Facilitator's Guide to Decisions with Data

Thank you for your commitment to school-based decision making (SBDM) and for training the council members attending your session(s). As a reminder, Decisions with Data is designed as a three-hour session for experienced members.

The attached Facilitator's Guide includes a script, as well as accompanying answer keys and notes. The script itself is discretionary and serves as a guide only; the answers are samples. Feel free to create your own transitions between topics and to facilitate discussions to your comfort level; you are not bound by the script itself. Most of the activities and readings require mandatory engagement, so passive learning and "sit-and-get" are not recommended. Council members who have previously taken this training have enjoyed the large group conversations, so encourage your trainees to take notes, highlight, annotate, and interact with the words on the pages and with their fellow trainees.

Should you find any incorrect information or need clarification on an activity, or if you would like to provide feedback on the module, feel free to contact your SBDM consultants at (502) 564-3791.

Sample Agenda:

Go to PowerPoint Slide 2.

I. Welcome & Introductions (10 minutes)
II. Session Overview and Objectives (5 minutes)
III. Statistics 101 (25 minutes)
IV. School- and District-level Data: Kentucky School Report Card (50 minutes)
V. Break (10 minutes)
VI. School- and District-level Data: Impact Survey & Your School's Data (20 minutes)
VII. Data Analysis (25 minutes)
VIII. Policy Review Activity (25 minutes)
IX. Closing (10 minutes)

Needed Materials

- Booklet for each participant
- Computer (access) and internet connectivity for each participant
- Computer for PowerPoint presentation
- EILA certificates
- Electronic Evaluation Link: https://forms.gle/i8o8yQMT2FwJx9gx9
- Name tags
- Sign-in sheet
- Name tags

DECISIONS WITH DATA

A Three-hour Training for Experienced SBDM Members

SESSION OVERVIEW

Decisions with Data was designed to help experienced councilmembers understand the importance of using data in their decision making and how data-driven decisions impact student achievement. By the end of this session, councilmembers will understand how leveraging the data available to them can assist in making sound decisions and in creating policies that will in turn impact how students achieve.

Kentucky Department of
EDUCATION

STUDENT ACHIEVEMENT

The school council's mission is to improve student achievement (KRS 160.345(2)(c)). Each school council must create an environment in its school that will result in students achieving at high levels. All policies and decisions by the school council must contribute to the achievement of the overall school's mission.

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School-Based Decision Making (SBDM) Councils and Data

Kentucky Revised Statute (KRS) 160.345(c)(1) gives SBDM councils the responsibility to set school policy that is consistent with district board policy and provides an environment to enhance student achievement. School-based decision making councils are encouraged to review their policies annually, and data is a great resource to use to determine if the policies are effective at enhancing student achievement.

There are also some instances in which using data is imperative. When councils are creating the Comprehensive School Improvement Plan (CSIP), they must provide a measure of success. While the measure of success can be qualitative (descriptive) or quantitative (numerical), it is critical to include when determining whether the school's objective was met.

Rate Yourself!

Before diving in fully, think about your confidence level in using data to make decisions. Circle the value you feel best describes your ability to make decisions using data.

1	2	3	4	5
Not at all confident				Extremely confident

While people are assessing themselves, walk around the room and look at the range of confidence that participants are circling within their booklets. Depending on the size of your group, you may want to pair up or group individuals who are on the lower end with those on the higher end with their ratings to ensure they feel supported throughout the training.

Go to slide 4 and have the trainees complete the box by filling in the missing information. Slide 4 includes the information that must be penciled in by participants. Review the information while participants are listing the explanations and examples within their booklets. You may want to call on them to see if there are other types and examples that they have in mind that are not already provided to them.

	Qualitative Data	Quantitative Data
Definition	Information that cannot be expressed as a number	Information that can be expressed as a number or quantified
Type of data	Words, pictures, observations	Numbers, statistics
Examples	Names, race/ethnicity	Test scores, population size

At the end of this training, you will be asked to complete a survey. The insights you provide on how this training can be improved are qualitative data, because you are describing your experience. The number of councilmembers that complete this training would be quantitative data, because it is a numerical value.

Before we jump into data available to schools, let's discuss some basic statistics.

Statistics 101: Population and Sample

If you took a statistics class in school, this might be a familiar topic to you, but before we talk about how to use data, we must discuss a basic statistics topic: the distinction between sample and population.

When discussing the difference between sample and population, it is helpful to think of it in the context of an example. What are the eye colors in your immediate family? Feel free to list them below:

| Eye Color	# of family members with that eye color	% of family with that eye color
Brown		
Blue		
Hazel		
Green		
Other		

Tip: You can calculate the percentage by taking the number of your family members that have an eye color and dividing it by total number of family members.

The eye colors of your family represent a **sample** of the United States, because it is only a portion of the entire United States.

How do you think your family's eye colors compare to the eye colors of everyone in the United States? Do you think your family's eye colors are similar in percentage? Go to the next page to see the eye colors of everyone in the United States.

Below is a pie chart that depicts the eye color of the entire United States as reported by the American Academy of Ophthalmology. This represents the **population** because it is the entire United States.

Eye Color of the United States

Color	Percentage
Brown	45%
Blue	27%
Hazel	18%
Green	9%
Other	1%
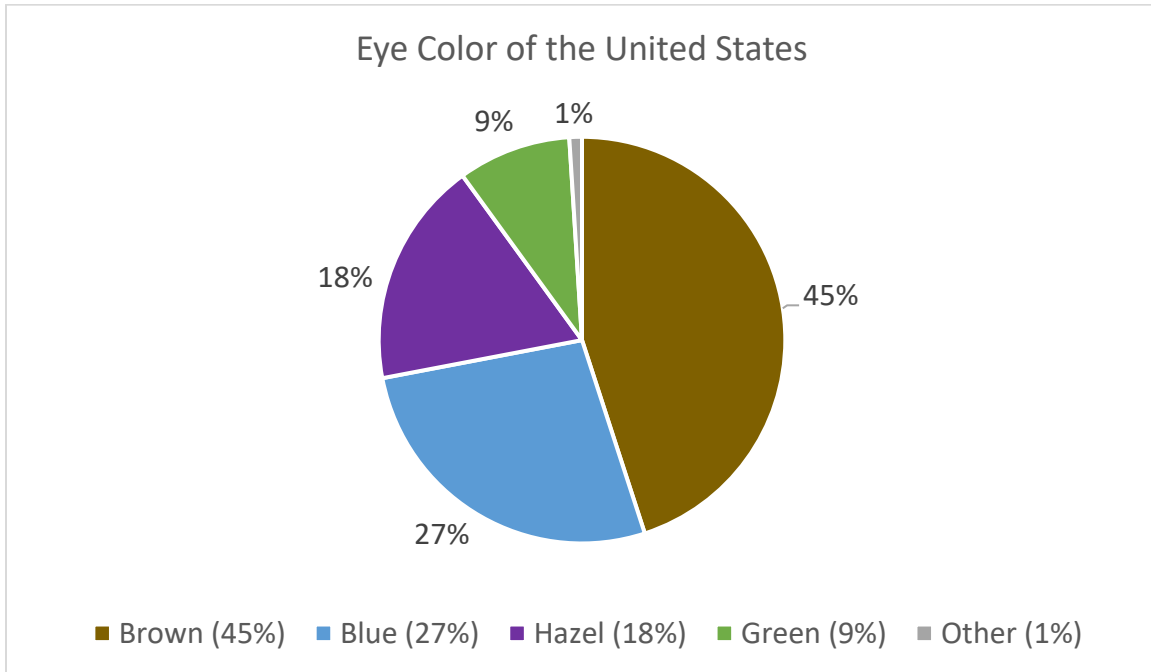
This brings us to the definitions of population and sample:

