



2023-25 RESEARCH AGENDA

Expanding data usage to inform policy, programs, and equity in the evolving Commonwealth

Research Agenda Committee Members:

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The Kentucky Center for Statistics (KYSTATS) is tasked with collecting accurate education and workforce data in the Kentucky Longitudinal Data System (KLDS) to evaluate, conduct research, and provide information about education and workforce to better inform decision makers throughout the Commonwealth. The Board of the Kentucky Center for Statistics is composed of key leadership from the Kentucky Department of Education (KDE), the Council on Postsecondary Education (CPE), the Kentucky Higher Education Assistance Authority (KHEAA), the Education and Labor Cabinet (ELC), and the Cabinet for Health and Family Services (CHFS). The Board has developed this research agenda to help guide the work of KYSTATS to focus on critical education, training, and workforce areas of need.

The theme of the KYSTATS 2023-2025 Research Agenda is to optimize data to expand data usage to inform policy, programs, and equity in the evolving Commonwealth. The Board has identified four primary objectives with a focus on linking education and workforce data from multiple sources (KRS 151B.133) to identify pathways of students through employment to be used to guide impactful decisions throughout the Commonwealth of Kentucky's education system and training programs (KRS 151B.132).

I. Access, Usage, and Usability

The Kentucky Center for Statistics (KYSTATS) will focus on equitable access and broader use of its products by a large and diverse audience. This will include a focus on the following areas:

- **Access** - ensuring that products are compliant with all federal and state laws and guidelines related to fair and reasonable access;
- **Usage** - promoting greater awareness and use of KYSTATS research and data amongst existing partners and making intentional connections with new and diverse partners across the state;
- **Usability** - continually working internally and with our partners to find a balance between inclusiveness of data and information and interpretability/usability. As KYSTATS continues to grow its data partnerships, infrastructure, and capabilities it will be critical to avoid creating products which are data rich but information poor.

As a part of expanding usage and usability, KYSTATS will work to leverage the KLDS to evaluate outcomes for institutions, policies, and programs over time and across systems and sectors. KYSTATS, partnering state agencies, regions, and local education and workforce agencies continue to collaborate to conduct research and program evaluations to inform efforts to improve outcomes in early learning programs, K-12, postsecondary, and workforce systems. In this research agenda KYSTATS will focus intently on identifying new partnership opportunities to provide evaluation services for institutions and programs across the state by connecting data to the KLDS.

The prioritization of expanded access, use, and usage of the KLDS, should be addressed and assessed through the following critical questions:

- How are KYSTATS products made reasonably accessible to a broad and diverse set of users including but not limited to the visually and hearing impaired, those with limited access to the internet, and those using mobile devices as their primary means of connection?
- In what ways are products being used and by whom/what groups? What efforts are being undertaken to assess and expand/deepen the ways products are used and the numbers and types of users.
- How do products evolve in response to partner requests/feedback and/or because of engagement with key partners and what efforts is KYSTATS undertaking to elicit feedback which will lead to product evolution?
- What efforts are KYSTATS making to increase the number and diversity of partners in developing and using its systems and products?

- In what ways has KYSTATS expanded the type of products we release to include research briefs, infographics, long-form research papers, and dashboards and how are products assessed for usability and impact with key audiences?
- In what ways is KYSTATS actively and routinely engaging key audiences (elected officials, business and nonprofit partners, state agencies, etc.) in the proliferation of our work?

II. Applying an equity lens to the KLDS

Incorporating the work of the data equity advisory committee and adhering to the commitment of KYSTATS to expanding data access and use to identify equity issues and barriers throughout Kentucky's birth to workforce continuum, KYSTATS will prioritize the understanding and inclusion of an equity focus in its data reporting and analysis.

As the state's longitudinal data system, our commitment to equity requires a recognition that Kentuckians move into and through education and workforce systems in a variety of ways and that this is impacted by differences in **backgrounds, experiences, opportunities, and access**. In advancing this commitment, KYSTATS will work to centralize the diversity of Kentuckians and their experiences in all aspects of data integration, analysis, and reporting. We will work with our partners and stakeholders from across the state to continuously assess and improve the appropriateness and effectiveness of our approaches in these areas and will strive to provide relevant, actionable, and equitable data and information to the citizens of the commonwealth.

