

NOTICE

This Exploratory Project Solicitation is being released to Data Analytics Expertise Pre-Qualified Contractors as a result of Open Market RFP #0A1199 Supplement Two.

**This Exploratory Project Solicitation is limited to those Contractors Pre-Qualified by the State under Contract 0A1199 Supplement Two
Life Sciences and Public Health Expertise Domain
and is provided for informational purposes to other interested parties**

An alphabetical listing of Pre-Qualified Contractors to participate in this opportunity follows:

3M Health Information Systems	KSM Consulting
Accenture	Mathematica
Battelle	Nationwide Children's Hospital
Carahsoft Technology Corp.	Nationwide Children's Research Institute
CGI Technologies	Opera Solutions
Civis Analytics	Optum
CrossCHX	PulseLight LLC
Elite Analytics	SAS
Health Integrity LLC	Sense Corp
Health Monitoring Systems, Inc.	Super H LLC
Hewlett Packard Enterprise	Sutherland Government Solutions
Indus Corporation	Tech Zavy
Information Control Company (ICC)	Teradata Government Systems
JJR Solutions LLC	The Ohio State University

ONLY those Pre-Qualified Contractors in the Domain: Life Sciences & Public Health are eligible to submit proposal responses AND to submit inquiries. The State does not intend to respond to inquiries or to accept proposals submitted by organizations not Pre-Qualified in this Data Analytics Expertise Domain.

REQUEST FOR EXPLORATORY PROJECT SOLICITATION PROPOSALS

Pre-Qualified Contractors under Contract 0A1199 Supplement 2
Life Sciences and Public Health Expertise Domain

Exploratory Project Solicitation Number: DADOH-18-EP-001

Reference RFP Number: 0A1199

Date Issued: September 15, 2017

The Ohio Department of Health is requesting proposals for:

INFANT MORTALITY

Inquiry Period Begins: September 15, 2017

Inquiry Period Ends: September 29, 2017 at 8:00 AM

Opening Date and Time: October 6, 2017 at 1:00 P.M.

Pre-Qualified Contractor Intent to Bid or Abstain from Bidding Statement (required of all Contractors Pre-Qualified under the Expertise Domain(s) pertinent to this Solicitation.

September 20, 2017

This Exploratory Project Solicitation is limited to those Contractors Pre-Qualified by the State under Contract 0A1199 Supplement Two

**Life Sciences and Public Health Expertise Domain
and is provided for informational purposes to other interested parties**

Introduction and Background

See attachment(s): **Attachment 1, Statement of Work and Requirements**

Administrative

All administrative instructions regarding this Data Analytics Exploratory Project Work Solicitation are below.

All Pre-Qualified Contractors submitting an Exploratory Project Solicitation Proposal must be pre-qualified under Contract 0A1199, Supplement 2, Life Sciences and Public Health Expertise Domain. This Solicitation is incorporated into and governed by RFP 0A1199 Supplement Two.

Due Dates. All Exploratory Project Solicitations are due by the **Proposal Due Date** in the table below as a single PDF emailed to the Project Representative. Any proposals received after the required time and date specified for receipt shall be considered late and non-responsive. Any late proposal will not be evaluated for award.

Schedule of Events. All times are Eastern Standard Time (EST).

Event	Date
1. Exploratory Project Solicitation Distribution to Pre-Qualified Contractors and Inquiry Period Begins	September 15, 2017
2. Pre-Qualified Contractor Intent to Bid or Abstain from Bidding Statement (required of all Contractors Pre-Qualified under the Expertise Domain(s) pertinent to this Solicitation.	September 20, 2017
2. Inquiry Period Ends	September 29, 2017 8:00 a.m.
3. Proposal Due Date	October 6, 2017 1:00 p.m.
4. Target Date for Review of Proposals	October 6, 2017
5. Interviews of Candidates, if needed	October 13, 2017
6. Anticipated decision and selection of Contractor	October 20, 2017
7. Anticipated Work Commencement Date	Week of November 6, 2017

Proposal Inquiries. Pre-Qualified Contractors may make inquiries regarding this Exploratory Project Solicitation at any time during the inquiry period specified within the schedule events, which is detailed within this section. The State may not respond to any improperly formatted inquiries. The State will try to respond to all inquiries within 24 hours, excluding weekends and State holidays. The State will not respond to any inquiries received after 8:00 am on the inquiry period end date.

To make an inquiry, Pre-Qualified Contractors must use the process outlined below.

- Access the State Procurement Web site at <http://procure.ohio.gov/>
- Select "Doc/Bid/Schedule #" as the Type.
- Enter the Exploratory Project Solicitation number found on the first page of this Exploratory Project Work Solicitation
- On the document information page, click the "Submit Inquiry" button.
- On the document inquiry page, complete the required "Personal Information" section by providing:
 - First and last name of the prospective Pre-Qualified Contractor's representative who is responsible for the inquiry;
 - Name of the prospective Pre-Qualified Contractor;
 - Representative's business phone number, and
 - Representative's e-mail address.
- Type the inquiry in the space provided, including:
 - A reference to the relevant part of this Exploratory Project Work Solicitation;

- The heading for the provision under question, and
- The page number of the Exploratory Project Work Solicitation where the provision can be found.
- Click the “Submit” button.

A Pre-Qualified Contractor submitting an inquiry will receive an immediate acknowledgement that the State has received the inquiry in the form of an e-mail acknowledging receipt. The Pre-Qualified Contractor will not receive a personalized response to the question nor notification when the State has answered the question.

Pre-Qualified Contractor may view inquiries and responses on the State’s Procurement Web site by clicking the “View Q & A” button on the document information page.

All questions must be submitted by the Due Date (“Inquiry Period Ends”) in the table detailed within this section. Questions submitted after this time will not receive a response from the state.

Evaluation Factors for Award.

Pre-Qualified Contractor Criteria						Accept or Reject
The Pre-Qualified Contractor, as the prime Contractor, is Contracted under RFP 0A1199, Supplement 2						Accept or Reject
Supplement 2, Data Analytics Expertise Domain(s) Eligible to Participate in this Exploratory Project Work Solicitation						
Life Sciences & Public Health ----- Eligible to Respond	Waste, Fraud & Abuse	Risk Management (Insurance & Claims Management)	Cyber/Security	Environment & Natural Resources	Workforce	Public Safety / Security
Crime, Corrections & Recidivism	Education	Government Process Automation / Decision Making	Audit, Compliance & Regulation	Commerce & Industry	Transportation	Utilities
Pre-Qualified Contractor Evaluation Factors						Weighting % of Overall Technical Score
Pre-Qualified Contractor’s Proposed Approach, Analytical Methods and Tools and Demonstrated Understanding of the Exploratory Project Solicitation, its Analysis Dimensions and Anticipated Outcomes						40%
Pre-Qualified Contractor Proposed Team in performing the work (experience with similar projects, data analytics tools, methods and techniques)						30%
Pre-Qualified Contractor’s proposed cost, as a firm fixed price not to exceed.						30%
Total						100%

Guidelines for Proposal Preparation

Pre-Qualified Contractor Intention to Bid or Abstain from Bidding. The State requires a definitive and unambiguous Statement as to their intention to bid, or to abstain from bidding – in which case a brief business justification or rationale must be provided to the State. Such indication must be provided via email to the State Procurement Representative contained herein. Pre-Qualified Contractors who fail to bid on opportunities within

Expertise Domains in which they are contracted under Contract 0A1199 on a repeated basis without providing such rationale to the State may, at the State's discretion, be eliminated from consideration in participating in future Exploratory Projects. Intention to bid or abstain from bidding should be directed to Nathan.Huskey@odh.ohio.gov. Contractors are to note that the State requires either of: 1) a written indication of its intention to bid or 2) a written indication to abstain from bidding with a brief business rationale. Should Contractors not provide this indication to the State on a repeated basis for solicitations in which they are Pre-Qualified Contractors, the State may eliminate the Contractor from participating in future solicitations or cancel the Contractors contract in its entirety.

