

Updated
2-27-17



FutureThink

Formerly DeJONG-HEALY

DRAFT REPORT



School Facilities
Commission

Brecksville-Broadview Heights City School District

Cuyahoga County
Enrollment Projections
February 24, 2017

Brecksville-Broadview Heights City School District

INTRODUCTION

Based on a request from the Ohio School Facilities Commission, **FutureThink** was contracted to develop enrollment projections for the Brecksville-Broadview Heights City School District.

This report contains ten-year enrollment projections, which were developed for the Brecksville-Broadview Heights City School District by analyzing the following data:

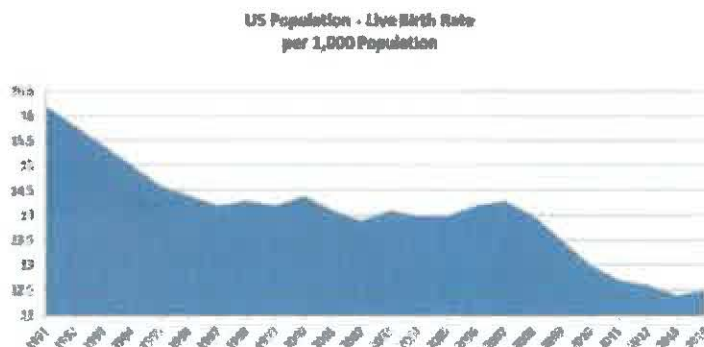
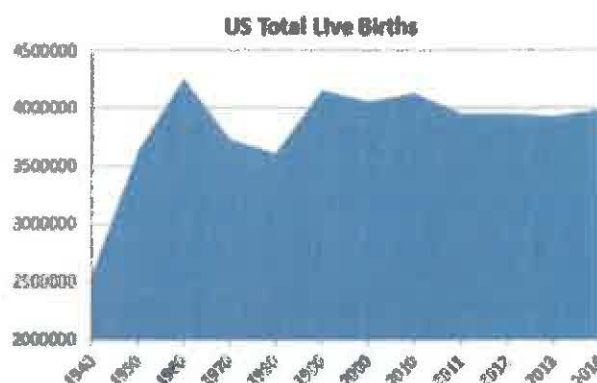
- ▶ Live birth data
- ▶ Historical enrollment
- ▶ Community school enrollment
- ▶ Open enrollment
- ▶ Community demographics
- ▶ Housing information

The projections presented in this report are meant to serve as a planning tool for the future and represent the most likely direction of the District.

Brecksville-Broadview Heights City School District

NATIONAL & OHIO TRENDS IN ENROLLMENT

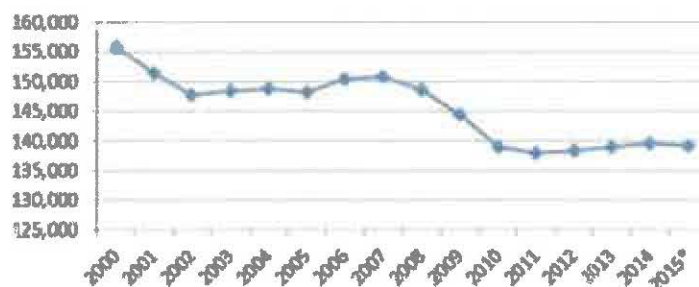
Tracing the landscape of the country's public school enrollment back over the past eighty years reveals demographic, economic, and social changes. The United States as a whole continues to undergo major shifts in public student enrollment. The baby boom of the late 1940s and 50s was followed by the baby bust of the 1960s and 70s. An "echo" baby boom occurred in the 1980s, which then was followed by the echo baby bust from 1990 to 2000. There was a slight uptick from 2000 to 2010. Since 2011, the total number of births has been relatively flat.



With the live birth rate, there was an increase for the first time in several years in 1998. Other increases occurred in 2000, 2006, and 2007. Since 2007, the birth rate has resumed a descending pattern, reaching an all-time low in 2013. In 2014, there was a slight uptick.

Ohio has experienced a similar trend in live births as seen around the country. Live birth counts increased in 2000. A descending pattern resumed in 2001 with a slight stabilization from 2002 to 2005. Births increased slightly again in 2006 and 2007 but then declined to an all-time low of 138,024 in 2011. In 2012, 2013, and 2014, there were slight increases, but preliminary counts for 2015 show another decrease.

Ohio Birth Counts

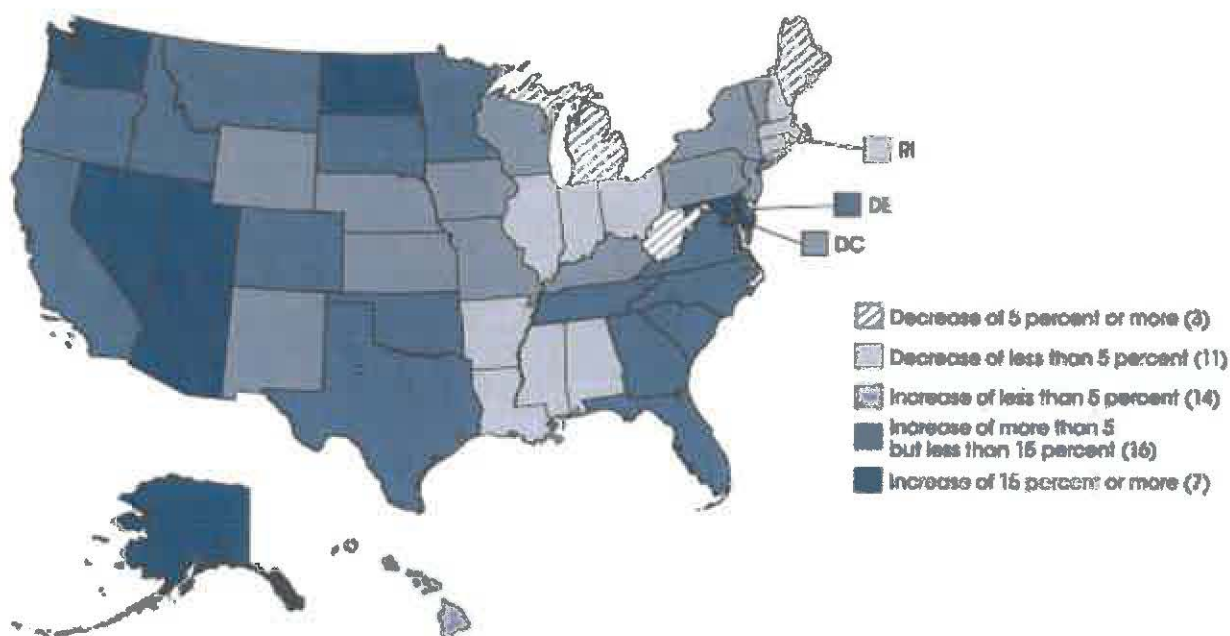


Brecksville-Broadview Heights City School District

In addition, to births dropping in Ohio, the state is also aging. The median age in 2015 was 39.6 years of age while the national median age is 37.8 years. In 2010, the median age in Ohio was 38.3 years.

In 2012-13, approximately 49.8 million students were enrolled in grades Pre-K-12 in the United States. From 2000-01 to 2012-13, enrollment increased by 2.6 million students. Overall, enrollment is projected to increase by approximately 6 percent by the 2024-25 school year.

The figure below illustrates the projected change in Pre-K-12 public school enrollment from the 2012-13 to the 2024-25 school year. Growth is expected to continue primarily in the southeast and west. Ohio is projected to experience a decrease of less than 5 percent.



SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2012-13; and Public State Elementary and Secondary Enrollment Model: 1980-2024. See *Digest of Education Statistics 2014*, [table 203.20](#).

Brecksville-Broadview Heights City School District

In Ohio, enrollment has declined steadily for both public and non-public school enrollment. From 2006-07 to 2015-16, public school enrollment declined by over 140,000 students or approximately 7.5 percent statewide.

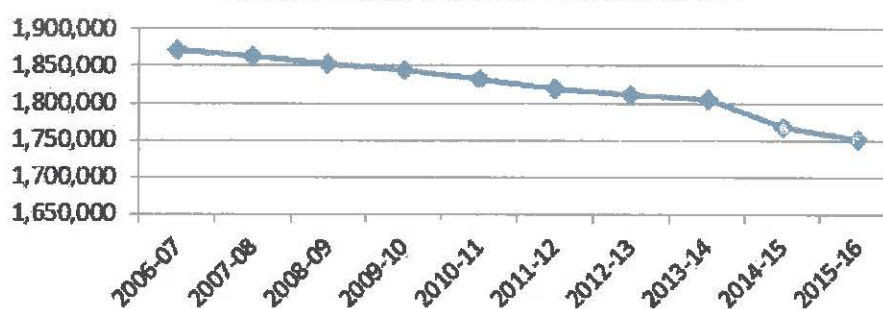
Ohio Public School Enrollment 2006-07 - 2015-16

Year	October Headcount*
2006-07	1,872,435
2007-08	1,862,582
2008-09	1,852,542
2009-10	1,844,447
2010-11	1,832,832
2011-12	1,820,312
2012-13	1,811,532
2013-14	1,806,267
2014-15	1,767,716
2015-16	1,751,304

Source: Ohio Department of Education

*includes grades K-12 and ungraded

Ohio Public School Enrollment



Brecksville-Broadview Heights City School District

From 2004-05 to 2014-15, private school enrollment has declined by approximately 40,000 students or 19 percent. Enrollment totals for 2015-16 were not yet available.

