Memorandum

To: Sheila Holt, Alabama STEM Council, Executive Director

From: Human Resources Research Organization (HumRRO)

CC: Rene McNeal, Alabama STEM Council, Ecosystems Coordinator
Elizabeth Mohn, Alabama STEM Council, STEM Project Support

Date: April 30, 2025

Re: ANA Evaluation Quarterly Memo

The purpose of this quarterly memo is to provide a status of HumRRO's Alabama Numeracy Act (ANA) evaluation. HumRRO is currently completing Year 3 of its contract.[1] The information presented in this memo covers activities completed October 2024 through March 2025.

Executive Summary

The STEM Council shared 10 high priority ANA requirements with HumRRO on April 11, 2025. Preliminary information about the status of these priorities is presented below; this information is based on responses to the ANA annual survey that HumRRO administered in February 2025 or information obtained from Office of Mathematics Improvement (OMI) staff in March 2025.

- 1.2% of K–5 teacher respondents reported ***not providing*** an average of 60 minutes per day of Tier 1 math instruction (n=489)
- 0.2% of K–5 teacher respondents reported ***not using*** approved core math curricula (n=489)
- Use of approved math screeners
    - 100% of LEA respondents reported ***using*** an approved screener to assess kindergarten students to identify students in need of support for key numeracy concepts (n=38)
    - 100% of LEA respondents reported ***using*** an approved screener to assess incoming 1st and 2nd grade students to identify students in need of support for key numeracy concepts (n=38)
    - 73% of LEA respondents reported ***not using*** an approved screener to assess incoming 4th and 5th grade students to identify students in need of support for fractional reasoning (n=38)
- Use of approved diagnostic screeners
    - 2.7% of LEA respondents reported ***not using*** the diagnostic assessments to identify misconceptions and gaps in math knowledge or skills of kindergarten students identified by the screener as having a math deficiency (n=38)

[1] HumRRO's ANA evaluation contract was awarded in August 2023 and will conclude at the end of September 2028; Year 3 covers the period October 2024 through September 2025.

- 2.9% of LEA respondents reported ***not using*** the diagnostic assessments to identify misconceptions and gaps in math knowledge or skills of 1st and 2nd grade students identified by the screener as having a math deficiency (n=38)
- 48.7% of LEA respondents reported ***not using*** the diagnostic assessments to identify misconceptions and gaps in math knowledge or skills of kindergarten students identified by the screener as having a math deficiency (n=38)

- 2.7% of LEA respondents reported ***not providing*** intensive math interventions recommended by the Elementary Mathematics Task Force (EMTF) to all K–5 students identified by a screener as having a math deficiency through screeners, diagnostics, or formative assessments (n=38)
- OMI staff reported that the evidence-based accountability system to measure the effectiveness of math coaches for improving teacher professional development and increasing student growth and proficiency on EMTF assessments and the state assessment is ***in process***. A proficiency scale has been developed and is being used this school year by the coaches (self-assessment) and principals.
- Use of approved curricular for core, Tier 2, and Tier 3 instruction and approved intervention plans
  - 3% of responding full-support school principals reported ***not using*** approved core curricula (n=33)
  - 100% of responding full-support school principals reported ***using*** approved math intervention programs or curricula for Tier 2 and Tier 3 interventions (n=33)
  - 100% of responding limited-support school principals reported ***using*** approved core curricula (n=79)
  - 3.8% of responding limited-support school principals reported ***not using*** approved math intervention programs or curricula for Tier 2 and Tier 3 interventions (n=79)
- Use of approved formative assessments, screeners, and diagnostic assessments
  - 3% of responding full-support school principals reported ***not using*** approved formative assessments, screeners, and diagnostic assessments (n=33)
  - 100% of responding limited-support school principals reported ***using*** approved formative assessments, screeners, and diagnostic assessments (n=79)

- 6.1% of full-support school principal respondents reported ***providing*** the Alabama Math Summer Achievement Program to all 4th and 5th grade students identified with a math deficiency (n=33)
- Correlation of K–5 math coaches with measurable student performance growth
  - HumRRO will conduct analyses upon receipt of SY2024–25 math coach performance and student math achievement data

Outcome Evaluation

HumRRO worked closely with the Alabama State Department of Education (ALSDE) staff to modify the data sharing agreement (DSA) to include receipt of English language arts (ELA) data for SY2022–23 and SY2023–24. The request was made by HumRRO to modify the DSA on November 15, 2024; the modified DSA was fully executed on January 16, 2025.