- Population: A dataset that represents everyone from which you can collect data.
- Sample: A portion of the population.

How did your family compare to the United States? Does your family have similar percentages to the eye color of the United States?

Say, "You may be wondering how this relates to your role on council." Then read some of the examples in the following paragraph.

In relation to our schools and your role on council, most of the data will have the population as your entire school. A sample of your school might be a couple of classrooms or a handful of students. For example, you might look at the reading proficiency test scores of students with an Individualized Education Plan (IEP). That data would have your students with an IEP as a sample of the population of all students.

In some cases, your district might be the population and your school would be the sample. If we look at the same data, reading proficiency scores of students with an IEP, we could compare our school's scores to the district's score or the state's scores.

It all depends on your data and what questions you are asking!

You may have wondered how the American Academy of Ophthalmology learned about the eye color of the entire United States. Did they call everyone and ask them what their eye color is?

This leads us to a method that researchers call **extrapolation**. Extrapolation means the researcher takes the data from the sample and expands it to represent the population. The American Academy of Ophthalmology asked 2,000 people what their eye color is, and then expanded it to represent the United States. As you inferred, the results from an extrapolated sample are not completely accurate. The results can be helpful, but those results do have a margin of error. If possible and practical, it is best to use the population of data.

Activity: Below you will see listed two related categories. Using the knowledge you have regarding sample and population, determine if each example represents a sample or population. Place an "S" next to the category that is the sample and "P" next to the category that is the population.

Population v. Sample	Population v. Sample
Ms. Smith's Physics Class S Cardinal High School P	Wildcat Elementary S Success Independent Schools P
Parents at Big Red Middle P Parents on Big Red Middle's SBDM S	United States P Kentucky S
Students in Kentucky who are English Learners S Students in the United States who are English Learners P	Teachers on Eagle's hiring committee S Teachers at Eagle Elementary P

Raw Data and Proportions

If a classroom had five students with brown eyes, what other information would be helpful to know before you made any decisions or assumptions about the class and the eye color of the students? The size of the class! It would be important to know if it was a special education classroom that had 10 total students, a math class with 30 students, or a physical education class with 60 students.

The five students represent the **raw data**. It is the count of students. To make sense of the raw data, we need context. **Proportions** provide context to the raw data by comparing the count of the raw data to the size of the sample or population.

For our eye color poll with five students, we could compare each of the classrooms:

- Special education: Five students out of 10 students is ___50___ %.
- Math classroom: Five students out of 30 students is ___16.6___ %.
- Physical education classroom: Five students out of 60 students is ___8.3___ %.

Think like an investigator when data is before you! Whenever you are given data, it is important to think about how this data was collected. The value of data is only as good as the methods used to collect it. Methods and questions used to collect data should be impartial and objective.

Talk About It: Before we move onto the type of data that is available to councilmembers, what questions do you have related to population, sample, raw data and proportions?

School- and District-level Data

As a councilmember, you might wonder what types of data exist for schools. The Kentucky Department of Education (KDE) provides a variety of data within the Kentucky School Report Card.

Kentucky School Report Card

The Kentucky School Report Card website hosts data collected by KDE. It is a powerful website that contains an abundance of information. The website includes seven categories of data: overview; academic performance; educational opportunity; transition to adult life; school safety; school accountability; and financial transparency.

Activity: Go to the Kentucky School Report Card website. Search for your school and answer the questions below related to the categories of data available on the School Report Card.

Overview

1. Look at the front page of your school's School Report Card and answer the questions below. You'll need to scroll down the page to view all the information.
   a. How many students are enrolled in your school? Answers will vary.
   b. What is the student demographic of your school? Answers will vary.
   c. What percentage of your school's student body is identified as gifted and talented? Answers will vary.
   d. What percentage of your school's student body have had a behavior event? Answers will vary.

Students

2. Under the Overview section, click on the Students heading. Explore the different subheadings and answer the following questions:
   a. What is your school's attendance rate? Answers will vary.
   b. How many of your students are chronically absent? Answers will vary.
   c. Under the Student Groups tab, look at the table of your Economically Disadvantaged students. What is the trend over the past several years? Has the number of students increased, decreased or remained the same? Answers will vary.

Faculty, Staff and Community

3. Under the Overview section on the left side of your screen, click on the Faculty, Staff and Community heading. Explore the different subheadings and answer the following questions:
   a. What percentage of your teachers (faculty) have a specialist degree? Answers will vary.
   b. How many volunteer hours have parents or guardians contributed? Answers will vary.

Access to Technology

The Access to Technology heading provides information about the number of student instructional devices, internet accessibility, and school policies regarding technology use.

Civil Rights Data Collection

The Civil Rights Data Collection shares information regarding demographics in several different categories, including advanced coursework, student suspensions and expulsions, arrests and referrals to law enforcement, and chronically absent students. It also contains the number of violent offenses incidents and harassment and bullying allegations.

Statistic Stop! Is there any information or data that surprises you? What questions do you have about a specific category and its definition?

Academic Performance

The Academic Performance heading contains the assessment results and career and technical education performance measures.

Assessment Results

The Assessment Results category contains results for state assessments, the American College Test (ACT), English learner progress, kindergarten screener, National Assessment of Educational Progress (NAEP), and progress toward state goals for your school. The below chart includes a description of each of the result options:

Category	Description
State Assessment	Kentucky assesses student's performance on different subjects at different grade levels. Depending on the grade levels in your school, you may or may not see all the subjects.
The ACT (high school only)	The ACT category provides data on the average score on the ACT within the school and the percentage of students in that school that met benchmark.
English Learners (EL)	The English Learner category provides the percentage of English learners who reached attainment. Attainment is based on a composite score of 4.5 or higher on the Accessing Comprehension and Communication in English State-to-State (ACCESS) for ELs assessment.
Kindergarten Screener (kindergarten only)	The kindergarten screener scores are based on an entry-level test to determine which students require enrichment or intervention support.
National Assessment of Educational Progress (NAEP)	The U.S. Department of Education selects and administers the National Assessment of Educational Progress periodically to a sample of schools and districts.
Progress Toward State Goals	This category charts how your school is progressing towards proficiency in state goals. The state's goals were determined by the 2019 state assessment scores.

