

John W. Mercurio & Associates

2025 – 2035 Enrollment Forecast
for the
Lakota Local School District



Facilities Committee Presentation: March 4, 2025



INTRODUCTION

- Cincinnati resident since 1990, Family of Seven: Kathy, Kevin (23), David (21), Laura (18), Eric & Steven (16)
- Education: B.S. Civil/M.S. Environmental Engineer in Forecasting Business for water distribution and groundwater modeling using GIS since 1995, Completed both Business Analytics and Data Analytics programs,
- Started consulting business in 1997 while finishing Masters Degree,
- Forecasting school enrollment since 2003,
- Sycamore School Board Member from 2009 – 2021

OBJECTIVES

- Perform literature review and review past enrollment forecasts,
- Collect and integrate validated data from key influencing factors into a conceptual model for visual/technical analysis,
- Create an interactive attendance zone boundary map,
- Identify and analyze the most influential factors that impact district enrollment for the forecast period,
- Create a predictive forecasting model for enrollment by district, by building, by grade, and planning blocks for a 10-year period,
- Identify future data needs for the forecasting model for the district.

HISTORICAL ACCURACY

- Unique Approach using GIS in combination with a Forecast Model
- 2008 Forecast: 2013 18,597: (+1.7%), 2018: 17,762 (-2.9%)
- 2008 Actual: 2013 16,816: (- 8.1%) **off 9.8%**, 2018: 16,580 (-9.3%) **off 6.4%** *Post Audit: Over reliance on census data*
- 2012 Forecast: 2017 15,913: (-6.1%), 2022: 14,950 (-11.8%)
- 2012 Actual: 2017 16,142: (-4.7%) **off 1.4%**, 2022: 17,439 (+2.87%) **off 14.7%** *Post Audit: Over reliance on census data*
- 2019 Forecast: 2024: 16,176 (-2.2%)
- 2019 Actual: 2024: 17,370 (+5.1%) **off 7.3%** *Post Audit: Over reliance on census data*
- 2020 Forecast: 2024: 17,061 (+0.9%)
- 2020 Actual: 2024: 17,370 (+2.7%) **off 1.8%** *Post Audit: ODH data/Interpolation of data from larger geographies?*
- July 2024 Forecast: 2033: 18,459 (+0.43% per year for next 10 years)
- 2033 Actual: 2033: **??,???**
- Predicting Lakota's Enrollment has historically been **VERY DIFFICULT!**

DATA SOURCES

- ***Census Data***
 - (District Demographic data from U.S. Census Surveys and American Community Surveys; IRS Migration Reports)
- ***Economic Data***
 - (National/State/Regional/Local Data on rates, rents, housing, and employment data)
- ***Education Data***
 - (Historical ODE enrollment data, aggregated/disaggregated demographic data, economically disadvantaged data, and special programming data and the Educational Management Information System data)
- ***Health Data***
 - (Birth information was obtained from the Ohio Department of Health)
- ***Real Estate Data***
 - (Butler County Auditor/Recorder data including property sales, permits, mortgages, real estate tax rates, City/Township Master Plans, Realtor interviews)
- ***GIS Data***
 - (Butler County Engineer's Office)

OBSERVATIONS

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- The map displays the city of Chicago with various school districts highlighted in different colors. A large red-shaded area covers the majority of the city, indicating the scope of the study. Numerous school names are labeled across the map, including Chamberlain Elementary School, Washington Early Childhood School, Jackson Park Elementary School, and many others. The map also shows major roads and the city's layout.

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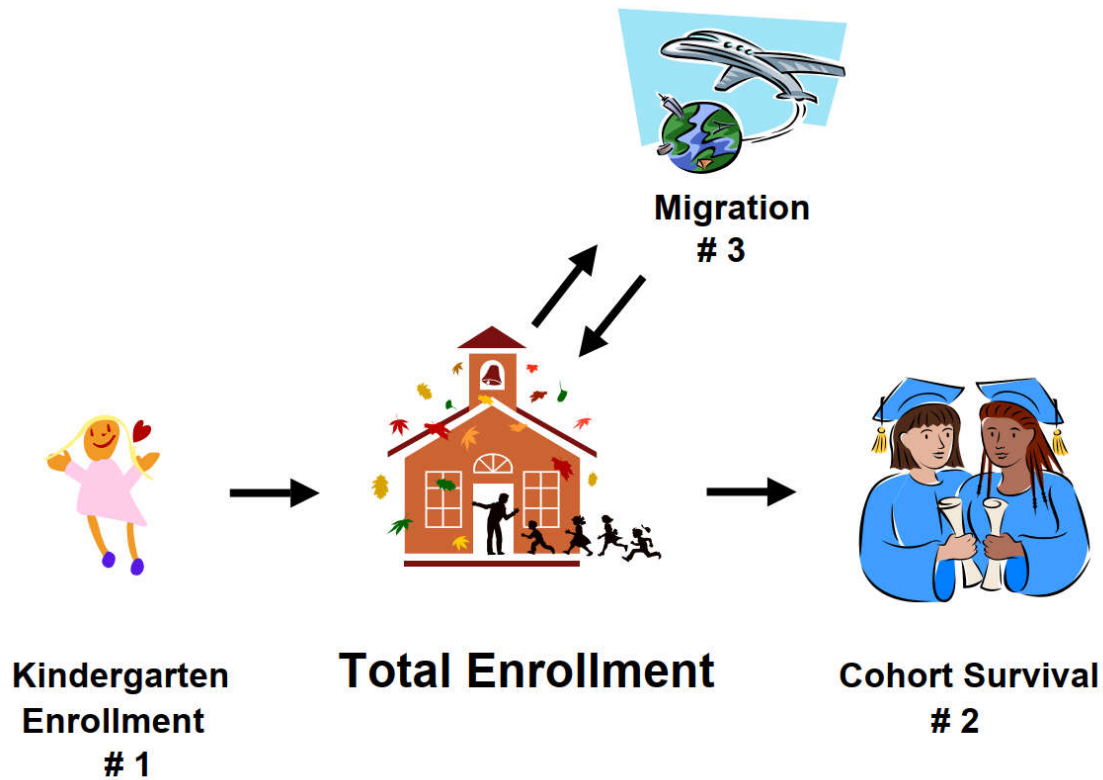
LEARN THE FUTURE

***“The further backward you look,
the further forward you see.”***

- Winston Churchill



ENROLLMENT EQUATION



$$\text{Incoming Students} \pm \text{Net Migration of Students} - \text{Outgoing Students} = \text{Total Enrollment}$$

POTENTIAL FACTORS

Jurisdictional Setting
School Building
New Construction
Alternative
Schooling
Trends
Available
Land Area
Rent Rates
Demographic Trends
Employment Trends
Interest Rates
Business Activity
Community
Vibrancy & Appeal
Multiple Bedroom
Unit Trends
Number of
Households
Race/Ethnicity
Trends

Family Size
Trends
Housing Valuation
State Trends
Real Estate
Development
Local Government
Master Plans
Student Yield
Housing Trends
Geography
Economic Environment
Age Cohort
Trends
Educational
Trends

Housing Turnover
District Performance
Migration
Rates
District
Median Age
Population
Trends
School
District
Policies
Housing Age
Trends
Housing Trends
Economic Environment
Age Cohort
Trends
Educational
Trends

Fertility / Birth
Rate Trends
Local Government Policies
Regional Trends
Number of
Births
Housing Age
Trends
Housing Trends
Economic Environment
Age Cohort
Trends
Educational
Trends

District Pupil
Density
Local Government Policies
District Reputation
Real Estate Taxes
Generational Cycle
Geography
Economic Environment
Age Cohort
Trends
Educational
Trends

Homeschool
Trends
Zoning
National Trends
Real Estate Cycle
Property Sales
Owner / Renter
Occupancy Trends
Income
Trends

Vacancy Rates

KEY INFLUENTIAL FACTORS



CENSUS DATA FOR LAKOTA

The American Community Survey



The American Community Survey

This booklet shows the content of the American Community Survey questionnaire.

Start Here

The first step is to find the right questionnaire for you. The questionnaire is divided into two parts: the first part is for people who live in a household, and the second part is for people who live in a group quarters.

How to complete the questionnaire

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The Decennial Census



2000 Census

This is the official questionnaire for the 2000 Census. It is a questionnaire for people who live in a household. It is a questionnaire for people who live in a household. It is a questionnaire for people who live in a household.

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FERTILITY FOR LLSD

$$FR = LB/P * 1000$$

Year	WOMEN COHORTS							U.S. CENSUS BIRTHS	U.S. CENSUS FERTILITY RATE PER 1,000 WOMEN	ODH FERTILITY RATE	
	Women 15 to 50 years	15 to 19 years	15 to 19 years %	20 to 34 years	20 to 34 years %	35 to 50 years	35 to 50 years %	Number of Women with Births	Women 15 to 50 years	ODH Number of Births	Fertility Rate
2010	22,886	2,927	12.8%	8420.0	36.8%	11,539	50.4%	1,592	70	1,105	48.3
2011	21,952	2,987	13.6%	6984.0	31.8%	11,981	54.6%	1,836	84	1,100	50.1
2012	24,087	3,575	14.8%	8145.0	33.8%	12,367	51.3%	915	38	1,127	46.8
2013	22,278	3,145	14.1%	6693.0	30.0%	12,440	55.8%	1,424	64	1,148	51.5
2014	24,663	3,425	13.9%	7622.0	30.9%	13,616	55.2%	1,351	55	1,131	45.9
2015	22,724	3,614	15.9%	6902.0	30.4%	12,208	53.7%	1,409	62	1,114	49.0
2016	24,543	3,637	14.8%	8661.0	35.3%	12,245	49.9%	1,653	67	1,091	44.5
2017	23,484	3,674	15.6%	9112.0	38.8%	10,698	45.6%	1,250	53	1,073	45.7
2018	22,908	3,025	13.2%	7885.0	34.4%	11,998	52.4%	1,162	51	1,110	48.5
2019	22,850	3,489	15.3%	6854.0	30.0%	12,507	54.7%	774	34	1,118	48.9
2020	22,765	3,072	13.5%	8219.0	36.1%	11,474	50.4%	1,404	62	1,119	49.2
2021	24,006	3,662	15.3%	9439.0	39.3%	10,905	45.4%	1,452	60	1,150	47.9
2022	23,498	2,329	9.9%	8599.0	36.6%	12,570	53.5%	1,660	71	1,113	47.4
2023	22,537	2,759	12.2%	8416.0	37.3%	11,362	50.4%	1,707	76	1,074	47.7

Source: U.S. Census Bureau - American Community Survey Data, Ohio Department of Health

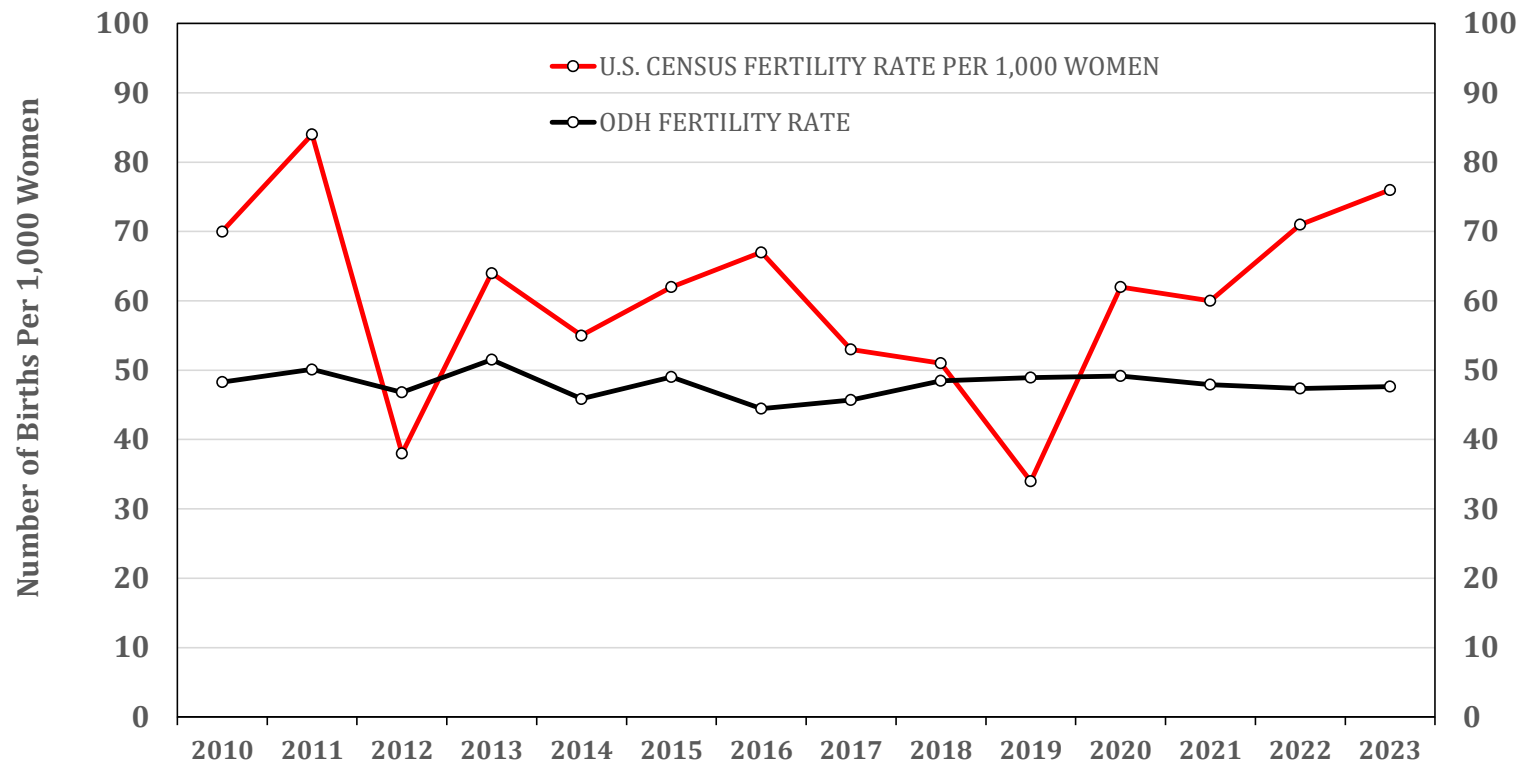
* ACS data are estimates and typically have a percent margin of error < ~2%

Maximum value in category

Minimum value in category

FERTILITY FOR LLSD

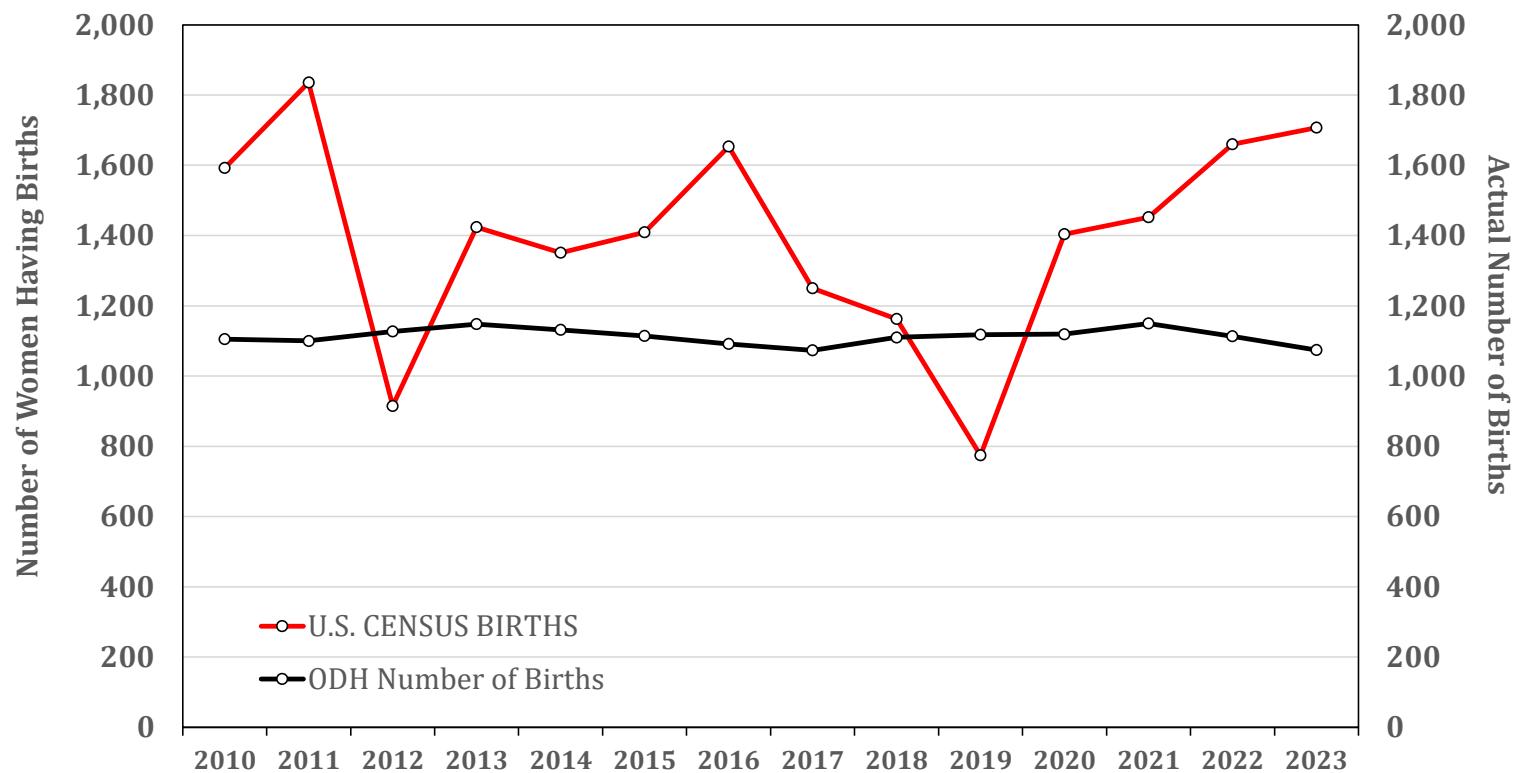
Fertility Rate Within the Lakota Local School District



Source: U.S. Census Bureau - American Community Survey Data, ODH Data

FERTILITY FOR LLSD

Birth Estimates vs. Actual Within the Lakota Local School District



Source: U.S. Census Bureau - American Community Survey Data, ODH Data

CENSUS DATA SCHOOL ENROLLMENT FOR LLSD

SCHOOL ENROLLMENT									
Year	Population 3 years and over enrolled in school	Nursery school, preschool	Kindergarten	Elementary school (grades 1-8)	High school (grades 9-12)	College or graduate school	Population Enrolled in KG thru 12th grade	Population Enrolled in PK thru 12th grade	Range of % to Alternate School
2010	28,804	2,989	1,882	12,865	5,564	5,504	20,311	23,300	11%
2011	27,201	2,265	1,541	12,963	5,778	4,654	20,282	22,547	14%
2012	27,753	1,990	1,664	11,939	5,835	6,325	19,438	21,428	13%
2013	28,619	2,288	1,899	14,024	6,507	3,901	22,430	24,718	26%
2014	25,158	1,638	1,521	11,424	6,251	4,324	19,196	20,834	16%
2015	26,182	1,022	968	11,580	7,392	5,220	19,940	20,962	20%
2016	27,938	2,270	1,436	11,005	6,635	6,592	19,076	21,346	17%
2017	27,444	1,719	1,068	11,442	6,948	6,267	19,458	21,177	19%
2018	28,644	1,604	1,637	12,707	7,245	5,451	21,589	23,193	25%
2019	26,999	1,909	705	12,118	5,895	6,372	18,718	20,627	12%
2020	27,338	1,825	1,486	11,830	6,031	6,166	19,347	21,172	15%
2021	29,162	2,333	1,365	13,205	6,799	5,460	21,369	23,702	21%
2022	28,818	2,799	2,461	11,815	6,097	5,646	20,373	23,172	16%
2023	27,317	2,249	1,839	12,457	6,246	4,526	20,542	22,791	16%

Source: U.S. Census Bureau - American Community Survey Data

* ACS data are estimates and typically have a percent margin of error < ~2%

Maximum value in category

Minimum value in category

CENSUS AGE DATA FOR LLSD

	AGE																										
	Under 5 years	Under 5 years (%)	5 to 9 years	5 to 9 years (%)	10 to 14 years	10 to 14 years (%)	15 to 19 years	15 to 19 years (%)	20 to 24 years	20 to 24 years (%)	25 to 34 years	25 to 34 years (%)	35 to 44 years	35 to 44 years (%)	45 to 54 years	45 to 54 years (%)	55 to 59 years	55 to 59 years (%)	60 to 64 years	60 to 64 years (%)	65 to 74 years	65 to 74 years (%)	75 to 84 years	75 to 84 years (%)	85 years and over	85 years and over (%)	Median age (years)
Year	Under 5 years	Under 5 years (%)	5 to 9 years	5 to 9 years (%)	10 to 14 years	10 to 14 years (%)	15 to 19 years	15 to 19 years (%)	20 to 24 years	20 to 24 years (%)	25 to 34 years	25 to 34 years (%)	35 to 44 years	35 to 44 years (%)	45 to 54 years	45 to 54 years (%)	55 to 59 years	55 to 59 years (%)	60 to 64 years	60 to 64 years (%)	65 to 74 years	65 to 74 years (%)	75 to 84 years	75 to 84 years (%)	85 years and over	85 years and over (%)	Median age (years)
2010	6,872	7.4%	8,411	9.1%	7,938	8.6%	5,948	6.4%	5,002	5.4%	11,789	12.7%	13,066	14.1%	15,429	16.7%	5,336	5.8%	4,246	7.4%	5,161	5.6%	2,357	2.5%	978	1.1%	35.2
2011	7,358	7.7%	7,491	7.8%	9,124	9.5%	5,855	6.1%	4,191	4.4%	9,756	10.1%	15,037	15.6%	16,335	17.0%	6,218	6.5%	6,063	7.7%	5,177	5.4%	2,703	2.8%	847	0.9%	37.8
2012	6,121	6.6%	6,576	7.1%	8,323	9.0%	6,479	7.0%	5,670	6.1%	10,015	10.8%	13,819	14.9%	16,266	17.5%	4,956	5.3%	5,732	6.6%	5,103	5.5%	2,963	3.2%	751	0.8%	37.9
2013	5,747	6.0%	8,999	9.5%	8,654	9.1%	7,417	7.8%	4,031	4.2%	9,614	10.1%	13,574	14.3%	16,003	16.8%	6,989	7.3%	4,867	6.0%	6,066	6.4%	2,008	2.1%	1,201	1.3%	37.5
2014	7,284	7.5%	6,564	6.7%	7,983	8.2%	6,395	6.6%	4,291	4.4%	10,790	11.1%	14,369	14.7%	16,382	16.8%	7,165	7.3%	4,020	7.5%	7,476	7.7%	3,662	3.8%	1,120	1.1%	38.7
2015	5,322	5.5%	5,458	5.6%	8,491	8.7%	7,516	7.7%	5,079	5.2%	10,616	10.9%	14,136	14.5%	16,022	16.4%	6,318	6.5%	7,119	5.5%	7,058	7.2%	2,907	3.0%	1,535	1.6%	40.3
2016	6,380	6.5%	7,366	7.5%	7,406	7.5%	7,694	7.8%	5,334	5.4%	11,407	11.6%	14,550	14.8%	14,656	14.9%	6,992	7.1%	5,318	6.5%	7,403	7.5%	2,795	2.8%	1,259	1.3%	37.2
2017	5,769	5.8%	6,673	6.8%	6,798	6.9%	8,928	9.0%	5,225	5.3%	12,717	12.9%	12,644	12.8%	15,043	15.2%	6,191	6.3%	6,442	5.8%	7,673	7.8%	3,576	3.6%	977	1.0%	38.3
2018	7,069	7.0%	7,626	7.6%	9,578	9.5%	7,074	7.0%	6,164	6.1%	9,904	9.9%	12,904	12.8%	15,028	15.0%	6,704	6.7%	6,671	7.0%	7,353	7.3%	3,429	3.4%	999	1.0%	37.4
2019	5,716	5.7%	6,024	6.0%	8,966	8.9%	6,849	6.8%	4,353	4.3%	10,414	10.3%	13,723	13.6%	15,597	15.5%	7,642	7.6%	6,451	5.7%	9,601	9.5%	4,185	4.1%	1,348	1.3%	41.1
2020	6,284	6.3%	7,282	7.3%	7,714	7.7%	6,753	6.8%	5,893	5.9%	11,469	11.5%	12,866	12.9%	14,992	15.0%	6,862	6.9%	6,609	6.3%	8,905	8.9%	3,211	3.2%	1,141	1.1%	38.9
2021	8,514	8.1%	7,897	7.6%	8,339	8.0%	6,895	6.6%	7,115	6.8%	11,137	10.6%	14,410	13.8%	13,781	13.2%	7,992	7.6%	5,600	8.1%	7,727	7.4%	3,633	3.5%	1,555	1.5%	37.3
2022	6,480	6.1%	9,139	8.6%	7,436	7.0%	6,294	6.0%	7,389	7.0%	11,935	11.3%	14,905	14.1%	13,315	12.6%	5,971	5.6%	8,433	6.1%	9,301	8.8%	4,147	3.9%	998	0.9%	37.7
2023	7,364	7.0%	8,360	7.9%	7,169	6.8%	6,893	6.5%	5,672	5.4%	10,789	10.2%	15,072	14.3%	14,418	13.7%	6,282	6.0%	7,424	7.0%	10,362	9.8%	4,559	4.3%	1,047	1.0%	38.2

CENSUS AGE DATA FOR LLSD

	AGE																										
	Under 5	Under 5	5 to 9	5 to 9	10 to 14	10 to 14	15 to 19	15 to 19	20 to 24	20 to 24	25 to 34	25 to 34	35 to 44	35 to 44	45 to 54	45 to 54	55 to 59	55 to 59	60 to 64	60 to 64	65 to 74	65 to 74	75 to 84	75 to 84	85 years	85 years	Median
Year	years	years	years	years	years	years	years	years	years	years	years	years	years	years	years	years	years	years	years	years	years	years	years	years	and over	and over	age
		(%)		(%)		(%)		(%)		(%)		(%)		(%)		(%)		(%)		(%)		(%)		(%)	(%)	(%)	(years)
2010	6,872	7.4%	8,411	9.1%	7,938	8.6%	5,948	6.4%	5,002	5.4%	11,789	12.7%	13,066	14.1%	15,429	16.7%	5,336	5.8%	4,246	7.4%	5,161	5.6%	2,357	2.5%	978	1.1%	35.2
2011	7,358	7.7%	7,491	7.8%	9,124	9.5%	5,855	6.1%	4,191	4.4%	9,756	10.1%	15,037	15.6%	16,335	17.0%	6,218	6.5%	6,063	7.7%	5,177	5.4%	2,703	2.8%	847	0.9%	37.8
2012	6,121	6.6%	6,576	7.1%	8,323	9.0%	6,479	7.0%	5,670	6.1%	10,015	10.8%	13,819	14.9%	16,266	17.5%	4,956	5.3%	5,732	6.6%	5,103	5.5%	2,963	3.2%	751	0.8%	37.9
2013	5,747	6.0%	8,999	9.5%	8,654	9.1%	7,417	7.8%	4,031	4.2%	9,614	10.1%	13,574	14.3%	16,003	16.8%	6,989	7.3%	4,867	6.0%	6,066	6.4%	2,008	2.1%	1,201	1.3%	37.5
2014	7,284	7.5%	6,564	6.7%	7,983	8.2%	6,395	6.6%	4,291	4.4%	10,790	11.1%	14,369	14.7%	16,382	16.8%	7,165	7.3%	4,020	7.5%	7,476	7.7%	3,662	3.8%	1,120	1.1%	38.7
2015	5,322	5.5%	5,458	5.6%	8,491	8.7%	7,516	7.7%	5,079	5.2%	10,616	10.9%	14,136	14.5%	16,022	16.4%	6,318	6.5%	7,119	5.5%	7,058	7.2%	2,907	3.0%	1,535	1.6%	40.3
2016	6,380	6.5%	7,366	7.5%	7,406	7.5%	7,694	7.8%	5,334	5.4%	11,407	11.6%	14,550	14.8%	14,656	14.9%	6,992	7.1%	5,318	6.5%	7,403	7.5%	2,795	2.8%	1,259	1.3%	37.2
2017	5,769	5.8%	6,673	6.8%	6,798	6.9%	8,928	9.0%	5,225	5.3%	12,717	12.9%	12,644	12.8%	15,043	15.2%	6,191	6.3%	6,442	5.8%	7,673	7.8%	3,576	3.6%	977	1.0%	38.3
2018	7,069	7.0%	7,626	7.6%	9,578	9.5%	7,074	7.0%	6,164	6.1%	9,904	9.9%	12,904	12.8%	15,028	15.0%	6,704	6.7%	6,671	7.0%	7,353	7.3%	3,429	3.4%	999	1.0%	37.4
2019	5,716	5.7%	6,024	6.0%	8,966	8.9%	6,849	6.8%	4,353	4.3%	10,414	10.3%	13,723	13.6%	15,597	15.5%	7,642	7.6%	6,451	5.7%	9,601	9.5%	4,185	4.1%	1,348	1.3%	41.1
2020	6,284	6.3%	7,282	7.3%	7,714	7.7%	6,753	6.8%	5,893	5.9%	11,469	11.5%	12,866	12.9%	14,992	15.0%	6,862	6.9%	6,609	6.3%	8,905	8.9%	3,211	3.2%	1,141	1.1%	38.9
2021	8,514	8.1%	7,897	7.6%	8,339	8.0%	6,895	6.6%	7,115	6.8%	11,137	10.6%	14,410	13.8%	13,781	13.2%	7,992	7.6%	5,600	8.1%	7,727	7.4%	3,633	3.5%	1,555	1.5%	37.3
2022	6,480	6.1%	9,139	8.6%	7,436	7.0%	6,294	6.0%	7,389	7.0%	11,935	11.3%	14,905	14.1%	13,315	12.6%	5,971	5.6%	8,433	6.1%	9,301	8.8%	4,147	3.9%	998	0.9%	37.7
2023	7,364	7.0%	8,360	7.9%	7,169	6.8%	6,893	6.5%	5,672	5.4%	10,789	10.2%	15,072	14.3%	14,418	13.7%	6,282	6.0%	7,424	7.0%	10,362	9.8%	4,559	4.3%	1,047	1.0%	38.2