Upon full execution of the modified DSA, ALSDE sent the requested SY2022–23 ELA data to HumRRO on February 3, 2025, and the requested SY2023–24 ELA data on February 19, 2025. HumRRO staff merged the ELA data to establish complete SY2022–23 and SY2023–24 databases. Staff reviewed all available SY2023–24 outcome data, along with the expected SY2024–25 outcome data[2], and began preparing the Year 3 analysis plan to address the relevant research questions.

Process Evaluation

HumRRO's ANA evaluation study includes a process evaluation component that involves three major data collection activities that are conducted annually: in-person site visits, web-based survey, and virtual focus groups.

School Site Visits

We visited three full-support and three limited-support schools in fall 2024 across the state to collect information about how they are implementing the ANA. These Year 3 in-person site visits occurred in fall 2024, on October 8–11 (two schools), October 22–25 (two schools), and November 4–7 (two schools). HumRRO staff worked closely with OMI and school staff to coordinate the site visits. We spent 1.5 days observing and conducting various ANA-related activities at each selected school. We observed tiered classroom instruction (i.e., at least one Tier 1, one Tier 2, and one Tier 3 lesson), data meetings, coaching cycles (between regional coordinator and math coach and between math coach and math teacher), and professional development sessions. We also conducted focus groups with parents and students.

Annual Survey

We administered the ANA evaluation survey for the second year to the five major stakeholder groups: regional coordinators, LEA staff, math coaches, principals (full- and limited-support schools), and math teachers. Many questions remained the same as those in last year's survey to allow us to examine continued progress in stakeholders performing their key ANA tasks, receiving necessary training, and having access to resources and other supports (all stakeholders); funding to implement the ANA (LEA staff and principals); and confidence in K–5 teachers' content knowledge, instructional skills, and ability to teach math concepts (math teachers). We included several new questions on this year's survey to gather additional information from stakeholders about the approved ANA early numeracy screening assessments (math teachers and math coaches), Alabama multi-tiered support services (AL-MTSS) implementation (principals), teacher math content knowledge and pedagogy (principals), challenges and barriers to ANA implementation (all stakeholders), positive and negative outcomes of ANA implementation (all stakeholders), and satisfaction with ANA

[2] HumRRO requested support on April 9, 2025, to receive the SY2024–25 outcome data as early as possible to allow for timely analyses and reporting; the STEM Council reported that HumRRO would likely not receive these data until July or August 2025, the same timeframe as receipt of SY2023–24 data.

implementation (all stakeholders). We are currently analyzing the survey data (separately by stakeholder type). Preliminary response rates for the various stakeholder types are:

- *Regional coordinators:* 100%
- *LEA staff:* 76.2%
- *Principals:* 86.4%
- *Math coaches:* 80.4%
- *Math teachers:* 21.4%

All survey response rates are reasonable and similar to or higher than those from last year, except for the math teachers', which declined slightly from last year.

Key Preliminary Findings

Across the five major stakeholder groups, most survey respondents reported that they understand the requirements of their key ANA tasks, received training to perform the tasks, have access to the necessary resources and supports, implement the key tasks as intended, and perceived their implementation of the key ANA tasks helped achieve ANA's intended outcomes.

Most stakeholders reported that they implement all their key ANA tasks, with the exception that some stakeholders reported not implementing the fractional reasoning screener. Based on conversations with OMI staff, this is reasonable as a fractional reasoning screener has not yet been identified and approved.

