Factor Analysis Work Sheet

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When leaders from different sectors and/or from different roles within systems come together to work on a population level result, they bring with them different experiences, mental models, and knowledge about the work that is in front of them. They also bring with them an awareness of the different factors that contribute to the way things are and what works to address those factors. Given the complexity of the work and the fact that there may be many contributing factors that are contributing to the current situation, results leaders will take the time to engage in a factor analysis.[1]

Factors are the underlying reasons behind the problem or issue that results leaders are seeking to address. Engaging in a factor analysis allows leaders to create strategies that seek to address the identified factors. This process is an essential step in developing a results action plan.

This technique may disclose factors at various levels, including individual, family, community or broader social system levels. Thus, leaders may need to develop strategies that address causes at each of these levels. , For example:

- Existing knowledge, awareness, attitudes and/or behaviors factors of individuals, families, and communities.
- Cultural factors such as customs, beliefs, and values
- Economic factors such as income, housing, and other resources
- Political factors such as representation, decision-making power, policies

Get the right people in the room

Prior to engaging in a factor analysis process it is important to gather key stakeholders and partners who can contribute to the work. Key stakeholders include people who are affected by the current problem and are in a position to contribute to the solution. Together they explore a broader range of possible factors that may be at play – and not be limited by unconscious assumptions and/or untested or disproven mental models. These multiple perspectives allow results leaders to see the "whole" problem, appraise it through shared intelligence, negotiate a broad mix of needed strategies, and engage in the work.

Four Steps to identify factors:

Step 1: Collect and Analyze Data

The first step in the analysis is to gather data, specifically population level trend line data that has been disaggregated by race, gender, class or other groups. This allows leaders to see the population level trend and the disaggregated trend.

Questions to explore:

- Are things getting better, worse, or about the same for the whole population?

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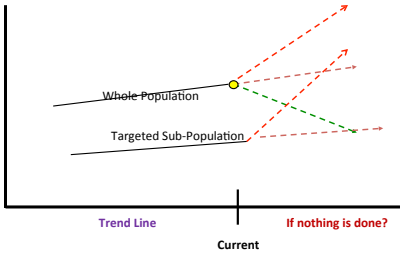
[1] Based on the "Turn-the Curve" activity in Mark Friedman's Trying Hard is not Good Enough

- Are things getting better, worse, or about the same for the disaggregated populations?
- How do you know if the state of things is getting better or worse?
- Where would the trend line go if nothing were to be done?
- How long has the problem existed?
- What is the impact of the problem and on whom?

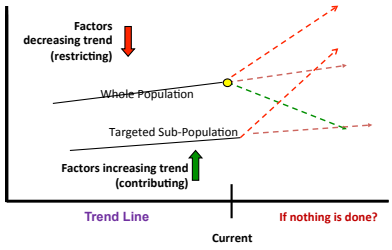


Step 2: Identify the contributing factors

Identifying contributing factors allows results leaders to create a shared meaning as to why things are they way they are. Stakeholders and partners may have differing perspectives and points of view and, thereby, offer an important perspective of what is happening. This step can also reveal gaps in understanding and knowledge of why things are the way they are.

Questions to explore:

- What current factors are contributing positively to the trend line?
- What current factors are contributing negatively to the trend line?
- How do we know these are positive or negative factors? What is the evidence?
- Use multiple examples of positive and negative results to identify additional contributors
- Are there unique factors that specifically contribute positively or negatively for the population as a whole or for sub-populations?
- Which factors are contributing to existing disparities and how do you know? List both the contributing factors that are positive (or making the situation better) and negative (or making the situation worse).



Step 3: Ask the "multiple-whys" questions:

This technique examines key factors by asking the question "why?" several times to find out what caused it. The purpose of asking "why" is to have a good enough understanding of the factors to make informed choices about which ones are actionable by a stakeholder and/or partner, are relevant for the population being impacted, meets the strategy criteria Each time an answer is given, it is followed-up by another "why?" question. After, each answer leaders might see an opportunity to take action right away that can help move the trend line in the right direction..

For example, if the current situation is that too few children in a particular community are attending college ready, leaders would ask "why?" Once factors have been identified, there is an opportunity to go deeper into one that is deemed important and relevant. Asking why to a factor will illicit an answer, it is followed up by another "why?" question until you are satisfied

you have identified multiple factors of the problem. Include both positive and negative contributing factors for a whole and subpopulation and drill down by asking:

- Why does the contributing factor exist?
- Are there conditions or contributors that are unique to sub-populations?
- How is this driving the trend line? (Use the Multiple Why Work Sheet below)
- If this factor shifted, what impact would that have and how big a contribution would that make to turn the curve?
- For which factors is there evidence (research, experience, knowledge) that can inform how best to proceed?
- What are the 2 or 3 factors that, if shifted, would address systems-level changes?

See the "multiple-whys" work sheet at end of this document

Step 4: Develop strategies to address the factors

The next step is the generation of potential strategies. These strategies are connected directly to the factors that have been identified.

- For what factors, if addressed, is there evidence of strategies that are effective?
- For what factors, if addressed, would there be greatest gain towards the result?
- What can partners contribute to the strategies that work for specific factors?
- What will it take to develop and execute effective strategies?
- What set of strategies can be developed/implemented that directly address the most salient factors?
- What level of activity is needed to achieve change? To get to scope and scale?
- Complete a Strategy Chart for these strategies using this format:

Strategy Name:
Strategy Population:
Strategy Result:
Strategy Target: -
Strategy Performance Measures:
Strategy Partners:

- Review the strategies identified on your preliminary strategies inventory
- Use a set of strategy criteria to help identify strategies to develop and implement

Multiple "Whys" Worksheet
Students Not Attending College

One Key Contributing Factor
Financial: Students not applying to college

Each time you ask "why," look for an answer that is grounded in fact: it must be an account of things that have actually happened – not events that might have happened. Make sure that your answer is grounded in fact, and then ask "why" again. **After each answer determine is there is an action that can be taken by a partner and/or stakeholder**.

Why Question	Answer: Because…
1. Why are students are not attending/applying for college	One key factor: Cost/Financial barriers – Families believe they cannot afford college and chose not to apply. Also, families don't know how to engage in the financial aid (FAFSA) process?
Why do families hold this belief? Why don't they know how to engage in the financial aid process?	Many families do not have a tradition of attending college and it seems out of reach – they don't know how to navigate the college and financial aid process. Therefore, they don't know about the financial aid that is available, don't complete their financial aid (FAFSA) forms on time or properly - parents are not able to support their children in completing the forms
The FAFSA process is complicated and cumbersome for some families – especially those where English is their 2nd language; the whole college application is complicated	The FAFSA forms can be difficult to understand – especially the financial information that is required. The college application process can be difficult to understand. There are existing resources that can be purchased to support families.
Parents and Families don't have the resources or background in supporting the application process	The costs to apply to college may be too high, the ways to get support resources too complicated. In addition, parents may not feel that college will support their children
Parents and Families don't trust education systems	Our education system does not support our families – they don't encourage the parents to be engaged. Families have to know how best to engage and be partners with the education system.