discussion

--Tape 2 - Side 2

Gary Holthaus (Reflections on the polytonal nature of Alaska social interests)

Discussion

--Tape 3 - Side 1

Discussion

Jim Souby (Refining the Executive Branch Role)

George Gee

--Tape 3 - Side 2

George Gee

Steve Reeve (Resource Management and Planning)

Jamie Love (Structural Issues in State Policy Development and Implementation)

Discussion

--Tape 4 - Side 1

Discussion

Gordon Harrison (Workshop Summary)

Discussion

THE POTENTIAL OF POLICY

John Havelock - We are here to do more about what we talked of yesterday, personally I intend to prefer hand ringing, but maybe there are useful things we can say. I would suggest that you keep in mind one of the senses of what we might say are structural in nature and there are some short term problems that we need to address. And on the other hand there are some other things that are long range. From listening to some of the economists yesterday talk about our revenue (oil) surplus, I wonder if that is not a short term problem. I don't think the issue will go away and I think that we might today begin looking at longer term issue of what our oil means by looking at our long term resource management policy. In a sense our resources are always surp and in some senses these are the ones that are undeveloped. As you know, as Vic certainly knows or anybody in the state knows, the original dedication of natural resources to the state was intended by the Congress to provide a revenue flow to support a state which obviously could not do so from tax revenues. It appears that from what was said yesterday, the state resource policy has been relatively conservatively until the surplus began to build up a year or two ago. There are some new faces around the table today. Jim Souby is here today from DPDP and he might be able to help explain administration policies in the areas of policy planning. In my background and my knowledge of planning in Alaska, policy planning has never come from the legislative branch, but neither has it specifically come from the executive branch. At times it has percolated up from individual agencies. It reminds me of the movie "The Candidate," where Robert Redford got elected and then asked, "what do we do now." Although it was not that way in my day, now legislators feel that that surplus is their baby and they are going to dispose of it without regard to what the bureaucracy may have thought was planning. Another manifestation of this is the proliferation of a number of special vested interests that are now besieging the legislature. Another major change that has occurred, if you watched

the recent legislature is the change around the party role. The republicans by and large are now the big spenders now and the democrats are the economic conservatives. Another change is the destabilization of public opinion. There is now a new economic illiteracy that was not there before: the surplus. Another point I will not and it is not a change, is the Alaska tendency toward insularity. Alaska likes to think of itself as an island and I believe we should begin moving toward aligning with some of the other northwestern states that common interests along with us. In that line, we have two speakers that are first on our agenda. We will start with Tom Dinell to talk about the experience of the Hawaii and the Pacific Rim context and maybe we can borrow from their experience and find some common bond.

Tom Dinell (Director, Center for Pacific Studies, University of Hawaii) I was sitting here yesterday thinking of the similarities and the differences between Alaska and Hawaii. Running very quickly through the similarities, obviously the first one is the weather (laugh track). We do both consider ourselves unique and that has its advantages and it also gets us into binds. We both have long histories as territories. We both have major federal impact. We both have unique blends of cultures. We both have a large dominant city.

Differences: Looking at the map, we are both separated from the continental U.S. but Alaska is very large and Hawaii is very small. You still have a wilderness and you have to really look for a place to be alone in Hawaii. Your economic history has been much more boom and bust; boom now. Ours has tended to be more even. You have a whole range of resources that are exportable. Our one natural resource is the climate has to be exploited on the spot. The ethnic mix is obviously different. The local government structure is different. We only have four local governments, four counties in the whole state, and you have a multi-

plicity of governments. Arlon's comments yesterday made me think there are some differences in the permanence of population. Ours is growing, small but relatively permanent. Yours appears to be more transient.

Hawaii has a long love affair with planning. They really look to planning as a way out in spite of disillusionment in times past, the love affair goes on. When we established the planning agency just before statehood, we developed the first state general plan in 1961. It was really a municipal plan but it was a state-wide effort. We had a general plan division in 1967 that tended to be much more policy planning. We've had the most elaborate attempt at keeping the planning program in budgeting. Our state law includes a chapter that reads like an operating manual for a budget agency. We established back in the late '60's the state commission on population and the future of Hawaii that is still in existence. We had a major conference on the year 2000 and established a commission on the year 2000 and Hawaii which is no longer in business. And then in 1975 we adopted legislation calling for a state plan. The legislation itself set up a set of expectations about what the plan was to cover and do and even the lord would have had a hard time fulfilling, but that doesn't stop us in Hawaii. This led to the adoption of the Hawaii State Plan Law in 1978. Which is interchangeably with as the State Plan and the Hawaii statewide planning system, because it really does establish a statewide planning system and this is what I really want to focus in on today, briefly describe and examine the problems we are into and some of the hopeful signs that are present.

To indicate the level of administration support for this Hawaii state plan, the governor has described it as second in importance only to the Hawaii constitution. In terms of its political stance, it is very much part of his campaign for reelection. It is relatively innovative, relatively ambitious and I would say quite audacious.

It's seeking to establish for the state a single integrated planning process. There are five major elements. First, there is the state plan itself which is at the apex of the system. This is a plan adopted by the legislature, adopted into law. Under the other elements, which I would make circular if the board were bigger but I will make vertical here are the state functional plans.

State Functional Plans
County general plan and development plan
State Land Use commission
Bureau land and Natural Resources
Budgetary and appropriations process
State land use council

The statewide decision making process involves the state land use commission, the Board of land and natural resources and the appropriation and budgetary process. And then there is a coordinating group, another element in the state plan, which is the state plan policy council, which is integrated into all of these various elements. The plan involves both the private and public sectors and is not just public lands or public appropriations. The legislative intent in establishing this act was originally to achieve coordination and consistency. Their words were "to create a structure for policy plan formulation and program plan coordination which will order the action of all state and county agencies under the general policy direction prescribed by the legislature to a state plan." And they added to this "to improve coordination among different agencies and levels of government." As best I can tell you pretty much have to take those purposes at face value. The legislature was faced with a lot of actions and a lot of requests and demands and they had no way to sort this out and again reaching for planning as salvation; If only we had a plan then we would have a way to make choices. The demands that were coming in were across the board. One example was for housing and simultaneously there were demands for keeping land in agricultural uses; demands to expand tourist destination areas, demands to keep beaches open. The legislature saw this as a way to deal with the demands

and to sort out linkages. This was at a time when Hawaii was in a more conservative mood. There is a saying in Hawaiian pidgeon, "we wanted what we had but we wanted a little more better." It was a way of keeping what we had and adding another increment of improvement. Lets look at the elements in the plan.

The plan itself attempts to be comprehensive. It covers everything from population, to the economy, to the physical environment, to facility systems. It's a hierarchy of goals. We go from times to goals to objectives to policy and then to priority action. And the goals are very hard to disagree with. In the old days you could have said motherhood . . . I don't know what is the appropriate term now. They are general goals and there is no attempt to satisfy all these goals simultaneously if no other reason than you don't have the resources to accomplish them.

The second element we have are the state functional plans. The state plan could not have passed the legislature unless it was in that motherhood form where it did not hurt anybody and made everybody have a project possible. The state functional plans effect such areas as agriculture, conservation lands, education and higher education, energy, historical preservation, water development, transportation, tourism, recreation, housing and health. In each, the appropriate state agency has developed a functional plan that builds on the state plan, is consistent with the state plan but expands and becomes much more specific and includes programmable items and projects, budgetary figures. The format of the functional plans is set by the policy council. Perhaps the most important aspect of the state functional plans has been the advisory committee that were set up to help draft each of these functional plans. The advisory committees consisted of people from state government, from the county government and from the private sectors. The people from the private sector were ones who had a specific interest in that particular plan. So a communication device was set up that had not existed before. At the upper level,

the governor and the county commissioners did not communicate very well. But what we provided was the ability to communicate at the lower levels between the agencies, both on the state level and the county level. It was an impetus to bring people together and we began making some progress there. We do say in state law that the county plans will be specific with the state plan. This was our means to achieve consistency. How you do both is not always clear. The functional plans are to be adopted by the legislature by concurrent resolution and this has been the rub. They've gone to legislature twice now and they simply have not been adopted. A few got through the house once but this time around none of them got through either house. When it really gets down to it, I'm not sure the legislature is overjoyed with the process they have put in place. In a sense the legislature is being asked to be much more specific than they were in the state plan and to commit itself for 2,4,6 years in advance and I think that is very hard to do politically and I don't think that was fully recognized before. There is an interesting provision in the law which says that if the legislature does not adopt the functional plans they are not to be used as a basis for policy by the administration. That's an almost impossible provision, because here the administration has created the most comprehensive plan that it can think of and it has its best thinking and . . . darn well, they are going to follow it. But what you have here is the legislature trying to hold on to little bit of power that it had.

The second element of the county general plan is to specify the desired population and physical development patterns for each county and regions in the county. By this January they are to be consistent with the state plan. No one yet knows what the mechanism is going to be for judging this consistency. The fourth element calls for these very important state bodies and processes to be implementing mechanisms for the state plan. The state land use commission which in our state

classifies all lands into urban, agricultural, conservation or rural. All of its decisions are to be consistent with the state plan and with the functional plans. The counties main function and zoning is within the urban area and some of it is in the agricultural. This is, again, our drive for compliance and consistency for coordination because we really have no mechanism for doing it. Just a little less than 50% of the land in the state is owned or under state control. The Board of Land and Natural Resources controls how this land is used and again their actions are to be consistent with the state plan and with the functional plan. Similarly, all of the decisions in the budgetary process, both for the capital improvements program and for the operating budget are to be consistent with and implement the state plan which isn't hard because the state plan says everything. And with the functional plan which is much more difficult.

To make sure all of this happens, we have created the State Plan Policy Council which represents probably as high degree of ingenuity in its creation as the Senate and the House of Representatives at the time of the Federalist Papers. It might not be as effective but the ingenuity is there. The state plan policy council consists of the four planning directors from the neighbor islands, it includes nine public members that are nominated by the respective counties confirmed by their councils and then selected from those councils by the governor. So there are about three nominees for every vacancy. We had some trouble getting the council going initially because the mayors did not nominate members or the councils just did not confirm. So we were kind of at a standstill.

Then we include all 13 department heads that are affected by the state plan, but only five of them have a vote. Which of the five have a vote can change from time to time depending on who the governor designates on a particular issue.

The council is headed by the director of the department of planning and economic development. By the way, all of the different regs are a result of legislative compromises.

It is staffed by the state Dept. of planning and economic development which also has the state plan division within it. So, in that way it is loaded in the chairmans favor because he can set the agenda as he sees fit. In good Hawaiian style, we postpone votes as often as possible and have as few votes as possible. We reach some arrangement before it reaches the voting stage. So in spite of our elaborate voting system, we rarely use it.

Every four years the council is to make a thorough review of the state plan. Priority direction is to be reviewed every two years and its to make an assessment of its process every year. There are some major problems that are fairly apparent. One, is the machinery is ponderous. It creates a very high level of expectations. The solution to this problem is that we ignore some of these requirements. Secondly, there is a real difficulty in attaining the kind of consistency, conformity, compliance that the state plan and the law calls for. It really ought to have state plan policy council make the decisions with the state land use commission if you are going to get that consistency that the law calls for.

The Dept of Land and Natural Resources has its own turf to protect. The counties are unwilling marriage partners. There's a lack of clarity for the priorities. We have never really come down to the cutting edge of the process. It isn't just the conflict of land and housing and land and agriculture, but it's a conflict of, you just can't do everything, given the limited resources. Finally, what we've done is to take the systems management approach to planning and applied it statewide . . . (END OF SIDE ONE OF TAPE 1 DAY 2)

. . . There is some dialogue going on now about some very difficult problems that simply wasn't going on before and I have a feeling that, through this dialogue we may reach more solutions than we will through just tight planning applications. There's some bargaining going on that is more informed than it was previously. Lot's of decisions are made through bargaining but there's more information on which to base the decisions now. So there's a chance we will have less impasses than we've had before.

There are two outstanding problems that we haven't really dealt successfully with as of yet. One is expectations. The state plan as such raises a very high level of expectations. It's doubtful that we can meet that level of expectations. We haven't yet kind of tamed those expectations down to reasonable courses. It's either going to end up giving the state plan a bad name or the planning process a bad name. Unless we bring the expectations down. The second outstanding problem is that we still have the legislative quandry. The legislature really doesn't know what to do with the creature it's created. It's interesting that the state plan has hardly mentioned once the governor. It's as if this comes out of the administration in some strange way that doesn't involve the governor. And yet the governor has been the primary figure in the state plan today. The legislature which wanted all this coming in now says, what have we rought but has the administration rought, even though we asked for it. I'm not equipped, they are not equipped to as a body to receive, for instance, the functional plans and know where to put them. I'm not sure we have a solution to this legislative quandry.

Q & A

John Havelock - So, on the face of it it might seem like a different kind of planning model, John Rasmussen's proposals on regional planning really are part of the same discussion and I'd like to get them on the table. In both cases you are talking about a federal style of decisions getting disparate political groups together to arrange for planning.

John Rasmussen (Director, Human Affairs Research Center Batelle, N.W.) Let me start by saying that the what I'm talking about, the first stage of developing an idea, is an idea that has been lingering around Seattle with a group of people for 10 or 12 years now. It has a little bit of momentum now and its been formulated to the point of discussion. I was very pleased when I received Vic's call because we have just finished writing the draft of the thing and we hadn't had a chance to talk to anybody about it. So, I will share some of the thoughts with you in the hope that you will give me some feedback.

Essentially the idea has grown out of the ideas that were thrown out on the table here yesterday. (tape change . . . now on Tape 2 Day 2 Side 1)

. . . And it's the idea that the Northwest and I include Alaska is going to be a growth area in the future and it's time to do the planning before it is too late. . . . without doubt, decisions are made on the urgency of the moment and I guess we started saying that we want to keep what we have and there's got to be a way to bring innovation into the governmental process and somehow to improve the governmental process. We also are concerned with attempting to build a sense of regionalization. If you look at the Southeast U.S., you can see how they created a regionalism and it shows up in each Congress. We haven't really gotten that together out here yet. Beyond that, we were concerned with developing tomorrow's leadership. Out of this grew the idea of creating a

Pacific Northwest Forum and the name changed daily, but the thought of having a forum that dealt with the future was what we were shooting for. Our thought is to create a regional forum where we have an assembly of approximately 100 people, government, private sector and citizen groups and labor. The assembly was a way of creating involvement among four states that are diverse and also similar in many ways. We look on the assembly as a independent organization and would be broadly responsible for policy, for coming up with ideas in the legislative forum. There would be a oversight board of some kind. They would pick specific issues for operating the forum. The program that we envision would be on regional issues initially. Our thought here would be to bring somebody from university, or government or wherever that would bring leadership and creative thought to our forum series, say on the issue of transportation. Battelle is willing to make a contribution in kind of its seminar center in Seattle, a substantial contribution I might add that would serve as a home for the activities. On our first issue we would bring our guest lecturer to Seattle for what is basically a sabbatical. This person would be in residence. There would two and three day seminars or whatever forums we could create most effectively to use this person as a resource.