The factors reported most across the survey respondents as being a barrier to ANA implementation or needing to be improved for ANA implementation to be more effective included:

- Buy-in from district and school leadership
- Availability of district/LEA staff to support ANA activities
- District-level infrastructure for implementing ANA
- Math teachers' familiarity with state math content standards
- Teachers' ability to align instruction with state math content standards
- Availability of time to implement ANA activities

Almost all responding stakeholders reported they were satisfied or somewhat satisfied with how the ANA is being implemented.

We will present all final survey findings in the Year 3 annual report.

Annual Focus Groups

HumRRO's ANA evaluation includes annual virtual focus groups with volunteer participants from each of the five major stakeholder types. The purposes of these focus groups are to explore response patterns or themes that emerge from the annual survey and obtain context or clarification for interpreting the survey responses. We invited all members of the five stakeholder types who had been invited to complete the survey to also participate in a virtual focus group. Three focus group sessions were offered for each stakeholder type. Focus

groups for regional coordinators, LEA staff, and math coaches were conducted in March and April; focus groups for principals and teachers will be conducted in May. We are currently analyzing the regional coordinator, LEA staff, and math coach focus group data; the principal and teacher focus group data will be analyzed when those sessions have been completed. We will present all final focus group findings in the Year 3 annual report; however, we expect to provide preliminary focus group findings in the next quarterly memo.

ANA Supplemental Studies

HumRRO's evaluation of the ANA includes eight associated supplemental studies.

Alabama Multi-Tiered System of Supports (AL-MTSS) Study

The AL-MTSS study examines the extent to which (a) the Alabama Framework for MTSS is being implemented in grades K–5 and (b) ratings of implementation of MTSS within schools relate to the distribution of students within tiered placements.

- Conducted semi-structured interviews with school leadership regarding the MTSS process when conducting the fall 2024 in-person site visits; included MTSS-related questions on the annual surveys.
- Identified data fields from PowerSchool to capture student tiered placements; worked with OMI staff to obtain a data extract of relevant information.
- Processed data from the American Institutes for Research (AIR) MTSS Fidelity of Implementation Rubric assessment; continued discussions of the AL-MTSS process with OMI and ALSDE staff to refine the implementation criteria.

Comparison Study

The overall ANA evaluation includes a quasi-experimental design (QED) study, or a comparison study, to assess the impact that math coaches have on student math performance in full- and limited-support schools. This study examines the extent to which full- and limited-support schools that are assigned a math coach yield higher student math achievement than identified schools that do not have a coach. Because of the acceleration of placing math coaches in as many schools as possible, there is a concern that this study may not be feasible as there may not be sufficient full- and limited-support schools without a math coach to serve as comparison schools.

- Finalized SY2023–24 school designation data and continued to process requisite math coach data in preparation for receipt of SY2024–25 data.
- Investigated the adequacy of various analytic models that will allow us to determine the impact that math coaches have on student math achievement.

Cost Effectiveness Analysis Study

The cost effectiveness analysis study examines the overall costs and actual or anticipated financial benefits of the ANA. This analysis will provide information about the effective allocation of state resources to inform future policy improvements, sustainability of education initiatives, and potential efficiencies related to ANA implementation. We will examine (a) cost data related to specific ANA components, including math coaches and other personnel, screening and diagnostic assessments, professional development, administrative and logistical activities, and summer programs; and (b) benefit data associated with the outcome evaluation and select supplemental studies. In addition to examining the statewide ANA cost

data, we conduct regular searches for publicly available information about ANA costs, which we verify with OMI or ALSDE staff.

- Conducted semi-structured interviews with school leadership regarding costs of ANA implementation, funding received, and supplemental funding when conducting the fall 2024 in-person site visits.
- Included questions regarding ANA implementation costs on the annual surveys.
- Collected and summarized SY2022–23, SY2023–24, and SY2024–25 ANA budget information shared by OMI staff and from publicly available sources.

Math Coach Study

The math coach study examines the extent to which (a) evaluations of math coaches by principals and regional coordinators in full- and limited-support schools related to differences in math achievement and (b) principals' and regional coordinators' ratings of coaches explain variance in principal and coach evaluations of teachers.

