

Using the Equitable Access Analysis Tool



Local Equitable Access Plan

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**Department of
Education &
Workforce**

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Using the Equitable Access Analysis Tool

Introduction

Ohio's Equitable Access Analysis Tool (EAAT) has always provided data to each district to show where schools' educator workforce is more or less strong, based on key measures of educator strength known to influence student outcomes.

The EAAT has been revised for the 2023-2024 school year to better support districts' analysis of stronger and weaker educational foundations across their schools. The EAAT provides a wealth of information and data, while highlighting which students groups are at a disadvantage when it comes to the strength of their educators. Key changes in what users will see in the Tool include:

1. Equitable Access **Gaps are calculated and displayed.**
2. Users can **view the underlying data** on teachers, principals, and schools **within the tool.**
3. Additional student groups, students with disabilities and students learning English, are included and gaps calculated for them.

The revised Equitable Access Analysis Tool highlights any school where at least one student group is likely to be standing on a weaker foundation of teaching and learning within their school. Users will see counts of gaps across the district for each student group, meaning a school in which the student group has significantly greater exposure than their peers to weaker teachers or significantly less access to certain types of courses.

The revisions have been developed, tested, and reviewed in collaboration with a District Steering Committee of users from about 15 school districts and community schools. Please note that all school names or IRNs displayed in the visuals in this Guide are not actual school identifiers.

Students and Educator Measures: Data Sources and Definitions

All data in the Equitable Access Analysis Tool comes from district reporting in EMIS for students, teachers, principals, and courses. Evaluation data for teachers and principals comes from the Ohio Evaluation System, only in aggregate at the school and district level.

Because districts carefully report such detailed data each year about courses, the students enrolled in each course, and the teachers who teach those courses, the revised tool is based on a data set that connects students to their courses and to their actual teachers in the previous school year.

The EAAT includes data on four traditionally underserved student groups and their peer comparison groups. The data basis for these groups comes from student demographics EMIS reporting by districts in the previous school year.

Table 1: Student groups in the Equitable Access Analysis Tool.

Comparison	Student Group	Peer Comparison Group
<i>Race/Ethnicity</i>	Students of Color	White Students
<i>Economic Disadvantage</i>	Students with economic disadvantage	Students without economic disadvantage
<i>Disability Status</i>	Students with disabilities	Students without disabilities
<i>English Learner Status</i>	Students learning English	Students proficient in English

Educator measures in the Tool are also sourced from EMIS data¹ or from Ohio ES data.

Table 2: Educator and course measures in the Equity Tool.

Educator / Course measures	Definition
Out of Field Courses	Academic core courses whose teacher’s credential does not qualify them to teach the course.
Inexperienced teachers	Teachers with fewer than two years of Authorized Teaching Experience Years.
Not yet effective teachers	Teachers who received a final summative rating of <i>Ineffective</i> or <i>Developing</i> on the Ohio Teacher Evaluation System (OTES) in the previous year’s evaluations.
Frequently absent teachers	Teachers who are absent more than ten days a year, excluding absences reported as <i>Long-Term Illness Days</i> (e.g., medical leave). ²
No enrollment in advanced courses	Percent of students who were not enrolled in at least one designated advanced course, including AP, IB, CCP and CTE CCP, or classes reported with a Course Level of “Advanced.”
Inexperienced principals	Principals with fewer than two years of experience as a school leader.

¹ See the Course Master, Staff Course, Student Course, Staff Employment, and Staff Demographic records as reported in EMIS during the previous school year.

² Per EMIS reporting requirements, professional development days do not count as Absence Days.

Visualizations within the Analysis Tool show individual-level data on educators and courses related to gaps. All such data, shown on the *Educator Measures Detail* page and the *Educator Activity* pages, is sourced from district EMIS reporting and from the Ohio Evaluation System.

Risk Ratios Define Equity Gaps: What is inequitable access?

When the EAAT shows a gap, it means that the *actual teachers* of one group of students, such as students with disabilities, are more likely to be out of field, inexperienced, or similarly weaker as a group than the *actual teachers* of the peer comparison group.

Gaps are defined within the EAAT using a calculation called the **risk ratio**.

