

Boundaries and Articulation Area Analysis Project Update



Agenda

1. Purpose of the Project
2. Project Reports and Deliverables
3. Key Takeaways
4. Analysis of Membership Projections
5. School Choice Analysis
6. School Program Analysis



Purpose of the Project

Why we are doing this work

- Since 2001, Jeffco has experienced a shift in demographics, which has led to declining enrollment.
- Birth rates have slowed, and the affordability and availability of housing has resulted in fewer families with school-age children in Jeffco.
- As the school-age population has shrunk, some District schools have become significantly under-enrolled, and buildings underutilized.

Project objectives

FLO is conducting a comprehensive study to increase Jeffco's understanding of its current school boundaries, articulation patterns, and enrollment patterns.

GBSM is engaging the community to understand what matters most to families when choosing a school.

Analysis and Deliverables

FLO Analytics

- September 14, 2023: Enrollment Trends, Boundary Alignment, and Enrollment Analysis
- **February 15, 2024: Analysis of Membership Projections**
- **February 15, 2024: School Choice Analysis**
- **April 11, 2024: School Program Analysis - DRAFT**



GBSM

- Fall 2023 School Enrollment Survey
- Ongoing: Spring 2024 Focus Groups

Key Takeaways

1. **High Capture Rate:** 91% of families who live in Jefferson County choose Jeffco schools, but enrollment is continuing to decline.
2. **Limitations of Boundary Changes:** 4 out of 10 Jeffco families exercise school choice. Boundary changes are most likely to be impactful in areas where there are high levels of growth.
3. **No Single Driver of Choice Enrollment:** Families make choices about which schools to attend for a wide variety of reasons. Program offerings sometimes influence choice, but not always.

Analysis of Membership Projections

Published February 15, 2024



To: Jefferson County Public Schools
From: Kate Doiron
 Senior GIS Analyst
 Rebecca Wright
 Project Manager
Date: January 18, 2024
Project No.: F2466.01.001

Re: Analysis of Membership Projections

This memo is part of the 2023-24 Jefferson County Public Schools (Jeffco) boundary study. The study looks at enrollment trends, school choices, and programs to find ways to operate more efficiently and provide equal, high-quality education throughout the district. FLO worked with Jeffco to assess school and articulation area trends over a ten-year period, including historical enrollment from 2017-18 to 2022-23, enrollment for the current 2023-24 school year, and membership projections from 2024-25 to 2027-28 from the Jeffco 2022-23 Membership Projections Report.¹ The assessment includes a review of attendance area schools (i.e., schools that have a boundary) and articulation areas that are projected to be over or under capacity within the next four years and discusses potential trends for the longer term. For each articulation area, we also analyzed and highlighted groups of geographically contiguous schools where boundary adjustments may help balance utilization.

Executive Summary

Jeffco has experienced a 10.4 percent decrease in student enrollment over the last decade, and declines are projected to continue to the 2027-28 school year. District-wide, mean utilization declined from 78 percent in 2018-19 to 68 percent in 2022-23, then recovered to 76 percent in 2023-24. This jump in utilization is a direct result of Jeffco closing 15 small elementary schools in June 2023 as part of Phase I of Regional Opportunities for Thriving Schools. While most Jeffco schools and articulation areas are projected to decline in enrollment, nine schools are currently overenrolled (enrollment greater than 100 percent of school capacity) or are projected to be overenrolled in the future. Identifying which schools are over- or underenrolled, and determining whether the enrollment levels are a result of population changes in the articulation area or student choice, will assist with the upcoming boundary review. Whether enrollment balancing can be achieved in a current articulation area through boundary changes or policy changes will be a focus of the boundary review. This assessment's findings are summarized below:

¹ Jeffco Public Schools. 2023. "2022-23 Membership Projections Report." Enrollment Projections Reports. Accessed July 18, 2023.
https://www.jeffcopublicschools.org/services/facilities/enrollment_projections_reports