Proposal Submittal. Each Pre-Qualified Contractor must electronically submit via email a complete and signed copy of its Exploratory Project Solicitation proposal as a single PDF. **The Exploratory Project Solicitation Number DADOH-18-EP-001 should be included in the title of the email.** The Pre-Qualified Contractor's response shall clearly demonstrate how their proposed solution meets the requirements outlined in this Exploratory Project Solicitation. Each proposal must be organized in the same format as described below. Any material deviation from the format outlined below may result in a rejection of the non-conforming proposal. Each proposal must contain an identifiable tab sheet preceding each section of the proposal. The proposal shall be good for a minimum of 45 days.

Proposals MUST be submitted to the Agency Project Representative no later than the date and time listed in the Schedule of Events:

Nathan Huskey
Nathan.Huskey@odh.ohio.gov

Proposal Content. Pre-Qualified Contractors are requested to limit their proposal to not more than fifty (50) pages in its entirety.

- Cover Letter
- Pre-Qualified Contractor Proposal in Response to Attachment 1 the Statement of Work
- Cost Summary – (See Statement of Work Section 3)
- Proof of Insurance

Cover Letter. The cover letter must be in the form of a standard business letter and must be signed by an individual authorized to legally bind the Pre-Qualified Contractor. The letter must have the following:

- a. The Pre-Qualified Contractor's principal place of business;
- b. A list of the people who prepared the Proposal, including their titles and email addresses;
- c. A list of Subcontractors proposed for this project; and
- d. An acknowledgement of the Limitation of Liability.

Pre-Qualified Contractor Proposal in Response to Attachment 1 the Statement of Work and Requirements. The Pre-Qualified Contractor and proposed Subcontractors must describe in detail how the proposed solution meets the Work and requirements described in this Exploratory Project Solicitation. The Pre-Qualified Contractor may not simply state that the proposed services will meet or exceed the specified requirements. Instead, the Pre-Qualified Contractor must provide a written narrative that shows that the Pre-Qualified Contractor understands the requirements of this Exploratory Project Solicitation and demonstrates how the Pre-Qualified Contractor's proposed services meets those requirements. Pre-Qualified Contractors, as part of their proposal in response to Attachment 1, must include the following elements:

1. An overall **Analytical Approach** inclusive of analytical methods, tools and technologies, and expected outcomes;
2. A comprehensive **Project Workplan** inclusive of all State required milestones, activities and deliverables with anticipated delivery dates;
3. A **Staffing Plan** inclusive of all Pre-Qualified Contractor staff, Pre-Qualified Contractor staff locations (e.g., State premise or Pre-Qualified Contractor premise) and requirements for State personnel involvement for the duration of the project, by each phase of the project, regardless of implementation methodology that includes all requirements elaboration, design, development, system and acceptance testing and production deployment work elements;

4. **Proposed Pre-Qualified Contractor team** inclusive of 1-2 page biographical resumes for all team members that will be on State premise, or interact with State personnel as applicable to perform and complete the work.

Cost Summary. This Exploratory Project Solicitation includes a Cost Summary table. Pre-Qualified Contractors must complete the Cost Summary table and may not reformat the State’s Cost Summary table. Pre-Qualified Contractors may re-order (but not renumber) the deliverables as to align with their approach and project plan for performing the Exploratory Project Solicitation proposal as they see fit with an indication of the general scheduled due date for each Deliverable.

Cost Element	Deliverable Title	Scheduled Due Date	Cost
Milestone 1.	Confirmation of State and, if applicable Contractor Provided Datasets	MM/DD/YYYY	
Deliverable 2.	Ingestion/Staging of Data on Target Analytical Platform	MM/DD/YYYY	\$
Deliverable 3.	Analysis and Report - Etiological Precursors of Infant Mortality	MM/DD/YYYY	\$
Deliverable 4.	Analysis and Report – Mothers and Birth/Infants Characteristics	MM/DD/YYYY	\$
Deliverable 5.	Analysis and Report – Contribution/Comparative causes of Infant Death	MM/DD/YYYY	\$
Deliverable 6.	Analysis and Report – Access to / Consumption of State Programs, Mothers and Birth/Infants	MM/DD/YYYY	\$
Deliverable 7.	Analysis and Report – External Factors (e.g., healthcare, hospitals, practitioners, local/environmental factors, socio-economic factors)	MM/DD/YYYY	\$
Deliverable 8.	Analysis and Report – Causes/Circumstances (e.g., immaturity, SIDS, Preterm etc.)	MM/DD/YYYY	\$
Deliverable 9.	Comparative Analysis and Report – Ohio compared to neighboring States and similar cohorts in other States (e.g., socio-economic, nutritional, public assistance, programs, care, education and other factors)	MM/DD/YYYY	\$
Deliverable 10.	Analysis and Report - Identification and Efficacy of State Programs that support high-risk populations	MM/DD/YYYY	\$
Deliverable 11.	Analysis and Report –Profiling those at-risk for Infant Mortality (Mothers and Unborn) and Communities	MM/DD/YYYY	\$
Deliverable 12.	Analysis and Report – Predictive Model those at-risk for Infant Mortality (Mothers and Birth)	MM/DD/YYYY	\$
Deliverable 13.	Analysis and Report – Identify high-risk individuals enrolled in one or more State of Ohio programs to inform targeted interventions	MM/DD/YYYY	\$
Deliverable 14.	Analysis and Report – Identify high-risk individuals that are not enrolled in State of Ohio programs who may benefit from an existing program or a new targeted intervention	MM/DD/YYYY	\$
Deliverable 15.	Analysis and Report – Propose targeted interventions and measurable indicators stratified by risk and subpopulation aimed at reversing causal factors that increase the risk of infant mortality	MM/DD/YYYY	\$

Cost Element	Deliverable Title	Scheduled Due Date	Cost
Final Deliverable	Executive Presentation of a Summary of the aforementioned deliverables to be conducted at a date and time mutually convenient to the State and Pre-Qualified Contractor	MM/DD/YYYY	\$
Due Date and Total Not to Exceed Firm Fixed Price		MM/DD/YYYY	\$

For invoicing and payment information, refer to Attachment Two: Special Provisions Applicable to Exploratory Projects, Submittal of Exploratory Project Deliverables of RFP 0A1199. The State's acceptance of Exploratory Project deliverables is conditioned on the deliverable fully conforming to the Exploratory Project Solicitation and all applicable Exploratory Project Specifications.

Proof of Insurance. The Pre-Qualified Contractor must provide the certificate of insurance as required in section: Guidelines for Proposal Preparation. The policy may be written on an occurrence or claims made basis.

Proprietary Information. All proposals and other material submitted will become the property of the State and may be returned only at the State's option. Proprietary information should not be included in a proposal or supporting materials because the State will have the right to use any materials or ideas submitted in any proposal without compensation to the Pre-Qualified Contractor. Additionally, all proposals will be open to the public after the contract has been awarded. The State may reject any proposal if the Pre-Qualified Contractor takes exception to the terms and conditions of this Exploratory Project Solicitation.

Evaluation of Proposals

This Exploratory Project Solicitation asks for proposals from Pre-Qualified Contractors. While each criterion represents only a part of the total basis for a decision to award the contract to a Pre-Qualified Contractor, a failure by a Pre-Qualified Contractor to make a required submission or meet a requirement will normally result in a rejection of that Pre-Qualified Contractor's proposal. The value assigned to each criterion is only a value used to determine which proposal is the most advantageous to the State in relation to the other proposals that the State received. It is not a basis for determining the importance of meeting any requirement to participate in the Exploratory Project Solicitation process.

The evaluation process may consist of up to three distinct phases:

1. The Project representative's initial review of all proposals for defects;
2. The evaluation committee's evaluation of the proposals; and
3. Interviews (optional).

