Number: Title	Data Analysis and R	Data Analysis and Reporting Policy			
	Early Childhood				
Approved by	Advisory Council	Approved Date	10/17/2024		

POLICY STATEMENT

The South Carolina (SC) Early Childhood Advisory Council (ECAC), as the governing body of the South Carolina Early Childhood Integrated Data System (ECIDS), wants SC ECIDS data to be analyzed and reported so that more South Carolinians can better understand the experiences of young children and their families during these early years. To do so, the ECAC is committed to the appropriate and responsible analysis and reporting of SC ECIDS data so that takeaways are understood as intended.

PURPOSE

The purpose of this policy is to describe the requirements by which SC ECIDS data can be analyzed or reported to ensure appropriate interpretation. The policy outlines the considerations data users must have during analysis and reporting to ensure SC ECIDS are being used appropriately and responsibly. This policy does not address the SC ECIDS Data Suppression Policy, which is outlined in the "Data Privacy and Confidentiality Policy." The policy also does not provide information on the data request process (see "Data Access and Acquisition Policy"). This policy does ensure that data and data products from the SC ECIDS framework have been validated by the appropriate individuals and/or entities and have been created in accordance with SC ECIDS reporting standards for data privacy, quality, and consistency over time.

SCOPE

This policy applies to all data collected, processed, and stored within the SC ECIDS initiative, including but not limited to personally identifiable information (PII), sensitive educational records, research data, and administrative data.

DEFINITIONS

- Participating programs are programs that regularly contribute data to SC ECIDS.
 Participating programs have data stewards, who are responsible for managing and maintaining data quality within their program.
- External/authorized users are individuals or entities granted access to ECIDS data for legitimate purposes, including researchers, policymakers, program administrators, and other stakeholders involved in early care and education.
- Sensitive educational records include data or information that are collected and stored
 for educational purposes that individual(s) may not want to be shared with others or
 could contain information that may cause harm to the individual
- Research data are pieces of information that are collected for the purposes of conducting research or answering a research question, which could include data that have been adjusted based on administrative data or primary data collected for the purposes of conducting research
- Administrative data is information about individuals or program operations that are collected and maintained as a part of the functioning of a service or program

 Data sharing agreements (DSA) are formal contracts or agreement between data owners and the SC ECIDS. This agreement outlines the terms and conditions under which data may be accessed, used, and disclosed, as well as the rights and responsibilities of each party with respect to the data.

ROLES AND RESPONSIBILITIES

- External/authorized users are responsible for abiding by SC ECIDS data analysis and reporting guidelines.
- The DGWG is responsible for outlining the data analysis and reporting guidelines that aligned with participating programs' analysis and reporting guidelines and meet the needs of SC ECIDS data and ensuring that external/authorized users are following the data analysis and reporting guidelines, escalating any issues up to the ECAC.

PROCESS AND GUIDELINES

1. DGWG Process to Determine Guidelines

- a. The DG Coordinator compiles information across participating programs around data analysis and reporting guidelines.
- b. The DGWG, SCDE, RFA, and DG Coordinator align expectations across participating programs and determine a final set of expectations for SC ECIDS data that meet the guidelines for each participating program.
- The DGWG determines if there are other federal, state, or local regulations about data analysis and reporting.
- d. The DG Coordinator communicates data reporting and analysis guidelines with external/authorized users of SC ECIDS data by coordinating the inclusion and updating of these guidelines on the ECAC Data Hub website.
- e. The DGWG, supported by the DG Coordinator, periodically reviews the data analysis and reporting guidelines to identify issues or areas of improvement. As outlined in the Data Scope and Management Policy, all changes will be communicated to the ECAC by the DG Coordinator in the Board of Trustees Meeting Report.
- f. The DGWG develops processes by which data analysis and reporting issues are addressed, escalated, and resolved; this may occur by proxy of a Data Analysis and Reporting Issue Project Team, if notified of a data analysis and reporting issue, the DGWG may:
 - i. Require the party involved to investigate and respond to questions regarding the incident.
 - ii. Require the party involved to promptly resolve any issues or issue corrections.
 - iii. Request the formation of a Data Analysis and Reporting Issue Project Team (See "Establishment of Project Teams Policy") to develop further solutions.
 - iv. Restrict an external/authorized user's access to SC ECIDS data assets in the future, if the party involved fails to comply with response processes or is found to intentionally violate SC ECIDS policies.

