

Technology Tools for Data Work

Questions to Guide Your Planning

There are many technology tools that can help resettlement staff complete data tasks, but the best tool for you will depend on your specific context. This worksheet offers a series of question prompts that will walk you through important considerations for selecting the right tool, including your organizational context, your goals for the tool, and who will be using it.

Instructions

1. **Determine which data task(s) you want the technology tool to help you with.** Use the definitions below to help you identify the task(s) relevant to your work:

Data collection – the systematic gathering of data necessary for designing, implementing, and monitoring projects

Data management – the process of compiling, storing, and protecting data

Data analysis – the process of interpreting and transforming raw data into information that is usable and/or that advances knowledge or understanding

Data visualization – the process of creating charts, tables, or other images to display and communicate data

2. **Fill out the Questions for Data Tasks table** for the data task you identified in Step 1, seeking input from teammates as needed.
3. **Fill out the Questions for Overarching Considerations table.**

For definitions of monitoring and evaluation (M&E) terms you may encounter in this resource, consult Switchboard's [Monitoring and Evaluation Glossary](#).

Using this Worksheet to Select a Tool

When you are done filling in this worksheet, you will have an organized list of your needs, priorities, and constraints to guide you in selecting tools. **Compare the features and cost of any tools you consider against this list** to help you select the best tool for your context:

- Review the Questions for Data Tasks section and **write down some keywords** based on the features you need the tool to have. *For example, based on the sample responses in the Data Collection section, some useful keywords might be: data collection, surveys, multilingual.*

- **Next, write down keywords** for the Questions for Overarching Considerations table. *For example, based on the sample responses, some useful keywords might be: GDPR-compliant, two-factor authentication.*
- **Use your keywords to conduct a targeted online search** for tools that fit your criteria. You do not have to use all of your keywords; consider trying them in different combinations to generate the most relevant search results. You can also add keywords related to your context, such as “community-based organization” or “case management,” to deliver more targeted results. AI-powered searches may also help you tailor your results.
- For each search result that seems promising, **determine whether it meets each of the criteria you identified** in this worksheet. For any criteria it does not meet, ask yourself whether that criterion is essential. If so, you can eliminate the tool as an option. If not, make a note of how the tool falls short of your ideal list of features.
 - If this step feels difficult, **take a few minutes to go through the worksheet and label each consideration as essential or preferable.** This can help you generate a core list of features that are non-negotiable.
 - Don't forget to **check the cost of the tool against your budget** and remember that the cost may depend on the number of users, amount of data, and other factors you considered in this worksheet.
 - If you are looking at paid software options, you can **work with their sales team to discuss your needs** and secure documentation confirming that the system meets those needs!
- Once you have identified one or more reasonable options for your context, **check your notes.** Do any of the options meet all your criteria? If so, this may be your new tool! If not, you may need to decide which criteria are most important and select the best fit.

Depending on your organizational context and the nature of the tool you are looking for, you may need to work across teams. You can also use the notes from this worksheet to:

- **Communicate your needs to teammates** handling procurement, according to your organization's policies and procedures
- **Pitch new systems to leadership**
- **Develop documentation for securing a custom system** that meets your needs, such as a request for proposals

Note: While Switchboard does not endorse any individual product or for-profit corporation, this worksheet provides examples of some common tool options for each data task.

Questions for Data Tasks

Data Collection



Questions in this section are relevant when comparing survey tools such as Google Forms or Microsoft Forms, SurveyMonkey, or Qualtrics; interview transcription tools such as built-in transcription features in Google Meet or Zoom, ExpressScribe, or OTranscribe; or any other data collection tool.