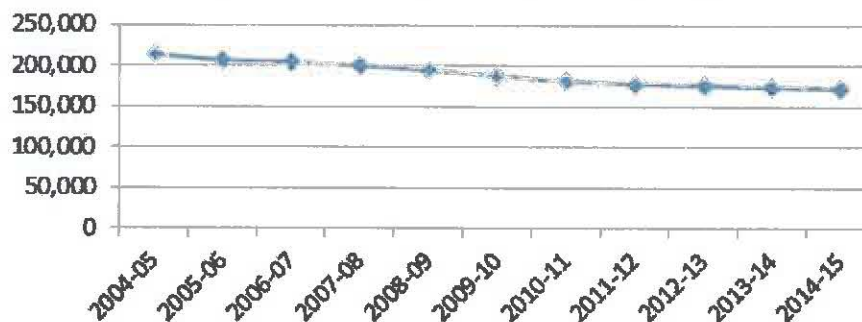
Ohio Chartered Non-Public School Enrollment 2004-05 - 2014-15

Year	October ADM*
2004-05	213,312
2005-06	207,054
2006-07	204,402
2007-08	200,598
2008-09	195,343
2009-10	187,994
2010-11	181,420
2011-12	178,702
2012-13	176,166
2013-14	173,966
2014-15	173,030

Source: Ohio Department of Education

*Includes grades K-12

Ohio Non-Public School Enrollment



Brecksville-Broadview Heights City School District

Out of 610 school districts, only 94 gained enrollment from the 2006-07 to the 2014-15 school year. Approximately 84% of school districts lost enrollment over the time period. Approximately 34% of these districts lost less than 10 percent.

Districts with the biggest loss of students were urban school districts.

For those districts that gained enrollment, 54% increased by less than 5 percent. Of the 10 districts with the greatest increase in students, eight are located in Central Ohio, and most are considered suburban districts.

Looking at the change from the 2010-11 school year, 72 districts (12%) increased in enrollment, and 538 decreased (88%). Of the districts that lost enrollment, 65% declined less than 10 percent.

Districts with the biggest losses were still primarily the urban school districts.

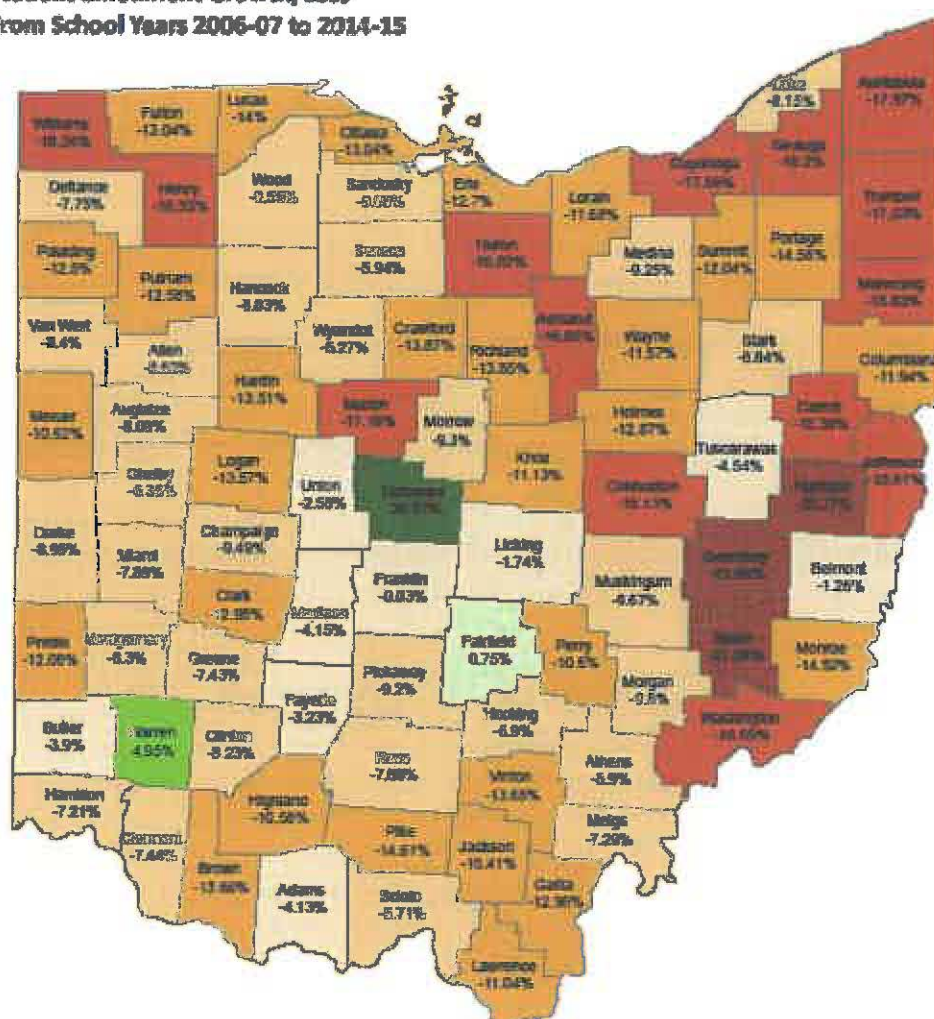
For those districts that gained since 2010-11, 85% increased by less than 10 percent. Of the 10 districts with the greatest increase in students, 8 are located in Central Ohio, and most are considered suburban districts.

Analyzing enrollment from a county perspective, only 3 of the 88 counties in Ohio gained enrollment from 2006-07 and 2014-15.

County	Percentage Gain
Delaware	36.57%
Warren	4.95%
Fairfield	0.75%

Harrison County had the highest percentage loss of students at 25.77 percent. Fifty-two percent of the counties (46) experienced a decline of greater than 10 percent. The map on the following page illustrates the gain/loss for each county from 2006-07 to 2014-15.

U



Brecksville-Broadview Heights City School District

ENROLLMENT PROJECTION METHODOLOGIES

When projecting future enrollments, it is vital to track the number of births, the patterns of enrollment, the amount of new housing activity, and the change in household composition.

In addition, any of the following factors could cause a significant change in projected student enrollments:

- ▶ Boundary adjustments
- ▶ New school openings
- ▶ Changes/additions in program offerings
- ▶ Preschool programs
- ▶ Change in grade configuration
- ▶ Interest rates/unemployment shifts
- ▶ Magnet/charter/private school opening or closure
- ▶ Zoning changes
- ▶ Unplanned new housing activity
- ▶ Planned, but not built, housing

Obviously, certain factors can be gauged and planned for far better than others. For instance, it may be relatively straightforward to gather housing data from local builders regarding the total number of lots in a planned subdivision and calculate the potential student yield. However, planning for changes in the unemployment rate, and how these may either boost or reduce public school enrollment, proves more difficult. In any case, it is essential to gather a wide variety of information in preparation for producing enrollment projections.

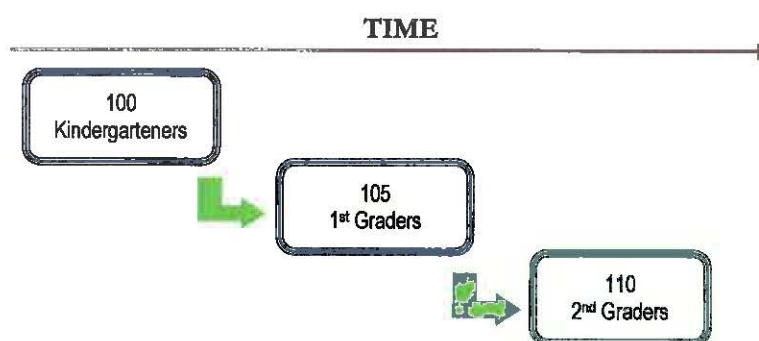
When looking ahead at a school district's enrollment over the next two, five, or ten years, it is helpful to approach the process from a global perspective. For example: How many new homes have been constructed each year? How many births have occurred each year in relation to the resident population? Is housing experiencing a turnover – if so, what is the composition of families moving in/out? Are more or less students attending private school or being home-schooled? What new educational policies are in place now that could affect student enrollment figures?

The data sets generated from questions such as these have led to the development of general methodologies to project future student enrollments. They are as follows:

Brecksville-Broadview Heights City School District

Cohort Survival Method

A cohort is a group of persons [in this case, students]. The cohort survival projection methodology uses previous live birth data and historical student enrollments to “age” a known population or cohort throughout the school grades. For instance, a cohort begins when a group of kindergarteners enrolls in grade K and moves to first grade the following year, second grade the next year, and so on.



A “survival ratio” is developed to track how this group of students grew or shrunk in number as they moved through the grade levels. By determining survival ratios for each grade transition [i.e., 1st to 2nd grade] over a ten-year period of time, patterns emerge and projection ratios can be developed to be used as a multiplier.

For example, if student enrollment has consistently increased from the 8th to the 9th grade over the past ten years, the survival ratios for each year would be greater than 100 percent. Through analysis of the survival ratios, the projection ratio is determined and is multiplied by the current 8th grade to develop a projection for next year’s 9th grade.

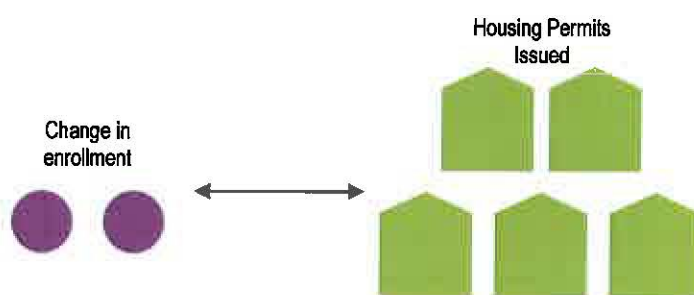
This methodology can be carried through to develop ten years of projection figures. Because there is not a grade cohort to follow for students coming into kindergarten, live birth counts are used to develop a survival ratio. Babies born five years previous to the kindergarten class are compared in number, and a ratio can be developed to project future kindergarten enrollments.

The cohort survival method is useful in areas where population is stable [relatively flat, growing steadily, or declining steadily], and where there have been no significant fluctuations in enrollment, births, and housing patterns from year to year.

Brecksville-Broadview Heights City School District

Housing

Enrollment projections can also be determined by analyzing the housing data for the areas that make up a school district. Yield factors can be established by comparing the historic change in enrollment from year to year divided by the total number of building or occupancy permits issued. For example, if student enrollment has increased by approximately 100 students each year and approximately 200 building permits have been issued each year for the past ten years, then the yield factor would be approximately .5 students per building permit.