The data in this section is provided through a chart and table. An example with fictitious values of what you might find on the School Report Card website is provided on the next page.
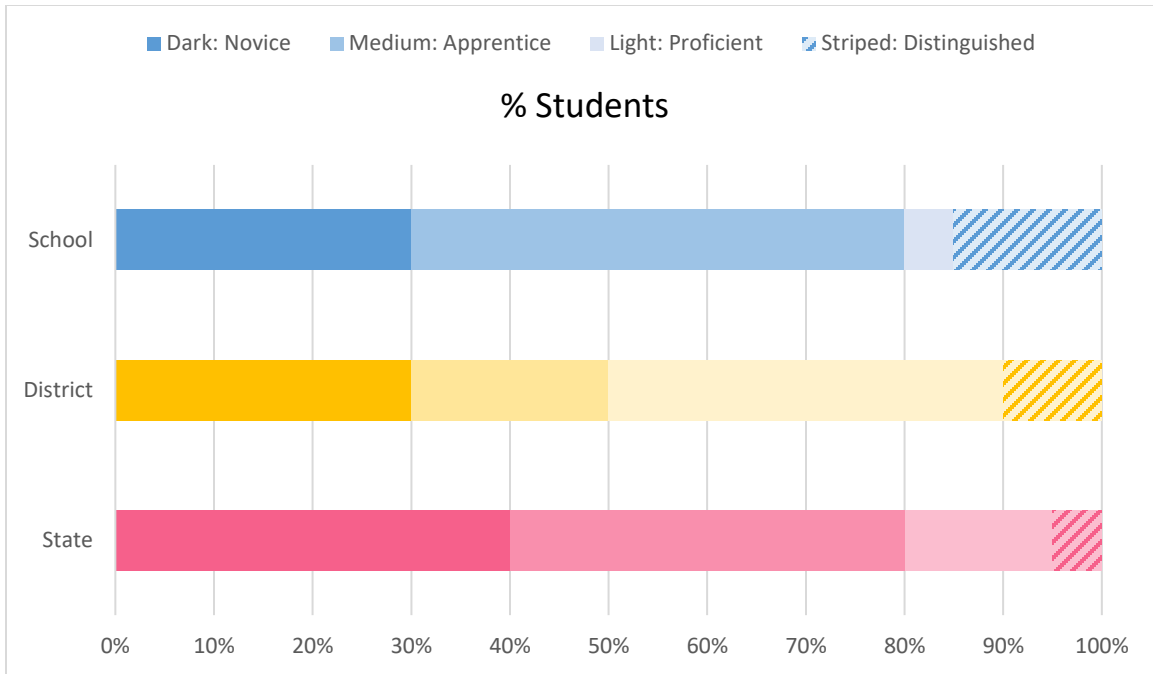
There is a lot of information within this chart. So, let's take a moment to break it down!
- It is important to first recognize that this chart is measured in the percentage of students and **not** the number of students. We know this is measured by the percentage of students because of the title of the chart (% Students).
- The three bars represent a school (top), district (middle) and state (bottom). Because the school, district and state information are included on the chart, it is easy to compare how the school is performing compared to the district and state.
- The color shadings represent a different level of attainment. Reference the legend at the top of the chart to learn the shade and its corresponding level of achievement.

Directions: Using the information in the chart, answer the following questions:

1. What percentage of students in the state received a score of distinguished? 5%

2. What percentage of students in the district received a score of apprentice? 20%

3. What percentage of students in this school received a score apprentice and above? 70%

Discuss suppressed data and when and how it may appear within the School Report Card.
Suppressed Data
You might run across data that is suppressed. Suppressed data is reported as an asterisk (*). Data is suppressed when the Family Educational Rights and Privacy Act (FERPA) requires data not to be shared publicly due to privacy reasons. In Kentucky, there needs to be a minimum of 30 students in the group to report the data. If you require the suppressed data to make decisions, you need to work locally to access it.

Career and Technical Education

The Career and Technical Education category is only available for schools that contain grades 9-12. Within this category, you can find the attainment of the state's goal based on the Perkins performance indicators. It contains the total enrollment for the school, the number of students meeting benchmark, and whether the school's performance goal has been met.

Statistic Stop! Review your school's Academic Performance tab. Which of these academic performance categories do you think will be most helpful to your role on council? What lingering questions do you have about the categories and/or how to read or interpret the charts?

Go to slide 9. Say, "The educational opportunity tab answers the question, 'What educational opportunities are available to students?'" Allow your councilmembers time to review the data and answer the following questions but be prepared to answer questions on how to read and interpret the charts.

Educational Opportunity

The Educational Opportunity heading contains gifted and talented and general education coursework for grades K-12, and grades 9-12 contains the additional categories of career and technical education and advanced coursework.

Gifted and Talented

Look at your Gifted and Talented subheading and explore the site to answer the following questions for your school.

1. How many of your school's students are considered gifted and talented? Answers will vary.
2. How many of your school's students are identified as "general intellectual ability"? Answers will vary.

General Education Coursework

Go to your school's General Education Coursework heading and spend some time reviewing the page. After your review, answer the following questions about your school:

1. What are the program area offerings in your school for Health and Physical Education? Answers will vary.
2. How many professional development minutes do teachers receive for instructing arts courses? Answers will vary.

Advanced Coursework and Career and Technical Education

The Career and Technical Education (CTE) category contains several subcategories: career pathways; CTE participation; CTE student objectives; and early postsecondary opportunities.

- Career pathways display the types of programs available and the number of active enrollments, the number of students who partly completed the pathway, and the number of pathway completers.
- CTE participations displays the number of students who participated in CTE coursework by demographic.
- CTE student objectives display the percentage of 12th grade students who completed at least one CTE course.

Early Postsecondary Opportunities display the type of industry certifications offered, the end-of-program assessments available to receive a certificate for possible college credit, and apprenticeship opportunities.

The **Advanced Coursework** category contains advanced course participation and dual credit. The advanced course participation displays the advanced placement courses that are offered, the number of students enrolled and tested, and the number of students who earned a score to qualify them for college credit. It also disaggregates those categories by demographics. The

Dual Credit tab displays the dual credit courses that were offered, the number of course enrollments and course completers, and the number of students who earned a score to qualify them for college credit. It also disaggregates those categories by demographics.