Gen Alpha
Ages 0 to 12

Gen Z
Ages 12 to 27

Millennials
Ages 28 to 43

Gen X
Ages 44 to 59

Boomers II
Ages 60 to 69

Boomers I
Ages 70 to 78

Post War/
WWII
Ages 79 to 102

CENSUS AGE DATA FOR LLSD

Year	AGE												
	Under 5 years (%)	5 to 9 years (%)	10 to 14 years (%)	15 to 19 years (%)	20 to 24 years (%)	25 to 34 years (%)	35 to 44 years (%)	45 to 54 years (%)	55 to 59 years (%)	60 to 64 years (%)	65 to 74 years (%)	75 to 84 years (%)	85 years and over (%)
2010	7.4%	9.1%	8.6%	6.4%	5.4%	12.7%	14.1%	16.7%	5.8%	7.4%	5.6%	2.5%	1.1%
2011	7.7%	7.8%	9.5%	6.1%	4.9%	10.1%	14.1%	17.0%	6.5%	7.7%	5.1%	2.8%	0.9%
2012	6%	7.1%	8.1%	7.0%	5.1%	10.8%	14.9%	17.5%	5.3%	7.6%	5.5%	3.2%	0.8%
2013	6.2%	9.5%	8.1%	7.8%	4.2%	11.1%	14.3%	16.8%	7.3%	6.0%	6.4%	2.1%	1.3%
2014	7.1%	6.7%	8.2%	7.3%	4.4%	11.2%	14.7%	16.8%	7.3%	7.5%	7.7%	3.8%	1.1%
2015	5.5%	5.6%	8.7%	7.2%	5.2%	10.1%	14.5%	16.2%	6.5%	5.5%	7.2%	3.0%	1.6%
2016	6.5%	7.1%	7.5%	7.1%	5.4%	11.6%	14.8%	14.5%	7.1%	6.5%	7.5%	2.8%	1.3%
2017	5.8%	6.3%	6.9%	5.9%	5.3%	12.5%	12.8%	15.2%	6.3%	5.8%	7.8%	3.6%	1.0%
2018	7.0%	7.6%	9.5%	6.9%	6.1%	9.7%	12.8%	15.0%	6.7%	7.0%	7.3%	3.4%	1.0%
2019	5.7%	7.0%	8.9%	6.8%	4.3%	11.2%	13.6%	15.5%	7.6%	5.7%	9.5%	4.1%	1.3%
2020	6.3%	7.1%	7.7%	6.8%	5.9%	11.5%	12.9%	15.1%	7.9%	6.3%	8.9%	3.2%	1.1%
2021	8.1%	7.1%	8.0%	6.6%	6.8%	10.6%	13.1%	15.2%	7.1%	8.1%	7.4%	3.5%	1.5%
2022	6.1%	8.6%	7.5%	6.0%	5.0%	11.3%	14.1%	12.6%	5.6%	6.1%	8.8%	3.9%	0.9%
2023	7.0%	7.9%	6.8%	6.5%	5.4%	10.2%	14.3%	13.7%	6.0%	7.0%	7.3%	4.3%	1.0%

Source: U.S. Census Bureau - American Community Survey Data

* ACS data are estimates and typically have a percent margin of error < ~2%

Maximum value in category

Minimum value in category

CENSUS ECONOMIC DATA FOR LLSD

	EMPLOYMENT		INCOME		POVERTY
Year	Percent Unemployed	All parents in family in labor force	Median household income (dollars)	Median family income (dollars)	Percentage of Families with related children under 18 years Below Poverty Level
2010	6.0%	73.6%	86,157	94,619	6.6%
2011	5.2%	73.9%	82,475	91,137	19.3%
2012	4.7%	78.5%	88,126	100,022	25.0%
2013	3.5%	65.5%	83,706	98,867	34.2%
2014	2.6%	77.3%	93,892	109,846	20.1%
2015	2.3%	75.8%	88,032	101,332	22.9%
2016	4.4%	77.5%	110,517	121,949	18.7%
2017	3.1%	N/A	102,851	114,634	9.1%
2018	2.2%	67.4%	100,945	117,918	40.7%
2019	2.5%	75.1%	102,858	111,110	15.7%
2020	3.4%	77.1%	109,303	122,441	20.7%
2021	4.0%	72.6%	114,847	125,439	4.9%
2022	2.5%	78.5%	114,362	139,215	21.5%
2023	1.3%	81.7%	128,486	135,566	45.1%

Source: U.S. Census Bureau - American Community Survey Data

* ACS data are estimates and typically have a percent margin of error < ~2%

Maximum value in category

Minimum value in category

CENSUS HOUSING DATA FOR LLSD

HOUSING OCCUPANCY						HOUSING AGE and BEDROOMS				HOUSING TENURE					HOUSING TURNOVER		VALUATION	
Year	Total housing units	Vacant housing units	Vacant housing units (%)	Multiple housing units (2 or more)	Multiple housing units (2 or more) %	Built 2000 to 2004	Built 2000 or later (%)	2 or more bedrooms	3 or more bedrooms	Owner-occupied	Average household size of owner-occupied unit	Renter-occupied	Average household size of renter-occupied unit	Average household size of all occupied units	Number of Units Where Householder Moved in 2000 or later	Percentage of Units Where Householder Moved in 2000 or later	Value of Owner-occupied units Median (dollars)	Gross Rent Median (dollars)
2010	32,745	822	2.5	4,588	14.0%	9,117	27.8%	31,680	26,969	27,050	2.86	4,873	3.04	2.89	20,617	64.6%	219,600	987
2011	33,965	1,448	4.3	4,819	14.2%	7,213	21.2%	32,807	28,689	28,151	2.96	4,366	2.89	2.95	19,356	59.5%	213,900	962
2012	31,372	1,311	4.2	3,767	12.0%	7,953	25.4%	30,596	26,081	25,951	3.10	4,110	2.92	3.08	19,307	64.2%	207,500	875
2013	34,487	1,927	5.6	5,051	14.6%	7,985	23.2%	33,338	27,905	27,005	2.90	5,555	2.98	2.91	22,051	67.7%	206,800	1,003
2014	35,656	1,465	4.1	6,289	17.6%	8,805	24.7%	34,724	28,323	27,666	2.92	6,525	2.52	2.84	23,730	69.4%	211,500	1,057
2015	35,403	1,376	3.9	5,515	15.6%	9,530	26.9%	34,169	28,601	27,778	2.94	6,249	2.49	2.86	11,550	33.9%	227,500	1,111
2016	35,436	1,463	4.1	5,853	16.5%	8,243	23.3%	34,106	28,918	27,820	3.02	6,153	2.31	2.89	14,601	43.0%	229,600	1,285
2017	36,806	2,291	6.2	5,054	13.7%	10,199	27.7%	35,819	30,056	28,809	2.93	5,706	2.45	2.85	15,427	44.7%	238,800	1,266
2018	36,327	1,674	4.6	7,390	20.3%	10,813	29.8%	34,548	28,821	26,947	3.01	7,706	2.49	2.89	12,093	34.9%	259,000	1,165
2019	38,736	2,185	5.6	6,671	17.2%	11,576	29.9%	37,116	31,759	30,190	2.84	6,361	2.31	2.75	13,459	36.8%	261,700	1,262
2020	37,186	1,561	4.2	6,058	16.3%	10,463	28.1%	35,956	30,318	29,407	2.89	6,218	2.36	2.80	10,939	30.7%	251,600	1,238
2021	37,361	1,209	3.2	5,931	15.9%	13,176	35.3%	35,453	29,531	30,631	2.89	5,521	2.84	2.88	16,826	46.5%	297,400	1,598
2022	38,193	662	1.7	5,962	15.6%	14,482	37.9%	36,243	29,743	30,943	2.91	6,588	2.33	2.81	13,645	36.4%	367,900	1,494
2023	38,891	860	2.2	7,614	19.6%	14,066	36.2%	36,764	31,004	30,901	2.87	7,130	2.30	2.76	14,829	39.0%	376,800	1,700

Source: U.S. Census Bureau - American Community Survey Data

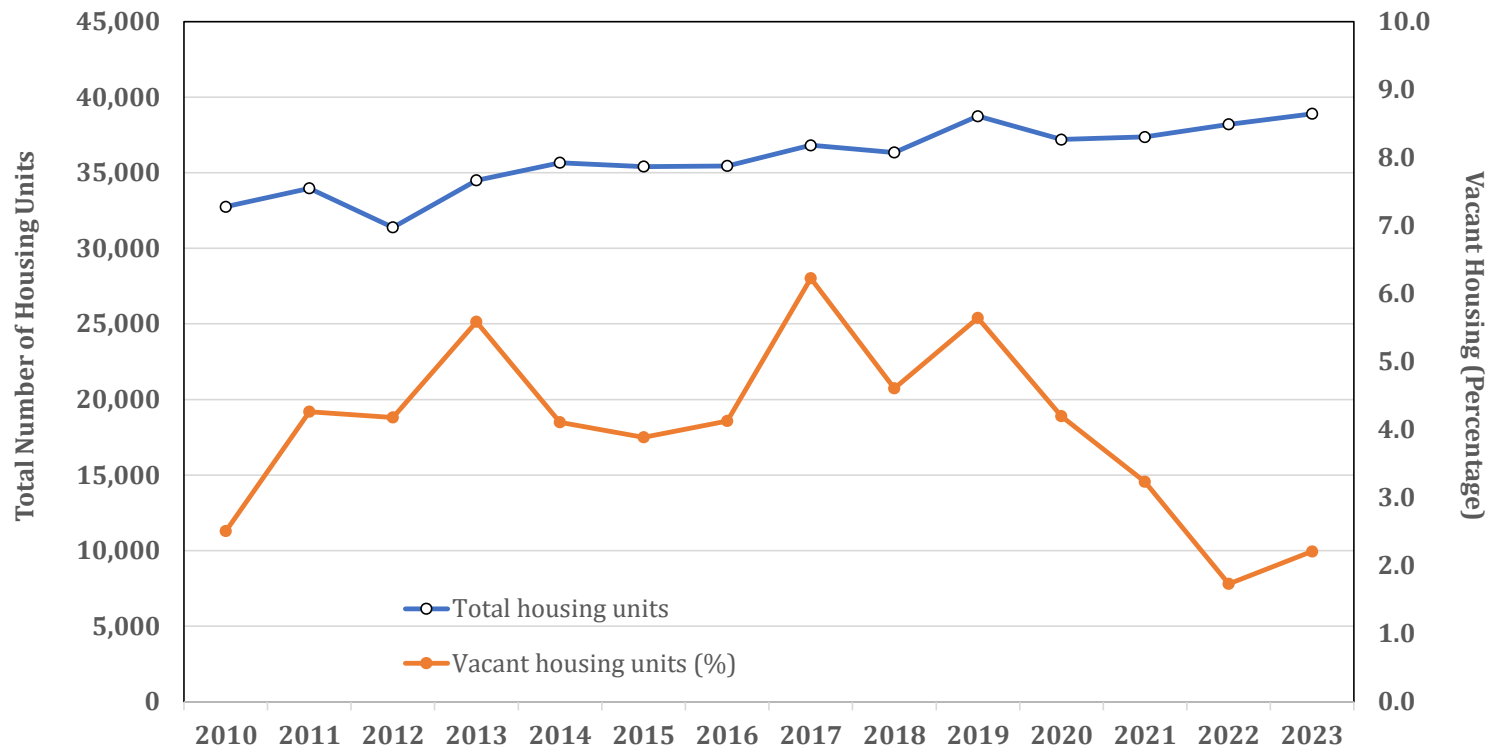
* ACS data are estimates and typically have a percent margin of error < ~2%

Maximum value in category

Minimum value in category

CENSUS HOUSING DATA FOR LLSD

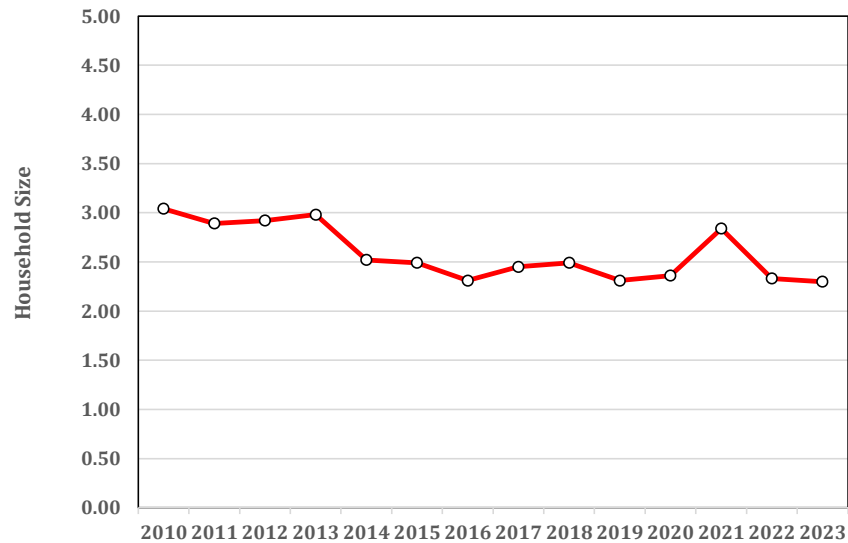
Total Housing Units and Vacancy Within the Lakota Local School District



Source: U.S. Census Bureau - American Community Survey Data

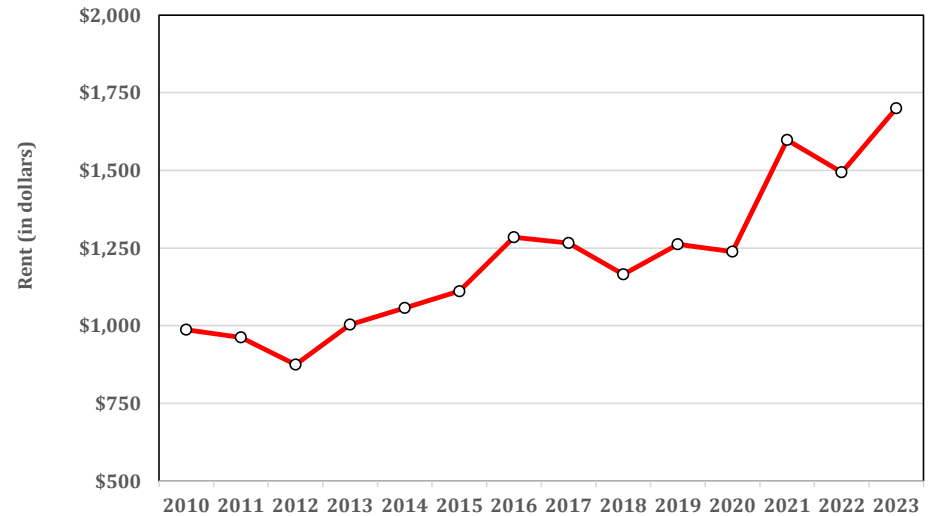
CENSUS HOUSING DATA FOR LLSD

**Average Household Size of Renter-Occupied Units
Within the LLSD**



Source: U.S. Census Bureau - American Community Survey Data

**Gross Rent Median Within the Lakota Local School
District**



Source: U.S. Census Bureau - American Community Survey Data

CENSUS RACE DATA FOR LLSD

DEMOGRAPHICS - RACE									
Year	One race	Two or more races	White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some other race	Hispanic or Latino (of any race)
2010	99.4%	0.6%	84.6%	7.2%	0.0%	5.8%	0.0%	1.8%	5.0%
2011	98.7%	1.3%	85.0%	5.9%	0.0%	7.4%	0.0%	0.5%	6.5%
2012	97.4%	2.6%	81.6%	6.8%	0.1%	7.6%	0.0%	1.3%	4.2%
2013	95.5%	4.5%	81.5%	7.0%	0.0%	5.9%	0.0%	1.0%	4.7%
2014	98.2%	1.8%	84.0%	8.1%	0.3%	5.5%	0.0%	0.2%	3.0%
2015	96.8%	3.2%	81.6%	7.3%	0.0%	6.1%	0.0%	1.7%	4.8%
2016	96.5%	3.5%	81.9%	7.6%	0.2%	6.2%	0.1%	0.5%	2.4%
2017	95.9%	4.1%	80.5%	8.1%	0.0%	6.4%	0.0%	0.9%	4.0%
2018	96.8%	3.2%	80.5%	11.4%	0.4%	7.1%	0.0%	1.1%	3.2%
2019	96.7%	3.3%	81.7%	8.1%	0.4%	5.1%	0.0%	1.5%	6.8%
2020	95.1%	4.9%	80.0%	8.0%	0.2%	5.9%	0.0%	1.0%	4.7%
2021	93.5%	6.5%	75.9%	8.7%	0.1%	8.5%	0.0%	0.3%	2.1%
2022	92.7%	7.3%	70.3%	9.5%	0.0%	10.4%	0.0%	2.5%	5.6%
2023	91.7%	8.3%	73.9%	8.8%	0.0%	8.0%	0.0%	0.9%	4.6%

Source: U.S. Census Bureau - American Community Survey Data

* ACS data are estimates and typically have a percent margin of error significantly < ~2%

Maximum value in category

Minimum value in category

CENSUS HOUSEHOLD / STUDENT YIELD

DATA FOR LLSD

Year	HOUSEHOLD DATA						STUDENT YIELD		
	Total Households	Population in Households	Households with one or more people under 18 years	Households with one or more people under 18 years	Average Family Size	Child	Lakota Enrollment PK thru 12th	Lakota Public Student Yield	LLSD Community Student Yield
2010	31,923	92,185	14,703	46.1%	3.24	33,017	18,404	0.577	0.73
2011	32,517	95,842	13,470	41.4%	3.30	33,611	17,698	0.544	0.69
2012	30,061	92,467	12,210	40.6%	3.51	34,469	17,060	0.568	0.71
2013	32,560	94,853	14,696	45.1%	3.20	33,135	16,766	0.515	0.76
2014	34,191	97,235	14,431	42.2%	3.21	31,584	16,288	0.476	0.61
2015	34,027	97,306	12,027	35.3%	3.29	32,798	16,178	0.475	0.62
2016	33,973	98,256	13,504	39.7%	3.39	34,417	16,135	0.475	0.63
2017	34,515	98,357	13,230	38.3%	3.30	34,071	16,112	0.467	0.61
2018	34,653	100,208	14,046	40.5%	3.29	35,030	16,555	0.478	0.67
2019	36,551	100,567	14,070	38.5%	3.16	30,606	16,773	0.459	0.56
2020	35,625	99,683	13,786	38.7%	3.23	33,233	16,595	0.466	0.59
2021	36,152	104,282	13,822	38.2%	3.36	37,450	17,149	0.474	0.66
2022	37,531	105,408	14,226	37.9%	3.20	36,105	17,421	0.464	0.62
2023	38,031	105,079	13,975	36.7%	3.18	35,775	17,525	0.461	0.60

Source: U.S. Census Bureau - American Community Survey Data

* ACS data are estimates and typically have a percent margin of error < ~2%

** A household includes all the people who occupy a housing unit (such as a house or apartment) as their usual place of residence.

*** A family, which is the householder and all (one or more) other people living in the same household who are related to the householder by blood, marriage, or adoption.

**** A child is a son or a daughter by birth, a stepchild, or an adopted child of the householder, regardless of the child's age or marital status.

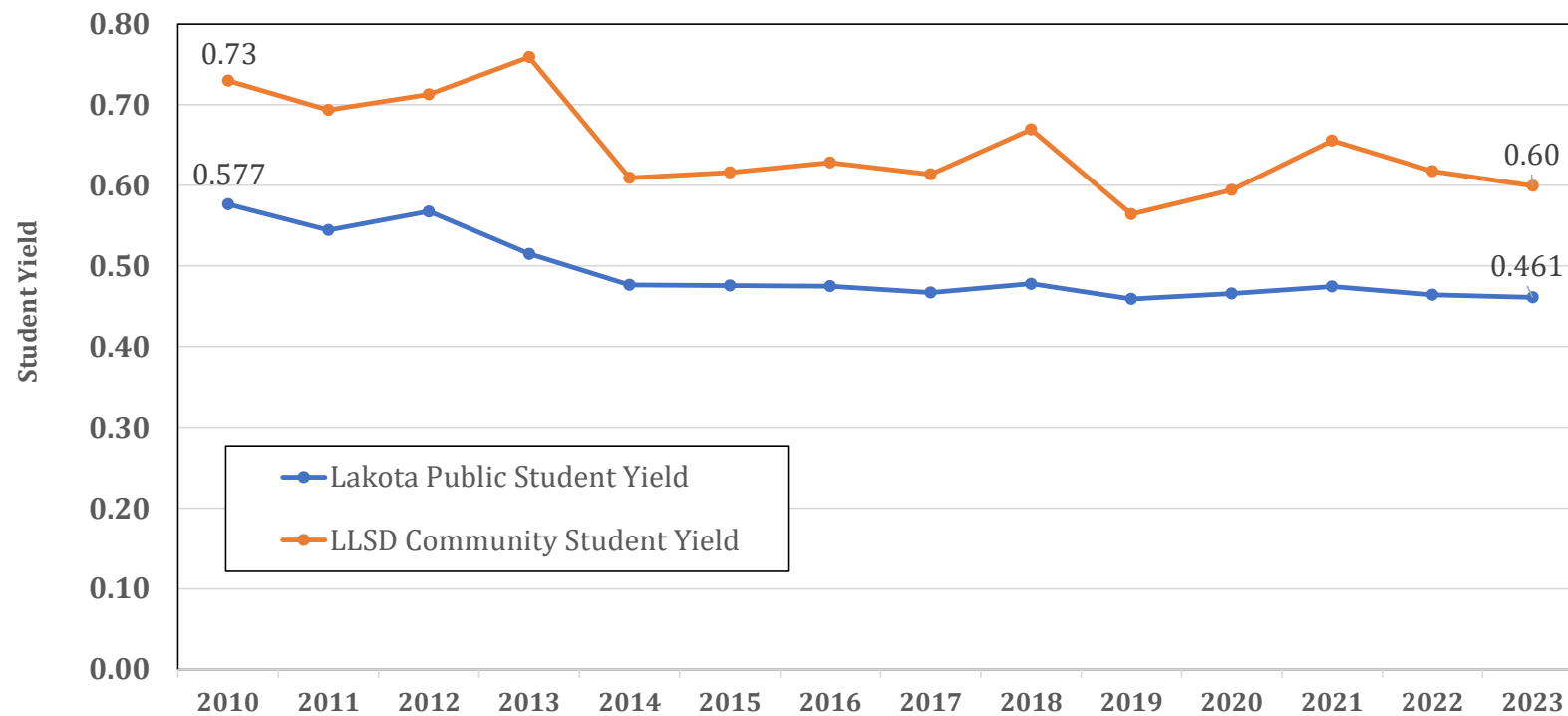
***** Student Yield is a calculation of school enrollment divided by the number of households.

Maximum value in category

Minimum value in category

CENSUS STUDENT YIELD DATA FOR LLSD

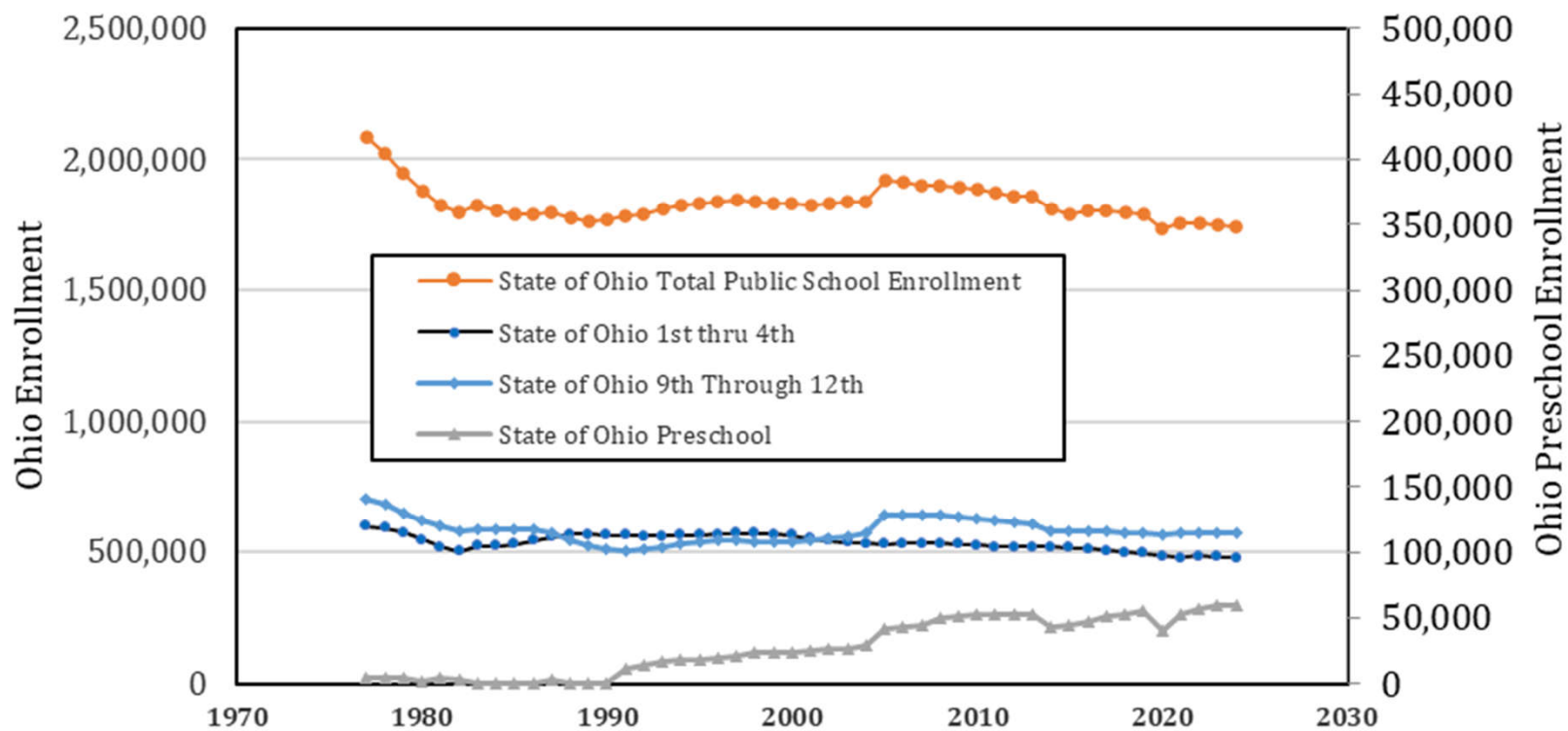
Student Yield Measures Within the Lakota Local School District



