**Fox Valley Data Exchange**

**Data Structure and Framework Action and Advisory Team**

**Data Source Document**

Contents

[Data Source/Topic 1](#_Toc190597304)

[Use Case 2](#_Toc190597305)

[Input File Dimensions 2](#_Toc190597306)

[Input Data File 2](#_Toc190597307)

[Download Instructions 2](#_Toc190597308)

[Enrollment\_certified\_Download File layout 3](#_Toc190597309)

[File Lookups 3](#_Toc190597310)

[School Address File 4](#_Toc190597311)

[Stratifications File 4](#_Toc190597312)

[Places File 5](#_Toc190597313)

[Output Files for Metopio 5](#_Toc190597314)

[Statewide Layer 7](#_Toc190597315)

[Tri-County Layer 7](#_Toc190597316)

[County Layer 8](#_Toc190597317)

[Zip Code Layer 9](#_Toc190597318)

[City or town Layer 9](#_Toc190597319)

[School District Layer 10](#_Toc190597320)

[Validation Method 10](#_Toc190597321)

[Authenticity 12](#_Toc190597322)

[Comments 13](#_Toc190597323)

# Data Source/Topic

|  |  |
| --- | --- |
| **Identifier** | FVDEX-PP-8 |
| **Data Source Name** | WISEdata |
| **Data Source Link if any** | [WISEdash Public Portal - Department of Public Instruction](https://wisedash.dpi.wi.gov/Dashboard/dashboard/18110?filtersetId=13923faa-1930-4aae-b674-2fb2d3aa62fa)  [WISEdash Data Files by Topic | Wisconsin Department of Public Instruction](https://dpi.wi.gov/wisedash/download-files)  Download Type = ‘Enrollment’  Input: the files that are named as Enrollment\_certified\_2023-24.zip  including past years |
| **Topic Name or other specifics within data source** | Public School Enrollment K-12 |
| **Vital Condition** | Lifelong Learning |
| **Requested by (name)** | Sarahjean Schluechtermann |
| **Update frequency** | Yearly in September |
| **Cost to obtain** | free |
| **Contact to obtain** | none |
| **Recorded by (Data Dingo conducting interview)** | Susan Conzelman |
| **Technical Solution** | Shaaz Anaam |

# Use Case

This metric provides demographics for students enrolled in public schools in the Tri-County area. This provides the base for understanding other metrics provided by the Wisconsin Department of Public Instruction.

# Input File Dimensions

## Input Data File

### Download Instructions

There is one file for each year which can be found in this link:

[WISEdash Data Files by Topic | Wisconsin Department of Public Instruction](https://dpi.wi.gov/wisedash/download-files)

Filter Download Type dropdown to “Enrollment”.

The files that begin with “enrollment\_certified” followed by the school year range.zip are the ones to download. Click on the file name and open the file from your browser pop-up:

A screenshot of a computer

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Copy the data file from the zip file folder:



### Enrollment\_certified\_Download File layout

Columns used are in bold:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field No | Field Name | Field Datatype | Length | Field Description |
| 1 | **SCHOOL\_YEAR** | Text | 7 | School year of enrollment |
| 2 | AGENCY\_TYPE | Text | 50 | School/district type |
| 3 | CESA | Text | 10 | Cooperative Educational Service Agency |
| 4 | **COUNTY** | Text | 50 | County of main district office |
| 5 | **DISTRICT\_CODE** | Text | 10 | District code - Unique 4 digit code assigned by DPI |
| 6 | **SCHOOL\_CODE** | Text | 10 | School code - 4 digit code unique within district and assigned by DPI |
| 7 | GRADE\_GROUP | Text | 50 | School grade group. Grade ranges of schools in the same GRADE\_GROUP may vary. See also LOW\_GRADE and HIGH\_GRADE |
| 8 | CHARTER\_IND | Text | 4 | Whether school/district is a charter **SCHOOL\_NAME** |
| 9 | **DISTRICT\_NAME** | Text | 100 | District name |
| 10 | **SCHOOL\_NAME** | Text | 100 | School name |
| 11 | **GROUP\_BY** | Text | 50 | Data group - student attribute name |
| 12 | **GROUP\_BY\_VALUE** | Text | 200 | Data group - student attribute value |
| 13 | **STUDENT\_COUNT** | Text | 20 | Count of students in the data group or subgroup enrolled on the 3rd Friday of September |
| 14 | PERCENT\_OF\_GROUP | Text | 20 | Percent this group is of all students enrolled on TFS |

## File Lookups

In addition to the input file, we have other files that have further information needed to format the data for Metopio:

A diagram of a group

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### School Address File

WISEdash allows us to download the school directory file where we can get the zip code and city of the school to use for those aggregation layers. Do this lookup for every row in the Input File to add City and Zip.