The criteria for selecting the people is primarily that they be in a position to do something when they go home. The forum leader is responsible for putting together a program which is essentially a well rounded seminar so that people understand the total issue. One of the main ingredients is that we non-adversarial setting where people can argue, and exchange ideas. The purpose of this is to broaden understanding of individual issues. It will not be that the forum will have solved problems itself, but by involving people from all areas, they will carry the information back to help solve their own problems in their own areas. We have some reason to believe this will work. Stan

Evans said he used it most effectively in getting the Shorelines Management Act through and there were five pieces of legislation that passed. He took administration people, legislative people and the environmentalists and they went aside for three days and they had an opportunity to interact to see where everybody was coming from and he said that those five pieces of legislation went through faster than anything he had ever seen in his 12 years as governor. Everybody still had their positions but they knew where the other guy was coming from. They made sure that what they thought was happening was really happening.

The second category of issues would be issues that dealt with industry. The process would be on the same model with different people. Again, the secret would be, get the people who are ultimately going to make the decisions and get them into something that was not an adversarial setting.

You then have a third program area that is concerned with essentially providing fully rounded pictures for elected for governmental and elected officials so that before the legislature convenes the people that are least aware with important issues can find out what is going on.

The last area is one that has grown and has surprised me in the response it has gotten in the media. It's issue education for the media. It's an issue workshop where people from the media can get together and not just listen to lectures but can actually get in and argue. No brainwashing, but simply education. So whatever position they are going to take, they will have a better understanding of that particular issue. That is essentially what we have in mind.

To pay for this, we might ask for \$25,000 from governmental entities; \$10,000 from industry and spread it around so that no one feels the full brunt of the cost.

Don Mitchell (Counsel, Alaska Federation of Natives) Vic asked me to talk about the urban/rural split. I'm not sure I know a whole lot about the urban/rural split but I suppose I am capable of snitching on my clients a bit with respect to some of the trends that are happening in rural Alaska. I think those trends will relate back to the split which allegedly taking place around here.

First of all I think that when you start thinking about the split we have to determine what is rural. When I think of rural Alaska one of the things that I think about is Native Alaska. . . . Not only in this state but in every state in the union, historically has been to take native but to turn them into state citizens. I think that has been very effective with the way policy makers do things around here. We don't talk about what we are going to do with those Eskimos. We say, what are we going to do with rural Alaskans. So I think first of all, let's get our ground rules straight. So when I talk about rural Alaska I am talking about native Alaska. I'm not talking about Talkeetna or McCarthy. Sometimes I think that the only policy maker who would get a chuckle out of the way things are today in rural Alaska is George Washington. Because the decisions that have been made about how we as an economic machine, we as a cultural machine are going to deal with those people, are the decisions that George Washington tried to make over 200 years ago. Before George got into the business of running the government, he used to be an old Indian fighter. One of the things that happened to allow the U.S. to evolve out of the Articles of Confederation was that some of the troops had been paid with land warrants on the western frontier. They of course had all been bought up by land speculators and what was going on at the time was the Indians were beating the hell out of the people who were trying to exploit what was then the western frontier and the confederation was much too weak because it did not have its own army to protect those economic investments. It was not the most significant factor but it was a factor was

chose unruly natives out there. George wanted to control the vast population militarily, he wanted to seduce them, diplomatically. George came up with something called the factory store system. The store system was about what was a system of government run trading posts on the western frontier. These trading posts were going to hand out our goods and services, in essence our values, to all the western tribes. We were going to get them as hooked on pots and pans and blankets as junkies in New York are hooked on smack. Once you have, then you can control them. That was George's idea. That was put into federal policy and the only reason it didn't work, interestingly enough, was because the American Fur Co. and the entrepreneurs who said, "what is government doing out competing with us." So because of the failure of this program what was eventually imposed or evolved as the solution was a military solution.

I give you that bit of history only because I believe that it is relevant to what is happening in rural Alaska today, and I believe there are a couple of trends. These trends are mutually exclusive and they are what add up to a very serious dilemma for the urban/rural split. The first trend is that we have created massive amounts of expectations out there. Those expectations have come from education and from television (technology), which is another form of education. What you have is 200-300 communities that if you think about it are staging places for harvesting the resources. That's the only reason they are there.

In 1900, rural Alaska was almost totally self-sufficient. They didn't need us. All the goods that were necessary for their economic and cultural order were available right there in rural Alaska, right there at home. What we have done through education and television is that those goods and services are in-

the doing something about those unruly natives out there. George wanted to not overwhelm the indigenous population militarily, he wanted to seduce them, culturally and economically. George came up with a thing called the factory system. What the factory system was about was a system of government run trading posts all along the western frontier. These trading posts were going to hand out our goods and services, in essence our values, to all the western tribes. We were going to get them as hooked on pots and pans and blankets as junkies in New York are hooked on smack. Once you've, then you can control them. That was George's idea. That was put into federal policy and the only reason it didn't work, interestingly enough was because the American Fur Co. and the entrepreneurs who said, "what is government doing out competing with us." So because of the failure of this program what was eventually imposed or evolved as the solution was a military solution.

I give you that bit of history only because I believe that it is relevant to what is happening in rural Alaska today, and I believe there are a couple of trends. These trends are mutually exclusive and they are what add up to a very serious dilemma for the urban/rural split. The first trend is that we have created massive amounts of expectations out there. Those expectations have come from education and from television (technology), which is another form of education. What you have is 200-300 communities that if you think about it are staging places for harvesting the resources. That's the only reason they are there.

In 1900, rural Alaska was almost totally self-sufficient. They didn't need us. All the goods that were necessary for their economic and cultural order were available right there in rural Alaska, right there at home. What we have done through education and television is that those goods and services are in-

adequate and that not only do they need those services that they have but they have a right to them. Even though they are living out there in the middle of nowhere they are not only entitled to those goods and services but they have a right to them. It has created massive personal confusion, massive social confusion, and massive cultural confusion and I would submit to you that that is one of the factors relating to the reorganization of the legislature--that is one of the causes behind it. The delegations from the bush are under tremendous pressure to deliver the goodies and those expectations are being caused by education and by television. Again, this is my personal view of the situation. I see that as a trend. This is only the beginning of it. I think it's going to get worse and worse.

The other major trend is that exactly the same time that rural Alaska is saying that they want to be treated like California, or the Hillside, they are saying they want to be left alone. Those are communities that are based solely on the harvest of rural resources. The continuation of that harvest, whether it be through the fishery or hunting, those kind of tensions have created a lot of animosity out there. Leave us alone. It takes massive amounts of habitat to support the resources and we do not have enough habitat now.

I was boondoggling out at Katmai the other day and I ran into a new vice-president for Wien Airlines who had just come up here and he didn't know dog-butter about what was going on and he was sort of glad handing his way along. He said he bumped into John Schaefer who some of you may know is the czar of the NANA region. He bumped into John in the Kotzebue airport and said Hello, I am so-and-so, I just got here and I really want to be of service to you and your region. What is it that Wien can really do for you. What can I do for you personally and what can Wien do to help and John of course looked him in the

eye and said, "p, away. If you really want to help us, get out of here." That is a very important gut feeling that the bush has. At the same time that they are saying, give us all the goodies, they're saying leave us alone. And there is, in my judgment, no political leadership out there that has made the connection, that you cannot have it both ways. And certainly, in respect to the rank and file, it is hard for them to understand the kind of trashing they are getting right now. They are just people who are doing the best they can. I think it is a very serious problem.

On top of all this, which is sort of the icing on the cake is the ANCSA. . . . (tape turn over) . . . namely the harvest of renewal resources and turned it over to an economic process, the sole, the sole goal of which is to exploit. That's the only reason a corporation exists in our culture, to maximize profit. When the decision was made to implement ANCSA through a process of which was to maximize profit, you immediately put the machinery that was supposed to save the bush in direct conflict with the ultimate long term goals of the people who live there. I represent both regional's and villages and I can identify for you the trend that tension is growing wider and wider everyday and that people, to this day, do not understand the ANCSA.

There has been an incredible amount of hostility and aggravation and bad vibes over the decision of the federal government to lease offshore in the Navarin Basin off the coast of western Alaska. People went absolutely crazy when the state gave an indication that not only should we be drilling in the Navarin Basin but maybe we as long as we are at it why don't we let the state make a lot of money by poking a lot of holes all over the mouth of the Yukon River. People went absolutely nuts over that, as I'm sure Jim Souby can

testify. At the same time that people in villages ^{visit} berserk over that kind of intrusion on their habitat, the regional corporation has leased every single shred of coastline to Amco. That is the kind of decision that I can guarantee was never discussed fully, no EIS by the regional corporation. Whether or not it is a good or bad decision I am not capable of having a decision, I don't know anything about it. I'm just identifying it for you as an example of the kind of conflict that we have created out there. And it's going to get worse and worse.

Another thing I see in the area of trends is that bush Alaska has just about had it with meetings.

A. George Gee - Don, two questions have. One, is the corporation being created or is it drawing on the map for the village corp.-this is yours and this is not yours? You've identified your rural as native Alaskans and you've laid out two expectations--for goods and services and to be left alone, many white communities fall into this second category--to be left alone. So, why draw the distinction where you do?

A. Mitchell - I draw it where I do because I don't think that they are the problem. I believe they are the exception to the rule. Because they have lived in our culture they can deal with it. I believe one of the great disservices that has been done to our state is John McPhee's book. Because what McPhee did was leave the impression, because he did such a fine job, that everything is fine in rural Alaska. He left the impression to those outside the state that the kind of community that he described, the rural white community, is the rule rather than the exception. In terms of my work, I don't have time to deal with those people. They just don't present the tough type of policy choices

that rural native Alaska presents. With respect to your first question, two things: with respect to native lands, you are your process. By putting that corporate process on a village (village corp.) on a hunting and gathering culture with people who have minding their own business and not hurting people for hundreds of thousands of years, you've created a double bind for them. Either, they screw it up, and the perception becomes--we gave them their chance, they screwed it up so maybe someone else should look after their land and money. Or, even worse, they make a success out of it. In order for the village corp. structure to work, it means that every single member of that village has to know more about corporate America than the average shareholder of G.M. If in fact someone went to the trouble to teach those people all of that, they would no longer be what they are today. Which is a bunch of hunters and fishermen who are doing the best they can.

With respect to non-native land and the kind of ownership patterns that are there. I think that the trend is actually the opposite, with respect to the people on the ground and not necessarily the leadership. I say that with the experience I have had on the Alaska Lands Bill (ANILCA). The major allies of the environmental community was the villages. It was because they wanted some kind of habitat protection for the lands in their area. Their participation in that process was a significant factor at a very crucial time. You saw Angoon align with the Sierra Club over Admiralty Island. You saw the villages on the west coast aligning with the conservationist on the wildlife 13 million acre wildlife refuges.

If there is anyone who is trying to walk that tightrope that I described, it is the NANA Corp. You saw the regional up there combining with the environmental community on all conservation system boundaries. So I think, with respect to non-native lands out there, you're going to see more and more of those kinds of

coalitions between environmental organizations and villages.

Gary Holthaus (Executive Director, Alaska Humanities Forum) To establish
right off whether or not I'm an optimist or a pessimist I guess I'm an optimist.
The last definition I heard of an optimist is that an optimist is a guy who
thinks the future is uncertain. I cling to the hope that the future is uncertain.
I'd like to begin by congratulating Arlon on his courage, he's not here to
receive congratulations but if I'm quoting him correctly, he began yesterday
by saying Prudhoe Bay supports the state, nothing else really counts. I thought
about going home and telling my wife that I support this family and nothing else
really counts. I could prove it with economics but it wouldn't prevent my
getting killed. So, I thought it was a courageous thing to say. Dick Cooley
said he was not a pop-up toaster and I'd have to agree with that. So, unlike
the rest of you, I used the free time this morning to make some notes. I
hate to have to reveal my thinking under any circumstances, to have to reveal
one's thoughts, thoughtlessly is even more difficult and painful. Dr. Ylvisaker
asked the question yesterday how do we preserve our values in the midst of
massive change. It struck me that maybe the question is really how do we preserve
our values in a world that never held them, especially since we ourselves have
rarely held or expressed in action the values we said we hold. So which values
do we preserve, the ones we talk about or the ones we act out when we have the
opportunity. It seems to me a cynic looking at Alaska over the last few months
and trying to determine what Alaskan values are, would say that Alaskans value
property over people, that we consistently betray ourselves on behalf of our
property. I wonder if anyone in the room has seen the plans for a golf course
for Anchorage, \$7,000,000 worth of golf course. It's almost impossible to get
\$650,000 out of the legislature, it turned out to be impossible, to fight child
abuse in Anchorage. A second values that we would have to say we hold is that
we value license over freedom, the moral majority vs. the gays would be a case

in point. Our insistence that we have the right to shoot moose for sport regardless of the moose population and regardless of what it means to villages, would be another case in point. I think a third value we hold is that we believe in the public dole over self-sufficiency, especially the public dole for commerce, not for individuals. If anyone was at a small loan meeting at the Westward and listened to the governor get attacked because it appeared he was not going to part with large dollars for loans for small businesses and look at all those fellas that were there most of whom who are out to eliminate welfare freaks and chiselers with their hand out looking for a state loan. What can you say.

So I guess I'm driven to believe that the only values that I want to preserve are my own. And since those are under attack only from me the task is nearly impossible. I'm the only betrayer of my own ideals. What Vic asked me to do, really, was to characterize Alaskan society and to do that is to be driven. Some folks like Arlon are driven to numbers and statistics and data and that really helps if the school population is really in decline then we can for physical plants and staff size but unfortunately the numbers don't tell anything about the fundamental questions, about the purposes for which we educate at all. I guess I happen to be driven in another direction, to metaphor and analogy and illusion and probably caricature. So this is sort of an impressionistic account of Alaskan life. I rely firmly on my twin sources of ignorance and inexperience for backup for what I say.