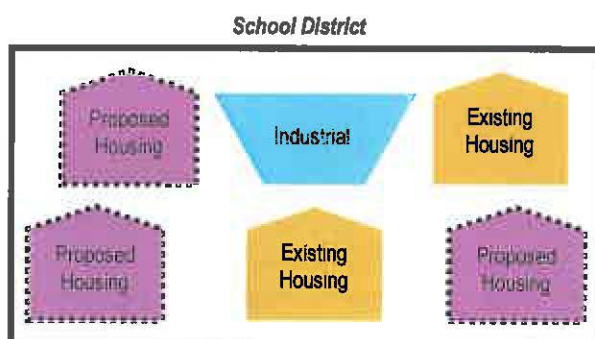
Once yield factors are established, the number of new students per year can be estimated by multiplying the yield factor by the number of projected new housing units. This method is effective when the rate of kindergarten enrollment far exceeds the live birth counts.

If housing demolitions are occurring in a district, these must also be taken into account. For instance, if housing demolitions/withdrawals have increased rapidly over recent years while new housing starts have remained relatively constant over many years, the conclusion may be that some of the new housing starts will simply be replacements for the families displaced by the demolitions. Of course, housing value and household composition would need to be further analyzed to confirm that this is indeed the case. It is possible that enrollment may remain flat or decline even though there is new housing occurring in the area.

Brecksville-Broadview Heights City School District

Land-Saturation Analysis

Housing data also drives the land-saturation analysis enrollment methodology. In areas where there is a high rate of development and the future development patterns in the area are clear, a “build-out” scenario can be developed. The scenario takes into consideration the remaining acreage to be developed, planned rate of completion, zoning policies, density per acre, type of housing, and ratios of school-age children per household type. This method is particularly useful in areas experiencing rapid growth.



Geographic Information Systems

While not a methodology, the need for better tools and easier manipulation of data has led to a new industry standard in planning – GIS [Geographic Information Systems]. GIS technology allows school districts to quickly analyze countless data sets including birth data, housing information, and enrollment statistics.

When paired with enrollment projections, GIS becomes an invaluable information-management and decision-making tool. Often, county or city offices are already implementing GIS technology and data can be shared and expanded among these organizations in the district. GIS tables and maps are included within this report illustrating population, age, and income estimates and projections.

The cohort survival was the primary method used in the development of the enrollment projections for the Brecksville-Broadview Heights City School District.

Brecksville-Broadview Heights City School District

HISTORICAL ENROLLMENT

Over the past ten years, student enrollment in the Brecksville-Broadview Heights City School District has decreased by 788 students in grades Pre-K – 12, including ungraded, career technical, and full-time JVS students. Total enrollment for the 2016-17 school year is 3,860 students.

The approximate percentages of mainstreamed special education students [Pre-K – 12] for the current school year are as follows:

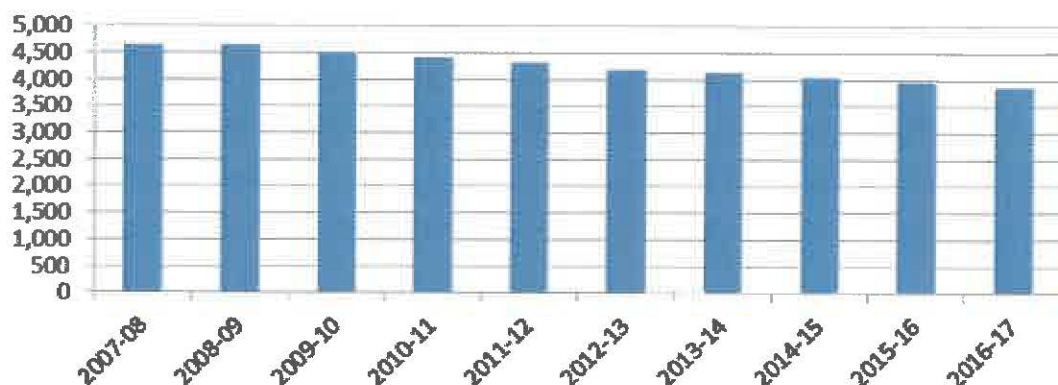
- Pre-K – 100%
- K-3 – 8%
- 4-5 – 12%
- 6-8 – 7%
- 9-12 – 10%

The approximate percentages of self-contained special education students [Pre-K – 12] for the current school year are as follows:

- Pre-K – 0%
- K-3 – <1%
- 4-5 – <1%
- 6-8 – 2%
- 9-12 – 2%

The following graph illustrates the District's Pre-K – 12 enrollment history from 2007-08 through 2016-17.

**Brecksville-Broadview Heights City School District
Historical Enrollment**



Brecksville-Broadview Heights City School District

The following tables illustrate the District's enrollment history from 2007-08 through 2016-17.

Brecksville-Broadview Heights City School District

Historical Enrollment

Grade	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Pre-K (regular)*	0	9	17	23	15	22	34	37	31	34
Pre-K (special needs)	0	54	39	53	45	48	31	32	33	19
K	229	261	250	221	220	206	230	235	216	208
1	311	251	269	266	234	244	254	249	251	231
2	270	326	256	282	278	239	252	268	260	255
3	332	271	335	273	289	289	259	263	268	273
4	356	341	282	346	284	303	305	262	265	277
5	341	367	343	280	349	288	315	303	264	275
6	357	342	370	352	300	352	303	321	317	272
7	397	371	347	368	363	316	358	308	329	326
8	405	406	370	348	373	368	322	366	308	329
9	409	417	415	367	368	372	366	314	375	312
10	402	418	413	411	359	366	371	361	315	377
11	433	323	361	339	349	296	311	312	315	272
12	406	370	314	360	342	331	357	305	306	314
Pre-K - 12 Total	4,648	4,527	4,381	4,289	4,168	4,040	4,068	3,936	3,853	3,774
Ungraded	0	0	9	10	11	9	4	2	6	5
Career Tech Off-Site	0	119	120	129	141	140	62	112	105	81
JVS Full-Time	0	0	0	0	0	2	0	0	0	0
Grand Total	4,648	4,646	4,510	4,428	4,320	4,191	4,134	4,050	3,964	3,860

Source: Ohio Department of Education, EMIS; Brecksville-Broadview Heights City School District

Brecksville-Broadview Heights City School District

Historical Enrollment by Grade Group

Grade	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Pre-K (special needs) - 3	1,142	1,163	1,149	1,095	1,066	1,026	1,026	1,047	1,028	986
4 - 5	697	708	625	626	633	591	620	565	529	552
6 - 8	1,159	1,119	1,087	1,068	1,036	1,036	983	995	954	927
9 - 12	1,650	1,528	1,503	1,477	1,418	1,365	1,405	1,292	1,311	1,275
Pre-K - 12 Total	4,648	4,518	4,364	4,266	4,153	4,018	4,034	3,899	3,822	3,740
Ungraded	0	0	9	10	11	9	4	2	6	5
Career Tech Off-Site	0	119	120	129	141	140	62	112	105	81
Grand Total	4,648	4,637	4,493	4,405	4,305	4,167	4,100	4,013	3,933	3,826

Source: Ohio Department of Education, EMIS; Brecksville-Broadview Heights City School District

*regular Pre-K enrollment is not included in grade group table above or in the projected enrollment figures.

Brecksville-Broadview Heights City School District

COMMUNITY SCHOOL ENROLLMENT

In Ohio, community school enrollment has increased dramatically over the last decade. From 2005-06 to 2014-15, enrollment has increased by over 72% from 72,061 students in 305 community schools to 124,043 students in 381 community schools. From 2013-14 to 2014-15, there was a slight drop in enrollment and number of schools.

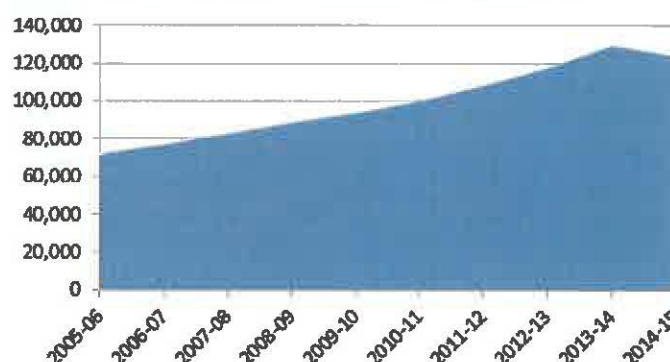
Ohio

Community School Enrollment (Pre-K - 12)

Grade	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Grand Total	72,064	76,932	82,643	88,536	93,623	99,878	108,239	117,473	129,505	124,043

Source: Ohio Department of Education
includes ungraded students

Ohio Community School Enrollment



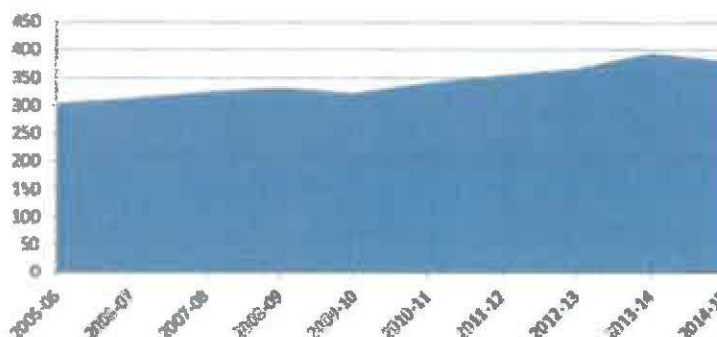
Ohio

Number of Community Schools

Grade	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Grand Total	305	314	325	332	323	341	355	367	395	381

Source: Ohio Department of Education

Number of Community Schools in Ohio



Brecksville-Broadview Heights City School District

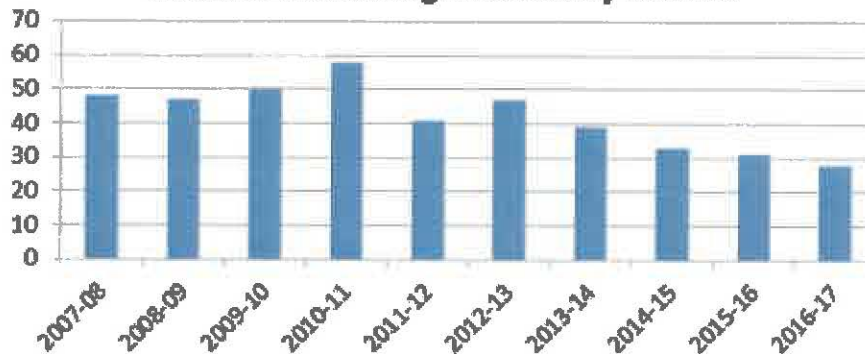
Since 2007-08, the number of Brecksville-Broadview Heights City School District students attending community schools has decreased from 48 to 28 students with some fluctuation. Enrollment of Brecksville-Broadview Heights City School District students attending community schools should be closely monitored as it may have a significant impact on District enrollment in the future.