Sd-export-public-schools-20241208.1059 (each year a new version needs to be downloaded)

If concatenating the two columns to make a key “string” to compare, be sure to remove leading zeroes from the fields being compared. Otherwise a match won’t be found.

|  |  |  |
| --- | --- | --- |
| Column | Column Heading | Comment |
| A | LEA Code | Join DISTRICT\_CODE |
| C | School Code | Join SCHOOL\_CODE |
| J | City | Set to “ERROR” if not found. |
| L | Zip | Set to “ERROR” if not found. |

### Stratifications File

Stratifications in Metopio each have a unique code. We need to translate the Group by fields and values into the ones we added there.

**PP8 Stratifications.csv** can be found in the FVDEX Teams Meeting Library. It may need to be updated if new values are found in new input files.

|  |  |  |
| --- | --- | --- |
| Column | Column Heading | Comment |
| A | GROUP\_BY | Join to GROUP\_BY |
| B | GROUP\_BY\_VALUE | Join to GROUP\_BY\_VALUE |
| C | Stratification | Use this value in the output file |

This file is manually created after adding the stratifications to the Metopio in the Administrator Site. Click on “Data”  then “Stratifications” under “Topic Management”. Find the Metopio Stratification that will be used then click on its Name. Example:

A screenshot of a computer

Description automatically generated

The “Key” is unique across all stratifications. This is what is needed in the Metopio upload file.

### Places File

**Fox Valley Data Exchange Places GEIODs.csv** can be found in the FVDEX Teams Meeting Library. We use this file to obtain the GEOID used in Metopio for each place. This lookup is done differently for each aggregation layer below.

|  |  |  |
| --- | --- | --- |
| Column | Column Heading | Comment |
| A | Layer | Filter or join to the layer needed:  Region  County  Zip Code  City or town |
| B | Name | Join to this field using the input file |
| C | GEOID | Set to “ERROR” if not found. |

This file was created manually by Metopio and sent to us. It can be recreated through the “Download” dropdown on the far left of the Atlas site, but this has to be done for each Geographic Layer and then combined. Since it doesn’t change, it is easier to simply use our saved file.

# Output Files for Metopio

Format a .csv file with rows for each geographic layer. Steps:

1 – Read the above file and filter to these rows:

DISTRICT\_NAME = [Statewide] or COUNTY = ‘Outagamie’, ‘Winnebago’, and ‘Calumet’

Group Value not = ‘[Data Suppressed]’

STUDENT\_COUNT not = ‘\*’

2 – Do this to fill in redacted data totals so that every unique GROUP\_BY value for each school is equal to the Total # of Students at the school

Why we are doing this: When data is redacted for a value in a GROUP\_BY in order to preserve anonymity, other values may also be redacted. Example: 51.1% of the Gender are males. But when we remove Female and Non-binary, the result is 100%. We need to add a value of “Unknown” with the difference between the “All Students” total and the reported values for Gender.

Example 1 for a School:

|  |  |  |
| --- | --- | --- |
| GROUP\_BY | GROUP\_BY\_VALUE | value |
| All Students | All Students | 15230 |
| Gender | Female | \* |
| Gender | Male | 7786 |
| Gender | Non-binary | \* |

We change this to:

|  |  |  |
| --- | --- | --- |
| GROUP\_BY | GROUP\_BY\_VALUE | value |
| All Students | All Students | 15230 |
| Gender | Male | 7786 |
| **Gender** | **Unknown** | **10644** |

Example 2 with more than one redaction:

|  |  |  |
| --- | --- | --- |
| GROUP\_BY | GROUP\_BY\_VALUE | value |
| All Students | All Students | 15230 |
| Disability | Autism | 393 |
| Disability | Blind and Visually Impaired | 9 |
| Disability | Deaf or Hard of Hearing | 30 |
| Disability | Emotional Behavioral Disability | 245 |
| Disability | Intellectual Disability | 100 |
| Disability | Not IDEA Eligible or No Disability | 12694 |
| Disability | Orthopedic Impairment | \* |
| Disability | Other Health Impairment | 593 |
| Disability | Significant Developmental Delay | 203 |
| Disability | Specific Learning Disability | 488 |
| Disability | Speech or Language Impairment | 466 |
| Disability | Traumatic Brain Injury | \* |
| Disability | Unknown | 1 we change to 9 |

We add 8 to “Unknown” since it already exists. We delete Orthopedic Impairment and Traumatic Brain Injury because they are redacted. These rows will not show up because of our earlier filter to remove them.

