

# FINAL REPORT Ohio | School Facilities Commission

# **Worthington City School District**

Franklin County Enrollment Projections October 22, 2015

#### **INTRODUCTION**

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

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

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

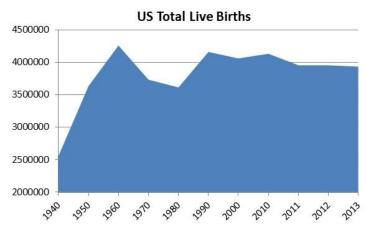
The projections presented in this report are meant to serve as a planning tool for the future and represent the most likely direction of the District.



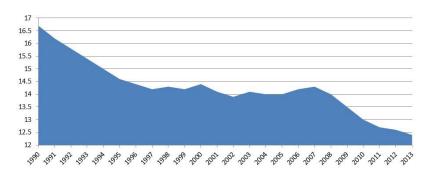
#### **NATIONAL & OHIO TRENDS IN ENROLLMENT**

Tracing the landscape of the country's public school enrollment back over the past seventy 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.



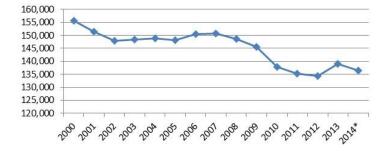
US Population - Live Birth Rate per 1,000 Population



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.

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 134,440 in 2012. In 2013, there was an increase, but preliminary counts for 2014 show another decrease.

#### **Ohio Birth Counts**

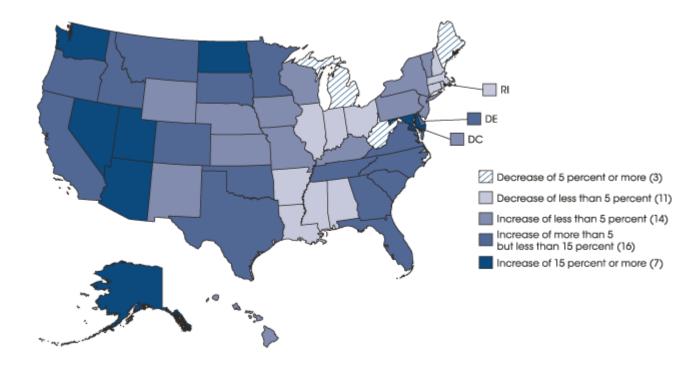




In addition, to births dropping in Ohio, the state is also aging. The median age in 2014 was 39.5 years of age while the national median age is 37.6 years. In 2010, the median age in Ohio was 38.3 years.

In 2012-13, approximately 49.8 million students were enrolled in grades PreK-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 PreK-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.



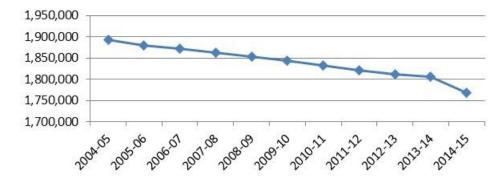
In Ohio, enrollment has declined steadily for both public and non-public school enrollment. From 2004-05 to 2014-15, public school enrollment declined by over 124,000 students or approximately 7 percent statewide.

Ohio Public School Enrollment 2004-05 - 2014-15

Year	October Headcount*
2004-05	1,892,490
2005-06	1,880,426
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

Source: Ohio Department of Education \*includes grades K-12 and ungraded

# **Ohio Public School Enrollment**





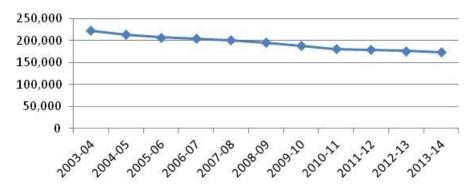
From 2003-04 to 2013-14, private school enrollment has declined by approximately 49,000 students or 26 percent. Enrollment totals for 2014-15 were not available.

Ohio Chartered Non-Public School Enrollment 2003-04 - 2013-14

Year	October ADM*
2003-04	222,830
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

Source: Ohio Department of Education

## **Ohio Non-Public School Enrollment**





<sup>\*</sup>includes grades K-12

Out of 610 school districts, only 94 gained enrollment from the 2006-07 to the 2015-16 school year. Approximately 84% of school districts lost enrollment over the 10 years. 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 over five years, 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 over 5 years, 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 2015-16.

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 percent of the counties (44) experienced a decline of greater than 10 percent. These counties are listed in the table on the following page.





County	Percentage Loss
Harrison	-25.77%
Noble	-21.94%
Guernsey	-21.68%
Washington	-18.69%
Carroll	-18.38%
Williams	-18.34%
Geauga	-18.20%
Ashtabula	-17.97%
Cuyahoga	-17.56%
Marion	-17.18%
Trumbull	-17.03%
Huron	-16.82%
Henry	-16.53%
Coshocton	-16.13%
Ashland	-16.05%
Mahoning	-15.83%
Jefferson	-15.51%
Pike	-14.61%
Portage	-14.58%
Lucas	-14.00%
Crawford	-13.87%
Richland	-13.85%
Brown	-13.66%
Logan	-13.57%
Hardin	-13.51%
Fulton	-13.04%
Ottawa	-13.04%
Clark	-12.98%
Gallia	-12.96%
Holmes	-12.87%
Erie	-12.70%
Putnam	-12.58%
Paulding	-12.50%
Preble	-12.08%
Summit	-12.04%
Columbiana	-11.94%
Lorain	-11.68%
Wayne	-11.57%
Knox	-11.13%
Lawrence	-11.04%
Mercer	-10.62%
Perry	-10.60%
Highland	-10.58%
Jackson	-10.41%



#### **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.

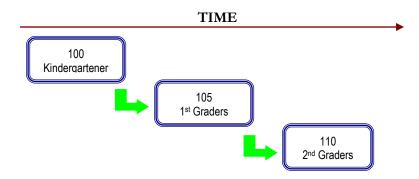
When looking ahead at a school district's enrollment over the next two, five, or ten years, it is helpful to approach the process from a global perspective. For example: How many new homes have been constructed each year? How many births have occurred each year in relation to the resident population? 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:



#### **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.

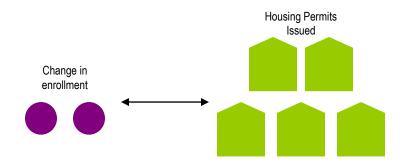
This methodology can be carried through to develop ten years of projection figures. Because there is not a grade cohort to follow for students coming into kindergarten, live birth counts are used to develop a survival ratio. Babies born five years previous to the kindergarten class are compared in number,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



#### 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.



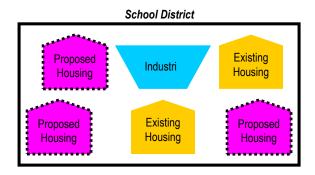
Once yield factors are established, the number of new students per year can be estimated by multiplying the yield factor by the number of projected new housing units. This method is effective when the rate of kindergarten enrollment far exceeds the live birth counts.