Major Findings to Date

Articulation Area	Enrollment					
	2018	2019	2020	2021	2022	2023
Alameda	2,982	2,962	2,850	2,569	2,541	2,587
Arvada	3,856	3,700	3,448	3,184	3,036	3,052
Arvada West	4,407	4,425	4,302	4,305	4,472	4,516
Bear Creek	5,250	5,139	4,971	4,792	4,619	4,651
Chatfield	6,143	6,121	5,759	5,579	5,455	5,612
Columbine	4,142	4,180	3,961	3,912	3,841	4,015
Conifer	2,342	2,342	2,205	2,162	2,190	2,275
Dakota Ridge	4,339	4,370	4,196	4,058	3,936	3,868
Evergreen	2,967	2,934	2,672	2,514	2,479	2,498
Golden	4,302	4,303	4,134	3,985	3,997	4,173
Green Mountain	3,749	3,776	3,664	3,499	3,512	3,564
Jefferson	1,805	1,658	1,520	1,393	1,357	1,496
Lakewood	4,458	4,303	4,210	3,942	3,794	3,837
Pomona	3,154	3,080	2,874	2,689	2,464	2,386
Ralston Valley	5,390	5,616	5,454	5,390	5,463	5,734
Standley Lake	4,433	4,319	4,116	3,799	3,690	3,648
Wheat Ridge	3,886	3,829	3,690	3,581	3,527	3,473

- Jeffco enrollment declined by 10.4 percent since 2013–14, with enrollment peaking between 2015–16 and 2019–20.
- Enrollment declines have occurred throughout the district in nearly all 17 articulation areas, with a decline in student density across the district since 2017–18.
- **90.6% of Jefferson County children enrolled in K-12 schools attended Jeffco.**

School Capacity & Utilization*

District-wide, **mean utilization declined from 78 percent in 2018–19 to 68 percent in 2022–23**, then recovered to 76 percent in 2023–24 (a direct result of Jeffco closing 15 small elementary schools in June 2023 as part of Phase I of Regional Opportunities for Thriving Schools).

While most Jeffco schools and articulation areas are projected to decline in enrollment, **nine schools are currently overenrolled** (enrollment greater than 100 percent of school capacity) or are projected to be overenrolled in the future.

- Seven schools over 100 percent of capacity in 2023–24
- Six schools projected to be over 100 percent of capacity by 2027–28
- Eighteen schools under 60 percent of capacity in 2023–24
- Twenty-eight schools projected to be under 60 percent of capacity in 2027–28

***This is based on current and historical rates of choice acceptance.**



Utilization is the enrollment of a school (not including pre-K) divided by the capacity of the school. Current and projected enrollment includes center program students and assumes historical levels of choice are held constant.

School Choice Report

Published February 15, 2024



MEMORANDUM

To: Jefferson County Public Schools

Date: November 16, 2023

From: Ethan Poole
Data Technician 2
Rebecca Wright
Project Planner

Project No.: F2466.01.001

Re: School Choice Analysis for Jefferson County Public Schools

This memo is part of the 2023-24 Jefferson County Public Schools (Jeffco or the District) boundary study. The study looks at enrollment trends, school choices, and programs to find ways to operate more efficiently and provide equal, high-quality education throughout the district. FLO worked with Jeffco to analyze student enrollment patterns in each school and articulation area with a specific focus on how many students attend their zoned school (public school of residence) or choose another school. This memo describes intradistrict school choice patterns in Jeffco and details numbers and rates of students attending or not attending their residing school, choice rates into nonattendance area schools, and capture rates for each attendance area.

Executive Summary

FLO Analytics used 2022 student data received from District staff to create this analysis.¹ Initial student data were geocoded using an address attribute provided by the District. Geocoded points were then spatially joined to District attendance areas and a residing school was assigned based on a student's grade and their resident school's grade configuration. FLO Analytics used the student database the District provide to analyze K-12 enrollment only. FLO Analytics did not detail program attendance for individual schools, or Pre-Kindergarten (Pre-K) enrollment. Here are some key highlights from the analysis:

- There are 74,783 K-12 students enrolled in Jeffco in 2022-23 (including out-of-district students).
- There are 68,045 students in grades K-12 residing in the District.
- There are 40,986 students who attend their public school of residence.
- The overall capture rate district-wide for students attending their resident school is 60.23 percent.