A **risk ratio** compares the rate of experience with teachers across two groups. The risk ratio measures the extent to which students in a traditionally underserved group have access to quality educators relative to a peer comparison group.

Consider the courses with *Out of Field* teachers as the educator measure. In the 2022-2023 school year, the teachers of traditionally underserved students across Ohio were more likely to be *Out of Field* than their peer groups' teachers.

Table 3: Percentage of students with out of field teachers in 2022-2023, by student group

Ohio	Average - All Students 7%	
<i>Race*</i>	<u>White Students</u> 4%	<u>Students of Color</u> 12%
<i>Economic Disadvantage*</i>	<u>No Economic Disadvantage</u> 3%	<u>Economic Disadvantage</u> 10%
<i>Disability Status</i>	<u>Without Disabilities</u> 7%	<u>With Disabilities</u> 9%
<i>English Learner Status</i>	<u>Proficient in English</u> 7%	<u>Learning English</u> 11%

Economically disadvantaged students were three times (3x) more likely than their peers to have an out of field teacher core academic teacher, so the risk ratio for this comparison is 3. The risk ratio for students with disabilities is 9% divided by 7%, or 1.3.

$$\text{Risk Ratio} = \frac{\% \text{ Exposure or Access for Group of Interest}}{\% \text{ Exposure or Access for Comparison Group}}$$

The definition of an equitable access gap is a risk ratio of at least 1.5.³

A risk ratio of 1.5 means that certain students are 50% or more likely to be taught by out-of-field, inexperienced, or frequently absent teachers, indicating a significant disparity in the strength of the educator foundation supporting them.

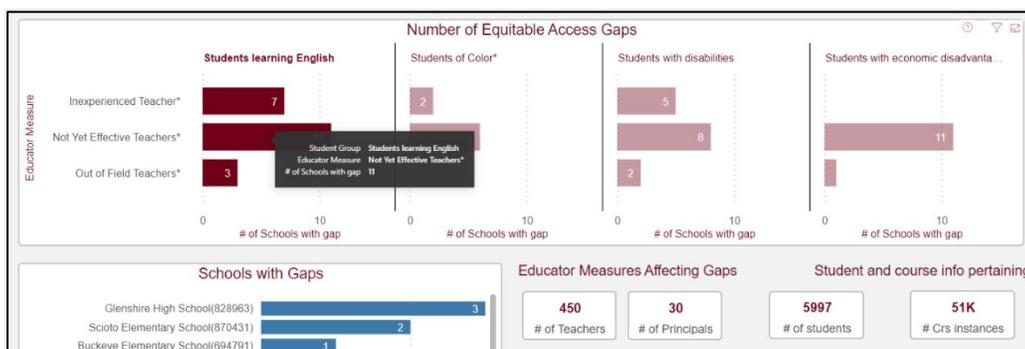
The range between 0.5 and 1.5 indicates roughly equal access to stronger teachers. The risk ratio on exposure to *Out of Field* teachers for students with disabilities above lies in this range.

When the ratio exceeds 1.5, we identify it as "inequitable exposure to out of field teachers." This situation calls for a strategy to address the underlying systemic gap. In the example above, the EAAT would flag gaps on *Out of Field* teachers experience by students of color and students with economic disadvantage.

PowerBI Navigation Basics

The revised EAAT has been built in PowerBI to take advantage of its capabilities for visualizing data and for showing how various dimensions of data are related to one another. To take full advantage of these features and to make your way through the Equitable Access gap analysis, there are some important navigational features and techniques to know about.

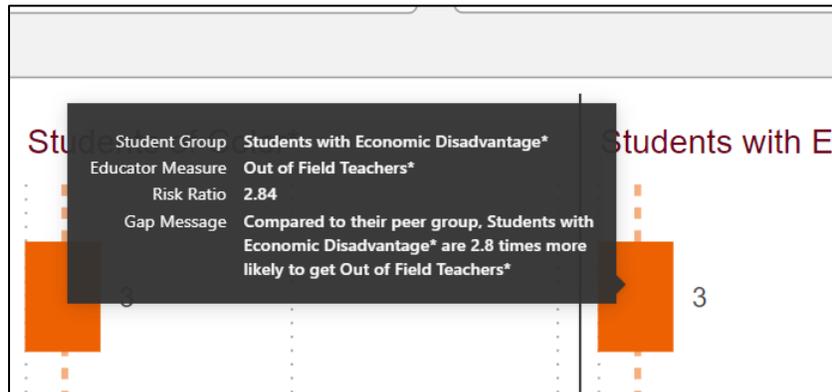
- **Interactivity:** Visualizations and other elements in the EAAT interact with one another. For example, clicking on a column representing a single student group on the District View will focus the school and gap count data on that student group.