Initial Review. The Project representative normally will reject any incomplete or incorrectly formatted Exploratory Project Solicitation proposal, though the representative may elect to waive any defects or allow a Pre-Qualified Contractor to submit a correction. If a late proposal is rejected, the procurement representative will not open or evaluate the late proposals. The procurement representative will forward all timely, complete, and properly formatted proposals to an evaluation committee, which the procurement representative will chair.

Committee Review of the Proposals. The evaluation committee will evaluate and numerically score each proposal that the procurement representative has forwarded to it. The evaluation will result in a point total being calculated for each proposal. Those Pre-Qualified Contractors submitting the highest-rated proposals may be scheduled for the next phase. The number of proposals forwarded to the next phase will be within the evaluation committee's discretion, but regardless of the number of proposals selected for the next phase, they will always be the highest rated proposals from this phase. At any time during this phase, the State may ask a Pre-Qualified Contractors to correct, revise, or clarify any portions of its proposal. The State will document all major decisions in writing and make these a part of the file along with the evaluation results for each proposal considered. Once the technical merits of a proposal are considered, the costs of that proposal will be considered. But the State may also consider costs before evaluating the technical merits of the proposals by doing an initial review of costs to determine if any proposals should be rejected because of excessive cost. And the State may reconsider the excessiveness of any proposal's cost at any time in the evaluation process.

Clarifications and Corrections. During the evaluation process, the State may request clarifications from any Pre- Qualified Contractor under active consideration. It also may give any Pre-Qualified Contractor the opportunity to correct defects in its proposal. But the State will allow corrections only if they do not result in an unfair advantage for the Pre-Qualified Contractor and it is in the State's best interest.

Interviews. The State may require top-ranking candidates to interview with the State. Such interviews provide the State an opportunity to test and probe the professionalism, qualifications, skills and work knowledge of the top-ranking proposals. The interviews will be scheduled at the discretion of the State and will be held at a pre-identified State Facility. At its own expense, the Pre-Qualified Contractor must make its proposed team available on-site within five working days following the State's notification.

Changing Candidates. The major criterion on which the State bases the award of the contract is the quality of the Pre-Qualified Contractor's candidate(s). Changing personnel after the award may be a basis for termination of the contract.

Rejection of proposals. The State may reject any proposal that is not in the required format, does not address all the requirements of this Exploratory Project Solicitation, or that the State believes is excessive in price or otherwise not in its interest to consider or to accept. The State will reject any proposals from Pre-Qualified Contractors who are not Contracted under Contract 0A1199, Supplement 2 in the specific Data Analytics Expertise Domain for this request. In addition, the State may cancel this Exploratory Project Solicitation, reject all the proposals, and seek to do the work through a new Exploratory Project Solicitation or other means.

Work Award Process. It is the State's intention to award work under the scope of this Exploratory Project Solicitation and as based on the Exploratory Project Solicitation Schedule of Events schedule, so long as the State determines that doing so is in the State's best interests and the State has not otherwise changed the award date. After the State makes its decision under this Exploratory Project Solicitation, the agency representative will usually notify Pre-Qualified Contractors. Pre-Qualified Contractors may also access award information from the State Procurement website.

Supplemental Terms and Conditions Relevant to this Solicitation.

Insurance Requirements. The Pre-Qualified Contractor must provide the following insurance coverage at its own expense throughout the term of the work resulting from this Exploratory Project Solicitation. Pre-Qualified Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Pre-Qualified Contractor, its agents, representatives, or employees. Pre-Qualified Contractor shall procure and maintain for the duration of the contract insurance for claims arising out of their professional services and including, but not limited to loss, damage, theft or other misuse of data, infringement of intellectual property, invasion of privacy and breach of data.

MINIMUM SCOPE AND LIMIT OF INSURANCE

Coverage shall be at least as broad as:

1. Commercial General Liability (CGL): written on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than \$1,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit. Defense costs shall be outside the policy limit.
2. Automobile Liability: covering Code 1 (any auto), or if Pre-Qualified Contractor has no owned autos, Code 8 (hired) and 9 (non-owned), with a limit no less than \$1,000,000 per accident for bodily injury and property damage.
3. Workers' Compensation insurance as required by the State of Ohio, or the state in which the work will be performed, with Statutory Limits, and Employer's Liability Insurance with a limit of no less than \$1,000,000 per accident for bodily injury or disease. If Pre-Qualified Contractor is a sole proprietor, partnership or has no statutory requirement for workers' compensation, Pre-Qualified Contractor must provide a letter stating that it is exempt and agreeing to hold Entity harmless from loss or liability for such.

4. Technology Professional Liability (Errors and Omissions) Insurance appropriate to the Pre-Qualified Contractor's profession, with limits not less than \$2,000,000 per occurrence or claim, \$2,000,000 aggregate. Coverage shall be sufficiently broad to respond to the duties and obligations as is undertaken by Pre-Qualified Contractor in this agreement and shall cover all applicable Pre-Qualified Contractor personnel or subcontractors who perform professional services related to this agreement.
5. Cyber liability (first and third party) with limits not less than \$5,000,000 per claim, \$10,000,000 aggregate. Coverage shall be sufficiently broad to respond to the duties and obligations as is undertaken by Pre-Qualified Contractor in this agreement and shall include, but not be limited to, claims involving infringement of intellectual property, including but not limited to infringement of copyright, trademark, trade dress, invasion of privacy violations, information theft, damage to or destruction of electronic information, release of private information, alteration of electronic information, extortion and network security. The coverage shall provide for breach response costs as well as regulatory fines and penalties and credit monitoring expenses with limits sufficient to respond to these obligations.

The Insurance obligations under this agreement shall be the minimum Insurance coverage requirements and/or limits shown in this agreement. Any insurance proceeds in excess of or broader than the minimum required coverage and/or minimum required limits, which are applicable to a given loss, shall be available to the State of Ohio. No representation is made that the minimum Insurance requirements of this agreement are sufficient to cover the obligations of the Pre-Qualified Contractor under this agreement.

The insurance policies are to contain, or be endorsed to contain, the following provisions:

Additional Insured Status. Except for Workers' Compensation and Professional Liability insurance, the State of Ohio, its officers, officials and employees are to be covered as additional insureds with respect to liability arising out of work or operations performed by or on behalf of the Pre-Qualified Contractor including materials, parts, or equipment furnished in connection with such work or operations. Coverage can be provided in the form of an endorsement to the Pre-Qualified Contractor's insurance.

Primary Coverage. For any claims related to this contract, the Pre-Qualified Contractor's insurance coverage shall be primary insurance. Any insurance or self-insurance maintained by the State of Ohio, its officers, officials and employees shall be excess of the Pre-Qualified Contractor's insurance and shall not contribute with it.

Umbrella or Excess Insurance Policies. Umbrella or excess commercial liability policies may be used in combination with primary policies to satisfy the limit requirements above. Such Umbrella or excess commercial liability policies shall apply without any gaps in the limits of coverage and be at least as broad as and follow the form of the underlying primary coverage required above.

Notice of Cancellation. Pre-Qualified Contractor shall provide State of Ohio with 30 days written notice of cancellation or material change to any insurance policy required above, except for non-payment cancellation. Material change shall be defined as any change to the insurance limits, terms or conditions that would limit or alter the State's available recovery under any of the policies required above. A lapse in any required insurance coverage during this Agreement shall be a breach of this Agreement.

Waiver of Subrogation. Pre-Qualified Contractor hereby grants to State of Ohio a waiver of any right to subrogation which any insurer of said Pre-Qualified Contractor may acquire against the State of Ohio by virtue of the payment of any loss under such insurance. Pre-Qualified Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the State of Ohio has received a waiver of subrogation endorsement from the insurer.

Deductibles and Self-Insured Retentions. Deductibles and self-insured retentions must be declared to and approved by the State. The State may require the Pre-Qualified Contractor to provide proof of ability to pay losses and related investigations, claims administration and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the deductible or self-insured retention may be satisfied by either the named insured or the State.