¹ The data used for this memo includes the 19 schools that were involved in the Regional Opportunities for Thriving Schools (ROFTS) process (Phase I - 16 schools and Phase II - three schools), including the 15 schools that were consolidated in the 2023-24 school year and the four schools that will be consolidated at the end of 2023-24 school year.

School Choice Analysis (2022-23)

FLO worked with Jeffco to analyze student enrollment patterns in each school and articulation area with a specific focus on how many students attend their zoned school (designated neighborhood school) or choose another school.

This memo describes intradistrict school choice patterns in Jeffco and details numbers and rates of students attending or not attending their residing school, choice rates into nonattendance area schools, and capture rates for each attendance area.

Key Findings

- There are **74,783** K-12 students enrolled in Jeffco in 2022-23 (including out-of-district students).
- There are **68,045** students in grades K-12 residing in the District.
- There are **40,986** students who attend their public school of residence.
- The **overall capture rate** district-wide for students attending their resident school is **60.23%**, which per grade band is: 56.04% ES, 64.73% K-8, 61.03% MS, 65.2% HS

Charter Schools

- Out of a total of 67,940 students who reside in the District, 6,431 attend one of the 19 charter schools (9.47 percent).

Articulation Area	Charter School Enrollment Total per Articulation Area	Articulation Area Student Count	Percentage of Students Enrolled in Charter Schools
Alameda	240	3,892	6.17%
Arvada	704	4,764	14.78%
Arvada West	510	4,525	11.27%
Bear Creek	429	5,795	7.40%
Chatfield	298	5,686	5.24%
Columbine	238	3,354	7.10%
Conifer	172	2,297	7.49%
Dakota Ridge	223	3,623	6.16%
Evergreen	315	2,630	11.98%
Golden	209	4,664	4.48%
Green Mountain	164	3,827	4.29%
Jefferson	82	1,734	4.73%
Lakewood	170	3,449	4.93%
Pomona	639	2,926	21.84%
Ralston Valley	527	5,760	9.15%
Standley Lake	1,133	4,590	24.68%
Wheat Ridge	319	3,862	8.26%
Option Areas	59	562	10.50%
Total/Average	6,431	67,940	9.47%
ES	3,586	28,080	12.77%
K-8	270	3,294	8.20%
MS	1,589	13,124	12.11%
MS-HS	114	2,687	4.24%
HS	872	20,755	4.20%

Note. This data is based on the October 2022 Student Information System.

School Program Analysis

Draft Published April 11, 2024



MEMORANDUM

To: Jeffco Public Schools

Date: April 3, 2024

From: Kate Doiron
Senior GIS Analyst
Rebecca Wright
Project Manager

Project No.: F2466.01.001

Re: Jeffco School Program Analysis - DRAFT

Introduction to School Program Analysis

FLO Analytics (FLO) worked with Jefferson County Public Schools (Jeffco) to review and analyze selected Jeffco programs for accessibility, oversaturation, and whether programs drive enrollment. While FLO conducted the geographic analysis, GBSM conducted a survey aimed at understanding what influenced families' school enrollment decisions and what programming they value most (GBSM, 2023).¹ This memo assesses programs geographically at the district level, the transportation terminal² region level, and in each articulation area, and provides a summary of program-related survey responses for key articulation areas. This analysis will be considered as part of school enrollment balancing and boundary scenario modeling and can best be understood when reviewed in tandem with the choice patterns and trends analysis survey where families provided insight into their school choice decisions. This analysis should not be viewed as a judgement on the quantity of the programs in Jeffco – whether it has too few or too many.

Executive Summary

FLO performed three analyses to evaluate 53 Jeffco programs in 16 program categories, and GBSM conducted a district-wide survey and evaluated families' school enrollment decisions with respect to programs. Key findings are stated below.

- Overall, FLO's evaluation did not find a strong correlation (positive or negative) between the number of programs offered at a school and utilization, choice in, or choice out.
- While the total number of programs may not drive enrollment, particular programs at individual schools may drive enrollment, though the effect of each program varies significantly by school (see Appendix A). Therefore, even when survey results indicate interest in new or additional programming, if a program were to be established, the data suggests it may not necessarily drive enrollment.

¹ 2023 School Enrollment Survey for Jefferson County Public Schools. GBSM, Inc. November 2023.

