

Using Data to Communicate Impact and Engage Stakeholders

**Strategies for Extracting Insights
and Telling Compelling Stories**



switchboard
connecting resettlement experts

Table of Contents

Situating Data Analysis and Storytelling	3
Case Study	5
Constructing Compelling Stories	5
Identify Your Goals	5
Identify the Interests of Your Audience	5
Consider Your Audience's Data Literacy	6
Tool: Planning Your Data Story	6
Case Study: Constructing A Data Story for Eleanor's Project	8
Analyzing Different Types of Data	9
Tool: Questions You Can Answer with Quantitative and Qualitative Data	10
Analyzing Quantitative Data	11
Summary Statistics	11
Case Study: Understanding Eleanor's Project Data as a Distribution	11
Disaggregation	14
Case Study: Disaggregating Data from Eleanor's Project	14
Tool: Planning Your Disaggregation	15
Trends and Correlations	15
Analyzing Qualitative Data	16
Coding	16
Tool: Sample Qualitative Coding Table	17
Case Study: Coding Qualitative Data from Eleanor's Project	17
Sentiment Analysis	18
Case Studies	18
Combining Quantitative and Qualitative Data	19
Tool: Constructing Narratives from Quantitative and Qualitative Data	20
Case Study: Combining Eleanor's Quantitative and Qualitative Data	20
Common Storytelling Needs in Resettlement Work	21
Case Study: Reshaping Findings for Different Audiences	21
Tool: Templates for Data-Driven Community Engagement Messages	22
Recommended Resources	27
About Switchboard	27

Using Data to Communicate Impact and Engage Stakeholders

Strategies for Extracting Insights and Telling Compelling Stories

Data collection is essential for organizations and programs involved in resettlement work. Data is used to verify client eligibility for program enrollment, document services provided, and report to funders. You can also use it to communicate program updates or impact with stakeholders like community members, partners, and clients; share lessons learned with staff; or apply for funding opportunities.

Regardless of the end use for your data, you need to be able to extract insights to show impact and tell stories that your audience can understand. This toolkit outlines key concepts and definitions related to analyzing data and telling data-informed stories and provides tools you can use to implement those concepts in your work.

This toolkit does not provide in-depth instructions for specific data analysis methods but rather emphasizes strategies and approaches to help guide you as you work to translate your data into effective stories and conclusions. While the examples in this toolkit focus on using data to communicate the success of programming, you can apply the tools and ideas presented in this toolkit to data from a [needs assessment](#), a process [evaluation](#), or intake processes to make improvements, advocate for funding, or gather community support.

The toolkit is intended for resettlement staff whose roles include tasks related to analyzing, visualizing, or communicating data.

Situating Data Analysis and Storytelling

Data analysis is the process of *interpreting* and transforming raw data into information that is usable and advances knowledge or understanding. **Data storytelling** is the process of communicating that information in a way that is clear and interesting for your audience.

Telling good stories with data starts with collecting relevant and useful information that is carefully audited for its quality. Once you have clean data, you can begin analyzing it to extract useful insights and develop a compelling story to share with stakeholders. Doing this effectively requires you to invest time in the earlier stages of the data process.

This toolkit is designed to help you with the final two stages of this process: analysis and sharing/acting.



Data Process Resources

Planning & Collection

- [Planning for Data Collection and Quality Assurance](#)
- [Planning Data Collection in Resettlement Work](#)
- [Data Collection Planning Worksheet](#)
- [Introduction to Data Collection Approaches and Methods](#)
- [Balancing Monitoring and Evaluation \(M&E\) Priorities: Practical Tips on Data Collection for Compliance and Project Improvement](#)

Cleaning and Analysis

- [Preparing for Data Analysis](#)
- [Sample Data Quality Assurance Standard Operating Procedures \(SOPs\)](#)
- [Collecting and Analyzing Data for Learning and Program Improvement](#)
- [Data Analysis and Action Planning Templates](#)

Sharing and Acting

- [Bar Charts and Beyond](#)
- [Using Data to Tell Program Stories...Without Putting Your Audience to Sleep](#)
- [Developing Strong Program Reports](#)
- [Using Data for Strategic Consultation and Community Connectedness](#)

Case Study

The case study in this toolkit is based on Eleanor, a monitoring and evaluation (M&E) staff member at a medium-sized community-based organization. Eleanor's team recently piloted a new project that includes a series of workshops designed to help clients build both their English language skills and their digital skills. Because the project is new, the team wishes to measure whether these skills improved and gather participants' overall feedback on the workshops. If the results are positive, Eleanor plans to apply for funding to scale up the initiative. She may also seek community support through volunteers or in-kind donations.

Eleanor measures participants' English language skills before and after the workshops using a five-point scale ranging from 1.0 (basic) to 5.0 (advanced). She also uses a five-point scale ranging from "very poor" to "very good" to have participants self-rate their digital skills before starting the workshops and after completion.

Constructing Compelling Stories

Every dataset contains multiple possible stories and offers a variety of findings. Crafting a compelling story, then, goes beyond simply analyzing your data. When constructing your story, consider your goals, your audience's interests, and your audience's data literacy level.

Identify Your Goals

What do you hope to achieve with this story? Any time you prepare data for a stakeholder, including those from your own team, take the time to be clear about your purpose. The more specific you can be, the more clearly and effectively you can communicate your message.

For example, imagine you are developing a pitch for a local university where you hope to recruit volunteer mentors. Rather than describing your goal as "communicating the impact of our youth mentoring program," consider what you want to say about your impact and why. For example, you might reframe your goal as "explaining the positive impact volunteer mentors have had on refugee youth's self-reported confidence and hopefulness to establish a volunteer pipeline with the local university."

This goal is clearer about both what you hope to communicate and why. It explicitly defines the desired outcome: establishing a volunteer pipeline with the local university. Keeping this more specific version of your goal in mind as you craft your story helps you select the most relevant data and share it effectively.

Identify the Interests of Your Audience

Review what you know about your audience and why you are communicating with them. Identifying your own goals may help you start thinking about those of your audience, but avoid assuming that there is perfect overlap between the two. Consider what information would be useful to them in achieving their goal. Have they funded your project? Do they work with similar populations, and are they open to collaborating? Maybe they are grantors intending to award funding to organizations that align with their mission or community members looking to volunteer for a cause they care about.