**Brecksville-Broadview Heights City School District
Community School Enrollment**

Grade	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Pre-K	0	0	0	0	0	0	0	0	0	0
K	2	4	0	3	0	1	2	1	1	2
1	2	1	3	2	2	3	2	2	1	2
2	0	2	1	4	2	1	4	2	1	1
3	2	1	3	2	2	3	4	3	0	0
4	2	2	0	0	2	4	3	1	4	0
5	1	3	2	3	2	2	4	2	2	2
6	1	3	3	1	3	0	2	2	2	2
7	0	1	5	5	1	3	1	4	3	5
8	2	2	2	4	3	4	2	2	2	2
9	10	8	6	4	3	4	2	3	3	2
10	8	3	7	9	5	5	3	1	4	1
11	11	10	12	10	8	10	5	6	4	5
12	6	7	6	11	8	7	5	4	4	4
Ungraded	1	0	0	0	0	0	0	0	0	0
Grand Total	48	47	50	58	41	47	39	33	31	28

Source: Ohio Department of Education, EMIS; Brecksville-Broadview Heights City School District

**Brecksville-Broadview Heights City School
District
Students Attending Community Schools**



Brecksville-Broadview Heights City School District

LIVE BIRTH DATA

Utilization of live birth data is recommended when projecting future kindergarten enrollments as it provides a helpful overall trend. The live birth counts are used in determining a birth-to-kindergarten survival ratio. This ratio identifies the percentage of children born in a representative area who attend kindergarten in the District five years later. The survival ratios for birth-to-kindergarten as well as grades 1-12 can be found later in this report.

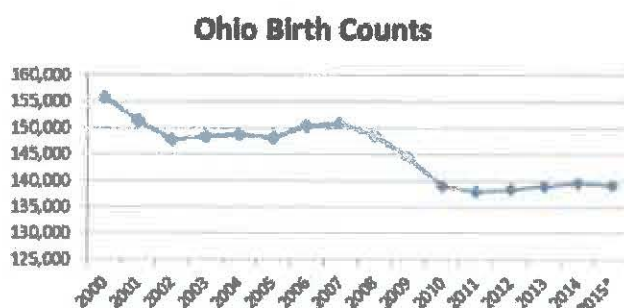
The Ohio Department of Health [ODH] data warehouse provides information about live birth events for Ohio residents. Information about events occurring outside of Ohio to Ohio residents is included. Information about events occurring inside Ohio to non-Ohio residents is not included.

Data is arranged by the residence of the mother. For example, if a mother lives in Powell, Delaware County but delivers her baby in Columbus, Franklin County, the birth is counted in Powell, Delaware County.

The number of live births is recorded by:

- ▶ State
- ▶ County
- ▶ City/Town
- ▶ Census Tract
- ▶ Zip Code
- ▶ Address [not available to the public]

Live birth counts are different from live birth rates. The live birth count is the actual number of live births. A birth rate is the number of births per 1,000 women in a specified population group. Birth rates are provided for counties only and for 9 age groups from 10-14 years to 45+ years.



Ohio has experienced a similar trend in live births as seen around the country. Live birth counts increased in 2000. A descending pattern resumed in 2001 with a slight stabilization from 2002 to 2005. Births increased slightly again in 2006 and 2007 but then declined to an all-time low of 138,024 in 2011. In 2012, 2013, and 2014, there were slight increases, but preliminary counts for 2015 show another decrease.

Brecksville-Broadview Heights City School District

The following table and graph include the live birth counts for zip codes 44133, 44141, and 44147. Based on the analysis of the map on page 19, all zip codes were used for projection purposes.

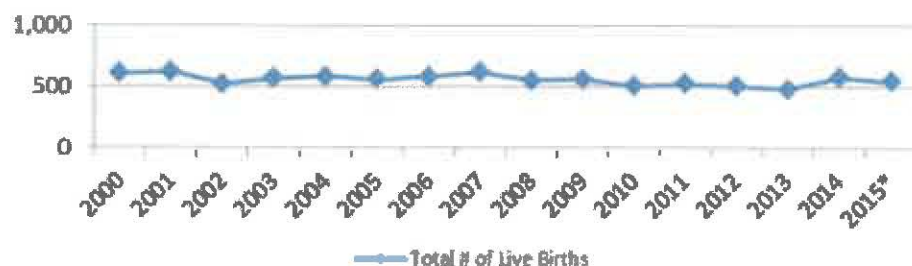
**Brecksville-Broadview Heights City School District
Live Birth Count by Zip Code
2000-2015**

Year	44133	44141	44147	Total # of Live Births
2000	305	125	179	609
2001	294	131	199	624
2002	274	95	157	526
2003	251	116	202	569
2004	275	109	199	583
2005	278	84	198	560
2006	272	91	224	587
2007	275	115	232	622
2008	246	100	210	556
2009	251	108	205	564
2010	259	79	173	511
2011	222	106	204	532
2012	240	88	181	509
2013	221	86	176	483
2014	263	111	207	581
2015*	262	101	185	548

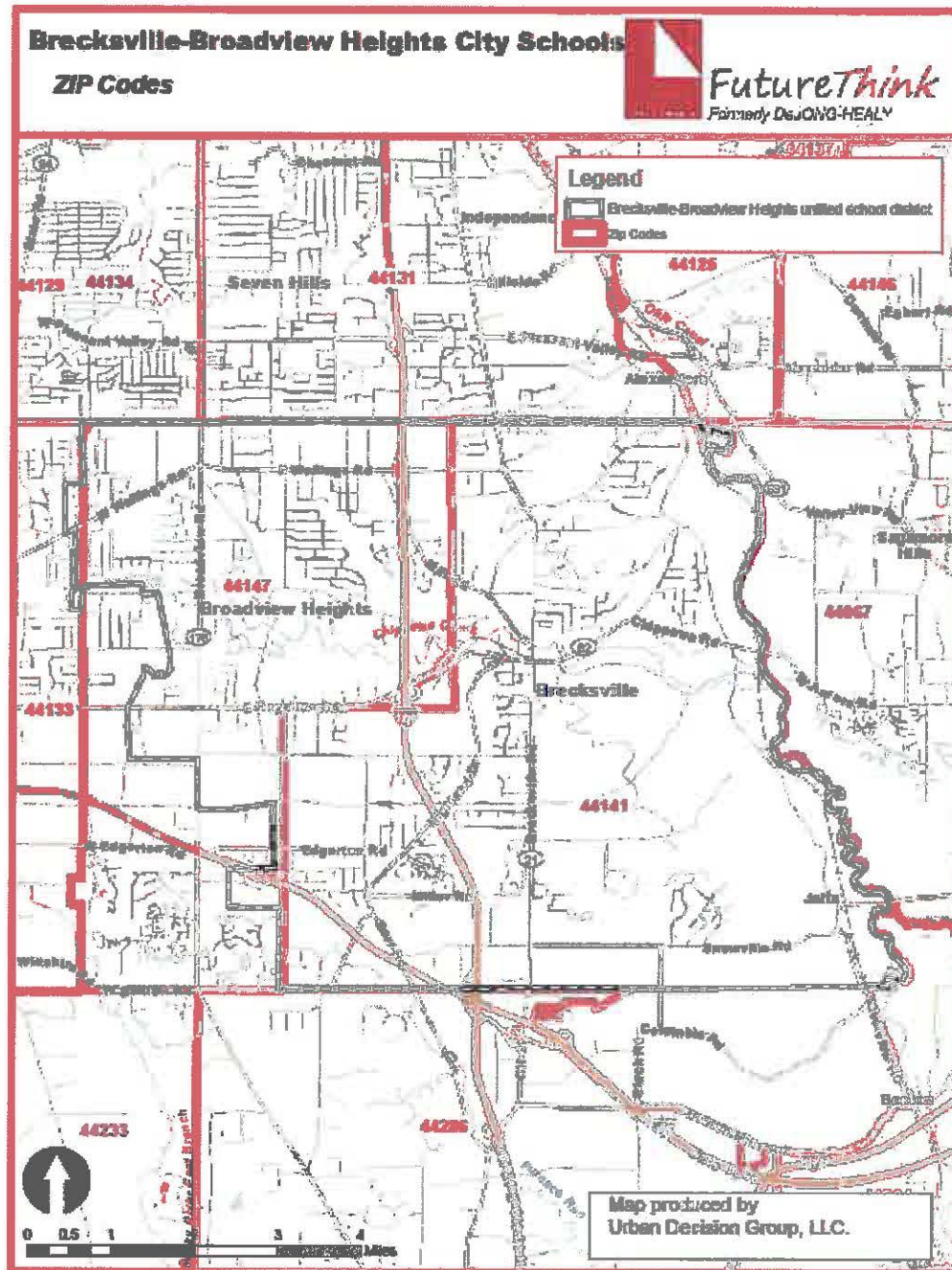
Source: Ohio Department of Health, Statistical Analysis Unit

*preliminary

**Brecksville-Broadview Heights City School District
Live Birth Count by Zip Code**



Brecksville-Broadview Heights City School District



Brecksville-Broadview Heights City School District

DEMOGRAPHICS

The Brecksville-Broadview Heights City School District is comprised of Brecksville, Broadview Heights, and North Royalton in Cuyahoga County. General demographic data is included in the following tables for the areas located completely or partially in the District.

General Demographic Information

	Cuyahoga County	State of Ohio
Per Capita Income	\$27,892	\$26,046
Median Household Income	\$44,203	\$48,308
Persons Below Poverty	18.5%	15.8%

Source: US Census, American Community Survey, 2014 5-Year Estimates

Total Population

	2000 Census	2010 Census
Cuyahoga County	1,393,978	1,280,122
Brecksville city	13,382	13,656
Broadview Heights city	15,967	19,400
North Royalton city	28,648	30,444

Source: ODO Policy Research & Strategic Planning Office, August 2011

Also included are block group estimates and projections provided by ESRI. ESRI uses a time series of estimates from the U.S. Census Bureau that includes the latest estimates and inter-censal estimates adjusted for error of closure. The Census Bureau's time series is consistent, but testing has revealed improved accuracy by using a variety of sources to track county population trends.