Statistic Stop! Within the General Coursework tab, are there any program offerings you were not aware existed at your school? Are there any you think are missing that would increase student achievement? Answers will vary.
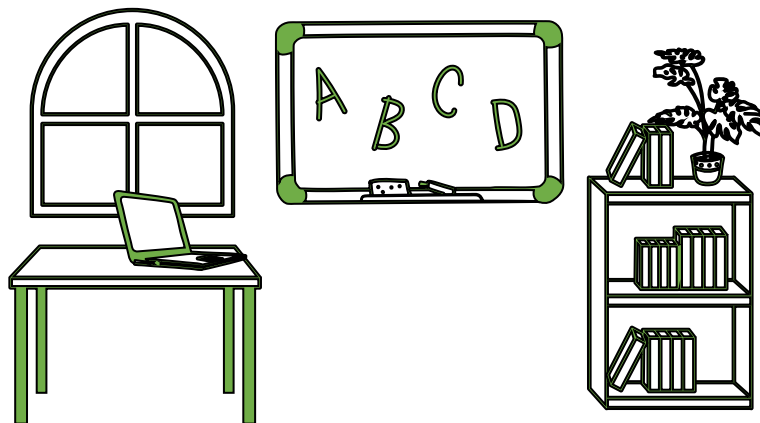
School Safety

The School Safety heading contains safe schools' data and precautionary measures. Safe schools' data displays behavior events that result in disciplinary actions. The disciplinary events are listed by grade, demographic, location, context, disciplinary resolution and legal sanctions. The Precautionary Measures tab lists the measures taken by the school as well as the resources available to the school.

Directions: Review your school's School Safety tab and answer the following questions:

1. What are the approaches that are actively implemented school wide? Answers will vary.

2. How many behavior events occurred in the classroom across all students? Answers will vary.

3. How many behavior events occurred in the classroom at a school sponsored event during school hours? Answers will vary.

Say, "The school accountability heading answers the question, 'What is the overall school performance based on state accountability?'"

School Accountability

The School Accountability heading displays the performance on state assessments in reading, mathematics, science, social studies and combined writing. It also contains the quality of school climate and safety survey, progress on English language proficiency and assessment participation. High schools also contain graduation rate and postsecondary readiness.

Review the accountability dial, how to read it, and how the color is determined.

State Assessment Results

The state assessment results are separated by content area, or you can look at the combination of reading and mathematics or science, social studies and combined writing. The data is displayed on a dial and color coded.

The further left the indicator is on the dial, the lower the performance. The color code scale ranges from red, which indicates very low performance, to blue, which indicates very high performance. These tabs also separate the performance by demographic using the same scale.

The indicator performance rating, as indicated on the dial, is based on status (current year performance) and change (difference between current year and prior year performance).

Talk About It: Look at your school's reading and math indicator score. What is the indicator rating for all students? How did it change from last year? Then, look at your school's science, social studies and combined writing indicator score. What is the indicator rating for economically disadvantaged students? How did it change?

Quality of School Climate and Safety Survey

The Quality of School Climate and Safety Survey heading displays information that is determined by surveys that measure student perception of the school environment. The survey includes the two constructs of climate and safety. The dial indicates the overall indicator score, which is calculated using the average of the student response scores from each of the two constructs.

The School tab also displays each question that was asked on the survey and the percentage of students that strongly disagree, disagree, agree, and strongly agree.

My school is a caring place.

● Strongly Disagree   ● Disagree   ● Agree   ● Strongly Agree
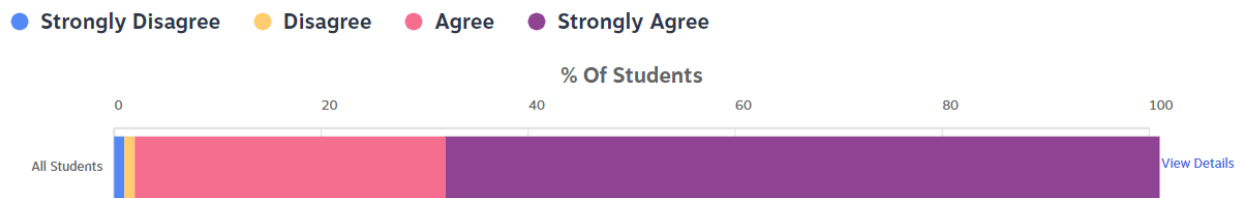
% Of Students

The blue indicates the percentage of students who strongly disagree with the statement, yellow indicates the percentage of students who disagree, pink indicates the percentage of students who agree, and purple indicates the percentage of students who strongly agree.

Tip! While in this section of the School Report Card and if you click on "View Details" on the right-hand side of the chart, it will display the percentages in numbers or you can also view a table of the responses by clicking on table at the top of the page.

Say, "Now that we have an understanding on how to read the school climate data, take a few minutes to answer the following questions."

Directions: Look at your school's Quality of School Climate and Safety Survey results, either in chart or table form, and answer what **percentage of the students at your school**:

1. Agree that they feel like they are part of their school? Answers will vary.
2. Strongly agree that a teacher or some other adult from their school will care if I miss a day of school? Answers will vary.
3. Disagree that adults in their school care about me? Answers will vary.
4. Strongly agree that there is at least one adult from my school who listens to me when I have something to say? Answers will vary.

Talk it Out: Take a minute to reflect on this school climate data. How is this data relevant and important to your work as a councilmember? Answers will vary.

The goal of this chart is to share this data exists. Depending on the number of English Language Learners in your school, the progress may be suppressed, so you may have to remind them about suppressed data.

Progress on English Language Proficiency

A few other types of information under the school accountability heading are listed in the chart below. As you read the description of the type of information, list the key words of the description or list any questions you have regarding that category.

Type of Information	Description	Key Words or Questions
Progress on English Language Proficiency	The Progress on English Language Proficiency indicator is determined by student improvement on the English Language Proficiency Exam which is currently the ACCESS assessment. This indicator score is calculated using an English Language Acquisition Value Table and is displayed using the dial and tables that distinguishes performance by demographics.	ACCESS assessment, English Language Acquisition Value Table
Assessment Participation	This subheading displays the percentage of students that participated in statewide assessments based on content area and demographics.	Statewide assessment, content area, demographic
Graduation Rate (High School only)	Graduation rate is determined by the percentage of students earning a high school diploma in four and five years compared to the group of students who began in high school in grade 9. This tab uses the dial scale and is also separated by demographics. It also includes a bar chart that compares your school's graduation rate to the district and state.	Percentage of students
Postsecondary Readiness (High School only)	The Postsecondary Readiness indicator is determined by a student's demonstration of the knowledge, skill, and disposition to successfully transition to the next level of their education career. It uses the dial scale and can be separated by demographics.	Successfully transition, next level

Financial Transparency

The Financial Transparency heading does not have information until the spring of the following year.