- Continued to work with OMI staff to receive schools' math coach data (e.g., number of math coaches, source of coach funding, coaches' proficiency level).
- Continued to process requisite data to support the math coach study.
- Continued to work with ALSDE/OMI staff to receive math coach performance data.[3]

Screening Assessments Study

The screening assessments study examines the extent that required screening and diagnostic assessments identify students who are subsequently identified as needing tiered services and/or receive diagnosis relating to a math deficiency.

- Received the list of approved screening and diagnostic assessments for use by districts in SY2023–2024 and SY2024–2025.
- Asked math coaches and math teachers about the effectiveness of screeners and diagnostic assessments in identifying students' math deficiencies when conducting the fall 2024 in-person site visits; included questions on the math coach and math teacher annual surveys regarding their perceptions of the most helpful approved ANA early numeracy screening instruments in identifying students with math deficiencies.
- Reviewed the SY2023–24 operational database fields to determine potential SY2024–25 PowerSchool data fields for field test analyses.

Stakeholder Awareness & Satisfaction Study

The stakeholder awareness and satisfaction study examines the extent that stakeholders are aware of and satisfied with implementation of the ANA.

- Asked parents questions regarding their awareness of and satisfaction with ANA implementation when conducting the fall 2024 in-person site visits.
- Included questions about stakeholder awareness of and satisfaction with ANA implementation on the annual surveys.

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[3] HumRRO requested that ALSDE/OMI share math coach and math teacher performance data; however, ALSDE/OMI indicated they will not provide these data. We first communicated ALSDE's/OMI's reluctance to provide these data to the STEM Council in October 2024.

Teacher Knowledge and Pedagogy Study

The teacher knowledge and pedagogy study examines the (a) status and gains in math knowledge and skills of K–5 teachers and (b) extent to which ratings and gains in math knowledge and skills of K–5 teachers within full- and limited-support schools account for differences in student performance on formative and summative math assessments.

- Asked school leaders about the various support provided to enhance math teachers' expertise and instruction when conducting the fall 2024 in-person site visits.
- Administered the Mathematics for Teaching Tool (MTT) in fall 2024, a validated measure of teachers' math pedagogical and content specific knowledge, to K–5 teachers in full- and limited-support schools; processed and cleaned, and currently scoring the MTT data.

Unintended Consequences Study

The unintended consequences study examines the positive and negative outcomes that emerge from schools, LEAs, ALSDE, and other stakeholder groups that were not anticipated as a result of implementing any ANA component.

- Asked parents for their perceptions regarding impacts and consequences of ANA implementation when conducting the fall 2024 in-person site visits.
- Included questions about positive and negative impacts and consequences of ANA implementation on the annual surveys.

Remaining FY2025 Evaluation Activities

Attachment A presents the planned Year 3 general, process, and outcome evaluation activities that we completed October 2024 through March 2025. Attachment B presents the planned Year 3 supplemental studies activities that we completed during this same timeframe.

Attachment A: Year 3 Planned General, Process, and Outcome ANA Evaluation Activities[4]

Year 3 Timing	General Evaluation Activities	Process Evaluation Activities	Outcome Evaluation Activities
Oct – Dec 2024	Weekly meetings with OMI/ALSDE Biweekly supplemental study meetings with OMI/ALSDE Monthly meetings with STEM Council Executive Director Monthly HumRRO-Mathematica team meetings Refine/Update ANA evaluation data tracking system Prepare Year 2 annual report (Oct 2023–Sept 2024)	Work with OMI/ALSDE to coordinate in-person fall 2024 site visits (SVs) to a total of six FS and LS schools; conduct in-person SVs Analyze in-person fall 2024 fall SV data overall and by school type and/or stakeholder type Prepare description of fall 2024 in-person SV findings (narrative, tables) Refine Year 3 annual survey to measure quality/effectiveness of ANA implementation processes and activities; survey to include parallel versions for specific stakeholder groups (regional coordinators, district staff, principals [FS and LS schools], math coaches, math teachers) Work with OMI/ALSDE to whitelist Year 3 annual survey URL in FS and LS schools	Establish outcome evaluation data metrics Complete cleaning and merging SY2022–23 student, teacher, and school datasets Conduct baseline analysis of SY2022–23 outcome data, separately by metric as appropriate Prepare description of SY2022–23 baseline outcome findings (narrative and tables) Clean and merge SY2023–24 student, teacher, and school outcome datasets; review quality of data for meeting assumptions of proposed analyses (e.g., normality, linearity) Conduct analyses of SY2023–24 outcome data, separately by metric as appropriate

[4] Shaded text indicates completed activities.