Source: U.S. Census Bureau - American Community Survey Data

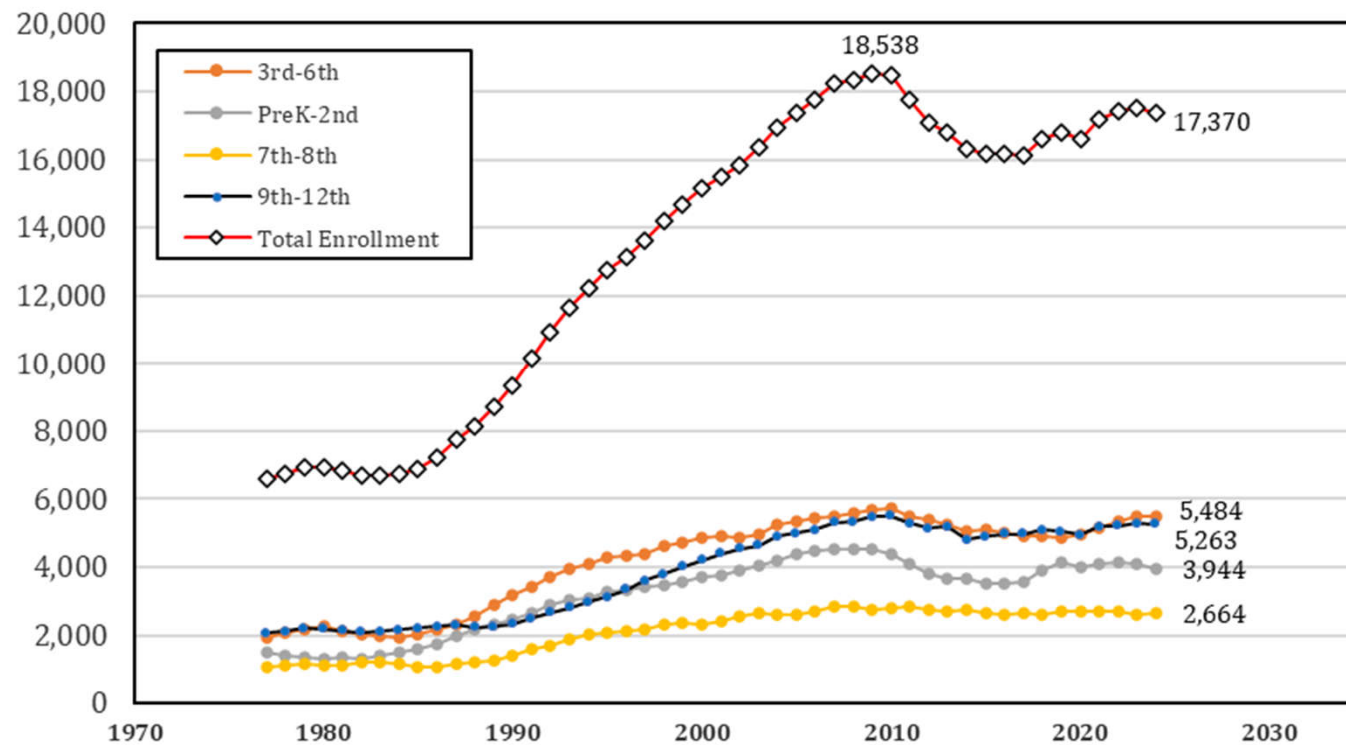
ENROLLMENT DATA FOR OHIO

State of Ohio School Enrollment



ENROLLMENT DATA FOR LLSD

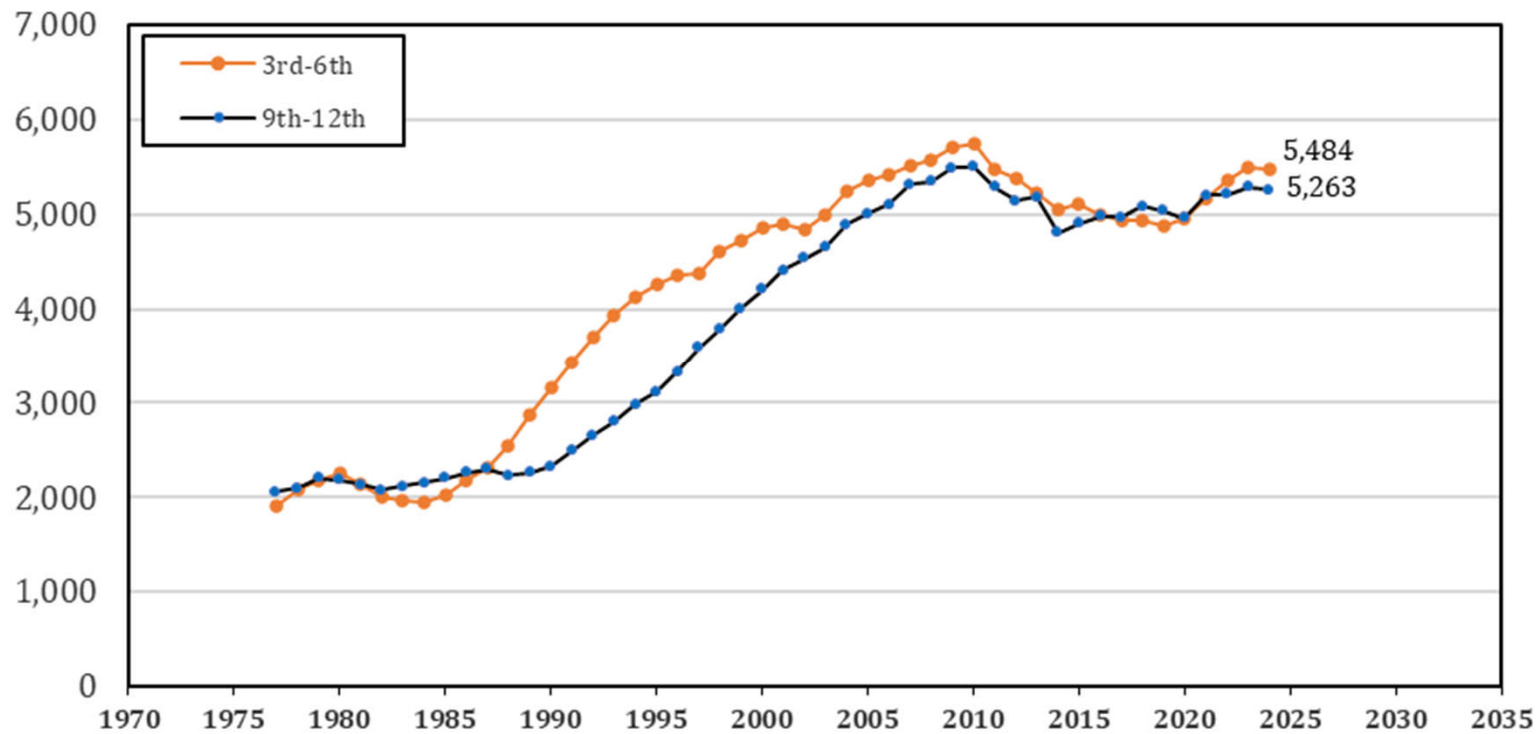
Lakota Local School District Enrollment



Source: ODE Headcount Data

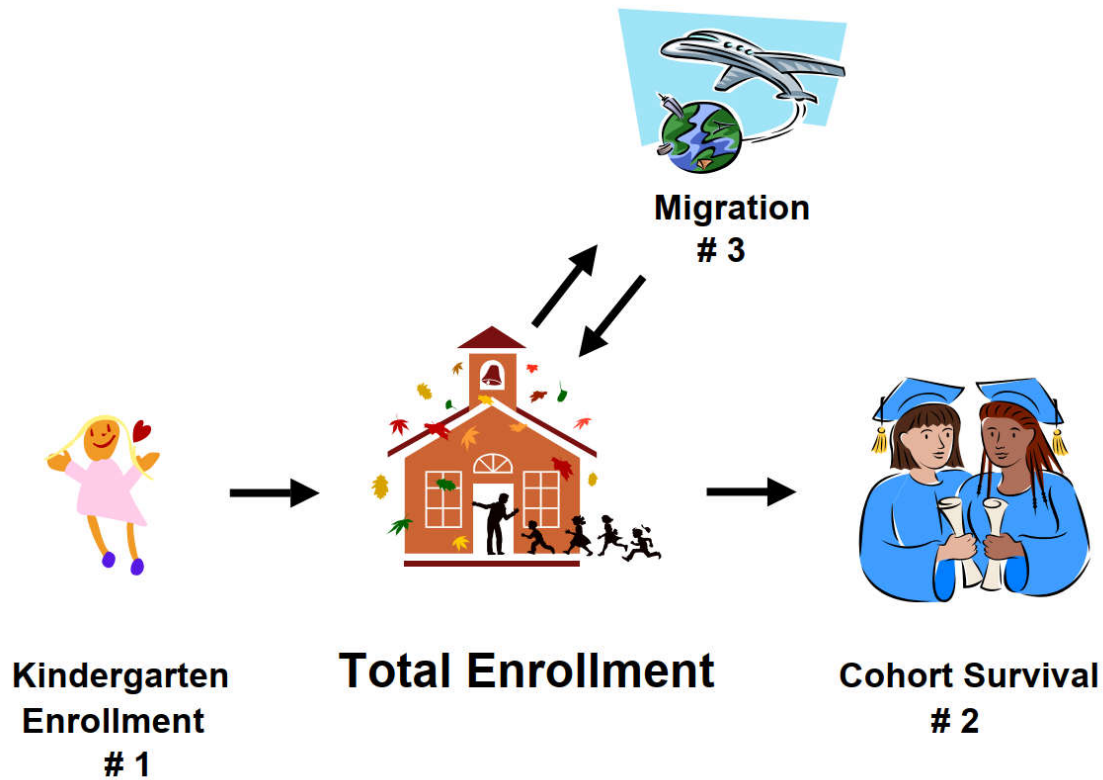
ENROLLMENT DATA FOR LLSD

Lakota Local School District Enrollment



Source:ODE Headcount Data

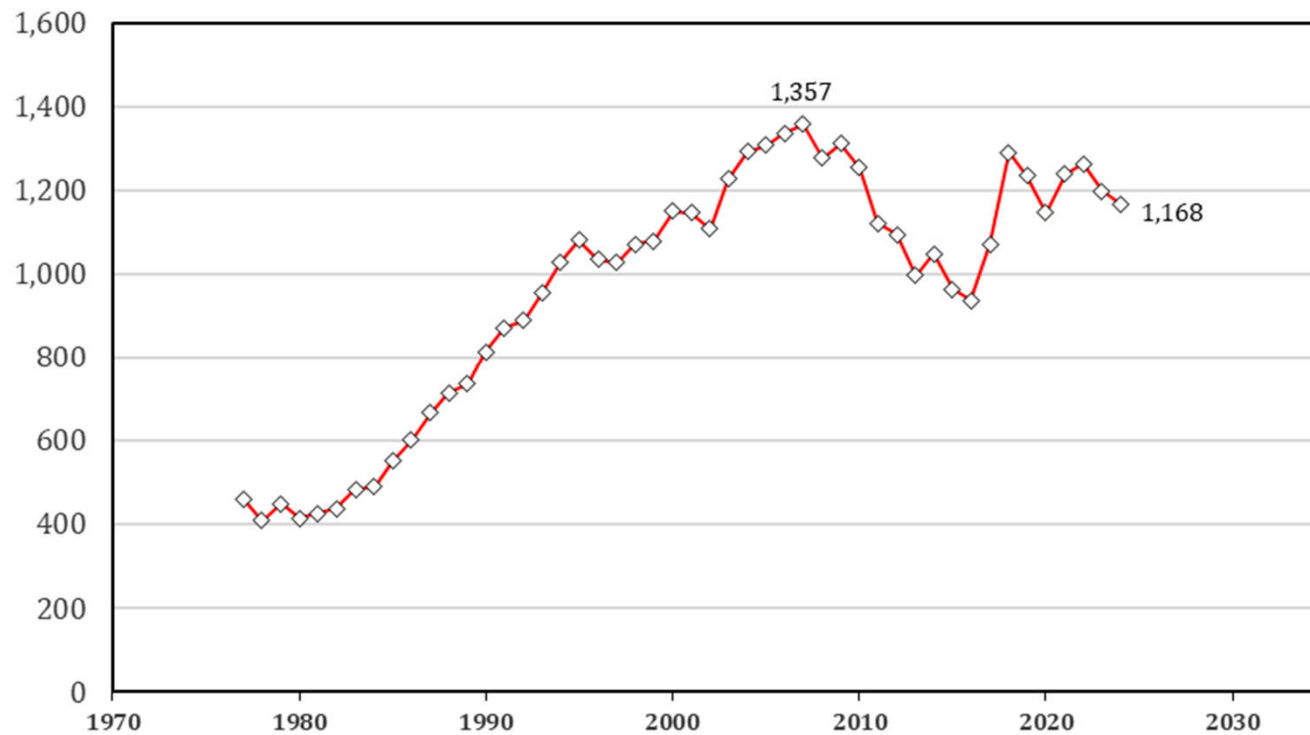
ENROLLMENT EQUATION



$$\text{Incoming Students} \pm \text{Net Migration of Students} - \text{Outgoing Students} = \text{Total Enrollment}$$

KG ENROLLMENT DATA FOR LLSD

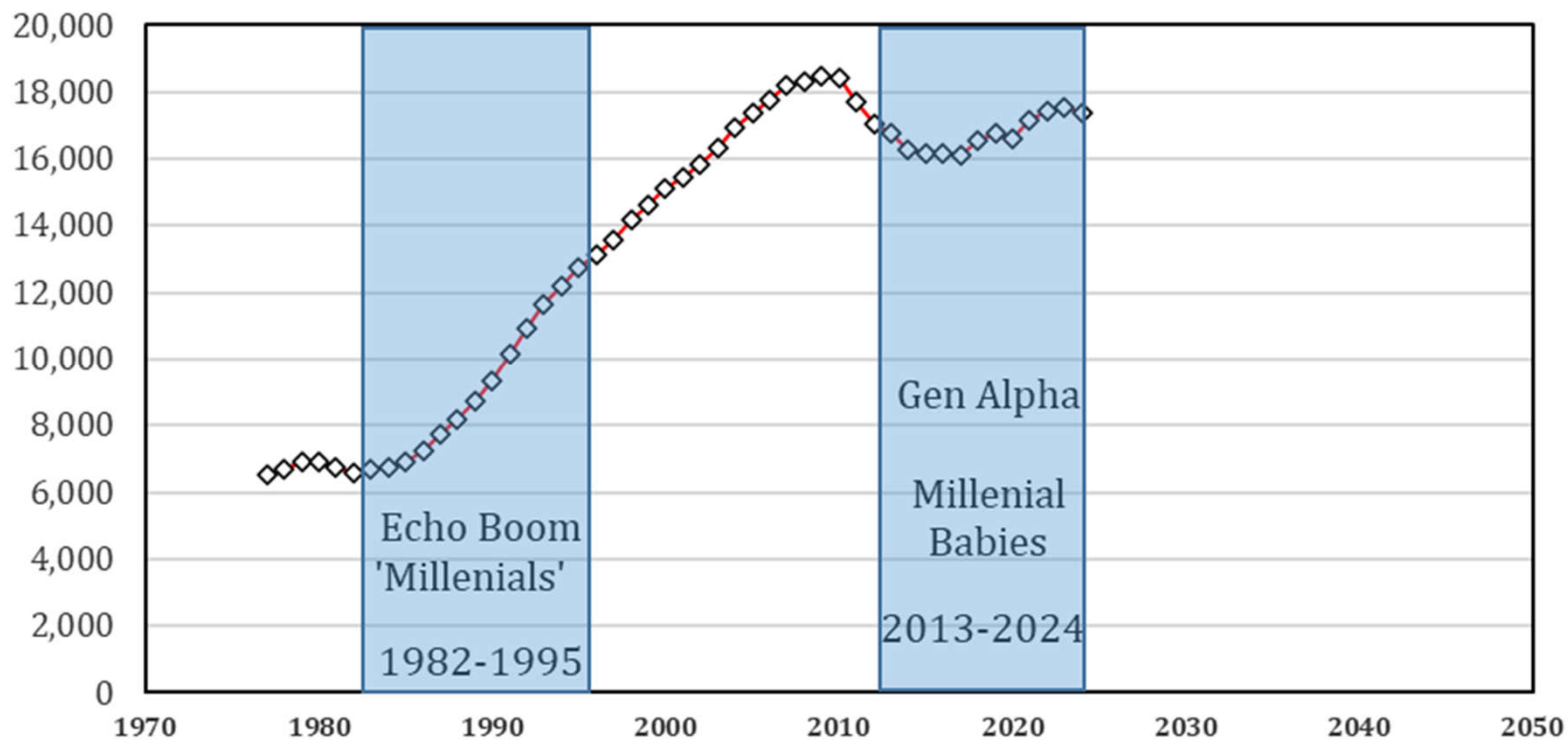
Lakota Local School District - Kindergarten Enrollment



Source: ODE Headcount Data

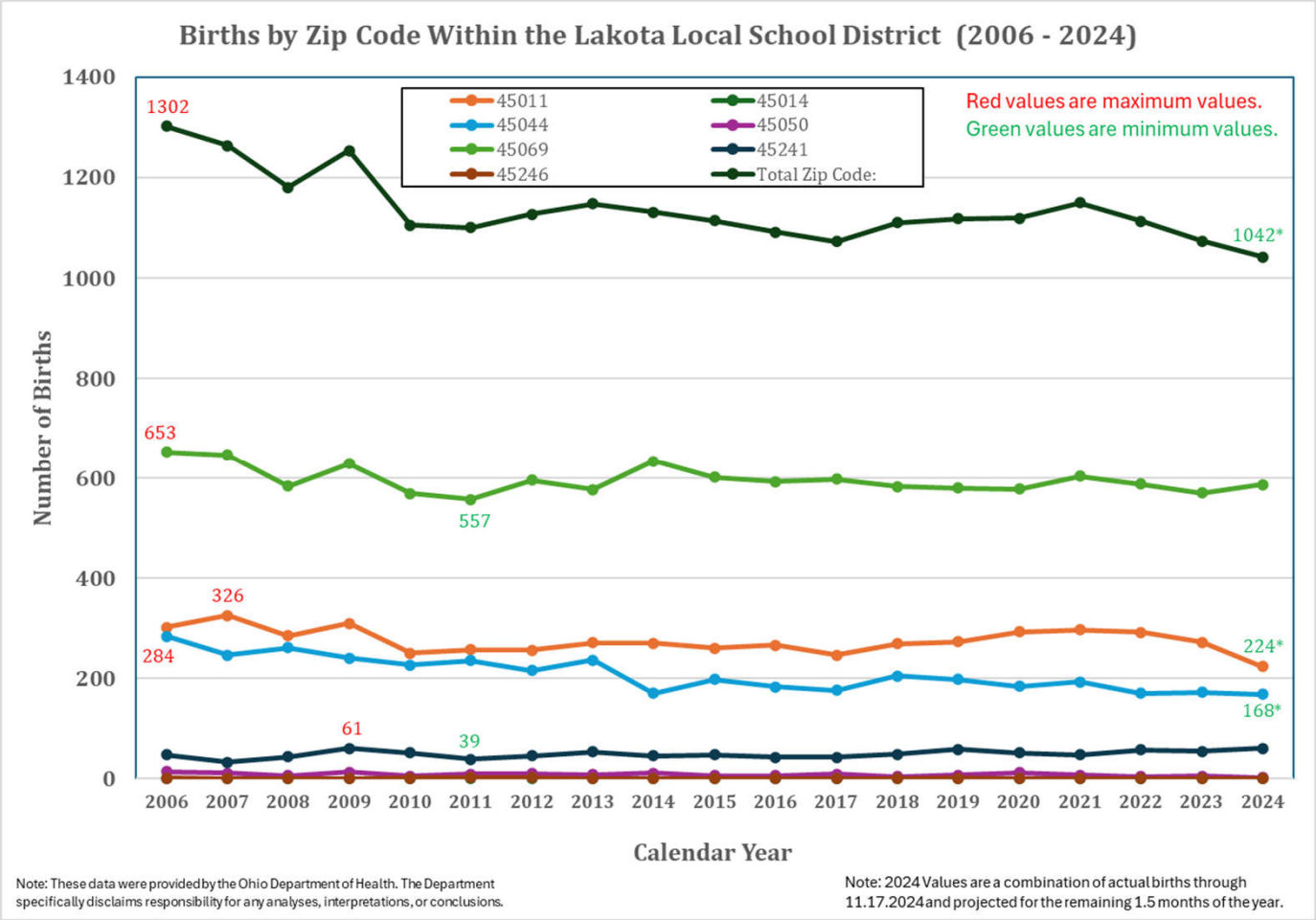
GENERATIONAL CYCLE

Lakota Local School District Enrollment

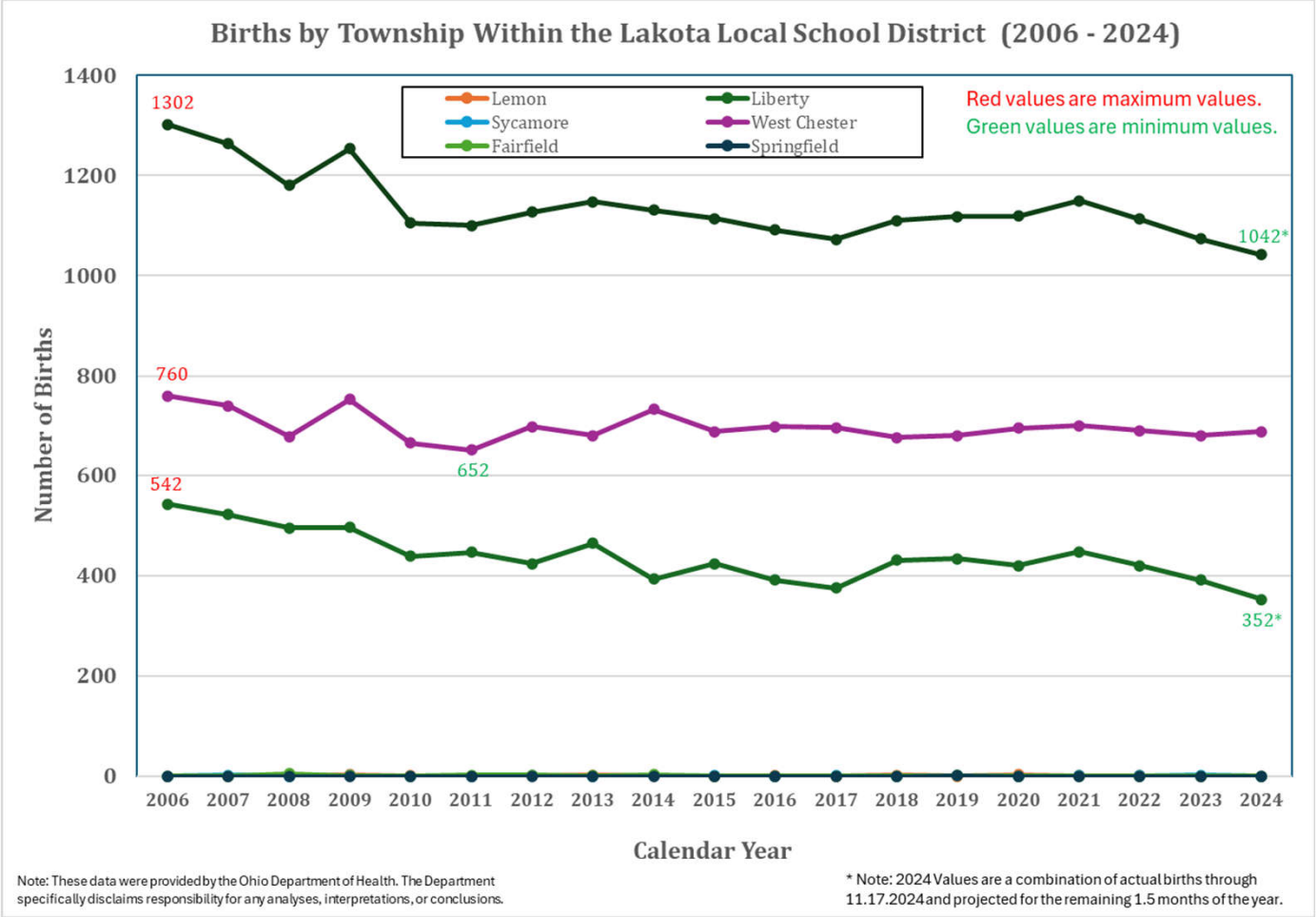


Source:ODE Headcount Data

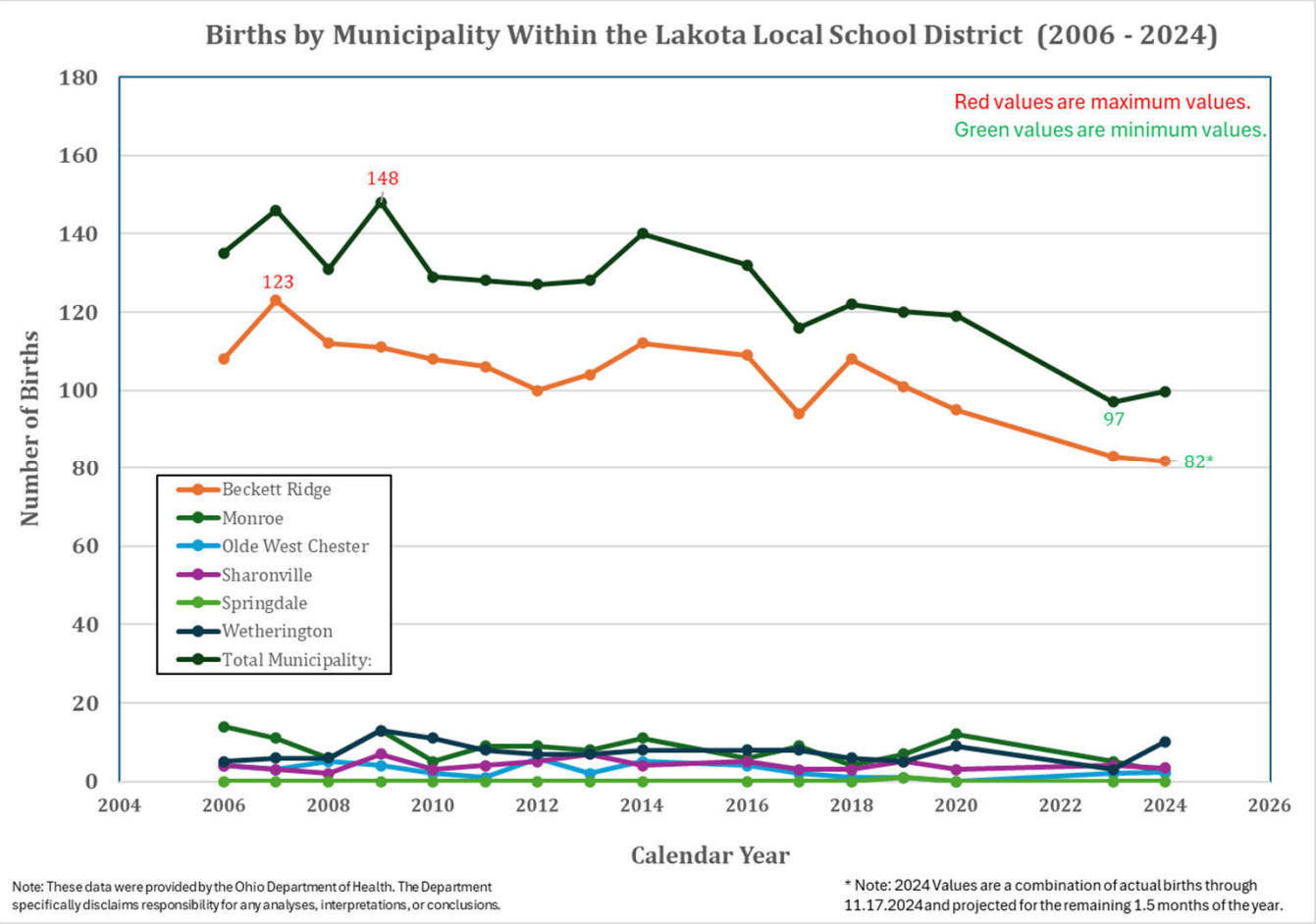
BIRTH DATA IN LLSD



BIRTH DATA IN LLSD

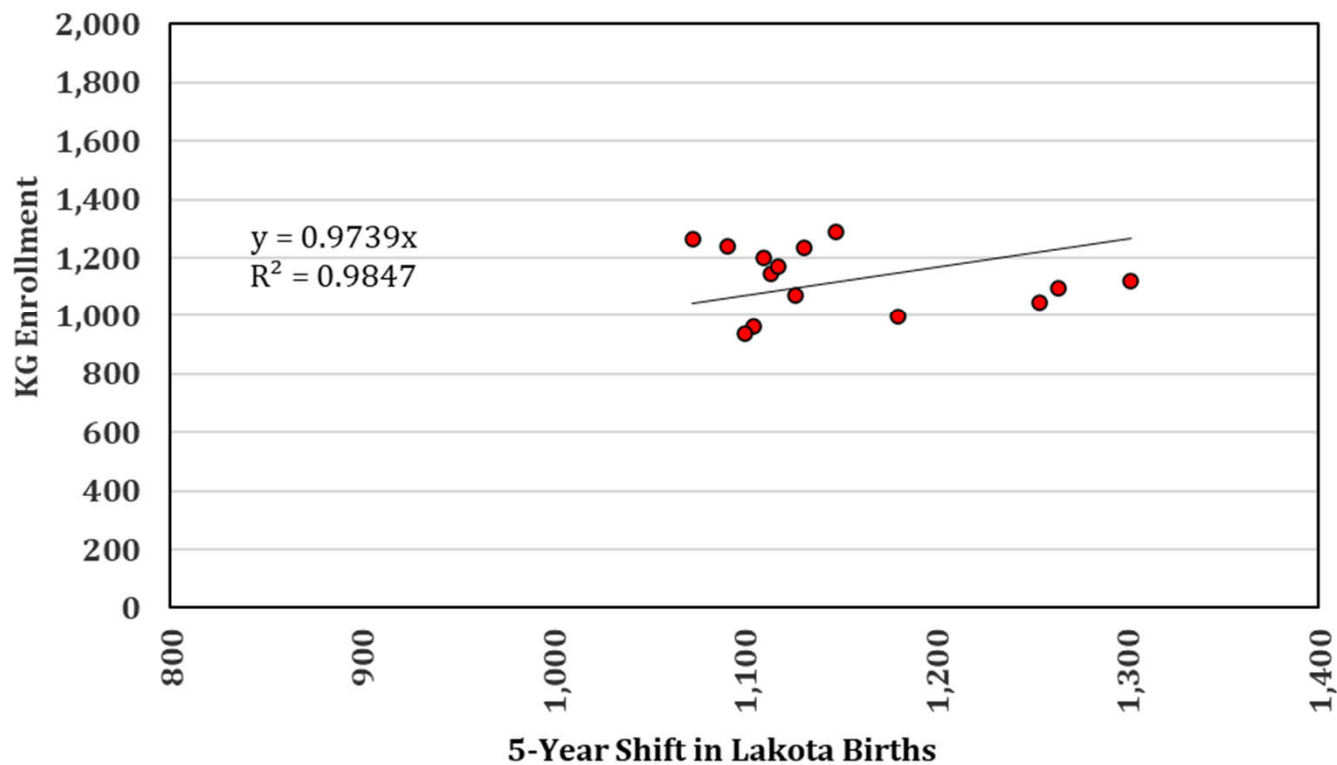


BIRTH DATA IN LLSD



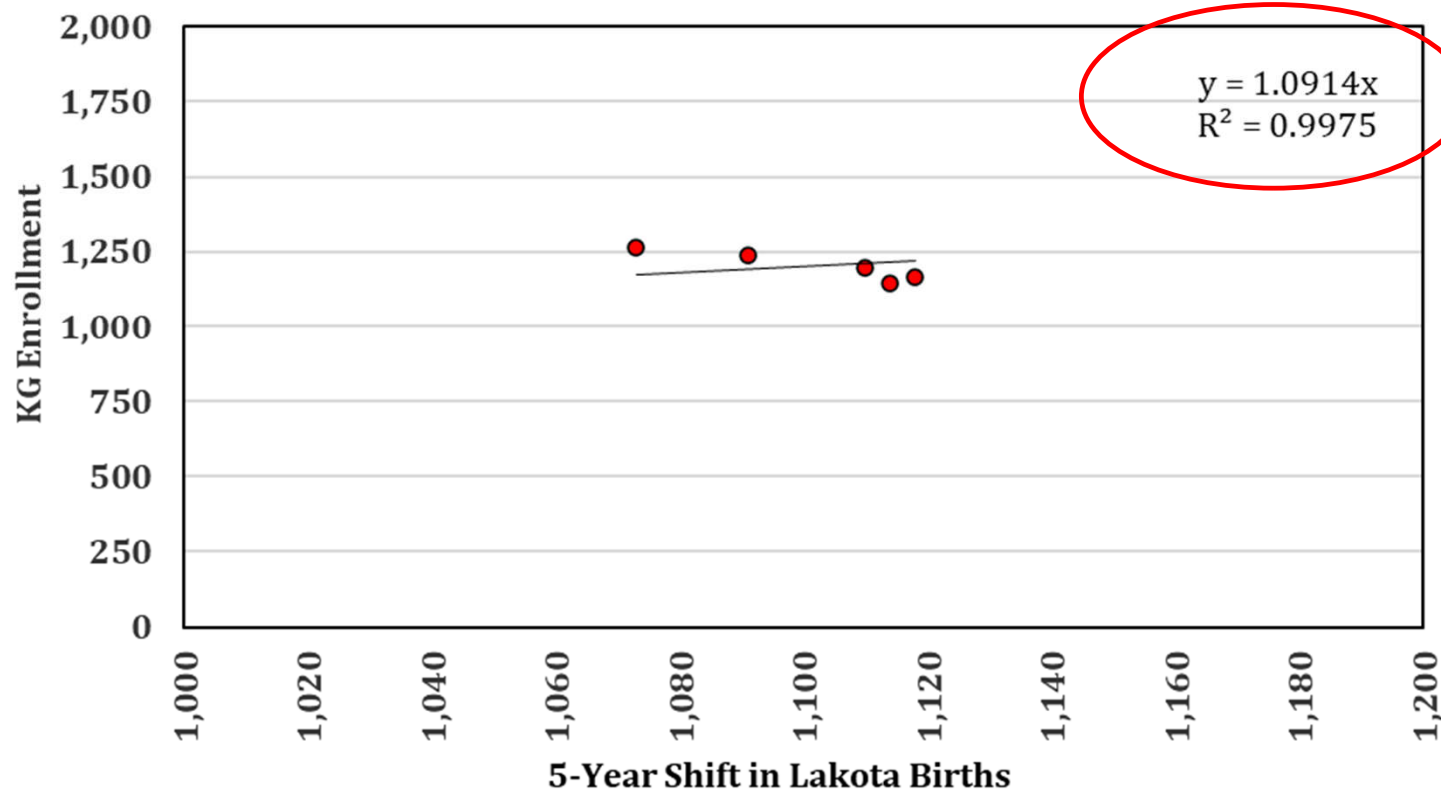
BIRTHS & KG ENROLLMENT IN LLSD

Correlation Plot: KG Enrollment vs. 5-Year Shift in Births
Within Lakota Local School District Since 2011