Clicking on a column highlights a student group; schools list shows only schools with gaps for that group (demo data here).

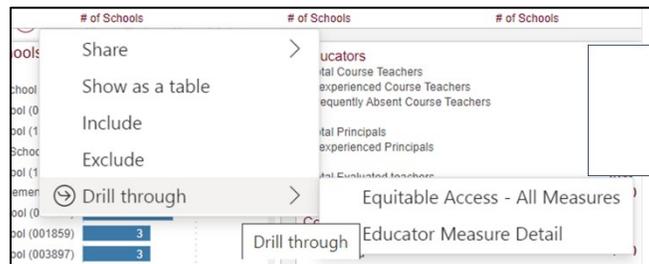
³ The threshold of 1.5 has been previously utilized in research and practice for this purpose (e.g., Hansen & Quintero, 2018³). Additionally, the Department examined this threshold for these student groups and educator measures in Ohio and found it to be a realistic and attainable threshold when looking at results across the state.

- **Tooltips:** Tooltips are another important feature built into the EAAT. Hover on some visual elements to provide data detail or interpretation.



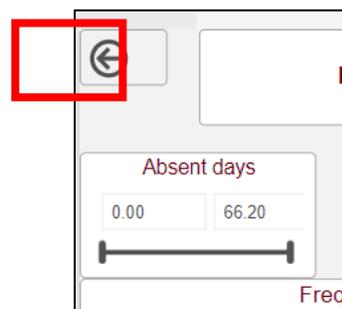
A tooltip on the Equitable Access – All Measures page interprets the risk ratio for economically disadvantaged students and out of field teachers.

- The pathway through identifying gaps and the data behind them requires “drilling” from one page to another. **Hover over a blue bar and drill-through** from one page to another. On a Chromebook, Control+click to show the drill menu; otherwise right click for the list of drillable pages. Blue bars in the “Schools with Gaps” visual, for example, are the pathway through to the School View of all measures or to the educator overview for the school, *Educator Measure Detail*.



Drill-through pathway: Hover and right-click to drill through to other reports.

- **Use the back-arrow button** is useful for returning after you have drilled through. This button, at the top left-hand corner of the page, returns you to the report that you drilled from.



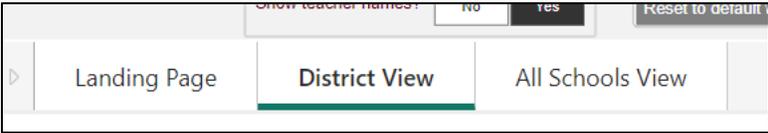
Use the back arrow button to return to the previous page from a drill-through.

- **Settings and report-specific navigation buttons** allow further customization. The “Reset to default view” button clears interactive selections and returns the page to the full *District View*. To use and display the report to various audiences to whom you do not want to display educators’ names, choose that option next to *Show teacher names?*



Report Tabs Overview

Opening the Equitable Access Analysis Tool, three tabs are visible at the bottom of the screen.

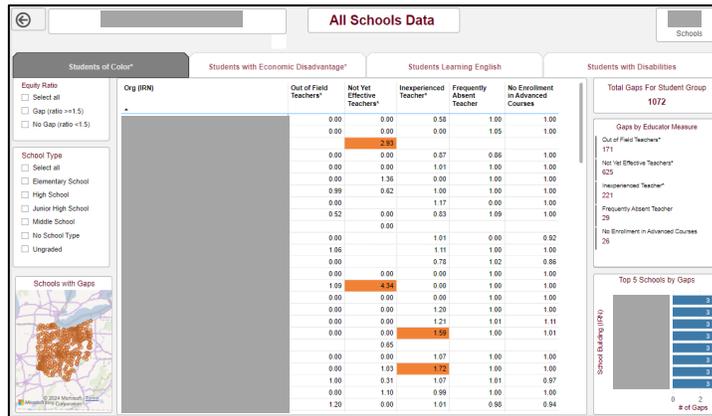


Visible tabs in the Equitable Access Analysis Tool.

