

## THE HRPI-URSA PIPELINE IMPACT STUDY

The study, The Manpower and Employment Impact of the Trans-Alaska Pipeline, was prepared for the U. S. Department of Labor, Manpower Administration, Region X, by Human Resources Planning Institute in association with Urban and Rural Systems Associates. Volume 1: Summary of Findings and Conclusions, presents forecasts on yearly levels of employment by industry and occupation, unemployment, and population for the State of Alaska for the time period 1974-1980. The purpose of the HRPI-URSA study is to provide an estimate of the impact of the major forces of economic change in Alaska over the next seven years, forecasts of future population, employment, unemployment, and occupational distribution, and an analysis of public policy options and implications.

Assuming several constant industrial growth patterns, the economic model, which HRPI-URSA developed for the study, projects future growth based on the influence of major forces of change expected to occur during the 1974-1980 forecast period. These major factors of change which will alter Alaska's present economic base and shape the future economy include the oil pipeline, the gas pipeline, state government expenditures, the Native Claims Settlement Act, and other forces such as foreign markets and investments, the energy crisis, and federal spending.

Oil pipeline construction is scheduled to be completed in three years and in three stages. The two projects of laying the pipeline and constructing the terminal facilities at Valdez are slated for completion by the end of 1976, excluding external factors such as bad weather, supply bottlenecks, and strikes. Statewide, employment on the project is expected to reach 15,900 by the end of 1975, tapering down to 12,200 during 1976. Upon completion of the project after 1976, approximately 450 permanent employees will operate the pipeline and terminal facilities.

Should a trans-Alaska route be selected for the proposed gas pipeline, estimated peak manpower requirements would be 4,200 for construction of the pipeline and 5,900 for construction of a liquefaction plant at Gravina Point, northwest of Cordova, during the years 1978-1980; approximately 600 permanent

employees would be needed to operate and maintain the system. A proposed trans-Canada route would employ about 2,400 at peak construction; in so far as no liquefaction plant or terminal would be necessary, the 195 mile Alaska segment would require 100 workers for annual operation.

Oil production taxes and royalties will probably begin at \$380 million in 1978, peaking at a projected annual figure of \$1.1 billion by 1980. Three basic alternatives of utilizing future state revenues have been identified by HRPI-URSA. The State might channel the major portion of petroleum related revenues into safe financial investments thus protecting the long term financial future of Alaska. A second, less conservative strategy would include the investment of petroleum revenues to stimulate expansion of existing industries and the development of new industries. A third option would involve the use of future revenues to rapidly expand service delivery levels and initiate new social and economic programs.

During the immediate forecast period, in which Natives will be receiving funds from the \$962.5 million cash settlement of the Alaska Native Claims Settlement Act, the investments that will generate the greatest increases in Alaska employment will be those made in labor-intensive sectors of the State's economy. Native corporations may have to pool their monies to enter high profit, relatively capital intensive areas such as new material acquisition and processing. The least significant employment effects in Alaska would occur if the Natives choose to invest in the lower 48 states.

According to the HRPI-URSA study, total employment in the state of Alaska, based on work force methodology, is expected to increase over the period 1973-1980, inclusive, from approximately 128,700 workers to approximately 187,900 workers - an increase of 46%. The growth rate is expected to slow after 1976, but will continue rising due to the activity during the latter part of the decade when the expected gas pipeline construction will be underway. Since the projected growth rates are not constant over the years, the resultant unemployment will fluctuate between the 1973 rate of 10.8% to

14.9% in 1977, and 11.8% at the end of the decade.

The total population, the sum of civilian work force, non-work force population, and active duty military personnel, is expected to grow by 47% between 1973 and 1980. The 1980 population estimate of 481,600 will include a civilian work force of 213,076, a non-work force component of 241,500, and 27,000 active duty personnel.

To most effectively focus manpower planning in Alaska, data on occupational growth for the years 1974-1980 have been developed by HRPI-URSA. The areas of occupational growth correspond to the sectors of industrial growth, chiefly characterized by the construction industry, State and local government, retail and wholesale trade, transportation, and services. The majority of the growth industries will gain, to varying degrees, from construction projects associated with the oil and gas pipelines, but their primary growth will be a function of the overall expansion of the State economy during the next seven years. This aggregate expansion will be prompted by both the pipeline construction activity and the flow of oil and gas royalties to the State and local governments.

As indicated, the State of Alaska is expected to face massive economic changes over the remainder of the decade. Implicit in this period of rapid economic change are a number of policy considerations which face both the U. S. and Alaska Departments of Labor.

The shift in Native work force patterns, together with a pronounced intrastate migration from the northern and western sectors of the state to Anchorage, points to some broad areas for policy development. The type of services needed by urban Natives is reflected by present needs of Natives in Anchorage and Fairbanks. Future programs should include intensive counseling efforts, focused social services, and effective community support, along with the more traditional Job Bank and training approach.

The massive influx of new state revenues will necessitate the development of new expenditure priorities. Alaska could opt to decentralize service delivery via increased local government revenue sharing. To minimize the unemployment problem which will coincide with the wrap-up of construction on the oil pipeline in 1977, the State could divert a sizable amount of new petroleum revenues for local

use. These funds could be used as matching funds to increase the local use of federal training programs which would result in increased local employment, particularly in construction and governmental services.

In future years, industries will be attracted to Alaska only to the extent that they can overcome the high labor, transportation, and capital costs which limit profitability. Given high Alaskan wage scales, the more labor-intensive an industry, the less likely it is to locate in Alaska. The political implications of these wage and price effects are clear. State manpower training should be directed toward areas of long term economic growth, both to maximize employment opportunities and the quality of that growth, and to minimize the inflation which could result from the competition for a limited number of skilled workers.

Although a broad range of economic factors is expected to change Alaska's economy in future years, the major economic event during 1974-1980 will be the construction and initial operation of the oil pipeline. The HRPI-URSA pipeline study provides an important tool for examining the effects of the trans-Alaska pipeline on manpower and employment in the state. Copies of a pipeline impact brief, outlining HRPI-URSA findings and conclusions, are available upon request from the Research & Analysis Section, Employment Security Division, Department of Labor.

## ALASKA'S ECONOMY IN JANUARY

**Employment - Unemployment:** One old acquaintance not forgotten this new year is the seasonal downturn in Alaska's economy. Slowdowns are continuing to wind through the basic and supportive industries. Total estimated employment in January declined by 3,300 from the December level of 123,500. The increase of 12,100 in employment over the year is a reflection of the considerable impacts created by oil pipeline activity and the boom in the construction industry. Total unemployment in January, which is down 1.3 percent from a year ago, increased over the month by 16.5 percent.

**Mining:** During January, mining employment remained steady at 2,900. The year-to-year increase of 800 relates directly to exploratory drilling, which has centered on the North Slope and offshore in Cook Inlet.