BIRTHS & KG ENROLLMENT IN LLSD

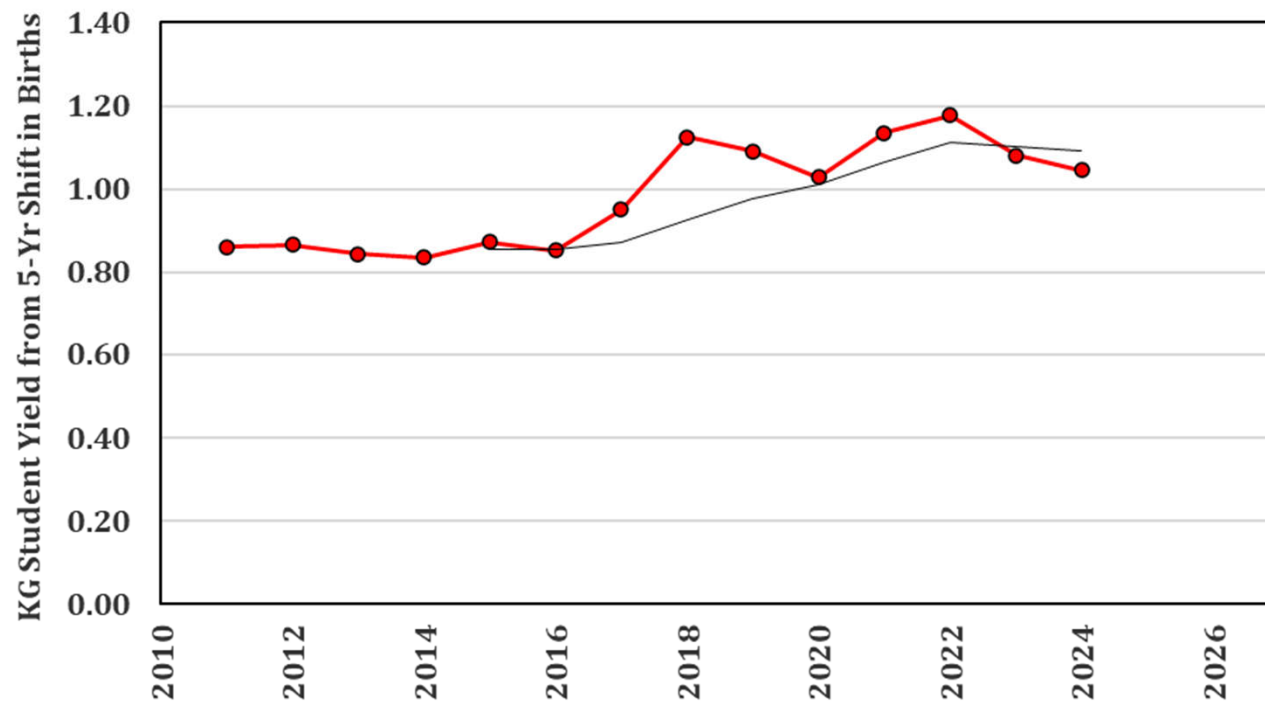
**Correlation Plot: KG Enrollment vs. 5-Year Shift in Births
Within Lakota Local School District Since 2020**



Lakota Births		5-Yr SHIFT in Births		KG Enrollment	
Year	LLSD Births	Year	LLSD Births	Year	LLSD KG
2006	1,302	2006		2006	1,337
2007	1,264	2007		2007	1,357
2008	1,180	2008		2008	1,277
2009	1,254	2009		2009	1,311
2010	1,105	2010		2010	1,254
2011	1,100	2011	1,302	2011	1,121
2012	1,127	2012	1,264	2012	1,095
2013	1,148	2013	1,180	2013	996
2014	1,131	2014	1,254	2014	1,048
2015	1,114	2015	1,105	2015	964
2016	1,091	2016	1,100	2016	938
2017	1,073	2017	1,127	2017	1,072
2018	1,110	2018	1,148	2018	1,291
2019	1,118	2019	1,131	2019	1,234
2020	1,119	2020	1,114	2020	1,146
2021	1,150	2021	1,091	2021	1,238
2022	1,113	2022	1,073	2022	1,263
2023	1,074	2023	1,110	2023	1,199
2024	1,042	2024	1,118	2024	1,168
2025		2025	1,119	2025	
2026		2026	1,150	2026	
2027		2027	1,113	2027	
2028		2028	1,074	2028	
2029		2029	1,042	2029	
2030		2030		2030	

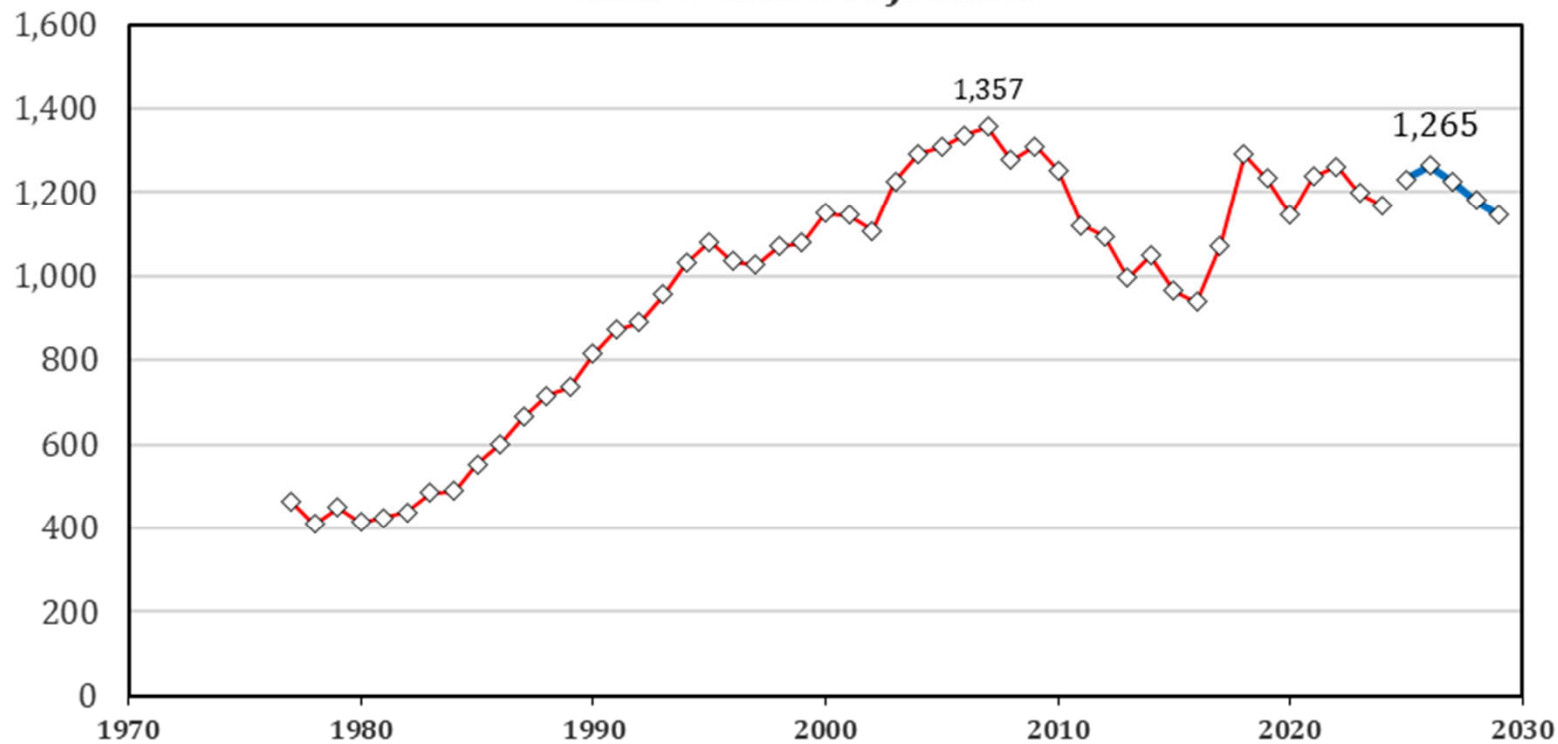
BIRTHS & KG ENROLLMENT IN LLSD

**Student Yield of KG Enrollment : 5-Year Shift in Births
Within Lakota Local School District Since 2011**



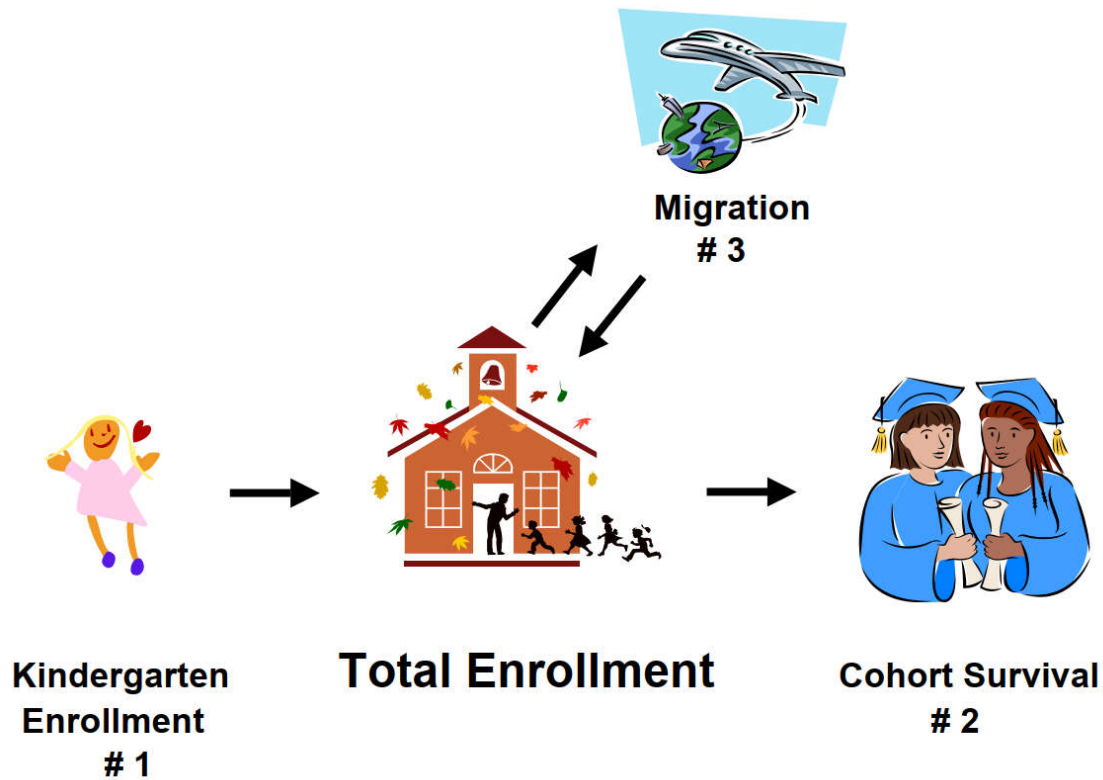
KG ENROLLMENT DATA FOR LLSD

**Lakota Local School District - Kindergarten Enrollment
and 5-Year Projection**



Source:ODE Headcount Data

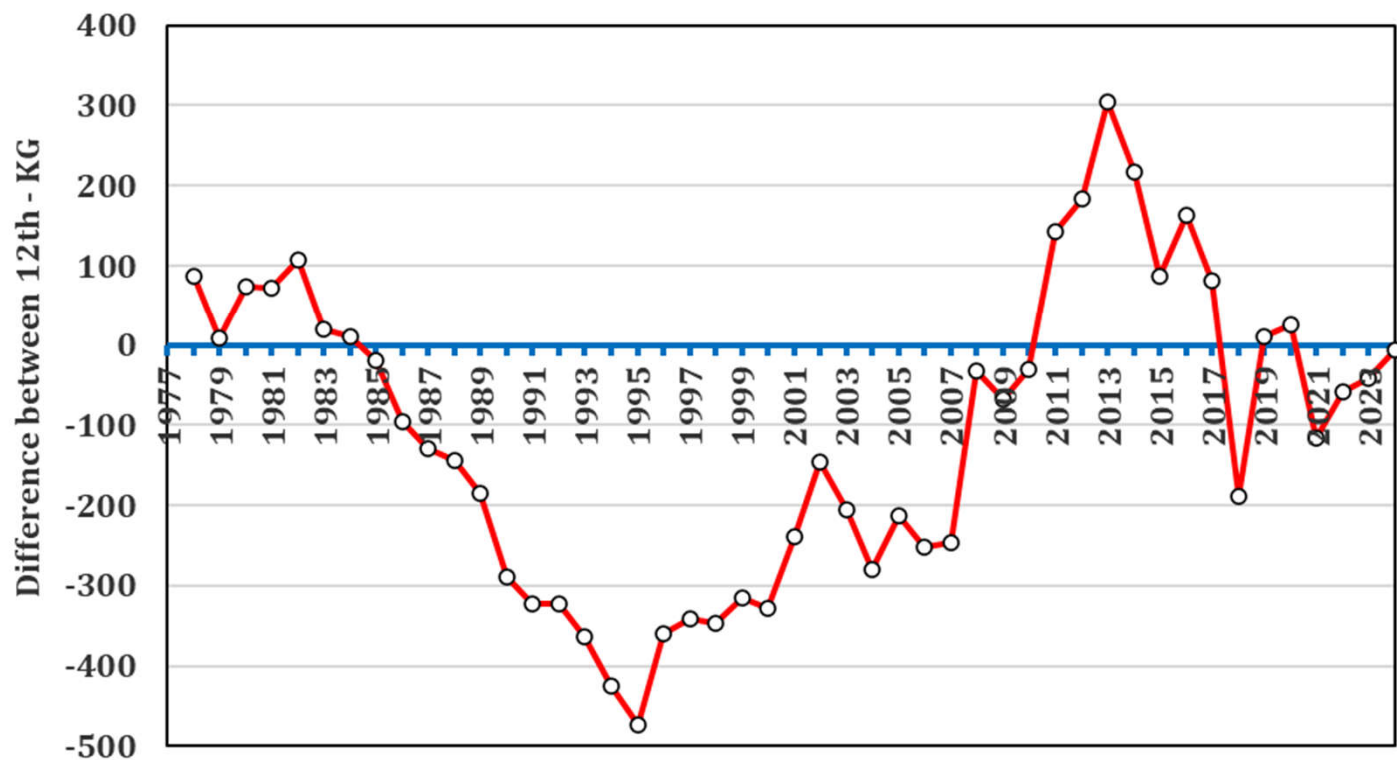
ENROLLMENT EQUATION



$$\text{Incoming Students} \pm \text{Net Migration of Students} - \text{Outgoing Students} = \text{Total Enrollment}$$

NET MIGRATION DATA IN LLSD

Cohort Survival 12th - KG in Lakota Local School District



NET MIGRATION DATA IN LLSD

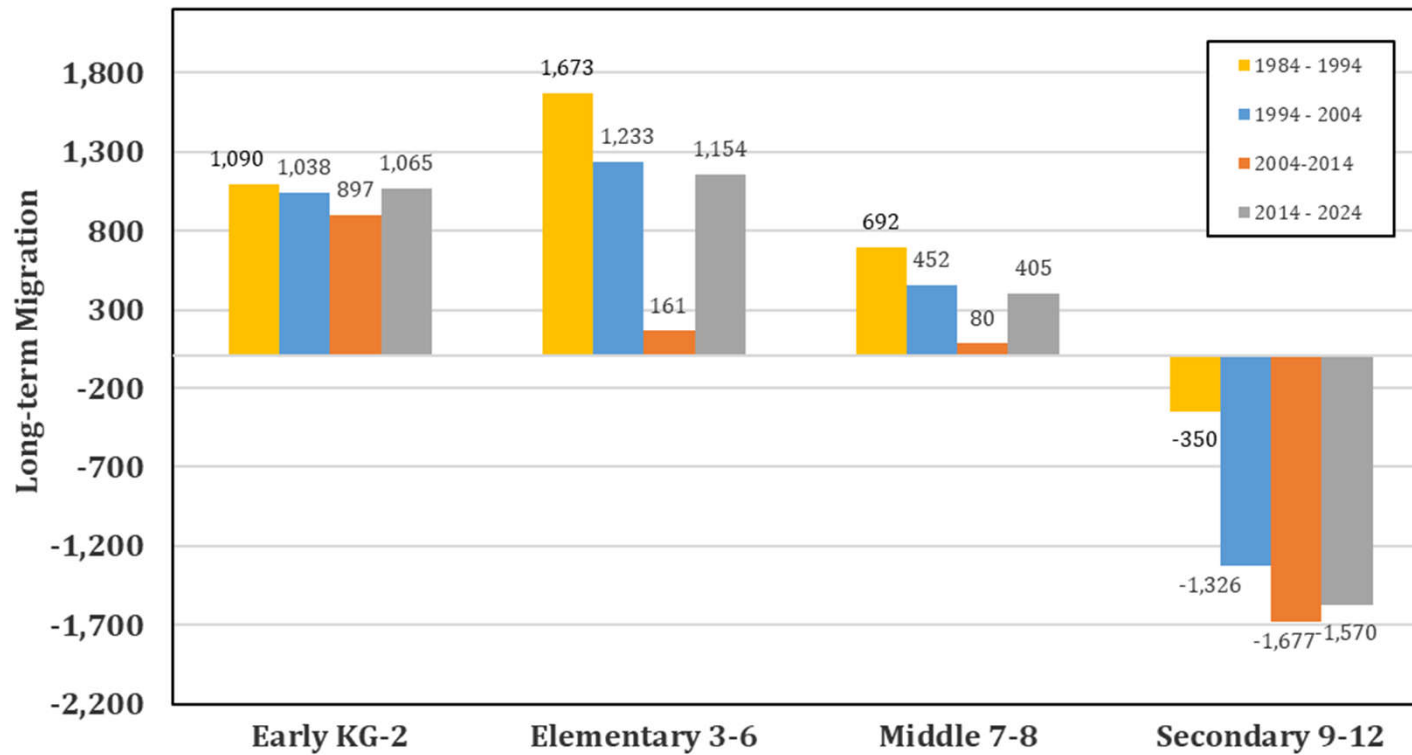
Net Migration Lakota Local School District																	
Year	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	K-2	3-6	7-8	9-12	Total
'77-78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
'78-79	9	45	16	64	37	38	25	39	37	-10	4	-43	54	155	64	-12	261
'79-80	18	18	34	17	13	16	45	27	-13	33	-6	-17	36	80	72	-3	185
'80-81	26	10	20	12	25	38	34	28	-37	-7	-22	-48	36	95	62	-114	79
'81-82	35	-3	6	12	-6	4	18	-7	-9	-56	-21	-51	32	16	11	-137	-78
'82-83	1	1	-17	29	-11	8	-6	1	-35	-15	38	-21	2	9	-5	-33	-27
'83-84	17	21	26	12	21	21	19	21	-50	14	1	-24	38	80	40	-59	99
'84-85	35	12	21	25	10	-3	18	17	-46	-4	14	-35	47	53	35	-71	64
'85-86	18	10	27	25	17	34	22	11	-42	10	4	-9	28	103	33	-37	127
'86-87	54	21	38	40	35	21	20	27	11	2	5	-13	75	134	47	5	261
'87-88	73	30	48	52	39	26	32	39	11	10	22	-11	103	165	71	32	371
'88-89	80	30	42	49	33	23	50	26	-1	-6	-17	-43	110	147	76	-67	266
'89-90	64	55	52	60	57	44	55	9	9	-11	23	-39	119	213	64	-18	378
'90-91	90	33	48	49	36	51	33	29	20	-21	4	-18	123	184	62	-15	354
'91-92	73	44	24	60	67	47	77	52	-1	11	14	5	117	198	129	29	473
'92-93	111	85	54	66	46	51	72	4	4	-1	-38	-9	196	217	76	-44	445
'93-94	71	61	38	62	37	38	44	42	7	-74	-14	-2	132	175	86	-83	310
'94-95	32	55	0	34	31	72	41	7	-29	-38	-30	-55	87	137	48	-152	120
'95-96	42	51	42	24	35	44	21	20	-60	-107	-54	-6	93	145	41	-227	52
'96-97	51	0	19	14	60	20	3	18	-37	-61	-22	-45	51	113	21	-165	20
'97-98	68	37	24	0	4	11	10	16	-81	48	-19	-53	105	39	26	-105	65
'98-99	93	16	74	42	38	60	40	35	-51	144	-182	-70	109	214	75	-159	239
'99-00	69	32	54	15	49	19	30	3	-66	104	-141	-61	101	137	33	-164	107
'00-01	103	21	8	34	26	22	30	26	-91	126	-126	-65	124	90	56	-156	114
'01-02	60	3	12	46	21	11	23	17	-57	113	-101	-44	63	90	40	-89	104
'02-03	118	32	18	14	-3	27	18	-6	-23	139	-106	-82	150	56	12	-72	146
'03-04	92	54	20	43	42	45	33	45	-5	57	-56	-85	146	150	78	-89	285
'04-05	74	22	24	56	59	60	42	28	-38	10	51	-123	96	199	70	-100	265
'05-06	113	24	53	26	62	30	27	22	-34	22	62	-160	137	171	49	-110	247
'06-07	73	-5	31	-1	11	33	35	21	-29	9	76	-183	68	74	56	-127	71
'07-08	68	-10	39	38	13	5	60	19	-23	47	137	-175	58	95	79	-14	218
'08-09	61	40	15	23	-2	41	5	-7	-28	14	81	-185	101	77	-2	-118	58
'09-10	111	21	-10	-2	2	22	17	20	-15	21	103	-188	132	12	37	-79	102
'10-11	55	-15	1	-2	18	14	17	-2	-42	-16	54	-167	40	31	15	-171	-85
'11-12	5	10	-38	-49	-33	-44	-43	-31	-96	-41	-2	-158	15	-164	-74	-297	-520
'12-13	71	15	-60	-42	-26	13	-49	-14	-114	-55	33	-133	86	-115	-63	-269	-361
'13-14	130	-18	2	6	-14	-12	-4	-6	-52	-5	70	-93	112	-18	-10	-80	4
'14-15	139	9	14	-10	-23	17	0	-7	-65	-45	-90	-212	148	-2	-7	-412	-273
'15-16	121	-2	49	18	40	21	-9	-8	-38	-28	-101	-91	119	128	-17	-258	-28
'16-17	92	21	16	17	5	32	1	18	-26	6	-70	-71	113	70	19	-161	41
'17-18	134	24	24	15	22	22	-22	15	-44	1	-86	-37	158	83	-7	-166	68
'18-19	132	43	80	24	31	22	46	22	9	39	-121	-40	175	157	68	-113	287
'19-20	59	28	39	12	49	70	45	37	-39	44	-119	-28	87	170	82	-142	197
'20-21	38	14	10	24	41	45	20	19	-25	33	-176	-59	52	120	39	-227	-16
'21-22	116	30	7	58	58	42	33	41	99	-2	-134	-8	146	165	74	-45	340
'22-23	96	23	54	35	38	19	63	17	75	-29	-118	-40	119	146	80	-112	233
'23-24	56	12	28	24	40	24	23	20	46	-34	-141	-10	68	116	43	-139	88
'24-25	46	-18	-5	-1	5	0	0	24	8	-40	-136	-39	28	-1	24	-207	-156

NET MIGRATION DATA IN LLSD

Year	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
'77-'78	-	-	-	-	-	-	-	-	-	-	-	-
'78-'79	1.9%	9.3%	3.0%	13.7%	8.4%	7.9%	4.7%	7.4%	6.8%	-1.8%	0.8%	-8.6%
'79-'80	4.4%	3.8%	6.4%	3.1%	2.5%	3.3%	8.7%	4.9%	-2.3%	5.6%	-1.1%	-3.4%
'80-'81	5.8%	2.3%	4.1%	2.1%	4.4%	7.0%	6.9%	5.0%	-6.4%	-1.3%	-3.6%	-8.8%
'81-'82	8.4%	-0.6%	1.4%	2.4%	-1.0%	0.7%	3.1%	-1.3%	-1.5%	-10.3%	-3.8%	-8.6%
'82-'83	0.2%	0.2%	-3.6%	6.5%	-2.1%	1.4%	-1.0%	0.2%	-6.7%	-2.6%	7.8%	-4.0%
'83-'84	3.9%	4.9%	5.8%	2.6%	4.4%	4.1%	3.3%	3.5%	-8.3%	2.9%	0.2%	-4.6%
'84-'85	7.2%	2.6%	4.7%	5.2%	2.1%	-0.6%	3.4%	2.9%	-7.5%	-0.7%	2.8%	-6.2%
'85-'86	3.7%	1.9%	5.8%	5.3%	3.4%	7.1%	4.5%	2.0%	-6.9%	1.8%	0.7%	-1.7%
'86-'87	9.8%	4.1%	7.2%	8.1%	7.1%	4.0%	3.9%	5.3%	2.0%	0.4%	0.9%	-2.4%
'87-'88	12.1%	5.0%	9.1%	9.2%	7.3%	4.9%	5.9%	7.3%	2.0%	1.8%	3.8%	-1.9%
'88-'89	12.0%	4.5%	6.6%	8.5%	5.3%	4.0%	9.0%	4.5%	-0.2%	-1.1%	-2.9%	-7.2%
'89-'90	9.0%	7.4%	7.4%	8.8%	9.1%	6.7%	9.2%	1.5%	-1.9%	4.2%	-6.9%	-6.9%
'90-'91	12.2%	4.2%	6.0%	6.5%	4.9%	7.5%	4.7%	4.5%	3.3%	-3.5%	0.7%	-3.2%
'91-'92	9.0%	5.3%	3.0%	7.1%	8.3%	6.1%	10.5%	7.1%	-0.1%	1.7%	2.4%	0.9%
'92-'93	12.7%	9.6%	6.2%	7.9%	5.1%	5.8%	8.8%	0.5%	0.5%	-0.1%	-5.9%	-1.5%
'93-'94	8.0%	6.2%	3.9%	6.7%	4.1%	4.0%	4.8%	4.7%	0.9%	-9.4%	-2.1%	-0.3%
'94-'95	3.4%	5.7%	0.0%	3.4%	3.1%	7.7%	4.1%	0.7%	-3.1%	-4.6%	-4.2%	-8.3%
'95-'96	4.1%	5.2%	4.1%	2.3%	3.3%	4.3%	2.1%	1.9%	-6.2%	-11.8%	-6.9%	-0.9%
'96-'97	4.7%	0.0%	1.8%	1.3%	5.6%	1.9%	0.3%	1.7%	-3.5%	-6.7%	-2.8%	-6.2%
'97-'98	6.6%	3.3%	2.2%	0.0%	0.4%	1.0%	0.9%	1.5%	-7.7%	4.7%	-2.2%	-6.8%
'98-'99	9.1%	1.5%	6.3%	3.8%	3.6%	5.6%	3.5%	3.2%	-4.7%	14.9%	-17.1%	-8.4%
'99-'00	6.4%	2.9%	4.8%	1.2%	4.3%	1.7%	2.6%	0.3%	-5.8%	10.1%	-12.7%	-6.9%
'00-'01	9.5%	1.8%	0.7%	2.9%	2.1%	1.9%	2.7%	2.2%	-7.7%	11.7%	-11.1%	-6.7%
'01-'02	5.2%	0.3%	1.0%	4.0%	1.7%	0.9%	1.9%	1.5%	-4.8%	10.3%	-8.4%	-4.4%
'02-'03	10.3%	2.6%	1.5%	1.2%	-0.2%	2.2%	1.4%	-0.5%	-2.0%	12.2%	-8.8%	-7.4%
'03-'04	8.3%	4.3%	1.6%	3.6%	3.5%	3.7%	2.6%	3.4%	-0.4%	5.0%	-4.4%	-7.7%
'04-'05	6.0%	1.8%	1.8%	4.4%	4.7%	4.9%	3.4%	2.2%	-2.8%	0.8%	4.3%	-10.1%
'05-'06	8.7%	1.8%	4.3%	1.9%	4.7%	2.3%	2.1%	1.7%	-2.6%	1.7%	5.0%	-12.8%
'06-'07	5.6%	-0.4%	2.3%	-0.1%	0.8%	2.4%	2.6%	1.6%	-2.2%	0.7%	5.7%	-14.2%
'07-'08	5.1%	-0.7%	2.8%	2.8%	1.0%	0.4%	4.2%	1.4%	-1.7%	3.7%	10.6%	-12.3%
'08-'09	4.5%	2.8%	1.1%	1.6%	-0.1%	3.2%	0.4%	-0.5%	-2.0%	1.1%	6.1%	-13.0%
'09-'10	8.7%	1.5%	-0.7%	-0.1%	0.1%	1.6%	1.3%	1.4%	-1.0%	1.5%	7.8%	-13.3%
'10-'11	4.2%	-1.1%	0.1%	-0.1%	1.3%	1.0%	1.2%	-0.1%	-3.0%	-1.1%	3.9%	-11.7%
'11-'12	0.4%	0.7%	-2.8%	-3.4%	-2.3%	-3.1%	-2.9%	-2.2%	-7.1%	-3.0%	-0.1%	-11.0%
'12-'13	6.3%	1.2%	-4.4%	-3.1%	-1.9%	0.9%	-3.6%	-1.0%	-8.1%	-4.4%	2.5%	-9.3%
'13-'14	11.9%	-1.5%	0.2%	0.5%	-1.1%	-0.9%	-0.3%	-0.5%	-3.7%	-0.4%	5.9%	-6.8%
'14-'15	14.0%	0.7%	1.2%	-0.8%	-1.7%	1.3%	0.0%	-0.5%	-5.0%	-3.3%	-7.0%	-16.8%
'15-'16	11.5%	-0.2%	4.0%	1.5%	3.2%	1.6%	-0.7%	-0.6%	-2.7%	-2.3%	-7.6%	-7.6%
'16-'17	9.5%	1.8%	1.4%	1.3%	0.4%	2.5%	0.1%	1.4%	-1.9%	0.4%	-5.8%	-5.8%
'17-'18	14.3%	2.3%	2.0%	1.3%	1.7%	1.8%	-1.6%	1.1%	-3.4%	0.1%	-6.3%	-3.2%
'18-'19	12.3%	4.0%	7.4%	2.0%	2.7%	1.7%	3.7%	1.7%	0.7%	3.1%	-9.2%	-3.1%
'19-'20	4.6%	2.3%	3.5%	1.0%	4.0%	5.9%	3.3%	2.9%	-2.9%	3.3%	-9.2%	-2.3%
'20-'21	3.1%	1.0%	0.8%	2.1%	3.5%	3.5%	1.6%	1.4%	-1.9%	2.5%	-12.7%	-5.0%
'21-'22	10.1%	2.4%	0.5%	4.7%	4.9%	3.5%	2.5%	3.2%	7.0%	-0.2%	-10.1%	-0.7%
'22-'23	7.8%	1.8%	4.1%	2.6%	2.9%	1.5%	5.0%	1.2%	5.7%	-1.9%	-9.2%	-3.3%
'23-'24	4.4%	0.9%	2.2%	1.8%	2.8%	1.8%	1.8%	1.5%	3.3%	-2.4%	-9.5%	-0.9%
'24-'25	3.8%	-1.4%	-0.4%	-0.1%	0.4%	0.0%	0.0%	1.9%	0.6%	-2.8%	-9.9%	-2.9%