Question Prompt	Sample Response & Notes
<p>What type of data collection instrument do you plan to use?</p>	<p><i>We plan to use surveys to collect the data we need.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 54px;"></div>
<p>Will you need to manage multiple versions of your data collection instrument?</p>	<p><i>Yes, we plan to create multiple surveys that track data across multiple projects.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 54px;"></div>
<p>What types of responses are you planning to collect (e.g., multiple choice, open text, rating scales, or file uploads)?</p>	<p><i>We are looking to ask multiple choice and rating scale questions. We are also planning to include one or two open-ended questions per survey for additional comments.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 54px;"></div>
<p>Should your data collection tool support conditional question logic (i.e., showing different questions depending on how someone responds)?</p>	<p><i>The surveys will be relatively simple. We will not need to show respondents different questions depending on their responses.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 54px;"></div>

<p>How many responses are you anticipating?</p>	<p><i>We anticipate receiving hundreds of survey responses a year through four different surveys.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 55px;"></div>
<p>Does your data collection tool need to support multiple languages?</p>	<p><i>Staff will collect data from preliterate clients who will be taking the survey verbally. The survey platform should allow us to administer surveys in multiple languages.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 55px;"></div>
<p>Does your data collection need to be anonymous, or do you need to link responses to specific individuals?</p>	<p><i>While most of our data collection is anonymous, we do have one survey that requires us to collect respondent names and phone numbers. The tool should allow for both options.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 55px;"></div>
<p>Do you need to be able to export the data to a specific file type?</p>	<p><i>Yes, our analysis team is most comfortable using .xlsx files, so ideally we will want to export the data in that format.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 55px;"></div>
<p>Does your data collection tool need to integrate or sync automatically with other systems that you use for data management, analysis, or visualization?</p>	<p><i>No, we do not plan on syncing our data to any other platforms that our team uses.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 55px;"></div>

Sample search terms: *survey platform, survey routing, survey logic, (multilingual) interview transcription, multilingual surveys, large-scale survey tool, anonymous survey tool*


Data Management




Questions in this section are relevant when comparing data management tools such as Google Sheets, Microsoft Excel, Airtable, Monday, Efforts to Outcomes, ClientTrack, Salesforce, etc.

Question Prompt	Sample Response & Notes
<p>How much data will you need to store?</p>	<p><i>We will only be storing a few megabytes of information, including survey responses and basic client enrollment data.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 50px; width: 100%;"></div>
<p>For how long do you need to retain your data? What are your policies for handling requests to delete or modify personal data?</p>	<p><i>Our federal funder requires us to retain client data for a minimum of three years after a grant period ends. We also have an internal policy to keep program data for five years for evaluation purposes. We need a tool that either stores data long term or makes it easy to export and archive data in a format we can access later without returning to the original platform.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 50px; width: 100%;"></div>
<p>What type of data will you be managing?</p>	<p><i>Since we have a mix of qualitative and quantitative data, we would like a system that allows us to store and manage both types of data.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 50px; width: 100%;"></div>

<p>Do you need your data management system to generate reports automatically?</p>	<p><i>Yes, we regularly share reports combining summary and individual data with our funder and would like to streamline that process as much as possible.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>Do you need a system that can prevent or flag data errors automatically?</p>	<p><i>We prefer a system that would help us detect missing data. Ideally, the system would also prevent common data entry errors, such as by rejecting letters in a numbers-only field.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>Do you need a system that allows you to connect related information? Across systems or within the same system?</p>	<p><i>Yes, we would like to link client enrollment data to pre- and post-test results within the same system.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>Sample search terms: <i>case management database, program outcomes data management system, custom reports, data quality management, relational database</i></p>	

<p>Data Analysis</p> <p> Questions in this section are relevant when comparing data analysis tools such as spreadsheet systems (e.g., Google Sheets or Microsoft Excel), coding languages (e.g., R or Python), qualitative text analysis tools (e.g., Dedoose or NVivo), etc.</p>	
<p>Question Prompt</p>	<p>Sample Response & Notes</p>
<p>Do you plan to analyze qualitative/text-based data? If so, how?</p>	<p><i>Yes, we will have responses to open-ended questions and would like to code them to identify common themes. However, since we do not have many of these responses, we likely do not need specialized software.</i></p>

	<p>Your Notes</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>Do you need to analyze data beyond basic summaries?</p>	<p><i>We mostly anticipate generating simple summary statistics, but we would like to explore using more advanced statistical methods on the pre- and post-assessments to help us understand whether the intervention is effective.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>How much data will you need to analyze (e.g., tens of records, hundreds, or more)?</p>	<p><i>We currently receive 200–300 responses per year. We want a tool that can handle our current volume comfortably and will not require us to switch platforms as our data grows.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>Sample search terms: <i>qualitative analysis, sentiment analysis, interview coding, statistical analysis</i></p>	