1. **Landing Page:** Definitions and navigation guidance are on this tab.
2. **District View:** Begin the gap analysis here. Visuals identify student groups affected by gaps across the district as well as specific schools where students experienced those gaps. Further detail on gaps is access through a visual in this page by drilling through to other reports.

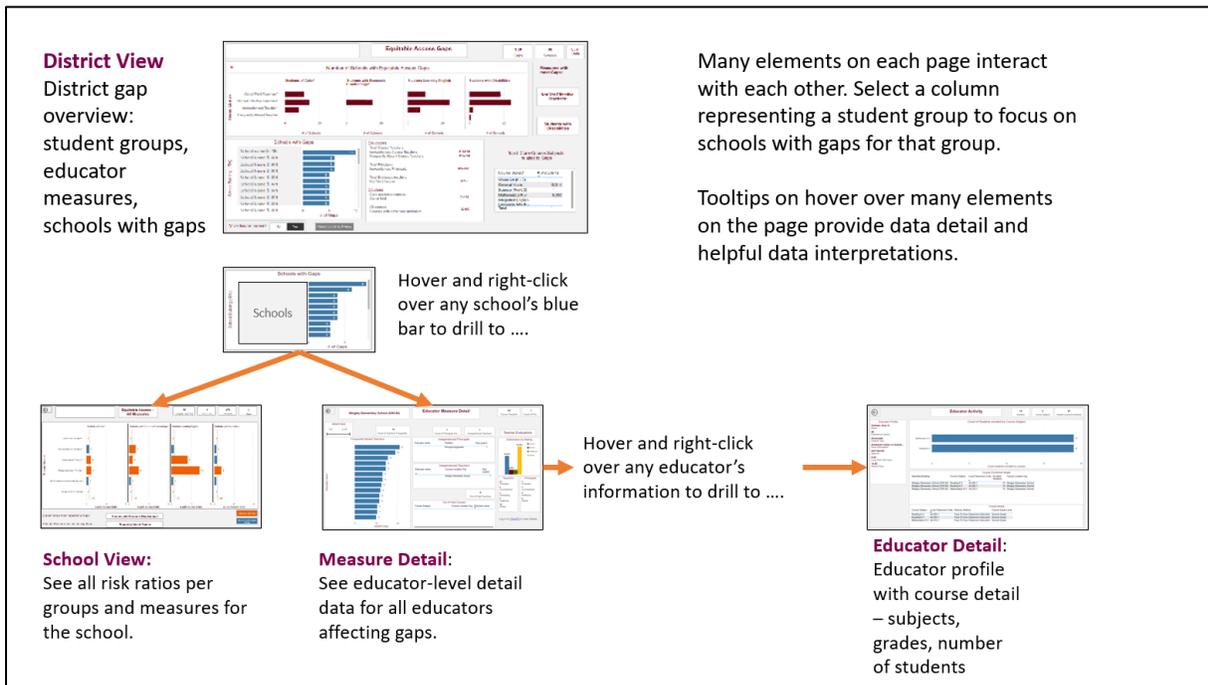


- All Schools View:** An overview of all risk ratios for all educator measures in all the district's schools. Each tab displays data for one student group comparison.



Gap Analysis Navigation Pathways

Proceeding through an analysis of equitable access gaps begins at the second tab, the *District View*. An overview of the district's gaps and its relevant data, this page is also the launching point for detail on additional pages that do not appear as tabs on the bottom menu.



A navigation map from the District View through detailed reports on schools, educator measures, and educators and their courses.

From any detail report, use the **back button** to return to the previously viewed page.

District View Tab

Begin any analysis of equitable access gaps from the **District View** tab.

District View

Summarizes district-level numbers of gaps, for which groups on which educator measures. Interactivity between visuals allows user to identify schools with particular gaps.