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.



#### **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 Worthington City School District.



#### HISTORICAL ENROLLMENT

Over the past ten years, student enrollment in the Worthington City School District has increased by 607 students in grades Pre-K - 12, including ungraded, career technical, and full-time JVS students. Total enrollment for the 2015-16 school year is 9,925 students.

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

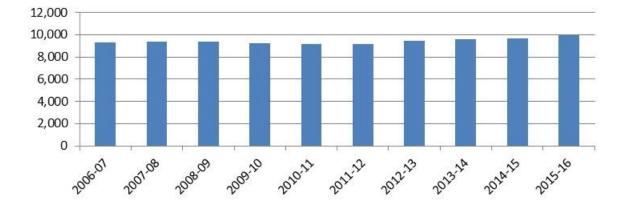
- Pre-K 100%
- K-6 1%
- 7-8 1%
- 9-12 2%

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

- Pre-K 0%
- K-6 0%
- 7-8 0%
- 9-12 <1%

The following graph illustrates the District's Pre-K – 12 enrollment history from 2006-07 through 2015-16.

## Worthington City School District Historical Enrollment





The following tables illustrate the District's enrollment history from 2006-07 through 2015-16.

#### **Worthington City School District**

#### **Historical Enrollment**

Grade	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Pre-K (regular)*	0	0	0	0	0	0	51	71	67	103
Pre-K (special needs)	0	0	0	0	0	0	119	131	145	106
K	673	709	674	712	696	731	757	776	733	733
1	682	724	739	686	720	714	763	808	802	774
2	640	675	743	735	712	727	727	763	807	818
3	700	657	680	742	725	712	727	705	775	823
4	626	715	684	673	743	707	706	728	704	761
5	665	654	720	701	677	749	703	711	731	698
6	645	689	642	734	707	689	762	696	712	729
7	669	667	691	650	729	703	700	757	701	719
8	752	693	684	695	648	729	715	692	749	711
9	781	790	728	705	702	680	736	730	721	762
10	867	779	795	716	693	687	653	731	724	735
11	795	868	762	758	648	629	599	524	567	632
12	823	785	832	757	738	603	581	576	503	633
Pre-K - 12 Total	9,318	9,405	9,374	9,264	9,138	9,060	9,299	9,399	9,441	9,737
Ungraded	0	0	0	0	0	0	2	15	8	25
Career Tech Comprehensive - Low Bay	0	0	0	0	0	0	91	108	143	98
Career Tech Off-Site	0	0	0	0	30	66	64	57	72	50
JVS Full-Time	0	0	0	0	8	9	24	21	34	15
Grand Total	9,318	9,405	9,374	9,264	9,176	9,135	9,480	9,600	9,698	9,925

Source: Ohio Department of Education, EMIS; Worthington City School District

#### **Worthington City School District**

#### **Historical Enrollment by Grade Group**

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Grade	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Pre-K (special needs)	0	0	0	0	0	0	119	131	145	106
K - 6	4,631	4,823	4,882	4,983	4,980	5,029	5,145	5,187	5,264	5,336
7 - 8	1,421	1,360	1,375	1,345	1,377	1,432	1,415	1,449	1,450	1,430
9 - 12	3,266	3,222	3,117	2,936	2,781	2,599	2,569	2,561	2,515	2,762
Pre-K - 12 Total	9,318	9,405	9,374	9,264	9,138	9,060	9,248	9,328	9,374	9,634
Ungraded	0	0	0	0	0	0	2	15	8	25
Career Tech Comprehensive - Low Bay	0	0	0	0	0	0	91	108	143	98
Career Tech Off-Site	0	0	0	0	30	66	64	57	72	50
Grand Total	9,318	9,405	9,374	9,264	9,168	9,126	9,405	9,508	9,597	9,807

Source: Ohio Department of Education, EMIS; Worthington City School District



<sup>\*</sup>regular Pre-K and full-time JVS enrollment are not included in grade group table above or in the projected enrollment figures.

#### **COMMUNITY SCHOOL ENROLLMENT**

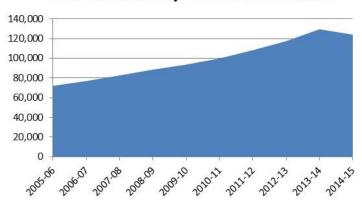
In Ohio, community school enrollment has increased dramatically over the last decade. From 2005-06 to 2014-15, enrollment has increased by over 72% from 72,061 students in 305 community schools to 124,043 students in 381 community schools. From 2013-14 to 2014-15, there was a slight drop in enrollment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

Ohio Community School Enrollment (Pre-K - 12)

			Communi	ity school El	1) 311131111011	10 10 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**

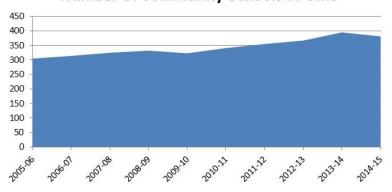


Ohio
Number of Community Schools

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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**





Since 2006-07, the number of Worthington City School District students attending community schools has fluctuated between 146 and 253 students. Data for the current school year is not yet available. Enrollment of Worthington City School District students attending community schools should be closely monitored as it may have a significant impact on District enrollment in the future.

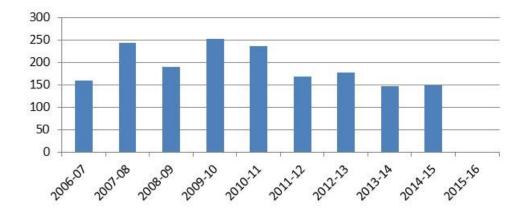
Worthington City School District Community School Enrollment

Grade	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Pre-K	0	0	0	0	0	0	0	0	0	0
K	6	14	6	19	10	12	9	6	16	0
1	5	13	12	8	12	4	10	7	4	0
2	10	7	9	16	9	6	4	5	6	0
3	4	13	2	10	14	7	8	5	6	0
4	2	6	9	4	8	9	8	4	3	0
5	4	7	5	16	7	6	8	10	3	0
6	11	13	8	9	19	5	7	7	8	0
7	10	12	9	9	9	10	3	2	5	0
8	5	10	9	8	11	8	13	6	10	0
9	47	47	41	46	27	17	19	14	8	0
10	22	38	26	30	30	28	25	22	19	0
11	20	35	34	50	47	36	37	28	26	0
12	11	18	15	25	29	20	24	26	31	0
Ungraded	3	10	4	3	4	1	2	4	3	0
Grand Total	160	243	189	253	236	169	177	146	148	0

Source: Ohio Department of Education, EMIS; Worthington City School District

2015-16 data not yet available

# Worthington City School District Students Attending Community Schools





#### **OPEN ENROLLMENT**

Since 2006-07, the number of Worthington City School District students "open enrolling" into the District has increased from 5 to 31 students with some fluctuation. The number of students "open enrolling" out of the District has fluctuated between 9 and 28 students. Significant changes in the number of students "open enrolling" into or out of the District from year to year can impact enrollment projections and should be monitored.