Data Visualization	
	<p>Questions in this section are relevant when comparing data visualization tools such as spreadsheet systems (e.g., Google Sheets or Microsoft Excel), coding languages (e.g., R or Python), dashboard systems (e.g., Microsoft Power BI or Tableau), etc.</p>
Question Prompt	Sample Response & Notes
<p>Do you need your visualizations to be static, or interactive and dynamic (e.g., to change as you select different filters)?</p>	<p><i>We do not currently plan to create dynamic visuals.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>

<p>Do you need to export your visuals, or will viewers access them directly from this system (e.g., as a dashboard)?</p>	<p><i>We will export our visuals to share with a select group of stakeholders and do not plan to create a shareable dashboard.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>Do your visuals need to match a visual identity or branding?</p>	<p><i>We would like to apply our organization's colors and branding, including fonts, to the visuals.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>Will standard charts and tables be sufficient for your visualization needs, or do you need more advanced capabilities?</p>	<p><i>We will mostly create bar and pie charts. We would also like to create a heat map of some of our outcome data.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>Sample search terms: <i>high-quality data visuals, data dashboard, customizable data visualization</i></p>	

Questions for Overarching Considerations

Question Prompt	Sample Response & Notes
<p>Data privacy and protection</p> <p>Does your work involve any personally identifiable information (PII) or other sensitive data?</p>	<p><i>While the survey questions do not ask respondents for sensitive information, there are open-response questions. Respondents could potentially include sensitive information, so we will be cautious. We will also need to consider our organization's policies and funder guidance on data privacy and protection.</i></p>

	<p>Your Notes</p> <div style="border: 1px solid black; height: 50px; width: 100%;"></div>
<p>Organizational requirements</p> <p>Does your organization have any requirements that the tool needs to comply with?</p>	<p><i>Tools at my organization must meet GDPR data protection standards. Any tool not on a pre-approved list must be approved by the IT department.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 50px; width: 100%;"></div>
<p>Budget</p> <p>What is the budget allocated for the tool?</p>	<p><i>We have budgeted \$500 annually.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 50px; width: 100%;"></div>
<p>Number of users</p> <p>How many staff will need access to this tool?</p>	<p><i>Two staff members will use this tool to develop surveys, review responses, and export the data to share with others.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 50px; width: 100%;"></div>
<p>Permissions</p> <p>Do all staff need the same level of access, or do different roles require different permissions?</p>	<p><i>A shared login for the two staff members who access the data would be ideal to keep costs down.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 50px; width: 100%;"></div>
<p>Security features</p> <p>Does the tool need to meet any specific security standards or</p>	<p><i>We would like to have two-factor authentication and require users to log back in regularly.</i></p>

<p>include particular security features?</p>	<p>Your Notes</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>Training and transition</p> <ul style="list-style-type: none"> ▪ What training will staff need to use the tool effectively? ▪ What are appropriate steps to support the transition from your old systems to the new tool? 	<p><i>Our staff have limited experience with specialized data tools, so we will need hands-on training. Reference materials will also be useful for new staff. We will also need to migrate historical data from our current systems. A good first step will be identifying a staff member who can support the team during the transition.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>Use of artificial intelligence (AI)</p> <ul style="list-style-type: none"> ▪ What is your organization's position on using AI tools? ▪ Are there aspects of your data where AI-powered features could add value? ▪ How comfortable are you using AI in your work? 	<p><i>Right now, our organization has requested that no AI tools be used with client data. For now, we will focus on learning about ways that AI tools might help us in other aspects of our work. We will look for a tool that allows us to disable AI processing of client data.</i></p> <p>Your Notes</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>Sample search terms: <i>GDPR-compliant, free, adjustable user permissions, two-factor authentication</i></p>	

The IRC received competitive funding through the U.S. Department of Health and Human Services, Administration for Children and Families, Grant #90RB0053. The project is 100% financed by federal funds. The contents of this document are solely the responsibility of the authors and do not necessarily represent the official views of the U.S. Department of Health and Human Services, Administration for Children and Families.