In its search for large fields in which jobs can be found for the millions of unemployed the nation must look elsewhere than to the mineral industries, Harry L. Hopkins, Works Progress Administrator, said today in releasing a report based on one of a series of research studies being conducted by the WPA's National Research Project directed by David Weintraub.

The report, entitled "Technology and the Mineral Industries" concludes that "taking the mineral industries as a group there seems little chance that the total demand for labor will rise greatly above the levels of the 1920's". The data contained in the report were compiled in connection with a series of studies on "mineral technology and output per man" which are being carried out in cooperation with the United States Bureau of Mines under the supervision of O. E. Kiessling, Chief Economist of the Mineral Production and Economics Division.

Corrington Gill, Assistant Administrator of WPA, explained in submitting the report to Mr. Hopkins that it was prepared at the request of the National Resources Committee and is being presented as an introduction to a series of reports which will contain the detailed findings on the several extractive industries. The reports to follow will cover bituminous coal, anthracite, petroleum and natural gas, phosphate rock, crushed stone and other non-metal, iron ore, copper, lead, zinc, silver and gold.
In order to forecast whether or not many new jobs are likely to be available in these fields the Government experts had to study the supply of various minerals in the ground, the improvement in techniques by which they may be located, and the improvement in methods of extraction permitting the profitable working of lower-grade ores. They found that in coal mining, for instance, the forces making for labor displacement are strong enough to cause concern with respect to the outlook for employment opportunities in that industry. In metal mining also the chances of expansion beyond the level of the 1920's seem unfavorable. In oil and gas on the other hand the trends point to an increase in total employment but for the mineral industries as a group they saw small likelihood of a total greatly in excess of the jobs in the 1920's.

It is also pointed out in the report that the growing investment resulting from mechanization requires larger operating units and that the increase in size of unit in turn affects the location and the size of mining towns. It is therefore expected that fewer company towns will be built in the future. "A slow drift from isolated camps to central communities is already under way. More and more of the mine workers will live in permanent towns and ride to work in the surrounding area. The change is due chiefly to the external factors of hard roads and cheap automobiles, but it is facilitated by the centralized operations which the trend of mineral technology is favoring."

Much of the cost of adjustment to technological change, it explains, is borne by the workers who look to these industries for a livelihood. "The changes in technique should aid, but do not of themselves guarantee, improvement in working conditions ....... the degree to which these technical gains are translated into advance of labor standards depends largely upon other factors - upon the economic stability of the mineral industries, on the adequacy of State mining codes, and on the bargaining power of the men."
Even in those instances in which the total volume of labor required remains the same or increases, changes in technology frequently alter occupational requirements within an industry, thus bringing about a turnover in the labor force which means extended periods of unemployment for some and permanent dependency for others, especially the older workers. "The mines will never be a place for weaklings, but the heaviest tasks are the ones most likely to be mechanized. The trend is away from the isolated work of the individual loader and toward work in gangs or crews under increasing supervision. Less independence and more discipline in the miner's task are indicated, less perhaps of sheer strength and of knowledge of the mines and more skill in operating machinery. Men handling heavy machinery, especially of the mobile type, need quick reaction time, a sense of responsibility, and intelligence. Education will be required for an increasing proportion of the operation jobs - a trend that may attract to the mines youths who would otherwise go into surface industry. The changes do not help the older man."

The report released by Mr. Hopkins today was prepared by F. G. Tryon, Chief Economist, Coal Economics Division, U. S. Bureau of Mines; T. T. Read, Vinton Professor of Mining, Columbia University; K. C. Heald, Staff Geologist, Gulf Oil Corporation; G. S. Rice, Chief Mining Engineer, U. S. Bureau of Mines; and Oliver Bowles, Chief Engineer, Building Materials Section, U. S. Bureau of Mines.