



Workforce Issuance

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☐ Policy ☒ Information

To: Chief Elected Officials
MassHire Workforce Board Chairs
MassHire Workforce Board Directors
MassHire Career Center Directors
MassHire Fiscal Officers
MassHire DCS Operations Managers

cc: WIOA State Partners

From: Alice Sweeney, Director
MassHire Department of Career Services

Date: June 21, 2022

Subject: **NASWA Learning Releases Beginner Data Analysts Training**

Purpose: To notify MassHire Workforce Boards, MassHire Career Center Operators, and other workforce partners of a new certificate program available for Beginner Data Analysts offered through NASWA.

Background: This certificate program introduces UI staff members to data analysis concepts, a framework for conducting an analysis, and the benefits of leveraging data to inform decisions at any level within a state workforce agency. Incorporating data-driven strategies like data mining, business intelligence, and behavioral insights can help your agency address integrity-related UI challenges.

This certificate program includes multiple lessons organized into two modules: Foundations and Key Skills.

In the **Foundations module**, you gain a basic understanding of how data support UI operations and how data-driven strategies play an important role in improving UI integrity. Using sample UI data, you examine datasets, data types, relational UI databases, and basic spreadsheet functions. In Skills Challenge activities, you apply what you have learned to identify the appropriate visualization methods based on the analysis goals. This module concludes with a summary of off-the-shelf applications and UI-specific tools commonly used to analyze UI data.

In the **Key Skills module**, you practice successful techniques for communicating with stakeholders, clarifying goals, planning an analysis, preparing data for an analysis, exploring data, and presenting findings and recommendations. In Skills Challenge activities using sample UI data, you apply what you learned to:

- Examine data quality
- Create data visualizations
- Build PivotTables
- Write SQL queries

In a capstone lesson, you investigate a reported integrity issue, formulate working theories, conduct a data-driven analysis, and then continue to a root cause analysis. The module concludes with tips and techniques for creating and delivering effective presentations.

You can earn a certificate by completing all lessons and exams in these two modules.

Audience

This certificate is for UI staff members who want to better understand how data may be leveraged within the UI program to inform their day-to-day decision-making, deploy resources effectively, and formulate effective integrity strategies.

Learning Objectives

This certificate program illustrates how data analysis is relevant and valuable to UI and prepares learners to:

- Plan and conduct a data analysis effort.
- Recognize factors that might impact the scope of a data analysis, such as the analysis goal, stakeholders, data accessibility, etc.
- Tailor the basic data analysis process to an investigation, a predictive analysis, or an evaluation of a program or process improvement.
- Describe a dataset in terms of structure, range, granularity, quality, types of data, and relationships between data elements.
- Ensure data quality using sorting, filtering, and conditional formatting techniques.
- Select data visualizations to gain key insights into UI data.

- Create PivotTable reports and PivotCharts in Excel.
- Read and write basic SQL queries.
- Conduct a data-driven investigation by formulating working theories and then gathering enough evidence to draw accurate conclusions about the root cause(s) of the issue(s) identified.
- Effectively organize and present findings, conclusions, and recommendations to stakeholders.

Action

Requested: Please share with managers, staff and partners as appropriate.

Effective: Immediately

Inquiries: Please email all questions to learning@naswa.org.