#### **Worthington City School District**

Open Enrollment - IN

Grade	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Pre-K	0	0	0	0	0	0	0	0	0	1
К	1	0	0	0	0	1	5	0	0	2
1	0	0	0	0	0	1	1	0	0	3
2	2	0	0	0	0	2	0	0	0	2
3	0	2	0	0	0	1	2	0	0	2
4	0	0	0	0	0	0	0	0	0	3
5	0	0	0	0	0	0	1	0	0	1
6	0	0	0	0	0	1	0	0	0	1
7	0	0	0	0	0	0	1	0	0	1
8	0	0	0	0	0	0	1	0	0	2
9	0	0	0	0	0	0	0	0	0	1
10	1	0	0	0	0	2	1	0	0	3
11	1	1	0	0	0	0	4	0	0	1
12	0	1	0	0	0	2	1	0	0	7
Ungraded	0	0	0	0	0	0	0	0	0	1
Grand Total	5	4	0	0	0	10	17	0	0	31

 $Source: Ohio\ Department\ of\ Education,\ EMIS;\ Worthington\ City\ School\ District$ 

#### **Worthington City School District**

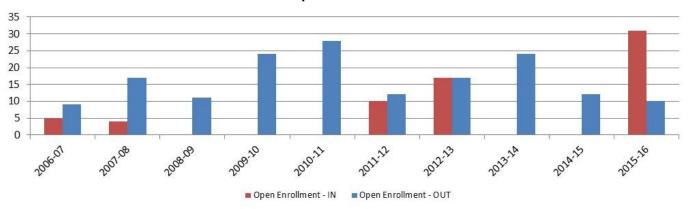
Open Enrollment - OUT

Grade	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Pre-K	0	0	0	0	0	0	0	0	0	0
K	0	0	0	3	0	1	5	2	1	0
1	2	1	0	2	8	1	1	5	1	0
2	2	3	0	3	2	2	0	1	3	1
3	0	4	2	3	0	1	2	2	0	2
4	0	2	2	2	1	0	0	2	0	0
5	1	0	2	3	5	0	1	0	0	0
6	0	1	0	0	1	1	0	0	0	0
7	1	0	1	1	0	0	0	1	0	0
8	1	1	0	1	1	0	1	1	0	0
9	0	0	1	1	1	0	0	1	1	0
10	1	1	0	2	2	2	1	3	0	0
11	0	3	0	2	2	1	4	0	4	0
12	1	1	3	1	5	3	2	6	2	7
Ungraded	0	0	0	0	0	0	0	0	0	0
Grand Total	9	17	11	24	28	12	17	24	12	10

Source: Ohio Department of Education, EMIS; Worthington City School District



## Worthington City School District Open Enrollment





#### 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.

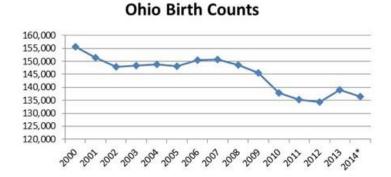
The Ohio Department of Health [ODH] data warehouse provides information about live birth events for Ohio residents. Information about events occurring outside of Ohio to Ohio residents is included. Information about events occurring inside Ohio to non-Ohio residents is not included.

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 134,440 in 2012. In 2013, there was an increase, but preliminary counts for 2014 show another decrease.



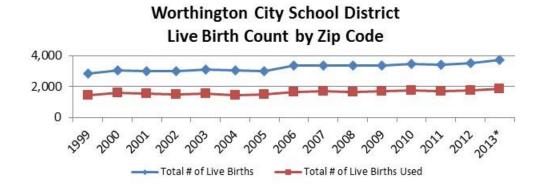
The following table and graph include the live birth counts for zip codes 43016, 43065, 43081, 43085, 43229, and 43235. However, upon analysis of the map on page 20, only zip codes 43085, 43229, and 43235 were used for projection purposes.

## Worthington City School District Live Birth Count by Zip Code 1999-2013

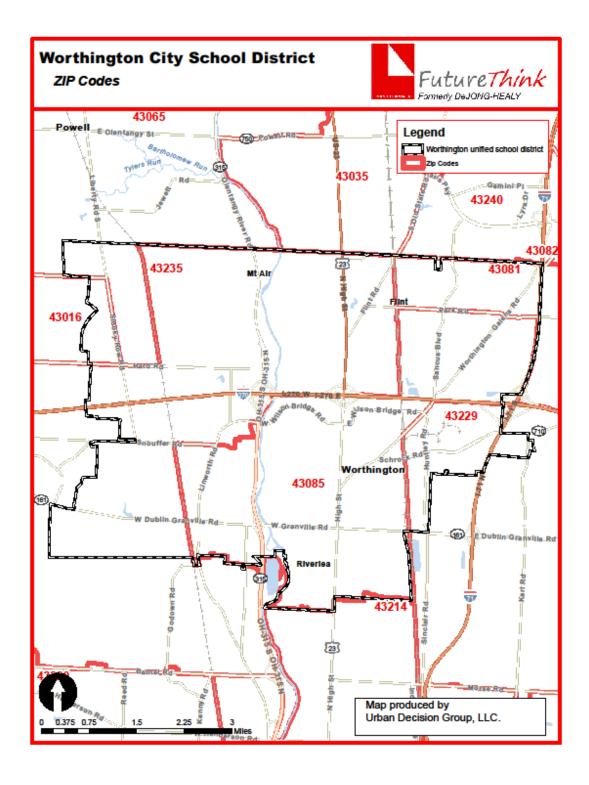
Year	43016	43065	43081	43085	43229	43235	Total # of Live Births	Total # of Live Births Used
1999	295	370	732	265	738	460	2,860	1,463
2000	296	469	701	325	843	437	3,071	1,605
2001	310	456	676	264	838	452	2,996	1,554
2002	361	481	675	257	843	397	3,014	1,497
2003	361	542	654	235	858	451	3,101	1,544
2004	419	522	650	230	810	421	3,052	1,461
2005	398	525	620	268	801	409	3,021	1,478
2006	465	570	668	276	935	439	3,353	1,650
2007	494	477	699	306	907	479	3,362	1,692
2008	495	505	702	316	887	467	3,372	1,670
2009	497	441	697	288	930	497	3,350	1,715
2010	519	489	711	312	904	515	3,450	1,731
2011	521	434	769	292	913	508	3,437	1,713
2012	589	428	733	301	897	573	3,521	1,771
2013*	617	441	803	322	946	601	3,730	1,869

Source: Ohio Department of Health, Statistical Analysis Unit

<sup>\*</sup>preliminary









#### **DEMOGRAPHICS**

The Worthington City School District is comprised of Worthington, Columbus, Dublin, Perry Township, Powell, Sharon Township, and Westerville in Franklin County. General demographic data is included in the following tables for the areas located completely or partially in the District.

