

SREE 2020 Conference Abstract
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Study Type: Cause-and-effect

Title: Experimental Evidence on the Impact of Long-Term Credentials in the Healthcare Sector

Background/Context: In 2010, the Administration for Children and Families (ACF) within the U.S. Department of Health and Human Services awarded the first round of five-year HPOG grants (HPOG 1.0) to 32 organizations (including 5 tribal organizations) in 23 states. The purpose of the HPOG Program is to provide education and training to Temporary Assistance for Needy Families (TANF) recipients and other low-income individuals for occupations in the healthcare field that pay well and are expected to either experience labor shortages or be in high demand. The HPOG 1.0 Three-Year Impacts Report assessed the impacts of HPOG 1.0 on several key outcomes three years after random assignment. The report found large impacts of access to training and support services on completion of training and employment in the healthcare sector. However, that training did not—nor did the employment compositional shift—result in meaningful earnings gains (Peck et al., 2019). A plausible hypothesis for this finding is that impacts were smaller for treatment group members who earned short-term credentials that associate with healthcare occupations with relatively lower wages, while impacts were larger for those who earned longer-term credentials (degrees or credentials that typically require a year or more of college classes to complete) that associate with healthcare occupations with relatively higher wages. A much larger share of the treatment group (about 84 percent) enrolled in short-term rather than long-term trainings.

Purpose/Objective/Research Question: This paper examines the relationship between completion of a long-term credential through HPOG and impacts on earnings. To this end, we examine whether those who earned longer-term credentials experienced greater impacts on their earnings than those who did not earn long-term credentials (including those who earned short-term credentials or did not yet complete trainings).

Setting: The 42 distinct programs that participated in the HPOG impact evaluation are located all throughout the United States. These programs were implemented in one of three types of locations: institutes of higher education, workforce agencies, or government/non-profit agencies.

Population/Participants/Subjects: The target population for HPOG programs is TANF recipients and other low-income individuals. The HPOG 1.0 Impact Study randomized 13,802 individuals into treatment or control groups across 42 HPOG programs nationwide.

Intervention/Program/Practice: HPOG Programs broadly offer healthcare sector training in the career pathways framework. HPOG's career pathways framework involves targeting skills and competencies demanded by the healthcare industry; defining routes that allow participants to build a career by advancing through successively higher levels of education and training; resulting in employer- or industry-recognized, portable education credentials and professional certifications and licenses; combining support services with education and occupational training

to help overcome barriers to training and work; and providing training at times and locations that are easily accessible to the target populations.

Research Design: The HPOG 1.0 Impact Study used an experimental evaluation design where members of the treatment group could access the HPOG program, and members of the control group could not. Because credential receipt is unknown until after random assignment, an analysis of the contribution of long-term credential receipt to the impact on earnings cannot use simple treatment-control comparisons (as the evaluation's main impact analysis can). Instead, we use Analysis of Symmetrically-Predicted Endogenous Subgroups (ASPES) to leverage the experimental design. This methodology creates comparable treatment and control subgroups, suitable for experimental impact analysis, but that associate with some post-randomization (endogenous) event or activity. As such, this kind of analysis is ideal for exploring the topic of how impacts might vary by long-term credential receipt.

Data Collection and Analysis:

The study uses a baseline survey, a three-year follow-up survey, and four years of administrative data from the National Directory of New Hires (NDNH) to analyze HPOG's impacts for the subgroups of those who do and do not earn long-term credentials.

Our analysis identifies completion of a long-term credential as the key mediator that defines our endogenous subgroups. We define long-term credentials as degrees or credentials that typically require a year or more of college classes to complete. Details of credential completion are reported by respondents to the three-year survey, which had a 73 percent response rate.

We implement ASPES by using baseline characteristics to generate subgroups predicted to have completed long-term credentials. The distinctive element of the ASPES approach is the symmetry with which subsets of the experimental sample are selected for impact comparisons. This symmetry implies that impacts for predicted subgroups are experimentally valid. Impacts for those subgroups are then converted to impacts for actual subgroups subject to assumptions about the homogeneity of impacts for study participants with similar educational credentials but different background characteristics.

Findings/Results & Conclusions:

We estimate impacts within endogenous subgroups that are of economically meaningful magnitudes. For example, long-term credential receipt is associated with a program impact of approximately \$5,000 over four years; and that impact is qualitatively different from the impact on those who did not earn a long-term credential. Despite our large study sample, these impacts are imprecisely estimated; there is only weak statistical evidence of heterogeneity in impacts by receipt of a long-term credential. These findings are consistent with prior work on statistical power required to detect differential impacts using ASPES. To complement these findings, we explore various mechanisms and dimensions of contrast that might correspond to the findings. These descriptive analyses provide suggestive evidence to assess whether the weak statistical significance is due to statistical power or a spurious relationship.

References:

Peck, L. R., Litwok, D., Walton, D., Harvill, E., and Werner, A. 2019. *Health Profession Opportunity Grants (HPOG 1.0) Impact Study: Three-Year Impacts Report* (OPRE Report #2019-114). Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

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