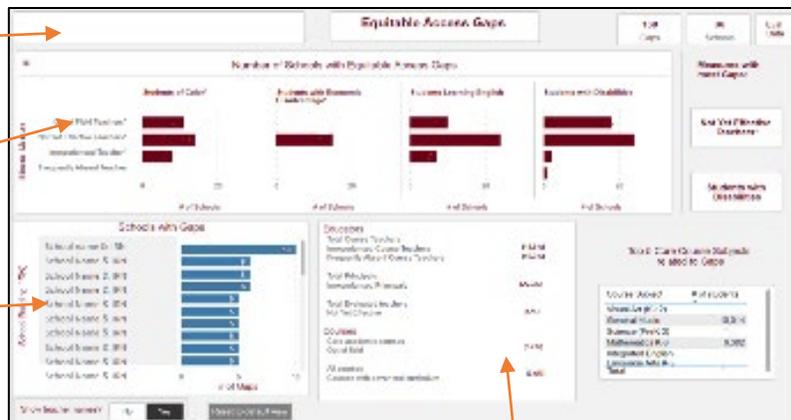
The District View tab is the beginning point for digging into the gap analysis or other data exploration.

The page is 'zoned' into several sections. These narrow from an overview of gaps for student group on each educator measure, to data detail about the overall numbers of educators, students and courses involved in gaps in the district.

District information & gap counts

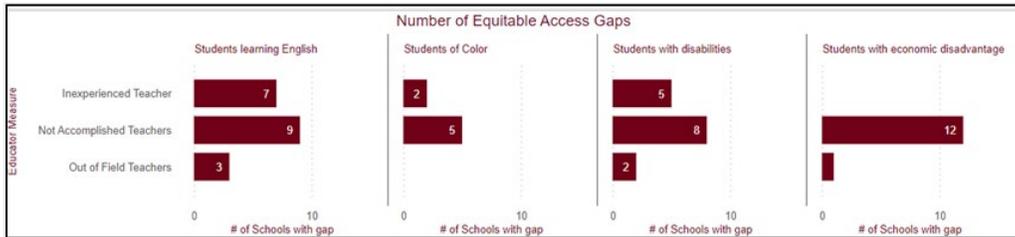
Gaps across the district: Student groups affected, educator measures, count of schools with each type of gap.

Gaps in Schools: Lists schools with gaps and the number of gaps.



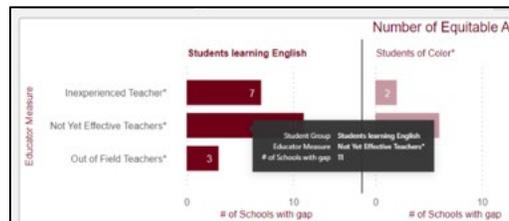
District data detail: Counts of educators, courses, and course subjects related to gaps.

The primary visual – an interactive element on the page - summarizes the number of schools where any of the student groups are affected by gaps on any of the educator measures.

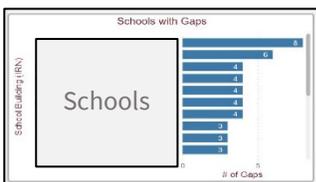


The Number of Equitable Access Gaps primary visual interacts with other elements on the page. Try left clicking on a column or a row.

A red bar means that in at least one school, students in the group are significantly more likely than their peer group to have teachers who are weaker on the measure named on the row. Hover over any red bar for a summary of gap information.



Other tooltips appear when hovering over many elements on this page; these provide data detail or summary for school gaps, the teacher evaluation distribution for the whole district, and many other data summaries and statements around the page. Right click and drill-through from one blue bar (one school with gaps) to the Equitable Access – All Measures page summarizing all risk ratio data for that school.



Right-click on a blue bar & “drill through” to Equitable Access – All Measures.



Drill through any school (blue bar) to see pages with more detail. View a summary of all measures, whether gaps or not, in the School View, entitled *Equitable Access – All Measures*.