Reth Jackson a professor in New York said we chart our way through the country on the basis of maps and our guidelines are degrees of longitude or latitude but we chart our way through life on the basis of ideas, our notions of good and evil, beauty and ugliness. Perhaps like others elsewhere we Alaskans cherish most the ideals that we examine least and the consequences of which

we see only as through a glass, darkly. But if our course is to be clear then we have to examine closely even those ideas that we hold most dear and therefore most thoughtlessly. Alaskans thrive on notions of freedom and human rights, the individual vs. the government, but for most of use those ideas are pretty vague. They apply to us but we are not all clear about the number or the variety of others who should be accorded the rights that we enjoy and we are careful not to extend them too far to people that are different that are unacceptable to the majority.

Alaska exudes macho. It's in the water, the tolerance of bizarre offbeat colorful sometimes even violent behavior that we exhibit in many instances is really limited to a kind of crazy macho bravado. And it's counterbalanced by a contempt for things which are unfamiliar or unexpected. A guy who doesn't hunt, fish or ski cross country for example. In a population with a high percentage of hunters and fishermen, where 87 year old great grand mothers can argue the relative merits of a Remington 721 30.06 to a Winchester 94 30-30, for hunting moose in the brush (remember Momma Nicolette Hand?). And where females who can do that are admired, there's very little tolerance for any other blurring of sexual roles. Men must be manly and women must be manly too. But without losing any femininity, of course. One result of that is that homosexuals have a hard time here.

Job discrimination, physical violence, contemptuous attitudes, repression all of these haunt the gay community and to try to raise questions about that is to raise howls of indignation. Milton Mayer says the first and last test of liberty is application to those we suspect, to those we dislike, to those we dread or detest, whose thought or act or appearance we despise. So, so much for liberty.

Alaska is oxymoronic and paradoxical. The only reason I said oxymoronic is that I promised John Havelock I would use a polytonal word. I don't know what polytonal means and I don't know what oxymoronic means either. Actually, it means you can hold two ideas in your mind at the same time, two mutually conflicting ideas at the same time. An internal conflict assails us on every hand. What is true on the one hand is false on the other. There is no single statement and no single value that will hold for the whole state. The place is so big that one might be led to think that many things operate independently. A tragedy in Kotzebue is just as distant from Anchorage as a tragedy in Cleveland is from Baltimore but this is one place with distinctive regions not two distinct places. And the chances are great that unlike Cleveland and Baltimore, a number of people in Anchorage will be well acquainted with the victim of tragedy in Kotzebue. In fact, I'd be amazed if that were not the case. So, Wendell Berry's contention that nobody can do any one thing is strikingly true of Alaska. The same is true elsewhere of course. But here there are fewer filters to leach away the impact of events and a smaller population through which the impact can be dissipated. So we are one people and in a special way, what affects one, affects everyone. But we are all so divided and the divisions are deep. Some of them, in the old gulf between Athabaskan and Eskimo for instance is older than all of our western civilization. One might ask where they are at this meeting, by the way. We've talked a lot about the impact of the land claims and its staggering importance to the state. That maybe more true for you and for me and a few corporate executives than it is for most of the native people in the state. The most revealing picture of how little the land claims has meant is revealed by how few native people still show up at meetings like this.

Other serious divisions separate outsiders from residents, urban from village people, developers from environmentalists, newcomers from old-timers or sour-

doughs. Those boundaries, I suspect are always going to be with us but there reference points shift in Valdez, in 1974 newcomers and oldtimers hardly spoke to one another. Newcomers were not even afforded the dignity of social intercourse. The difference between a newcomer and a oldtimer in 1974 was whether or not you were in Valdez for the earthquake. If you were there for the quake you were an oldtimer. If you'd come after, you were a newcomer. Now, as of 1978, there's still a big gap between the newcomer and the oldtimer but the borderline has shifted. If you were there for the pipeline, your an oldtimer. If you came after the pipeline, your a newcomer.

Because we are so few it might seem easy to heal the breaches, but the fact is that our small population amplifies them. And they are more painful to bear. And the support systems for the bridges that we have to build are not in place yet. So, in a sense we are one people living in a great house. We are few and we are only occasionally small and the house is large. But few of the rooms are finished and the furnishings, outside of Anchorage anyway, are spartan. We run into one another at every turn and when we do meet we do not know what to say across the cultural barriers, or how to act. And if we do speak, we are often misunderstood, so we retreat into silence or cliché or false ingratiating rhetoric hoping to hike our fear or our confusion or our hostility and the tensions run high and the tempers flare and we worry about racial violence in the late 1990's and about matters that are more immediate. How do we stop the physical violence that we inflict on one another at such a great rate now: the highest rape rate, the highest homicide rate outside of Detroit here in Anchorage, the high assault rate, the domestic violence rate that we all know about. How do we exert more control over our own destiny with Washington so far away in miles and understanding and how do we exert more control over our own destiny with Juneau, so far away in miles and in destiny. We love our surroundings and are thrilled

and challenged by them and we tend to forget, living in the comfort of Anchorage and with a few mild winters, that this is in fact a hard place to live. It's hard and cold and sharp and all the corners are jagged and the surface is splintered and the edges are honed and straight and we have to be careful how we move. We fret over how to allocate the space we have and the use to which it is put. Some seem to want to see it all developed and paved and they would paint obscenities on the wall and others seek to preserve it. They would make of it a museum, a static display without any future, frozen in the present. Some wish to make everything here exactly as it was in the place they despised and left. As Wright Morris says publicly, we create and promote the very civilization we privately reject. Others seem to come only in order to leave again, to make their stake and get out. Their greed affects our commerce, our politics, our education and our labor. We are all immigrants, ancient or recent but many seem bent on barring the gate to everyone else now that they are here, to keep the newcomers from spoiling the place we have already begun spoiling ourselves. It is little wonder the Alaskan mind sometimes wonders where it is going and what indeed it is to be an Alaskan. It seems to me to be an Alaskan is to grapple with certain unresolved issues. Ignoring the economic issues to which we have already given a lot of attention, and trying not to do anything except second everything Don Mitchell said, I guess I see all those unresolved issues essentially as land use issues. The difficulty we are having in sorting out jurisdictions: What's a state park? What's the federal park? How do we distribute the revenues? What about the sale of land to individuals? How much to energy development? How much to industrial development? All of those issues, and the complexity of them is simply a reflection in direct proportion of the complexity of our own desires.

The lesser like agriculture, do we keep raising third-rate barley for export or do we begin to make some moves to make ourselves more self-sufficient in terms of food. And how do we short-circuit the crazy marketing route that fish take? And timber take? We catch them in Bristol Bay and ship them to Seattle if we're lucky? That's all the further they go and then we ship them back. And of course, the greatest issue of all, the one that affects everyone of us ultimately and our progeny, which is subsistence. Our blindness to the fact that we are all subsistence cultures and that subsistence culture is not something primitive blinds us to some of the very basic policy questions that we have to deal with. Who is more dependent on the land than U.S. Borax? Violence seems endemic if not epidemic in Alaska. We do not know the causes and we will not ask cause I think mistakenly we think we already know the answers. Beyond the question of why we have such a high rate of violence, is why we tolerate it.

The economy: are we forever enthralled to the boom-bust cycle, maybe with occasionally larger booms which I assume means longer busts.

Education: we still haven't decided what the major goals of rural education ought to be, nor have we convinced village people or educators or legislators that high schools are not buildings. Our goals seems to be to bring village kids up to grade level. All that means is that they will be participants in an education system that is just like ours which we are all dissatisfied with.

Racism: both white and native. The whole matter of values, we not only have no agreement on what they are, we have no agreement on what they ought to be. That central organizing principle that Nancy wants simply does not exist.

Human Rights: how do we extend to others the same freedom we expect for ourselves. To gays, to women, to village people.

The whole matter of means and ends: it struck me yesterday that everything that we talked about revenue, social programs, educational programs, protection of the environment, creation of jobs, planning both long range and short range planning, all of these are means. The only question I have I guess is to what ends. As long as we focus on strictly on the means we will never have a satisfactory answer to the ends. And if we, not just our legislators, but if we are out of control, perhaps it is because we have failed to distinguish means and ends. We pump money only into means without asking the harder questions first. It struck me that maybe the best metaphor for Alaska is the old story of Prometheus. Though we are not presumptuous enough to be heroes or steal fire, he is one of us, and like him we are bound to our place. Indeed, we cling to it. It's rough textures and sharp corners somehow comfort us. We are Prometheus. But in the inevitable unity of things we are the birds, too. We nibble at our innards. We peck away at the edges of the issues. Occasionally, we strike deep and we're satisfied, but we attack the issues only to discover we're the issue. It is our own innards upon which we feed, our own guts we spill. We both nourish and devour ourselves at the same time and it is our own selves that are renewed in the dark and when the day returns we are astonished anew at the regenerative vitality of our own complex tissue. We have it all to do over, again, again, both the pecking and the pain of it. Where do we even begin. We do not always know, but we have to keep trying and I presume that is what this forum is all about. I'm not going to go any further John, but to . . . I did want to say that my little illusion to racial war in the late 1990's is based partly on the same analysis of the issues that Don has made in regard to the Land Claims Settlement Act and I guess I do see a time when at least older native people maybe if were lucky, all the ones who have this expectation will be dead by then. But the older people, who saw the ANCSA as a way of preserving the land and continuing to live the way they have been are going to be totally disillusioned.

Much of the land if not the land, the stock is going to be in white hands, not Native hands and at the same time that disillusionment infects the native community there's going to be an incredible white backlash saying, what do they want now? We gave them all that money and all that land and they blew it. Here they are back at us. I guess I think the potential at that point is INCREDIBLE. Anything that we can do, in terms of our planning to alleviate that, to dissipate it, is going to be useful. I'd better shut up.

Mitchell - I have one comment about that very quickly. With respect to your comment about violence. There already is violence. It's just that people haven't figured out who the culprit's are. There are tensions that I guess we both agree on. What do you do when you get bummed out? What I do is probably have a martini, and if I'm really good with guns because I'm getting really bummed out, maybe I pick up a gun. If you pick up the Tundra Drum or the Bering Straits or any of the papers relating to what's going on out there, the violence is, the amount of violence is absolutely frightening. There's people doing in each other because they are upset about things they don't understand. NANA, for God's sake, is the flagship of the settlement act, has the highest suicide rate per capita for Native kids under 25 of any Native region in the state. I was up there for their shareholders meeting and three kids had blown themselves away last week. They just haven't figured out what the problem is. When they figure out what the problem is, then you are going to see that in a much more disciplined fashion. It's not a question of going to Board of Game and asking them, please stop 185's on floats, full of Germans and people from Muldoon coming in and destroying the opportunity of the village to live. The easiest way to deal with it is to just announce that the first 185 on floats that we see, will be shot. I tell you, you want see too many 185's on floats. I'm not saying that's the solution. I'm merely telling you that those feelings are already there and I couldn't agree with Gary more.

I'm not an optimist because I think I know how it's going to end.

Holthaus - Well, I guess, you know, in my dark moments, I'm not an optimist either, but I cling to the hope that the future is uncertain.

Mitchell - You look at this town and you look at urban Alaska, there is not 5% of the population that understands this. It is impossible, you know, how many people in this town have ever been to a Native village? Is there a survey done about that maybe a year or so ago. It said that 85% of the population had never been in a village. People that had been in a village, 90% of them had only been there on business, or they had been to McGrath or Talkeetna or Bethel. It is impossible for you as policy makers to explain to those people about the kind of problems that we are describing. We might as well be talking about something that is going on on the moon.

Souby - We tend to dismiss mechanisms and methods to deal with this because we want to get to the end. I obviously can't talk or argue with that statement (Holthaus), but is there any hope. What would you advocate, or, do you advocate going back and rewriting ANCSA? I agree with the problem, I've pondered it myself. What do you think is the role of the nonprofits?

Holthaus - Where you have to start, is not with rural Alaska or with the law, but with oneself, trying to examine our own ideas, about what it is out there that you see when you do go. And try and understand what you're looking at, which is really hard. It seems to me that we have a whole bunch of screwed up definitions in our heads and they are sort of incorporated by extension in the law and elsewhere. Unlike a lot of people I think rhetoric is really important, that the language we use is critical because there is always a gap, there's a gap between our rhetoric

and our performance. I assume the better the rhetoric maybe there is a chance that the better the performance will be. If we talk civil rights good enough, then we will come a little closer to achieving the ideal. If our rhetoric about civil rights is really poor then we're going to just fall that much shorter. So, you have to think just that much harder about definitions of things. I've heard people talk about differences between cash economy for instance and they say that's what we've got and subsistence economy, which is what native people have. Well, I think subsistence has nothing has nothing to do with economy in a sense. Were all in a barter system whether we trade paper or credit cards, or whether we trade the hind end of a moose for the front end of a moose. We are all dependent on the land, the resources and for energy. Were all land dependent people. I don't know why that's so hard to understand. Subsistence doesn't have much to do with hunting and fishing and picking berries. It has to do . . . when native people talk about subsistence the phrase that comes up over and over again, is, it's a way of life. And they are talking about religion, they are talking about a whole different kind of value system, they are talking about mores, and they are not talking about hunting and fishing exclusively. I guess my concern is that there's going to come a time when we are all going to be back to subsistence lifestyles in a very real kind of fashion. If that happens up here at the same time that the fish and game resources are gone, and if we don't . . . the value system that allows us to incorporate that into our whole structure, then we are in for some very hard times. I disagree with Arlon about the reduced cost of airline travel over the next few years. I don't have any evidence except that it used to cost me \$2000 to get to the Ak. Humanities Forum State Committee together and now it costs me \$6000 . . . (end of tape 2) . . .

Mitchell - . . . (Beginning of tape 3) . . . it seems to me, when I sit around sometimes thinking about all of this, that it is, what on earth to do about all this and the reason that I despair is that in a way, it is an assault by the values that we all are more and more rejecting, but nevertheless are dependent upon for our goods and services. What do you say to ARCO. do you say ARCO would you please leave those people alone for another ten years so that not so many of them get drunk and go out and shoot themselves. ARCO will say to you, that they are part of this country and this country has demands that are nonnegotiable and we love those folks but we have got to take care of business because we are as much a corporation as the corporations started under ANCSA. Our business is not whether or not they shoot themselves, our business is to turn a profit. So, on the one hand they are being assaulted for the exploitation of the resources and on the other hand, they have bought the program as much as we have. One of the things that Bob Hurwitz (?) used to do out at Y.K.C. in terms of their mental health program, was trying to get people who are serious alcoholics and serious perpetrators of child abuse etc., back to doing things like putting out a net, or chopping their own wood, the things that give, that used to give them a sense of value for their own community. How you can maintain a sense of value when you are being assaulted everyday with the crap that is on television, that none of us watch. How can you make them feel good about someone who is putting out a net when they see the expectations (on TV) that are impossible for them to achieve.