The Financial Transparency heading contains a financial summary, funding, spending, state funding – Support Education Excellence in Kentucky (SEEK), and taxes. Most of the information within the Financial Transparency heading are displayed at the district level. In the funding category, you can find Spending Per-Student, and that subheading compares the school's spending to the district and state.

Some general pieces of information to know about the Financial Transparency heading:
- Funding
    - Funding comes from federal, state, and local sources, as well as grants.
    - SEEK funding is a state formula-driven allocation to districts. Local boards of education determine, through the district's policies and procedures, how funds are distributed to schools within the district.
- Spending
    - The Spending subheading is broken into the following categories:
        - Instruction per student
        - Business support services per student
        - Instructional staff support services per student
        - Student support services per student
        - Administrative support services per student
        - Average teacher salary
        - Average principal salary
        - Total substitute spending per student

Financial data is complex and varies from district to district. Conclusions should not be drawn solely from the financial data. Please engage local school and district leaders with questions to better understand local district revenue and spending.

Impact Survey

The School Report Card is just one of the available datasets for you to use as a councilmember. In addition to the School Report Card, Kentucky educators also participate in a survey every two years regarding the following:

- Professional learning;
- Feedback and coaching;
- School leadership;
- Staff-leadership relationship;
- School climate;
- Resources;
- Managing student behaviors;
- Educating all students; and
- Emotional wellbeing and belonging.

Activity: Visit the Impact Kentucky Working Conditions Survey website (impactky.org). On the front page of the website, you can find results from as broad as all of Kentucky to as specific as your school. Please note that if your school's data is not released on this site, there were fewer than 10 responses and less than a 50% response rate.
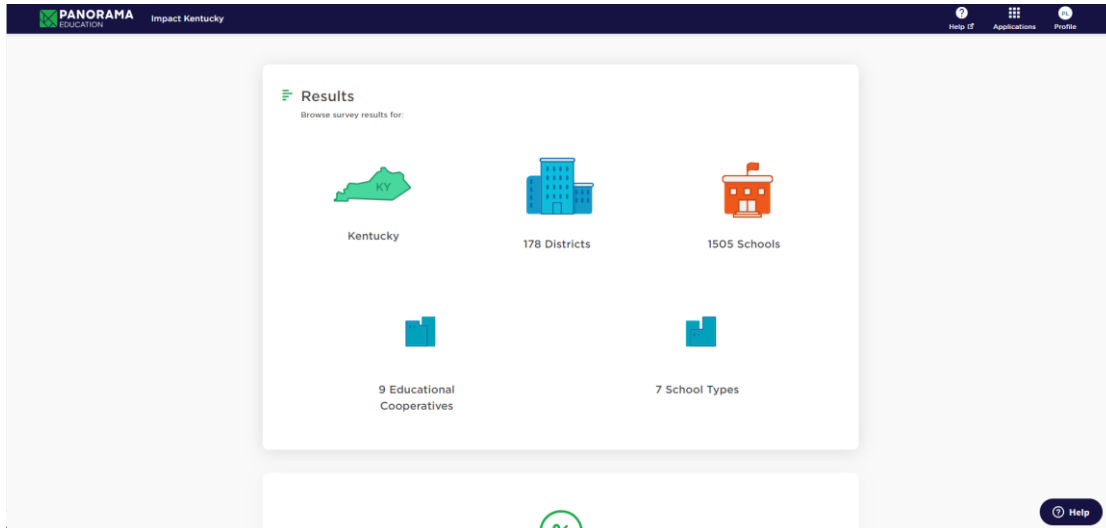
Directions: Search for your school and answer the following questions. What percentage of your teachers responded favorably to the following:

1. How often do teachers use assessment data to inform their instruction? What was the change from the previous Impact Survey? Answers will vary.
2. How respective are the relationships between teachers and students? What was the change from the previous Impact Survey? Answers will vary.

3. How often do you see students helping each other without being prompted. What was the change from the previous Impact Survey? Answers will vary.
4. How much input do you have into individualizing your own professional development opportunities? What was the change from the previous Impact Survey? Answers will vary.

Read the instructions on the activity and allow the councilmembers 10 minutes to answer the questions. Have them spend the first 7 minutes answering the questions individually and chat with their partner/groups for the remaining 3. Go through slides 17-21.

Activity: Read the following scenarios and decide if the School Report Card data would be appropriate to reference when making a decision as a councilmember. If the School Report Card is a valuable resource, to which section would you refer?

Scenario	Would the School Report Card data be helpful?	Evaluation • If yes, which section of the School Report Card data would be helpful? • If no, what data would be helpful? • If you selected partial, where would you look in the School Report Card **and** what other information would be helpful?
Bluegrass High School's council wants to increase the availability of post-secondary art classes to its students. The council wants to know how many students are enrolled in post-secondary art classes to gauge interest.	☐Yes ☐No ☒Partially	The council can refer to the Advanced Course Participation and Dual Credit subheadings under the Educational Opportunity subheading to see how many students were enrolled in AP art classes. The council can also invite their art teachers and have their principal elicit feedback from their projected enrollment and their students' interest in additional post-secondary art courses.
Cardinal Middle School is considering a change to their discipline policy. They want to know how many students have been expelled in the past year.	☒Yes ☐No ☐Partially	The council can refer to the Behavior by Context subheading under the School Safety heading to see how many students have been expelled and have it also disaggregated by race, ethnicity, and other statuses. They can also refer to the Civil Rights Data Collection.
Kentucky Elementary School is reviewing their wellness policy. They want to know how their students spend their time being physically active.	☐Yes ☒No ☐Partially	While the council can refer to the Health and Physical Education subheading under the Educational Opportunity heading for the number of instructional minutes of physical education students receive, it does not explain how students are physically active. Their principal should gather feedback from their physical education teachers or invite their physical education teacher to their meeting.

Scenario	Would the School Report Card data be helpful?	Evaluation • If yes, which section of the School Report Card data would be helpful? • If no, what data would be helpful? • If you selected partial, where would you look in the School Report Card **and** what other information would be helpful?
A new math curriculum was adopted at Wildcat Middle school several years ago. They want to know about its impact on state assessments.	☐Yes ☐No ☒Partially	The council can refer to the math indicator level in the School Accountability heading; however, they should also invite their math teachers or department chair to learn about any other explanations for the scores.
Hilltoppers High wishes to update its bullying policy, but the teachers on council are only aware of the events that have taken place in their classroom alone and can't speak to the school as a whole. They hear stories, but it's all anecdotal.	☐Yes ☐No ☒Partially	The council can refer to the Civil Rights Data Collection to see the number of allegations of bullying or harassment. The council could also gather feedback from teachers and administrators in case some students do not formally report bullying to share their anecdotal experiences.