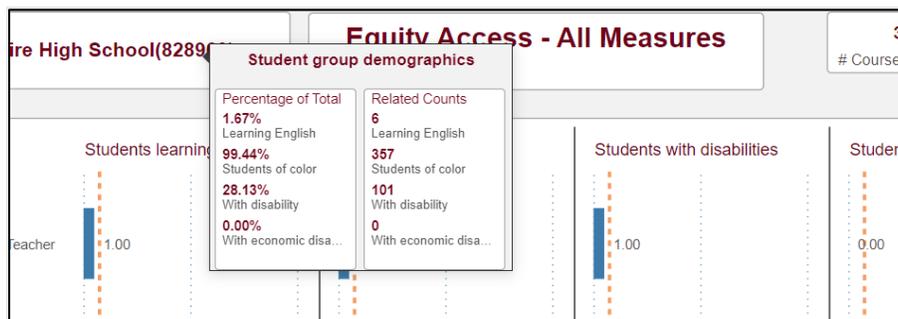
Equitable Access - All Measures:
See all risk ratios per groups and measures for the school.



The School View displays risk ratios on all measures and information on whether the principal(s) have fewer than two years of experience.

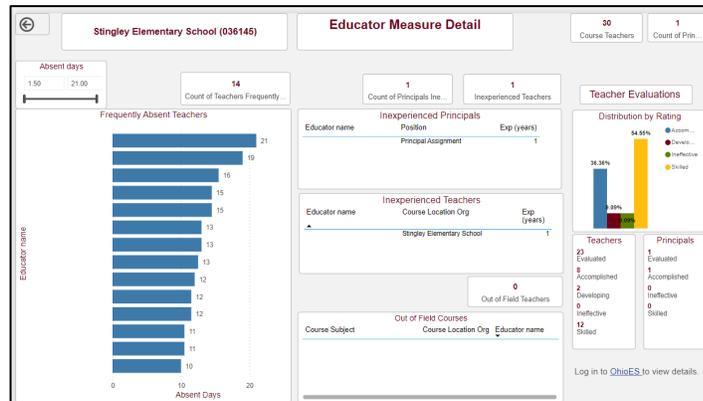
Blue and orange bars represent risk ratios for student groups (columns) on educator measures (rows). Orange bars represent risk ratios high enough that students have significantly greater exposure than their peers to teachers who are weaker on that measure. These are the gaps.

Hover over the school’s name in the upper left (masked in this figure) for a data overview of the school’s student population and other details.



Return to the District View page, using the back arrow on the upper left, then drill again from the school's blue bar through to the *Educator Measure Detail*. This page shows a data detail overview on educators involved in the gaps in the school, along with detail on frequently absent teachers and the aggregated teacher evaluation results.

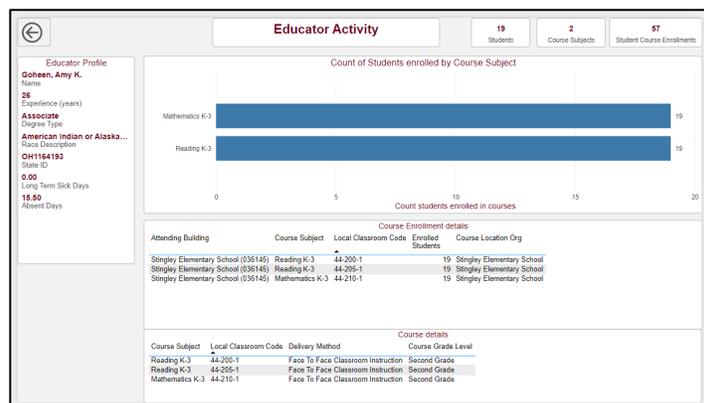
Educator Measure Detail:
See educator-level detail data for all educators affecting gaps in the school.



Educator Measure Detail shows course and educator data related to gaps, along with all frequently absent teachers. This page also displays the aggregated summary of evaluation results for the school.

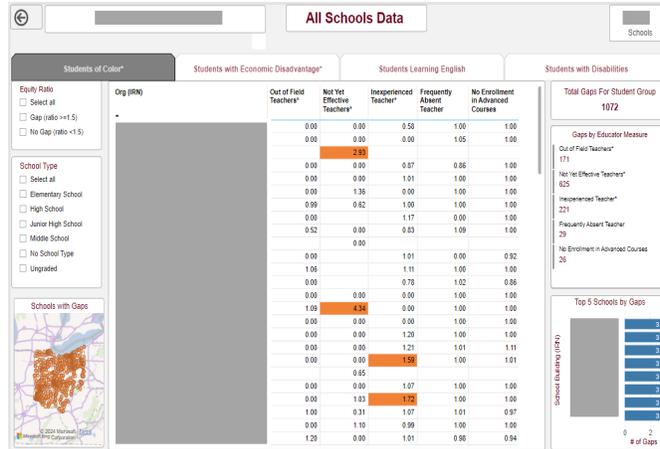
From the *Educator Measure Detail* page, drill from any teacher's name or visual to the *Educator Activity* page. This page displays information about the educator's courses and the students in them, along with absence days detail and demographic information.