Souby - Would an equitable resource allocation that took into account the cultural values; would that be a major step toward the solution, a solution that leaves the resource allocation up to the locals, or is that just suicide for them?

Mitchell - First of all, your kidding yourself. The major watch words for our economic system were written by Robert Town and they are, "Forget it Jake, it's

Chinatown." The idea that anybody who has an interest in those resources, is really going to allow local control, is poppycock.

Souby - I'll leave it up to NANA profit and the village corporations. I'm willing to do that and don't get me wrong, there are state interests and obviously I represent some broad state interests that are probably nonnegotiable. I am an optimist to the extent that you can carve out and kind of contain those, so that you minimize that impact. I believe that can be done, maybe not today and maybe not in the next two years. As we start to educate people, they are going to start to worry about this. Even if we could do something about this, would it solve the problem.

Holtaus - The problem is that you are not the only player in the game. If you were the only player, maybe there would be some hope.

Mitchell - Under your solution, which is to turn it over to local control, that gets back to my original critique of ANCSA. NANA is one of my favorites. NANA is full tilt boogie into mining deals with every multi-national mineral co. on the face of the earth at the same time they are bemoaning their suicide rate.

multiple comments "It's more complex than that.

. . . unknown comment on establishing alternative futures now and then being unable to determine why we didn't reach them?

Hank Ostraski . . .

Mitchell - It is impossible to do anything more than imagine alternative futures

until you do one significant thing and that is to have an amendment to the U.S. Constitution which says that a corporation is not a person for the purposes of the 5th and 14th amendments. Absent that, this system is preordained and the nice thing about Alaska is a small laboratory and the stakes are so high . . . All this is is the way it is outside. It's just that it is small enough here so that we can see it.

Gregg Erickson - How many of the people at this table do not live in Anchorage, Fairbanks, Juneau and outside? (NOONE) What kind of arrogance do the people sitting around this table have? To sit here and try to solve the problems of these people out there! I think Gary raised a very important point, you've got a hell of a lot of problems in our big cities here. I served on the statehood commission and one of the things that we noticed and I think that everybody has come to believe is that what's sauce for the goose is sauce for the gander. We get pissed off at the feds outside, coming in and telling us what to do? Well how do you think the people in Kotzebue or wherever, must think about us. I don't know how they think but from what I gather, they think they have a better idea. These are the kind of people who came up with Molly Hootch and created the buildings without the high schools.

Richard Cooley - I would like to follow up on that because I agree 100% with what you said. I was thinking as we were talking, I know John Schaefer quite well and I spent a lot of time with him and he served on the Joint Federal-State Land Use Planning Commission and we talked about this whole issue about the corporate model that's being used and I didn't know this but John and others who were involved, native leaders, told me that when they were looking at the alternatives that were facing them when ANCSA was going through Congress as the type of mechanism's that might be used to provide land and money to settle these

all the other alternatives looked pretty horrible. The corporate institution is something that is highly respected in this society, whether or not it is right or wrong. If you say to the people as that they would only get the surface rights and not the subsurface rights; this looked like second-class citizenship to some of these leaders. They vied for the corporate structure because that's the only thing in our that is fairly well respected that would continue them as wards of the government. Now, it's not working out and we've defined a number of reasons. It seems like to me that we begin from there not bemoaning the fact that it's the corporate structure that's there, but the land bank idea; some of the new ideas that have come along would ease this off rather than trying to in one fell swoop do away with the profit corporations, especially in light of what you said, finding out what they want, because this was a natives claims settlement act. They were to get some say in what the natives wanted out of this.

John Havelock - By way of announcement, a number of native people were invited to come to this conference. It may be significant that none of them came, but many of them were invited.

George Gee - My comments are directed, a number of the speakers we have heard in the last few minutes. I think it was Humpty-Dumpty in Through The Looking Glass who said, "who's to be master, words or us." There's a question I would put to Gary on subsistence. I would agree with your concept that were all dependent on the land. I don't think that's in question. But, I do think that there are some important distinctions between how some people are dependent on the land and how others are dependent. We all sort of say that we are in the same situation. Dons thing about, leave us alone, I think maybe makes a distinction. There are some people who want to be dependent upon the land and don't want the cash economy coming in. Now bringing it into Jim's ballywick, I feel like that are some kinds

of issues that the state, in my opinion the state has sort of developed a posture of being neutral on subsistence, in terms of living off the land. As opposed to advocating it or being against it. I personally think you can't be neutral on that. I think if your neutral then your for the cash economy. If you sit back and let there be mining and let there be drilling and mitigate, then you are advocating the cash economy. I feel like, if you really want to be neutral then they have to advocate the subsistence economy and make the other side win. That is the only neutral position that is available. Going to Gregg's comments, I don't feel like it's an audacious thing or exercise for everybody to be getting together here today because I think (Gregg says arrogant is the word he used) . . . arrogant yes, I think some of the decisions made by these people . . . (multiple comments . . . garbled)

Lydia Selkregg - (paraphrase because of bad recording-distant mic) we must take care, the government must take care of some of the immediate problems before we start rewriting ANCSA.

Jim Souby - Let me follow that up with a question and maybe it's more for Mitchell and Gary but, . . . The thing I was driving at was our Coastal Management Program (CZM). I now sit on that council with Lydia and I just think that program offers some measure of a way to deal with this particular problem. I know that program is going to help solve some of our OCS problems because I'm confident that we are going to win some litigation that's going to allow us to contain some of those impacts. Maybe that doesn't buy into the value systems now but it's better than what you would have otherwise. It seems to me that if there is any hope that's the hope (resource allocation).

Mitchell - The hope is providing part of what Gregg was saying. People who live out there with some kind of authentic political power over their own destiny, as opposed to going to a meeting on OCS to give their input. Souby - they clearly have authentic power. Mitchell - Well, they may or they may not. One other last comment with respect to Gregg's comment is that I very rarely give that speech to nonnative audiences. The reason that I broke my rule is that one of the things that people continue to think is weird around here is that somehow there is rural Alaska and that's their problem and then their's everywhere else and that's this problem. In fact, this town feeds off of rural Alaska. If you look at the economy in some respects, certainly it feeds off of the oil which is in rural Alaska. They are involved with the Haul Road, out there trashing rural Alaska. There are thousands of decisions made here that affect out there. People have got to start to be sensitized to what the situation is out there and unfortunately in terms of communicating that as positive as you can communicate information and evaluate in the terms of the context that Arlon raised yesterday.

John Havelock - closed this session

BREAK

Jim Souby (Director, DPDP, Office of the Governor)

Souby outlined what is a non-traditional situation in Alaska in which the wealth is in the public sector and the planning or policy mission which he is charged is how to distribute that fairly. Many of the decision that are being made right now are resource allocation issues and they are irrevocable. It's going to cost more to go back and change them or they are not going to be changed at all. Our decisions now are going to have impacts far past our lifetimes. So we are trying to consider what the consequences are in both social and economic

Our planning effort has not been there because we have been concerned with getting the resources from a federal government that has just decided to give them to us. In our planning efforts we have political problems to deal with, We have competing values that Mitchell elaborated on, but we also have the boroughs to deal with, the regionals and of course the state. One spector of planning that we need is the ability to make trade-offs to accept certain policy decisions in a trade-off for other decision with industry.

In Alaska and in the executive branch of government, the principal approach to planning is through the budget process. That's where issues percolate up and that's where the governor deals with them. We used to have operational budgets that you submitted to the legislature and that evolved into the policy budget. This is how we are getting into the long range budget process. It's a first step. When you do start projecting for years in advance you have to make assumptions. The next steps are where we're heading and what are the consequences of the decisions that we are making. So how do we get that information, especially if the bush is meetinged out as we have heard here. We are helpless in planning if we don't get that information, current information.

The next step is how do we get to a strategic management planning process. ARCO can't make that decision for us. The Sierra Club can't. It's the local people who must help us make it. And that takes us straight into the Coastal Management Program. Through regulations and executive control we can prevent rural values from being crushed but we can't lay down the guidelines from the state without help. CZM does represent strategic management planning. So how do we get the local information and how do we save the program that has been under severe attack lately.

Where can we shape the future through goal setting and policy implications that exist and how do we develop the process that will let us influence the things that happen beyond today.

George Gee (Planning Consultant, Ketchikan) A question I have is, should the legislature be in long range planning. And, if the legislature is involved in decisions that have long range implications then they are involved in long range planning. So, maybe the question is, are we going to institutionalize long term planning. (turnover tape) One of the great risks is the decision of having to say no. Once you are in the process of long range planning, you no longer have the luxury of saying maybe or yes I will do it later, you have to say no. That is one of the reasons that Hawaii has trouble because they institutionalize it at the legislative level. So, in five years if we have institutionalized, we may ^{be} no better where we are, then it will be a success.

Steve Reeve (Chief, Land and Resource Planning, DNR) We have some serious decisions that are being made now such as hydroelectric power. In our department we have 20 year budget and a 5 year budget. We deal with forest lands, park lands and all allocation resources that are under DNR. There has not been any planning in DNR until a couple of years ago. In contrast to what Arliss said yesterday, there is not much planning going on in the state of Alaska. Ours is an initial cut into the process, of oil, of habitat allocation and hopefully we will be in better shape to coordinate with state and federal agencies in a manner in which people were suggesting yesterday. We also work in an area planning scale. The north slope, Bristol Bay, etc. and we are dealing with the people in their own back yard.

One area I hope we can make some changes in is public education. It seems much too little is being done to help the public, to help the children in the education process. There is no environmental education program in Alaska and we desperately need it. (Resource planning effort). The second thing I want to touch on is that there have been disparate efforts by the legislature to influence the executive on resource issues. There have been bad ones such as the 100,000 acre land disposal mandate and there have been well intentioned ones like this years agriculture suggestion to tell us where we are going in 10 years. The legislature should task the administration to come up with a road map of where we are going in the years ahead. We have the five year lease schedule in oil and gas. We have the 10 year agriculture plan so we do have some examples from which to learn. The purpose then of what we are doing is to be as clear as possible as to what we are doing and where we are going with the public, with the legislature and in particular as a planner with ourselves.

Jamie Love (Harvard University, Kennedy School of Government) I started with the idea from Michael Tenzer when he told me that the state needed a blueprint of what the money could do and what it could be spent on, in every area. What it's going to do with the money is the most important development decision that we are going to make. How the state spends its money will determine the future of Alaska. What about equity? The housing subsidy is a good example. We are providing \$3000-5000 a year to people who are making, for the most part, \$30,000 a year or higher. We repealed the income tax and lessened the corporate income tax. There is a legitimizing effect when you turn things like hydro into benefits to the local people, but what about the people in the other areas.

It's very hard to privatize the wealth and you have terrific demands to get the money out to the people, but how do you share it? People want to be better off because of the wealth and the challenge is how to evaluate expenditures based on both the efficiency and the equity of the distribution. It presents both analytical and political dilemmas.

In looking at how the system works, the Hammond Administration has a vastly overrated image of being a planning administration. Putting together the budget is the process and spending the money is the plan. I see these as political decisions not as analytical planning. So the planners in this state feel rather impotent and I think that is something that Jay Hammond can take a lot of credit for.

The legislature sort of looks at the budget, historically, and nitpicks a few things, tries to get a few things for each district and that's about it. In 1979 they did an equal share per legislator in the capital budget, something like \$750,000 each. This year Ed Dankworth told me it was about \$10-12 million each with a little extra for finance members. So the numbers are going up. The legislators themselves do not really believe their job is to do long term planning. They take office in November, start the session in January and don't even know who is on finance until January or February. So how are they going to make long range planning decisions, with a \$6 billion budget in a matter of days.

I have a few suggestions for planners. First, I think you should have better data to achieve your goals. There needs to be more explicit information on income distribution. Many of the anti-planning legislators see planners as merely asking too many questions and shooting down projects for no reason.

Gordon Harrison (Planning and Development Consultant, Juneau) My only comment I think that people overlook the fact that the legislature is the legitimate decision making body and that planners are not. A lot of what we are calling planning is really conflict resolution that has no business with the planners. When we call it planning we are disguising what it really is and we ring our hands and we are frustrated because we can't get this planning. What we mean by that is really the rational, deliberate implementation of our favorite policies. I think that when we ' at the institutional arrangements should be established for the legislatu. , we should keep in mind what is conflict resolution and politics and what is planning and what is not. I'm not sure what planning is. I'm sure what conflict resolution is. I think what happened in Hawaii is that they created a planning process to deal with basic political issues and it was bound to fail because it was not the legitimate decision making body and the legislature was. When these allocations of real resources were made by the planners instead of the legislature, of course it would fail. So, I think to avoid those kinds of problems we should think very carefully what we mean by rational planning and separate it from what is really legitimate politics and decisions should be made through the legitimate decision making body which is the legislature.