Year 3 Timing	General Evaluation Activities	Process Evaluation Activities	Outcome Evaluation Activities
Jan – Mar 2025	Weekly meetings with OMI/ALSDE Biweekly supplemental study meetings with OMI/ALSDE Monthly meetings with STEM Council Executive Director Monthly HumRRO-Mathematica team meetings Submit/Disseminate Year 2 annual report (Oct 2023–Sept 2024) Refine/Update ANA evaluation data tracking system	Administer Year 3 annual survey to stakeholders (regional coordinators, district staff, principals [FS and LS], math coaches, math teachers) Refine protocols for spring 2025 virtual focus groups (FGs) with stakeholder groups (regional coordinators, district staff, principals [FS and LS], math coaches, math teachers); sessions will elaborate on and/or clarify survey findings Conduct spring 2025 virtual FGs (regional coordinators, district staff, math coaches)	Compare SY2022–23 and SY2023–24 outcome findings to establish potential trends
Apr – Jun 2025	Weekly meetings with OMI/ALSDE Biweekly supplemental study meetings with OMI/ALSDE Monthly meetings with STEM Council Executive Director Monthly HumRRO-Mathematica team meetings Refine/Update ANA evaluation data tracking system Prepare/Submit April 2025 quarterly memo	Clean Year 3 annual survey data Analyze Year 3 annual survey data overall and separately by stakeholder type Prepare description of Year 3 survey findings (narrative, tables) Analyze spring 2025 regional coordinator, district staff, and math coach virtual FG data separately by stakeholder group Prepare description of regional coordinator, district staff, and math coach spring 2025 virtual FG findings (narrative, tables) Conduct spring 2025 virtual FGs (principals [FS and LS], math teachers)	Prepare description of SY2023–24 outcome findings (narrative and data visualization/tables); include SY2022–23 and SY2023–24 trends as appropriate Identify procedures for receipt of SY2024–25 outcome data

Year 3 Timing	General Evaluation Activities	Process Evaluation Activities	Outcome Evaluation Activities
July – Sept 2025	Prepare/Submit July 2025 quarterly memo Weekly meetings with OMI/ALSDE Biweekly supplemental study meetings with OMI/ALSDE Monthly meetings with STEM Council Executive Director Monthly HumRRO-Mathematica team meetings Refine/Update ANA evaluation data tracking system	Analyze spring 2025 principal and math teacher virtual FG data separately by stakeholder group Prepare description of principal and math teacher spring 2025 virtual FG findings (narrative, tables) Refine protocols for fall 2025 in-person SVs Identify sample of schools in which to conduct fall 2025 in-person SVs (3 FS and 3 LS schools) Coordinate with OMI/selected school staff to determine procedures for conducting fall 2025 in-person SVs Conduct fall 2025 in-person SVs at identified sample of FS and LS schools	Work with ALSDE to receive SY2024–25 outcome data Clean and merge SY2024–25 student, teacher, and school outcome datasets Conduct analyses of SY2024–25 outcome data, separately by metric as appropriate Prepare description of SY2024–25 outcome findings (narrative and data visualization/tables); include SY2022–23, SY2023–24, and SY2024–25 trends as appropriate

Appendix B: Year 3 Planned ANA Supplemental Studies Activities[5]