Say, "Data is incredibly important and it should guide us when making decisions; however, we need to also remember that teachers and administrators are experts in the field and we can rely on them for context and additional feedback to tell a full story."

Say, "Your school may also collect its own data. If decision or policy making needs to occur, but the School Report Card and Impact Survey doesn't have the data you need, ask whether the data is collected on that topic at your school." Have the councilmembers answer the following question.

Your School's Data

All of the above information is data that is collected and shared by KDE. Your school may collect additional information from students, teachers or other members of the school community. As a councilmember, what other data, not included on the previous pages, would be helpful to have when making decisions to increase student achievement? Answers will vary. Some examples may include parent surveys, communication data, professional development data, etc.

Say, "In our next section, we will practice using some tools to analyze all the data we have. We will start with a non-education example and move into an example you might see as a councilmember." Have the council members come up with the solutions to the problem. The solutions within the facilitator's guide are illustrative if individuals need assistance.

Data Analysis

Now that you know the kinds of data that are readily available to you, what do you do with it? How do you make sense of this information? KDE encourages the use of data analysis tools to help process the data a school council is attempting to analyze.

For the following analysis tools, imagine that you were told you need to drink more water. Use that scenario to practice applying each tool. Once we have practiced with a fictitious scenario, we will move into a more specific scenario you may encounter as a councilmember.

Depending on the data, some of the tools will be more useful than others. When looking at data, you and your fellow councilmembers will have to decide which of the tools is most helpful for the data you are analyzing.

Fishbone (or Herringbone) Graphic Organizer

To use the fishbone graphic organizer, you list the main idea or the issue your council is trying to solve in the middle of the organizer and then generate a list of the causes of the issue on the lines stemming from the main idea/issue in the center. This tool allows the council to see the causes and contributors of the problem it is facing. After the causes are listed, councilmembers can discuss the possible solutions to the causes of the problem.

You might want to reframe it into a question of, "What is preventing me from drinking more water?"
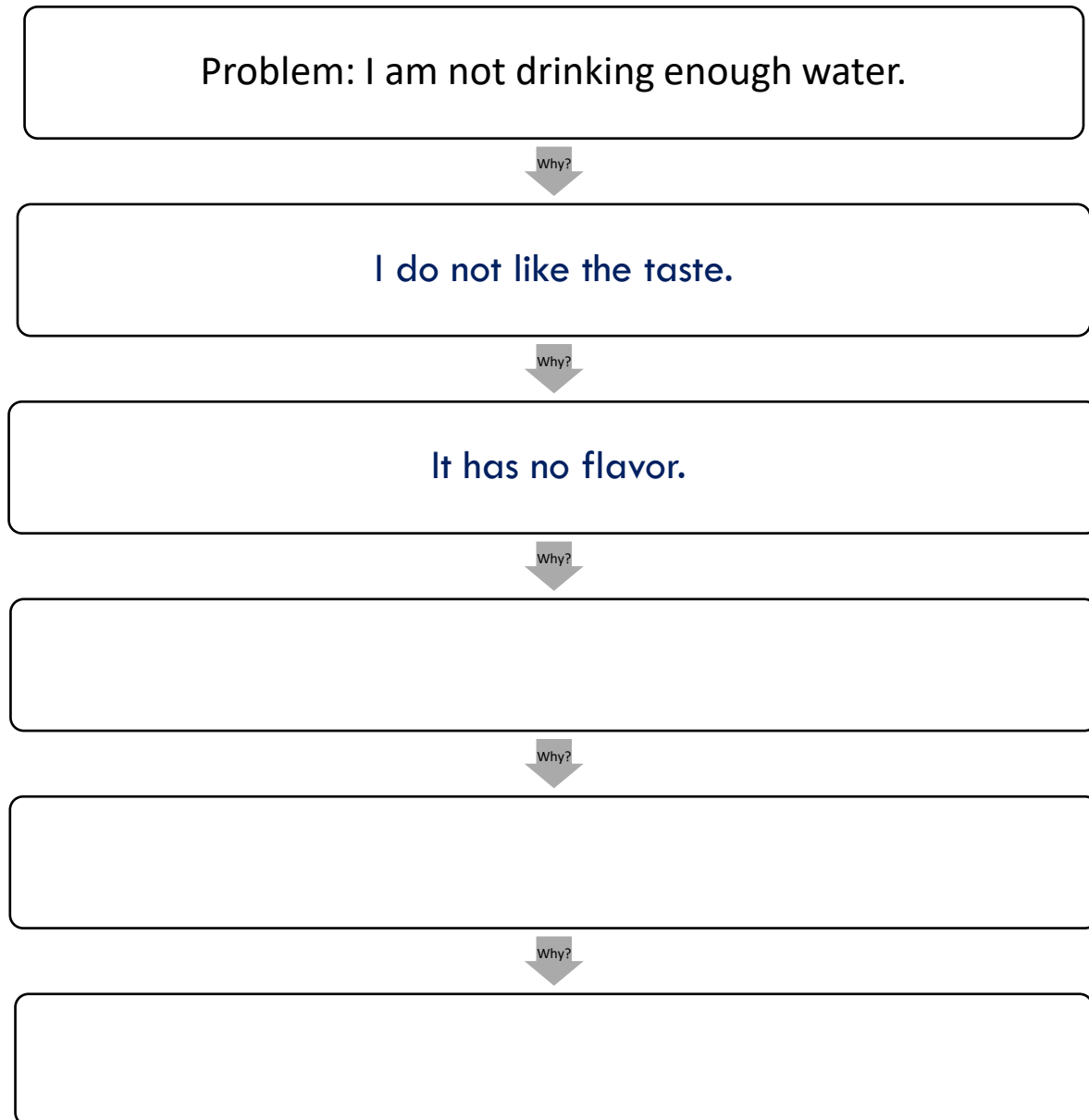
For example:
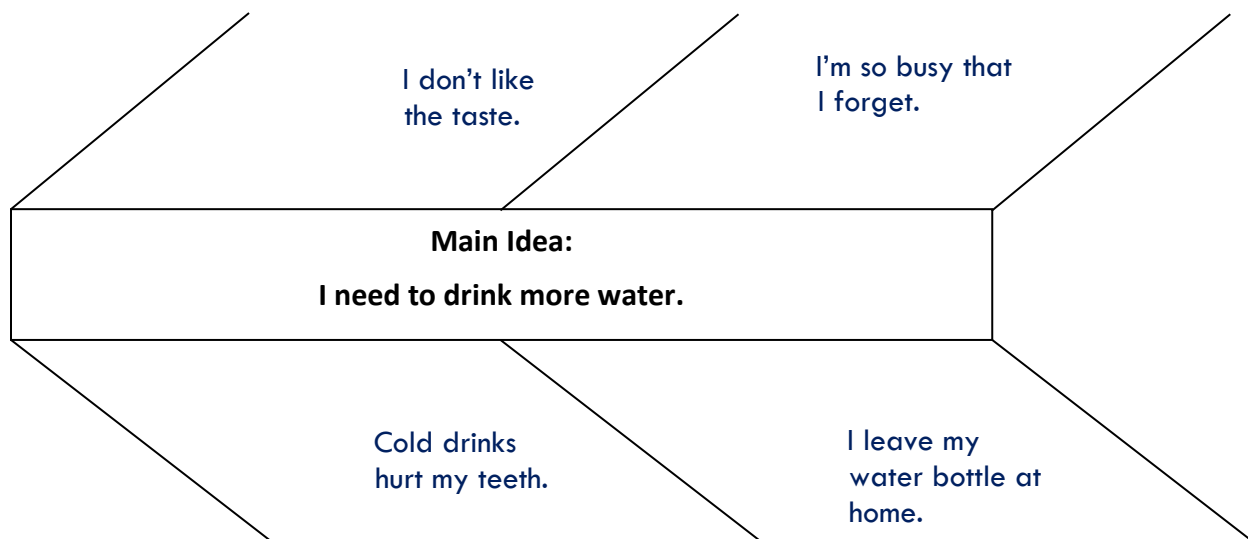
Say, "After you have come up with some reasons why you are not drinking enough water, you would then try to solve those problems. For example, if you're so busy you forget to drink water, can you leave notes or set reminders to drink a glass of water? The purpose of this diagram is to identify the reason for problems so you can address them."