For DISTRICT\_NAME = [Statewide] rows which has no redactions, loop through:

For each GROUP\_BY

Total STUDENT\_COUNT including the preceding columns

If Total for each GROUP\_BY < the Total for GROUP\_BY = blank

Add a new row copying the GROUP\_BY values with a STUDENT\_COUNT of the difference (GROUP\_BY=blank total – the GROUP\_BY) with GROUP\_BY\_VALUE = “Unknown”

Or you will add the difference to the “Unknown” row that already exists

For each SCHOOL\_NAME =[Districtwide]

For each GROUP\_BY including the preceding columns

Total STUDENT\_COUNT

If Total for each GROUP\_BY < the Total for GROUP\_BY = blank

Add a new row copying the GROUP\_BY values with a STUDENT\_COUNT of the difference (GROUP\_BY=blank total – the GROUP\_BY) with GROUP\_BY\_VALUE = “Unknown”

Or you will add the difference to the “Unknown” row that already exists

For each SCHOOL\_CODE (not null)

For each GROUP\_BY including the preceding columns

Total STUDENT\_COUNT

If Total for each GROUP\_BY < the Total for GROUP\_BY = blank

Add a new row copying the GROUP\_BY values with a STUDENT\_COUNT of the difference (GROUP\_BY=blank total – the GROUP\_BY) with GROUP\_BY\_VALUE = “Unknown”

Or you will add the difference to the “Unknown” row that already exists

3 – Create the various place layers below, summing (value) by all the output columns and sorting by layer/geoid/stratification

### Statewide Layer

Filter to:

DISTRICT\_NAME = [Statewide]

|  |  |
| --- | --- |
| **Column Name** | **Comment (granularity/sample values/aggregation method for measures)** |
| layer | ‘State’ |
| geoid | ‘WI’ |
| topic | ‘FVDEYLCV’ |
| stratification | See above notes |
| period | SCHOOL YEAR, but insert ‘20’ on the second year’s range (after the hyphen). So 2023-24 becomes 2023-2024 |
| value | STUDENT\_COUNT |

### Tri-County Layer

Filter to:

COUNTY = ‘Outagamie’, ‘Winnebago’, and ‘Calumet’

SCHOOL\_NAME = ‘[Districtwide]’

|  |  |
| --- | --- |
| **Column Name** | **Comment (granularity/sample values/aggregation method for measures)** |
| layer | ‘Region’ |
| geoid | ‘fox-valley’ |
| topic | ‘FVDEYLCV’ |
| stratification | See above notes |
| period | SCHOOL YEAR, but insert ‘20’ on the second year’s range. So 2023-24 becomes 2023-2024 |
| value | STUDENT\_COUNT |

### County Layer

Filter to:

COUNTY = ‘Outagamie’, ‘Winnebago’, and ‘Calumet’

SCHOOL\_NAME = ‘[Districtwide]’

|  |  |
| --- | --- |
| **Column Name** | **Comment (granularity/sample values/aggregation method for measures)** |
| layer | ‘County’ |
| geoid | See notes above.  Filter Places source to Layer = ‘County’  Concatenate Input “COUNTY”, ‘ County, WI’ and match to Places.Name to get GEOID |
| topic | ‘FVDEYLCV’ |
| stratification | See above notes |
| period | SCHOOL YEAR, but insert ‘20’ on the second year’s range. So 2023-24 becaomes 2023-2024 |
| value | STUDENT\_COUNT |

### Zip Code Layer

Filter to:

COUNTY = ‘Outagamie’, ‘Winnebago’, and ‘Calumet’

SCHOOL\_NAME does not start with ‘[‘

|  |  |
| --- | --- |
| **Column Name** | **Comment (granularity/sample values/aggregation method for measures)** |
| layer | ‘Zip Code’ |
| geoid | Zip from School Address logic above |
| topic | ‘FVDEYLCV’ |
| stratification | See above notes |
| period | SCHOOL YEAR, but insert ‘20’ on the second year’s range. So 2023-24 becaomes 2023-2024 |
| value | STUDENT\_COUNT |

### City or town Layer

Filter to:

COUNTY = ‘Outagamie’, ‘Winnebago’, and ‘Calumet’

SCHOOL\_NAME does not start with ‘[‘

|  |  |
| --- | --- |
| **Column Name** | **Comment (granularity/sample values/aggregation method for measures)** |
| layer | ‘City or town’ |
| geoid | Filter the Place file to Layer = ‘City or town’.  Find the city for the school using the notes above to lookup School Address.  Concatenate to ‘, WI’  Match the concatenated SchoolAddress.City = Place.Name to get the GEOID  Set to “ERROR” if not found  3 towns are not included in the places file. Asked Metopio to add them. |
| topic | ‘FVDEYLCV’ |
| stratification | See above notes |
| period | SCHOOL YEAR, but insert ‘20’ on the second year’s range. So 2023-24 becaomes 2023-2024 |
| value | STUDENT\_COUNT |

### School District Layer

This does not exist in Metopio yet. I asked for it and will update if we receive it. Until then, this will not be included.