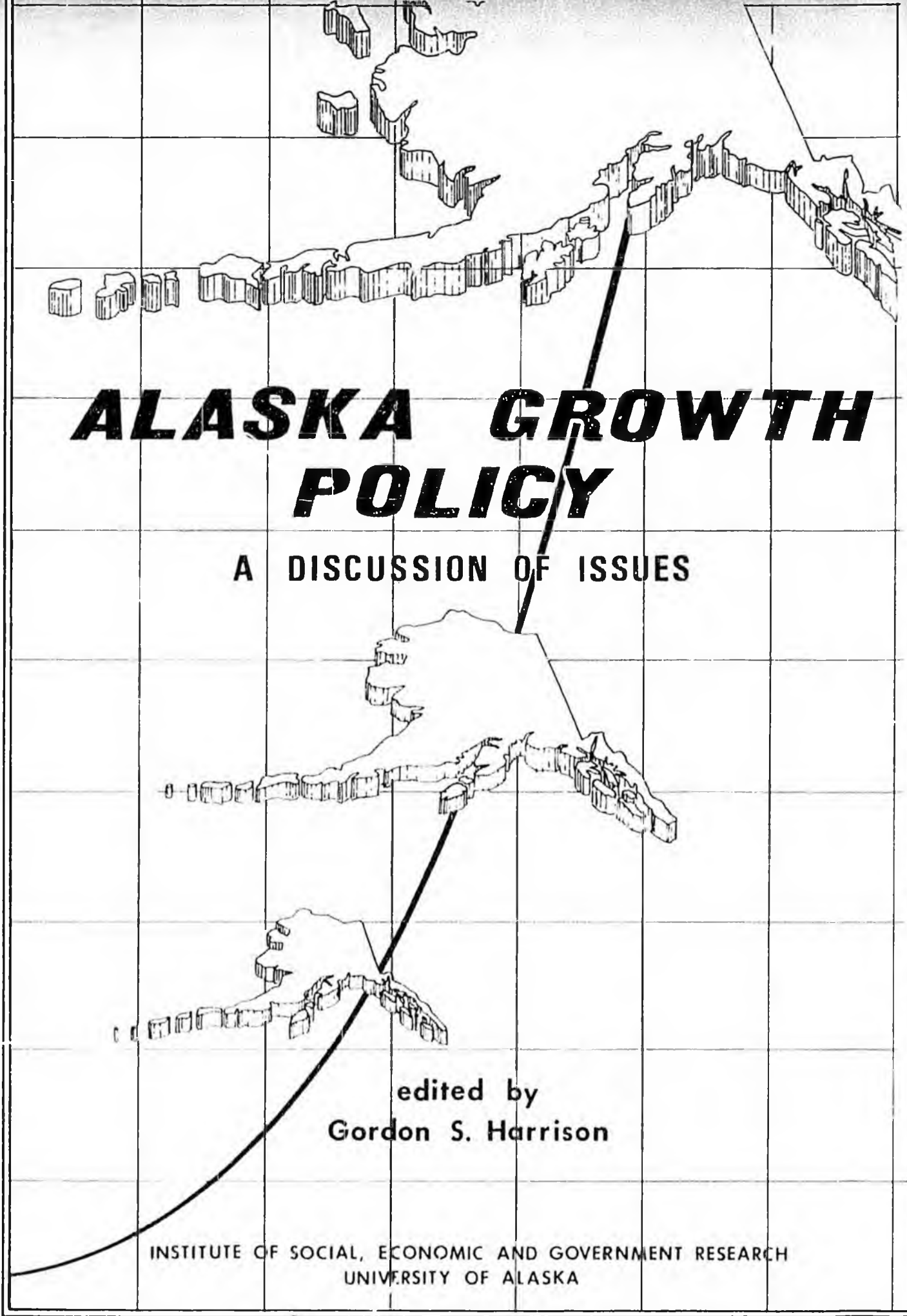
2100
2000
1990
1980
1970
1960
1950
1940
1930

ALASKA GROWTH POLICY

A DISCUSSION OF ISSUES

edited by
Gordon S. Harrison

INSTITUTE OF SOCIAL, ECONOMIC AND GOVERNMENT RESEARCH
UNIVERSITY OF ALASKA



Alaska Growth Policy

A DISCUSSION OF ISSUES

EDITED BY
GORDON S. HARRISON



INSTITUTE OF SOCIAL, ECONOMIC AND GOVERNMENT RESEARCH
UNIVERSITY OF ALASKA

PREFACE

A three-day symposium on the subject of a growth policy for Alaska was held at the University of Alaska, Fairbanks, December 3-5, 1974. Sponsored by the University's Institute of Social, Economic and Government Research with support from the Alaska Humanities Forum, this symposium reflected the continuing but recently heightened concern of Alaskans about the future of their state. Traditionally, the concern in Alaska about growth has been that there wasn't enough of it. Since the discovery of oil on the North Slope in 1968, however, this concern has begun to focus on the possibility that Alaska will get too much growth, too fast, in the wrong places.

Some participants doubtless arrived at the symposium wondering if the signs of a frantic oil boom all around them didn't signify that the opportunity to control growth, if it ever existed, was surely lost now. Even those most optimistic about the ability of the state to intercede effectively in the growth process could not deny that very powerful forces of social and economic change in Alaska were already off the leash, and that the pace of events was quickening daily.

In my letter to symposium participants, I wrote:

The Symposium is designed to help achieve a clear formulation of growth policy issues and growth management methods available to Alaska. Toward this end, the symposium will synthesize historical perceptions of Alaska's development and trends, growth projections and policy alternatives, growth policy experiences of other states, and public values emerging with respect to Alaska's future. Attention will be given to the full gamut of public policy issues related to Alaska's future, including economic growth, land and resource use, revenue generation and investment, distribution of benefits and costs, immigration and settlement, community growth, environmental quality and other factors. Underlying these issues are the basic questions related to Alaska life styles, the future character of the state's communities and regions, and the need to develop

processes through which an Alaskan approach to challenges of growth can emerge.

Discussion at the symposium was as broad as this statement invited it to be. As anticipated, a consensus on the scope and design of a growth policy did not emerge from the conference, and because the participants came from around the state and represented various points of view, I think it is safe to assume that the basis of a consensus on this subject does not now exist in Alaska. However, the symposium did move a measurable distance toward identifying and clarifying many of the issues that are raised by the subject of a growth policy.

To provide a point of departure for future discussions of Alaska growth policy, I asked Gordon Harrison, one of the symposium participants, to prepare a brief publication that attempts to capture the main issues and unanswered (unanswerable?) questions of a growth policy for Alaska. Included is an essay by Gordon prepared after the conference; a paper presented at the conference by Ken Rainey, a Fellow of the Academy for Contemporary Problems; excerpts from two other papers presented at the conference; and a sampling of extemporaneous comments and observations by symposium participants.

Victor Fischer, Director
Institute of Social, Economic
and Government Research
June, 1975

GROWTH IN ALASKA

By Gordon S. Harrison

Alaskans face the prospect of major growth in their state over the next several years. As Alaska's senior economist George Rogers remarked to the symposium participants, Alaska's growth has never been smooth and gradual but rather marked by periodic "quantum jumps" of development. Alaska is currently in the midst of one such quantum jump. There are now some 350,000 residents of Alaska. A recent population projection shows 510,000 residents in 1980 and almost 550,000 in 1983.¹ David T. Kresge, a University economist who has developed a computer model of Alaska's economic reaction to various levels of petroleum development, projects that the state's population will exceed 600,000 by the year 1990, even if no major oil development occurs in addition to that of Prudhoe Bay. These estimates of population growth may well be low, for development in addition to that associated with Prudhoe Bay now seems likely.

Oil and gas development is the prime mover of current growth in Alaska. The trans-Alaska oil pipeline now under construction will permit commercial production of Prudhoe Bay fields some time in 1977. This project may be just the beginning of a sustained oil boom in Alaska. Within a few years of completion of the oil pipeline, a pipeline for North Slope natural gas must also be built, either across the northeast corner of Alaska to Canada or to a tidewater port in southeastern Alaska. Congress has authorized further exploration of Naval Petroleum Reserve No. 4, and there is serious talk of allowing commercial development of this federal reserve. Also, the federal government is preparing to lease oil tracts on the outer continental shelf (OCS) in the Beaufort Sea, Bering Sea, and Gulf of Alaska, and the state government is considering additional leases of state land in lower Cook Inlet, Beaufort Sea, and Prudhoe Bay. Meanwhile, Native corporations created by U.S.

¹ Human Resources Planning Institute, *A Forecast of Industrial and Occupational Employment in Alaska* (Fairbanks: Institute of Social, Economic and Government Research, 1974), p. 58. See also, Alaska Department of Labor, Research and Analysis Section, *Annual Population and Employment Projection 1961-1980*, March 1974.

Alaska Native Claims Settlement Act of 1971 are selecting lands with oil potential, and six corporations have already signed exploration agreements with major oil companies.

From the beginning of exploration to the beginning of commercial production of oil and gas, the petroleum industry creates a great deal of employment and makes many purchases of goods and services within the state. Most of this employment and business activity results from the construction of transportation and processing facilities: pipelines, oil and gas separation plants, marine terminals, refineries, liquefaction plants, and even petrochemical plants. During the 1950's, for example, there was a major oil boom on the Kenai Peninsula when offshore exploration was underway along with construction of two refineries, an ammonia-urea plant, a gas liquefaction plant, and three docks.

After all required processing and transportation facilities are in place and commercial production of oil and gas begins, the petroleum industry ceases to create much employment or make many local purchases. During the operational periods, however, the industry provides an indirect stimulus to the economy through payments to the state government — royalties (if the wells are located on state land), severance taxes, property taxes, state corporation taxes, and personal income taxes.² The state government in turn spends this money on salaries of public employees, capital improvements, and various state programs.

Additional spending in Alaska, whether by the oil industry or by the state and federal governments, causes population growth by creating more jobs, and these jobs attract more immigrants to Alaska. During the post-World War II defense spending boom in Alaska (1946-1953), for example, total population increased from an estimated 99,000 to 212,000. Net in-migration accounted for about 83 per cent of this increase.

Spending that increases statewide income and employment is not the only cause of population growth. Population growth also occurs from natural causes — i.e., excess of births over deaths. During the fourteen-year period between 1953 and 1967, for example, the total net out-migration was 20,000, the growth of total population from 212,000 to 278,000 being accounted for by the offsetting natural increase of 86,000. Since 1967 there has been a progressive increase in net in-migration, and the current surge of petroleum-related construction and economic expansion promises to swell the state's population in the next decade much more dramatically than natural increase.

It has been suggested that new settlers will be attracted to Alaska even if there is no further economic development. According to this argument, ever greater numbers of people will seek refuge from the pace and style of life in the other states, and Alaska's relatively undeveloped condition will draw them north like a magnet. Any effort to limit development in Alaska as a means of limiting growth would therefore be counterproductive

I saw a study of transients who migrated to Valdez looking for work last summer. It said that 50 per cent of those who arrived between May and September said that they had been told in the states where they originated that there was no work in Alaska, but they came anyway. One of the impacts of a possible worldwide depression may be that people will decide that things couldn't be any worse in Alaska than in their own state and that they may as well migrate.
Chuck Konigsberg

²In addition, 90 per cent of the federal revenue from onshore wells on federal land in Alaska now goes to the State of Alaska.

and doomed to failure.

There is a good deal of anecdotal evidence from states such as Vermont and Oregon to suggest that large numbers of people are indeed trying to "get away from it all" by moving to less urbanized areas. However, the prospect of significant immigration to Alaska in an inverse relationship to economic development here seems very slight. The cost of living is very high in Alaska, and subsistence living is not a practical lifestyle for many people. Nothing in Alaska's development history suggests that the ebb and flow of civilian migration is caused by anything but the fluctuation of real and perceived economic opportunity.

Attitudes Toward Growth and Growth Policy

Participants at the symposium expressed different attitudes toward growth in Alaska. Some thought that growth represented social progress and was unambiguously good for Alaska; others viewed growth as a mixed blessing but considered moderate growth in Alaska to be acceptable; and still others regarded all growth in Alaska to be undesirable.

Different attitudes toward growth naturally led to different opinions about the main objective of a state growth policy. Those who welcomed all growth thought that state policy should promote growth and smooth its path. Those who welcomed only moderate growth thought that state policy should attempt to enforce standards and guidelines for growth which selectively permit and prohibit certain types, patterns, levels, and location of growth. Those opposed to further growth in Alaska thought that the objective of state policy should be to minimize to the greatest possible extent future population increase and economic development.

The critically important distinction between these opinions is the degree to which state policy should restrict, or limit, growth. However, differences of opinion about the limitation of growth in Alaska were in large measure obscured by repeated use of the phrase "controlling growth" and the word "planning." Everyone acknowledged that growth should be controlled, and that planning is necessary to cope with future growth, but these terms had very different meanings to different people. To maximum growth advocates, the planning process is one that encourages, assists, and accommodates growth. In this frame of reference, controlling growth means shaping and guiding it to maximize its social and economic benefits and minimize its social and economic costs.

To moderate growth advocates, the planning process should also smooth the path of growth (for example, by assuring that necessary land, utilities, and public services will be available for a growing urban population), but it should also identify especially costly types and patterns of growth and devise methods of preventing this undesirable expansion. In this frame of reference, controlling growth means enforcing social, economic, and environmental standards that limit growth to some extent by selectively restricting certain types of development.

In spite of public concern, in spite of good intentions, in spite of this symposium and others that take place, my thinking is that we are headed down the same road to destruction of land and resources as the rest of the states are. . . . The point is that in spite of planning, it boils down to the rough and tumble of politics and survival and numbers.

Emil Notti

To minimum growth advocates, the planning process serves essentially the same process it does for moderate growth advocates, but standards are much more severe and more growth is stymied. In this frame of reference, controlling growth means restricting the aggregate magnitude of growth as much as possible.

Behind the rhetoric of controlling growth and planning are fundamentally dissimilar opinions about the degree to which state growth policy should *limit* growth. The range of opinion can be expressed as a continuum from no limitation and maximum growth to maximum limitation and minimum growth.

Thus, the principal controversy in Alaska about growth policy is not controversy about the need for planning and growth management efforts by government *per se*, rather it is about the extent to which they should limit the magnitude of growth. There seems to be no consensus about either the desirability or the possibility of limiting growth. Indeed, these seem to be the two central questions of the growth policy issue: *should* public policy attempt to curb aggregate growth in Alaska, and if so, *can* it effectively do so?

Growth Limitation: Is It Desirable?

One reason why I think that controlling growth may be a germane part of a human development policy comes perhaps from my background as a biologist and deals with what I perceive as some of the realities of living in Alaska. The sun doesn't shine very effectively for very long during the year in Alaska. As a result, the land doesn't produce very much in the way of vegetation or animals. Agriculture in the North is a losing battle in the traditional economic sense of the word, and subsistence lifestyle can support only a limited number of people. . . . If we ask how many people who enjoy hunting can survive in Alaska at a given quality of hunting experience, then the limitation of sunlight has a great deal to do with the carrying capacity of the environment for these sorts of human activities.

Bob Weeden

Support for growth limitation, at least among non-Natives, stems mainly from the pervasive sentiment that up to now, Alaska has offered a very high quality of life for its citizens which is attributable to a small population and non-industrial economy. The essence of this "quality of life" case for growth limitation is that Alaska should not and need not develop in a pattern similar to that of the other states; that there should be one state that is not dominated by the style and pace of industrial and urban America; that the wilderness and unspoiled land of Alaska should not be encroached upon any further, for this land is the last of its kind in the world. Behind this attitude is an impulse to stave off the advance of industry, highways, and tract houses. However difficult it may be to precisely define "quality of life" in Alaska, the term generally implies close ties to nature and community, ties that are inevitably loosened as the size and complexity of society increases.

It is argued further that North Slope oil revenues assure Alaskans that their state government will survive and their basic public service needs will be met. Moreover, passage of the Alaska Native Claims Settlement Act of 1971 assures the Native population of the state a major role in the political and economic development of Alaska. Thus, the argument is that Alaska does not need growth beyond that which is immediately foreseeable, and that public policy should attempt to curb all unnecessary and avoidable growth.