NET MIGRATION DATA IN LLSD

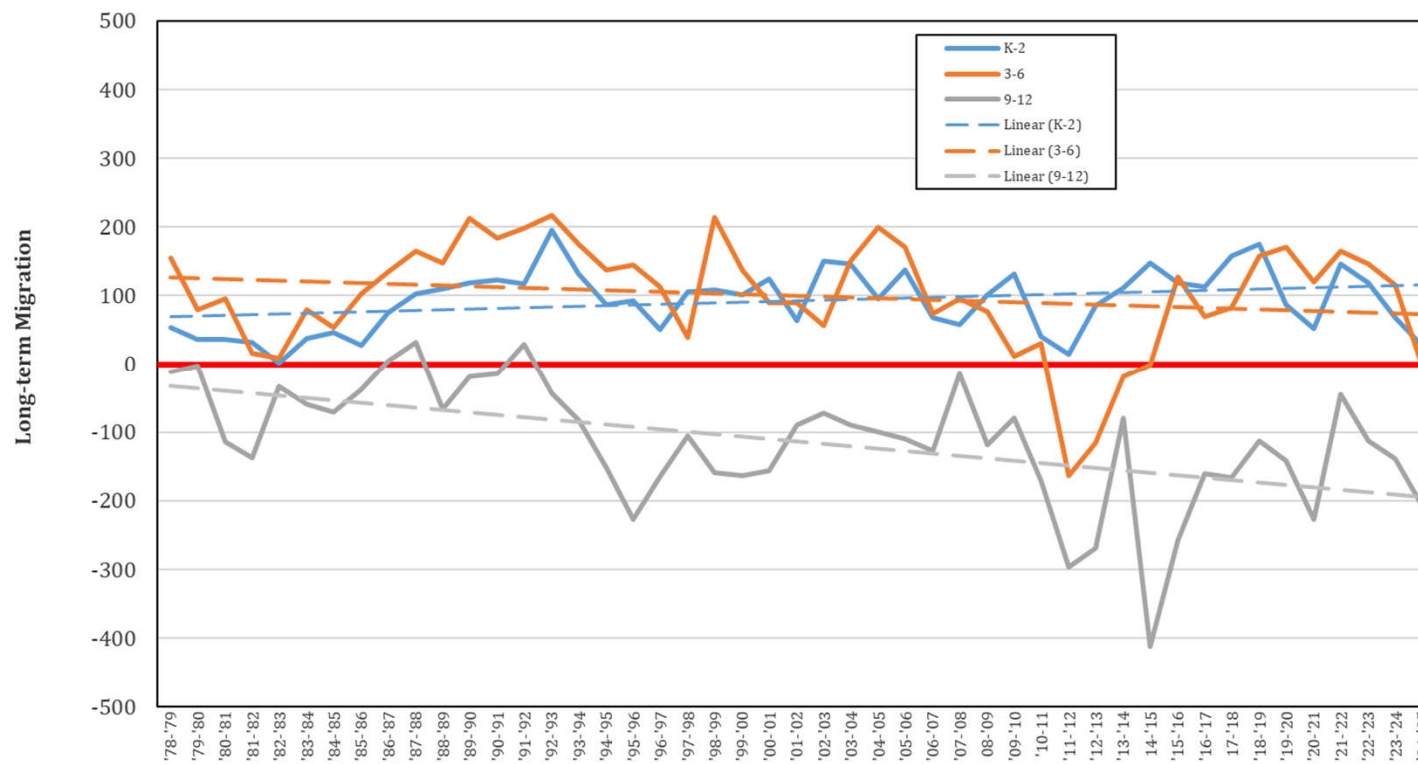
Long-Term Migration Trends of the Lakota Local School District
Over Last 4 Decades



Source: ODE Enrollment Headcount

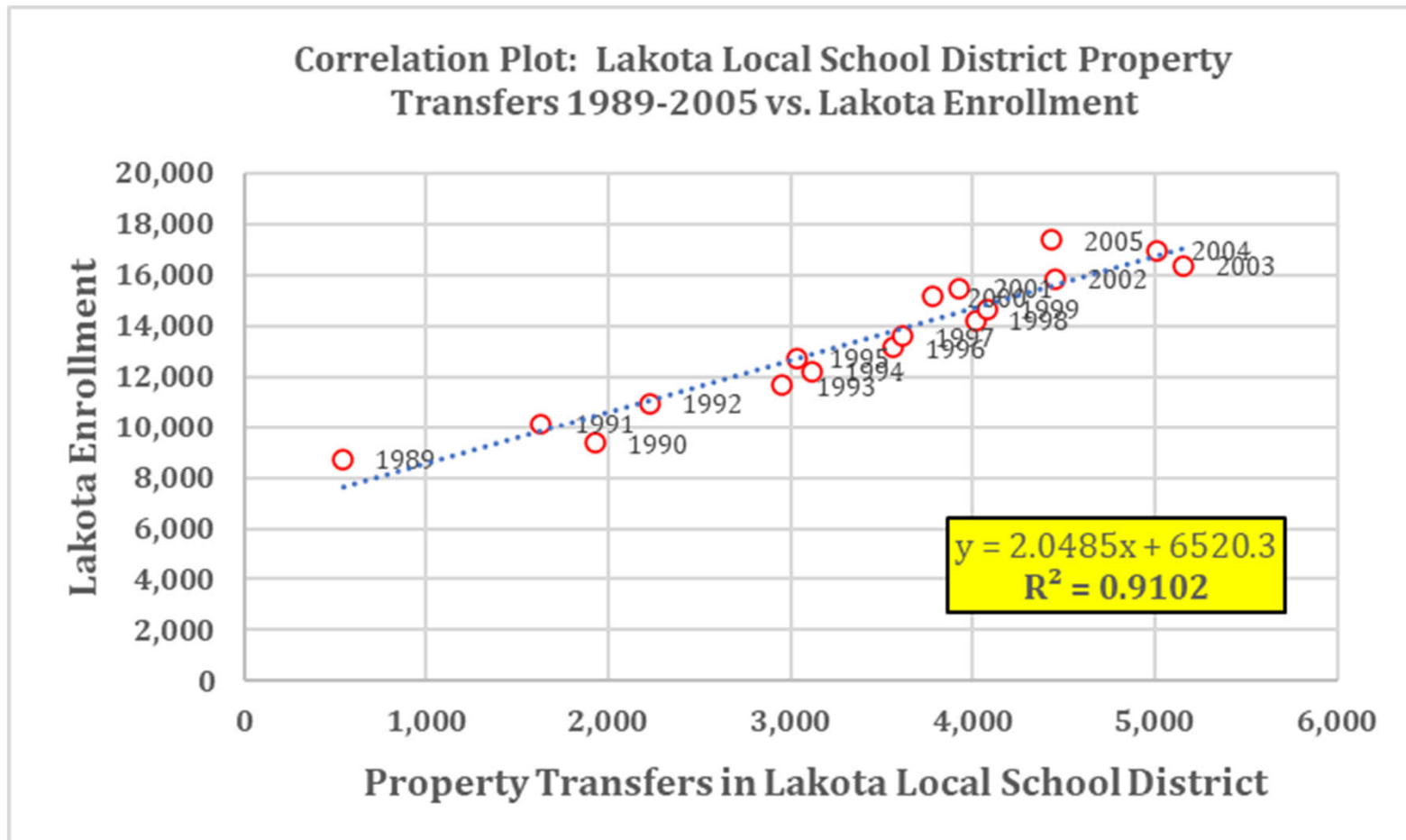
NET MIGRATION DATA IN LLSD

Long-Term Migration - District Health Analysis for the Lakota Local School District

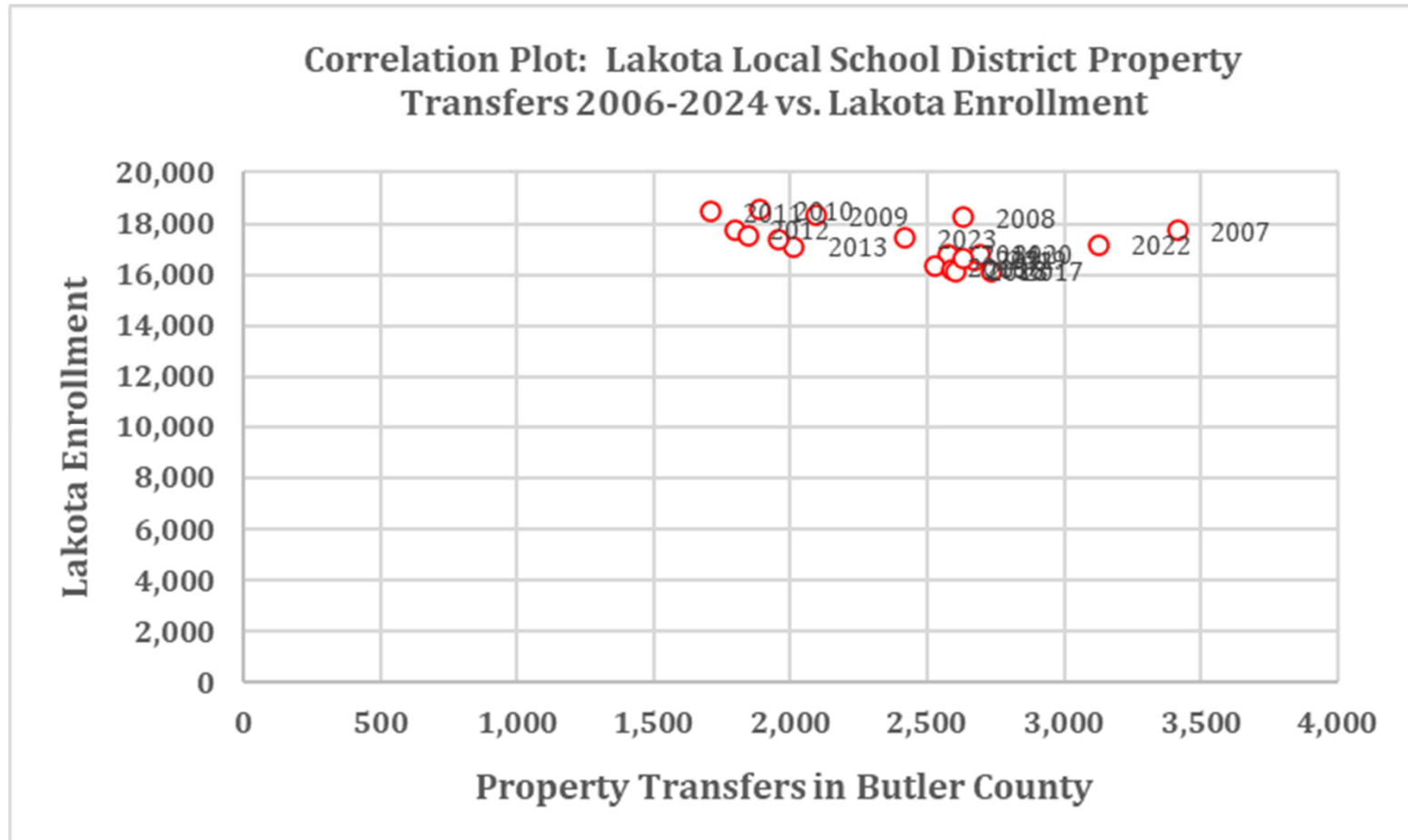


Source: ODE Enrollment Headcount

PROPERTY TRANSFER DATA IN LLSD



PROPERTY TRANSFER DATA IN LLSD



PROPERTY TRANSFER DATA IN LLSD

Lakota Local School District Property Transfers

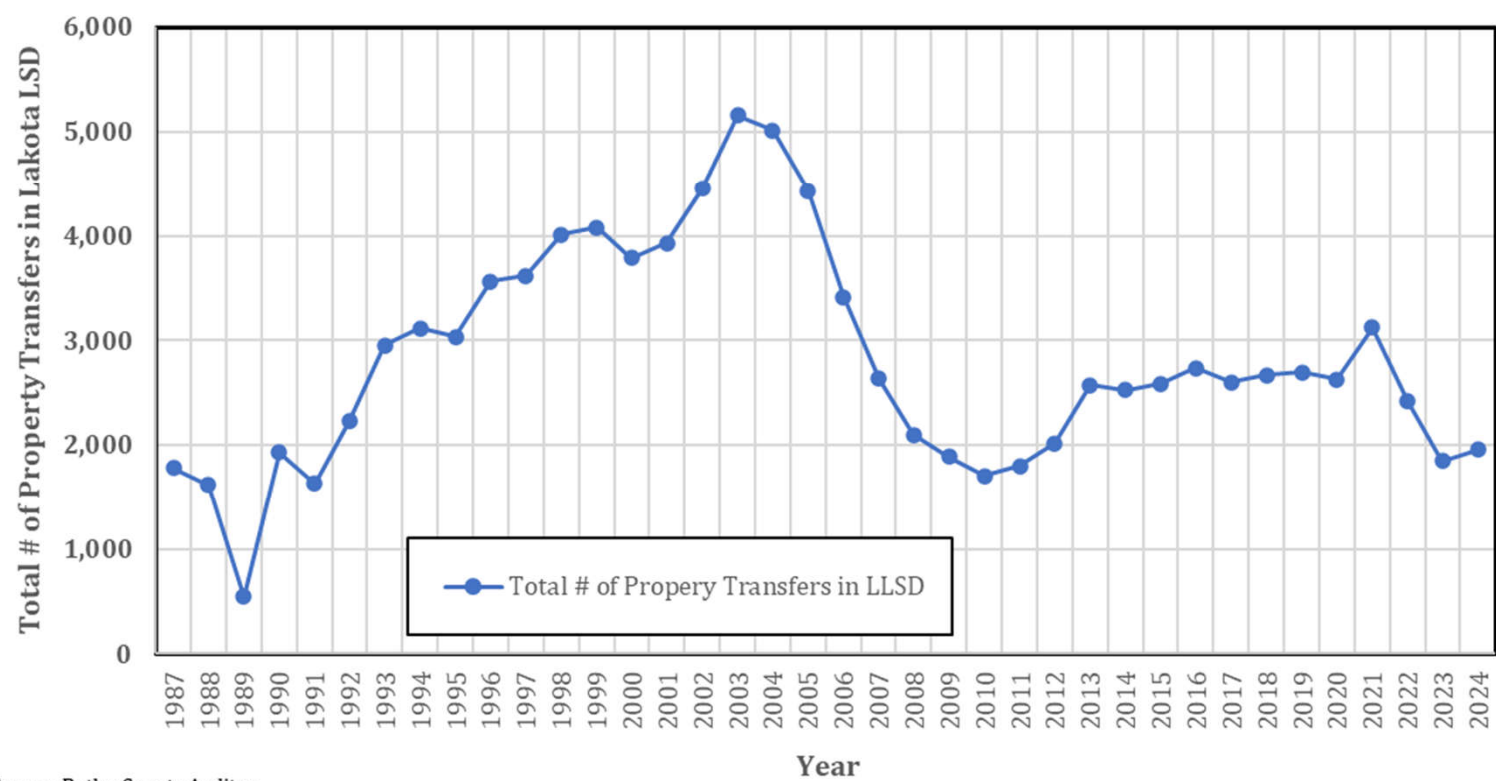
		Tax District Number					
		Liberty Twp		West Chester Twp			
		D20	D70	M55	M56	M74	
Year	Total # of Property Transfers in LLSD	Liberty Twp / LLSD	Liberty Twp-Mon Corp/ LLSD	Fairfield City / LLSD	West Chester Twp / LLSD	West Chester Twp- Sharonville / LLSD	West Chester Twp:LibertyTwp Ratio
1985	2,416	65	11	0	2,340	0	30.79
1986	1,122	43	6	0	1,073	0	21.90
1987	1,779	208	22	0	1,549	0	6.73
1988	1,616	267	45	0	1,304	0	4.18
1989	542	76	12	1	453	0	5.16
1990	1,929	317	56	1	1,554	1	4.17
1991	1,633	353	32	0	1,248	0	3.24
1992	2,224	620	47	6	1,551	0	2.33
1993	2,956	1,119	38	6	1,793	0	1.55
1994	3,117	1,216	37	0	1,864	0	1.49
1995	3,037	1,062	29	2	1,944	0	1.78
1996	3,566	1,107	33	2	2,424	0	2.13
1997	3,616	1,171	38	2	2,405	0	1.99
1998	4,014	1,383	34	3	2,594	0	1.83
1999	4,082	1,612	49	9	2,412	0	1.46
2000	3,785	1,606	36	1	2,142	0	1.31
2001	3,929	1,679	29	0	2,221	0	1.30
2002	4,452	2,056	32	7	2,357	0	1.13
2003	5,159	2,607	50	1	2,501	0	0.94
2004	5,016	2,247	35	2	2,731	1	1.20
2005	4,429	2,038	19	2	2,370	0	1.15

Lakota Local School District Property Transfers

		Tax District Number					
		Liberty Twp		West Chester Twp			
		D20	D70	M55	M56	M74	
Year	Total # of Property Transfers in LLSD	Liberty Twp / LLSD	Liberty Twp- Mon Corp/ LLSD	Fairfield City / LLSD	West Chester Twp / LLSD	West Chester Twp-Sharonville / LLSD	West Chester Twp:LibertyTwp Ratio
2006	3,414	1,496	14	0	1,904	0	1.26
2007	2,631	1,131	27	0	1,473	0	1.27
2008	2,095	892	13	3	1,187	0	1.31
2009	1,890	783	12	1	1,094	0	1.38
2010	1,708	693	13	2	1,000	0	1.42
2011	1,800	768	15	0	1,017	0	1.30
2012	2,014	877	24	0	1,113	0	1.24
2013	2,576	1,186	19	6	1,365	0	1.14
2014	2,526	1,173	10	1	1,342	0	1.14
2015	2,587	1,139	14	0	1,434	0	1.24
2016	2,735	1,212	19	0	1,504	0	1.22
2017	2,603	1,209	14	2	1,378	0	1.13
2018	2,671	1,230	24	3	1,414	0	1.13
2019	2,693	1,237	24	0	1,432	0	1.14
2020	2,627	1,235	22	0	1,369	1	1.09
2021	3,124	1,486	16	5	1,617	0	1.08
2022	2,418	946	15	0	1,457	0	1.52
2023	1,848	687	12	0	1,149	0	1.64
2024	1,953	803	16	0	1133	1	1.38
2025	233	82	0	0	151	0	1.84

