Too often, teams dive into a data analytics project only to realize a few months later that they are either solving the wrong problem or they don’t have the data they need to reach an answer. Policymakers, researchers, and industry media tend to place an emphasis on how to execute data projects in order to produce results. But the prior phase—that of creating the scope of the data project—is equally important for the project’s success.\(^1\) The instructions and template in this tool will guide a team to consider key questions for creating the scope of a project.\(^2\) (For an example of a TANF-related project scope sample, see Tool 1.3 – Project Scope: Sample State TANF Caseload Dynamics.)

The purposes of a project scope are to:

1. Ensure that your project’s research question is well-defined and that the data to reach an answer are available.

2. Provide a standardized source of information across all projects to foster learning, reporting and overall project management.

Expectations:

This tool is most useful for the project team if all 11 numbered sections below are completed. Each lettered subsection offers prompts or questions to consider when completing the numbered section. *Examples are offered in italics.* The development of a project scope is not meant to be a one-time task. On the contrary, developing a project scope is an iterative process, in which question formulation leads to deeper understanding of the problem through data, which leads to further analysis and testing, which can change the initial problem or raise a new one.\(^3\) Discuss with your project team when and how you will initially complete the project scope and return to it, as needed.

1. **Project Name:** Project Title.

2. **Project Description:** One simple sentence capturing the basic facts, written in language that can be understood by a nontechnical audience.

3. **Project Goals/objectives:** What is the research question you are trying to answer? What is the problem you are trying to solve? What is the expected impact? *For example, X percent of people do not finish Y goal in Z timeframe.*

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2. Harris School of Public Policy (2020).
4. **Who are the groups that will need to be involved?** The names of any other departments, or organizations whose participation is necessary for this project to be successfully completed. *For example, the department of workforce development/labor for employment data.*

5. **Analysis.** This section outlines the elements that are included in your data analysis.

   a. At a high level, what analysis needs to be done for this project?

   b. What is the unit of analysis (*for example, individual, case, region*) and for what time period?

   c. What is the subject of interest? *For example, single parent families, TANF participants nearing their time limit.*

   d. Which specific variables are being considered? With the data described above in mind, which data will be used in the analysis to explain outcomes (independent variables), and which data will be used to operationalize the outcome(s) of interest (dependent variables)?

   e. What initial or exploratory analyses are being considered to confirm that these data and this approach are sound?

6. **Data.** This section begins to outline what kind of data are available internally and externally and what additional data are needed.

   a. Which data do you have internally?

      • What does it contain?

      • Does it have unique identifiers that can be linked to other data sources?

      • What level of granularity?

      • How frequently is it collected and updated after it is captured?

      • How is it stored?

      • Who is the internal owner of the data?

      • Who has access to the data?
b. Which data can you get access to from external and/or from public sources?
   • What does it contain?
   • Does it have unique identifiers that can be linked to other data sources?
   • What level of granularity?
   • How frequently is it collected and updated after it is captured?
   • How is it stored?
   • Who is the internal owner of the data?

c. What data would you need in addition to the data listed above?

d. With the data described above in mind,
   • What do you want to measure?
   • Which data will be used in analysis to explain outcomes (independent variables),
     and which data will be used to operationalize the outcome(s) of interest
     (dependent variables)?
   • What statistical methods will you need?
   • Is the type of analysis you identified possible with the data and measures you
     have?
   • If not, what additional data are needed? What other analyses may be needed?

7. Results or Deliverables. This section indicates how the analysis will be utilized such as
   what it could influence, inform, or create.

   a. What are the anticipated interim and final outputs?

      Include any written document, infographic, or tool that will result from this data
      analytics project. For example, code notebooks, written documents such as data
      or operational assessment memos, reports, policy memos, presentations, or
      visualizations.

   b. What will you do with what you learn from this project? Include the actions that
      will be taken or the decisions that will be informed by the answer or insights. For
      example:
• What will you do with the dashboard?

• What does access to a cohort model with change over time enable?

c. What will the results inform, influence, or affect? Include answers to any of the items below that apply. For example:

• Budget

• Legislation

• Policy, rules, regulations, standard operating procedures

• Practice

• Technology

• Staff training

d. Who is your audience(s) for the deliverables?

8. Schedule/Milestones

a. When is the project starting and when do you estimate it will finish?

Months, weeks, or exact days can be the basis for the estimated schedule.

b. What are the major project milestones or phases against which progress can be measured?

These can be key objectives or achievements throughout the life of the project. For example, data access, cleaning, analyzing, reporting, and briefings.

9. Risks

a. What are known risks to completing this project as scoped?

These are risks that are unique to your project given the scope as outlined in this document and not generic project management risks. This doesn’t need to be an exhaustive list but is meant to anticipate known threats to project completion. For example, expected staff changes, or technology changes or upgrades.

10. Needs for Project Success

a. What do you need to successfully complete this project?
Please include here any additional needs that aren’t already documented in previous sections. *For example, software, staff training, office space, etc.*