The Five Whys

The Five Whys are used exactly the way it seems: *you ask why five times.* By stating the problem and then asking why five times, a council will be able to determine the root cause of an issue. Councils can use a diagram like the one below or can conduct this exercise verbally during a council meeting.

Problem: I am not drinking enough water.

Why?

I do not like the taste.

Why?

It has no flavor.

Why?

Why?

Why?

Say, "Although it is called the Five Whys, you only need to ask why until you get to the root of the problem. It may be more or less than five whys. In this example, I don't like the taste of water because I don't believe it has flavor. I can then solve or consider how to flavor water to increase the amount of water I drink."

Say, "The Five Data Questions ask us to analyze our data to determine what can or cannot be determined." Have the council members come up with the answers to the questions. The solutions within the facilitator's guide are illustrative if individuals need assistance.

Five Data Questions

The final process that we will review is called the Five Data Questions. You can use the data questions to navigate your data to help you make sound decisions, problem solve, show understanding and commitment to improvement, and determine what next steps to take. The five questions to consider are below:

1. What question are you trying to answer? *In the fictitious example we have been exploring, we are trying to answer the question of how to consume more water.*
2. What does your data tell you? I do not drink enough water.
3. What does the data not tell you? My data does not tell me why I do not drink enough water.
4. What are the causes for celebration/concerns? I drink at least one glass of water a day, but that is not enough for my body.
5. What conclusions can be drawn? I need to determine why I don't drink enough water in order to increase my daily amount.

Say, "You do not need to use each of these tools every time you make a decision. Depending on what question you're asking or what problem you're trying to solve, one of these tools may be better suited for your needs. In the next section you will be given data and asked to review a policy with a specific goal in mind. Take time to read the scenario, data, and policy, and use the data tools to help guide your thinking to resolve the issue." It might be beneficial to allow your councilmembers an opportunity to do the following activity in a group to get used to talking about data and working together to make decisions based on data.

Policy Review Activity

As a councilmember, your primary responsibility is to promote student achievement. Use your data skills and the data analysis tools to promote student achievement. Review the below scenario and accompanying data, as well as the parent, family and community engagement policy, to determine whether the school's current policy should be revised. Use the data analysis tools to assist you in your determination.

Scenario: At Proficient County High School's most recent council meeting, the principal shared data from the most recent parent-teacher conference, referenced contents of the school's School Report Card, and shared survey results from teachers, too. Review the data below and determine whether the school's parent, family and community engagement policy warrants revision based on what the data reveals to you.

Conference Data:

Number of students in the school	Number students whose parents/guardian attended conferences
536	49

School Report Card Data:

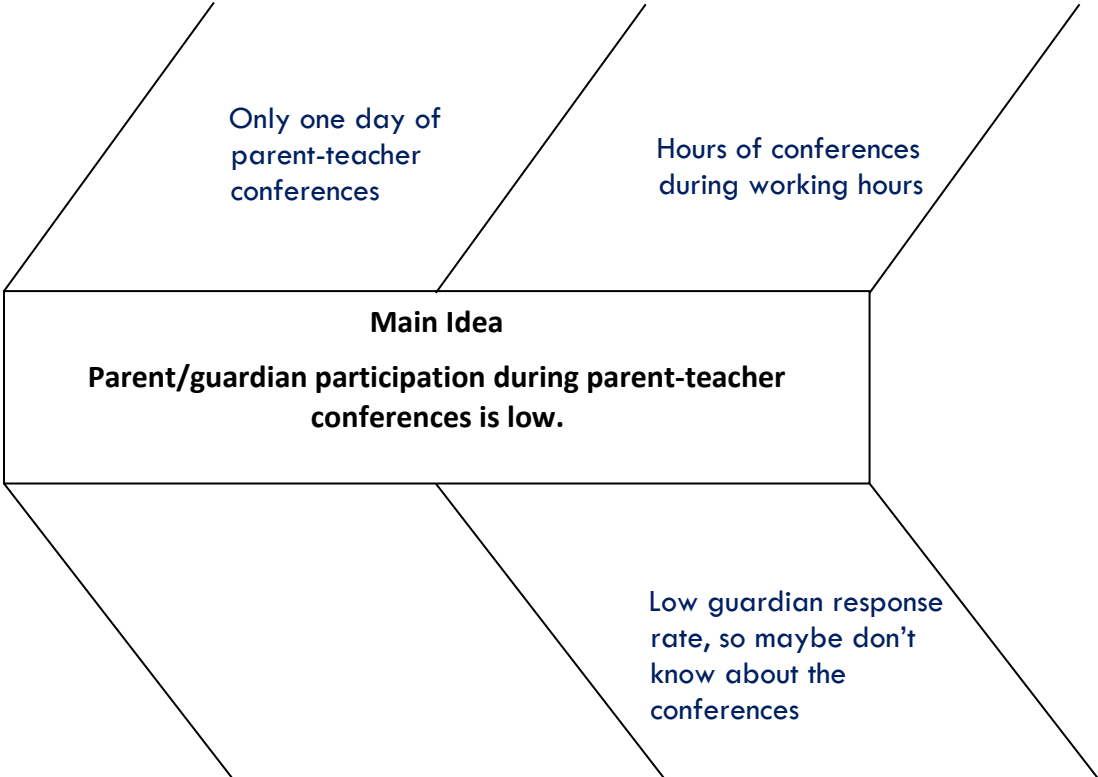|	
Total number of parents and/or guardians that participated by voting in school-based decision making council (SBDM) parent elections.	45
Total number of hours in which parents and/or guardians contributed volunteer hours.	36

Family-engagement Survey Results:

Question	Percent of teachers that responded yes	Percent of teachers that responded no
Families respond to emails I send them about their student.	41	59
Families respond to phone calls about their students.	52	48
Families respond to other forms of communication about their students.	37	63

The principal has a strong desire to increase the number of students whose parent/guardians participate in conferences and believes one way to maximize participation is to ensure that barriers to their involvement and engagement do not exist.