Claims Made Policies. If any of the required policies provide coverage on a claims-made basis:

1. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
2. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the contract of work.
3. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a Retroactive Date prior to the contract effective date, the Pre-Qualified Contractor must purchase "extended reporting" coverage for a minimum of five (5) years after completion of contract work. The Discovery Period must be active during the Extended Reporting Period.

Verification of Coverage. Pre-Qualified Contractor shall furnish the State of Ohio with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the State of Ohio before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Pre-Qualified Contractor's obligation to provide them. The State of Ohio reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

Subcontractors. Pre-Qualified Contractor shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Pre-Qualified Contractor shall ensure that State of Ohio is an additional insured on insurance required from subcontractors.

Special Risks or Circumstances. State of Ohio reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

Limitation of Liability. Neither party will be liable for any indirect, incidental, or consequential loss or damage of the other party, including but not limited to lost profits, even if the parties have been advised, knew, or should have known of the possibility of such damages. Additionally, neither party will be liable to the other for direct or other damages in excess of two times or \$5,000,000 whichever is greater of the Not-To-Exceed Fixed Price of this Contract. The limitations in this paragraph do not apply to any obligation of the Pre-Qualified Contractor to indemnify the State against claims made against it or for damages to the State caused by the Pre-Qualified Contractor's negligence or other tortious conduct.

Background Check. All Pre-Qualified Contractor employees, subcontractors, and Replacement Personnel working on this Project must have a criminal background check performed prior to employment. The Pre-Qualified Contractor must provide the results of employee, subcontractor, and Replacement Personnel background checks in a manner that allows the Pre-Qualified Contractor to take appropriate action if the background is unacceptable to the State while maintaining the employee, subcontractor's, or Replacement Personnel's confidentiality. Any employee, subcontractor, or Replacement Personnel with a background check that is unacceptable to the State will be immediately removed from consideration.

Attachment 1:
Statement of Work and Requirements
Table of Contents

1.	Business Background and Overview	12
1.1.	Background and Introduction	12
1.2.	Project Overview:	12
1.3.	Scope of Work.....	12
1.4.	State Team & Responsibilities	13
1.5.	Pre-Qualified Contractor Responsibilities	14
1.6.	Initial Project Duration and Approach	15
2.	Analysis Dimensions, Project Datasets and Taxonomies	16
2.1.	State Identified Analysis Dimensions and Anticipated Outcomes	16
2.2.	State Provided Datasets	17
2.3.	State Provided Previous Work	21
2.4.	Pre-Qualified Contractor Provided (Non-State) Datasets	22
2.5.	Project Data Privacy and Handling Requirements.....	22
3.	Additional Information	25

1. Business Background and Overview

1.1. Background and Introduction

Infant mortality, the death of a live-born baby before his or her first birthday is far too common in Ohio. In addition, disparities in birth outcomes and infant health within the first year of life exist between the general population and certain subpopulations. In 2015, Ohio's black infant mortality rate was almost 3 times higher than the white infant mortality rate.

Reducing Ohio's infant mortality rate is one of the priority outcomes identified in Ohio's State Health Improvement Plan. Although Ohio has had some success at reducing infant mortality over the past 25 years, the rate of improvement has been slow. Unfortunately, Ohio continues to have a higher infant mortality rate than the average rate in the United States.

1.2. Project Overview:

Under the direction of the Ohio Department of Health (ODH) and in coordination with the Ohio Department of Medicaid (ODM), the Ohio Department of Job and Family Services (ODJFS), and the Ohio Department of Mental Health and Addiction Services (Ohio MHAS), a Contractor that is pre-qualified as a Data Analytics expert in Life Sciences and Public Health per DAS Document/BID # 0A1199, Supplement 2 is sought to conduct an exploratory applied analytic project to develop novel interventions to reduce and prevent Ohio's infant mortality rate.

The analytic work should be specific to Ohio's population and should result in ideas for actionable interventions that will reduce the number of infant deaths. The successful Pre-Qualified Contractor for this project must present an innovative, achievable, and coherent project plan utilizing qualified data scientists, project managers and clinical, social or behavioral science subject matter experts. After completion of this first phase of the project, a subsequent Exploratory Project Solicitation may be issued to implement and track progress on interventions identified by the first phase of the project.

1.3. Scope of Work

In consultation and agreement with the State, the Pre-Qualified Contractor must focus the initial work on conducting advanced statistical analysis techniques to achieve the following goals:

- Collaborate with State resources to build upon the existing sourcing and knowledge base regarding causal factors of infant mortality
- Source and integrate State (see 2.2) and external data relevant to predicting and profiling those at-risk for infant mortality
- Expand and enhance existing predictive models and profiling models to determine those at-risk for infant mortality in Ohio, the Infant Mortality Research Partnership (IMRP) provided high risk multivariate models for point of care individual level Medicaid recipients on the outcomes of infant mortality, pre-term birth, and very pre-term birth – these existing models (subject to approval of IMRP) should be utilized to assist in variable selection and model selection for individuals within statewide; the IMRP also created foundational geospatial and hierarchical mixed level models based on individual level characteristics and social determinants for health– these models (subject to the approval of IMRP) should also be relied upon and utilized for building additional models
- Identify high-risk individuals, and groups of individuals, enrolled in one or more State of Ohio Programs to design targeted interventions and to inform implementation of practical application of the models to public

health agencies, health care providers, health plans, and associated entities working to improve care and outcomes for pregnant women and babies; such identification of high-risk individuals should take into consideration individual level data in the data sources as well as integration with aggregate data sources to ensure the most specific and comprehensive identification of high risk individuals

- Identify high-risk individuals not enrolled in State of Ohio Programs (or enrolled late) who may benefit from an existing program or a new targeted intervention
- Propose targeted interventions and measurable indicators stratified by risk and subpopulation aimed at reversing causal factors that increase the risk of infant mortality
- Focus existing public health programs on the highest-risk individuals for greater impact and efficiency

Potential statistical techniques to be used for this project include but are not limited to:

- Nonlinear complex multivariate simulations
- Nonparametric regression
- Analysis of homogeneity of variance, covariance, multivariate cluster/outlier analyses
- Artificial Intelligence
- Cognitive Computing
- Data Mining, Neural Networks
- Micro and Macro Trending, Outlier Analysis
- Machine Learning & Deep Learning
- Geospatial Technology, Analytics and Modelling

Datasets available for analysis will be provided by the State of Ohio as allowed by applicable state and federal law. Whenever possible, individual level data will be provided to assist in building the risk profile. Section 2 lists datasets containing information on Ohio residents that have been identified as potentially related to infant mortality in Ohio. Additional datasets sourced outside of state government and other datasets identified within the state enterprise may be used if agreed upon by the State and Contractor.

1.4. State Team & Responsibilities

The State of Ohio will be responsible for ensuring that all subject matter experts (SMEs), datasets, and any relevant previous work done to date are made available to the Pre-Qualified Contractor in a timely fashion. Specifically, the State will provide timely access to etiology SMEs (policy, intervention), relevant etiological documentation (to the extent that it exists), data SMEs, and data quality SMEs. In addition, the State will provide experts to help guide the analysis and troubleshoot any problems as the project progresses to ensure a successful outcome.

The State will provide State resources to the Project as follows:

State Organization(s)	Resource(s)	Participation Level
Ohio Department of Health (“Health” or “ODH”)	Infant Mortality Policy Staff	Consultative, at least 5 hours per week (or more upon mutual agreement).
	Informatics Expert	Full Time, for the duration of the project.
	Dataset Subject Matter Expert(s)	At least one (1) SME per dataset, prioritized situational access as required by Pre-Qualified Contractor.