² Jeffco has four transportation terminals representing four geographic regions of the district.

School Program Analysis (2023-24)

FLO performed three analyses to evaluate 53 Jeffco programs in 16 program categories.

- **Overall, FLO's evaluation did not find a strong correlation (positive or negative) between the number of programs offered at a school and utilization, choice in, and choice out.**
- While the total number of programs may not drive enrollment, particular programs at individual schools may drive enrollment, though the effect of each program varies significantly by school.
- Between 19 and 30 programs are available at schools regionally, based on the four Jeffco transportation terminals. Not all regions have all 16 different program categories represented.



Program Category
Advanced Placement (AP) Programming
Alternative Education
Arts Programming
Concurrent Enrollment
Career and Technical Education (CTE) Programming
Dual Enrollment
Dual Language Programming
Dyslexia Program
Expeditionary Learning
Gifted and Talented Center
International Baccalaureate (IB) Programming
Jeffco Seal of Biliteracy
Leadership Programming
Online Instruction
Project Based Learning
STEM Programming

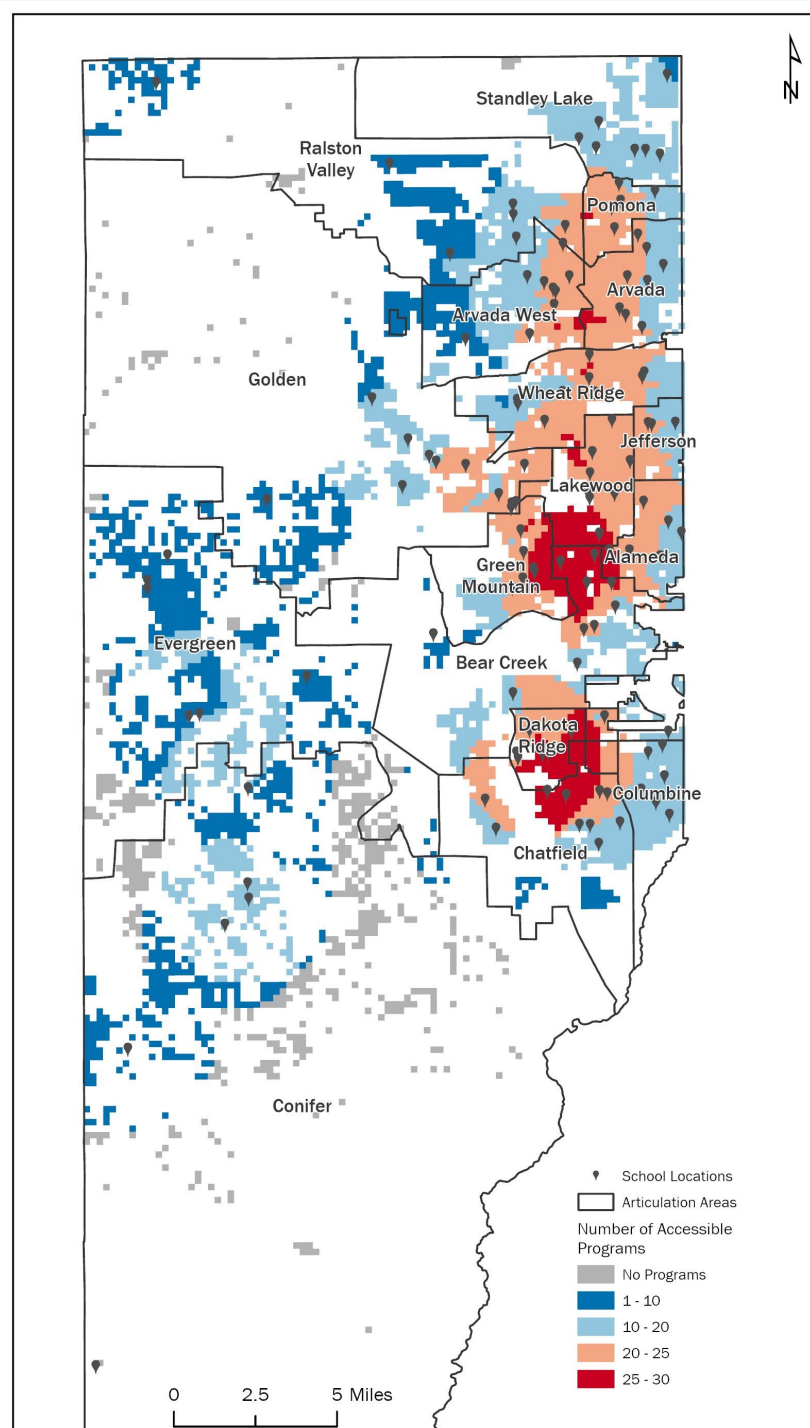
Jeffco Program Count Map

The map shows the number of programs a student living within each grid cell would have access to within 2.5 miles of their residence.

Areas with no grid cells indicate areas with no student residences.