Filter to:

COUNTY = ‘Outagamie’, ‘Winnebago’, and ‘Calumet’

SCHOOL\_NAME = ‘[Districtwide]’

|  |  |
| --- | --- |
| **Column Name** | **Comment (granularity/sample values/aggregation method for measures)** |
| layer | ‘School District’ |
| geoid | Filter the Place file to Layer = ‘School District’.  Match DISTRICT\_NAME = Place.Name to get geoid |
| topic | ‘FVDEYLCV’ |
| stratification | See above notes |
| period | SCHOOL YEAR, but insert ‘20’ on the second year’s range. So 2023-24 becaomes 2023-2024 |
| value | STUDENT\_COUNT |

# Validation Method

Step 1: For the most current year, manually mock up the expected Metopio load files using Excel pivot tables and vlookups to the lookup files.

Step 2: Compare the mock up to the output side by side with “true/false” comparisons on every column. “Pass” means that every cell matches.

Step 3: For additional years, we assume that the results will follow the norm, so we do not do mock-ups for those. Instead, we check for new stratifications and errors in the lookups.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Geo Layer** | **2023** | **2022** | **2021** | **2020** | **2019** | **2018** |
| State | 1/5/25 | 1/15/25 | 1/15/25 | 1/15/25 | 1/15/25 | 1/15/25 |
| Tri-County | 1/5/25 | 1/15/25 | 1/15/25 | 1/15/25 | 1/15/25 | 1/15/25 |
| County | 1/5/25 | 1/15/25 | 1/15/25 | 1/15/25 | 1/15/25 | 1/15/25 |
| Zip Code | 1/6/25 | 1/15/25 | 1/15/25 | 1/15/25 | 1/15/25 | 1/15/25 |
| City or Town | 1/5/25 | 1/15/25 | 1/15/25 | 1/15/25 | 1/15/25 | 1/15/25 |

Step 4: Upload to Metopio to “unpublished” metric.

In the Administrator Tool, on the “Data” tab, under “Data Management”, click on “Upload Data”.

A screenshot of a computer

Description automatically generated

Click “Validate file (will not import yet)”

Scroll down on the list and click “Import Data” if there are no error messages:

A screen shot of a data

Description automatically generated

Step 4: Spot Checks between Metopio and the source dashboard completed after loading the files.

If the Topic is not visible in the Atlas yet, we spot check from the Administrator tool. Click “Data” tab. Click “Explore Data” under “Data Management” (or Explore Data from the Topics entry). Spot check some of the values in the listed data.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Geo Layer** | **2023** | **2022** | **2021** | **2020** | **2019** | **2018** |
| State |  |  |  |  |  |  |
| Tri-County |  |  |  |  |  |  |
| County |  |  |  |  |  |  |
| Zip Code |  |  |  |  |  |  |
| City or Town |  |  |  |  |  |  |

Step 5: January 2025 data load signed off by the FVDEX Executive Director on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Step 6: Make data visible to public. In Administrator site, click “Data” tab and “Topics” under “Topic Management”. Edit and turn on Public View.

Step 7: Spot Check Metopio Dashboard to WISEDash. Check the map, chart, etc for new data added.

Step 8: Have requester review the topic

Step 9: Communicate the new topic to the Action Committee.

# Authenticity

Head count of students who receive their primary PK-12 educational services either (1) directly from school district employees or (2) from third parties\*\* under the direct supervision of the school district. If a district is accountable for a student's educational outcomes, then the student is included in the district's enrollment counts, regardless of the location of or schedule for service delivery. Students need not occupy a seat in a school building to be counted. Criteria that apply to counting of students in school districts also apply to non-district charter schools (under s. 118.40(2r) , Wis. Stats.). When enrollment is as of the 3rd Friday of September, students must have either been actively receiving services on that date or be absent but receiving those services before and after that date. The 2nd Friday of January count is based on enrollment during any period of time which includes the count date rather than enrollment gathered as of the specific date.

*\*\*Third parties might include technical colleges, community-based organizations, nonprofit-nonsectarian agencies, universities, school to work program providers, Cooperative Educational Service Agencies (CESAs), out-of-state school districts, private schools, residential care centers, Wisconsin Center for the Blind and Visually Impaired, Wisconsin School for the Deaf, County Children with Disabilities Education Board schools, etc.*

*Link to Glossary of terms used in stratifications*

[WISEdash Help: Glossary of Terms Used in WISEdash Public Portal | Wisconsin Department of Public Instruction](https://dpi.wi.gov/wisedash/help/glossary)

[WISEdata | Wisconsin Department of Public Instruction](https://dpi.wi.gov/wisedata#What%20Is%20WISEdata?)

WISEdata is a multi-vendor, open data collection system that allows school districts, charter schools, and private schools participating in a parental Choice program to submit data to the Department of Public Instruction (DPI) from the student information system (SIS) vendor of their choice.

# Comments