State Organization(s)	Resource(s)	Participation Level
	Health IT Expertise	At least one (1) Expert per dataset, prioritized situational access as required by Pre-Qualified Contractor (data sourcing, quality, interpretation, normalization and correlation) advisory services.
Ohio Department of Medicaid	Infant Mortality, Data Analytics and ODM Claims Data Subject Matter Experts	Consultative, at least 3 hours a week – especially on ODM related datasets, inclusion and interpretation of variables related to ODM (claims, presumptive eligibility, etc.), and integration of existing IMRP statistical models
Ohio Department of Job and Family Services	Supplemental Nutrition, Cash Assistance, Child Protective Services and Child Support	Program Expertise Consultative, at least 5 hours per week (or more upon mutual agreement) per area.
	Dataset Subject Matter Expert(s)	At least one (1) SME per dataset, prioritized situational access as required by Pre-Qualified Contractor.
Ohio Department of Mental Health and Addiction Services	Addiction, Treatment, Recovery Program area expertise	Program Expertise Consultative, at least 5 hours per week (or more upon mutual agreement) per area.
	Dataset Subject Matter Expert(s)	At least one (1) SME per dataset, prioritized situational access as required by Pre-Qualified Contractor.
Ohio Department of Administrative Services, Office of Information Technology (“DAS/OIT”)	State Data Analytics Platform Expertise (multiple situational part-time roles)	Data Access, Handling, Storage, Security/Privacy Experts as required.
	State Data Analytics Platform Expertise (multiple situational part-time roles)	Data Access, Handling, Storage, Security/Privacy Experts as required.

1.5. Pre-Qualified Contractor Responsibilities

The Pre-Qualified Contractor will conduct all analyses using State provided analytics platforms and (if necessary) Pre-Qualified Contractor hardware and software, create any necessary visualizations, and regularly update State staff on progress through weekly reports and participation in meetings. In addition to the deliverables shown in the table below, upon completion of the project, a written report and presentation for agency leadership and any relevant stakeholders outlining the risk profile, findings of the analysis, and recommendations for interventions (including policy, systems, and environmental changes) to reduce infant mortality specific to Ohio is required. The State would also take any recommendations under advisement to improve State data systems.

Deliverable Title
Ingestion/Staging of Data on Target Analytical Platform

Deliverable Title

Analysis and Report - Etiological Precursors of Infant Mortality
Analysis and Report – Mothers and Birth/Infants Characteristics
Analysis and Report – Contribution/Comparative causes of Infant Death
Analysis and Report – Access to / Consumption of State Programs, Mothers and Birth/Infants
Analysis and Report – External Factors (e.g., healthcare, hospitals, practitioners, local/environmental factors, socio-economic factors)
Analysis and Report – Causes/Circumstances (e.g., immaturity, SIDS, Preterm etc.)
Comparative Analysis and Report – Ohio compared to neighboring States and similar cohorts in other States (e.g., socio-economic, nutritional, public assistance, programs, care, education and other factors)
Analysis and Report - Identification and Efficacy of State Programs that support high-risk populations
Analysis and Report –Profiling those at-risk for Infant Mortality (Mothers and Unborn) and Communities
Analysis and Report – Predictive Model those at-risk for Infant Mortality (Mothers and Birth)
Analysis and Report – Identify high-risk individuals enrolled in one or more State of Ohio programs to inform targeted interventions
Analysis and Report – Identify high-risk individuals that are not enrolled in State of Ohio programs who may benefit from an existing program or a new targeted intervention
Analysis and Report – Propose targeted interventions and measurable indicators stratified by risk and subpopulation aimed at reversing causal factors that increase the risk of infant mortality
Executive Presentation of a Summary of the aforementioned deliverables to be conducted at a date and time mutually convenient to the State and Pre-Qualified Contractor

1.6. Initial Project Duration and Approach

The State seeks an initial project that is time-boxed, and of fixed scope and price inclusive of the Scope of Work, State Identified Analysis Dimensions, State and (if applicable) Pre-Qualified Contractor provided data of **no more than six (6) months**. Should the State determine that additional analysis, analysis dimensions, data or other factors be deemed advantageous to the State, the State may seek additional competitively sourced Exploratory Project(s) to explore different facets, dimensions or scope(s) of work.

2. Analysis Dimensions, Project Datasets and Taxonomies

2.1. State Identified Analysis Dimensions and Anticipated Outcomes

2.1.1. Subject Area

Infant mortality is associated with a variety of factors such as maternal health, socioeconomic conditions, and public health practices. The high Ohio infant mortality has some association with and may be attributable to disparities in socioeconomic status which in turn are associated with race and ethnicity. Considerable differences in socioeconomic status and resulting financial disempowerment may adversely affect food security and nutrition, education, and health care in local and regional communities in Ohio.

2.1.2. Problem Statement and Analysis Dimensions

The Pre-Qualified Contractor must design its Exploratory Project proposal to result in informing the State, to the greatest extent possible using State (and if applicable, Contractor) provided data as follows; at a minimum:

- ▶ Collaborate with State resources (including academic partners) using evidence-based research to build upon the existing sourcing and knowledge base regarding causal factors of infant mortality
- ▶ Source and integrate State (see 2.2) and external data relevant to predicting and profiling those at-risk for infant mortality, very pre-term birth (less than 32 weeks gestational age), and pre-term birth (less than 37 weeks gestational age)
- ▶ Expand and enhance existing predictive models and profiling models to determine those at-risk for infant mortality very pre-term birth, and pre-term birth in Ohio
- ▶ Link data sources across agencies at an individual-level where possible based on probabilistic and deterministic statistical techniques to maximize predictive modeling techniques
- ▶ Identify high-risk individuals enrolled in one or more State of Ohio Programs to inform targeted interventions
- ▶ Identify high-risk individuals not enrolled in State of Ohio Programs (or enrolled late) who may benefit from an existing program or a new targeted intervention
- ▶ Propose targeted interventions and measurable indicators stratified by risk and subpopulation aimed at reversing casual factors that increase the risk of infant mortality
- ▶ Focus existing public health programs on the highest-risk individuals for greater impact and efficiency
- ▶ Produce modeling techniques that may be incorporated into actionable health care quality improvement efforts at different levels, maximizing available technology (e.g., with the intent to integrate modeling into electronic health records used by health care providers of women of reproductive age)

The Pre-Qualified Contractor must include the following Analysis Dimensions in the Exploratory Project proposal at a minimum:

- ▶ **Mother's demographic characteristics** (age of mother, marital status, maternal race, maternal education), and all other relevant characteristics;
- ▶ **Mother's health related and risk related characteristics** (conditions associated with mother, including gestational diabetes, hypertension, preeclampsia, previous pre-term births, shortened cervix, mental health characteristics (depression, anxiety, mental health disorders, etc.), drug use and treatment, alcohol use and treatment, tobacco use and treatment, and all other relevant characteristics
- ▶ **Pregnancy and Birth characteristics** (month when maternal prenatal care began, birth weight);

- ▶ **Infant’s characteristics** (age of infant at death);
- ▶ **Contribution/Comparative of causes of infant death** to infant mortality at the national, State and local level;
- ▶ **State Program availability and access to/by Mother & Child** (e.g., assistance, education, nutrition, counselling, addiction, pre-natal screening etc.); and
- ▶ **External Factors** (e.g., quality/access to healthcare, hospitals, practitioners, local factors, environmental factors, socio-economic factors, availability of affordable housing).

2.1.3. Anticipated Outcomes

- ▶ **Identification of the causes/circumstances of:** Extreme immaturity; Sudden infant death syndrome (SIDS); Other ill-defined and unspecified causes of mortality; Other preterm infants; Accidental suffocation and strangulation in bed; Respiratory distress syndrome (RDS) of newborn.
- ▶ **Identification of targeted** intervention programs, changes in policy, communications/outreach recommendations to Executive Sponsor and Steering Committee
- ▶ **Creation of profile list of at risk individuals/communities** to target inclusive of: intervention formulation, interventions test design, implementation support, measurement and assessment of intervention outcomes and effectiveness by subgroups/locale/cohort group
- ▶ **Design/handoff to State** ongoing measurement of efficacy of intervention, policy and outreach.