Using the example above about recruiting volunteer mentors, the goal of the university staff is likely to create

opportunities for students to engage in the community and to learn and grow through the experience. While this overlaps significantly with your goal, the university staff's perspective places more emphasis on the students and the benefits they might see from volunteering.

Consider Your Audience's Data Literacy

How well can your audience interpret findings presented in a table, graph, or other forms? When using data to tell a story, [consider your audience's data literacy](#). Some audiences may be comfortable with or even expect plots and statistics, while others may struggle to extract meaning from them. In some cases, it may be challenging to understand your audience, such as when you are creating a presentation that will be shown to a broad audience or developing materials for a public campaign.

This might make it difficult to feel confident about the data literacy level of the people accessing your data and the story you are telling with it. One strategy to manage this uncertainty is to tailor your approach to a relatively low level of data literacy; limit yourself to just one or two key statistics or basic plots and use brief text to explain their significance. Then, offer additional opportunities for those with more advanced data literacy skills to explore further. For example, you may include a QR code in a social media post that links to a longer report, or you could include an appendix in a written document with additional tables and figures.

Once you have examined your goals and those of your audience, think carefully about where they align. Do your best to identify what type of data-driven story will satisfy both your needs and the needs of your audience. For example, framing your message about university volunteers in a way that promotes youth mentoring as a mutually beneficial relationship between volunteers and refugee youth meets the objectives of both parties.

Tool: Planning Your Data Story

This worksheet helps you apply the steps above and arrive at a story that communicates your data effectively. Use the prompts to help you thoughtfully engage with your own goals, the goals of your audience, and your audience's comfort level with data.

1. What goal(s) do you hope to accomplish with this story? (Select all that apply)

- ☐ Secure grant funding
- ☐ Maintain compliance
- ☐ Demonstrate positive outcomes or impact
- ☐ Solicit donations
- ☐ Gather community support or recruit volunteers
- ☐ Support internal decision-making
- ☐ Gain buy-in for a new project idea
- ☐ Establish a partnership or referral network
- ☐ Share results with clients
- ☐ Other:

2. What data or findings will help you achieve the goal(s) you identified?

3. What do you know about your audience's goals and interests? What would they like to get out of this interaction? (Select all that apply)

- ☐ Give grant funding to a project that aligns with their mission
- ☐ Reflect on positive outcomes or impact (e.g., to boost team morale or celebrate successes)
- ☐ Decide where to donate money
- ☐ Find a volunteer opportunity that aligns with their values
- ☐ Make strategic decisions at the team, project, or organizational level
- ☐ Establish a partnership or referral network
- ☐ (For clients) Learn about the results of data collection efforts such as measuring project outcomes, needs assessments, etc.
- ☐ Other:

4. Where do your goals and those of your audience overlap? Where do they differ?

5. Can the data you identified in Step 2 help you meet your audience's needs? If not, what other data do you have that can help you do so?

6. How comfortable is your audience with interpreting data? What level of detail are they expecting? (Select the single best answer for your situation)

- ☐ I am not sure (see “[Consider Your Audience’s Data Literacy](#)”, above)
- ☐ Some or all of my audience is most comfortable with simple graphs and straightforward statistics
- ☐ My audience generally prefers some level of detail, but may not be comfortable with interpreting the results of statistical analysis or less common graphs
- ☐ My audience expects a lot of detail, but may not be comfortable with interpreting the results of statistical analysis or less common graphs
- ☐ My audience expects a lot of detail and is comfortable interpreting the results of statistical analysis or less common graphs

7. **Now, put it all together:** briefly outline a story you can tell with the data you identified in Steps 2 and/or 5 that meets the following criteria:

- a. Achieves your goal(s)
- b. Meets your audience’s need(s)
- c. Uses the right level of detail and complexity for your audience

Case Study: Constructing A Data Story for Eleanor’s Project

Returning to Eleanor’s project on English language/digital skills project, see the following sample responses to the prompts when preparing to analyze data to apply for grant funding:

1. What goals do you hope to accomplish with this story?

- ✓ Secure grant funding
- ✓ Demonstrate positive outcomes or impact.
- ✓ Support internal decision-making.

2. What data or findings will help you achieve the goal(s) you identified?

We have clients’ self-rated digital skills across several areas (job searching, finding in-network doctors, identifying reliable immigration information online, etc.) from before and after the workshop series. We also have pre- and post-assessment data about participants’ English language skills and qualitative data in the form of notes from focus group discussions about which elements of the project were the most or least helpful. Finally, we have enrollment data detailing participants’ country of origin, native language, sex, and date of birth.

3. What do you know about your audience's goals?

- ✓ Give grant funding to a project that aligns with their mission: we have not identified a specific grantor yet, but this project could be a good fit for grants that support projects with one or more of the following goals:
 - a. Support newcomer self-sufficiency.
 - b. Reduce language barriers for newcomers.
 - c. Promote digital skills development among newcomer and/or low-income populations.

4. Where do your goals and those of your audience overlap? Where do they differ?

Our goals largely overlap, assuming we are able to find a grantor whose mission includes one or more of the elements we identified in Step 3. Grantors may be more interested in the positive outcomes and the lessons we learned that will help us achieve even better results next time. We can reserve additional lessons learned about staffing and internal processes for team meetings and discussions.

5. Can the data you identified in Step 2 help you meet your audience's needs? If not, what other data do you have that can help you do so?

The data we identified in Step 2 should be helpful for demonstrating that this project has been successful to motivate grantors to fund it. If we have enough time before grant applications are due, we could consider conducting a rapid needs assessment to strengthen our claim that there is more need for the kind of support the project provides. If not, we have some basic intake data we can use to show that there are more clients who would likely benefit from this intervention.

6. How comfortable is your audience with interpreting data? What level of detail are they expecting? (Select the single best answer for your situation)

- ✓ My audience expects a lot of detail but may not be comfortable with interpreting the results of statistical analysis or less common graphs.

7. Now, put it all together:

Once we complete our analysis, we will be able to demonstrate that participants improved both their English and digital literacy skills. Based on these positive results, we can argue that future cycles of the project will be a good investment because participants will improve in two key skills related to self-sufficiency. Our story can include information about the average increase in English test scores, the average increase in various self-reported digital skills, and basic information about the population served (e.g., by country of origin or native language). Overall, our story will take the form of: "This intervention produced the following results: [insert key metrics here]. This means that participants speaking [specify based on enrollment data] language(s) gained vital skills in English and digital literacy that empower them to navigate systems independently and with confidence. With additional funding, we can implement another year of this project to support even more newcomers on their journey toward self-sufficiency."

