

OMB Control #0693-0033

Expiration Date: 07/31/2022

NIST Generic Clearance for Program Evaluation Data Collections

## **NIST, Research Examining the Return on Investment (ROI) of Manufacturing Credentials**

### **FOUR STANDARD SURVEY QUESTIONS**

#### **1. Explain who will be surveyed and why the group is appropriate to survey.**

The External Affairs & Performance Division, of the National Institute of Standards and Technology (NIST) is seeking information from individuals who work in up to twenty manufacturing facilities in up to ten regions throughout the United States. At each facility we will interview credential holders, their supervisors, and hiring managers. We have selected these groups in order to gain insight about the value of credentials from three different viewpoints. Credential holders will offer information about the value of credentials from a personal perspective, including reflecting on personal and professional goals and accomplishments and unique view of their own credentials. Supervisors can offer information on the value of credentials in professional and career development, as well as daily job performance. Hiring managers can offer information on the role of credentials in the hiring and promotion process. Combined, these three viewpoints will offer a new and rich view of the role of credentials in manufacturing, and a survey has been developed specific to each group.

#### **2. Explain how the survey was developed including consultation with interested parties, pre-testing, and responses to suggestions for improvement.**

The survey was initially developed by Workcred staff in consultation with the other collaborators on the projects. The questions were revised by this internal groups a few times, and then piloted on five individuals with experience in the manufacturing sectors. These individuals were all volunteers that are currently staff at NIST's Manufacturing Extension Partnership Centers. Each set of questions has been piloted three time with these five individuals. Revisions were made after each pilot interview to improve clarity, flow, and completion of responses of the survey.

#### **3. Explain how the survey will be conducted, how customers will be sampled if fewer than all customers will be surveyed, expected response rate, and actions your agency plans to take to improve the response rate.**

The survey will be conducted as a set of structured interview questions. The interviews will be conducted either face-to-face or over a videoconferencing platform. In either case, interviewees will be read the "Public Burden Statement", the OMB Control number, and the expiration date at the beginning of the interview. Individuals will be notified they are being recorded in advance of the interview and reminded again at the beginning of the interview. Interviews will be named and organized them by date and a generic firm-level identifier (e.g., "Manufacturer 1"). Copies of the interviews will be stored electronically on password-protected computers and not shared outside the project team. The final report will include aggregate information, and no individuals or specific organizations will be identified. Workcred and its collaborators will conduct the interviews. We are working with NIST Manufacturing Extension Partnership (MEP) Centers to

recruit their manufacturing facility clients to participate in the survey. We reached out by information in a newsletter and direct emails to recruit Center to participate. We expect 7-10 Centers to participate, with each Center support our outreach to 2-3 facilities to volunteer to participate in the surveys. We are hoping to conduct between 5-7 interviews at each client facility, with a minimum of 3 at each client facility for an estimated total of 150 responses. To improve the response rate, Workcred is working closely with the Centers to reach out to clients to answer questions about the study.

**4. Describe how the results of the survey will be analyzed and used to generalize the results to the entire customer population.**

The interview responses will be transcribed and analyzed for common themes for the initial qualitative content analysis. This qualitative content analysis will be conducted to establish validated findings through the triangulation of the data. The themes identified in the qualitative data will be converted to quantitative data, and non-parametric statistics will be used to analyze this data since it will violate parametric principles. This analysis will be developed into a final report, which will include aggregate information and analyses of the data. It is intended that the report will be shared broadly with appropriate stakeholders, including MEP centers, manufacturing associations, and other manufacturing stakeholders. We will carefully review the report to ensure that no sensitive information about any particular firm participating in our research is disclosed.