

OCCUPATIONAL LABOR SHORTAGES: CONCEPTS, CAUSES, CONSEQUENCES, AND CURES

Alfred P. Sloan Foundation

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Project Summary: This project was intended to help fill the knowledge gap about occupational labor shortages. The project first dealt with the question of what we mean by an occupational labor shortage. Much of the confusion regarding what constitutes an occupational labor shortage stems from people interpreting the term shortage to mean something other than market disequilibrium. In particular, some analysts refer to a situation where there are fewer workers in an occupation than the social optimum as a shortage, while others consider a shortage to be any situation where it is difficult to hire workers, and still others restrict usage of the term to a disequilibrium situation; we will consider the entire range of definitions here. Next, the project explored the reasons why occupational labor shortages can exist. The basic supply and demand framework typically used by economists does not easily allow for occupational labor shortages in the economists' sense—a market where too little labor is supplied should result in signals such as above-average wage increases that attract people into the occupation and eliminate the shortage. Fortunately, there is literature that explores why shortages can arise, and research team was able to build on that literature to develop a working definition that is consistent with economic theories. In addition to developing an economic definition of a shortage, the study examined alternative definitions that have been used in the literature.

The next issue of interest focused on how an occupational shortage can be identified. This research work primarily addressed the economic definition of a shortage. Conceptually, a shortage should be identifiable by a persistent above-average number of job vacancies, but in addition to the problems of defining terms such as "persistent" and "above average," was necessary to also deal with the fact that vacancy data is not collected for most occupations. Thus, the Johns Hopkins University and Capital Research Corporation research team developed a series of indicators of occupational labor shortages. We also deal with the question of whether one should use formulas to determine if there is a shortage or if a judgment should be made for each case.

The next step in the project centered on conducting case studies for specific occupations that have in the past been the focus of concerns about labor shortages. Occupations studied in-depth were: special education teachers, pharmacists, physical therapists, and home care workers. The final report devotes a separate chapter to each of these four occupations and examines conditions that affect if and whether there are shortages for workers in each of these occupations.

The final step in the project explored the implications of the knowledge developed about occupational labor shortages and how this knowledge can be applied to policies such as immigration, temporary labor admittances, government investment in training and education, and government investment in data. This project was intended to provide information that will in the future assist government officials and others to develop better policies in identifying shortages and taking appropriate actions based on that knowledge. As part of this study, near the conclusion of this study, a policy forum was conducted focusing on occupational labor shortages and implications for immigration policy. Conference attendees included representatives of government, think tanks, and the science and engineering community.

Reports:

B. Barnow, J. Schede, and J. Trutko, *Occupational Labor Shortages: Concepts, Causes, Consequences, and Cures: Final Report*, Johns Hopkins University, prepared for the Alfred P. Sloan Foundation, 2010.

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