Gray cells are areas that have students but do not have a program (or school, in some cases) within 2.5 miles.

Oversaturation areas, where there are 25 or more programs available, are shown in red.



School Program Analysis

Key Findings

- Program oversaturation areas, where there are 25 or more programs accessible to students, are primarily located in the Lakewood/Green Mountain/Alameda/ Bear Creek boundary area and in the Dakota Ridge/ Chatfield boundary area.
- The articulation areas with resident students who have the most access to programs are Jefferson and Lakewood.

School Program Analysis (2023-24)

District wide, 13 of the 16 programs had 50% or more of students located within the 2.5-mile access area. The three programs with more than 50% outside the access area are: Leadership Programming (59.9%), IB Programming (55.5 %), and Expeditionary Learning (54.6 %).

Program Category	Students Farther than 2.5 Miles from Program	Students Outside 2.5-Mile Area (%)
AP Programming	9,348	13.9
Alternative Education	31,924	47.6
Arts Programming	4,935	7.4
Concurrent Enrollment	9,348	13.9
CTE Programming	6,184	9.2
Dual Enrollment	16,585	24.7
Dual Language Programming	30,955	46.1
Dyslexia Program	2,655	4.0
Expeditionary Learning	36,628	54.6
Gifted and Talented Center	16,844	25.1
IB Programming	37,234	55.5
Jeffco Seal of Biliteracy	10,756	16.0
Leadership Programming	40,175	59.9
Online Instruction	20,314	30.3
Project Based Learning	1,631	2.4
STEM Programming	1,730	2.6

