INCREASING EMPLOYMENT OPPORTUNITIES INDICATED IN PETROLEUM AND NATURAL GAS INDUSTRY

The petroleum and natural gas industry, contrary to the general trend, will continue for a decade or more to provide increasing employment opportunities in spite of technological improvements which have trebled the output per man in the last twenty years, a study conducted by the WPA National Research Project finds.

The report, entitled "Technology, Employment and Output Per Man in Petroleum and Natural Gas Production," asserts that all indications point to steadily increasing fuel demands for many years to come. In addition, invention and improved production techniques serve constantly to reveal new uses for, and by-products of, petroleum and natural gas. These create new industrial demands which, in turn, create new demands for labor. This expanding technology is not expected to abate, nor even to become static, within the next ten or fifteen years at the least.

The report was made public today by Colonel F. C. Harrington, WPA Commissioner. In a letter of transmittal, Assistant Commissioner Corrington Gill, who is in charge of research, finance and statistics, states:

"Contrary to the outlook for most of the other extractive industries, it is expected that over-all employment opportunities in oil and gas production probably will increase for the next decade and a half, although the manpower requirements of the different divisions of the industry will vary. The upward trend of employment at oil and gas wells—characteristic of developments until 1929—has been resumed and probably will continue for the next ten or fifteen years ...

The report constitutes one of the most comprehensive analyses of the production phases of the petroleum and natural gas industry ever made, Mr. Gill said. Its significance is heightened by the fact that of more than a score of industries examined by the National Research Project in the last three years, petroleum and natural gas is the only one in which an expanding technology is accompanied by prospects for increased employment.

Oil and gas now supply more than a third of the country's energy requirements, an introductory statement points out, and petroleum alone is the source of virtually all industrial lubricants. Aside from coal mining, oil and
gas production is the most important segment of the mineral industry.

"From the commercial beginning of each division of the industry down to the time of the great depression, production showed an almost uninterrupted increase," the report states. "The rate of growth, moreover, has been rapid, and the period of greatest expansion was the post-war decade, when the growth of production of other minerals was slowing down. In this period the output in all branches of the petroleum and natural gas industry more than doubled. Even the depression served as only a temporary check; in 1937, production, with the exception of natural gasoline extraction, exceeded all previous records."

"As a result, the petroleum and natural gas industry, measured in terms of value of products, now ranks as the country's most important mineral industry. In 1937, the value of the crude petroleum, natural gas and natural gasoline produced totaled $1,733,922,000—more than a third of the value of all minerals. Measured in the same way, oil refining ranks among the five leading manufacturing industries of the country . . . ."

The trend of employment, it is found, was consistently upward through the boom year of 1929. Over this period total labor requirements grew rapidly, the greatest increase occurring during the war decade. Substantial recovery in employment has been made since the depression low point of 1935. In the primary production segments of the industry (which excludes refining) total employment grew from 136,735 in 1935 to 159,500 in 1937.

Striking improvements have been made in the increased output per worker, the report states, continuing:

"The history of the petroleum and natural gas industry represents an almost continuous record of successive economies in unit labor requirements. Output per man-hour (in oil and gas wells and natural gasoline plants) increased more than 850 percent between 1880 and 1935. A more than three-fold gain was recorded in the relatively short span from 1919 to 1935.

"A similar trend . . . is shown for output per man in petroleum refining. The throughput of crude petroleum per man-hour in 1937 was 65 percent over 1929, and more than three times above the 1919 average . . . ."

"When the trends of output and employment for the past three decades are shown in juxtaposition, it appears that both production and labor requirements increased steadily through 1929. In the decade which ended in 1929, however, there was an important change. Although employment continued to increase in primary production activities, the rate of increase lagged notably behind the growth of output. Since 1932 production has recovered the depression losses. . . ."
The number of wage earners employed in primary production, on the other hand, is still notably below the pre-depression high..." 

"The reasons why... have been the success of the industry in finding and migrating to new flush-production areas and the brilliant achievements of technologists that have enabled the capture of a large portion of gas and oil reservoirs with a lessening unit outlay of human labor..."

In conclusion it is pointed out that the known supplies of petroleum, coupled with the technological improvements which make a greater proportion of the supply recoverable, indicate a continued healthy existence for the industry. This is further substantiated by the prospect of an increasing demand for both gasoline and natural gas as fuels, and for the many petroleum by-products developed in the research laboratory.

"Both short- and long-time outlooks indicate that additional workers will be required in the petroleum and natural gas industry," the report concludes. "The increase will follow in part the expected continued growth of demand for motor fuel and lubricants, and in part to other factors, such as the shortening of the standard workweek, tending to counterbalance a continued increase in output per manhour owing to improved technology. For the next decade and a half, the prospects appear fairly clear.

"The demand for unskilled labor in most branches of the industry is disappearing rapidly. For the bulk of the industry's labor force youths with high school education or its equivalent are preferred as new employees. There is little hope for reemployment of older, untrained workers who have lost their jobs in the industry."

The report is published as a book of 350 pages, illustrated, with numerous charts and tables, and with a statistical appendix. It is the sixth in the Production, Productivity and Employment Series of the WPA National Research Project on Reemployment Opportunities and Recent Changes in Industrial Techniques. It was prepared by O. E. Kiesling and H. O. Rogers, with the assistance of a group of government and industrial experts, under the supervision of David Weintraub, Director, National Research Project.