Year 3 Timing	Math Coach Evaluation and Student Math Achievement[6]	MTSS and Student Math Achievement	Teacher Math Pedagogy and Student Math Achievement
Oct – Dec 2024	Work with OMI/ALSDE to receive math coach info for full- and limited support schools (SY2023–24 and SY2024–25 status; number of math coaches each school had SY2022–23, SY2023–24, and SY2024–25; school's math coach funding source; math coach level of training/tier assigned; math coaches' other relevant professional learning) Work with OMI/ALSDE to receive SY2023–24 math coach performance data (performance ratings by principals and regional coordinators) Work with OMI/ALSDE to receive SY2023–24 math teacher performance data (performance ratings by principals and math coaches)	Work with OMI/ALSDE to receive AL-MTSS full-alignment status data and AIR MTSS Fidelity of Implementation rubric scores (SY2022-23; SY2023-24); determine SY2024-25 data availability Coordinate with OMI and regional coordinators to determine frequency and collect aggregate school-level scores on the depth of Tier 1, Tier 2, and Tier 3 instruction (SY2024–25) Work with OMI/ALSDE to receive school-level data on applicable MTSS tiered interventions and supports (SY2024–25) Finalize MTSS implementation questions and discuss with school leadership during fall 2024 in-person site visits (SVs) Analyze fall 2024 in-person SV MTSS implementation data	Finalize teacher math content/pedagogy knowledge questions and discuss with school leadership during fall 2024 in-person SVs Analyze teacher math content/pedagogy knowledge fall 2024 in-person SV data Implement validated teacher self-assessment of math pedagogical and domain specific content knowledge in FS and LS schools (SY2024–25) Draft and finalize teacher math content/pedagogy knowledge questions for Year 3 annual survey

[5] Shaded text indicates completed activities.
[6] HumRRO requested that ALSDE/OMI share math coach and math teacher performance data; however, ALSDE/OMI indicated they will not provide these data. We first communicated ALSDE's/OMI's reluctance to provide these data to the STEM Council in October 2024.

Year 3 Timing	Math Coach Evaluation and Student Math Achievement[6]	MTSS and Student Math Achievement	Teacher Math Pedagogy and Student Math Achievement
		Draft and finalize MTSS implementation questions for Year 3 annual survey	
Jan – Mar 2025	Clean math coach performance data and merge with student achievement data (SY2023–24) Clean math teacher performance data and merge with student achievement data (SY2023–24) Analyze math coach performance and student math achievement data (SY2023–24) Analyze math teacher performance and student math achievement data (SY2023–24)	Clean full-alignment AL-MTSS/AIR needs assessment/tiered instruction implementation data (SY2022–23 and SY2023–24); merge with student achievement data (SY2022–23 and SY2023–24) Analyze full-alignment AL-MTSS/AIR needs assessment/tiered instruction implementation and student achievement data (SY2022–23 and SY2023–24)[7]	Clean teacher math content/pedagogy knowledge self-assessment data (SY2024–25); merge with student math achievement data Analyze teacher math content/pedagogy knowledge Year 3 survey data (SY2024–25)
Apr – Jun 2025	Prepare description of math coach performance and student math achievement findings (SY2023–24; narrative and tables) Prepare description of math teacher performance and student math achievement findings (SY2023–24; narrative and tables)	Prepare description of full-alignment AL-MTSS/AIR needs assessment/tiered instruction implementation and student achievement findings (SY2022–23 and SY2023–24; narrative and tables)	Work with OMI/ALSDE to receive SY2024–25 Alabama Teacher Observation Tool (ATOT) learning and essential dimensions subscale data Prepare description of teacher math content/pedagogy knowledge survey (SY2024–25; narrative and tables) Prepare description of teacher math content/pedagogy knowledge self-assessment findings (SY2024–25)

[7] Analysis is only partially complete due to delay in receipt of data to clean, merge, and manipulate the SY2022–23 and SY2023–24 data.