Analyzing Different Types of Data

Most datasets can lead to many different findings, depending on your methods and what you choose to analyze. Keep your analysis focused and purposeful by working to answer a specific set of questions. These questions may arise during the planning phase or your consideration of your audience's goals and needs (see "Constructing Compelling Stories," above). However, as you begin to explore your data, new questions may

arise. Don't be afraid to pursue these if you have the time and data available to answer them. Curiosity can sometimes drive you to uncover interesting findings you hadn't anticipated.

Your analysis approach will also be shaped in part by the **type of data** you have. A simple and common way to categorize data is to label it as **quantitative** or **qualitative**. A dataset may include data of one or both types. Understanding what type of data you have will help you plan your analysis.

Tool: Questions You Can Answer with Quantitative and Qualitative Data

Quantitative Data	Qualitative Data
<i>Can help you answer questions like...</i>	
■ What percent of clients who completed the health education workshop series reported increased confidence in accessing affordable care? ■ How many clients in our legal program were granted asylum this year? ■ What was the breakdown of project participants by country of origin? ■ Which age groups showed the largest increase in English proficiency from the beginning to the end of the course? ■ What is the average income of clients who have been in the U.S. for at least one year? Does this vary by level of education? ■ On which cultural orientation topics (health care, personal finance, education, housing, or employment) do clients report needing the most help?	■ How do clients from different backgrounds describe common mental health challenges, such as depression and anxiety? ■ What factors do young adult refugees identify as important for helping them complete higher education? ■ What strategies do refugees and newcomers in our local area use to meet food needs when their SNAP benefits are interrupted? ■ Which components of our project did clients find the most helpful, and why? ■ What areas of overlap exist between our programming and that of our partner? How can we promote collaboration in these areas to maximize impact and avoid duplication?
Quantitative Data	Qualitative Data
<i>Questions often involve...</i>	
■ A count, sum, or total ■ A percent or proportion ■ A numerical change (in test scores, income, self-reported confidence, etc.) ■ Comparing numbers across defined groups or categories	■ Feelings or perceptions ■ Factors that may have a positive or negative influence on other results ■ Descriptions or ideas that cannot be neatly categorized

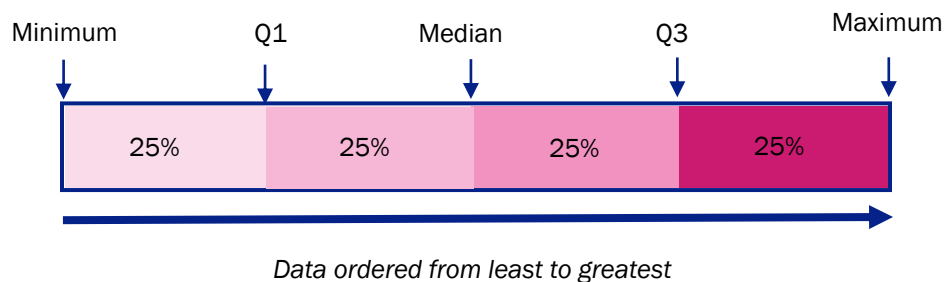
Analyzing Quantitative Data

Analyzing quantitative data often involves condensing a large number of data points into a digestible amount of information that summarizes the main results. Once you have collected your quantitative data, consider the best way to create that summary for your audience. In resettlement work, these results often take the form of percentages or averages, but different approaches may help you understand the data at a deeper level.

Summary Statistics

A common approach to quantitative data analysis is to generate **summary statistics** – a collection of numbers that helps you understand the dataset as a whole. Rather than rely on tens, hundreds, or thousands of numbers, summary statistics use a few numbers to describe your dataset. The **five-number summary** is a common set of summary statistics:

- **Median** – the middle value of the data. Basic data analysis tools, such as Microsoft Excel and Google Sheets, can calculate this value for you. If you were to do so by hand, you would order all the values in your dataset from least to greatest, then find the middle value in the list. The median tells you about the “typical” value of your dataset.
- **Maximum** – the highest value in your dataset.
- **Minimum** – the lowest value in your dataset.
- **Upper quartile (Q3)** – the value above which 25% (one quarter) of your data lies.
- **Lower quartile (Q1)** – the value below which 25% (one quarter) of your data lies.



Many analyses only include the median. While the median is a useful number to help you understand the “typical” value in your dataset, the other numbers in the five-number summary give you additional context.

Case Study: Understanding Eleanor’s Project Data as a Distribution

Visualizing your data in the form of a graph or chart before analyzing it shows you how it is distributed. The five-number summary can give a fairly comprehensive view of your data regardless of distribution, but the most familiar type of distribution is the “normal” or “bell curve,” in which the peak is near the middle, with small numbers on either side.

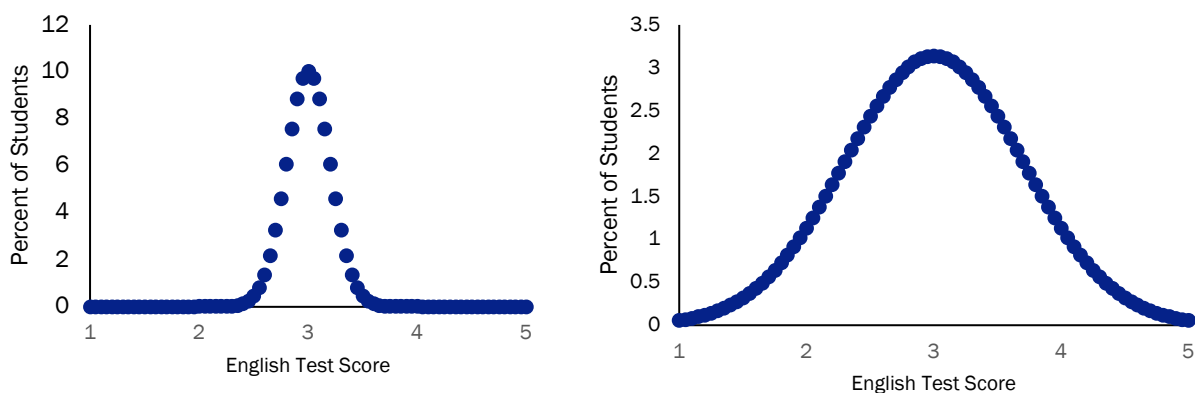
Fig. 1 shows two examples of a normal distribution. These datasets have the same median, but different **spread**, i.e., how close together or far apart the values in the dataset are. Calculating the median score without considering the way the data is distributed might lead you to conclude that these two populations of learners

are the same. However, exploring the distribution of the data can help you recognize the differences between the groups.