Directions: After having reviewed the data provided on the previous page, apply the information to the data analysis tools on the following pages. After analyzing the data using the tools, review Proficient County High School's Parent, Family and Community Engagement Policy to determine whether any changes are necessary to ensure the school's policy helps to maximize parent/guardian participation in conferences.

Fishbone:

Only one day of parent-teacher conferences

Hours of conferences during working hours

Main Idea

Parent/guardian participation during parent-teacher conferences is low.

Low guardian response rate, so maybe don't know about the conferences

Five Whys:

Problem: Participation at parent-teacher conferences is low.

Why?

Parents may not know about it.

Why?

Family engagement survey results indicate low percentage of positive responses.

Why?

Communication means are not successful at engaging parents.

Why?

Why?

Five Data Questions:

1. What question are you trying to answer?

Why are the parent-teacher conferences poorly attended by parents?

2. What does your data tell you?

Parents are not responding to communication from the school.

3. What does the data not tell you?

It does not say why the parents are not responding to communications from the school.

4. What are the causes for celebration/concerns?

Celebration: More than half the parents respond to phone calls from the school.

Concern: Only 9% of parents attended conferences.

5. What conclusions can be drawn?

More means of communication need to be included when contacting parents. The policy should be amended to include those means of communication and increase the number of days for conferences and/or expand the hours of conferences.

Proficient County High School's Parent, Family and Community Engagement Policy[1]
KRS 160.345(11)

Purpose:
Parents, families and the community serve as key shareholders in the educational processes of the students attending Proficient County High School. The Parent, Family and Community Engagement Policy of Proficient County High School ensures participation in the planning, reviewing and implementing of this policy and all parent, family and community programs and activities.

Parent Definition:
A parent is legally defined as a biological parent, step-parent or a foster parent of a student **or** a person who has legal custody of a student pursuant to a court order **and** with whom the student resides; however, for the purpose of this policy, parent encompasses **all** family situations.

Engagement Definition:
Engagement is defined as a productive partnership among families, educators and the community to promote children's learning and development from birth through college and career, and across home, school and community settings. Family, school and community partnerships are about building active relationships in which schools, families and community agencies and organizations engage in collaboration to improve student outcomes.

Procedures for Teacher Conferences:
Proficient County High School will host teacher conferences once a semester. The conferences will be conducted during one day between the hours of 8 a.m. – 5 p.m. Parents will register electronically to meet with their child(ren)'s teacher(s).

Commitment to Engagement
Proficient County High School (PCHS) will involve parents in an organized, ongoing and timely manner throughout the academic year in a variety of ways. PCHS will (at minimum):
1. Provide training and materials to help parents and families work with their children to improve their achievement.
2. Implement and coordinate parent and family programs.
3. Inform parents and families about school activities and meetings.
4. Establish a volunteer program for parents, families and community members.
5. Involve civic clubs, businesses and community organizations in school projects including asking for their help and resources for specific school events (e.g., career days, science fairs, etc.)
6. Ask local businesses to set up simulations with groups of students to simulate real-life learning experiences.
7. Cover school council and school activities in a newsletter published through social media.
8. Ask teachers, parents and families to volunteer to make presentations to the board of education, family groups, civic groups and others about good things that are happening at the school.

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[1] This is a sample policy only to be used during the Decisions with Data training. Those schools receiving Title I, Part A funds must meet the requirements for a school-level parent and family engagement policy in the Every Student Succeeds Act (ESSA) 1116(b) and ESSA 1116(c)-(f). Please consult the Effective School Parent and Family Engagement Policy Checklist to ensure your school's policy meets the federal requirements.

9. Post the minutes of school council meetings in the school's main office.
10. Set up a school council booth at back-to-school nights or events, open houses and family orientation sessions to allow families an opportunity to know how they can serve as a school council member or on a school council committee.
11. Provide meaningful opportunities for parents and families to understand their child's curricular programming.
12. Coordinate and integrate parent, family and community involvement programs and activities with other federal, state and local programs.

PCHS and its parents, families and the community will build and develop a partnership that will assist students in achieving proficiency. Through this commitment each shareholder agrees to the following:

PCHS will:
- Provide high quality instruction in a supportive and effective learning environment that enables the participating students to meet Kentucky's student academic achievement standards;
- Allow parents, families and community members an opportunity to provide input on the school's academic and extracurricular offerings (i.e. 21st Century, Title I, Part A schoolwide program plan and/or gifted and talented programming) and provide reasonable support to parents and families;
- Provide frequent reports on student progress;
- Utilize evidence-based materials and methods;
- Educate teachers and other instructional and non-instructional staff on the importance and value of engaging parents, families and community members in the education of students;
- Provide a safe, positive and healthy learning environment for each student; and
- Address the individual needs of each student.

Parents and families will:
- Ensure their child attends school regularly, is punctual and prepared to learn;
- Create an atmosphere that supports learning;
- Encourage their child to demonstrate respect for school personnel, classmates and school property;
- Remain informed about their child's education; and
- Model respect by connecting with the teacher first regarding educational concerns.

Students will:
- Come to school on time and be prepared to learn;
- Obey all school and classroom rules;
- Pay attention to their teachers, tutors and family members and ask for help when needed; and
- Commit to learning and do their best work each day.

Reflect on the policy using the data analysis tools.

1. What edits to the policy would you suggest based on your use of these tools?

2. Did the same edit suggestions come from each of the tools?

3. Which of these tools were easiest for you to use?

4. Which tool felt the most helpful? Why?

Final Thoughts and Rate Yourself

Your decision-making processes while on your school's council should be driven by the goal of enhancing student achievement. Data can be used as a tool to make informed decisions, and now that you understand how to analyze data and what data is available, you'll be able to use data confidently during your tenure on the council.

After this training, circle which value best describes your ability to make decisions with data.

1	2	3	4	5
Not at all confident				Extremely confident