Year 3 Timing	Math Coach Evaluation and Student Math Achievement[6]	MTSS and Student Math Achievement	Teacher Math Pedagogy and Student Math Achievement
			Clean ATOT learning and essential dimensions subscale data (SY2024–25)
July – Sept 2025	Work with OMI/ALSDE to receive math coach performance data (SY2024–25) Clean math coach performance data (SY2024–25); merge with student achievement data (SY2024–25) Analyze math coach performance and student math achievement data (SY2024–25) Prepare description of math coach performance and student math achievement findings (SY2024–25; narrative and tables) Work with OMI/ALSDE to receive math teacher performance data (SY2024–25) Clean math teacher performance data (SY2024–25); merge with student math achievement data (SY2024–25) Analyze math teacher performance and student math achievement data (SY2024–25) Prepare description of math teacher performance and student math achievement findings (SY2024–25; narrative and tables)	Clean full-alignment AL-MTSS/AIR needs assessment/tiered instruction implementation data (SY2024–25); merge with student achievement data (SY2024–25) Analyze full-alignment AL-MTSS/AIR needs assessment/tiered instruction and student achievement data (SY2024–25) Triangulate findings from AL-MTSS/AIR needs assessment/tiered instruction, Year 3 annual survey, and student achievement data, as appropriate Prepare description of full-alignment AL-MTSS/AIR needs assessment/tiered instruction and student achievement separate and triangulated findings as appropriate (SY2024–25; narrative and tables)	Merge ATOT learning and essential dimensions data with student math achievement data (SY2024–25); analyze Prepare description of ATOT learning and essential dimensions and student math achievement findings (SY2024–25; narrative and tables) Triangulate teacher math content/pedagogy knowledge (survey and self-assessment), Year 3 annual survey, and student math achievement findings, as appropriate Prepare description of teacher math content/pedagogy knowledge (survey and self-assessment), Year 3 annual survey, and student math achievement triangulated findings (SY2024–25; narrative and tables)

Year 3 Timing	Effectiveness of Screening Assessments	Unintended Consequences of the ANA	Stakeholder Awareness and Satisfaction
Oct – Dec 2024	Work with OMI/ALSDE to receive list of district-approved SY2023–24 screening and diagnostic assessments Work with OMI/ALSDE to receive SY2023–24 student (a) screening and diagnostic assessment data and (b) tiered services or math-related diagnosis classifications[8]	Discuss unintended consequences questions with parents during fall 2024 in-person SVs Analyze fall 2024 in-person SV parent data; prepare findings narrative and tables Draft and finalize unintended consequences questions for Year 3 annual survey	Discuss awareness and satisfaction questions with parents during fall 2024 in-person SVs Analyze fall 2024 in-person SV parent data; prepare findings narrative and tables Draft and finalize stakeholder awareness and satisfaction questions for Year 3 annual survey
Jan – Mar 2025	Calculate classification rates, sensitivity, and specificity of required assessments[9] Draft and finalize screening/diagnostic assessment questions for Year 3 annual survey Draft and finalize screening/diagnostic assessment questions for spring 2025 virtual FGs (regional coordinator, district staff, principal, math coach, math teacher) Discuss screening/diagnostic assessment questions during spring 2025 virtual FGs (regional coordinator, district staff, math coach)	Draft and finalize unintended consequences questions for spring 2025 virtual FGs (regional coordinator, district staff, principal, math coach, math teacher) Discuss unintended consequences questions during spring 2025 virtual FGs (regional coordinator, district staff, math coach)	Draft and finalize stakeholder awareness and satisfaction questions for spring 2025 virtual FGs (regional coordinator, district staff, principal, math coach, math teacher) Discuss stakeholder awareness and satisfaction questions during spring 2025 virtual FGs (regional coordinator, district staff, math coach)

[8] HumRRO continues to work with ALSDE/OMI staff to identify and receive relevant screening and diagnostic assessment data.
[9] HumRRO continues to work with ALSDE/OMI staff to identify and receive relevant screening and diagnostic assessment data.