Without performing a calculation, you can see that the English test scores for the group on the left are more concentrated around a value of 3. Calculating the five-number summary for both groups gives you more precise language to compare them, so instead of simply stating, “The scores for the group on the left are more concentrated than those on the right,” you can say something like “More than half of students in the group on the left completed the workshop with a score between 2.5 and 3.5, while the scores for the students in the group on the right were more spread out, including more students with higher or lower scores.”

You may not share your full summary statistics with all stakeholders, but they can still be a useful reference for you to better understand your data and draw more reliable conclusions.

Figure 1. Two examples of a normal distribution, also known as a bell curve, with different widths.



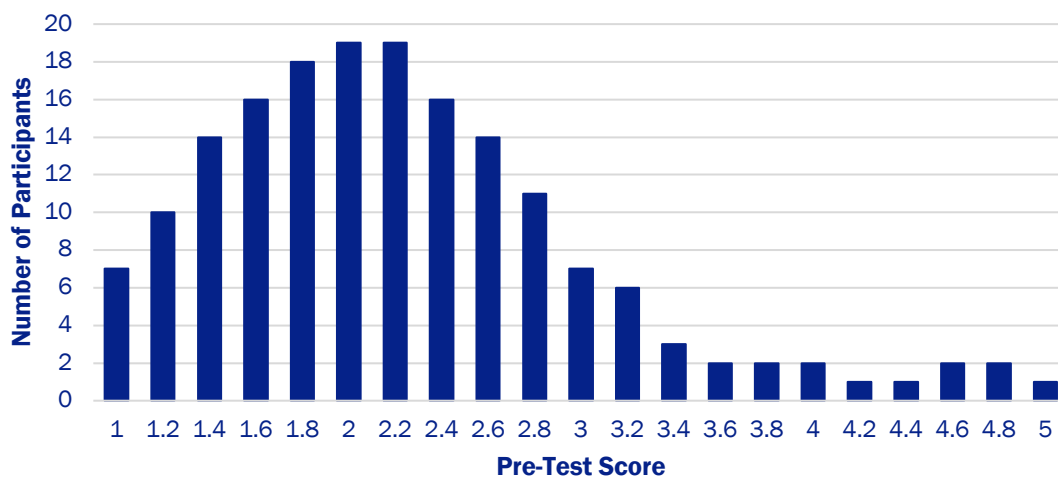
Using Visuals as a Tool for Your Own Learning

While data visualization is a useful tool for communicating your results to others, you can also generate plots and charts that are for your own use. These plots do not have to be visually appealing or polished; they are simply tools to help you more easily see trends in your data. Visualizing your data:

1. Allows you to determine whether certain statistical methods that depend on a specific distribution shape are appropriate for your data.
2. May spark ideas for further analysis steps.
3. Can give you additional language to describe what is happening in your data.

In the case study, Eleanor might choose to create a histogram of the pre-test English scores for participants to get a quick idea of how proficient clients were at enrollment. While Eleanor might normally make further adjustments to create an ideal plot for sharing with external audiences, she does not need to do so in this case.

The plot she has generated is enough to show her that the typical participant enrolled with an English score of about 2 out of 5, and that the pre-test scores are normal (i.e., bell curve-shaped), except for a few high-scoring individuals. This plot quickly gives Eleanor several useful pieces of information about participant pre-test scores that may have been difficult to extract from a table or spreadsheet. For example, noticing that there was a small group of high-scoring pre-tests may lead to questions about whether these participants will experience the workshop series differently. Eleanor may decide to compare their results to those of the remaining participants, to understand whether starting at a high level of English proficiency led to different outcomes.



Disaggregation

Disaggregation is the process of separating data points based on one or more variables. Disaggregation helps you better understand whether the needs or experiences of your clients may differ depending on one or more characteristics. For example, disaggregating your data can help you answer questions such as:

- Did clients from certain countries of origin see greater improvements than others?
- How do the cultural orientation needs of clients differ by age group?
- Which groups did we reach most effectively with our new outreach strategy? Which groups did we fail to reach?
- Are male clients more likely to work full-time than female clients? Does this vary by country of origin?

When your data is **categorical** – made up of a series of groups or categories – it is simple to disaggregate. However, you can still disaggregate **numerical** data, or data whose value is expressed in numbers. To disaggregate numerical data, you can **bin** the data by creating ranges and assigning each value to the appropriate range.

Case Study: Disaggregating Data from Eleanor's Project

To understand whether participants' age might be related to their experience with the project, Eleanor decides to bin her data by age. She splits participants into groups: under 18 years old, 18-25 years old, 26-35 years old, etc. It would be difficult for her to evaluate this without binning since participants' ages could be one of many numbers, limiting Eleanor's ability to make statements such as, "Younger participants tended to enter the program with more confidence in their digital skills."

After binning, Eleanor can draw more general conclusions such as, "Participants in the under-18 and 18-25 age groups were most likely to report having 'some' or 'a lot' of confidence in their digital skills at enrollment, while participants in the over-65 age group were most likely to report having 'little' confidence or 'none', indicating that younger participants tended to enroll with more confidence in their digital skills."

Creating **frequency tables** (sometimes known as pivot tables) is another way of disaggregating your data, as it shows the values of one or more variables based on the value of another variable. For example, Eleanor might create a frequency table showing the pre-test scores to better understand whether participants from certain nationalities are starting at a higher average English proficiency level.

Eleanor's table shows the number of learners from three different countries of origin whose English pre-test score falls within several different ranges, as well as the total number of participants from each country.

		English Pre-Test Score				Total
		1.0-1.9	2.0-2.9	3.0-3.9	4.0-5.0	
Country of Origin	Afghanistan	30	28	4	6	70
	Ethiopia	17	30	8	1	56
	Haiti	18	21	8	2	47
Total		65	79	20	9	173

Tool: Planning Your Disaggregation

Use this table to help you plan which variable or variables you want to disaggregate, and which variable or variables you will disaggregate by.

Remember that you can only disaggregate by a variable if you have collected the right data; for example, you cannot disaggregate by native language if you did not collect participants' native language. It is therefore a good practice to try to plan your disaggregation strategy ahead of time, so you can incorporate the data you need into your data collection plan. If you have already collected data, however, you can still use this table to plan your analysis.