ESRI also employs a time series of building permits and housing starts plus residential deliveries. Data sources are integrated and then analyzed by Census Block Groups.

Sources of data include:

- ▶ Supplementary Surveys of the Census Bureau
- ▶ Bureau of Labor Statistics' (BLS) Local Area Unemployment Statistics
- ▶ BLS Occupational Employment Statistics
- ▶ InfoUSA
- ▶ U.S. Bureau of the Census' Current Population Survey
- ▶ National Planning Association Data Service

Brecksville-Broadview Heights City School District

Below is a list of definitions as they appear on the U.S. Census Bureau website, to aid in interpretation of the following tables and maps.

Household:

A household includes all the people who occupy a housing unit as their usual place of residence.

Average family size:

A measure obtained by dividing the number of members of families by the total number of families (or family householders).

Family household (Family):

A family includes a householder and one or more people living in the same household who are related to the householder by birth, marriage, or adoption. All people who are related to the householder are regarded as members of his or her family. A family household may contain people not related to the householder, but those people are not included as part of the householder's family in census tabulations. Thus, the number of family households is equal to the number of families, but family households may include more members than do families. A household can contain only one family for purposes of census tabulations. Not all households contain families since a household may comprise a group of unrelated people or one person living alone.

Householder:

The person, or one of the people, in whose name the home is owned, being bought, or rented. If there is no such person present, any household member 15 years old and over can serve as the householder for the purposes of the census. Two types of householders are distinguished: a family householder and a nonfamily householder. A family householder is a householder living with one or more people related to him or her by birth, marriage, or adoption. The householder and all people in the household related to him are family members. A nonfamily householder is a householder living alone or with nonrelatives only.

Brecksville-Broadview Heights City School District

The following tables illustrate the current estimates and 5-year population projections based on block groups that comprise the state and school district, indicating areas of current and projected growth. The tables have been developed to determine selected age group projections and projections for household income, family size, and total households.

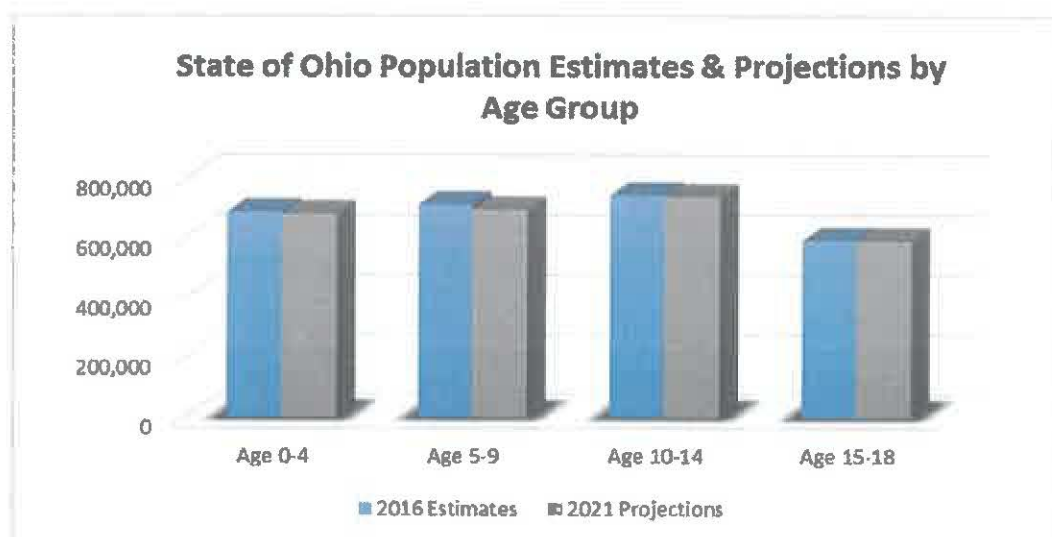
The total population in the State of Ohio is 11,685,477. This population is projected to increase by 139,791 people, or approximately 1% over a 5-year period.

The 0-18 year-old population in the State currently totals 2,740,622. This population is projected to decrease by 30,593 children, or approximately 1 percent.

The median age is projected to increase by approximately 2% from 39.7 to 40.4 years of age.

Ohio	2016 Estimates	2021 Projections	Change 2016-21	Change 2016-21 (%)
Total Population	11,685,477	11,825,268	139,791	1.2%
Age 0-4	688,715	682,025	-6,690	-1.0%
Age 5-9	713,404	696,064	-17,340	-2.4%
Age 10-14	744,456	739,075	-5,381	-0.7%
Age 15-18	594,047	592,865	-1,182	-0.2%
Total Age 0-18	2,740,622	2,710,029	-30,593	-1.1%
Median Age	39.7	40.4	0.7	1.8%

Source: ESRI

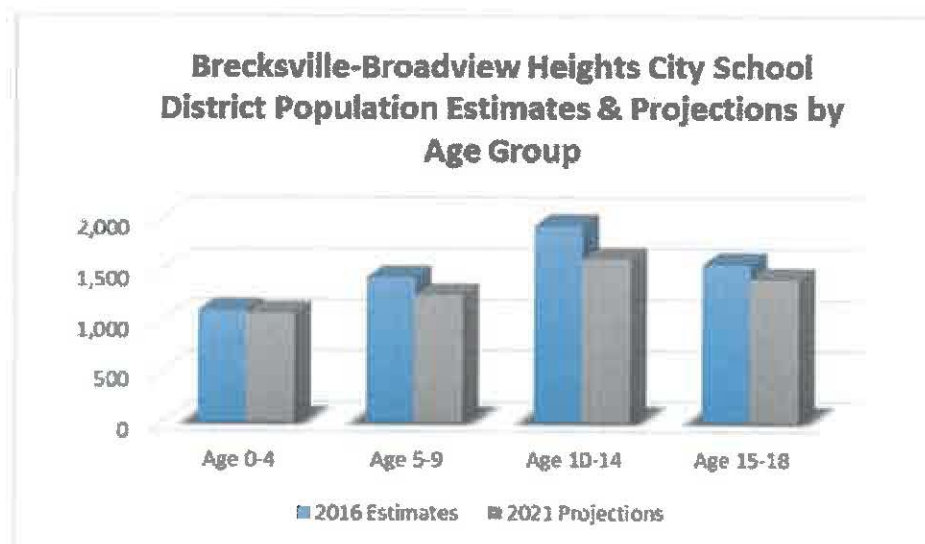


Brecksville-Broadview Heights City School District

The total population in the District is 26,851. This population is projected to decrease by 317 people, or approximately 1% over a 5-year period. The 0-18 year-old population in the District currently totals 5,992. This population is projected to decrease by 680 people, or approximately 11 percent. The median age is projected to increase by approximately 3%, from 46.7 to 48.3 years of age.

Brecksville-Broadview Heights City School District	2016 Estimates	2021 Projections	Change 2016-21	Change 2016-21 (%)
Total Population	26,851	26,534	-317	-1.2%
Age 0-4	1,097	1,067	-30	-2.7%
Age 5-9	1,420	1,245	-175	-12.3%
Age 10-14	1,926	1,599	-327	-17.0%
Age 15-18	1,549	1,401	-148	-9.6%
Total Age 0-18	5,992	5,312	-680	-11.3%
Median Age	46.7	48.3	1.6	3.4%

Source: ESRI



Brecksville-Broadview Heights City School District

Median and average household incomes in the State are projected to increase by approximately 12% and 10%, respectively over a 5-year period. The average family size is expected to remain the same, and the total number of family households is projected to increase slightly.

Ohio	2016 Estimates	2021 Projections	Change 2016-21	Change 2016-21 (%)
Median Household Income	\$49,674	\$55,646	\$5,972	12.0%
Average Household Income	\$66,901	\$73,778	\$6,877	10.3%
Average Family Size	3.01	3.01	0.00	0.0%
Total Family Households	3,003,839	3,026,138	22,299	0.7%

Source: ESRI

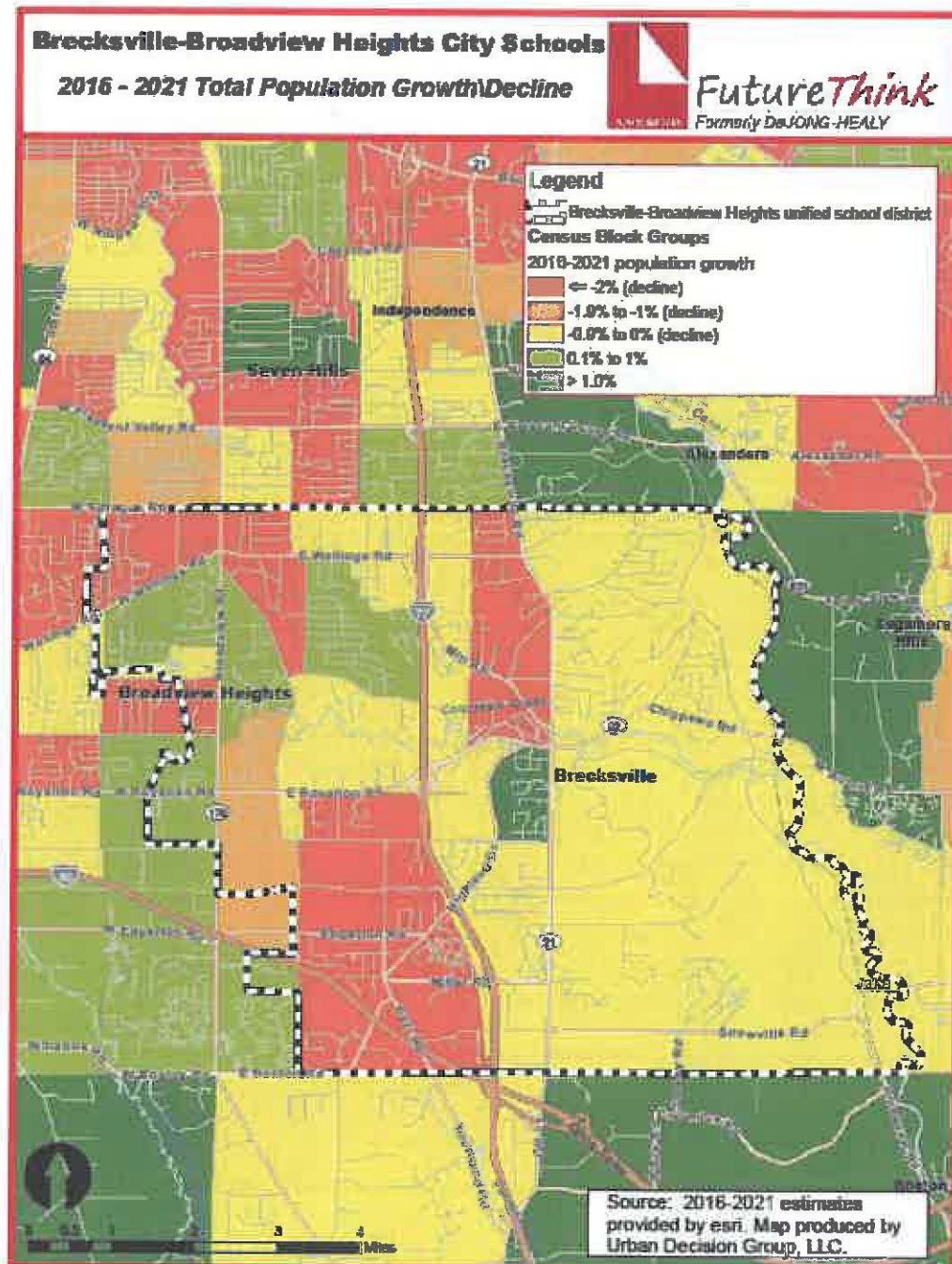
Median and average household incomes in the District are projected to increase by approximately 14% and 11%, respectively over a 5-year period. The average family size and the number of family households are projected to decline slightly.