2.2. State Provided Datasets

The State, upon commencement of the Project, will provide the Pre-Qualified Contractor with access to the following datasets in a machine-readable form, with corresponding data taxonomies, record/column descriptions and other information pertinent to ingestion, analysis and use of this data for the Project:

Database Name/Description	Years of Data Available	Number of Rows (Approximate per year)	Number of Columns (Variables)	Database Size (range in GB)
Ohio Department of Health Datasets				
Birth Records (Resident, Integrated Perinatal Health Information System (IPHIS)) - The Resident Dataset contains counts of Ohio residents that had a live birth from 2006 to present. This birth view contains data without personal identifiers, for use in analysis of common birth indicators such as low birth weight.	2006 -2017*	140000^	307	100 GB - 500 GB
Birth Records (Occurrence, IPHIS) - The Occurrence Dataset contains virtually all variables in the IPHIS birth registry database, including data considered non-public. The occurrence dataset contains only births which occurred in Ohio.	2012 - 2017*	140000^	586	100 GB - 500 GB
Mortality (Comprehensive, EDRS) - The Ohio Department of Health (ODH) receives death occurrence data within the state along with Ohio resident death for occurrences outside of the state, derived from death certificates. Data collection, processing and analysis methods resulting in the creation of a death certificate are developed and recommended for nationwide use through cooperatives activities of the jurisdictions and NCHS (National Center for Health Statistics). Mortality variables include statistical data on age, race, sex, ethnicity, etc.	2007 - 2017*	120000^	489	100 GB - 500 GB
Fetal Death Records – This dataset contains data related fetal deaths after 20 weeks of gestation.	1989 - 2017*	1000^	212	<1 GB
Elevated Blood Lead Levels - This dataset contains data related to Blood Lead Testing for Ohio children. Children tested more than once in a calendar year are shown only once. Blood lead level data reflects the highest	2005-2017*	188,000	85	<1 GB

Database Name/Description	Years of Data Available	Number of Rows (Approximate per year)	Number of Columns (Variables)	Database Size (range in GB)
confirmed test during the year if a confirmed test exists for a child, or the highest test for the year, otherwise (unless otherwise noted).				
Pregnancy Risk Assessment Monitoring System/Ohio Pregnancy Assessment Survey (PRAMS) - PRAMS is a CDC-sponsored, mail/phone survey of new moms. PRAMS collects state-specific, population-based data on maternal attitudes and experiences before, during, and shortly after pregnancy. PRAMS gathers data on the following indicators: pregnancy intendedness, prenatal care, smoking, drinking, breast-feeding, multivitamin use, health insurance, medical problems during pregnancy, stressful experiences during pregnancy, physical abuse, mental health, and dental care during pregnancy. Beginning with 2016 births, Ohio transitioned to its own PRAMS-like survey, the Ohio Pregnancy Assessment Survey (OPAS).	2000-2015	1400 [^]	540 [^]	<1 GB
Ohio Pregnancy Assessment Survey (OPAS) - See PRAMS Information as this system replaced PRAMS in Ohio as of 2016. The first data from OPAs will be available in the fall of 2017.	2016-2017*	3600 [^]	540 [^]	<1 GB
Violent Death Reporting System (OH-VDRS) - The Ohio Violent Death Reporting System (OH-VDRS) is a public health, population-based surveillance system that contains detailed information on deaths that result from violence. "Violent deaths" include homicide and suicide deaths, legal intervention deaths, unintentional firearm deaths, unintentional overdose and deaths of undetermined intent. OH-VDRS links data from multiple sources including death certificates, law enforcement reports, and coroner and medical examiner reports to create a comprehensive record of the incident. OH-VDRS includes information on the victims, suspects, relationships, circumstances, and weapons that are associated with each violent death incident. Circumstance information includes mental health problems; recent problems with a job, finances, or relationships; physical health problems; and other circumstances surrounding the death.	2010-2017*	6000	1000 [^]	<1 GB
Behavioral Risk Factor Surveillance System (BRFSS) - The Behavioral Risk Factor Surveillance System (BRFSS) is a state-based telephone survey regarding health practices, health conditions and risk behaviors among adults 18 years of age and older. The Ohio BRFSS includes core modules asked every year or every other year, optional modules and state-added questions.	2000 - 2015	11000 [^]	300 [^]	50 GB - 100 GB
Your Risk Behavior Survey (YRBS) - The 2013 Ohio Youth Risk Behavior Survey (YRBS), like surveys in years past, was designed to monitor six types of health-risk behaviors that contribute to the leading causes of both morbidity as well as mortality among the nation's youth. The health-risk behaviors of interest include those that contribute to unintentional injuries or violence, sexual behaviors, alcohol and other drug use, tobacco use, unhealthy dietary behaviors, and inadequate physical activity. The survey targets students in grades nine through twelve.	1993, 1997, 1999, 2003, 2005, 2007, 2011, 2013	1500 [^]	239	<1 GB
Pregnancy Associated Mortality Review (PAMR) - Provides a repository for the medical and social information needed for maternal mortality review committee case review. It provides standardized data that can be used for surveillance, monitoring, and research of maternal mortality.	2008-2014	60 [^]	320 [^]	<1 GB
Home Visiting (Early Track) - Data collected for statewide Home Visiting Program on children and caregivers. Early Track also contains data on children participating in the Early Intervention program.	1995-2017*	30500 [^]	950 [^]	50 GB - 100 GB
Ohio Disease Reporting System (ODRS) - The Ohio Disease Reporting System (ODRS) provides real-time secured access for state and local public health practitioners to report infectious diseases. ODRS allows local health departments with jurisdictional responsibility and relevant ODH program staff to have immediate access to infectious disease reports on a 24/7/365 basis for disease control and disease surveillance purposes.	2001-2017*	90500 [^]	360	50 GB - 100 GB
Newborn Metabolic Screening - This dataset contains demographic information on babies that receive newborn screening tests in Ohio, the newborn screening lab results associated with each baby, and case	2000-2017*	140,000	150 [^]	100 GB - 500 GB

Database Name/Description	Years of Data Available	Number of Rows (Approximate per year)	Number of Columns (Variables)	Database Size (range in GB)
management records of any babies that had abnormal or inconclusive screening results.				
Children with Medical Handicaps (CMACS) – ODH uses the CMACS (Case Management, Application and Claims System) for business processes related to the Children with Medical Handicap Program. Data collected supports eligibility determination (medical and financial), program assignment (treatment, diagnostic, service coordination, etc.), benefit authorization (medical services by ICD code), Claims adjudication/payment (CPT codes, NPI #s) and Reporting (paid claims, demographics, medical diagnoses, etc).	1998-2017*	Query Dependent	Query Dependent	500 GB - 1000 GB
Child Fatality Review (CFR) - A national web-based information system for local Child Fatality Review (CFR) boards to input child death review data of all children younger than 18 years old. Text files data downloads and standardized reports are accessible for analysis.	2007-2017*	1300^	386	<1 GB
Supplemental Nutrition Program for Women, Infants and Children (WIC) - WIC is the Special Supplemental Nutrition Program for Women, Infants, and Children. WIC helps income eligible pregnant and breastfeeding women, women who recently had a baby, infants, and children up to five years of age who are at health risk due to inadequate nutrition. The program improves pregnancy outcomes by providing or referring to support services necessary for full-term pregnancies; reduces infant mortality by reducing the incidence of low birth weight (infants under 5 ½ pounds are at greater risk of breathing problems, brain injuries and physical abnormalities), and provides infants and children with a healthy start in life by improving poor or inadequate diets. WIC provides nutrition education, breastfeeding education and support; supplemental, highly nutritious foods such as cereal, eggs, milk, whole grain foods, fruits and vegetables, and iron-fortified infant formula; and referral to prenatal and pediatric health care and other maternal and child health and human service programs.	2000-2017*	30000^	204	50 GB - 100 GB
Immunization Information System (IMPACT SIIS) - Impact SIIS is the statewide immunization information system that tracks immunization records for all citizens of Ohio. The database contains demographic information as well as patient medical information relating to immunization status.	1998 - 2017*	850000^	200^	500 GB - 1000 GB
Ohio Department of Medicaid Datasets				
Ohio Medicaid Files linked to ODH birth and death certificates provided by ODM - linked ODH birth certificate files to Medicaid mother and infant Medicaid recipient Ids on a combination of probabilistic and deterministic matching; these are then also linked to ODH death certificate files.	2012-2016	71,000	5-100	< 1 GB
Ohio Medicaid Vendor Files - All information from Medicaid recipients via claims – includes health information on patients, Medicaid eligibility, Medicaid Managed Care enrollment, and Medicaid Health Care Providers; Summary: The Ohio Department of Medicaid produces a 'Vendor Extract', which is a series of files containing information regarding its clients and the medical services they received (that Medicaid paid for). These extracts are produced monthly. They include claims level information, whether paid directly by ODM or through managed care entities. The claims files include: Pharmacy claims, Medical claims (professional services), Institutional claims, and a Diagnosis/ICD-9 or 10 Procedure Code/Value Code file. There is also Recipient extracts (four files) which provide information regarding the Medicaid recipients (Demographic file, Eligibility file, Address file and Patient Liability / Spenddown file). Although these files are presently sent to each vendor, the department is moving towards a single source system (Enterprise Data Warehouse) to better provider data maintenance and consistency for this information. As systems are enhanced, ODM will work with the Contractor to adopt the new sources for the data.	TBD	TBD	TBD	TBD
Ohio Department of Job and Family Services Datasets				
Supplemental Nutrition Assistance Program (SNAP) Participant Records – This dataset will contain the authorization and termination dates	2012-2016	500,000	200	400 gb – 600 gb