The first row shows an example drawn from the [case study](#) you have encountered in this toolkit.

Question to Answer	Variable(s) to Disaggregate	Disaggregate By
Did participants' confidence in their digital skills increase from enrollment to exit?	Digital skills confidence at enrollment and at exit.	Age group, sex, country of origin

Trends and Correlations

Another common analysis technique is to look at the **behavior** of your data, i.e., the shape of the graph created when you plot your variables against each other. The table below describes three ways to analyze the behavior of your data, organized from least rigorous (top row) to most rigorous (bottom row).

Type	Definition	Example
Trend	A pattern in how your data changes (e.g., steadily increasing, cyclical, leveling off), either over time or as another variable changes. You identify a trend by observing how data behaves without making a calculation.	Client scores on a mental health assessment have increased as their time enrolled in the program has increased.
Correlation	A statistical measure of how strongly two variables are related. Correlations assign numerical values to the strength and direction of the relationship to help you make a more rigorous statement about the relationship. For more on statistical correlations, start with this resource .	Instead of simply saying that mental health scores increased as enrollment times increased, you might be able to conclude that mental health scores and enrollment time are strongly positively correlated (i.e., both are decreasing or both increasing).

Causation	A rigorous determination that a change in one variable causes a change in the other. Establishing a causal relationship is often the goal of a research or evaluation project, involving a comparison between a “control group” and an “experimental group” that receive different treatments. Research projects to determine causation require a significant degree of planning and staff capacity .	After completing a rigorous, scientific study to compare the mental health scores of clients receiving an intervention to those of clients from a similar background who did not receive the intervention, you conclude that program activities improve client mental health (i.e., this is a causal relationship).
------------------	---	---

If your audience is looking for a clear takeaway without much technical detail, simply describing trends may be enough. For a more rigorous or detailed explanation of your data, you can consider calculating correlation values, if appropriate.

Analyzing Qualitative Data

Because qualitative data is typically used to answer questions that start with “why” and “how,” your analysis will mainly extract key themes, attitudes, perceptions, or behaviors that can help you generate a more holistic picture of what you are measuring. The goal is not to draw *generalizable* conclusions, i.e., those that can be applied to the population as a whole. Depending on the exact data you have and the goals of your analysis, you can take many different approaches to qualitative data analysis. This section provides a brief overview of a few common strategies.

Coding

A common qualitative data analysis technique is **coding**, or the process of labeling notes, transcripts, open-response answers, or other qualitative data to identify recurring themes.¹ Coding is a common approach when working with notes or transcripts from interviews, focus groups, or observations, since it can help to reveal patterns across individuals or groups. It can also be used to extract meaning from a set of answers to open-response questions in surveys.

To code qualitative data, read through your material (notes, transcripts, etc.) and label excerpts with one or more “codes.” Codes can represent key concepts, common experiences, attitudes, or any other significant element of the data. The two main approaches to coding qualitative data are:

- **Deductive**, in which you decide beforehand what you will look for (e.g., themes, sentiments, etc.) and develop a set of codes based on that. Sometimes these codes are based on a review of available research and evidence. For example, you may search [Switchboard’s Evidence Database](#) to learn more about the types of results similar projects have measured in the past and use this information to create a list of codes for your analysis.
- **Inductive**, in which you develop codes based on what you see in the data. This often involves reading through your data a few times and noticing common themes or sentiments. For example, you may review transcripts from interviews you conducted with clients about attitudes toward mental health. Reviewing the data, you might notice that several responses include concerns about the perceptions of others. You may decide to include “social perceptions” or “stigma” among your codes to capture these comments.

¹ Note that this is different from the process of writing computer scripts to automate data analysis, a task which is also often called “coding.”

You may use a mix of both coding methods in your analysis, setting a few codes ahead of time and adding more based on emergent themes from the data. The process of developing codes is often *iterative*, involving the addition of more codes as the analyst moves through the source material. You may go through your notes or transcripts more than once as you complete the coding process, refining your codes each time.

Once you have a set of codes applied to your data, you can use them to detect **patterns**. Try grouping excerpts from your notes or transcripts by code; this will allow you to read through all of your data tagged with a given code at once. There are specialized tools for coding qualitative data, such as Dedoose or NVivo,² which allow you to highlight sections of text and add codes directly, track all excerpts associated with a given code, and nest codes within one another in a hierarchy. While these tools can be useful if you are working with a large amount of data, you can also code qualitative data without specialized software using a spreadsheet.

Tool: Sample Qualitative Coding Table

The table below provides an example of how you can set up a simple coding analysis. You can use this table in a word processor or a spreadsheet system.

To use this tool, copy and paste significant excerpts from your qualitative data into the first column. Then, use the code columns to assign one or more codes to the excerpt. In some cases, you may have just one code to apply, while in others you may have multiple. You can add or remove columns as needed. Finally, enter any notes you may want to reference later, such as your reasoning for selecting certain codes. The table contains an example from the case study to guide you, with additional context below the table.

Excerpt	Code #1	Code #2	Notes
"I liked the online classes best. When class was at the community center, sometimes I couldn't go because there was no one to watch my children."	Barrier: childcare	Format: online	Participant appreciated online format, but possibly only because it removed barriers. Check for other comments about online vs. in-person.

Case Study: Coding Qualitative Data from Eleanor's Project

Suppose Eleanor conducted a set of focus group discussions as part of her data collection, asking participants about what parts of the workshops were most and least helpful and inviting them to share any barriers they faced to accessing the workshops.

Eleanor may decide to develop a set of codes related to the types of activities participants completed in the workshops and use those to label her notes. She may also check for available [evidence](#) about integrated English-language and digital-skills programming and base her codes on the intervention characteristics studied in the research she finds. She can then use her predetermined list of codes to label her notes, helping her

² Note: While Switchboard does not endorse any individual product or for-profit corporation, this toolkit provides examples of some common tool options.

organize the information. In this case, Eleanor is using deductive coding.

Alternatively, instead of creating a preset list of codes, Eleanor may decide to read through her notes one or more times, paying attention to the themes that seem to emerge. After collecting these themes into a list of codes, she then reads through her focus group notes again, labeling them with her codes. In this case, Eleanor is using an inductive approach.

After grouping excerpts by code, Eleanor may examine all of her notes that have codes related to barriers and find that certain groups were more likely to report experiencing barriers to access. Alternatively, she may find that participants from a range of different backgrounds praised a specific workshop session.