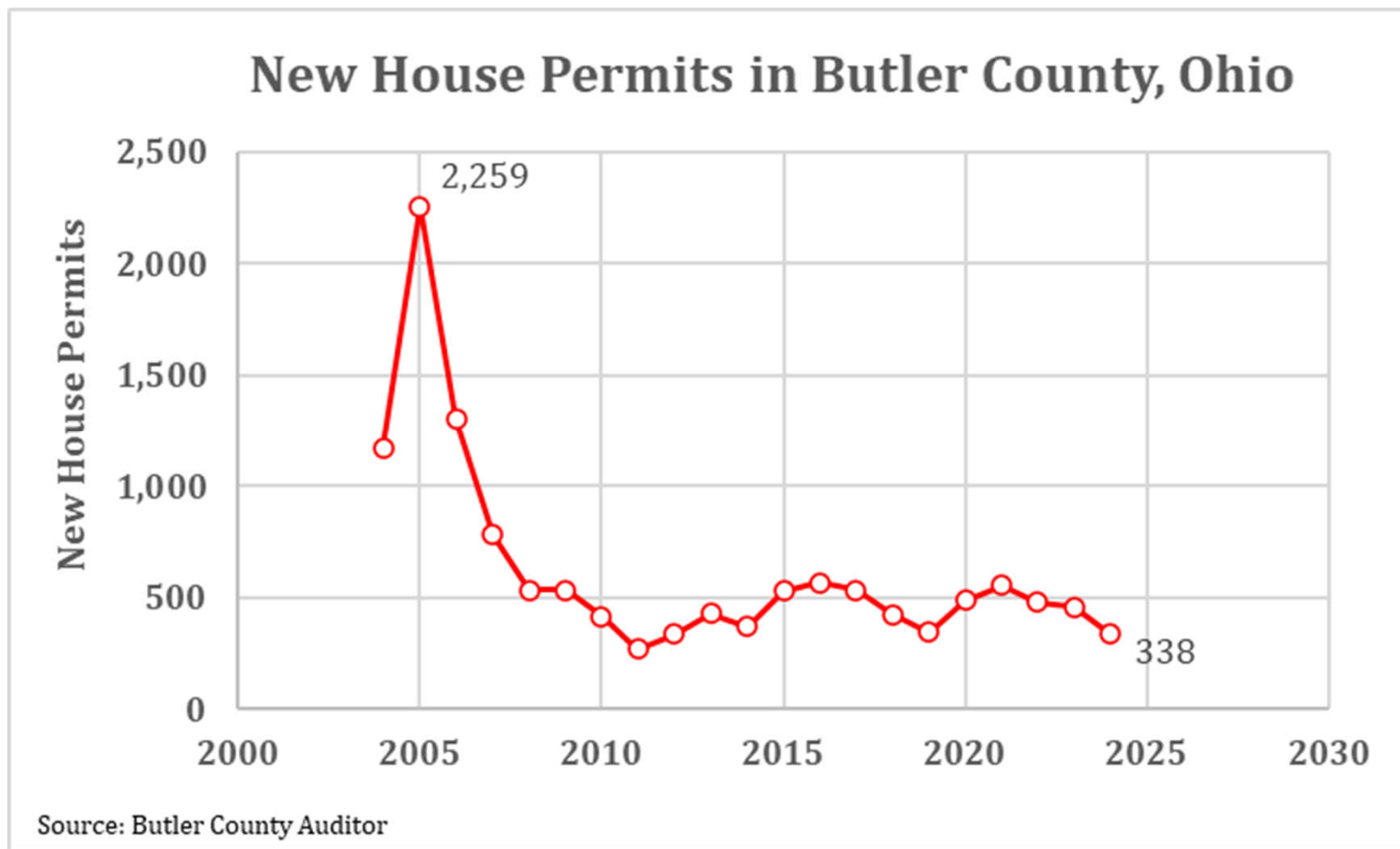
PROPERTY TRANSFER DATA IN LLSD

Property Transfers in Lakota Local School District



Source: Butler County Auditor

NEW HOUSE PERMITS IN BUTLER COUNTY

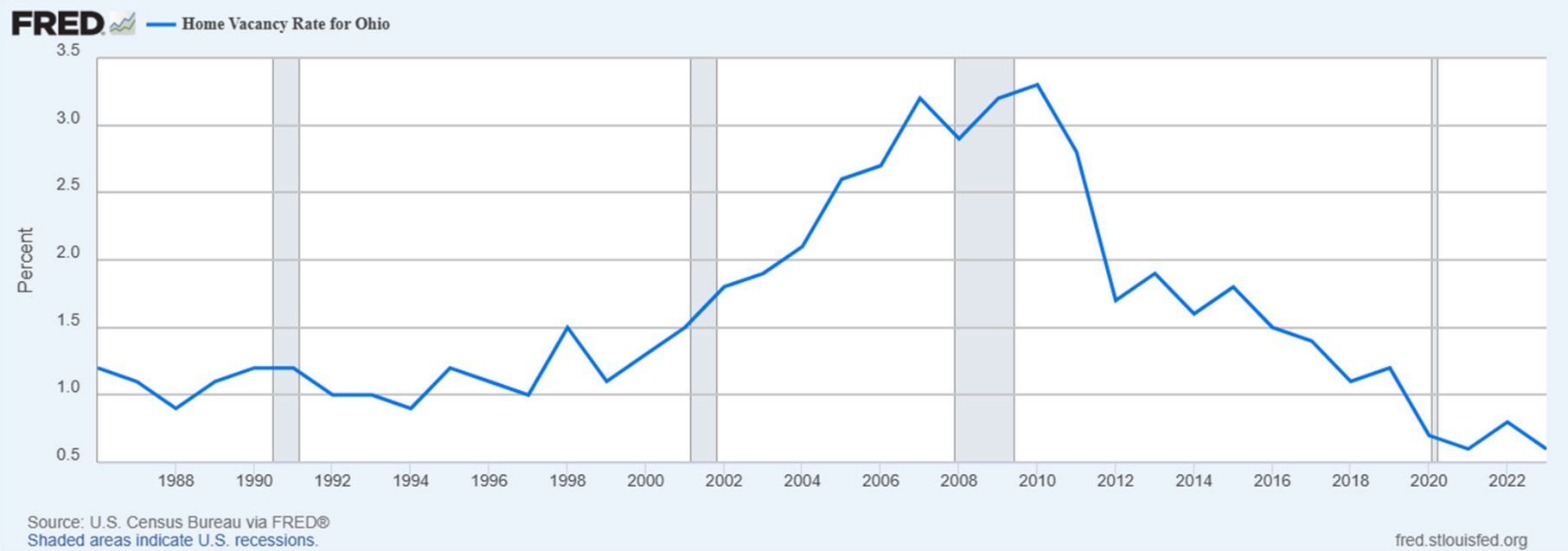


ECONOMIC DATA

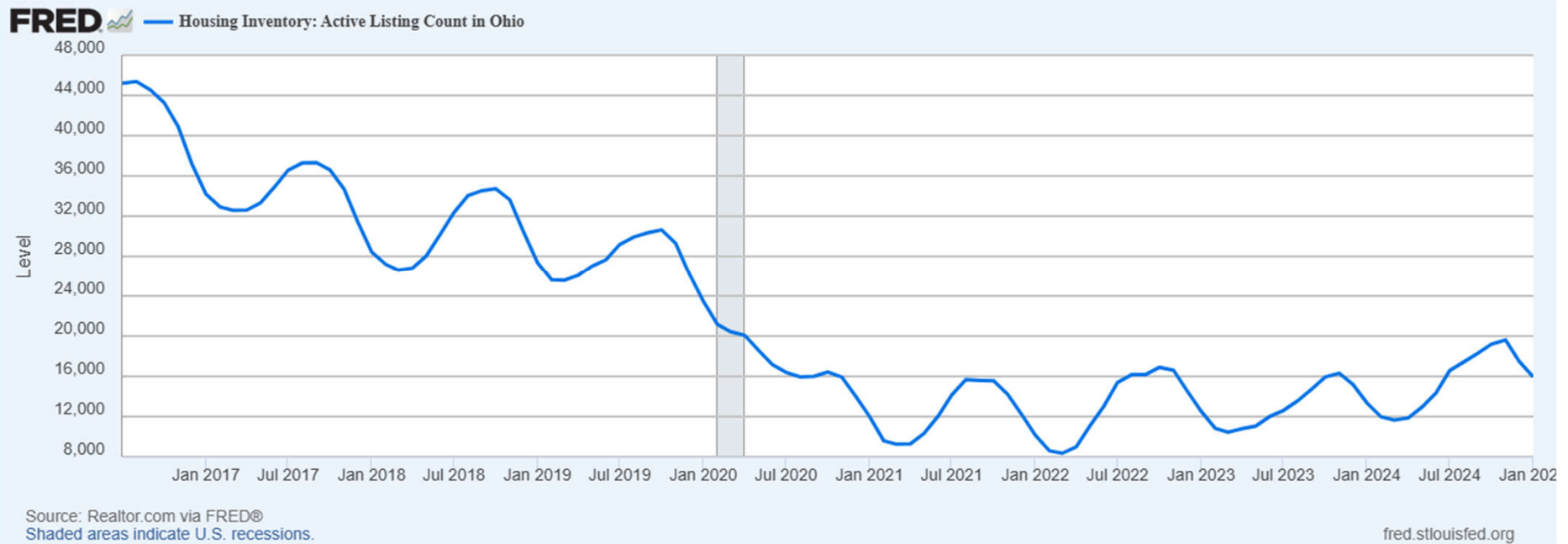
 FEDERAL RESERVE BANK *of* ST. LOUIS



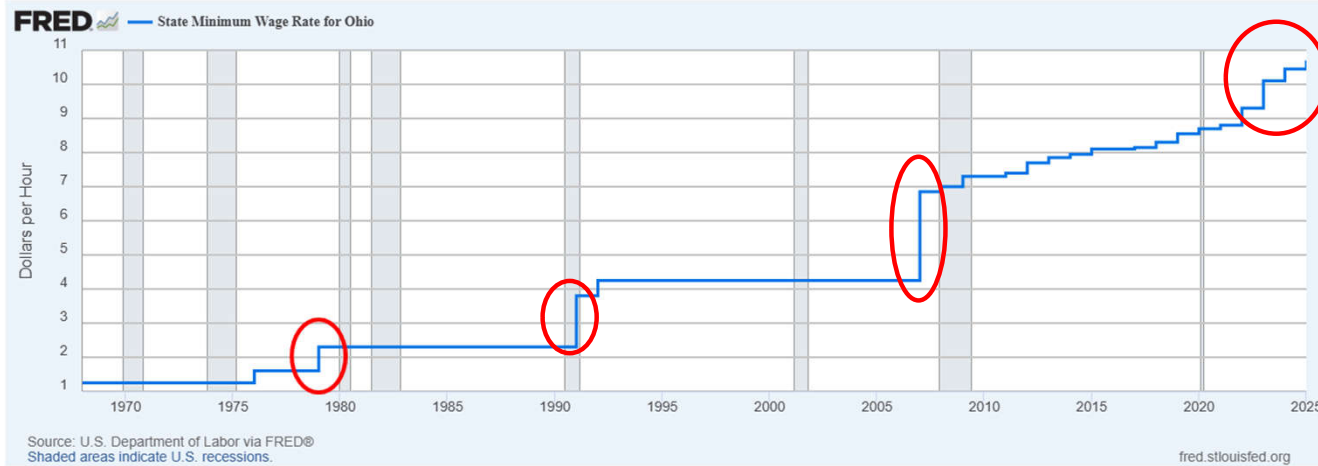
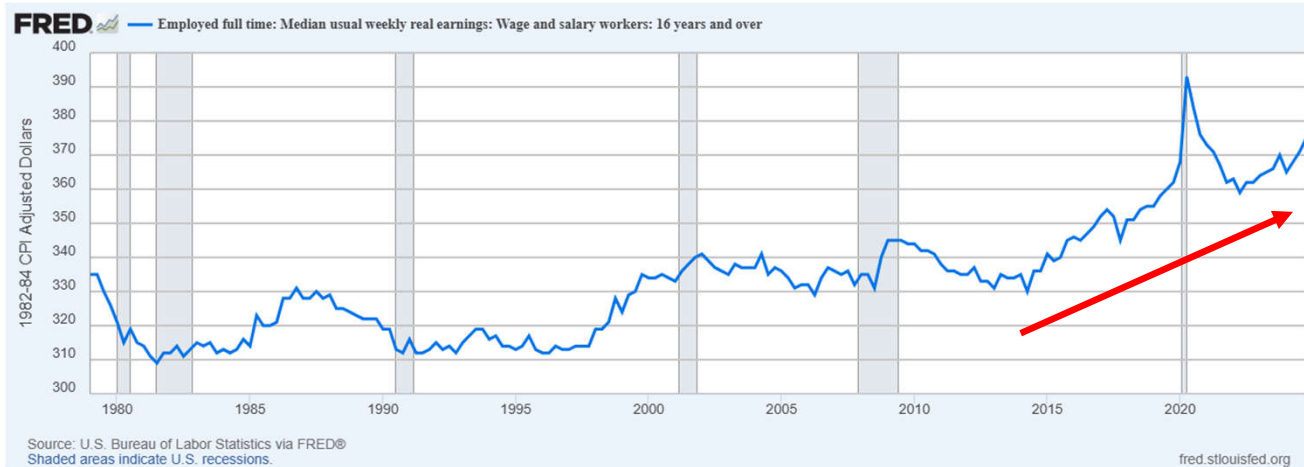
HOUSING DATA



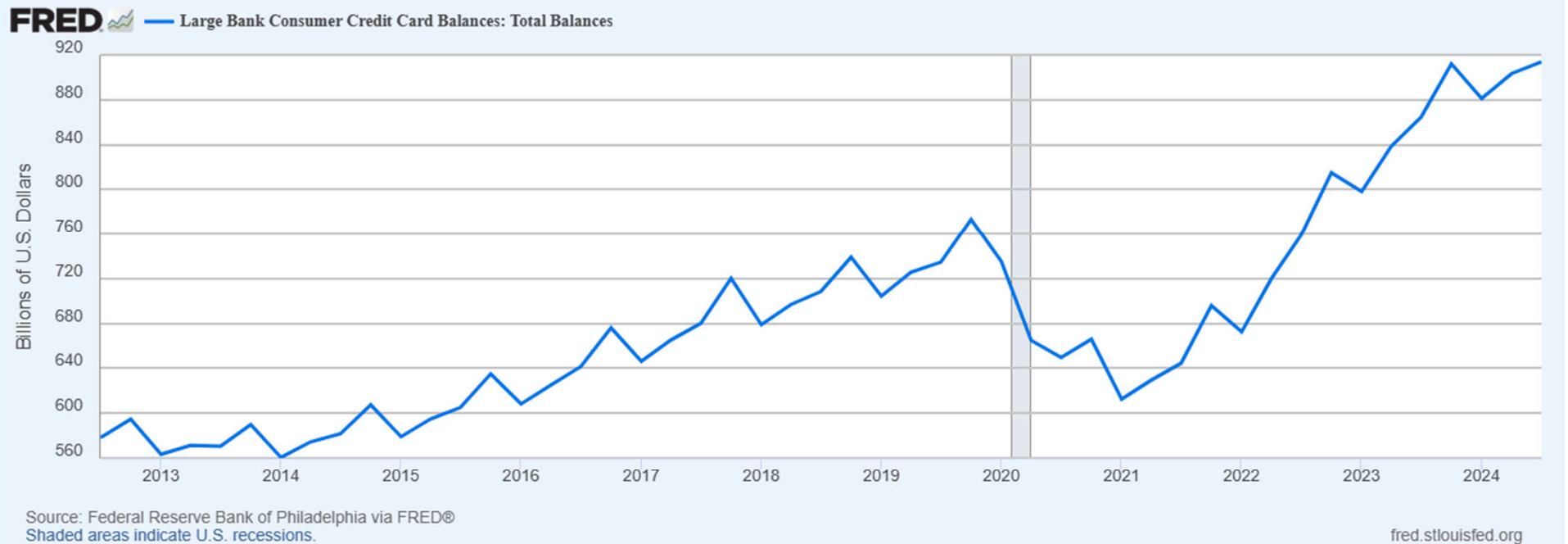
HOUSING DATA



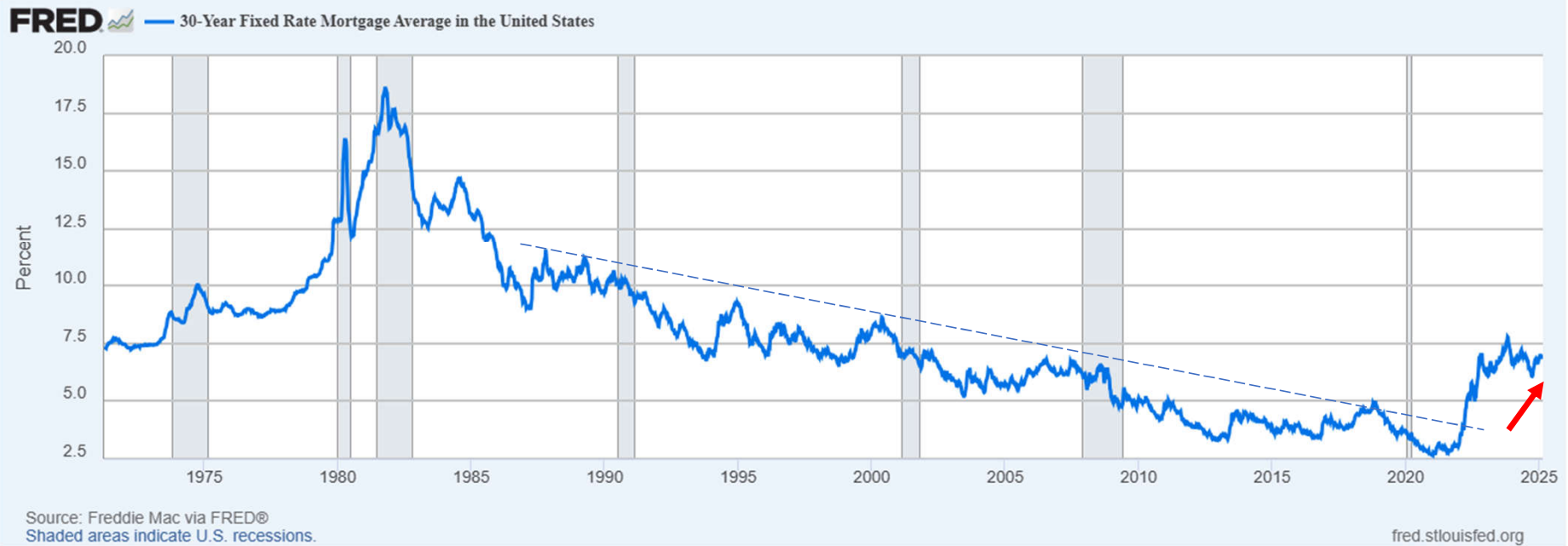
WAGE DATA



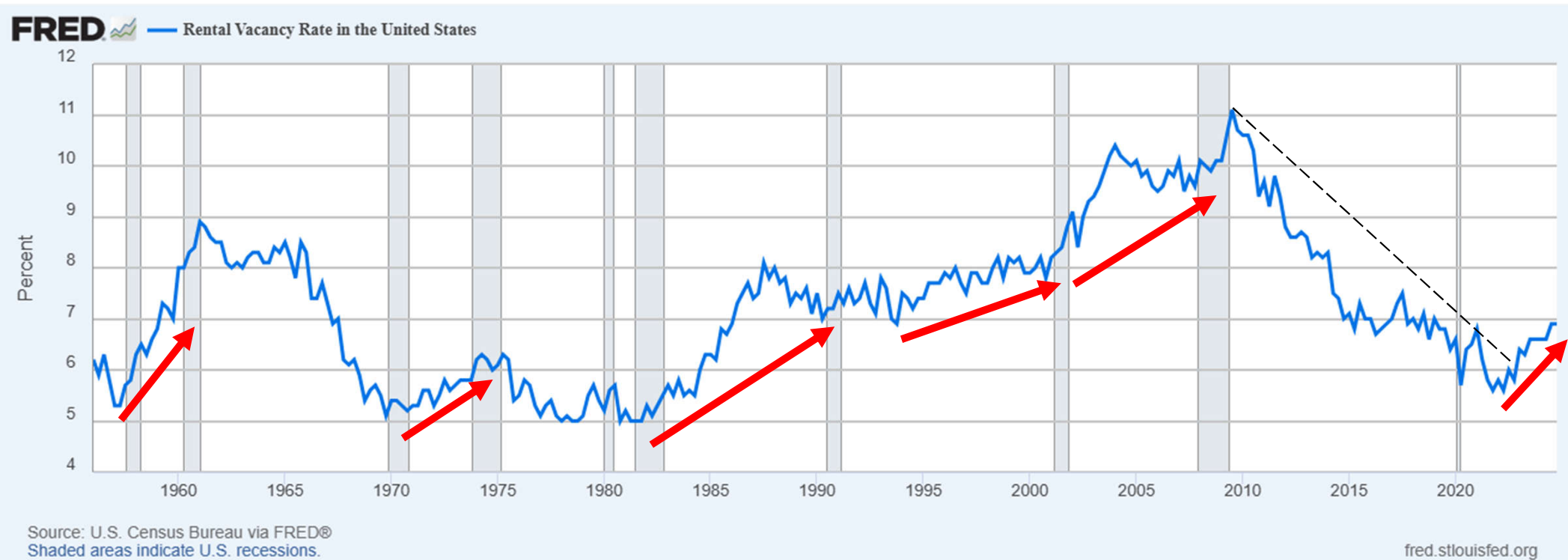
CREDIT CARD BALANCES



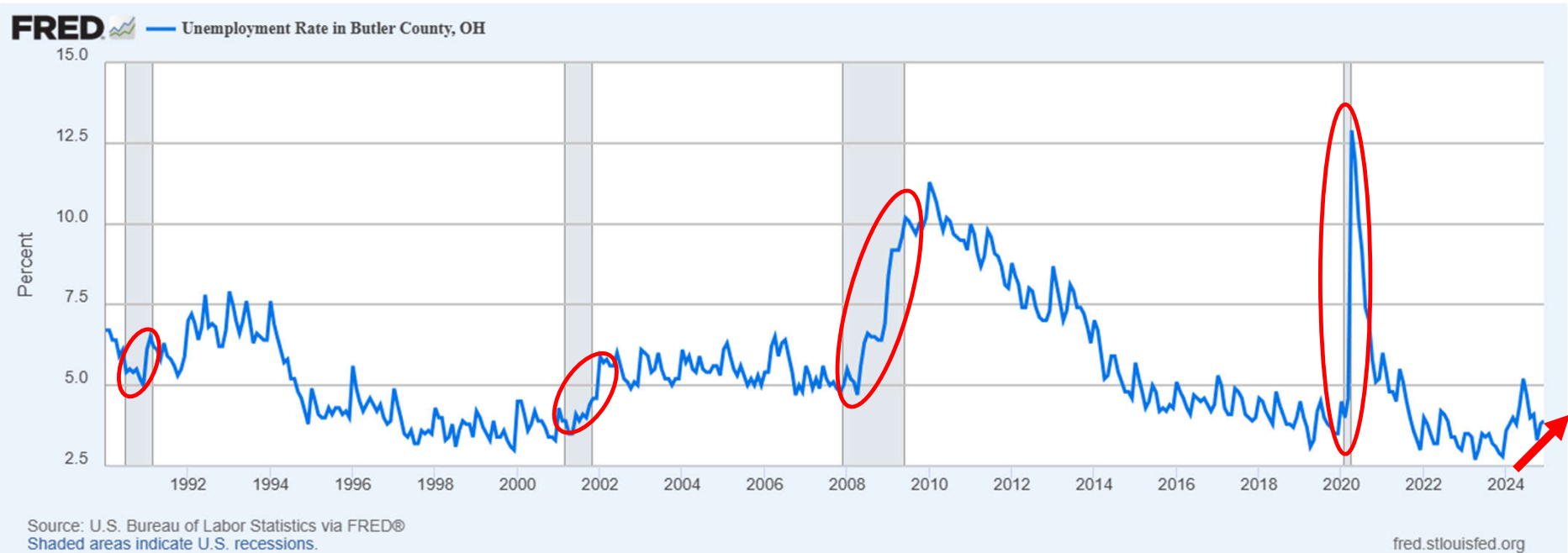
MORTGAGE RATE DATA



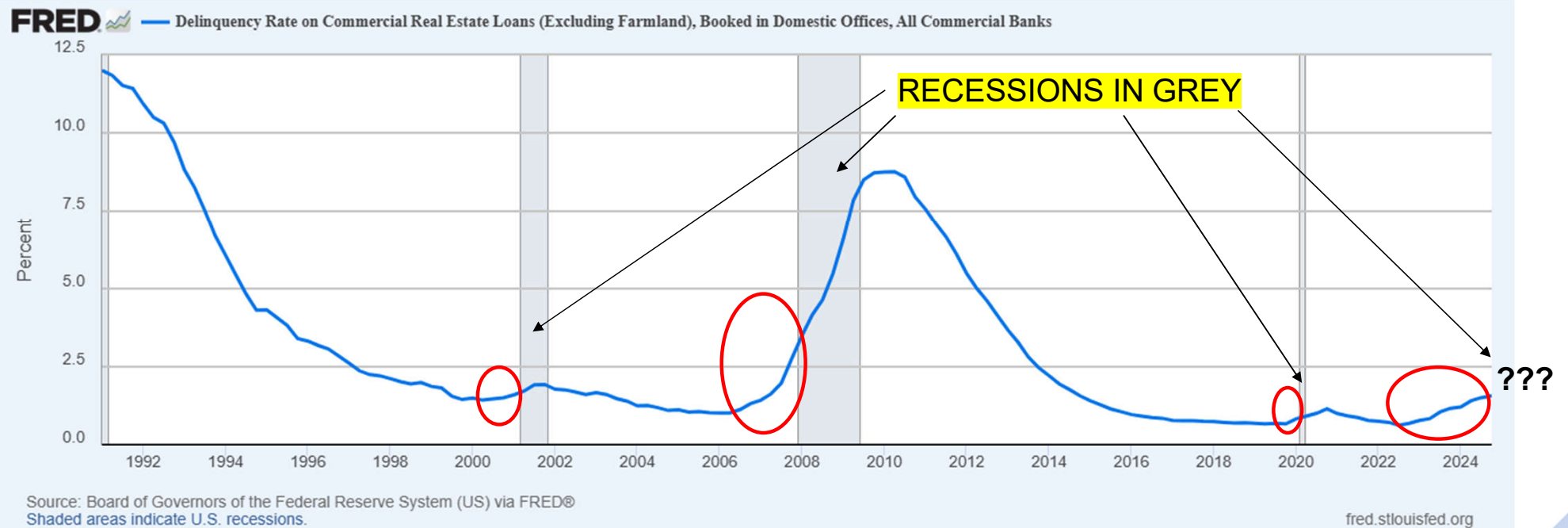
RENTAL VACANCY DATA



UNEMPLOYMENT RATE IN BUTLER COUNTY

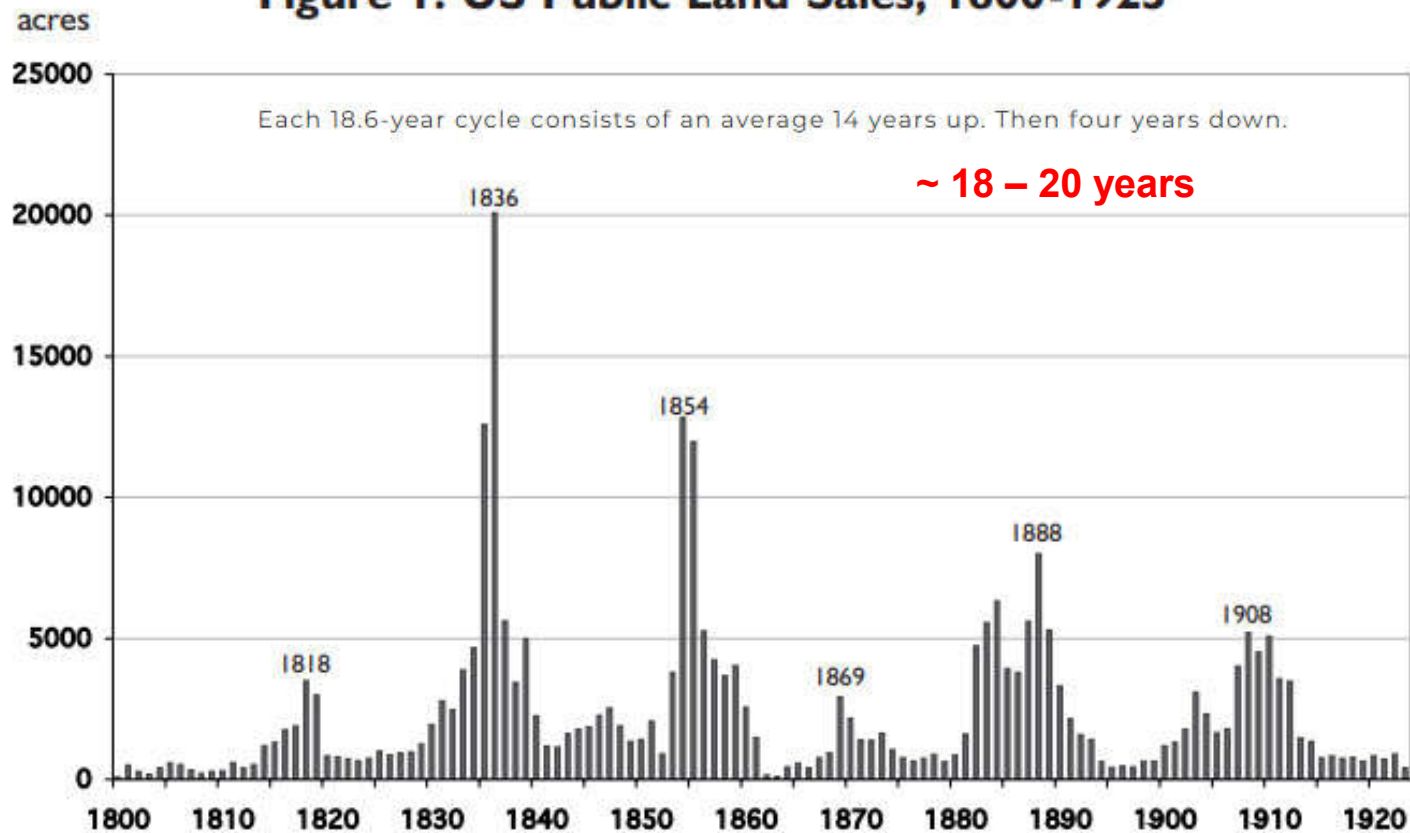


COMMERCIAL REAL ESTATE DATA

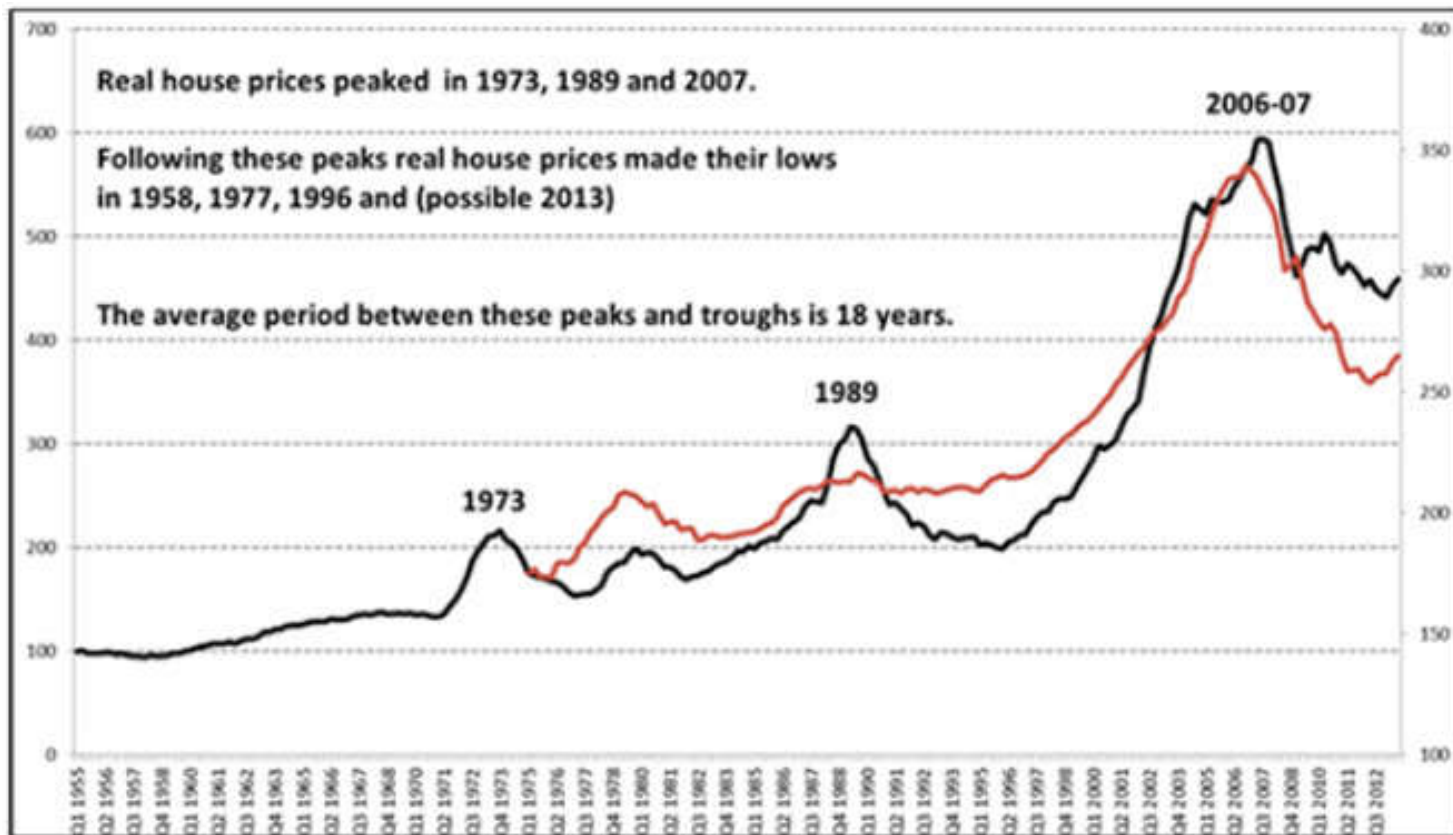


THE ECONOMIC CYCLE

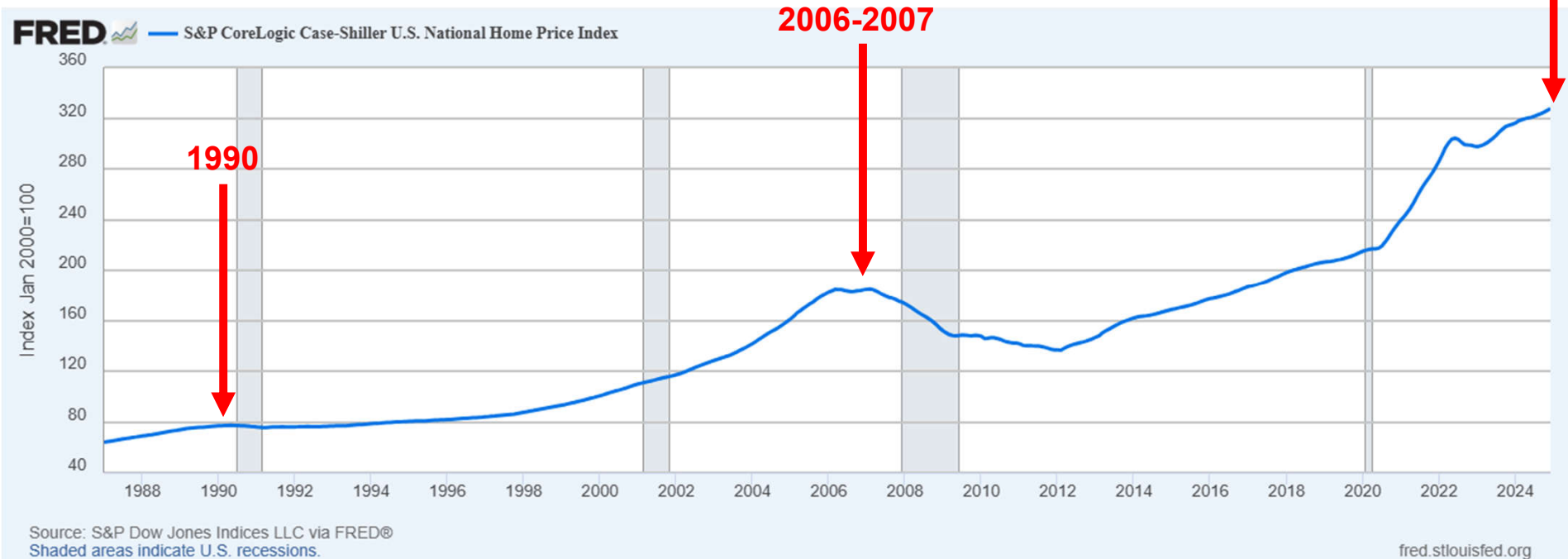
Figure 1: US Public Land Sales, 1800-1923