Educator Activity:
Educator profile with course detail – subjects, grades, number of students



The All Schools Tab

This page shows four tabs at the top, one for each student group. On each tab, all schools in the district with attending students are listed. Risk ratios on every metric of educator strength are shown, with risk ratios indicating gaps highlighted in orange.



The All Schools tab, a supplement to the gap analysis pathway views. Interact with slicers, data detail, and a map function.

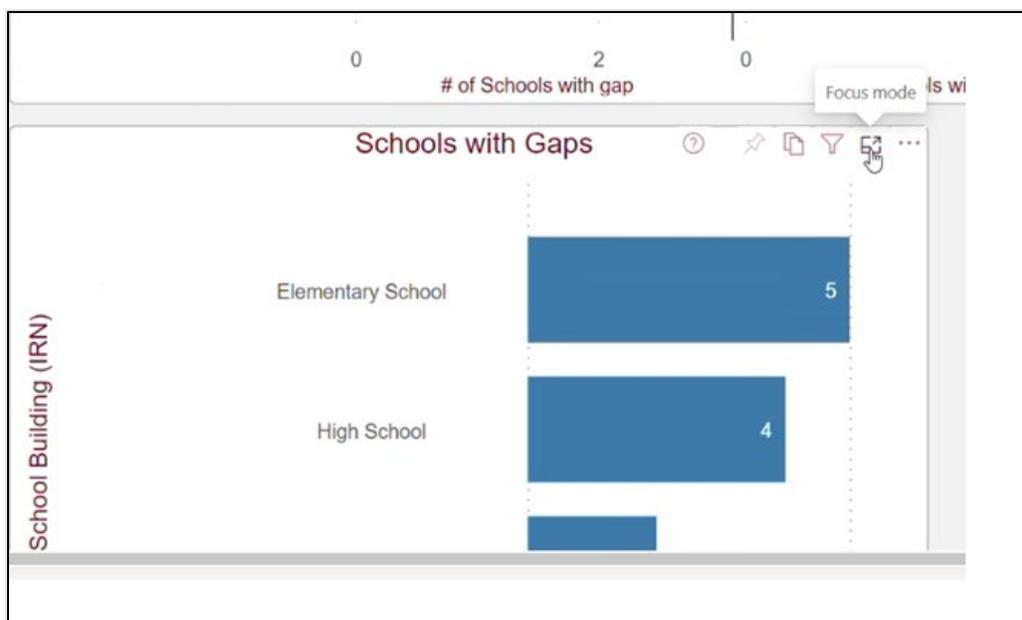
While the pathway from the District View through to educator detail has been designed to facilitate a gap analysis, the All Schools is provided as a supplement to the analysis pathway. Users can select slicers, or filters, to show only schools of a certain level (Elementary, High School), or to show only schools with at least one gap. The top schools by count of gaps are listed on the lower right, with educator counts by metric shown above. As on other pages, many elements interact with one another to help the user focus by student group or educator metric, or to see detailed counts and other relevant data.

Exporting and Printing Information from the Tool

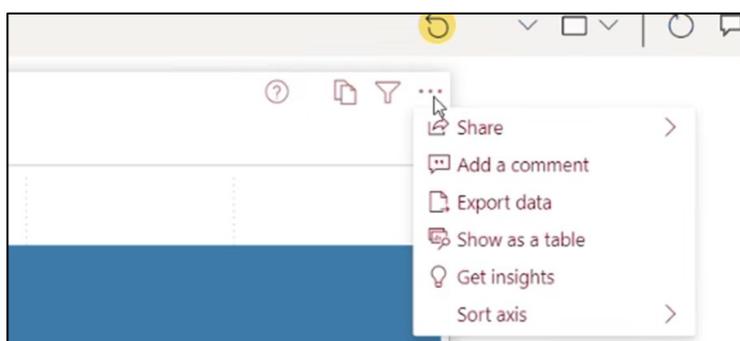
Information from the tool can be printed and shared with others.