**General Demographic Information** 

	Franklin County	State of Ohio
Per Capita Income	\$28,283	\$26,046
Median Household Income	\$50,877	\$48,308
Persons Below Poverty	18.1%	15.8%

Source: US Census, American Community Survey, 2013 5-Year Estimates

#### **Total Population**

	2000 Census	2010 Census
Franklin County	1,068,978	1,163,414
Worthington City	14,125	13,575
Columbus City	702,132	770,122
Dublin City	27,087	35,367
Perry Township	4,087	3,637
Powell City	6,247	11,500
Sharon Township	16,455	15,969
Westerville City	29,418	28,328

Source: ODOD 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-censual 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



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.



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.

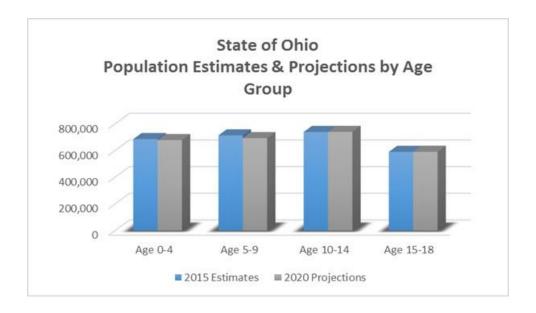
The total population in the State of Ohio is 11,609,946. This population is projected to increase by 122,243 people, or approximately 1% over a 5-year period.

The 0-18 year-old population in the State currently totals 2,730,087. This population is projected to decrease by 27,127 children, or 1 percent.

The median age is projected to increase by 1.8% from 39.6 to 40.3 years of age.

State of Ohio	2015 Estimates	2020 Projections	Change 2015-20	Change 2015-20 (%)
Total Population	11,609,946	11,732,189	122,243	1.1%
Age 0-4	686,128	678,812	-7,316	-1.1%
Age 5-9	714,217	693,271	-20,946	-2.9%
Age 10-14	739,287	740,060	773	0.1%
Age 15-18	590,455	590,817	362	0.1%
Total Age 0-18	2,730,087	2,702,960	-27,127	-1.0%
Median Age	39.6	40.3	0.7	1.8%

Source: ESRI

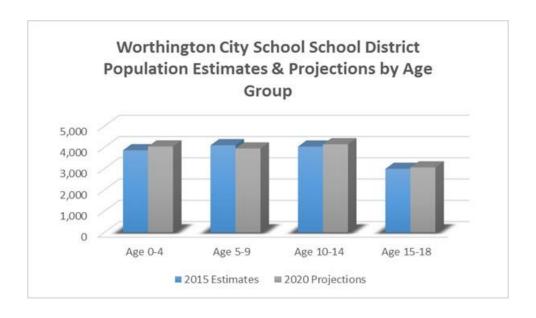




The total population in the District is 62,164. This population is projected to increase by 3,519 people, or approximately 6% over a 5-year period. The 0-18 year-old population in the District currently totals 14,995. This population is projected to increase by 200 people, or approximately 1 percent. The median age is projected to increase by approximately 2%, from 37.6 to 38.4 years of age.

Worthington City School District	2015 Estimates	2020 Projections	Change 2015-20	Change 2015-20 (%)
Total Population	62,164	65,683	3,519	5.7%
Age 0-4	3,866	4,041	175	4.5%
Age 5-9	4,099	3,949	-150	-3.7%
Age 10-14	4,038	4,147	109	2.7%
Age 15-18	2,992	3,058	66	2.2%
Total Age 0-18	14,995	15,195	200	1.3%
Median Age	37.6	38.4	0.8	2.1%

Source: ESRI





Median and average household incomes in the State are both projected to increase by approximately 15%, over a 5-year period. Both the average family size and total number of family households are projected to increase slightly.

State of Ohio	2015 Estimates	2020 Projections	Change 2015-20	Change 2015-20 (%)
Median Household Income	\$49,011	\$56,419	\$7,408	15.1%
Average Household Income	\$66,259	\$75,997	\$9,738	14.7%
Average Family Size	3.01	3.02	0.01	0.3%
Total Family Households	2,977,183	2,981,466	4,283	0.1%

Source: ESRI

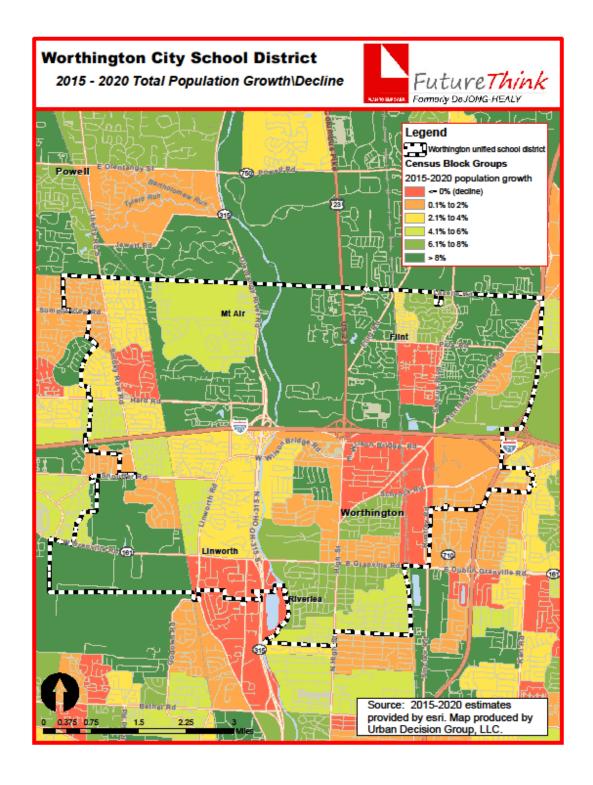
Median and average household incomes in the District are projected to increase by approximately 16% and 14%, respectively over a 5-year period. Both the average family size and the number of family households are projected increase.