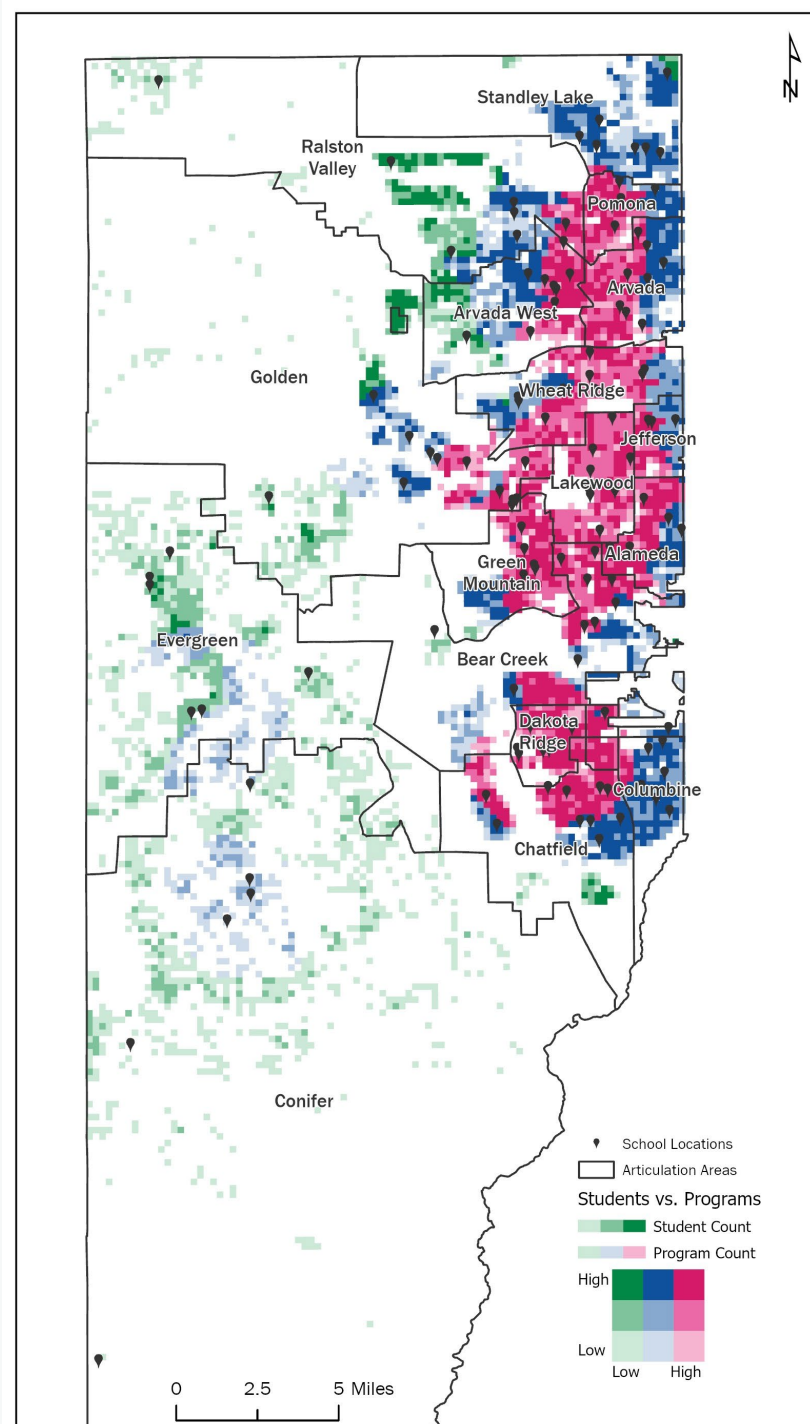
Jeffco Student and Program Count Map

The map plots colors for low to high numbers of students, and low to high numbers of programs.

Areas in dark pink indicate high numbers of students and programs.

Areas in dark blue indicate a high number of students and middle range number of programs.

Areas that have medium to dark green are potential areas of focus for program locations: high to medium numbers of students and low numbers of programs.