2. General Data Analysis and Reporting Guidelines

- a. Data Use Restrictions: SC ECIDS external/authorized users are prohibited from re-identifying individuals from anonymized data, sharing data with unauthorized parties, and using data for purposes unrelated to early care and education or purposes unrelated to the study proposal approved in the data request application. The DGWG may identify further restrictions upon compiling information across participating programs.
- b. Ethical Considerations: SC ECIDS external/authorized users must ensure the privacy and dignity of individuals represented in the data, avoid bias or discrimination in analysis and reporting of SC ECIDS data, and maintain transparency and accountability in reporting practices, as outlined in the reporting guidelines of this policy. The DGWG may identify further ethical considerations upon compiling information across participating programs.
- c. Compliance and Oversight: External/authorized users with access to SC ECIDS data must comply with all applicable processes, procedures, and guidelines outlined in the Data Governance Manual. If any violations or breaches of SC ECIDS policies occur, external/authorized users must notify the DG Coordinator and the technical lead(s) associated with the Data Package (see "Data Access and Acquisition Policy") of the incident in writing no later than three business days after learning of the violation or breach. The DG Coordinator will share the incident with the DGWG and the ECAC, as necessary.

3. Data Analysis Guidelines

- a. Analysis methods: External/authorized users are expected to utilize statistical or analytical techniques that protect personally identifiable information and adequately address the study proposal approved in the data request application when analyzing SC ECIDS data. These techniques can include, but are not limited to, descriptive statistics, regression analysis, longitudinal analysis, or machine learning algorithms.
- Quality assurance: External/authorized users are expected to verify the accuracy and reliability of ECIDS analysis results, through techniques such as validation checks and sensitivity analyses, prior to disseminating findings.

4. Reporting Guidelines

- a. Data Disclaimer: Any reports to be released with SC ECIDS data must contain the following statement "The research presented here uses data from the South Carolina Early Childhood Integrated Data Systems, governed by the South Carolina Early Childhood Advisory Council (SC ECAC). The views expressed here are those of the authors and do not necessarily represent those of the SC ECAC or other data contributors. Any errors are attributable to the authors."
- SC ECIDS Data Citation: Any reporting of SC ECIDS data or dissemination of analysis using SC ECIDS data must include appropriate citations to the dataset(s).
- c. SC ECIDS Data Product Citations: Users of ECIDS data products found on the SC ECAC Data Hub, such as graphs, tables, and dashboards, must include appropriate citations to the data product.

- d. Pre-Dissemination Manuscript and Report Review: Participating programs may require review and approval before the public release of findings using that program's data. External/authorized users of SC ECIDS data are required to read and follow all applicable participating programs' pre-dissemination review policies when using SC ECIDS data. Additionally, when approving data requests, programs can indicate on the data request decision form (see the "Data Access and Acquisition Policy") if the program has pre-dissemination review policies and where the external/authorized user can find information on those policies, which will be shared with the data requestor.
- e. Data Dissemination Reporting: External/authorized users of SC ECIDS data are required to send the DG Coordinator bibliographic citations for published manuscripts, reports, or thesis abstracts containing SC ECIDS data or SC ECIDS data analysis. The DG Coordinator will continually share SC ECIDS publication count updates with the DGWG and the ECAC using the Board of Trustees Meeting Report.

RELATED POLICIES

- Data Privacy and Confidentiality Policy
- Data Access and Acquisition Policy
- Data Scope and Management Policy
- Establishment of Project Teams Policy

REVISION HISTORY

Responsible Party	Reason for Change	Date	Version
Molly Tuck	Revision of policy shared with DGWG	September 25, 2024	1.1
Molly Tuck	Initial version of policy	September 4, 2024	1.0