<b>Worthington City School District</b>	2015 Estimates	2020 Projections	Change 2015-20	Change 2015-20 (%)
Median Household Income	\$74,052	\$85,669	\$11,617	15.7%
Average Household Income	\$98,255	\$111,981	\$13,726	14.0%
Average Family Size	3.00	3.01	0.01	0.3%
Total Family Households	16,330	17,069	739	4.5%

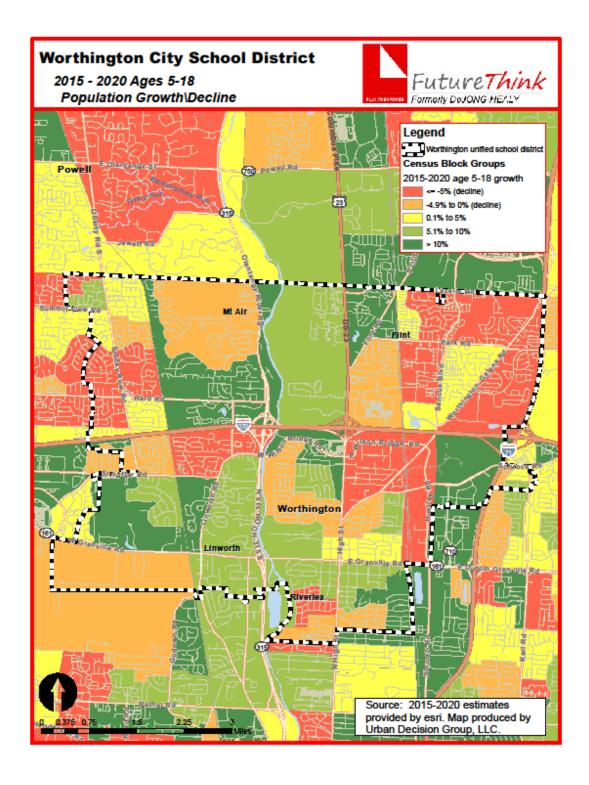
Source: ESRI

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.