Growth limitation is also thought by some to be a necessary defense of Alaska's wilderness and wildlife. Recreational pressure on Alaska's big game and freshwater sport fish is intense, and the quality of hunting and sport fishing is in decline everywhere in Alaska. Contrary to popular belief, Alaska's land and fresh water

are not highly productive, especially in the interior and northern regions of the state where the winters are long and cold. Native villagers are alarmed by the threat to their subsistence resources from well-equipped, highly mobile recreational hunters.

Although discussion of growth limitation often implies that it would be a blanket policy applied statewide, advocates of the idea recognize that antigrowth policies may be selective, especially as to region. An obvious candidate for a regional policy of growth limitation is the Anchorage area in southcentral Alaska, which has been expanding and prospering for years. While efforts to limit growth and development may be appropriate there,³ they may not be appropriate for some other regions of the state. For example, development would seem appropriate in Southeast Alaska where the fishing industry is in decline, the timber industry is in a prolonged recession, and the state government and public administration industry may be withdrawn; it would also seem appropriate in the predominantly Native regions of southwest and northwest Alaska, which are the poorest in the state.

Growth limitation in Anchorage has a special appeal to some people as a means of redressing the present imbalance of political and economic power in the state. If current growth trends continue unchecked, Anchorage will soon elect a majority of the state legislature, and its emerging economic hegemony will become permanently fixed and unassailable.

Opponents of any type of growth limitation in Alaska are wont to argue in the first instance that Alaska is so large and the population so small that growth can continue for decades before urban expansion and natural resource development make serious inroads into the natural beauty of the state. Furthermore, opponents of growth limitation argue that population concentration can be managed so that it does not mean congestion, social anomie, and crime. Urban growth can result in more and better health care, diversified school curricula and expanded educational opportunities, symphony orchestras, fine restaurants, and other amenities of urban life.

Actually, the longest-standing argument for accelerated growth in Alaska has been economic rather than social. Statistically, the state of Alaska has high unemployment and low per capita real income, for which economic development has been touted as the remedy. This conventional rationale for growth has been undermined by evidence that high unemployment rates in Alaska are basically due to the highly seasonal nature of much basic industry and are not relieved by economic expansion. Furthermore, economic expansion lures more workers to the state in search of jobs than there are jobs available, and increases in gross income generated by this economic expansion are spread among a greater number of people, resulting in less than proportionate rises in per capita income. There is increasing, if reluctant, acceptance of the argument that, in the aggregate, development does not ameliorate unemployment or greatly raise

One thing that seems to be clear about optimum size is that it is virtually impossible for any community to control its own growth — certainly impossible for Anchorage, the key metropolitan area in Alaska. I project some 55 per cent of the people of Alaska being in Anchorage in 1990. If you include the Kenai Peninsula and the Palmer areas, you bring the total population of the Anchorage region up to two-thirds of the total population of the state. . . . And the growth of Anchorage is not going to be dependent on Anchorage decisions, it is going to be dependent on statewide policy affecting total growth. . . . The factor of growth is larger for Anchorage in terms of percentage than for the state as a whole. The more the state grows, the faster yet Anchorage will grow. . . . The effect will be on the quality of life and livability of Anchorage itself.

Vic Fischer

³A contrary opinion is that Anchorage has already been spoiled by excessive, unmanaged development, and that future growth should be channeled there to prevent it from affecting the relatively undisturbed areas of Alaska.

Every time you create a job, a new person moves in. When you keep adding jobs in order to cure the unemployment problem, people come in as fast as you add these jobs. I'm always taken a little aback when people say that we need to employ Alaskans. Well, who exactly is an Alaskan? It seems to me that the U.S. Constitution makes it very clear that it is anyone who crosses the border.

David Kresge

personal incomes.

However, development does benefit many Alaskans in a real and direct manner. Too, a deceleration of economic growth might cause direct and real harm to many Alaskans (most of whom would presumably be unskilled, low income, and Native). Furthermore, real per capita income is not a full measure of the social benefits of economic development. For example, if more public roads, buildings, and other facilities are built, and if more public services are provided, society has gained even if the average real per capita income of residents has not increased in the process.

Growth Limitation: Is It Possible?

If one decides that some measure of growth limitation is a desirable objective of public policy, he must also determine if such limitation is practical and realistic. For political, constitutional, and other reasons, it is not clear that policymakers could effectively limit growth in contemporary Alaska if they wanted to.

Is any measure of growth limitation in Alaska politically feasible? Some say "yes." Symposium participants frequently commented that Alaskans' attitudes toward growth are changing; they are increasingly skeptical of the need for, and benefits of, more economic development and population growth. Cited among other manifestations of this attitudinal trend was the 1974 gubernatorial election, in which Jay Hammond campaigned on a "go slow" growth platform. Most symposium participants acknowledged that popular attitudes toward development have changed in recent years and that a primary reason for this change

The following is an excerpt from "Alaska's Growth to 1990: Policies and Projections," a paper presented by David T. Kresge, Professor of Economics, Institute of Social, Economic and Government Research, University of Alaska, Fairbanks, Alaska.

* * *

Over the foreseeable future, state expenditures from petroleum revenues will be the primary driving force in the Alaska economy. Policy decisions governing the pace of oil development and state fiscal policies will have major impacts on Alaska's rate of expansion. Growth will be substantial under almost any conceivable set of policy actions and world oil prices. However, the future growth rates are not likely to be outside the range of recent experience and in many cases may be somewhat lower.

With regard to the broad policy actions considered here, the range of policy impact is much wider in the upward direction than in the downward. The state has the ability to accelerate development substantially, but given the ongoing developments on the North Slope, there are no realistic policy options that can significantly curtail Alaska's growth. If the state chooses to increase its growth rate, policies to promote rapid development of Alaska's petroleum resources and/or expansionary fiscal policies will sharply accelerate growth in output, employment, and

population.

Alaska's growth will be heavily concentrated in those sectors which are either directly influenced by oil revenue, such as state and local government, or indirectly influenced through the induced growth in personal income. The support sector industries, and particularly the trade and service industries, vary strongly with changes in personal income and can be expected to grow rapidly. It is likely that at least three-fourths of the future growth in employment will be in trade, services, and state and local government. Any policy action or other event which raises personal income will further increase the growth in the support sectors and, through them, the growth in the economy as a whole.

Renewable resource industries can be expected to play only a minor role in Alaska's future economic growth. In fisheries and forest products, the limited supply of natural resources will constrain the amount of expansion that is feasible. Agriculture in Alaska may well expand output severalfold, but because agriculture is so small in absolute terms, this will have slight impact on the state economy. The renewable resource industries will continue to be an important part of the Alaska scene, both in terms of economics and on the basis of broader considerations, but their contributions to economic growth will necessarily be quite limited.

is the opinion that Alaska is on the verge of becoming a very rich state and can now afford to forego development that carries high social and environment costs. This pervasive view, plus the fact that many people have begun to experience negative impacts of pipeline construction, is causing some to think that the underlying political support for growth limitation policies now exists and can be mobilized by executive or legislative leadership.

Are policy tools available to intervene in the growth process? Again, some say "yes." Advocates of growth limitation argue that all of the traditional tools of planning and growth management can be used to limit growth in a fashion and to a degree that policymakers choose. For example, by increasing the scope of their application and their severity, the same techniques of land classification, transportation planning, business licensing, and fiscal policies that are used to manage the effects of growth can be used to limit the magnitude of growth as well. In addition, a wide variety of new regulatory devices and economic inducements are now being developed and perfected by a number of states to influence specific environmental, social, and economic aspects of growth and development. These utilize such mechanisms as air and water quality standards, revenue sharing, and regulatory boards and commissions.

The state government can also influence growth by saving North Slope oil revenues. If spent, these revenues will allow the state government to expand its annual budget, and this incremental budgetary expansion will be growth inducive. Certain expenditures may produce less growth than other expenditures. For example, the income and employment multiplier effects of one industry may be less than the income and employment multiplier effects of another industry, so that state subsidy of the

I'm somewhat astounded by the illusion of grandeur the morning's speakers have expressed about the ability of the state to control its growth. I think that all of the forces of growth in Alaska are outside the state. The only way we are going to control our growth in the state of Alaska is to make it unattractive to people, not attractive. And I'm not advocating that we should make it unattractive. Alaska is just not going to have any real influence in stopping growth. Rather than stop it or slow it down — whether it be rapid or moderate — let's direct it. We can direct it and should direct it well.

Chuck Evans

The federal government sector will also remain an important component of Alaska's economy; but rather than contributing to growth, it is most likely to decline in the future. As the state becomes more self-reliant and as the Native Claims Settlement Act is implemented, federal civilian employment can be expected to diminish gradually. The number of military personnel stationed in Alaska is not likely to increase, and there may be further reductions in the future. Clearly, the importance of the federal sector will be greatly diminished relative to the other economic activity in Alaska.

Changes in the price of oil can have substantial impact on the Alaska economy, and they do introduce a major element of uncertainty into the planning process. But, within the likely range of variation, changes in oil prices will not alter the basic pattern of growth in Alaska. Nor will they have such large effects as to overwhelm the influence of government policies. In fact, government policies can, if necessary, be adjusted to offset the destabilizing effects of fluctuations in oil prices.

There are two areas where policy decisions can have massive impact on the course of development. The first are petroleum development policies. If we concentrate on those aspects of petroleum development subject to state control, the key item is how much leasing is undertaken by the state. The rock bottom level is full North Slope

development — gas and oil. A second alternative is some limited additional leasing. A third is rapid petroleum development with annual lease sales every year from 1980 on, with several major new fields opened up.

The second set of policies are fiscal policies, and here we concentrate solely on the spending versus saving decision. State spending is what causes the system to grow either more rapidly or less rapidly, strongly influencing gross product, employment, and population. Public policies are by no means trivial instruments in their effect on the economy and population.

Designing effective policy instruments means focusing on what we want to accomplish. For example, if the objective of Alaska public policy is to increase the personal income of its residents, it is apparent that the aggregative policies are ill-suited to that purpose. Broad policies which cause output and income to increase also cause population to grow. The result is an increase in the size of the Alaska economy but virtually no change in real per capita income. For similar reasons, aggregative policies are not effective in reducing Alaska's unemployment rate. Thus, if the goals of public policy include raising per capita income or lowering the unemployment rate, then policies will have to be designed to achieve those specific goals; aggregative policies alone will not do the job.

I have an intuitive sense that within the next decade or so we are going to have some major constitutional crisis regarding the relationship between the national interests and state interests in the areas of environment, energy, and raw materials. . . . To a certain extent, the energy frontier areas of the United States — areas to which the nation as a whole is looking in its quest for self-sufficiency in primary fuel because of their strip mineable coal or their oil reserves — these areas are becoming reluctant to play the role of energy providers for the nation.

Should these states have a veto power over the use of federal resources within them, or should the federal government have the authority to override the states' environmental land-use, and economic policies with respect to the development of energy resources? . . . I think that the way in which this constitutional problem is resolved will have an enormous effect on Alaska.

Arlon Tussing

former is less growth inducive than state subsidy of the latter. However, these differential effects of state spending will probably be minor. Critically important for the magnitude of long-term growth is the *amount* of money spent versus the amount of money saved. Saving will not produce growth, and it may therefore become a growth-restrictive public policy.

Another important policy lever that the state could possibly use to influence future growth is the leasing of state land for exploration and development of oil and gas. If we assume that lands leased by the state require equivalent exploration and development efforts, and have roughly equivalent producing potential, it would be possible to manipulate the distributive effects of growth induced by oil development through the timing and location of lease offerings. More importantly, it would be possible to manipulate the aggregate growth impact by varying the amount of acreage offered for lease. Thus, a decision to withhold state land from oil and gas leasing would be growth restrictive, just as a decision to save a portion of new oil revenues would be growth restrictive.

The weight of the foregoing optimism about the state's ability to influence the rate of growth in Alaska is seemingly balanced by an equal and opposite weight of pessimism, which is founded in two main arguments: (1) the state government could never mount a coherent and effective policy offensive on the rate of growth, because support for specific development projects could always overcome general political commitment to growth limitation; and (2) the forces of growth in Alaska are already in motion; they are removed from the state's sphere of action; and they are so strong that they cannot be resisted, neutralized, or deflected to any appreciable extent.

During the symposium it was argued that the public skepticism of development which has appeared in recent years is still too germinal, too abstract, and too nebulous to be a threat to specific development proposals. According to this "political realism" argument, it is one thing to ask a man what he thinks about development, and it is another to ask him what he thinks about a proposal to build a new industry in his hometown. If he is like most people, he will respond to the second question only after consulting his own interests and deciding if on balance he wins or loses from the project. Usually, only the people who are directly and immediately affected by a project identify themselves as winners or losers, and only they become relevant to those making decisions about the project. Further, the history of economic development in Alaska and the rest of the United States suggests that there will probably be more people who expect to be winners than losers, and that the winners will probably be established economic interest groups with longstanding political influence. Thus, in reality it would prove very difficult for elected officials to oppose specific development projects, whatever the general climate of public opinion toward the principle of development.

The political realists also assume that legislators could not resist the temptation to spend the revenue generated by North Slope oil production. Some symposium participants, a legislator or two among them, thought it fatuous to expect that there would be

significant saving of oil revenue, or even that the spending of this revenue could be confined to a planned, coherent budget strategy designed to have predetermined growth impacts. There will be strong pressure from within state government to expand existing programs and launch new ones, as well as strong pressure from outside the government to support and subsidize natural resource development schemes in every region of the state. However uneconomic and inefficient, new resource development will be promoted as the answer to Alaska's unemployment problem and as the guarantee of long-term prosperity through diversification of Alaska's economic base. It is argued that legislative budget allocations in Alaska are made through the process of log rolling among regions and districts, and that the process would only be intensified by the availability of greater and greater amounts of public money.

During the symposium it was argued that growth limitation is in any case a "will 'o the wisp," because the state simply has no real power to resist contemporary forces of growth and development. How realistic is it to assume, for example, that Alaskans can successfully resist development of their oil and gas resources when the nation is experiencing an acute energy shortage? The oil industry by itself seems at times to have a forward momentum that sweeps all men and events with it. Now, the industry has been joined by the U.S. Department of the Interior in promoting more oil exploration and development, especially on the federally-owned lands of the outer continental shelf (OCS). The coastal states, Alaska among them, have apparently already abandoned hope of resisting OCS leasing and are negotiating with Congress for a share of federal revenue from OCS bonuses and production to at least compensate for onshore social and environmental impacts.