Brecksville-Broadview Heights City School District	2016 Estimates	2021 Projections	Change 2016-21	Change 2016-21 (%)
Median Household Income	\$88,209	\$100,562	\$12,353	14.0%
Average Household Income	\$113,385	\$125,245	\$11,860	10.5%
Average Family Size	3.03	3.02	-0.01	-0.3%
Total Family Households	7,475	7,392	-83	-1.1%

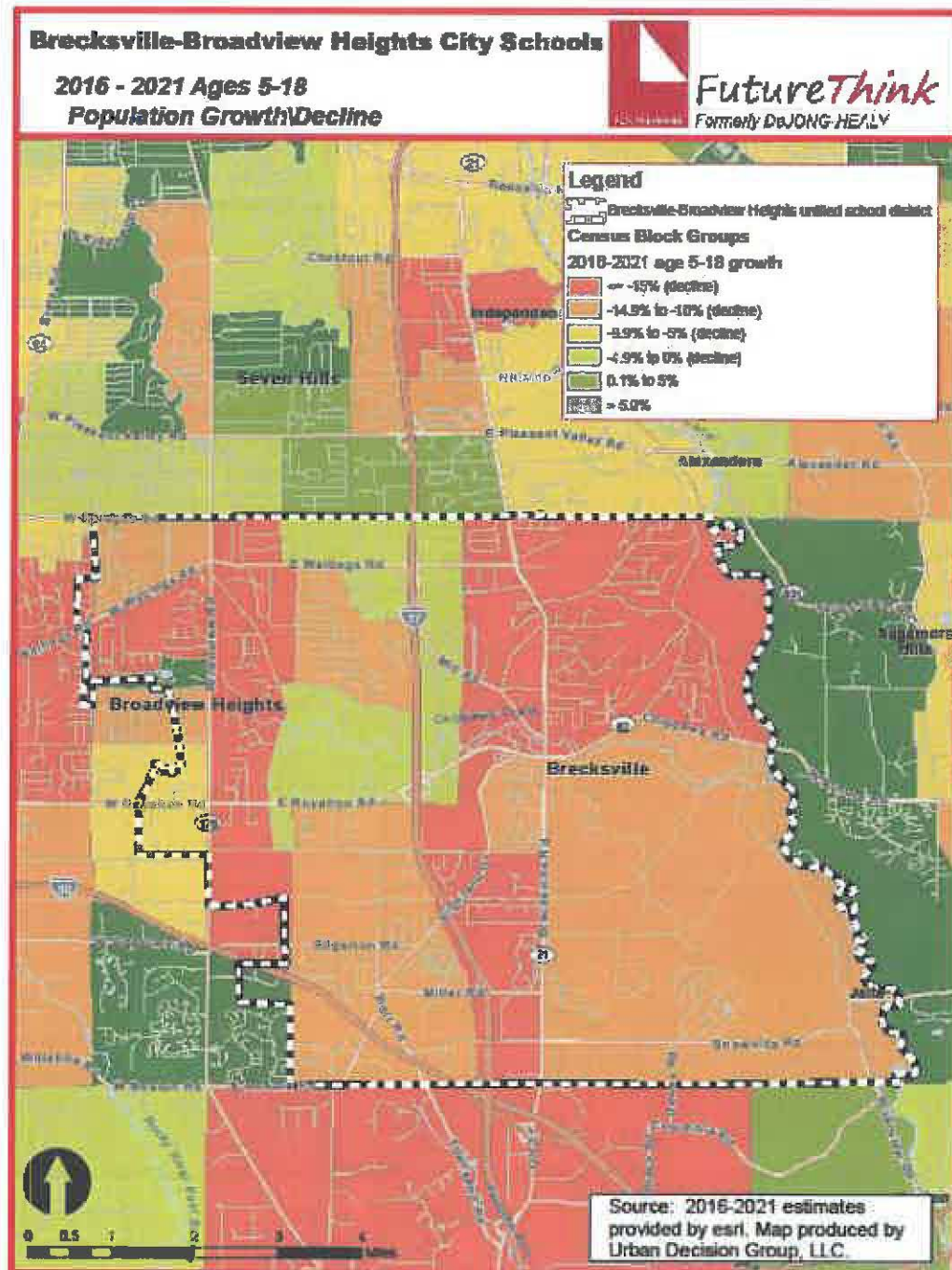
Source: ESRI

The maps on the following pages illustrate the data identified in the tables. The color coding identifies areas within the District that may be increasing or decreasing at different rates than others.

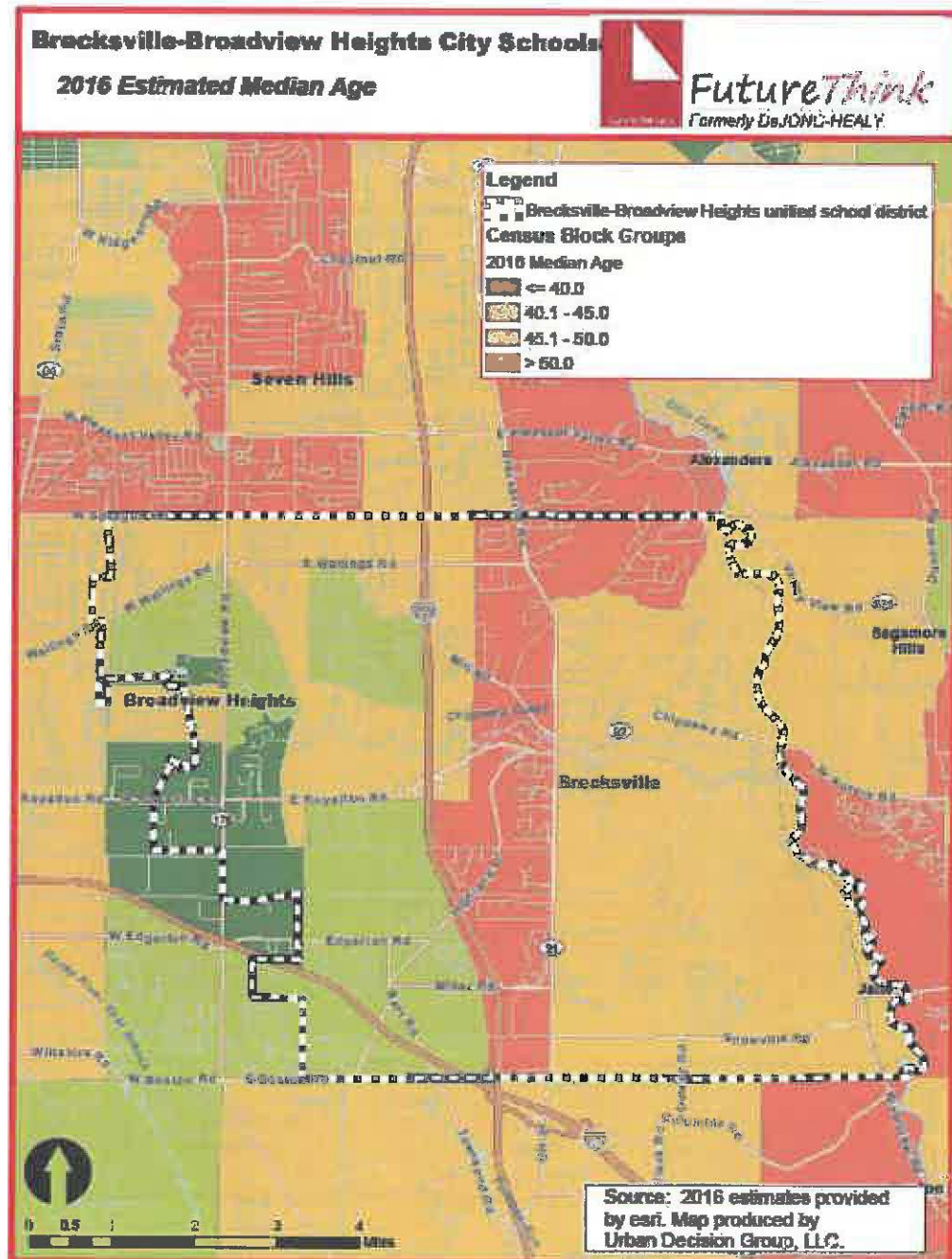
Brecksville-Broadview Heights City School District