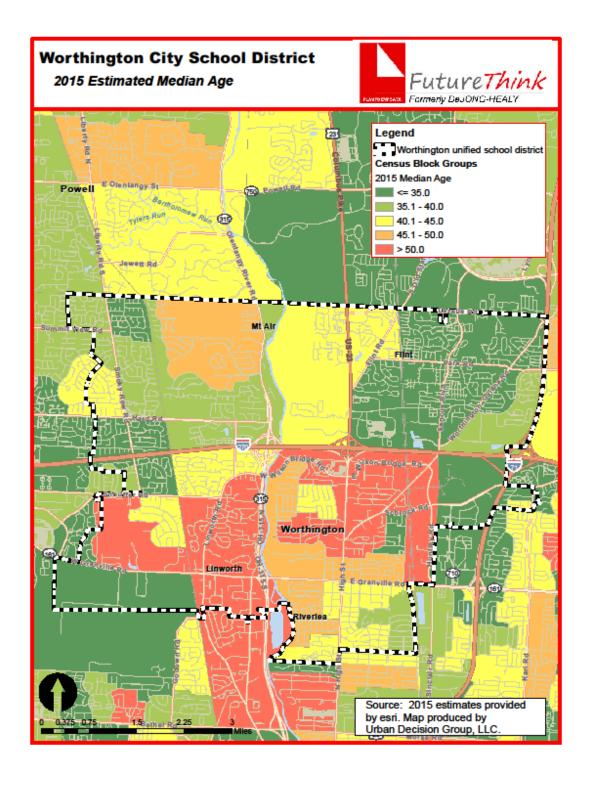




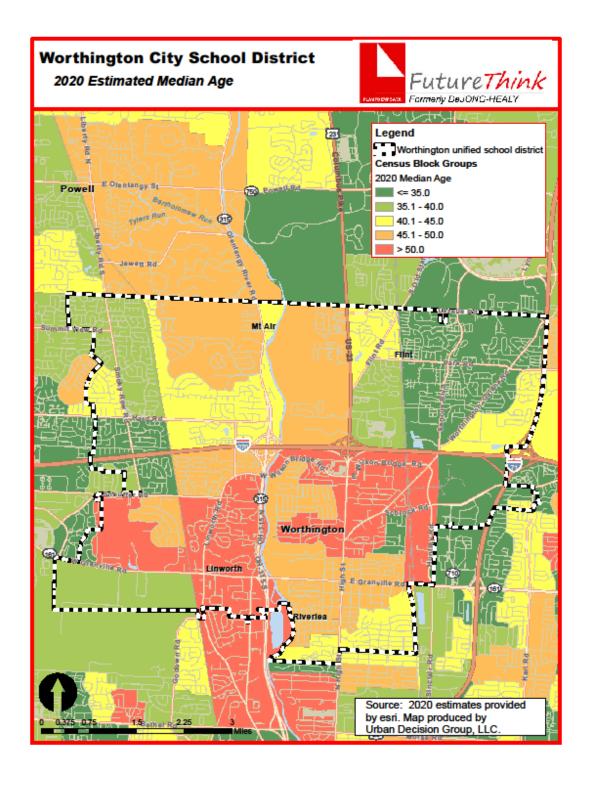




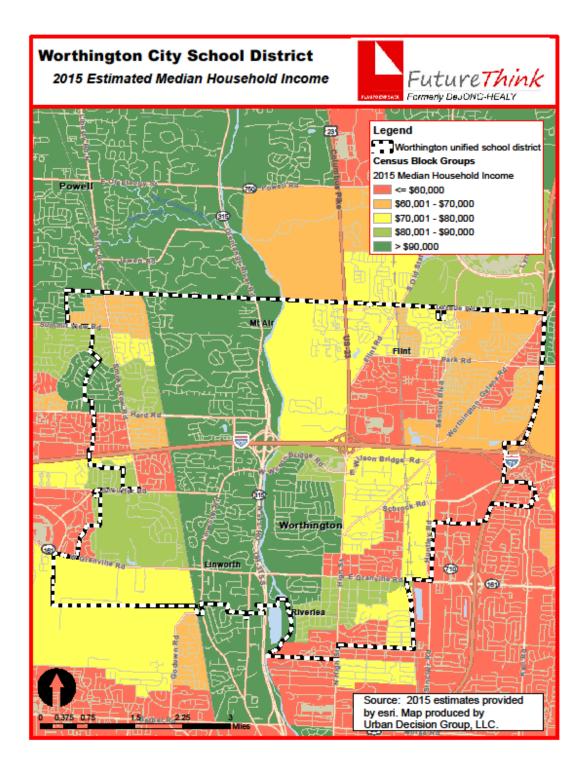




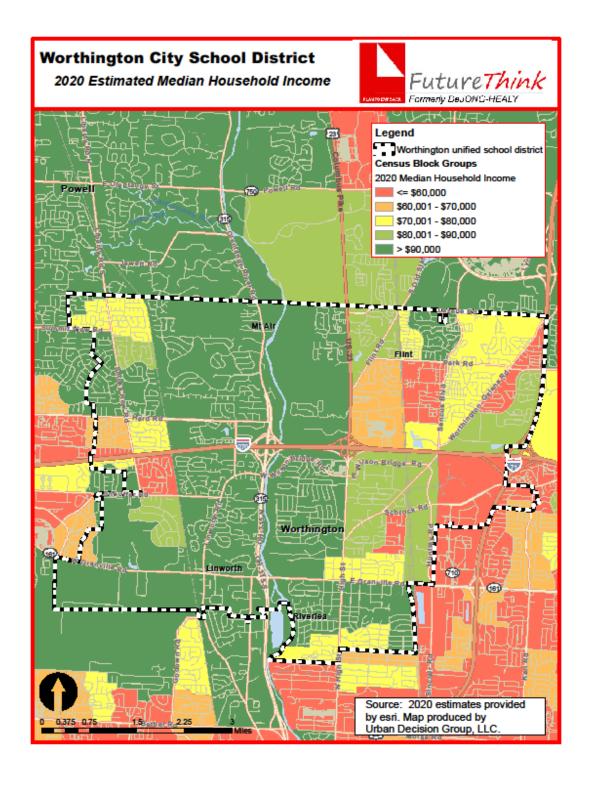














#### **HOUSING INFORMATION**

The chart below illustrates the number of single-family dwelling building permits issued each year in Worthington, Columbus, Dublin, Perry Township, Powell, Sharon Township, Westerville, and Franklin County.

# of Building Permits Issued for Single Family Dwellings

Year	Worthington City	Columbus City	Dublin City	Powell City	Westerville City	Franklin County
2004	1	2,687	457	209	63	5,220
2005	0	2,360	375	216	68	4,446
2006	0	1,223	253	138	47	2,707
2007	5	1,008	131	94	65	2,094
2008	1	686	70	41	38	1,286
2009	1	852	67	32	45	1,464
2010	3	716	82	34	69	1,628
2011	2	667	69	45	38	1,200
2012	4	723	149	50	29	1,372
2013	2	770	146	68	4	1,497
2014	3	724	202	104	7	1,672
2015*	3	471	60	34	6	965

Source: SOCDS Building Permits Database



<sup>\*</sup> through August 2015

#### **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 8<sup>th</sup> to 9<sup>th</sup> grade and after one year in 9<sup>th</sup> grade do not have sufficient credits to be classified as 10<sup>th</sup> graders and are counted again as 9<sup>th</sup> 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 Worthington 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
2006	2007	47.4%	107.6%	99.0%	102.7%	102.1%	104.5%	103.6%	103.4%	103.6%	105.1%	99.7%	100.1%	98.7%
2007	2008	43.7%	104.2%	102.6%	100.7%	104.1%	100.7%	98.2%	100.3%	102.5%	105.1%	100.6%	97.8%	95.9%
2008	2009	48.7%	101.8%	99.5%	99.9%	99.0%	102.5%	101.9%	101.2%	100.6%	103.1%	98.4%	95.3%	99.3%
2009	2010	47.1%	101.1%	103.8%	98.6%	100.1%	100.6%	100.9%	99.3%	99.7%	101.0%	98.3%	90.5%	97.4%
2010	2011	44.3%	102.6%	101.0%	100.0%	97.5%	100.8%	101.8%	99.4%	100.0%	104.9%	97.9%	90.8%	93.1%
2011	2012	44.7%	104.4%	101.8%	100.0%	99.2%	99.4%	101.7%	101.6%	101.7%	101.0%	96.0%	87.2%	92.4%
2012	2013	46.5%	106.7%	100.0%	97.0%	100.1%	100.7%	99.0%	99.3%	98.9%	102.1%	99.3%	80.2%	96.2%
2013	2014	42.7%	103.4%	99.9%	101.6%	99.9%	100.4%	100.1%	100.7%	98.9%	104.2%	99.2%	77.6%	96.0%
2014	2015	42.3%	105.6%	102.0%	102.0%	98.2%	99.1%	99.7%	101.0%	101.4%	101.7%	101.9%	87.3%	111.6%
	average	45.27%	104.151%	101.06%	100.3%	100.02%	101.0%	100.8%	100.7%	100.8%	103.123%	99.040%	89.649%	97.835%
	standard deviation	2.106%	2.067%	1.520%	1.646%	1.907%	1.523%	1.591%	1.249%	1.534%	1.633%	1.599%	7.124%	5.341%



#### **ENROLLMENT PROJECTION**

Enrollment projections were developed after analyzing the data collected in this report. The projections indicate an increase of 624 students in grades Pre-K through 12, not including regular Pre-K or full-time JVS students, from the 2015-16 to the 2025-26 school year. The following tables and graph illustrate projected enrollments by grade and by grade group through the 2025-26 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 Worthington City School District funds preschool through the following sources:

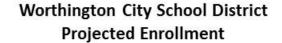
- General fund
- Tuition

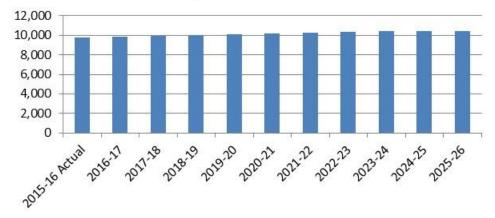
#### Kindergarten:

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 11<sup>th</sup> and 12<sup>th</sup> grade enrollments and projected separately.







#### Worthington City School District Projected Enrollment

riojecteu Emoninent											
Grade	2015-16 Actual	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Pre-K (special needs)	106	125	129	136	132	130	130	130	130	130	130
K	733	729	753	795	774	757	757	757	757	757	757
1	774	763	758	783	827	805	788	788	788	788	788
2	818	782	770	765	791	835	813	795	795	795	795
3	823	820	783	771	766	792	836	814	796	796	796
4	761	819	815	778	767	761	787	831	809	792	792
5	698	761	818	814	777	766	761	786	830	808	791
6	729	700	763	820	816	779	768	762	788	832	810
7	719	735	705	768	826	822	785	773	768	794	838
8	711	721	736	706	769	827	823	786	775	769	795
9	762	725	735	750	720	784	843	839	801	789	784
10	735	755	718	728	743	713	777	835	831	794	782
11	632	611	628	597	605	618	593	646	694	691	660
12	633	626	605	621	591	599	611	587	639	687	684
Pre-K - 12 Total	9,634	9,672	9,716	9,832	9,904	9,988	10,072	10,129	10,201	10,222	10,202
Ungraded	25	17	17	17	17	17	17	18	18	18	18
Career Tech Comprehensive - Low Bay	98	128	128	126	124	126	125	128	138	143	139
Career Tech Off-Site	50	66	66	65	64	65	64	66	71	73	72
Grand Total	9,807	9,883	9,927	10,040	10,109	10,196	10,278	10,341	10,428	10,456	10,431