Moreover, OCS leasing along Alaska's coastline will probably pressure the state government into accelerating its own leasing program. Whatever the state administration may think about the desirability of more oil development in the near future, it may be forced into offering more leases to realize significant bonus income before the market is spoiled by a glut of federal lease offers, and so that it can secure royalty and taxation revenue from production of oil that might otherwise be drained by wells drilled from immediately adjacent federal leases.

In the matter of leasing land for petroleum exploration, the state is also in a competitive position with the Native regional corporations, which are "for profit" organizations. Many Native land selections under the Alaska Native Claims Settlement Act of 1971 were made with a view to oil and gas potential, with the result that Native corporations will soon have mineral rights to many promising petroleum structures in Alaska. These corporations are under pressure to hasten oil and other natural resource development, both from their stockholders and from the other regional corporations (which by terms of the Native Claims Settlement Act are entitled to 70 per cent of natural resource revenues). OCS development will assist oil development on Native lands to the extent that it results in new ports, offshore loading facilities, and cross-country oil and gas pipelines. Thus, with so

A really critical feature of the Land Claims Settlement Act is the requirement that each region must share 70 per cent of its natural resource revenue with the other regions, and that each region is required to share its revenues vertically, that is, with the villages of the region. It seems to me that this requirement places on the boards of directors of each regional corporation a tremendous burden in favor of the extraction of the region's natural resources. It may even be that a corporation which refused to permit that type of activity could face legal threats from the boards of directors of other corporations, which would claim a right and an interest, a vested interest, in that kind of development.

Joe Josephson

After we gave them some economic data, we let the villages select the lands they wanted. The majority of the lands that they selected were for subsistence life-style.

Sam Kito

What we're trying to do, in order to promote the resources on Native lands and make them relative to our people is to keep the transportation corridors, the roads and stream easements off our land so that we can develop it as it relates to our own needs. And I think the state can do somewhat the same thing. I don't care how much land the federal government has, or anybody else in Alaska; if you look at where the state is going to have its lands and where the Natives are going to have their lands, we can very well provide self-planning for the development of resources, providing we do it together.

Roger Lang

much of Alaska's potentially valuable oil land in Native or federal ownership, it is not easy to imagine how the state government could effectively limit oil development by withholding leases on its own land. Such a policy would merely shift oil development elsewhere and result in nothing more than a loss of royalty and bonus income to the state.

Another reason the state is said to have little or no control over growth patterns within its borders is the fundamental dependence of its natural resource industries on conditions and events external to Alaska. For example, the competition of the timber industry in southeast Alaska, the mining industry in interior Alaska, the fishing industry along the coasts, all depend upon such uncontrollable factors as prices and demands in national and world markets, technological developments, comparative rates of inflation, federal environmental standards, and federal resource development policies.

Skeptics of growth limitation also point out that the past record of bureaucratic attempts to manipulate human behavior on a large scale, is not a very impressive one. Ambitious social policies (of which growth limitation in Alaska would surely be one) are often ineffective or, worse yet, counterproductive. Contemporary society is so complex and individual motivation so mysterious that all the major consequences of new social policies are seldom foreseen. So far, growth limitation is *terra incognita* to politicians and policy planners around the nation.

Where Are We? Where Do We Go From Here?

Many people in Alaska are doubtless ambivalent about the desirability of growth limitation here. Most of us like nice restaurants, shops, and a fine symphony orchestra, along with wilderness at our doorstep. However, if a poll were taken today on public attitudes toward different growth rates, a very large percentage of people would indicate a preference for selective and moderate growth to maximum or minimum growth alternatives. That is, as an abstract proposition, most would acknowledge the desirability of limiting growth to some degree. Among these people, however, there is probably a good deal of skepticism about the ability of government to design and carry out an effective regulatory effort. Like reducing state budgets, limiting growth seems possible but not probable.

If Alaskans are to ever agree upon a growth policy that actively regulates the magnitude of growth, a great deal more public discussion of the issue seems necessary. This effort may be most productive if it begins with an examination of specific development projects and proposals in the state, such as the proposals to build roads to Cordova and Nome; to develop oil resources of the outer continental shelf; to build a trans-Alaska gas pipeline; to begin flourite mining on the Seward Peninsula; and to explore Native corporation lands for oil and gas, commercial timber, and metallic minerals. What are the growth implications of each project? Are these desirable? Is the public interest served by stopping or delaying the development? Does the state or local

government have the authority, political support, and policy tools to stop or delay the project if it is deemed to be within the public interest to do so? Only in the context of specific developments will the issues of a growth policy for Alaska acquire sharp definition and tangible meaning, and the range of feasible policy action become fully evident.

* * *





STATE GROWTH POLICY

By Kenneth D. Rainey

Growth policy and growth itself are very popular these days. Growth and growth management are being studied by states all across the nation. The President must submit a biannual growth report to Congress. Communities are considering a new question — whether or not they want growth. Some are even looking at ways to severely limit influx of new population.

The growth policy field is full of semantic misunderstandings and value conflicts. So in the course of this talk, I would like to cover several things. First, my understanding of what a state growth policy should attempt to do; second, some of the distinctions I see between Alaska and the "Lower 48"; third, a review of what some of the other states are doing, including a rough classification of their problems and problem-solving techniques. Finally, I would like to suggest the essential elements of a state growth management program which I believe are applicable here in Alaska as well as in other states.

State Growth Policy: What Is It?

We need to clarify these words before this discussion can have much meaning. First, what does "growth" bring to mind? Do you remember the glorious period of seeking urban-rural balance? Public officials, government reports, and lobbyists all spoke for the need for "urban-rural balance." It was a beautiful thing. It was very harmonizing. But no one knew what it was. Rural people thought it meant moving back to the country. Urban people certainly did not think it meant limiting metropolitan area growth. As a result, urban-rural balance, was always a spongy policy concept. Certainly no states ever got down to the cutting edge of saying, "If we want urban-rural balance, it means not building something here, and building new facilities there."

The word "policy" too, has been cheapened. It has come to mean almost any statement of advocacy made by mayors, governors, presidents, or anybody else. People do not believe that governmental policy statements by themselves have much wallop.

A strong chief executive can provide the sense of coherence and consistence that planners talk about; he can provide it more realistically than a comprehensive synoptic vision moving major policymakers to change the nature of the way the system works.

Tom Morehouse

The bureaucracy has more control over what is happening than the governor. The executive branch is set up around a number of line organizations; they don't need to plan because the legislature tells them what to do in the statutes. There is an enormous grip on the future which is the existing fabric of both state and federal law.

John Havelock

They are right — they don't. We are being fed a steady diet of policy statements which sound suspiciously like TV ads: our policy is to give you the best service in town. What does that mean? Do they fix your car the first time you take it in to the shop? We have been bombarded with federal urban and rural policy statements that have meant nothing in terms of the day-to-day actions of federal agencies who allocate funds. If growth policy is to mean anything, it must get beyond bland statements and vague definitions such as "we do not want our cities to get too big" or "we do not want the rural areas to be too small." It must be geared to action. It must impose constraints on operating agencies. It must be the determinant of what funds are spent where.

Finally, we must clarify what we mean by "state" in talking about growth policy. It has been common to confuse the state as a geographic territory with the state as a government body. As a result, when a governor announces a state policy, it is often what he thinks someone else should do (locate your business in the state) rather than a statement of what the government will do. In the United States, state governments are far from all-powerful institutions. Indeed, they are very limited institutions. Traditionally, they have been fiscal conduits between the federal and local government. Comprehensive, independent programming, particularly on development, has been rare. State growth policy should mean policy announced by the governor, the legislature, or both, concerning how and where the state should grow.

However, at the same time we recognize that how and where a state grows are not completely in the hands of the state government. They are a reflection of millions of private decisions. And yet, state policies are frequently announced with little forethought as to how these policies might be implemented or how the goals they pronounce might be realized. State growth policy then, if not to be meaningless, must also carry with it clear and concise plans of how the tools and powers of state governments are to be used to achieve the goals set forth in the policy statement.

At a minimum, state growth policy should call for consistent action on the part of state agencies towards some explicit goal or goals. They may be in numbers of people, location, or quality of life. The purposes of state growth policy and state planning should be to improve the quality of life of the people in the state through managed growth. This means avoiding the unanticipated consequences of action. Federal spending had a tremendous impact on the way this country grew in the post-war period. In light of the crunches this caused, we have to believe that some of these consequences were unanticipated. A good growth policy will avoid or reduce the number of surprises:

- Interstate and Defense Highway System is almost finished. Surprise, no gas!
- Technological advances in agriculture have enabled us to control production to insure stable supplies of food and reasonable farm profits. Surprise, there is not enough food

to go around and farmers are losing money!

State growth policy must establish operational goals for the state concerning the level of population and its distribution, the type and distribution of economic activity, and the way in which the tools of state government are to be used to achieve such goals. It must offer direction to federal, local, and private decisions affecting the state. How does this apply to Alaska?

Distinctions Between Alaska and Other States

Before moving on to the discussion of what the other states are doing, I would like to offer my understanding of the distinction between the growth and growth management problems in this state and others in the Union.

Scale in area is of course the distinction that first comes to mind. The sheer size of Alaska poses many demands in trying to manage it, which you all know much better than I. Growth policy and growth management require an undergirding knowledge of land capability, soils, wildlife, climate, geology, and the like. The cost of finding out is presumably greater here.

Scale in population is also an important distinction. There are fewer people here than in any other state. This should mean fewer people problems to solve. At this moment, and happily most of the time, people are at the heart of growth management discussions. How well off are the people of this state? One thing that I have learned is that Alaskans place a high value on things that are not as important to many in the "Lower 48." That is why many of you are here. How will growth and development here influence the well-being of the people of Alaska? Will it help or harm them? Obviously, as new jobs and income are brought in and Alaskans get these jobs, their lives will be better. But if too many people move into Alaska in search of jobs, the congestion and clutter will mean many of those who live here now will feel they have lost something they value highly.

Native Land Settlements are unique to Alaska. The ownership of Native land, Native rights, and Native business and government institutions obviously will play very large roles in what development occurs and where it takes place. No other state in the Union faces these challenges on the scale that you have them here.

Greater visibility of key development decisions is also a distinguishing feature. Major development decisions in Alaska are in the hands of fewer and much more visible institutions — Federal Government, state government, and Native corporations. The role of the state government can be much more substantial. It is not so much a question of placing public limits on private property decisions, as it is how Alaska wishes to use its public property.

Recasting state and local relationships is not an overriding concern here as it is in many of the other states. Balkanization of decision-making on land use is not as much a difficulty. Growth management in the other states is nearly impossible without constitutional revision, because the land area is divided into thousands of local government jurisdictions, all of which control

Any person elected to public office cannot be too far out in front of what the majority of his constituents think. . . . You can lead by a few steps but you can't lead by a long distance. People are concerned (and anyone in public office will attest to this) with the immediate things that affect them. . . . It is easy to be in the forefront of public opinion as long as you are not responsible to the public for doing something they want right away. This is not to say that the legislature should be a more long range group, but to say don't expect us to do too much. I think you will be more productive in focusing your attention on influencing and educating public opinion.

Joe Orsini

land use. Alaska has far fewer and much larger local government jurisdictions. This makes the local role in land development decisions easier to understand.

Intrametropolitan migration also does not seem to be as much of a problem here. One of the major growth policy problems in the "Lower 48" is the migration of people within metropolitan areas. In some cases growth control has been a thin guise for excluding poor people and their problems. Migration of business and people within the metropolitan area has resulted in a mismatch of who gets what benefits from the city and who pays the cost of the city.

These are the distinctions I see between Alaska and other states. They are not absolute distinctions. In most cases Alaska has the same problems as the other states, but there are differences in degree. These differences are important to keep in mind in considering what the other states are doing, and how the tools and techniques being used elsewhere might be used here.

What the Other States are Doing

A review of each of the other forty-nine states would be rather tedious. Instead, I would like to deal with a few of the states that have received most of the current attention in the growth management discussions and then try to categorize the problems and approaches being used to solve them.

Hawaii has had statewide land use planning since 1961. For this reason, the role of the state government in controlling growth in Hawaii has been very significant. Nonetheless, all is not rosy. Hawaii faces very severe urbanization and growth pressures. Housing is scarce and costs are rising rapidly, something not unfamiliar in Alaska. Protection of agriculture lands from urban uses is also a major problem. Alaska and Hawaii share at least one thing in common. They do not have the problem plaguing many other states of large numbers of small local governments and overlapping special districts. Balkanization is a severe difficulty in attempting to control development rationally.

The Florida legislature passed an environmental land and water management act in 1972. This created a state land planning agency and an administrative commission with controls over the development of the state's lands. The act provides for designation of critical areas where the environment is either poor or especially significant for development. Such areas are recommended for control by regional agencies and then designated by the administrative commission, which also establishes the standards or limitations on any new development. Florida is attempting to identify the land carrying capacity characteristics as a guideline for establishing development standards. This attempt to identify carrying capacity is receiving a great deal of attention nationally. The question being asked is whether carrying capacity is a tool that can be used legislatively to guide development. The Academy for Contemporary Problems recently published a study reviewing the utility and limitations of carrying capacity concept. This was done at the request of the Public Works Committee of the House

The old Alaskan is in the minority — the person who came up here because he loved the country. The people who are coming in now are looking for jobs; and if jobs mean a new road or a new port or a new pipeline, by golly that is what we're going to get. And the composition of the legislature is going to reflect that view.

Emil Notti

of Representatives.

Vermont is another major center of concern for limiting development. It passed a land use and development act in 1970, regulating large scale residential development and establishing a new planning system. The act calls for three levels of planning dealing with land capabilities, development, and land use.

Other states with a significant amount of activity in the development planning field are Oregon, Colorado, and Washington; but almost every state has passed some legislation to control or direct growth. Following are some of the general characteristics of these recent state actions.

Problems in paradise characterize much of the activity we see. States with attractive environments, which have been experiencing substantial growth because of the movement of people in search of these amenity locations, have been trying to stem the tide. For some of these states, this represents a 180-degree attitude change from all-out attempts to attract new population to equally zealous attempts to discourage it. Hawaii, Florida, California, Colorado, Oregon, and Vermont are examples.

I want to emphasize what Bob Richards said about the capital intensive character of the petroleum industry and then to take a little edge off of any euphoria that you might have about that. . . . However large the wages may be as a result of this kind of development, they are for so few people that it doesn't give an answer to the question: how are we going to employ the people in Alaska who need jobs? . . . What it will give us is the opportunity to enter into the development of our service industry activities like education, health, and recreation without having to take an excessive amount of perhaps regressive taxes from each of us. We need to adopt policies that will lead us to productive activities in service industries which (in turn) will give us great opportunities for our people.