School Program Analysis

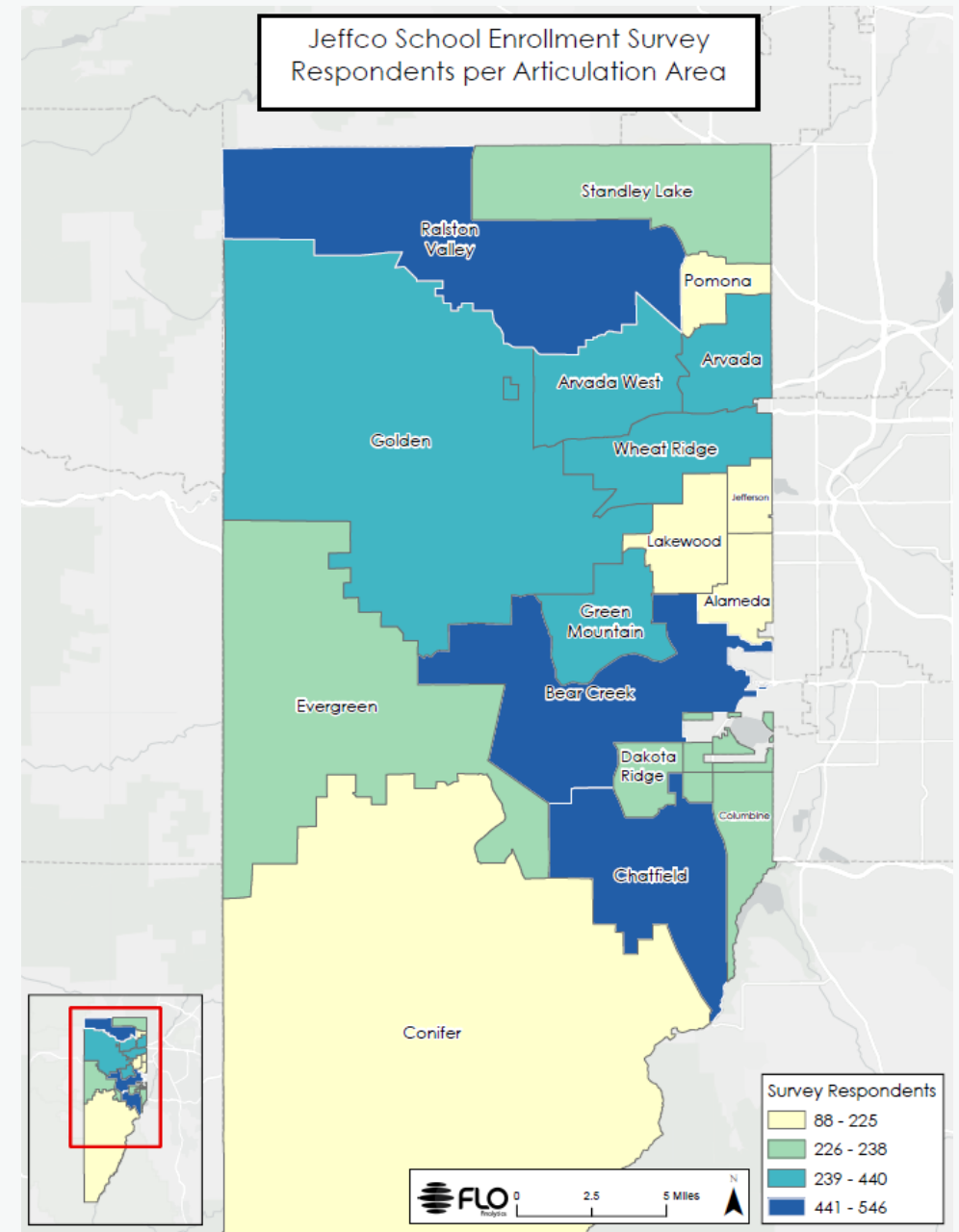
Key Findings

- Parts of Ralston Valley, Golden, and Evergreen articulation areas have high numbers of students but low accessibility to programs.
- The articulation areas with resident students who have the least access to programs are Conifer and Evergreen (both of which are mountain articulation areas).

How the ‘What’ and the ‘Why’ Intersect

Comparison of data analysis and survey results demonstrates an inconsistent relationship between families' perception of program accessibility and the quantitative measures studied in this report.

- In six articulation areas, families feel there is access to programming even though there is less geographic access to most of the select programs (Arvada West, Bear Creek, Chatfield, Green Mountain, Ralston Valley, and Wheat Ridge).
- In two articulation areas, families believe there is equitable access to programs and there is only moderate access from a geographic standpoint (Dakota Ridge and Jefferson).
- In one articulation area, there is limited geographic access to special programs and families want more program access than respondents as a whole (Standley Lake).



Crosswalk of Data Analysis & Survey Results

While there were **families who expressed a desire for more programming across all articulation areas**, families in Jefferson, Evergreen and Pomona were more likely to identify additional programs they desired for their students than survey respondents overall.

Families across articulation areas ranked **STEM, Dual Language, and Arts** programming as the top programs they desire. While these programs were consistent across articulation areas, the following articulation areas expressed higher levels of interest in specific programs than survey respondents overall:

- Jefferson prioritized Dual Language and Alternative Education above most other groups.
- Evergreen desires International Baccalaureate higher than any other group.
- Standley Lake expressed the highest interest for additional STEM programming.
- Golden expressed the highest interest for Dual Language programming.
- Arvada indicated the highest interest for additional Arts programming.

Program Analysis Wrap-Up

1. High levels of program accessibility (13 out of the 16 program categories were within 2.5 miles of most student residences).
2. Programming does not consistently drive enrollment.
3. The geographic proximity of students to programming is not consistently correlated to parents' perceptions of program availability.
4. There are a few targeted areas where parents tended to request more of a certain type of program.
5. We need more information about why parents are making the choices they are and what matters most to them when choosing a school. The spring focus groups provide an opportunity to dive deeper into these questions and gain a better understanding of what parents' value.

Discussion