Source: FutureThink

#### Worthington City School District Projected Enrollment by Grade Group

Grade	2015-16 Actual	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Pre-K (special needs)	106	125	129	136	132	130	130	130	130	130	130
K - 6	5,336	5,374	5,460	5,526	5,518	5,495	5,510	5,533	5,563	5,568	5,529
7 - 8	1,430	1,456	1,441	1,474	1,595	1,649	1,608	1,559	1,543	1,563	1,633
9 - 12	2,762	2,717	2,686	2,696	2,659	2,714	2,824	2,907	2,965	2,961	2,910
Pre-K - 12 Total	9,634	9,672	9,716	9,832	9,904	9,988	10,072	10,129	10,201	10,222	10,202
Ungraded	25	17	17	17	17	17	17	18	18	18	18
Career Tech Comprehensive - Low Bay	98	128	128	126	124	126	125	128	138	143	139
Career Tech Off-Site	50	66	66	65	64	65	64	66	71	73	72
Grand Total	9,807	9,883	9,927	10,040	10,109	10,196	10,278	10,341	10,428	10,456	10,431

Source: FutureThink



#### **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 Worthington City School District.



#### **APPENDIX**

The following documents are included in the appendix:

- District Acceptance
- District Questionnaire





Tracy Healy <a href="mailto:com">thealy@futurethinkinc.com</a>

### Worthington CSD (Franklin) DRAFT Enrollment Projection Report

Bowers, Trent <tbowers@wscloud.org>

Thu, Oct 22, 2015 at 6:41 AM

To: Tracy Healy <thealy@futurethinkinc.com>

Cc: "Roka, Steve" <Steve.Roka@ofcc.ohio.gov>, "Drerup, Melanie" <Melanie.Drerup@ofcc.ohio.gov>, "Parker, Janice" <Janice.Parker@ofcc.ohio.gov>, Monica Bruaw <bru>epencycsi.com>

Tracy,

On behalf of Worthington Schools I would like to formally accept the enrollment report you have presented. Thank You for the work you have put into this.

Trent Bowers Superintendent

On Wed, Oct 21, 2015 at 3:14 PM, Tracy Healy <a href="mailto:thealy@futurethinkinc.com">thealy@futurethinkinc.com</a> wrote: [Quoted text hidden]

\_

**Dr. Trent Bowers**Superintendent, Worthington Schools



**Phone:** 614-450-6000

Email: tbowers @wscloud.org

Website: www.worthington.k12.oh.us

Address: 200 E. Wilson Bridge Road, Worthington Ohio 43085



[Quoted text hidden]

District Questionnaire for Worthington City of Franklin County (45138) [THealy]

District Questionnaire has been submitted for review

#### **Enrollment Report For Worthington City of Franklin County (45138)**

#### **Contact Information**

Superintendent Name: Dr. Trent Bowers
Superintendent Email: tbowers@wscloud.org
Superintendent Phone: (614) 450-6040

Contact Name (if different from Superintendent):

Contact Title:
Contact Email:
Contact Phone:

#### **K12 Enrollment**

Grade	Enrolled 2006 -2007	Enrolled 2007 -2008	Enrolled 2008 -2009	Enrolled 2009 –2010	Enrolled 2010 –2011	Enrolled 2011 –2012	Enrolled 2012 –2013	Enrolled 2013 -2014	Enrolled 2014 –2015	Enrolled 2015 –2016
K	673	709	674	712	696	731	757	776	733	733
1	682	724	739	686	720	714	763	808	802	774
2	640	675	743	735	712	727	727	763	807	818
3	700	657	680	742	725	712	727	705	775	823
4	626	715	684	673	743	707	706	728	704	761
5	665	654	720	701	677	749	703	711	731	698
6	645	689	642	734	707	689	762	696	712	729
7	669	667	691	650	729	703	700	757	701	719
8	752	693	684	695	648	729	715	692	749	711
9	781	790	728	705	702	680	736	730	721	762
10	867	779	795	716	693	687	653	731	724	735
11	795	868	762	758	685	662	676	617	720	701
12	823	785	832	757	739	645	683	669	599	727
Ungraded	0	0	0	0	0	0	2	15	8	25
Total	9318	9405	9374	9264	9176	9135	9310	9398	9707	9716

#### All Day Kindergarten

Do you offer kindergarten to all students, all day, every day? no

#### **Preschool Enrollment**

Do you **house** Preschool/Pre-K students in your facilities, **including** Pre-K students in a program run by an ESC or other agency? yes

Please select your district's preschool funding sources: General Fund Tuition

Early Childhood Education (ECE) grant funding (known as entitlement and public preschool) is distributed by the Ohio Department of Education to districts to provide preschool services for 3- and 4-year old children of income eligible families.

Do you house Early Childhood Education (ECE) students in your facilities?

Do you house Pre-K students with disabilities in your facilities? ves

Please provide enrollment data:

Grade	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	-2007	-2008	-2009	-2010	-2011	-2012	-2013	-2014	-2015	-2016
Pre-K with disabilities	0	0	0	0	0	0	119	131	145	106

Do you house other Pre-K students in your facilities that are not students with disabilities and are not enrolled in ECE, or Federal Head Start (e.g., tuition-based or funded with other sources)? yes

Please provide enrollment data:

Grade	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	-2007	-2008	-2009	-2010	-2011	-2012	-2013	-2014	-2015	-2016
Pre-K Other (not disabled, not enrolled in ECE, or Federal Head Start)	0	0	0	0	0	0	51	71	67	103

#### **Student Teacher Ratios**

What are your district's current average student to teacher ratios for the following grade groups?

Include core teachers only.

- K-3 24 to 1
- 4–5 23 to 1
- 6-8 25 to 1
- 9–12 28 to 1

#### **Grade Configurations**

PK through PK K through 6 7 through 8 9 through 12

#### Students with Disabilities

#### **Definitions:**

- IE13 Special Education outside the regular class less than 21% of the day.
  IE14 Special Education outside the regular class at least 21% of the day and no more than 60% of the day.
  IE15 Special Education outside the regular class more than 60% of the day.

Please provide enrollment for students with disabilities by ODE program code and grade configuration.