Database Name/Description	Years of Data Available	Number of Rows (Approximate per year)	Number of Columns (Variables)	Database Size (range in GB)
for the targeted eligible Ohio recipients of SNAP benefits. In addition to eligibility authorization spans the dataset can include the monthly benefit amount and eligibility factors for the assistance group of the targeted individual; and basic identifying information on the targeted recipient. We will create data extract processes that will review recipient records for the identified time spans, extracting each eligibility span and the associated monthly benefit amount by assistance group.				
Ohio Works First (OWF) Participant Records - This dataset will contain the authorization and termination dates for the targeted eligible Ohio recipients of OWF cash assistance benefits. In addition to eligibility authorization spans the dataset can include the monthly benefit amount and eligibility factors for the assistance group of the targeted individual; and basic identifying information on the targeted recipient. We will create data extract processes that will review participant records for the identified time spans, extracting each eligibility span and the associated monthly benefit amount by individuals associated to appropriate children	2012-2016	150,000	100	100 gb – 250 gb
Child Protective Services (CPS) Participant Records – This data set will contain acknowledgement if the targeted individual was a party to a screened-in referral, screened-out referral, open child protective services case, had children removed from their care, had a history in foster care as a child, and basic identifying information on the targeted individual. Due to the potentially pertinent events and actions that can be related to each child within CPS, we will create data extract processes that will review participant records for time spans of reported actions, removals, reunifications, events and movements within care, resolutions, emancipations and other associative captured data.	2012-2016	300,000 – 900,000	200	200 gb – 750 gb
Child Support Case Participant Records - This dataset will contain the date of any established child support order involving the targeted individual. In addition to orders the dataset can include the amount of the order and payment history to or from the targeted individual; and basic identifying information on the targeted individual. We will create data extract processes that will provide case establishment and case maintenance information for the duration of the child support case. We will provide data on ordered amounts, payment history, arrears, collection actions and any retroactive accounting.	2012-2016	250,000	200 – 300	175 gb – 200 gb
Publicly Funded Child Care Participant Records - This dataset will contain the authorization and termination dates for eligible Ohio infants of publicly funded child care benefits. In addition to eligibility authorization spans the dataset may include the weekly usage amount for the deceased infant; and basic identifying information on the infant recipient. We will create data extract processes that will generate data rows for each identified child and will contain related child care information	2012-2016	300,000	300	240 gb
Ohio Department of Mental Health and Addiction Services Datasets				
MHAS Data Warehouse – providing non-Medicaid county ADAMH Board patient expenses. MACSIS and GOSH claims.	MACSIS: 2003 - 2017 GOSH: 2013 - 2017 Mortality: 2004-2015	3 Million Claims per Year	150-200	400GB
MHAS OHBH – providing addiction treatments and outcomes	1990 - Current	100,000 Admissions per Year	75-100	45GB
MHAS Community Linkage - addiction and MH services provided to inmates that are about to be released. Inmate services are not covered by Medicaid	2/2014 - Current	50,000 per Year	50-75	8GB

Database Name/Description	Years of Data Available	Number of Rows (Approximate per year)	Number of Columns (Variables)	Database Size (range in GB)
Access to Recovery – including non-Medicaid services such as transportation and housing including patients in MHAS hospitals not covered by Medicaid.	2010 - Current	15,000 Records per Year	15-100	10GB
Inpatient Data – pertinent to patients that are not covered by Medicaid	1982 - Current	1.8M Records per Year	1142	23GB
Additional State Provided Datasets				
The State, upon commencement of the Project, may provide the Contractor with access to the following datasets in a machine-readable form, with corresponding data taxonomies, record/column descriptions and other information pertinent to ingestion, analysis and use of this data for the Project. These datasets were used in the IMRP to provide additional layers for the multi-level modeling. Such datasets, if obtainable from the IMRP, may be applicable and are optional for use on this work. These datasets are, including but not limited to:				
American Community Survey: 5-year estimates , US Census Bureau, Social Explorer	2014	TBD	TBD	TBD
Ohio Business Listings ; Info group; OSU Center for Urban and Regional Analysis	2007 - 2014	TBD	TBD	TBD
Foreclosures ; U.S. Department of Housing and Urban Development	2007 - 2014	TBD	TBD	TBD

Notes:

* - data may be preliminary for most recent year(s)

^ - approximate; varies by year

2.3. State Provided Previous and Current Infant Mortality Work

The Contractor must collaborate with the State and identified resources to build upon the research already completed and currently underway via the Infant Mortality Research Partnership (IMRP), leveraging the predictive analytics where applicable to avoid duplicative work efforts. The Ohio Department of Higher Education, Ohio Department of Medicaid, ODH, and the Office of Health Transformation collaborated on a research project with the following areas of focus:

- Spatiotemporal analysis of infant mortality and preterm birth in Ohio
- Systems Dynamics Modeling of Infant Mortality in Ohio
- Predictive Modeling of Preterm Birth and Infant Mortality at the Point of Care

The project, completed in June 2017, was comprised of a group of multi-disciplinary researchers using modeling methods in parallel. A report of their findings and methodology is included as embedded files in the Section 4, Additional Information of this Exploratory Project Solicitation. This Exploratory Project Solicitation aims to build on the existing work and body of knowledge as described above in sections 1.3 and 2.1.2. It is important to note that much of the IMRP work focused on the Medicaid population, whereas the current project applies to all populations in Ohio. Given that there is more detailed information available on the Medicaid population, such as claims and health plan eligibility information, there may be an opportunity to build more robust models for the Medicaid population, using the IMRP work as a foundation. In addition, phase II of the IMRP is focused on further updating and refining existing individual level and population level predictive probability of high risk point of care models and hierarchical multi-level geospatial predictive models. The Contractor will be responsible for coordinating work and collaborating with IMRP researchers (subject to the agreement of IMRP researchers, and subject to time overlap of contracts for this project and the IMRP) and coordinating with the State to ensure a consistent approach and knowledge base.

2.4. Pre-Qualified Contractor Provided (Non-State) Datasets

Should the Pre-Qualified Contractor possess or have license to additional, non-State datasets that will assist, inform, provide additional perspectives or otherwise be useful to this Exploratory Project Solicitation, the Pre-Qualified Contractor shall be permitted to utilize such data as part of the Project. At the conclusion of the Project, the Pre-Qualified Contractor must ensure that the State no longer has access to such data (unless the data is generally in the Public Domain and available to the State) and all such data is removed from State computing platforms.