Sentiment Analysis

Sentiment analysis is a computational approach to analyzing text-based data. It generally uses computer programming algorithms to assess the attitudes expressed in a section of text, typically labeling the words or phrases within as “positive” or “negative.” Sentiment analysis is often used to analyze large amounts of text, such as a collection of news articles or social media posts. However, it could also be applied to open-ended survey responses, such as those that ask about clients’ perceptions of services. In many cases, data analysts use software to conduct sentiment analysis.

Sentiment analysis requires both comfort with computer programming software and a sufficient understanding of how the algorithm works to use it with confidence. Learning these skills may be useful if you plan to collect a large amount of text-based data.

Case Studies

Case studies are stories or examples that demonstrate a broader trend you have observed. Case studies are a common and accessible method of qualitative analysis for resettlement service providers. This approach can be especially powerful in resettlement contexts because it humanizes your results by focusing on specific stories. There are multiple ways to collect and use case studies in resettlement work, but two effective approaches include selecting cases that are either representative or exceptional.

- **Representative cases** reflect the “typical” experience or outcome. These cases could be examples from individuals who represent a common client demographic, or who experienced a common outcome among participants. They can be used to add detail and richness to quantitative results.
- **Exceptional cases** stand out from the rest of the population. These cases could be examples of people who saw significantly more positive or more negative outcomes than the typical client, or those who had very different demographics from most other participants. The case study could explore factors that may have influenced the individual’s different outcome, or examine how the individual’s unique features may have impacted their experience with your programming.

Further Reading on Qualitative Data Analysis

If you would like to explore qualitative data analysis further, consider starting with the following resources:

- “Case study,” Better Evaluation. <https://www.betterevaluation.org/methods-approaches/approaches/case-study>.
- Kenyon-Dean, K., Ahmed, E., Fujimoto, I., et al. (2018), “Sentiment Analysis: It’s Complicated!,” *ACL Anthology*. <https://aclanthology.org/N18-1171/>.
- “Qualitative Data: Best Practices, Analysis, and Tools: The Coding Process,” George Washington University Library System. <https://libguides.gwu.edu/qualitative>.
- “Qualitative Research Methods,” The University Library at The Chicago School. <https://library.thechicagoschool.edu/qualitative/coding>.
- Wolff, B., Mahoney, F., Lohiniva, A.A., & Corkum, M. (2024) “Collecting and Analyzing Qualitative Data,” *The CDC Field Epidemiology Manual*. <https://www.cdc.gov/field-epi-manual/php/chapters/qualitative-data.html>.

Having trouble applying these strategies to your work?

Eligible service providers can request **free** one-on-one assistance from Switchboard – [submit a technical assistance request](#) and let us know how we can help! We can recommend additional resources, serve as a thought partner, or offer tips for improving your practice.

Combining Quantitative and Qualitative Data

Both quantitative and qualitative data can provide useful information to tell a story. You may not collect both types of data for every project, but combining them can be a powerful way of developing a comprehensive and compelling narrative about your programming.

One effective way to bring quantitative and qualitative data together into a cohesive story is to identify key metrics or findings from your quantitative data, then select qualitative data that enriches or elaborates on those metrics or findings. You can also do the reverse; when you notice key themes or interesting findings from your qualitative data, examine your quantitative data to see if there are numerical findings to support the trend you’ve detected.

Either way, combining qualitative and quantitative data gives your audience some numerical information about the general population from which you collected data, plus quotes or personal stories that emphasize the “human element” of your findings.

The tool below can help you plan your narrative based on multiple types of data.

Tool: Constructing Narratives from Quantitative and Qualitative Data

To use this tool effectively:

1. Start by clarifying the question you hope to answer (identified in [Analyzing Different Types of Data](#)).
2. Review your quantitative analysis to select one or more findings or metrics that help you answer the question, such as:
 - *Proportions or percentages* (e.g., “85% of workshop participants reported increased confidence”)
 - *Trends or correlations* (e.g., “an analysis of the relationship between client attendance rates and English literacy score improvement revealed a statistically significant correlation”)
 - *Insights from disaggregating your data* (e.g., “married mothers attended almost twice as many sessions as single mothers did”)
3. Identify one or more excerpts from your qualitative data that support or enrich the quantitative findings, such as:
 - *Quotes from interviewees or focus group participants* that reinforce or elaborate on the conclusions you reached from your quantitative data (e.g., “One workshop participant explained, ‘This session helped me understand the types of responses job interviewers are expecting. I feel better about my ability to give good answers while being honest about my qualifications.’”).
 - *Insights from coding or sentiment analysis* (e.g., “Responses that described areas for improvement most often focused on the timing and accessibility of sessions, noting that barriers such as work schedules, the availability of child care, and unreliable public transportation made it difficult to consistently attend,” or “Client explanations about the role of faith-based groups in their resettlement journey were mainly positive and indicated that they consider these entities to be a supportive presence for newly-resettled refugees.”).
 - *One or more case studies that expand on the quantitative findings or help explain them* (e.g., if your quantitative results show that young adult learners improved the most in their English speaking ability, you might select a case study of a young adult learner explaining how their improved English speaking ability has impacted their life – for example, by helping them obtain a better job or making it easier to interact with members of their community. The case study may also include details that help you understand why the individual improved significantly, such as extracurricular exposure to English).
4. Briefly summarize the story you want to tell with this information (e.g., “Most workshop participants reported increased confidence in their ability to successfully answer job interview questions. One participant appreciated learning what to expect from a job interview: [include quote].”). This summary helps you keep track of the main idea of each story you want to tell. Expand the story using visualizations and extra details when you present it to your audience.

Note: You can reverse the order of steps 2 and 3, depending on whether you wish to work from quantitative first or qualitative first.

Case Study: Combining Eleanor’s Quantitative and Qualitative Data

The example table below shows how Eleanor might put together a story for her team to understand the strengths of her project and identify areas for improvement.