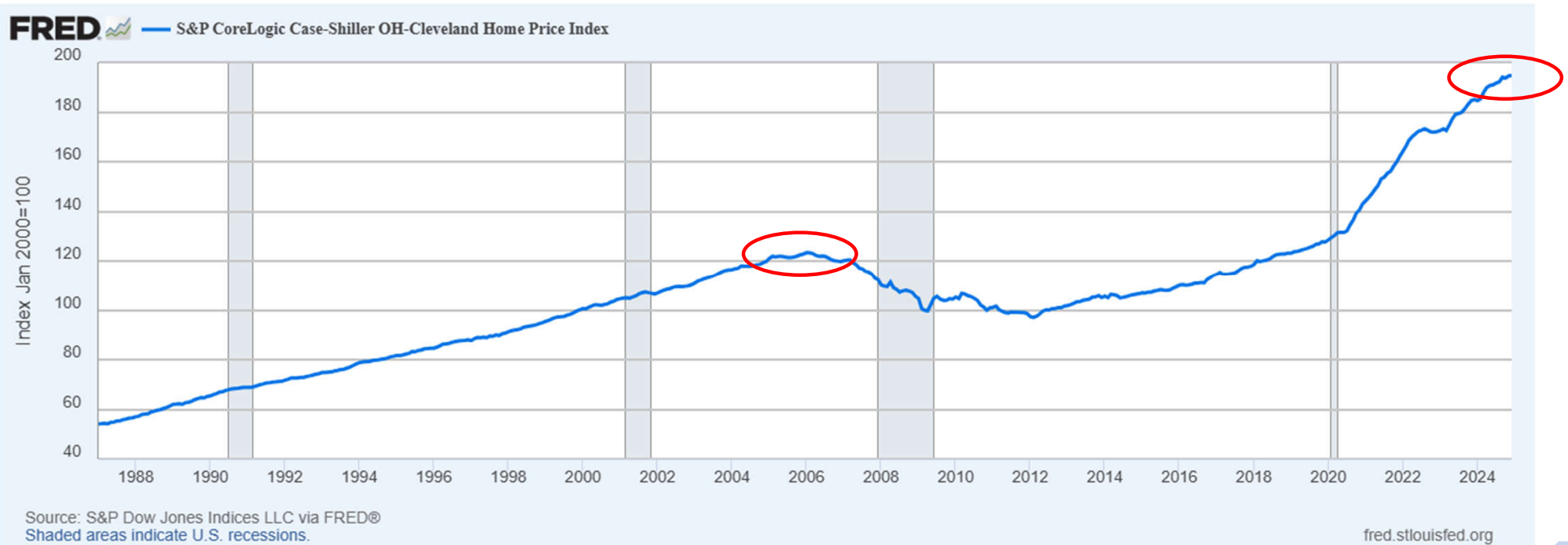
THE ECONOMIC CYCLE



ECONOMIC INDICATORS OF THE CYCLE



ECONOMIC INDICATORS OF THE CYCLE



ECONOMIC INDICATORS OF THE CYCLE



2025 Stress Test Scenarios

February 2025



2025 Stress Test Severe Scenario

Unemployment: Rises to 10%
Inflation: Drops to 1.3%
Short-term Rates: Drops to 0.1%
Long-term Rates: Drops to 1.0%
Mortgage Rates: Drops to 3.2%
10-yr Treasuries: Rises to 5.0%

Asset Prices:

Equities: Drops 50%
VIX: Rises 65%

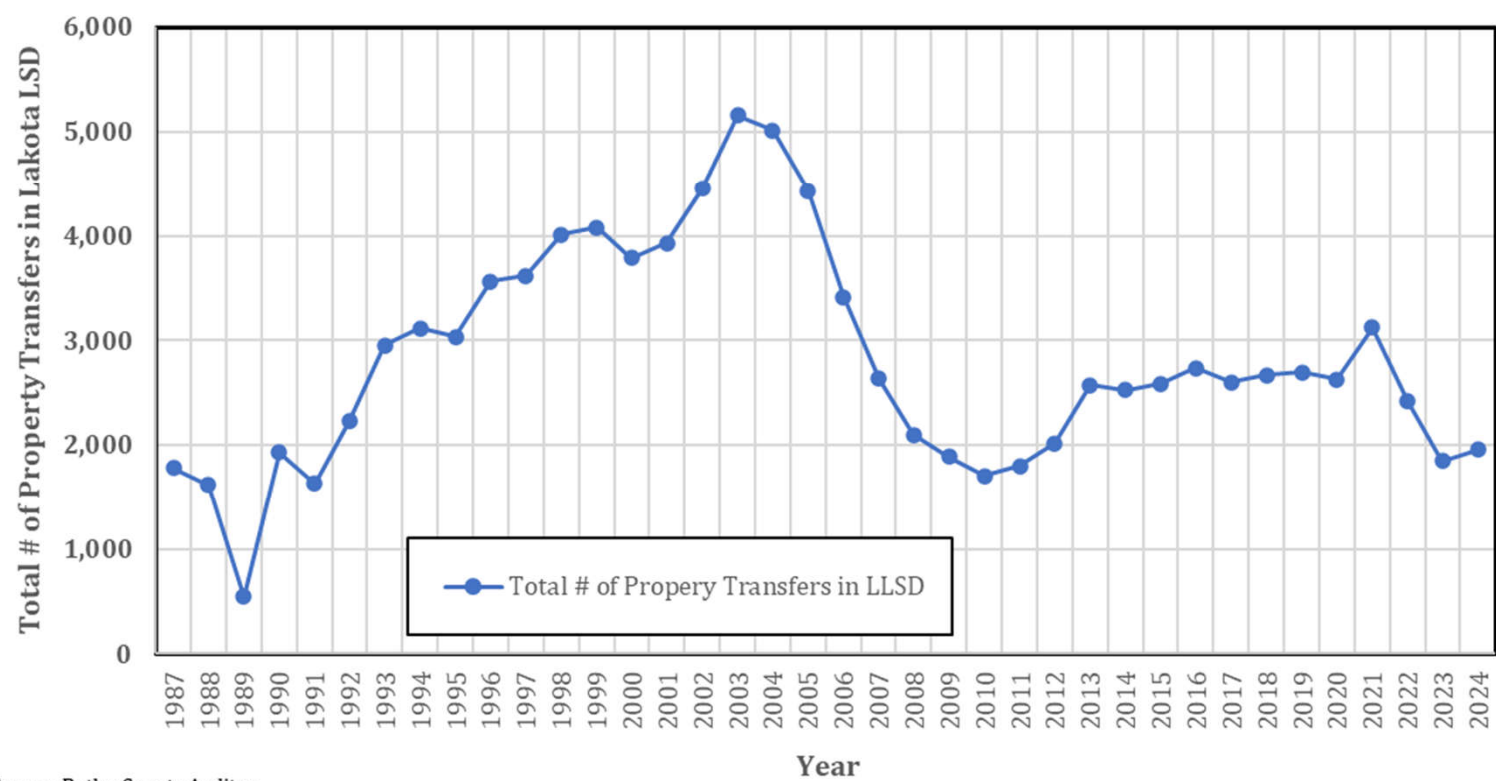
House Prices: Drops 33%

Commercial Real

Estate Prices: Drops 30%

PROPERTY TRANSFER DATA IN LLSD

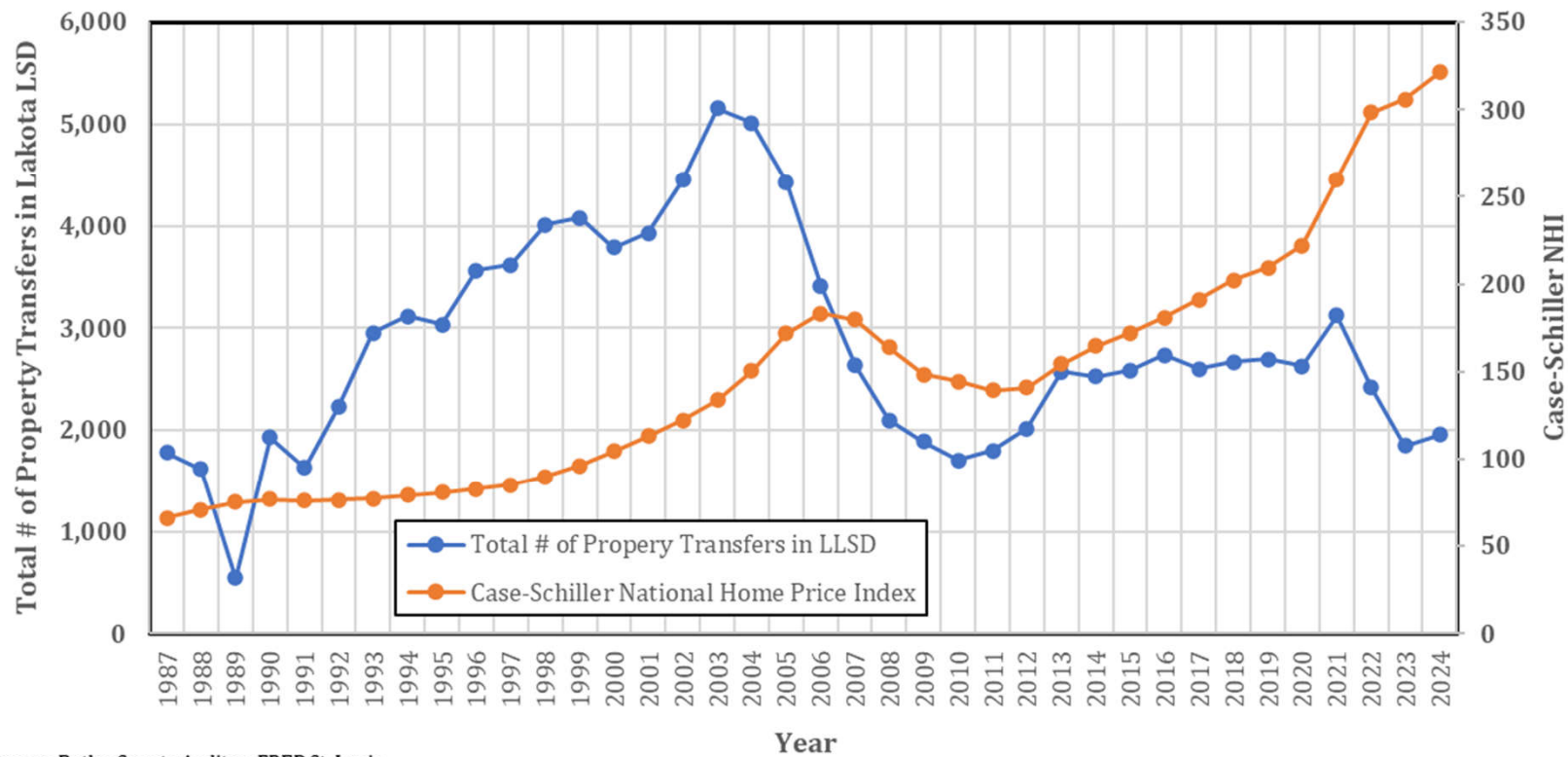
Property Transfers in Lakota Local School District



Source: Butler County Auditor

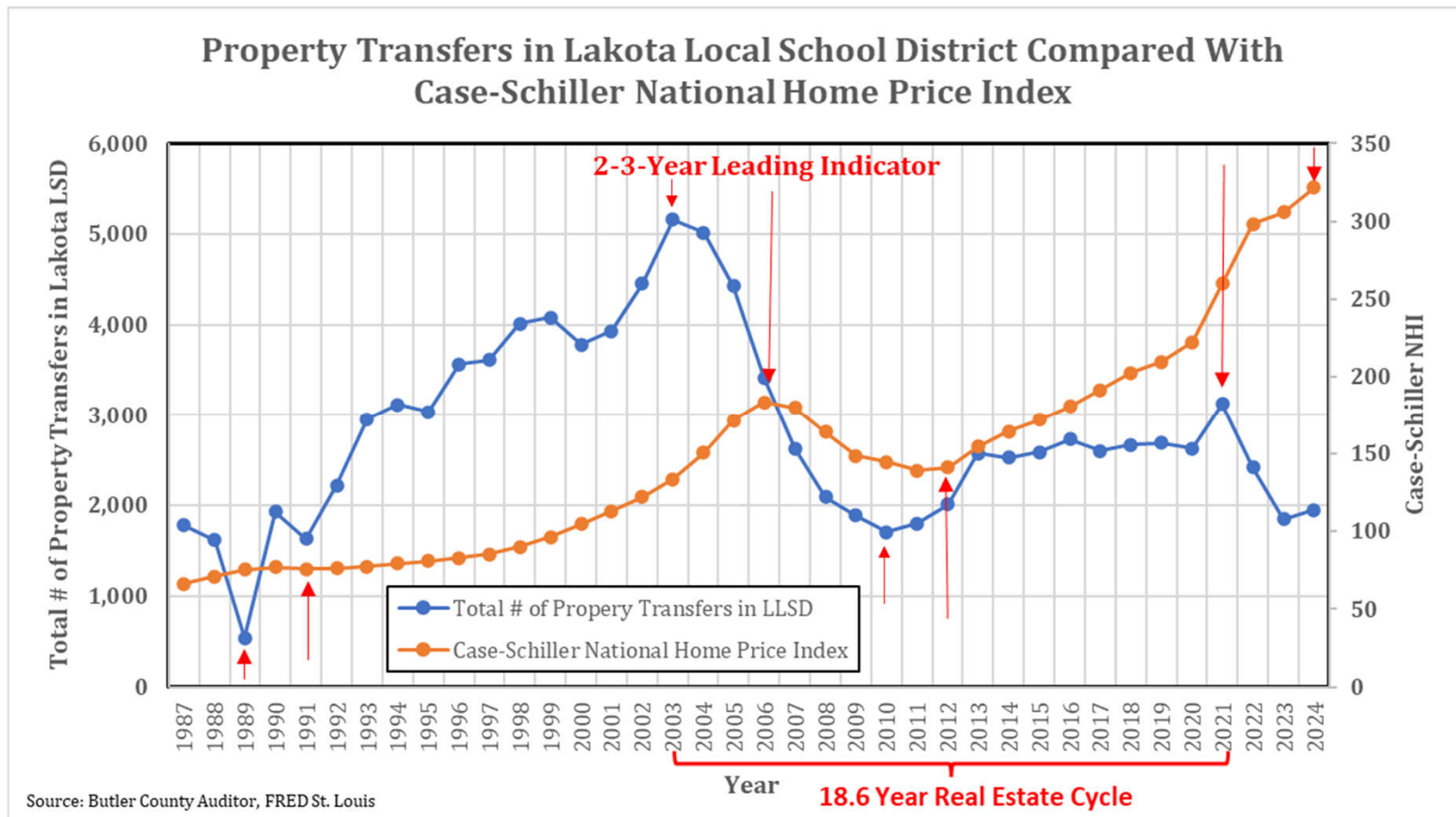
PROPERTY TRANSFER DATA IN LLSD

Property Transfers in Lakota Local School District Compared With
Case-Schiller National Home Price Index

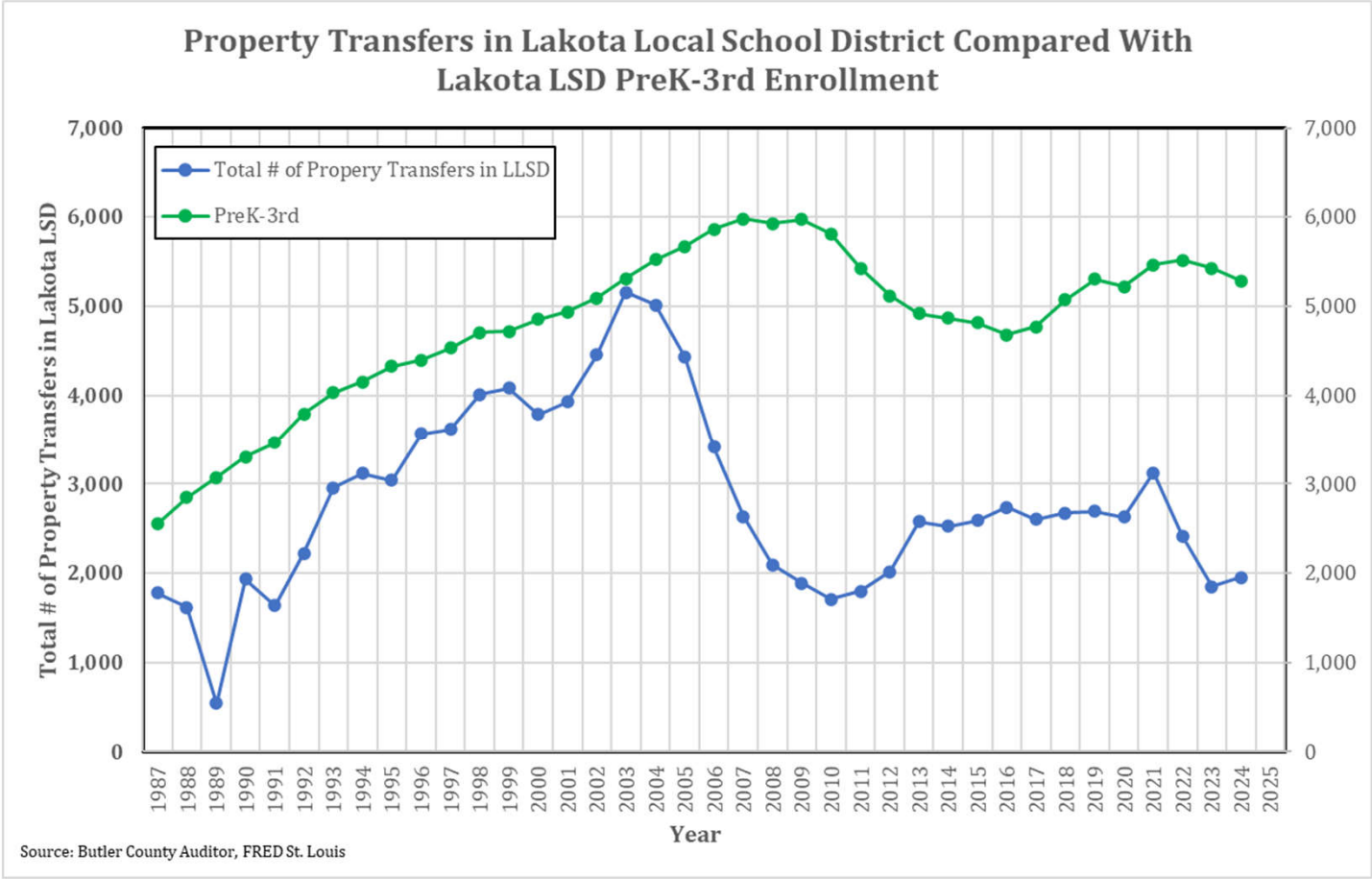


Source: Butler County Auditor; FRED St. Louis

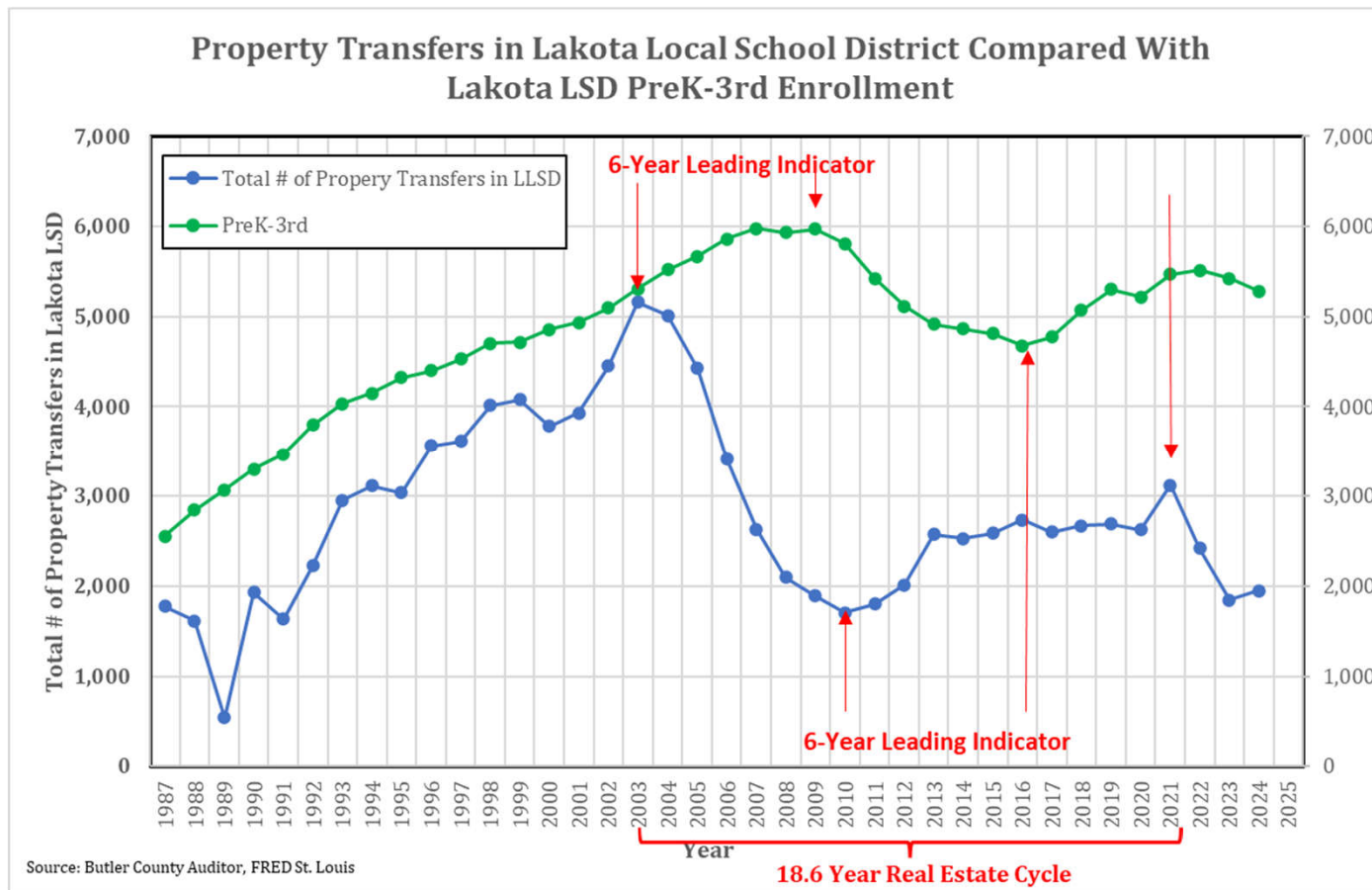
PROPERTY TRANSFER DATA IN LLSD



PROPERTY TRANSFER DATA IN LLSD

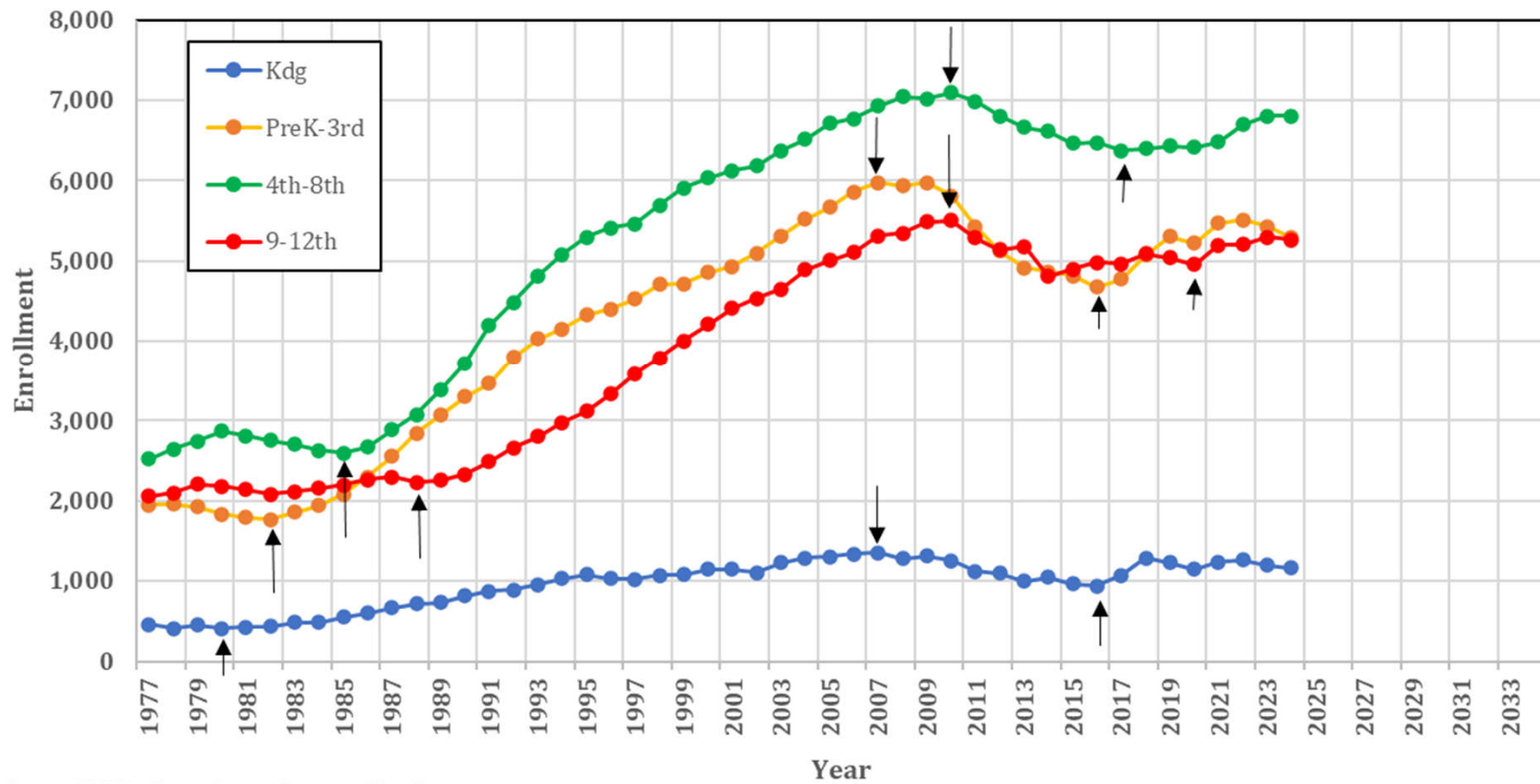


PROPERTY TRANSFER DATA IN LLSD



COHORT ENROLLMENT DATA IN LLSD

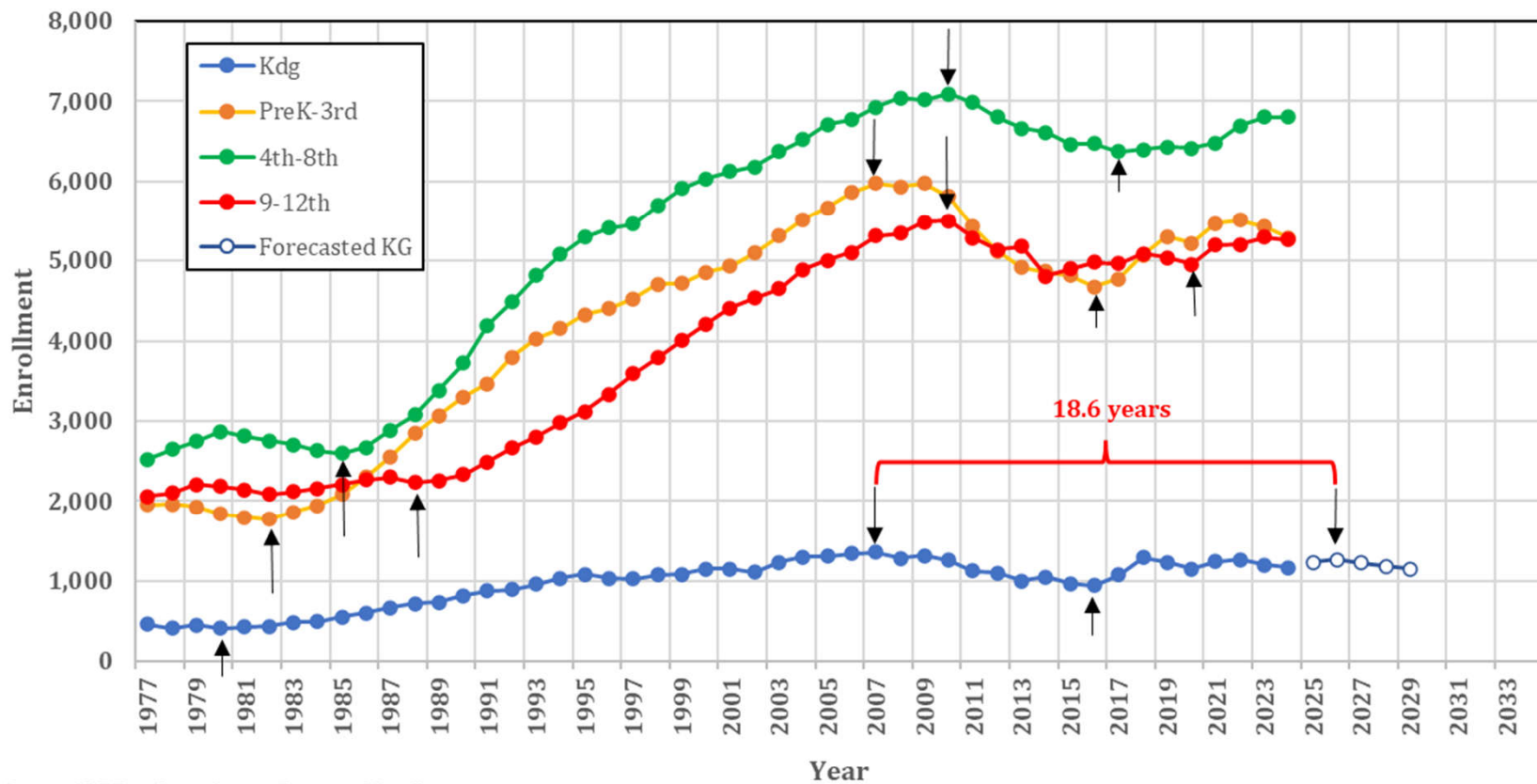
Lakota Local School Enrollment by Cohorts