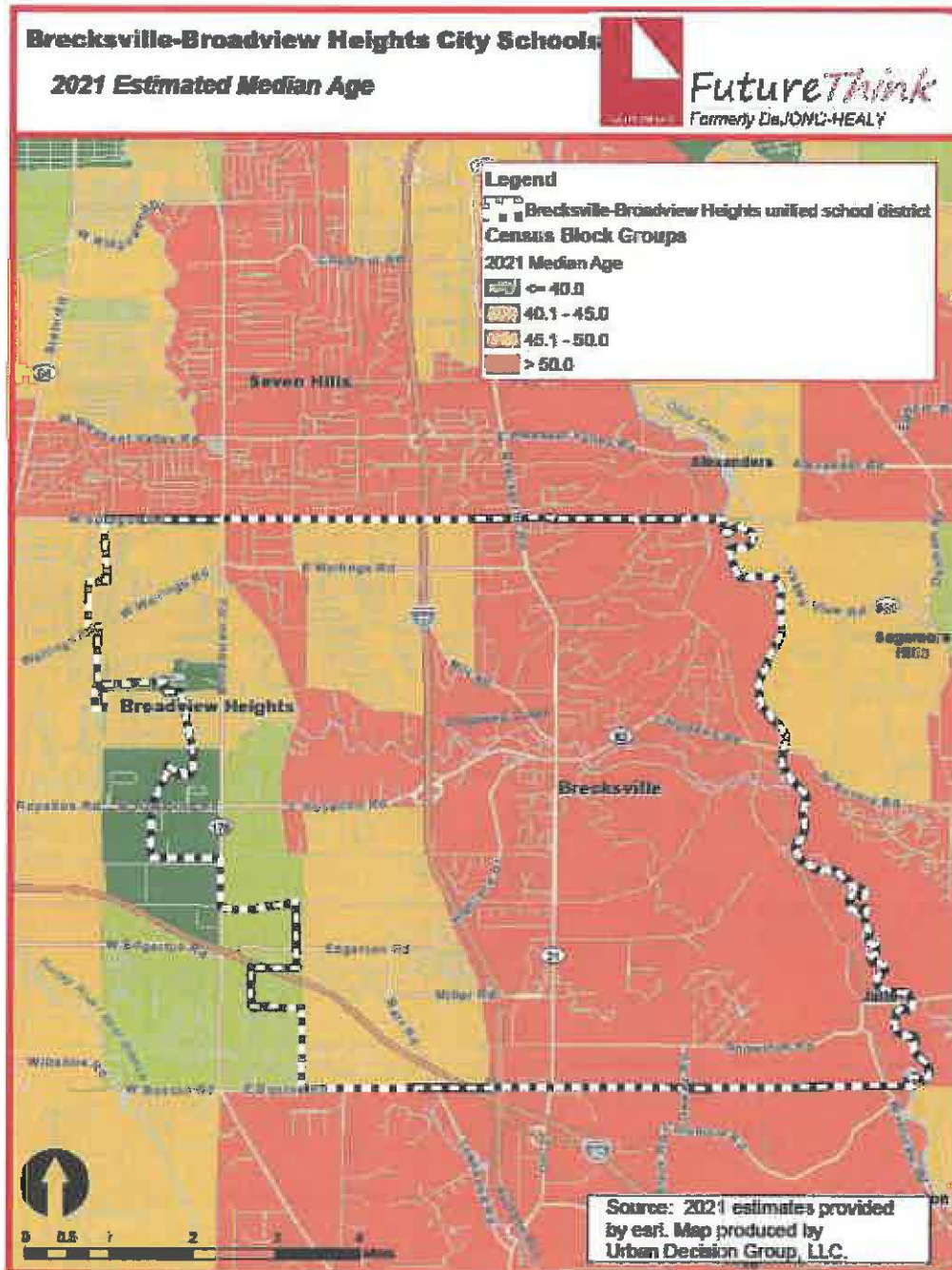
Brecksville-Broadview Heights City School District



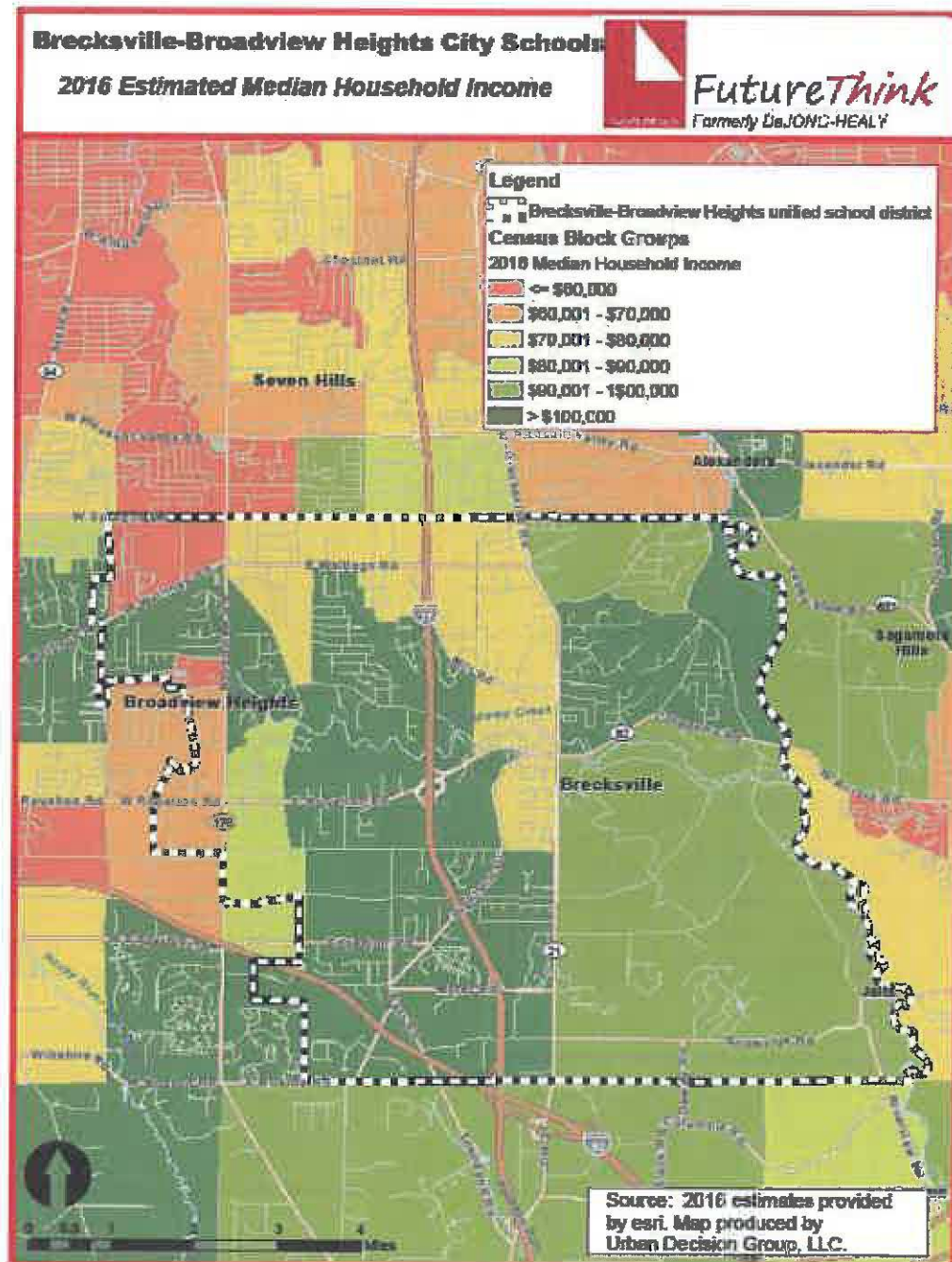
Brecksville-Broadview Heights City School District



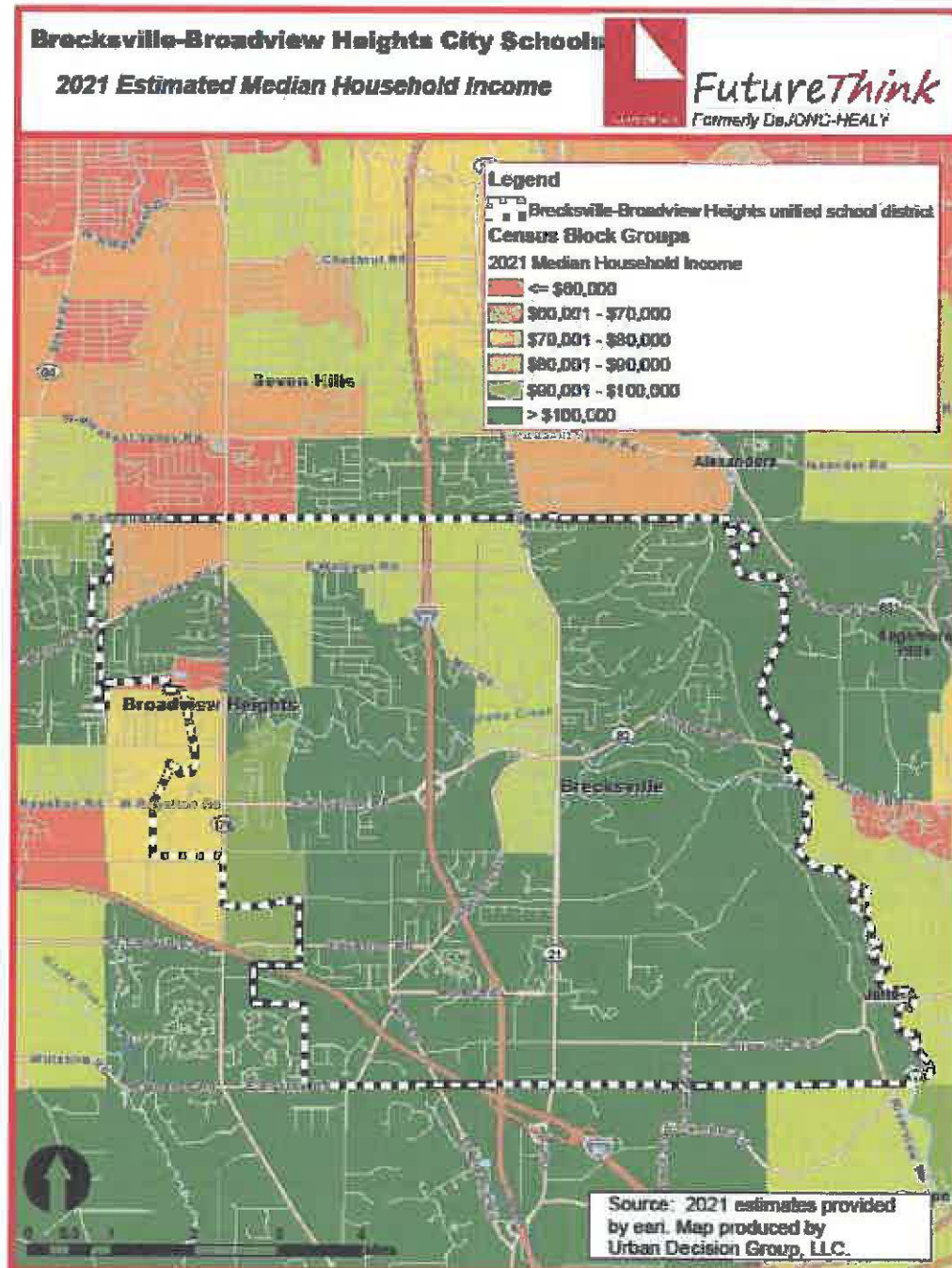
Brecksville-Broadview Heights City School District



Brecksville-Broadview Heights City School District



Brecksville-Broadview Heights City School District



Brecksville-Broadview Heights City School District

HOUSING INFORMATION

The chart below illustrates the number of single-family dwelling building permits issued each year in Brecksville and Broadview Heights in Cuyahoga County.