Code	PK-PK	K-6	7–8	9–12
IE13	0	34	14	42
IE14	1	7	1	3
IE15	0	0	0	3
Total	1	41	15	48

<sup>\*</sup>These students should be included in the October headcount

Does your District house additional students with disabilities from other school districts? (i.e., county programs, etc.) no

#### **Community Enrollment**

Grade	Enrolled 2006 –2007	Enrolled 2007 –2008	Enrolled 2008 -2009	Enrolled 2009 –2010	Enrolled 2010 –2011	Enrolled 2011 –2012	Enrolled 2012 –2013	Enrolled 2013 -2014	Enrolled 2014 –2015	Enrolled 2015 –2016
PreK	0	0	0	0	0	0	0	0	0	0
K	6	14	6	19	10	12	9	6	16	0
1	5	13	12	8	12	4	10	7	4	0
2	10	7	9	16	9	6	4	5	6	0
3	4	13	2	10	14	7	8	5	6	0
4	2	6	9	4	8	9	8	4	3	0
5	4	7	5	16	7	6	8	10	3	0
6	11	13	8	9	19	5	7	7	8	0
7	10	12	9	9	9	10	3	2	5	0
8	5	10	9	8	11	8	13	6	10	0
9	47	47	41	46	27	17	19	14	8	0
10	22	38	26	30	30	28	25	22	19	0
11	20	35	34	50	47	36	37	28	26	0
12	11	18	15	25	29	20	24	26	31	0
Ungraded	3	10	4	3	4	1	2	4	3	0
Total	160	243	189	253	236	169	177	146	148	0

#### Open Enrollment (In)

Grade	Enrolled 2006 -2007	Enrolled 2007 -2008	Enrolled 2008 -2009	Enrolled 2009 –2010	Enrolled 2010 –2011	Enrolled 2011 –2012	Enrolled 2012 –2013	Enrolled 2013 –2014	Enrolled 2014 –2015	Enrolled 2015 –2016
Prek	0	0	0	0	0	0	0	0	0	1
K	1	0	0	0	0	1	5	0	0	2
1	0	0	0	0	0	1	1	0	0	3
2	2	0	0	0	0	2	0	0	0	2
3	0	2	0	0	0	1	2	0	0	2
4	0	0	0	0	0	0	0	0	0	3
	_									

5	0	0	0	0	0	0	1	0	0	1
6	0	0	0	0	0	1	0	0	0	1
7	0	0	0	0	0	0	1	0	0	1
8	0	0	0	0	0	0	1	0	0	2
9	0	0	0	0	0	0	0	0	0	1
10	1	0	0	0	0	2	1	0	0	3
11	1	1	0	0	0	0	4	0	0	1
12	0	1	0	0	0	2	1	0	0	7
Ungraded	0	0	0	0	0	0	0	0	0	1
Total	5	4	0	0	0	10	17	0	0	31

#### **Open Enrollment (Out)**

Grade	Enrolled 2006 –2007	Enrolled 2007 –2008	Enrolled 2008 –2009	Enrolled 2009 –2010	Enrolled 2010 –2011	Enrolled 2011 –2012	Enrolled 2012 –2013	Enrolled 2013 –2014	Enrolled 2014 –2015	Enrolled 2015 –2016
Prek	0	0	0	0	0	0	0	0	0	0
K	0	0	0	3	0	1	5	2	1	0
1	2	1	0	2	8	1	1	5	1	0
2	2	3	0	3	2	2	0	1	3	1
3	0	4	2	3	0	1	2	2	0	2
4	0	2	2	2	1	0	0	2	0	0
5	1	0	2	3	5	0	1	0	0	0
6	0	1	0	0	1	1	0	0	0	0
7	1	0	1	1	0	0	0	1	0	0
8	1	1	0	1	1	0	1	1	0	0
9	0	0	1	1	1	0	0	1	1	0
10	1	1	0	2	2	2	1	3	0	0
11	0	3	0	2	2	1	4	0	4	0
12	1	1	3	1	5	3	2	6	2	7
Ungraded	0	0	0	0	0	0	0	0	0	0
Total	9	17	11	24	28	12	17	24	12	10

#### **JVS Enrollment**

Does your District belong to a JVSD? yes Please select the JVSD your District belongs to: Delaware Area Career Center Please provide enrollment for students attending JVS (or "Other") full or half-time.

Grade	Enrolled 2006 –2007	Enrolled 2007 –2008	Enrolled 2008 -2009	Enrolled 2009 –2010	Enrolled 2010 –2011	Enrolled 2011 –2012	Enrolled 2012 –2013	Enrolled 2013 –2014	Enrolled 2014 –2015	Enrolled 2015 –2016
Full Time 11	0	0	0	0	7	5	11	11	18	1
Full Time 12	0	0	0	0	1	4	13	10	16	14
Total	0	0	0	0	8	9	24	21	34	15

Grade	Enrolled 2006 –2007	Enrolled 2007 -2008	Enrolled 2008 -2009	Enrolled 2009 –2010	Enrolled 2010 –2011	Enrolled 2011 –2012	Enrolled 2012 –2013	Enrolled 2013 -2014	Enrolled 2014 -2015	Enrolled 2015 –2016
Half Time 11	0	0	0	0	30	28	30	28	42	17
Half Time 12	0	0	0	0	0	38	34	29	30	33
Total	0	0	0	0	30	66	64	57	72	50

#### **Career Technical Compact Enrollment**

Does your District belong to a Compact? no

#### **Career Tech Program Enrollment**

Comprehensive Career Tech: Students who attend academics and career technical programs in your district.

On-Site Career Tech: Students who attend academics in another district but attend career technical programs in your district.

Satellite JVSD: Same as Comprehensive Career Tech, but the program is sponsored and/or administered by the JVS District and housed by your District.

Do your district's students attend this program in your facilities? If so, please enter the 10-year enrollment numbers for the **F2-Engineering Science-Program Type 2** program. Please use your official October enrollment data to update the table:

Grade	Enrolled 2006 -2007	Enrolled 2007 -2008	Enrolled 2008 -2009	Enrolled 2009 –2010	Enrolled 2010 –2011	Enrolled 2011 –2012	Enrolled 2012 –2013	Enrolled 2013 –2014	Enrolled 2014 –2015	Enrolled 2015 –2016
Comprehensive Career Tech 11	0	0	0	0	0	0	36	54	93	51
Comprehensive Career Tech 12	0	0	0	0	0	0	55	54	50	47
Total	0	0	0	0	0	0	91	108	143	98

Do you have students from outside districts coming to your district ONLY to take this career tech program? no

#### **Boundaries**

Please list municipalities, townships, and any additional counties within the boundaries of your school district:Townships: Perry, Sharon Cities: Worthington, Columbus, Dublin, Westerville, Powell

Has your District experienced changes in District-wide boundaries since 2004? no

#### Growth

Do you expect significant growth in your District over the next 10 years? no

#### **Additional Information**

Please provide any additional information you feel may impact your District's future enrollment [i.e. private schools opening or closing]

#### **Submission Documents**

The following are additional documents which may be useful in projecting your District's enrollment. Please check any documents you intend to provide for consideration:

Return To District Print Report

Please contact Tracy Healy (thealy@futurethinkinc.com,614-264-2638) with any questions or concerns regarding the District Questionnaire.

Comments or Suggestions Regarding OSFC Website