Source: ODE Enrollment Counts; Forecasted Enrollment

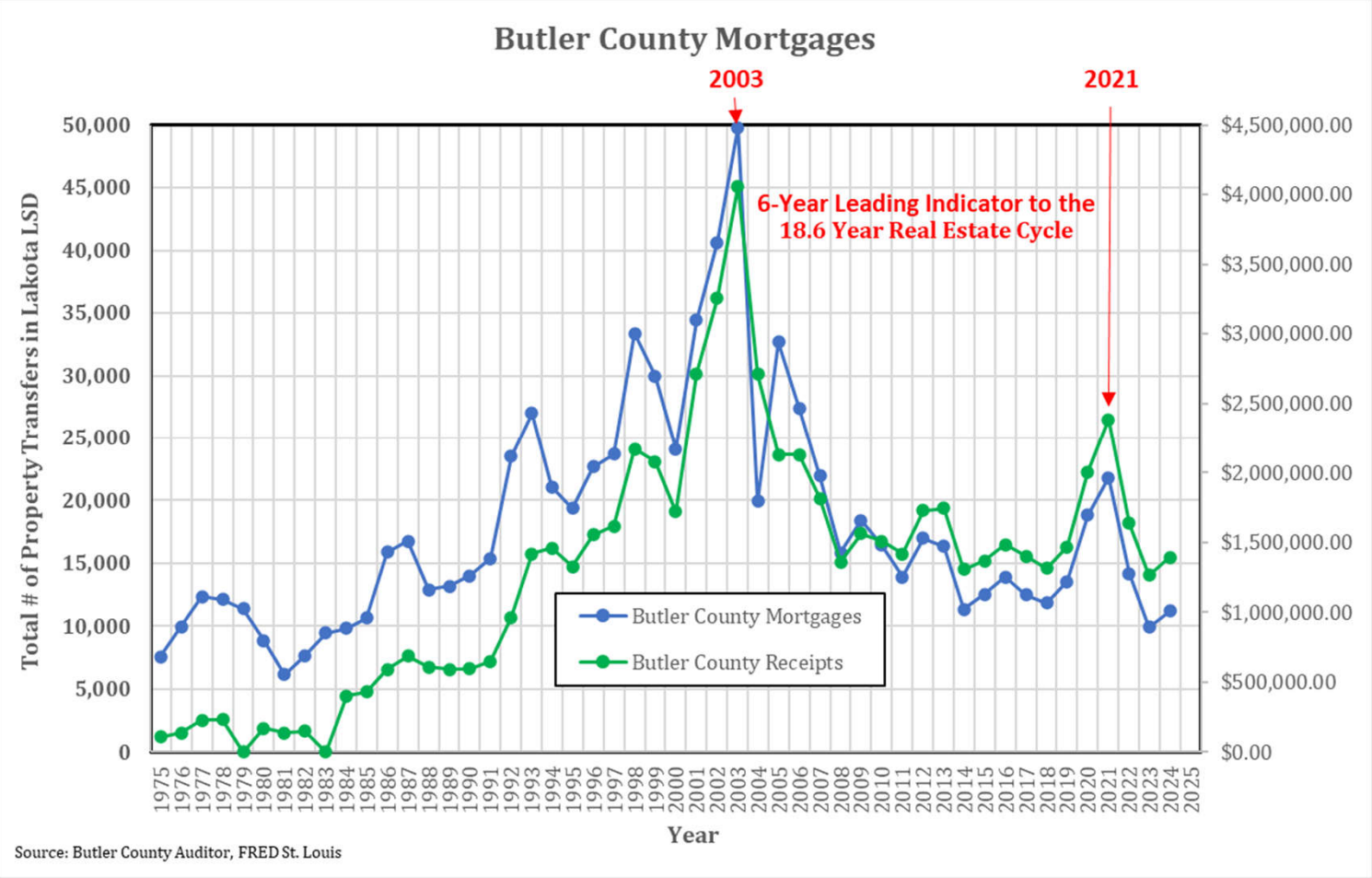
COHORT ENROLLMENT DATA IN LLSD

Lakota Local School Enrollment by Cohorts



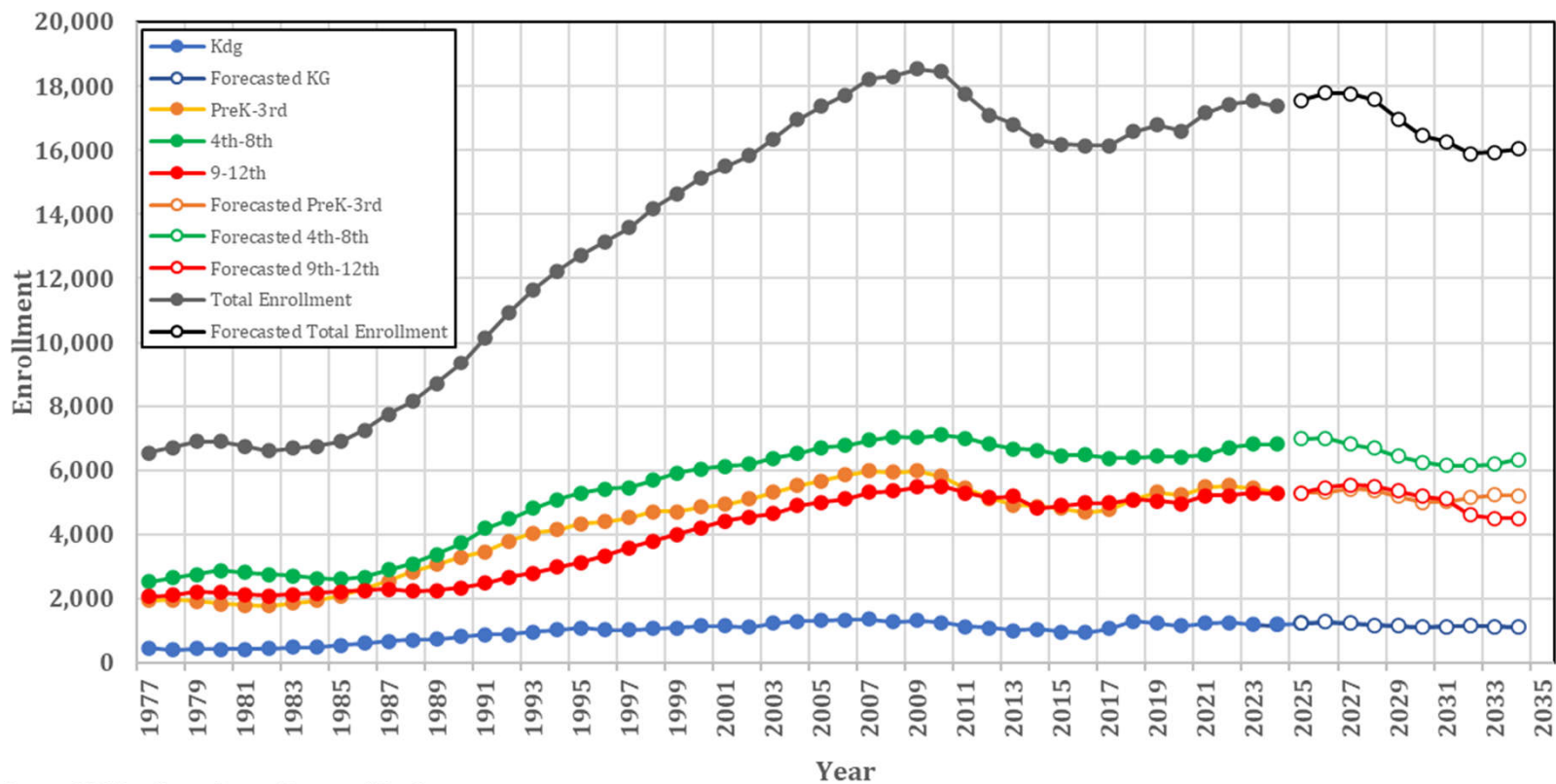
Source: ODE Enrollment Counts; Forecasted Enrollment

MORTGAGE DATA IN BUTLER COUNTY



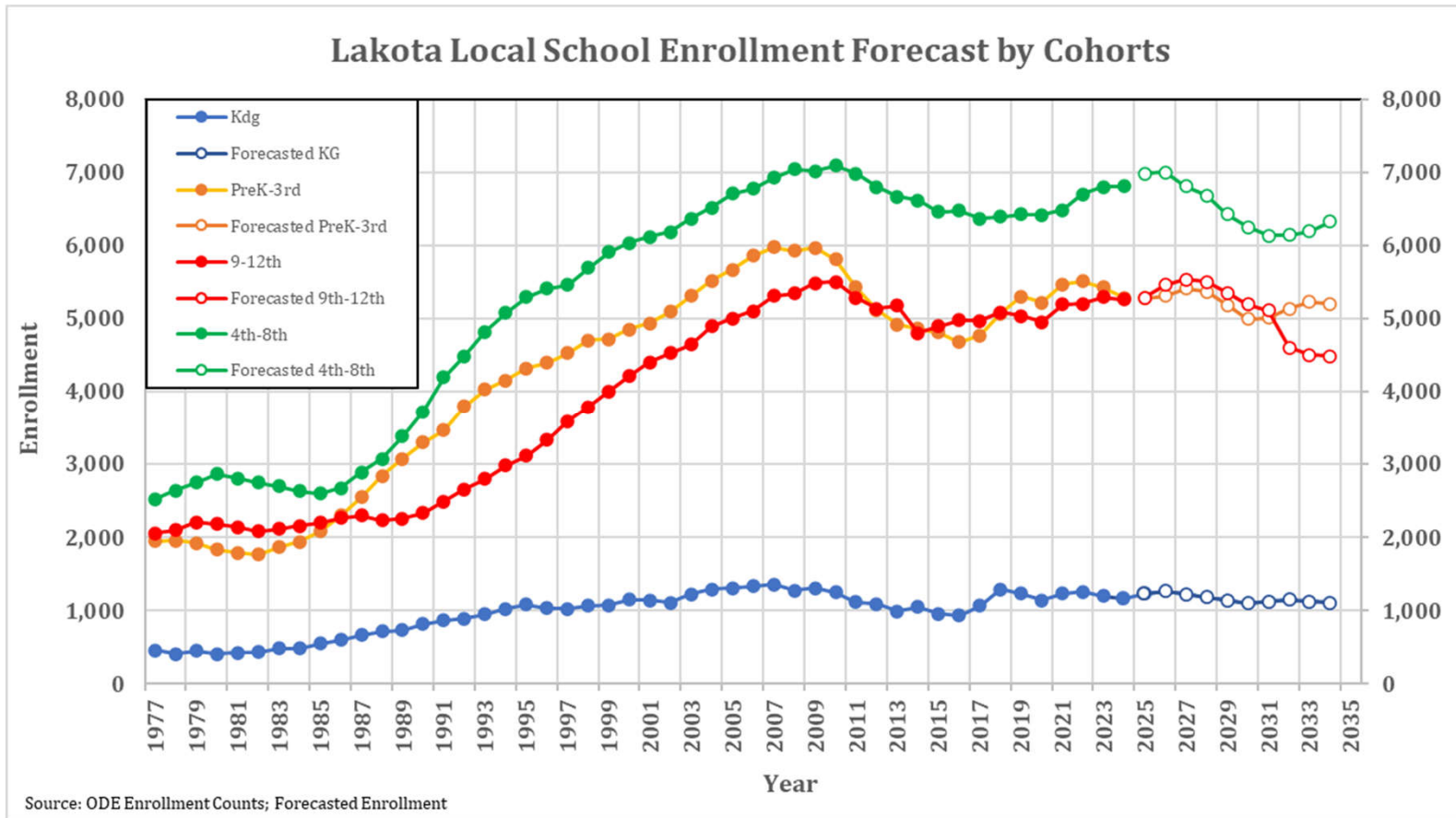
DRAFT ENROLLMENT FORECAST

Lakota Local School Enrollment Forecast by Cohorts



Source: ODE Enrollment Counts; Forecasted Enrollment

DRAFT ENROLLMENT FORECAST



ENROLLMENT BY PLANNING BLOCK

Planning Block	2020	2021	2022	2023	2024	Sparklines	20-Year Change	5-Year Change	3-Year Change	2-Year Change	1-Year Change	Real Estate Cycle (2007-2017)
1	783	800	800	840	803		185.77%	9.25%	0.38%	0.38%	-4.40%	46.68%
2	344	374	507	509	527		2191.30%	55.92%	40.91%	3.94%	3.54%	269.64%
3	51	53	53	54	57		714.29%	9.62%	7.55%	7.55%	5.56%	223.08%
4	183	188	191	188	205		220.31%	5.13%	9.04%	7.33%	9.04%	223.64%
5	638	642	645	660	669		70.23%	2.61%	4.21%	3.72%	1.36%	20.75%
6	747	723	884	936	975		178.57%	40.29%	34.85%	10.29%	4.17%	24.06%
7	313	301	360	353	346		20.14%	7.12%	14.95%	-3.89%	-1.98%	-25.43%
8i	120	119	116	104	118		32.58%	-8.53%	-0.84%	1.72%	13.46%	28.40%
8i2	13	5	5	2	3			-40.00%	-40.00%	-40.00%	50.00%	
8v	516	556	544	510	506		47.09%	-20.06%	-8.99%	-6.99%	-0.78%	11.79%
9	272	291	333	325	308		57.95%	5.12%	5.84%	-7.51%	-5.23%	-17.63%
10	22	17	17	21	16		-66.67%	-11.11%	-5.88%	-5.88%	-23.81%	-66.00%
11c1	264	251	253	251	265		-31.35%	4.74%	5.58%	4.74%	5.58%	-32.88%
11c2	305	304	312	299	302		-38.24%	-9.31%	-0.66%	-3.21%	1.00%	-31.18%
11s	76	64	54	51	43		-50.57%	-27.12%	-32.81%	-20.37%	-15.69%	-10.96%
12	166	185	206	210	199		947.37%	15.70%	7.57%	-3.40%	-5.24%	588.24%
12c	1	1	3	4	2			100.00%	100.00%	-33.33%	-50.00%	
13	48	50	42	38	45		-23.73%	-4.26%	-10.00%	7.14%	18.42%	-13.64%
14	325	347	333	311	303		-45.41%	-13.92%	-12.68%	-9.01%	-2.57%	-33.70%
14w	0	0	0	0	0			-100.00%				#DIV/0!
15	28	26	26	21	32		-13.51%	-3.03%	23.08%	23.08%	52.38%	45.00%
16	235	263	238	227	219		338.00%	-16.41%	-16.73%	-7.98%	-3.52%	59.86%
17	509	481	494	483	496		-24.27%	-0.40%	3.12%	0.40%	2.69%	-28.11%
18h1	175	182	192	185	192		-15.79%	3.78%	5.49%	0.00%	3.78%	-23.14%
18h2	270	278	267	267	266		-40.09%	-10.14%	-4.32%	-0.37%	-0.37%	-43.02%
19	607	627	631	603	592		1.20%	-3.11%	-5.58%	-6.18%	-1.82%	-6.76%
20	611	633	630	640	622		-16.06%	-0.96%	-1.74%	-1.27%	-2.81%	-21.25%
21i	72	65	62	66	68		-34.62%	-25.27%	4.62%	9.68%	3.03%	-22.61%
21w	250	263	267	257	255		-42.83%	-9.57%	-3.04%	-4.49%	-0.78%	-35.95%
22h	194	168	165	159	167		-15.66%	-12.57%	-0.60%	1.21%	5.03%	-27.54%
22h2	0	0	0	0	0							
22i	5	12	10	11	11		-54.17%	37.50%	-8.33%	10.00%	0.00%	-73.33%
23	472	435	435	415	409		123.50%	-12.04%	-5.98%	-5.98%	-1.45%	5.19%

ENROLLMENT BY PLANNING BLOCK

Planning Block	2020	2021	2022	2023	2024	Sparklines	20-Year Change	5-Year Change	3-Year Change	2-Year Change	1-Year Change	Real Estate Cycle (2007-2017)
24	0	0	0	0	0		-100.00%					-100.00%
24e	311	352	326	333	330			2.80%	-6.25%	1.23%	-0.90%	
24f	371	375	435	432	457			25.55%	21.87%	5.06%	5.79%	
25u	524	506	482	489	500		-17.36%	-2.91%	-1.19%	3.73%	2.25%	-24.15%
25w	284	303	310	309	318		2.25%	4.26%	4.95%	2.58%	2.91%	-17.99%
26h	258	220	236	222	225		-27.65%	-5.46%	2.27%	-4.66%	1.35%	-16.10%
26u	52	43	44	46	36			-26.53%	-16.28%	-18.18%	-21.74%	
26w	26	38	42	41	50		13.64%	92.31%	31.58%	19.05%	21.95%	12.20%
27	829	865	890	922	913		189.84%	13.70%	5.55%	2.58%	-0.98%	26.70%
28f	130	150	161	167	157		4.67%	28.69%	4.67%	-2.48%	-5.99%	-14.29%
28h	171	157	170	155	163		18.12%	-5.23%	3.82%	-4.12%	5.16%	-9.39%
29	557	556	575	564	583		-18.35%	14.54%	4.86%	1.39%	3.37%	-31.36%
30f	215	220	242	242	220		-41.18%	-7.95%	0.00%	-9.09%	-9.09%	-40.35%
30f2	71	83	80	78	87			-11.22%	4.82%	8.75%	11.54%	
30u	166	162	153	150	145		-33.49%	-17.61%	-10.49%	-5.23%	-3.33%	-35.58%
31	699	723	752	840	835		-0.95%	17.44%	15.49%	11.04%	-0.60%	-18.70%
32	301	286	279	277	295		13.03%	6.12%	3.15%	5.73%	6.50%	-4.44%
33	629	582	570	570	557		-1.24%	1.27%	-4.30%	-2.28%	-2.28%	-10.53%
34	399	376	374	381	380		-20.67%	2.15%	1.06%	1.60%	-0.26%	-29.10%
35a	42	35	20	33	39		-76.07%	0.00%	11.43%	95.00%	18.18%	-93.66%
35a2	330	335	362	372	359			6.21%	7.16%	-0.83%	-3.49%	
35f1	81	103	112	114	108		730.77%	33.33%	4.85%	-3.57%	-5.26%	242.86%
35f2	455	445	457	457	474		33.90%	8.47%	6.52%	3.72%	3.72%	-0.77%
35f3	0	0	0	0	0							
36	38	44	45	45	57		119.23%	39.02%	29.55%	26.67%	26.67%	8.33%
37a	21	14	20	24	23		21.05%	43.75%	64.29%	15.00%	-4.17%	-66.67%
37f	82	90	85	91	107		0.94%	30.49%	18.89%	25.88%	17.58%	-28.81%
38a	351	338	361	366	367		-14.25%	2.23%	8.58%	1.66%	0.27%	-22.64%
38h	98	83	108	106	115		17.35%	25.00%	38.55%	6.48%	8.49%	-6.38%
39a	312	322	425	437	455		66.06%	53.72%	41.30%	7.06%	4.12%	-9.77%
39h	139	144	137	130	135		-40.53%	-10.60%	-6.25%	-1.46%	3.85%	-43.30%
40	227	204	200	217	246		3.80%	20.59%	20.59%	23.00%	13.36%	-17.17%
41	183	201	203	221	239		11.16%	35.03%	18.91%	17.73%	8.14%	-21.40%
42	396	358	359	358	351		-35.83%	-6.40%	-1.96%	-2.23%	-1.96%	-41.09%
43	293	337	333	334	360		-9.55%	20.81%	6.82%	8.11%	7.78%	-22.16%

NET MIGRATION BY PLANNING BLOCK

Plan Block 1

	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
PS	3	3	4	5	6	10	9	7	0	0	12	10	8	12	14	26	11	14	17	12	11
KG	36	18	34	32	33	42	39	29	24	29	35	31	36	50	47	63	71	56	65	77	65
1	18	38	21	43	40	43	48	41	43	41	30	61	40	47	64	53	76	67	57	60	73
2	20	23	38	31	50	39	47	50	40	45	41	30	61	40	58	66	51	71	65	61	67
3	25	23	25	40	36	50	48	43	55	42	50	45	34	62	42	59	81	53	64	61	57
4	17	32	29	31	41	37	59	48	43	57	44	52	44	37	64	44	69	74	51	67	58
5	23	23	32	32	36	49	46	56	46	44	49	48	48	44	44	65	51	61	69	55	62
6	23	22	27	37	28	42	51	46	53	47	41	47	49	51	46	56	71	58	59	71	51
7	21	31	18	31	39	28	43	45	47	54	51	45	47	40	60	45	59	68	57	61	69
8	34	28	32	21	42	41	34	45	42	49	58	46	41	39	45	65	48	62	65	60	53
9	15	32	22	32	22	41	44	32	43	39	44	54	46	42	45	51	54	54	65	71	64
10	16	10	26	24	31	27	47	38	28	39	38	40	55	46	53	51	49	66	51	66	66
11	14	16	13	37	26	37	42	50	48	30	42	45	44	51	47	45	43	41	71	51	61
12	15	13	13	9	21	16	23	36	36	41	35	36	34	36	55	42	46	50	39	61	44
23	1	3	1	2	1	1	2	2	2	2	0	0	0	0	3	4	3	5	5	6	2
Total: PS-23	281	315	335	407	452	503	582	568	550	559	570	590	587	597	687	735	783	800	800	840	803
Change		34	20	72	45	51	79	-14	-18	9	11	20	-3	10	90	48	48	17	0	40	-37
% Change		12.1%	6.3%	21.5%	11.1%	11.3%	15.7%	-2.4%	-3.2%	1.6%	2.0%	3.5%	-0.5%	1.7%	15.1%	7.0%	6.5%	2.2%	0.0%	5.0%	-4.4%

Forecasts developed February 2025

Green cells (2024-25 and earlier) are historical
Blue cells (2025-26 and later) are forecasted

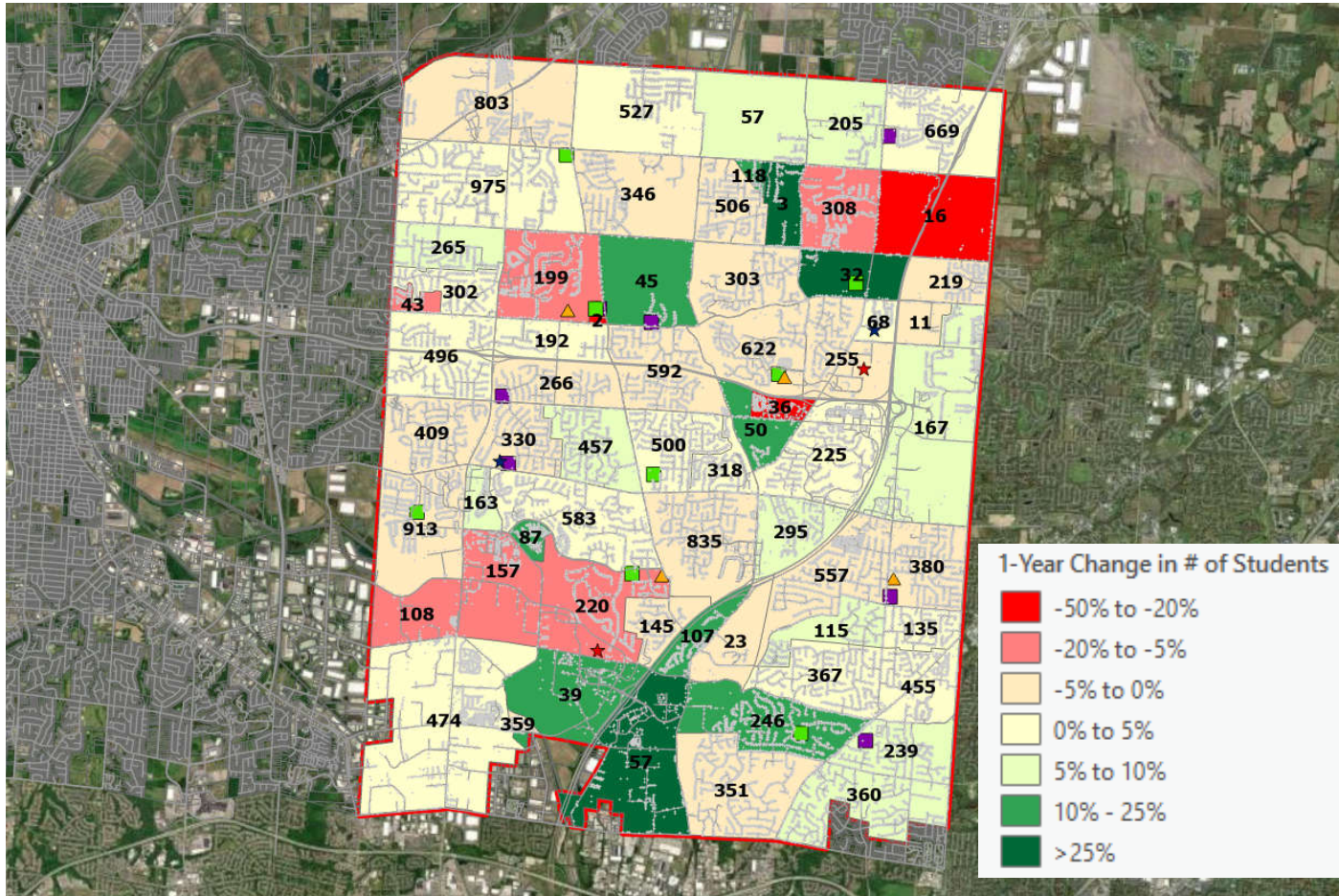
2024-2025 PS-2nd:	216	27.0%	1-yr Growth:	-4.4%
2024-2025 3rd-6th:	228	28.5%	4-yr Average:	0.7%
2024-2025 7th-8th:	122	15.2%	Historical Average Since 2004:	5.6%
2024-2025 9th-12th:	235	29.3%	Historical Average (2009-2017):	2.4%

NET MIGRATION BY PLANNING BLOCK

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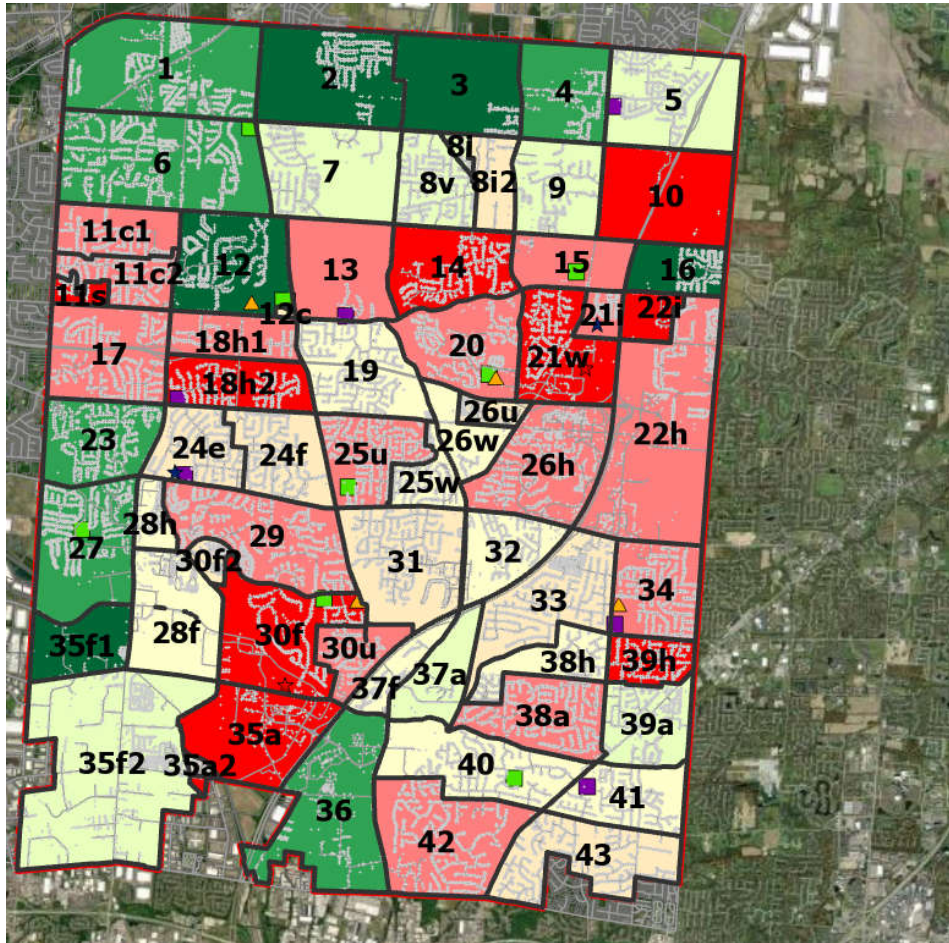
1-YEAR CHANGE CHLOROPLETH MAP

WITH 2024 STUDENTS LABELED

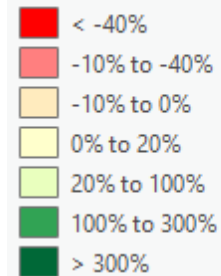


20-YEAR CHANGE CHLOROPLETH MAP

WITH PLANNING BLOCKS LABELED



20-Year Change in # of Students



CONCLUSIONS

- Of all of the enrollment factors researched and presented in this study, ***the most influential factors*** driving the Lakota enrollment ***over this forecast period*** are ***the generational cycle*** and ***the economic (real estate) cycle***. Both of these factors will strongly influence all three of the principal forecast parameters for school enrollment forecasting period.
- The current more populous **generational cycle**, Boomers (grandparents)-Millennials (parents)-Gen Alphas (children), contributed to the recent enrollment rise in the LLSD and is peaking in the next two years. The Gen X (grandparents)-Gen Z (parents)-Gen Betas (children) Generational cycle begins in 2025, resulting in less pressure on elementary enrollment, and thus total enrollment, in this forecast period.

CONCLUSIONS continued

- **Real estate cycles** typically last 18-20 years in length and the current one, which began after the previous cycle end in 2008, is forecasted to end early in this ten-year forecast period.
- A resulting decline in property transfers leads to ***less positive net migration***, which is a principal parameter to enrollment increases in the district.

RECOMMENDATIONS

- Following a thorough sensitivity analysis, it is recommended that the district apply for research level access to ***geocoded birth data***, which will improve the accuracy of small area forecasts.
- The district ***should consider a plan*** to monitor enrollment annually and update all datasets presented to assist in a data-driven, decision process for staff alignment and operational uses across the district.

RECOMMENDATIONS continued

- The district **should view the enrollment forecast as a living document** in a way similar to the five-year financial forecast, **with an update every year to maximize the student experience** through efficient planning and operation.

NEXT STEPS

- Incorporate Any Feedback, New Findings, Data Sources, & Insight
- Interpolate District Forecast to Generate Small Area Forecasts
- Finalize Report
- Finalize GIS

THANK YOU !

QUESTIONS ???