Question to Answer	<i>Did clients improve their English literacy and digital skills from enrollment to exit?</i>
Quantitative Finding(s) or Metric(s)	• <i>70% of participants who started with at least low-intermediate English (pre-test score of 2 or higher) improved in their English post-test. Of participants who started at or above a low-intermediate level English improved an</i>

	average of 1.1 points (out of 5) on their English post-test. - Only 20% of participants who scored a 2 or better on their English pre-test rated their digital skills as “very good” before participating, but 75% rated their skills as “very good” at exit. - On average, participants who enrolled with an English pre-test of less than 2 did not see a significant change in English or digital skills.
Supporting Qualitative Data	- Focus group discussion finding: many participants who started with at least low-intermediate English skills reported that it was helpful to be exposed to English vocabulary and digital skills concepts together, rather than treating these as separate. - Participants with low English pre-test scores (below 2) were less likely to agree. According to one participant: “I got confused a lot during the workshops. I couldn’t understand what the instructor was telling me to do, so I sometimes fell behind the group and wasn’t able to complete the computer exercises.”
Story Summary	The project was effective at supporting the development of both digital and English-language skills among participants who entered with at least a low-intermediate level of English proficiency. Disaggregating the English pre- and post-test data and participants’ self-rated digital skills at enrollment and exit, it is clear that most clients who enrolled with low-intermediate or better English improved in both areas. On the other hand, the average client who enrolled with low English proficiency did not see any improvement in their English or digital skills. One of these participants noted, “I got confused a lot during the workshops. I couldn’t understand what the instructor was telling me to do, so I sometimes fell behind the group and wasn’t able to complete the computer exercises.”

Common Storytelling Needs in Resettlement Work

Any type and amount of data can tell an effective and truthful story about your programming. Keep these guidelines in mind when constructing your story:

- **For communicating with teammates for [internal learning](#):** Select an *actionable insight* that helps teammates identify a plan for future project improvements or adjustments.
- **For communicating impact externally via reports, community outreach, or internal meetings:** Focus on a human story that demonstrates how your programming has impacted clients.

The communication templates below can help you quickly develop data-based messages for community engagement purposes, such as social media posts, calls for volunteers or donations, or newsletter updates.

[Case Study](#): Reshaping Findings for Different Audiences

From her data analysis, Eleanor learned that many participants improved from low-intermediate to intermediate English while also gaining digital skills. The examples in the tool below show how Eleanor might tailor her message to the medium and intended audience to communicate this result in different settings.

As you read the examples, notice how Eleanor transforms her results into a slightly different story each time, each of which remains rooted in the data.

Tool: Templates for Data-Driven Community Engagement Messages

Each template below lists the “components” or the information you will need on hand with an example from the case study. Use these templates to organize your thoughts quickly, so you can focus on your other programmatic and administrative work. For visuals like the ones in the social media templates, you can use basic shapes and text boxes in Word or Google Docs, or try a design tool like Canva or Adobe Express.³

Sample Social Media Template 1: Photo + Quote

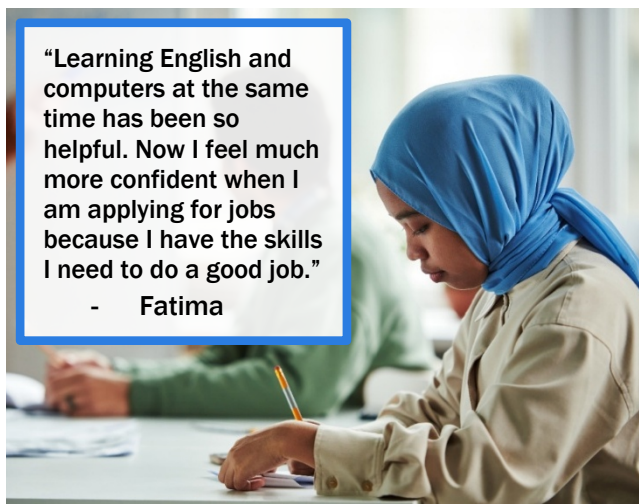
Use the combination of a photo of a client (engaging in your programming or a portrait) and a quote to communicate impact and grab people’s attention as they scroll.

Audiences on social media generally expect short content that delivers a simple, clear takeaway. They likely span a range of digital literacy levels and may not know much about your organization or programming.

Components:

- One picture (with consent to share it)
- One short client quote (from a survey response, focus group, or interview with consent to share it)
- A short caption of 1-3 sentences providing context
 - Optional: include a key data point that supports the quote.
- A brief “call to action” inviting viewers to donate, share, volunteer, etc.

Example: Photo + Quote



Caption: Fatima enrolled in our combined English and digital literacy workshops hoping to improve her skills and confidence.

The average student improved from low-intermediate to intermediate in their English level after completing our workshops, reaching the minimum level needed to succeed in quality jobs.

Your community donation can help us expand these workshops to reach even more hardworking newcomers like Fatima.

³ Note: While Switchboard does not endorse any individual product or for-profit corporation, this toolkit provides examples of some common tool options.

Sample Social Media Template 2: Key Metrics

Combine one or two numbers that indicate important results with a small amount of explanatory text to help audiences engage with your impact in an accessible way. Keep your presentation simple and direct to engage a social media audience.

Tip: align this template with your team's or organization's brand by changing the background color or adding your logo

Components:

- A simple background, e.g., a blank square filled with your organization's main brand color
- One or two numbers that demonstrate the impact of your programming or another significant result
- A short phrase that puts the number(s) in context
- A short caption of 1-2 sentences providing additional context about the programming the numbers relate to
- A brief "call to action" inviting viewers to donate, share, volunteer, etc.

Example: Key Metrics



Caption: Newcomers to the United States face major barriers to employment. Our innovative combined English and digital literacy skills workshops help clients overcome two of those barriers.

You can help them on their journey to self-sufficiency – sign up to be a volunteer mentor via our website today!

Sample Newsletter Template 1: Client Story

A short client story that puts a human face on your work can have a big impact on donors, community members, and other supporters. If you collect a story and have consent to share it (anonymously or with a pseudonym, if preferred), consider building a newsletter around it.

Newsletter subscribers may be more familiar with your work and willing to invest slightly more time in reading a full client story. Delivering this story to their inboxes, rather than on a social media feed, may engage readers better since they expect to receive longer-form information via email.

Components:

- A 1-3 paragraph story from a client that showcases growth or improvements made with the help of your programming
- A photo of the client (if possible) with consent to share it
- 1-2 key data points or other pieces of information about the programming the client references
- A brief “call to action” inviting viewers to donate, share, volunteer, etc.

Example: Client Story

You may remember reading in our last newsletter that our combined English and digital literacy workshops helped newcomers improve from low-intermediate to intermediate levels of English. But what does that mean in practice? Read Tadesse’s story below to find out.

He says, “When my family and I first arrived, I could not understand anything people were saying. It was scary not to be able to read signs or ask basic questions without help. I felt like I was letting my family down and I worried when I could not find a job.