# of Building Permits Issued for Single Family Dwellings			
Year	Brecksville	Broadview Heights	Cuyahoga County
2006	23	50	1,246
2007	12	30	922
2008	12	18	542
2009	9	12	462
2010	4	23	490
2011	4	21	401
2012	8	24	488
2013	5	12	678
2014	10	20	592
2015	28	35	702
2016*	23	30	588

Source: SOCDs Building Permits Database; City of Brecksville

* through October 2016

Brecksville-Broadview Heights City School District

SURVIVAL RATIOS

The chart below demonstrates the changes in enrollment as students move through the system. Percentages greater than 100 indicate that there are more students than there were in the previous grade the previous year. In other words, there was growth and new students entered the system. Percentages less than 100 indicate that there was decline with students leaving the system.

- **Birth to Kindergarten:** This ratio indicates the number of children born in the area who attend kindergarten in the District 5 years later. Percentages less than 100% result from movement out of the district, attendance at a non-public or charter school, or residence in another district within the same area.
- **Grades 8-9:** The higher than usual percentage often is a result of school district promotion policies. Often in school districts, students are promoted from 8th to 9th grade and after one year in 9th grade do not have sufficient credits to be classified as 10th graders and are counted again as 9th graders the following year. There may also be students who attended private or charter schools or are home schooled through grade 8 and then attend public schools for high school education.

The following table illustrates the survival ratios for the Brecksville-Broadview Heights City School District.

from	to	birth -> K	K->1	1->2	2->3	3->4	4->5	5->6	6->7	7->8	8->9	9->10	10->11	11->12
2007	2008	45.9%	109.6%	104.8%	100.4%	102.7%	103.1%	100.3%	103.9%	102.3%	103.0%	102.2%	80.3%	85.5%
2008	2009	42.9%	103.1%	102.0%	102.8%	104.1%	100.6%	100.8%	101.5%	99.7%	102.2%	99.0%	86.4%	97.2%
2009	2010	39.5%	106.4%	104.8%	106.6%	103.3%	99.3%	102.6%	99.5%	100.3%	99.2%	99.0%	82.1%	99.7%
2010	2011	37.5%	105.9%	104.5%	102.5%	104.0%	100.9%	107.1%	103.1%	101.4%	105.7%	97.8%	84.9%	100.9%
2011	2012	33.1%	110.9%	102.1%	104.0%	104.8%	101.4%	100.9%	105.3%	101.4%	99.7%	99.5%	82.5%	94.8%
2012	2013	41.4%	123.3%	103.3%	108.4%	105.5%	104.0%	105.2%	101.7%	101.9%	99.5%	99.7%	85.0%	120.6%
2013	2014	41.7%	108.3%	105.5%	104.4%	101.2%	99.3%	101.9%	101.7%	102.2%	97.5%	98.6%	84.1%	98.1%
2014	2015	42.3%	106.8%	104.4%	100.0%	100.8%	100.8%	104.6%	102.5%	100.0%	102.5%	100.3%	87.3%	98.1%
2015	2016	39.1%	106.9%	101.6%	105.0%	103.4%	103.8%	103.0%	102.8%	100.0%	101.3%	100.5%	86.3%	99.7%
	average	40.36%	109.020%	103.68%	103.8%	103.30%	101.5%	102.9%	102.4%	101.0%	101.175%	99.641%	84.315%	99.395%
	standard deviation	3.435%	5.475%	1.373%	2.576%	1.486%	1.668%	2.177%	1.571%	0.962%	2.339%	1.197%	2.161%	8.666%

Brecksville-Broadview Heights City School District

ENROLLMENT PROJECTION

Enrollment projections were developed after analyzing the data collected in this report. The projections indicate a decrease of 285 students in grades Pre-K through 12, not including regular Pre-K students, from the 2016-17 to the 2026-27 school year. The following tables and graph illustrate projected enrollments by grade and by grade group through the 2026-27 school year.

Preschool:

The Ohio School Design Manual [OSDM] provides space for preschool students with disabilities and a maximum of 40 ECE preschool students. The Brecksville-Broadview Heights City School District funds preschool through the following sources:

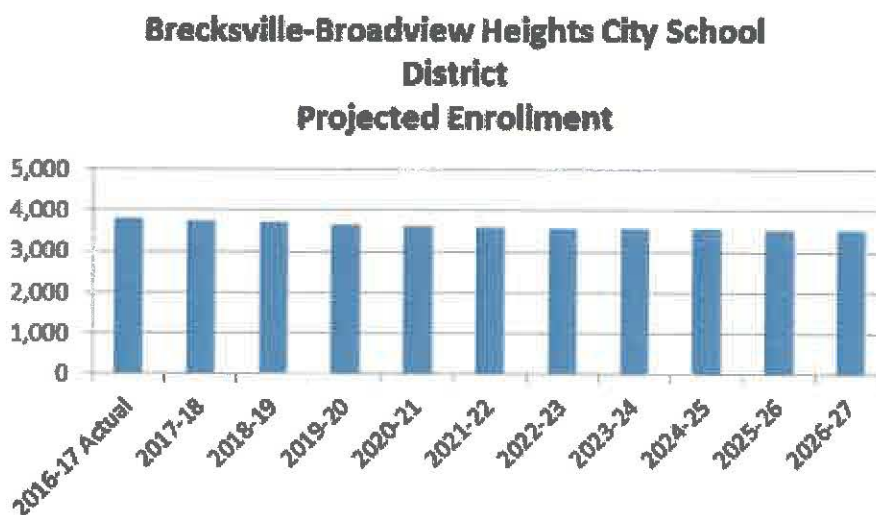
- General fund
- Tuition
- ECE Entitlement

Kindergarten:

The OSDM provides space for all day, every day kindergarten.

Career Technical:

Due to the specialized space requirements, career technical students are pulled out of the 11th and 12th grade enrollments and projected separately.



Brecksville-Broadview Heights City School District

Brecksville-Broadview Heights City School District
Projected Enrollment

Grade	2016-17 Actual	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
Pre-K (special needs)	19	27	26	31	29	29	29	29	29	29	29
K	208	209	199	239	225	221	221	221	221	221	221
1	231	225	226	214	257	243	238	238	238	238	238
2	255	242	235	235	223	269	253	249	249	249	249
3	273	265	251	243	244	232	279	263	258	258	258
4	277	283	274	259	252	253	240	288	272	267	267
5	275	284	289	280	265	257	258	245	295	278	273
6	272	285	293	299	290	274	266	267	253	305	288
7	326	279	292	301	307	297	281	273	274	260	312
8	329	331	283	295	304	310	301	284	276	277	263
9	312	333	334	286	299	307	314	304	287	279	280
10	377	313	334	335	286	299	308	314	304	288	279
11	272	320	266	283	284	243	254	261	267	258	244
12	314	268	315	261	278	279	239	250	257	262	254
Pre-K - 12 Total	3,740	3,664	3,617	3,561	3,543	3,513	3,481	3,486	3,480	3,469	3,455
Ungraded	5	5	5	5	5	5	4	4	4	4	4
Career Tech Off-Site	81	96	95	89	92	86	81	84	86	85	82
Grand Total	3,826	3,765	3,717	3,655	3,640	3,604	3,566	3,574	3,570	3,558	3,541

Source: FutureThink

Brecksville-Broadview Heights City School District
Projected Enrollment by Grade Group

Grade	2016-17 Actual	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
Pre-K (special needs) - 3	986	968	937	962	978	994	1,020	1,000	995	995	995
4 - 5	552	567	563	539	517	510	498	533	567	545	540
6 - 8	927	895	868	895	901	881	848	824	803	842	863
9 - 12	1,275	1,234	1,249	1,165	1,147	1,128	1,115	1,129	1,115	1,087	1,057
Pre-K - 12 Total	3,740	3,664	3,617	3,561	3,543	3,513	3,481	3,486	3,480	3,469	3,455
Ungraded	5	5	5	5	5	5	4	4	4	4	4
Career Tech Off-Site	81	96	95	89	92	86	81	84	86	85	82
Grand Total	3,826	3,765	3,717	3,655	3,640	3,604	3,566	3,574	3,570	3,558	3,541

Source: FutureThink

Brecksville-Broadview Heights City School District

CONCLUSION

As with any projection, the District should pay close attention to live birth counts, enrollment in elementary schools, community school enrollment, open enrollment, and any housing growth. Each of these factors will have an impact on future student enrollment.

FutureThink is pleased to have had the opportunity to provide the District with enrollment projection services. We hope this document will provide the necessary information to make informed decisions about the future of the Brecksville-Broadview Heights City School District.

Brecksville-Broadview Heights City School District

APPENDIX

The following document is included in the appendix:

- District Questionnaire

The May 2002 Enrollment Projection Report is available upon request.