Year 3 Timing	Effectiveness of Screening Assessments	Unintended Consequences of the ANA	Stakeholder Awareness and Satisfaction
Apr – Jun 2025	Conduct preliminary test of assessment classification accuracy Clean screening/diagnostic assessment Year 3 annual survey data Analyze Year 3 annual survey screening/diagnostic assessment data Discuss screening/diagnostic assessment questions during spring 2025 virtual FGs (principal and math teacher)	Clean unintended consequences Year 3 annual survey data Analyze Year 3 annual survey unintended consequences data Discuss unintended consequences questions during spring 2025 virtual FGs (principal and math teacher)	Clean stakeholder awareness and satisfaction Year 3 annual survey data Analyze Year 3 annual survey awareness and satisfaction data Discuss stakeholder awareness and satisfaction questions during spring 2025 virtual FGs (principal and math teacher)
July – Sept 2025	Analyze screening/diagnostic assessment Year 3 spring 2025 virtual FG data by stakeholder type Triangulate Year 3 annual survey and spring 2025 virtual FG screening/diagnostic assessment data, as appropriate Prepare description of screening/diagnostic assessment findings (narrative and tables)	Analyze unintended consequences Year 3 spring 2025 virtual FG data by stakeholder type Triangulate Year 3 annual survey and spring 2025 virtual FG unintended consequences data, as appropriate Prepare description of unintended consequences findings (narrative and tables)	Analyze awareness and satisfaction Year 3 spring 2025 virtual FG data by stakeholder type Triangulate Year 3 annual survey and spring 2025 virtual FG awareness and satisfaction data, as appropriate Prepare description of stakeholder awareness and satisfaction findings (narrative and tables)

Year 3 Timing	Comparison	Cost Effectiveness Analysis
Oct – Dec 2024	Work with ALSDE/OMI to receive outstanding SY2023–24 school math coach and individual math coach performance data Clean SY2023–24 school math coach and individual math coach performance data Conduct preliminary analysis of SY2023–24 school math coach and individual math coach performance data; if sufficient comparison schools, develop plans for retrospective quasi-experimental design (QED) study	Obtain ANA cost data from public sources; verify accuracy with OMI/ALSDE Work with OMI/ALSDE to receive non-public ANA cost data (SY2022–23, SY2023–24, and SY2024–25) Discuss ANA cost questions with school leaders during fall 2024 in-person SVs Draft and finalize ANA cost questions for Year 3 annual survey
Jan – Mar 2025	Identify SY2023–24 final treatment and comparison schools for QED[10] Conduct SY2023–24 impact analysis	Clean ANA cost data obtained from public and non-public sources and school leaders during fall 2024 in-person SVs Clean ANA cost Year 3 annual survey data[11] Draft and finalize ANA cost questions for spring 2025 virtual FGs
Apr – Jun 2025	Prepare description of SY2023–24 comparison coach study findings (narrative and tables) Work with ALSDE/OMI to receive outstanding SY2024–25 school math coach and individual math coach performance data	Discuss ANA cost questions during spring 2025 virtual FGs (regional coordinator, district staff, and math coach, as appropriate) Analyze Year 3 annual survey ANA cost data

[10] HumRRO requested that ALSDE/OMI share math coach performance data; however, ALSDE/OMI indicated they will not provide these data. We first communicated ALSDE's/OMI's reluctance to provide these data to the STEM Council in October 2024.
[11] We continue to work with ALSDE/OMI staff to identify and receive relevant SY2024–25 ANA cost data.

Year 3 Timing	Comparison	Cost Effectiveness Analysis
	Clean SY2024–25 school math coach and individual math coach performance data	Discuss ANA cost questions during spring 2025 virtual FGs (regional coordinators, district staff, principals, and math coaches)
July – Sept 2025	Conduct preliminary analysis of SY2024–25 school math coach and individual math coach data; if sufficient comparison schools, proceed with plans for retrospective QED study Identify SY2024–25 final treatment and comparison schools for QED Conduct SY2024–25 impact analysis Prepare description of SY2024–25 comparison coach study findings (narrative and tables)	Obtain updated ANA cost data from public sources; verify accuracy with OMI/ALSDE Triangulate public and non-public source, fall 2024 in-person SV, Year 3 survey, and spring 2025 virtual FG findings Prepare description of ANA cost findings by year and overall (SY2022–23, SY2023–24, and SY2024–25; narrative and tables)