Systems for learning and producing knowledge, such as career and technical education (CTE), often reproduce inequities unless a deliberate, equity-focused lens is used when developing, implementing, and evaluating education programs. This checklist summarizes specific actions that researchers can take to incorporate an equity lens into CTE research.

See the full Equity Framework for CTE Research for more information.

### STAGE 1: PROJECT MANAGEMENT

Equity-focused project management builds in sufficient time and resources during planning to embed culturally responsive evaluation practices throughout the project life cycle. In particular, culturally responsive evaluation should focus on groups that have been historically marginalized. To support equity-focused project management in CTE research:

- Create diverse and representative research teams.
- Improve the cultural competence of research team members.
- Create a team culture of inclusion.
- Provide leadership and development opportunities for all research team members.
- Allocate time and resources to engage stakeholders at every stage of the research process.

### STAGE 2: RESEARCH DESIGN

Equity-focused research design involves developing an understanding of the community and context of interest; being transparent about the motivations and assumptions underlying the research; and embedding equity as a throughline across the project. To create an equity-focused study design and research questions:

- Engage the community of interest to reflect members’ input, experiences, and perspectives.
- Ensure participants understand the study’s purpose, their role, and how their data will be used.
- Clearly define all terms and explicitly state all underlying assumptions.
- Place the burden of change primarily on the system by examining system- or institution-level factors that might result in disparities in outcomes.
- Integrate a focus on equity and on groups historically underserved or marginalized in CTE.
- For impact studies, look at not only average impact but also how impacts work and for whom.

Maintaining a focus on equity when selecting measures and collecting data is crucial to conducting research that respects and maintains the dignity of the population under study. In CTE research, selected measures may need to cast a wide net to capture the breadth of the CTE landscape and experiences. To support equity-focused measurement and data collection:

- Develop a deep understanding of local context when selecting measurements.
- Integrate community feedback throughout the design and data collection process.
- Examine administrative data with a critical lens before implementation.
- Directly and explicitly examine selected measures for implicit or explicit bias.
- Create a data biography that carefully tracks metadata to uncover any equity issues.
- Limit the scope of the data to what is necessary and minimize the collection of personally identifiable data.
- Integrate qualitative data to contextualize quantitative data.
STAGE 4
DATA ANALYSIS

Equity-focused data analysis requires that researchers account for structural barriers to quality CTE that certain groups face as well as groups’ disparate education and workforce outcomes. To apply an equity lens when creating a dataset, structuring the analysis, estimating results, and interpreting findings:

- Note constraints in group selection because of data collection.
- Code variables to reveal the “intersectional” reality of people’s identities.
- Examine the development, use, and interpretation of codes for implicit or explicit bias.
- Define and compare variables to make groups visible and non-marginalized.
- Account for group differences in the counterfactual, sample selection, and estimation.
- Consider the differential impact of structural barriers on CTE participation and outcomes.
- Integrate qualitative and quantitative data to capture a richer picture of the CTE experience.

STAGE 5
COST AND RESOURCE EQUITY

Analyzing cost and resource allocation is fundamental to equity-focused CTE research and to understanding whether participation is equitable in high- and low-cost CTE programs or high- and low-cost program activities. To apply an equity lens when examining cost and resource allocation:

- Measure CTE program-level costs and components in a consistent, economically meaningful way.
- Compare the enrollment and participation of different groups in high- and low-cost CTE programs.
- Capture differences in access to and participation in costly resource-using activities provided to some but not all learners in a CTE program of study.
- Enable comparisons of cost-effectiveness by subgroup, when outcomes are also measured.

STAGE 6
REPORTING AND DISSEMINATION

Applying an equity-focused lens to reporting and dissemination involves being thoughtful and intentional when interpreting study results, deciding what to share and how, creating a narrative to place the interpretation in context, and using different strategies to share information with various audiences. To apply an equity focus to reporting and dissemination:

- Report findings in context, highlight key results for different stakeholder groups, and provide recommendations on how to use the findings.
- Gain input from the populations studied on the language used to share findings.
- Disseminate results to a range of audiences, tailoring content as appropriate. Consider language, tone, and perspective based on the audience.
- When selecting a medium to share content, consider each audience’s technological resources and access to information.
- Make the underlying research data available to those who provided the data and to other researchers as possible while protecting privacy and confidentiality.

View the full Equity Framework for CTE Research:
https://cteresearchnetwork.org/equity-cte-research-framework

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