Focus Mode

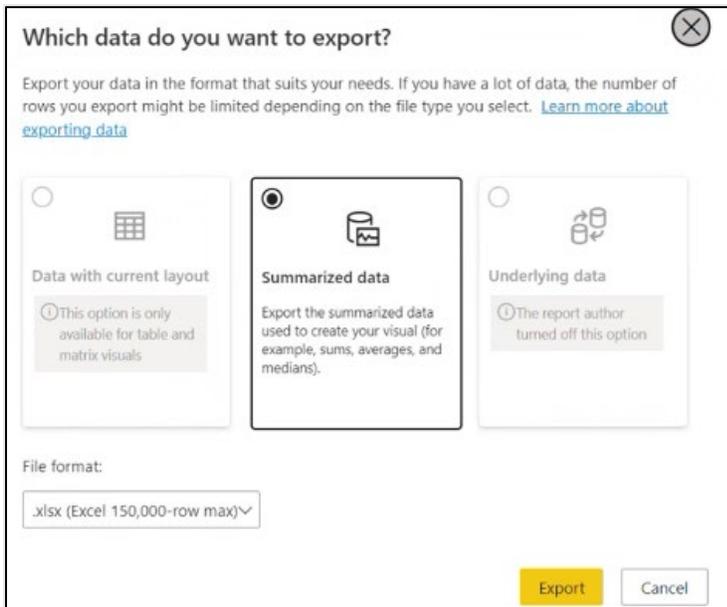
To print a specific graph, click on “focus mode” in the upper-right corner of any graph.



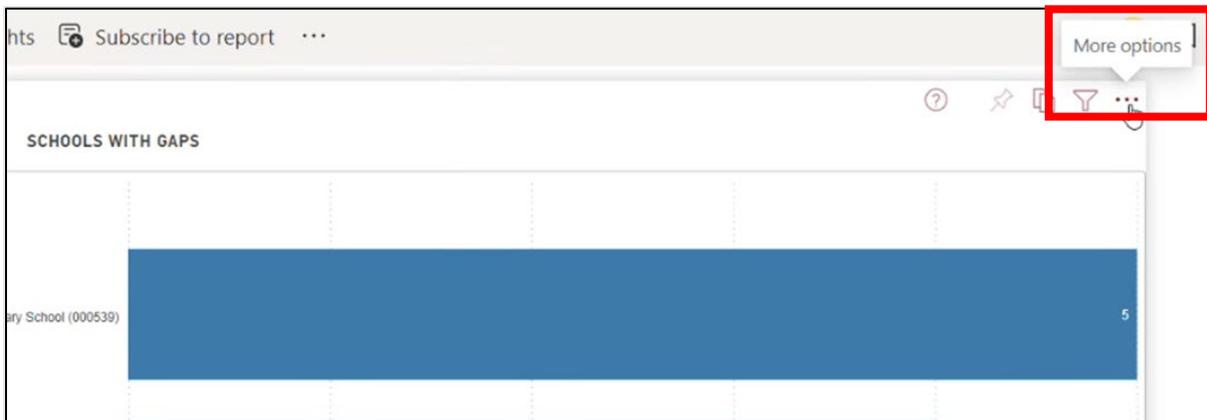
When focus mode is selected, the graph shows on its own screen. Select the “...” icon in the upper-right corner for more options. Choose “export data”.



A pop-up screen will appear. If you are exporting a table, choose “Data with current layout.” Click the yellow “Export” button and the data will export.



Information can also be displayed and exported as a table, as shown below. To access this view, select “show as a table” from the more options (“...”) menu.



Continue steps to export the table, as above.

Exporting data for all schools, student groups, and educator measures

If you wish to export building-level gap information for all schools in the district, the best source is the *All Schools View*. For details of the educator information on those gaps, view the *Educator Measures Detail* for that school, go into focus mode for the specific table and export the information from there.