Harold Pomeroy

* * *

I foresee two long-run social benefits from the private investment of the petroleum industry in Alaska. One, it will allow Alaska to break out of the low-wage, seasonal, cyclical disruptions which are accompanied by tremendous social costs, and which have plagued Alaska's economic history. . . . Two, it will cause public revenues to increase at a more rapid rate than the need for public services. Therefore, the type of industrialization which Alaska is going to experience over the next decade, to the extent that it is led by the petroleum industry, will have a net positive influence on our non-economic goals, with social benefits exceeding the social costs.

Bob Richards

* * *

Capital intensive oil industry, which means a few people being paid enormously high wages with the vast majority struggling along without anything meaningful to do, will not produce a society I want to live in. . . . Everyone talks about seasonality as being awful, but I think it is one of the advantages of life in Alaska that many people can make enough money in a short term and live in a fairly low standard of living for the rest of the year and enjoy a quiet existence doing the things that they want. . . . It is important that we recognize the basic needs of our people in planning our expenditures. . . . We've got to get some new ideas on how people can exist and have a meaningful life.

Celia Hunter

* * *

Do not underestimate the social-political factors which militate in quite the opposite direction (against state development of service industries). The predominant public attitude in this state is that primary processing is written in stone, and I would anticipate that the legislature will respond to this and will subsidize uneconomic industry in this state under a primary processing label. . . . Unemployment is going to keep the pressure on the legislature. The average guy is thinking about a job out of this in a conventional sense.

John Havelock

A group like this can get together and very rationally arrive at a set of policies. However, when you take these policies to the citizens, they may come up with policies that are totally irrational from our standpoint, but which may be totally rational from their standpoint, because they reflect their particular value system. . . . In the Anchorage Borough, we've tried very hard to arrive at certain goals using citizen input for the past year and a half. It has been a very frustrating experience. . . . But we've got to develop a mechanism by which we can define these values.

Bill Beatty

Designating critical areas is another major field of legislative activity. Much of the coastal rim of the nation is making progress in protecting the coastal zone through establishment of special district with planning and development controls. This will now be aided by federal law.

State control over *power plant siting* has been legislatively established in several states. This takes the form of requiring investigation of the potential environmental impact and requiring state permits for construction.

Resource development planning and decision-making is still a weak point, although some states have made substantial progress in strip mine controls. Continued clashes over the environmental and energy issues are inevitable over the next few years.

Federal-state relations have been an area of slight progress. Fifty good state development policies do not make a good national development policy. The federal government has been passive or even ignored the question of how its policies influence the regional distribution of growth. Too much of the state growth planning has been of the "last man" variety: "I got mine and heck with you." Where are the poor to live? Where are the unemployed to go? The national government cannot stand by while the states try to externalize problems on one another. There is a legitimate and even necessary role for federal development policy in conjunction with state development policies.

There has been little progress in handling *intrametropolitan migration* to prevent the fiscal and economic Balkanization of large cities. This is the same problem as the one previously mentioned. One municipal jurisdiction attempts to externalize its problems — the poor, low value development — on its neighbor. Who is to pay the cost of the vital network of cities? Who is to pay the cost of the necessary rural areas for resources and agriculture?

What can Alaska draw out of this experience?

The following are excerpts from "Filling the Calabash: How Much is Too Much?" a paper presented at the Alaska Growth Policy Symposium by Tom Dinnell, Director, Pacific Urban Studies and Planning Program, University of Hawaii, Honolulu Hawaii.

Given the almost exponential growth of the past decades, many in Hawaii, as elsewhere, are coming to the slow realization that all that grows is not good, that endless and unlimited growth is not a logical possibility for the long run, and that the growth that has made possible so much of what we thought we wanted also appears to contain the seeds of our own undoing.

Growing numbers of Honolulu residents feel that while the economic standard of living in Hawaii has improved for many, quality of life has not. And growing numbers of neighbor islanders are concerned that what has happened to Oahu not happen to their island. Increasingly, citizens are organizing to protest developers' plans for residential development of rural or environmentally-fragile areas and are playing active political roles in seeking to protect and preserve the environment. Life of the Land, Save Our Surf,

Sierra Club, the Conservation Council, and the Outdoor Circle are more frequently in the news than ever before. Politicians now employ the environmental rhetoric in their campaigns, and a number take it seriously. Some of the most concerned environmentalists and advocates of controlled growth in Hawaii are newcomers to the Islands, perhaps seeking to preserve the Hawaii which attracted them in the first place; and some are young people who do not perceive of themselves as having a stake in continued growth. They are joined on occasion by those who have not been among the beneficiaries of growth and are about to be hurt by a specific development proposal. But in spite of much activity, Hawaii does not have at this time what might be described as a coordinated "anti-growth" movement.

Political opinion polls indicate that while voters say they favor limited growth, growth does not appear high on the list of specific issues important to them and does not seem to be a significant factor in determining for whom they will vote. Most commentators have interpreted the results of the recent Democratic gubernatorial primary as an expression of confidence in the present state administration and the types of policies Hawaii has been following, though not as strong an endorsement as in the past. It should be noted

Tools That Seem to Work

Across the nation we can roughly say that there are few state growth policies worthy of the name. The states doubtless will continue to operate in a fashion of disjointed incrementalism. This is inevitable and not necessarily bad. It is possible to make disjointed incrementalism more consistent in its direction. The following techniques would seem to be useful in Alaska.

State sketch planning, the kind done in *California Tomorrow*, would highlight the alternative futures for the state and its associated issues and problems. It would help citizen groups as well as governmental officials in guiding the long, drawn out process of trying to shape the state's growth.

A *state policies plan* would be useful to obtain better coherence among the state departments in achieving growth and development goals. The purpose of a policies plan is to review the actions and policies of the several state departments, and to say whether these policies, programs, and regulations are consistent with the state's announced development and growth policy.

The protection of critical areas also seems to be something best done by state governments. A major research effort would be required to identify and map these critical areas. This may include very large areas in Alaska. A major question is how the controls are to be established. This can be done by a single official or involve elaborate public hearings, even votes.

Requiring *state permits for power plants* and other major facilities that may have a substantial environmental or growth impact is another technique that could give the state of Alaska substantial control over the rate and location of development.

Taxes are often looked upon as a growth management technique, but in my view they are not a good one. Tax exemptions are a particularly poor technique for guiding

What we never really look at is the guy on the bottom rung who doesn't participate in conferences like this, doesn't even understand the term "growth control," doesn't really know what the quality of life means in a way that he can articulate with the people in this room, but he does know what he needs. He needs bread, he needs a roof over his head, and he needs things that by and large we don't plug seriously into our planning process.

Bill Claggell

too, that the winning primary candidate, who has since been elected Governor, speaks of being in favor of "slowed growth" as a general policy, although he has not yet indicated the specific control policies he believes Hawaii should implement.

For most people in Hawaii then, growth control policies can be discussed with a degree of eruditeness and even concern, but our actions do not yet indicate a dramatic change in the values on which we base our day-to-day decision making. To expect that Hawaii's people, as a matter of course, will at this time reduce their use of air conditioning, insist on recycling of wastes, ride bicycles to work, give up eating meat, and fight for stringent land-use controls is daydreaming. We are simply not yet at that point of consciousness or commitment.

* * *

We cannot predict with any degree of certainty the impact of specific control measures. For example:

- *Licensing hotel construction may result in increasing the unemployment rate.*

- *Preserving the natural beauty of the Islands may result in increased in-migration.*

- *Maintaining agricultural lands could lead to increasing the cost of housing.*

- *Reducing the natural birth rate may lead to a substantial change in the ethnic composition of Hawaii's population.*

And if we cannot predict with any certainty the effect of incremental steps such as these, how much less are we able to foresee the multiple consequences of a coordinated set of growth policies? We simply do not know if we have the capacity to formulate a set of policies which will be effective in bringing about the state of affairs we in Hawaii desire, even assuming we can achieve consensus on what state of affairs is desired. In fact, there is some likelihood that massive intervention in a system as highly tuned as our present economy, where the emphasis is on efficiency rather than redundancy, may be an invitation to disaster.

The greatest hope for sound public policy development lies in a citizen becoming informed about the issues; acquiring as much expertise as he can ferret out given the time constraints that are on the average man; and (or:ce acquired) subjecting that technical expertise to the most profound scrutiny possible, so that one can try to determine not only what the facts may be, but what they mean.

Gary Holthaus

development. More important is to establish a system whereby states and local governments have the capacity to finance needed local public services. Most states need to clean up their tax system, particularly the real estate tax assessments and exemptions.

Subsidizing the construction of public facilities, such as sewers and access roads, has been a major technique to attract economic development in the United States. Certainly adequate public facilities are important and critical to the development of a community. But most research has shown that the mere existence of such facilities is not a factor in attracting industry. More discipline in these investments is needed to avoid building expensive public facilities for economic development in those locations with very poor growth prospects.

An important distinction was developed in the Appalachia program between the services and facilities needed for economic expansion, such as sewers and access roads, and those needed to assure equal access to vital human services, education, and health care. Human resource investments could be made anywhere in the region, but economic development investments were to be concentrated in a few areas where the prospects for growth were best. While there has been some wandering from this path, it is a valuable distinction and one that can be very useful in guiding growth.

Northern development constraints pose unusual problems here. What is a viable community size for economic development and for providing basic human services? Have Alaska Native land claim settlements changed our usual answers to these questions? Finally, for whom should northern development be? These considerations have been dealt with very ably in some of the other conference papers, but I see them raising even more questions:

- How can the standard of well-being for present Alaskans and their offspring be raised?
- How can you avoid substantial immigration which creates more unemployment and welfare problems than there are now, even with economic growth?
- How can you minimize the damage to the environment which has been so special to both native Alaskans and newcomers to the state?
- How do you contribute to the stability of the U.S. economy through satisfying its resource needs and supporting its trade balance and not pay a particularly large price for this contribution?

These are delicate and difficult questions. The attitudes that are evolving both here in Alaska and elsewhere in the nation are toward acceptance of a broader control on development. This is not an unquestioning acceptance. We have now moved away from decisions behind closed doors and technocratic planning. In order to achieve these broad and constructive forms of control, the public will insist upon open discussions and broad participation in the drafting of growth control and development policies.

* * *

ALASKA GROWTH POLICY SYMPOSIUM PARTICIPANTS

Jane Angvik, Planning Specialist, Alaska Federation of Natives, Anchorage.

William Beaty, Director, Anchorage Borough Planning Department, Anchorage.

Mike Bradner, Representative, Alaska State Legislature, Fairbanks.

William E. Claggett, President, Public Affairs Counseling, San Francisco.

Louise Collins, President, Alaska League of Women Voters, Kodiak.

Chaney Croft, Senator, Alaska State Legislature, Anchorage.

Tom Dinell, Director, Pacific Urban Studies and Planning Program, University of Hawaii, Honolulu.

Harry J. Donahue, Staff Director, Greater Anchorage Area Borough.

Paul J. Engleman, Economist, Alaska Department of Economic Development, Juneau.

Charles Evans, Vice President, First National Bank of Anchorage, Anchorage.

Belinda Fischer, President, Anchorage League of Women Voters.

Victor Fischer, Director, I.S.E.G.R., University of Alaska, Fairbanks.

Robert Frederick, Executive Director, Alaska Historical Commission, Anchorage.

Gordon Harrison, Political Scientist, Fairbanks.

John E. Havelock, Attorney, Havelock and Associates, Anchorage.

Henry Hedberg, Coordinator, Alaska Laborers Employers Trusts, Anchorage.

David M. Hickok, Director, Arctic Environmental Information and Data Center, University of Alaska, Anchorage.

Gary Holthaus, Executive Director, Alaska Humanities Forum, Anchorage.

William Hopkins, Executive Director, Alaska Oil and Gas Association, Anchorage.

Celia Hunter, Member, Federal-State Land Use Planning Commission, Fairbanks.

Jim Hurley, Member, Federal-State Land Use Planning Commission, Wasilla.

Joe P. Josephson, Attorney, Anchorage.

Arlayne Klein, Co-Chairman, State Land Use Committee, League of Women Voters, Fairbanks.

Charles Konigsberg, Anchorage.

David T. Krosge, Professor of Economics, I.S.E.G.R., University of Alaska, Fairbanks.

Roger Lang, President, Alaska Federation of Natives, Anchorage.

Mike Miller, Representative, Alaska State Legislature, Juneau.

Terry Miller, Senator, Alaska State Legislature, Fairbanks.

Thomas A. Morehouse, Professor of Political Science, I.S.E.G.R., University of Alaska, Fairbanks.

Claus M. Naske, Associate Professor of History, University of Alaska, Fairbanks.

Emil Notti, President, The Alaska Native Foundation, Anchorage.

Joseph L. Orsini, Representative, Alaska State Legislature, Anchorage.

Robert Pavitt, Director, Planning and Research, State of Alaska, Juneau.

Lloyd M. Pernela, Associate Professor of Public Works and Environmental Systems, I.S.E.G.R., University of Alaska, Fairbanks.

Harold Pomeroy (Observer for Governor Hammond), Anchorage.

John Rader, Senator, Alaska State Legislature, Anchorage.

Steve Reeve, Director, Ketchikan Borough Planning Department, Ketchikan.

Kenneth Rainey, Senior Fellow, The Academy of Contemporary Problems, Columbus, Ohio.

Robert R. Richards, Vice President, National Bank of Alaska, Anchorage.

George W. Rogers, Professor of Economics, I.S.E.G.R., University of Alaska, Juneau.

Susan Ruddy, Alaska Director, U.S. Civil Rights Commission, Anchorage.

Burton W. Sileoek, Federal Co-Chairman, Federal-State Land Use Planning Commission, Anchorage.

Jerry Smetzer, Executive Director, Fairbanks T.V.A. Development, Inc., Fairbanks.

Arlon Tussing, Professor of Economics, I.S.E.G.R., University of Alaska, Fairbanks.

Joseph Upieksoun, President, Arctic Slope Regional Corporation, Barrow.

Robert Weeden, Professor of Wildlife Management, University of Alaska, Fairbanks.

Richard Wilson, Assistant to City Manager, City of Anchorage.

Esther C. Wunnicke, Director of Policy Development and Research, Federal-State Land Use Planning Commission, Anchorage.

Howard Weaver, Anchorage Daily News, Anchorage.