- **Backgrounds** refer to the identity or feeling of belonging to a group. Metrics related to backgrounds could include Race/Ethnicity, Sex, Geography, Socioeconomic Status, etc.
- **Experiences** are actions, accomplishments, programmatic engagements, etc. which are likely to influence outcomes for individuals and groups over time. These may include early childhood environments, K-12 curriculum, postsecondary programs and attainment, employment types and trajectories, justice involvement, etc.
- **Opportunities** refer to the existence of educational or social programs, employment, training, and other items which are likely to be beneficial to the individual. These may include job training programs, early college opportunities (AP, IB, Dual Credit, etc.), financial aid, public preschool, and Head Start, etc.
- **Access** is the ability of individuals to reach, use, or take advantage of opportunities which are likely to be to their benefit. Metrics measuring access may include postsecondary affordability, employment rates and re-entry, broadband and other internet access, SNAP benefit eligibility and access, unemployment benefit access, etc.

Progress in understanding and measuring equity across multiple contexts should be accomplished in part by asking the following critical questions:

- Do measurable patterns in key outcomes exist between groups based on sex, race/ethnicity, geography, socioeconomic status, education attainment status, and/or other key demographic identities or constructs?

- Do measurable differences have an impact on key outcomes and are the strength and/or directionality of these relationships discernible (i.e., are we able to measure which metrics matter, in what contexts, and to what degree)?
- How can we identify leading indicators associated with identified and measured gaps and/or differences in key outcome metrics?
- Are observed patterns/differences between individuals or groups concentrated based on identifiable environmental factors like geography, education attainment, schools, postsecondary institution type, socioeconomic status, etc.?
- Are observed patterns or differences associated with individual factors or identities and if so, how does the strength and/or direction of that association differ from that of the group or environment?
- Are there programs or policies which can be identified and are associated with successful outcomes and to which individuals or groups have differing levels of access?

III. Leveraging the KLDS to monitor trends and changes at transition points along the birth to workforce continuum to help assess impacts and recovery after or as the result of significant events in the Commonwealth.

KYSTATS is in a unique position to provide analyses along the birth through workforce continuum to provide information and insight into whether and how Kentucky and its residents are impacted by significant one-time or ongoing events. For example, as this research agenda launches it will have been more than two years since the beginning of widespread COVID-19-related policies were implemented in the Commonwealth, over half a year since tornadoes swept through the western part of the state, and only a matter of months since floods devastated communities in Eastern Kentucky.

KYSTATS will leverage the KLDS to describe and understand trends and changes in key metrics at the state and regional levels which might have occurred because of significant events and will identify metrics to analyze and track longitudinally to give insight into impacts and recovery after such circumstances occur.

This research agenda will focus on continually assessing changes and trends in the state, tracking these over the course of time, and will pay particular attention to identifying differences for key populations in the state. This approach will help to identify long-term impacts of these events and in the populations whom they effect.

Questions guiding this area of focus will include:

- How are “significant events” identified and defined?
- What sectors of a community/area are likely to have been impacted by these events (education, physical infrastructure, economic opportunity, agriculture, etc.)?
- Are there differences in impacts between individuals, individual businesses, industry or economic sectors, or groups related to factors such as race/ethnicity, sex, socioeconomic status, education levels, or geography?

- Were there interventions, recovery efforts, and/or policies implemented in response to an identified event(s)? What were their intended effects, to what degree were these achieved or not, and did that differ between groups?
- What differences in key sectors are observable over time (e.g., in college-going rates or key localized/regionalized economic indicators like job openings, wage earnings, and home values)?
- Are there changes in individual level outcomes (e.g., substance use disorder, health, unemployment) which can be associated with the occurrence of identified events?
- What measurable effects of state, regional, or local policies which were enacted in response to significant events are observed?

IV. Expanding the use of modeling and predictive analytics to understand the connections and barriers in the state's education and workforce systems and how those impact long term outcomes in other key sectors (health, justice, housing, etc.)

This agenda will emphasize a fuller use of the KLDS to provide predictive and explanatory analyses to make connections between key transition points in the birth through workforce continuum and to assess their likely impact on outcomes across systems and over time. These types of analyses will facilitate opportunities for KYSTATS to make stronger inferences and to provide richer explanations for trends in key metrics or for key populations in the state.

- What factors (demographic, behavioral, or environmental) can be identified as associated with or predictive of positive outcomes (e.g., postsecondary attainment, stable employment, wage growth, etc.)?
- What factors (demographic, behavioral, or environmental) can be identified as associated with or predictive of negative outcomes (e.g., incarceration, substance use disorders, sustained unemployment, non-completion of postsecondary programs, etc.)?
- What identifiable predictive or explanatory factors can be communicated to key partners to inform policy or programmatic decision making?
- Can the KLDS be leveraged to identify and analyze metrics between sectors to identify obstacles and/or opportunities at key transition points along the birth through workforce continuum?