I learned some English at the community center and started working at the grocery store. The work was hard and I had a lot of back pain, and we still couldn’t pay our bills. Now that my English is better, I got a job that pays more and doesn’t cause me pain. I worry less about the future, and I play with my children a lot more.”



Your support is what drives these life-changing programs. To help us expand next year, consider donating or volunteering as a mentor at the links below

Sample Newsletter Template 2: Mid-Year Update

Short updates with a few meaningful data points keep supporters engaged and showcase your team's hard work. When choosing data to share, try linking the numbers to a human story. You can reuse this format for other milestones, like the end of the year or a major anniversary.

Remember that your newsletter likely includes a mix of local donors and community members who want to see the positive results you have achieved. Frame your data in a way that highlights success and foreshadows future work to sustain or increase community support.

Tip: align the template with your brand by changing background colors or adding your logo

Components:

- 2-3 key metrics or data points that demonstrate progress toward your team's or organization's objectives
 - *Optional: include your indicator targets to show your progress toward them*
 - *Remember to put these in context and help your audience understand what the numbers mean for your clients!*
- 3-4 sentences about your plan to continue serving newcomers (e.g., previews of upcoming programming, event highlights, etc.)
- A brief "call to action" inviting viewers to donate, share, volunteer, etc.

Example: Quick Mid-Year Update

Now that the year is halfway done, we are excited to share the progress we've made so far thanks to your generous support. Here is a quick summary of what you've helped us accomplish in the first half of the year:



These results are not just numbers. They represent human beings who are making real progress toward rebuilding their lives and finding stability. To keep this momentum going as we head into the second half of the year, we are planning to:

- Re-run our popular English/digital literacy workshops for a new cohort of learners.
- Invest in targeted support groups for single-parent households to make sure both parents and children have safe places to process their emotions and challenges.
- Host a Community Resource Fair in the fall to uplift other local services and help newcomers learn about the support available to them in our community.

Can you help us reach our fundraising goal to keep these programs running for the rest of the year? Use the link below to show your support for your newcomer neighbors today!

Example: Introducing Your Organization

Sample Partnership Email Template: Introducing Your Organization

Used strategically, data can be a powerful tool for attracting partnerships. Before drafting your message, think carefully about what information would be most useful to your potential partner (see "Identify the Interests of Your Audience"). Keep your message simple and concise.

Components:

- 1-2 key data points that explain the population(s) you serve and showcase programming
- A brief description of your programs or projects that could be useful to the partner
- A 1-2 sentence pitch outlining how you envision collaborating and how each organization would benefit from a partnership
- A proposed next step (email response, phone/video call, etc.)

Dear [contact name, if known],

I am a program manager at [organization name], where we serve refugees and other newcomers. We recently piloted a workshop series to help newcomers improve their English and digital literacy skills, and we are planning a second cohort later this year.

The pilot cohort was about 40% Afghan, and we anticipate similar numbers next time. Learners told us that 1:1 support during the workshops helped them learn faster, so I am reaching out to community organizations in our area to recruit volunteer mentors. Since your organization serves Afghan-Americans and has a strong track record with immigrant-focused programming, I think there could be a good partnership opportunity here. In particular, this could be a nice fit for your Young Adult Service Club, though we would welcome any volunteers over age 15.

Would any of your members or others in the community you serve be interested in volunteering to mentor a newcomer adult during our workshop series? I'm happy to share logistical details to help people decide. We can also establish a referral system for you to enroll eligible newcomers you work with, and provide certificates verifying volunteer hours for any mentors who need them (e.g., to meet school requirements).

I'd welcome the chance to talk more about the workshop series or how our organizations might partner. Please feel free to propose a time to meet for a brief call, and thank you for your time.

Note: if you know your audience is especially short on time or balancing many responsibilities, you could adapt this template to present the key details from the second paragraph in bullet point form:

Since your organization serves Afghan-Americans and has a strong track record with immigrant-focused programming, I think this could be a good partnership opportunity. Here are the key details:

- The pilot group was about **40% Afghan**, and we expect similar numbers next time
- Learners told us that 1:1 support during the workshops helped them learn faster, so **we're recruiting volunteer mentors** from community organizations in our area
- This could be **a nice fit for your Young Adult Service Club**, though we'd welcome any volunteers over age 15

Recommended Resources

Switchboard prioritizes materials produced by the Office of Refugee Resettlement (ORR) and other federal agencies and by trusted technical assistance projects that receive U.S. government funding. The external resources contained in this list represent the views and opinions of their original creators and do not necessarily represent the views or opinions of Switchboard.

■ Switchboard

- **Toolkit:** [Bar Charts and Beyond](#)
- **Blog:** [Challenging Community Conversations: Three Tips to Build Understanding and Support](#)
- **Guide:** [Collecting and Analyzing Data for Learning and Program Improvement](#)
- **Tool:** [Data Analysis and Action Planning Templates](#)
- **Blog:** [Data Communication for Resettlement Organizations](#)
- **Guide:** [Developing Key Evaluation Questions](#)
- **Guide:** [Developing Strong Program Reports](#)
- **Tool:** [End-of-Project Learning Meeting Template](#)
- **Blog:** [How States and Other Refugee Service Providers are Using Infographics to Engage Communities](#)
- **Toolkit:** [Leveraging Feedback in Community Engagement](#)
- **Blog:** [Refugee Quarterly Consultations: Innovative Models for Empowering Community Connections](#)
- **Blog:** [Strategies for State Refugee Coordinators to Support and Partner with Communities](#)
- **Archived Webinar:** [Using Data For Strategic Consultation And Community Connectedness](#)
- **Blog:** [Using Data to Tell Program Stories...Without Putting Your Audience to Sleep](#)

■ International Organization for Migration, [Methodologies for data collection and analysis for monitoring and evaluation](#)

■ Administration for Children and Families (ACF), [The Program Manager's Guide to Evaluation \(Third Edition\): Chapter 7. "Analyze Data"](#)

About Switchboard

Switchboard is a one-stop resource hub for refugee service providers in the United States. With the support of the Office of Refugee Resettlement (ORR), we offer tools and materials, learning opportunities, research, and technical assistance on resettlement-related topics. From employment, education, and health, to monitoring and evaluation, Switchboard's focus areas reflect real-world needs.

Funded by ORR, Switchboard is implemented by the IRC. The IRC has partnered with LIRS to provide employment-related training and technical assistance.

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.