The Pre-Qualified Contractor, as part of its proposal, must list such datasets, as well as provide their anticipated use and usefulness to the State in performing the Exploratory Project:

Contractor Provided, Non-State Datasets		
Dataset (Logical Name) and Source	Dataset Contents (Descriptive Details)	Dataset Source and License (if applicable)
<p><i>[Example] National Center for Health Statistics, Vital Statistics Data</i></p> <p>https://www.cdc.gov/nchs/data_access/vitalstatsonline.htm</p>	<p><i>Birth, Period Linked Birth - Infant Death, Birth Cohort Linked Birth - Infant Death, Mortality Multiple Cause, and Fetal Death data.</i></p>	<p><i>National Center for Vital Statistics</i></p> <ul style="list-style-type: none"> ▪ <i>Vital Statistics Data Release Policy</i> ▪ <i>Data Users Agreement</i>

2.5. Project Data Privacy and Handling Requirements

Due to the nature of the data contained in this Exploratory Project Solicitation, the Federal and State laws referenced in the sections below are applicable to the project.

2.5.1. Definitions

Protected Health Information ("PHI") means individually identifiable information relating to the past, present or future physical or mental health or condition of an individual, provision of health care to an individual, or the past, present or future payment for health care provided to an individual, as more fully defined 45 CFR §§ 160.103 and 164.514, and any amendments thereto, created, received, maintained, or transmitted from or on behalf of the Agency

Business Associate, must have the meaning given to such term in 45 CFR § 160.103.

Individual means the person who is the subject of the PHI, as defined in 45 CFR § 160.103, and includes the person's personal representative.

Privacy Rule means the Standards for Privacy of Individually Identifiable Health Information found at 45 CFR Parts 160 and Part 164, Subparts A and E, and any amendments thereto.

Agency means a government entity subject to 45 CFR § 164.504(e)(2)(iii)

2.5.2. Permitted Use

Project participants agree that they shall not receive, create, use or disclose PHI except as follows:

Covered Functions. For the purposes of performing the Data Analytics Project described herein. Furthermore, all uses and disclosures must be in accordance with the privacy and security regulations [45 CFR Part 164].

Disclosure Restrictions. If necessary for the proper management and administration of the Data Analytics Exploratory Project Solicitation or to carry out legal responsibilities of a Project participant. PHI may only be disclosed to another person/entity for such purposes if disclosure is required by law;

Data Aggregation. To permit Project participants to provide data aggregation services relating to the health care operations of the State as defined in 45 CFR § 164.501. Aggregation is defined as combining PHI received from multiple Covered Entities to produce data analysis that relates to the operation of the respective Covered Entities

- 1. Minimize Use of PHI.** All Project participants agree that they will not request, use or release more than the minimum necessary amount of PHI to accomplish the purpose of the use, disclosure or request.
- 2. Business Associate Safeguards.** All Project participants agree to use appropriate safeguards to prevent any unauthorized use or disclosure of PHI and shall implement the administrative, physical and technical safeguards that reasonably protect the confidentiality, integrity and availability of the PHI that it creates, receives, maintains or transmits on behalf of the State will use all appropriate safeguards under:
 - 45 CFR 164 Subpart C including those identified as addressable;
 - 74 FR 19006 Guidance Specifying the Technologies and Methodologies That Render PHI Unusable, Unreadable, or Indecipherable to Unauthorized Individuals for Purposes of the Breach Notification Requirements under Section 13402 of Title XIII; and
 - State of Ohio IT security policies, standards and bulletins.
- 3. Unauthorized Disclosure and Incident Reporting and Remediation and Privacy and Security Breach Notification.**

2.5.3. Incident Reporting

Project participants shall report the following:

- Any use or disclosure of PHI which is not in compliance with the terms of this agreement or applicable law of which it becomes aware; and
- Any security incident of which it becomes aware. For purposes of this agreement, “security incident” means the unauthorized access, use, disclosure, modification, or destruction of information or interference with system operations in an information system.

As soon as it is practical, following the discovery of a reportable security incident as described above, Project participants agree to convene to review the existence and nature of the incident as understood at that time. Project participants shall immediately investigate the incident and within 72 hours of discovery shall provide a written report describing the status and any results of the investigation.

Reporting and other communications made under this section must be made to the HIPAA privacy officer from the Ohio Department of Health and the Ohio Department of Administrative Services, Office of Information Security and Privacy.

Coordination. Project participants agree to coordinate with one another to determine additional, specific actions that will be required for the mitigation of the breach, which may include notification to the individuals, entities or other authorities.

Subcontractor Obligations. Project participants shall ensure that all of its contractors and agents are bound, in writing, by the same restrictions and obligations contained herein, including but not limited to the obligation to implement reasonable and appropriate safeguards to protect the information, whenever the subcontractor or agent creates, receives, maintains, or transmits PHI on behalf of the Business Associate.

Access to PHI. Project participants shall make all PHI and related information maintained by the source providing the data or its agents or contractors available as soon as practicable following a request for PHI, to the extent necessary to fulfill the following obligations:




- **Inspection and Copying.** Make the PHI maintained by Associate or its agents or subcontractors in Designated Record Sets available to the source providing the data for inspection and copying to enable the source providing the data to fulfill its obligations under the Privacy Rule, including, but not limited to, 45 CFR § 164.524.
- **Accounting.** To account for disclosures of PHI in accordance with the provisions of the Privacy Rule, including, but not limited to 45 CFR § 164.528; and shall make all PHI in its possession available to the Agency Providing the Data as soon as practicable following a request for PHI, to fulfill the Agency Providing the Data's obligation to amend PHI and related information in accordance with 45 CFR § 164.526, and shall, as directed by the Agency Providing the Data, incorporate any amendments or related statements into the information held by the Agencies participating in the project and any contractors or agents.

Compliance and HHS Access. Project participants shall make available to the source providing the data and to the Secretary of the U.S. Department of Health and Human Services any and all internal practices, documentation, books, and records related to the use and disclosure of PHI received from the Agency Providing the Data, or created or received by Project participants on behalf of the Agency Providing the Data. Such access is for the purpose of determining the Agency Providing the Data's compliance with HIPAA, regulations promulgated by the United States Department of Health and Human Services, and any amendment thereto.

Ownership and Destruction of Information. The PHI and any related information, received, maintained, or transmitted on behalf of the Agency Providing the Data is and shall remain the property of the Agency Providing the Data. Upon termination of the underlying service, the Project participants agree, at the option of the Agency Providing the Data, to return or securely destroy all PHI created or received from or on behalf of the Agency Providing the Data following 74 FR 19006 Guidance Specifying the Technologies and Methodologies That Render PHI Unusable, Unreadable, or Indecipherable to Unauthorized Individuals for Purposes of the Breach Notification Requirements under Section 13402 of Title XIII. If return or destruction of all PHI and all copies of PHI is not feasible, Project participants agree to extend the protections of this agreement to such information for as long as it is maintained and to limit further uses and disclosures to those which make return or destruction infeasible.

The Pre-Qualified Contractor, prior to commencement of the project will be required to execute a Business Associate Agreement (BAA) with the State.

3. Additional Information

Item	Embedded File(s)
Ohio Department of Higher Education, Ohio Department of Medicaid, ODH, and the Office of Health Transformation collaborated on research project findings (June 2017)	<p><i>DOUBLE-CLICK ICON BELOW TO ACCESS CONTENTS</i></p>  <p>ODH Final Report 06-2017.zip</p>
Ohio Department of Medicaid - Infant Mortality Research Partnership, Reducing Infant Mortality in Ohio: Individuals, Communities, Systems, and Interventions. June 2017	<p><i>DOUBLE-CLICK ICON BELOW TO ACCESS CONTENTS</i></p>  <p>Medicaid IMP-zip</p>
Business Associate Agreement	<p><i>DOUBLE-CLICK ICON BELOW TO ACCESS CONTENTS</i></p>  <p>HIPAA-BAA Form.pdf</p>