# Enrollment Study

# WORTHINGTON CITY
# SCHOOL DISTRICT

# JANUARY 8, 2016

Prepared By:

**WARNER**
CONCEPTS LLC.

**Enrollment Study**

# Introduction

In January 2016, Warner Concepts, LLC., was asked to assist Worthington City School District in validating an enrollment projection report provided by the Ohio Facilities Construction Commission, dated October 22, 2015 and a by-school projection report submitted by FutureThink, dated November 9, 2015.

The Worthington City School District is in the process of evaluating their current and projected enrollment and its impact on growth and school facility capacity. The District is wrestling with decisions on how to best address the following district-wide needs:

- Changes in district population
- Variations in student attendance
- School facility capacities
- Aging school facilities

The purpose of this document is to provide an analysis of the enrollment documents received by the district and serve as a valuable planning tool in determining the future direction of the Worthington City School District.
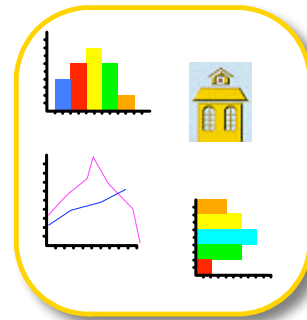
# Acknowledgement

Warner Concepts, LLC. wishes to thank Worthington Schools for the opportunity to provide this study and is ready to assist the district in its future decision making process.

FutureThink
*Formerly DeJONG-HEALY*

**FINAL** REPORT

Ohio | School Facilities Commission

**Worthington City School District**
Franklin County
Enrollment Projections
October 22, 2015

FutureThink
*Formerly DeJONG-HEALY*

REPORT

**Worthington City School District**
Enrollment Projections by School
November 9, 2015

# Enrollment Projection Methodology

Projecting student attendance is both a science and an art. The "science" is in the mathematical analysis of data collected from various sources such as:

- Local, State, National Demographics
- Number of school age children
- Live birth counts - 15 years
- Historic enrollment - 10 years
- Community and home school
- Student migration and open enrollment
- Cohort survival ratios
- Housing and sub-division starts
- "Roll over" in housing occupants
- Attendance Boundaries
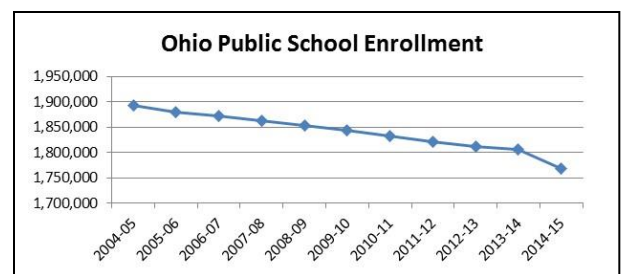- "Culture" of community

The factors listed above are representative of "typical" types of data collected. Additional factors affecting student enrollment may also be considered.

The "art" of enrollment projections is the ability and experience of understanding the type and accuracy of the data collected and its impact on student enrollment. For example, an increase in housing does not necessary result in an increase in student enrollment. Why?

The ever changing structure of the family unit is one factor. The "nuclear" family was two parents and two children. Many of today's family units are made up of a single parent and one child. Or a grandparent and a child. Or two adults and no children.

Enrollment projections are a blend of data collected, calculations, and the application of knowledge and experience.



| 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



FutureThink, October 22, 2015, page 4

4

October 22, 2015

# Summary of Findings

Following is a summary of each of the factors considered in this study. It is recommended that the district continue to monitor each of these factors on an annual basis to determine their impact on student enrollment.

## Local, State, and National Trends in Enrollment

As shown in the reports, many of the factors considered when projecting student enrollment are declining.
population ages, there is a d
births which results in a decl
enrollment.

A statement made about State of Ohio school districts:    "Out of 610 school districts, only 94 gained enrollment from the 2006-07 to the 2015-16 school year." [FutureThink, Oct. 22, 2015, page 6].

Warner Concepts has noted similar changes in student enrollment throughout Ohio and the US.
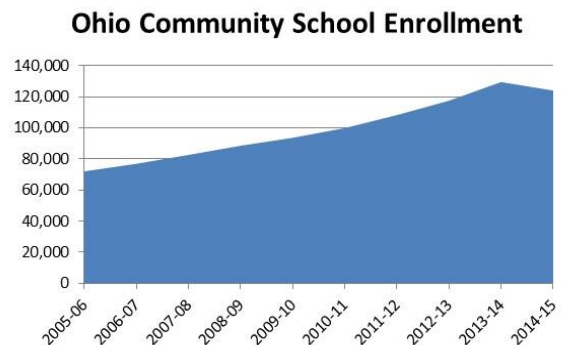
## Historic Enrollment

FutureThink's report shows
District's historic enrollment has increased
in the last 4 years after a decline of 4 years. This has resulted in a 10 year growth of 607 students.
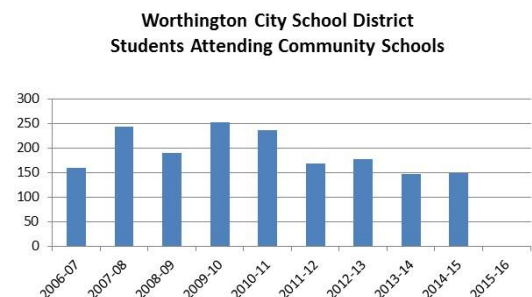
## Community School Enrollment

Worthington Schools has experienced a decline in community school enrollment while state-wide there has been an increase.  This suggests that because of the quality of education available, students are enrolling in Worthington Schools in lieu of their local community school.

**Worthington City School District**
**Historical Enrollment**

FutureThink, October 22, 2015, page 12

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Grand Total | 72,064 | 76,932 | 82,643 | 88,536 | 93,623 | 99,878 | 108,239 | 117,473 | 129,505 |

Source: Ohio Department of Education
includes ungraded students

**Ohio Community School Enrollment**

**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 | | | | 11 | | | 9 | 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 |

FutureThink, October 22, 2015, page 14

Source: Ohio Department of Education, EMIS; Worthington City School District
2015-16 data not yet available

| Grade | | | | | | | | | | 2013-14 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grand Total | | | | | | | | | | 395 |

Source: Ohio Department
2015-16 data not yet available

**Worthington City School District**
**Students Attending Community Schools**

FutureThink, October 22, 2015, page 15

15 October
October 22, 2015

**WARNER**
CONCEPTS LLC.

## Open Enrollment

By comparing the number of students coming into the district with those leaving, find a net loss of students. In 2015 there was a net gain of 21 students. Open enrollment can be an important factor affecting student enrollment, however the number of students is quite low.

## Live Births

The methodology used in FutureThink's report was to take a percentage of the live births from zip code areas included in the school district's boundaries . The percentage applied was based on the students attending from each area. While this method is not exact, it is an accepted process for analyzing the number of babies that attend school 5 years later.

It is important to note that live birth counts are compiled by the Ohio Department of Health, Statistical Analysis Unit and are often 1-2 years behind.

Additionally, live birth counts are not always an exact value due to the various reporting methods used by hospitals and medical establishments.

Using live birth percentages from zip code areas is an accepted method for determining future student enrollment.

It should be pointed out, that if more accurate data is available, further study should be regarding live birth counts.

**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
*preliminary

FutureThink, October 22, 2015, page 19

## Population Shifts

Shifts in population are another factor considered in the report. The decline in median age, changes in job status, family unit changes, and population migration all have an affect on student population.
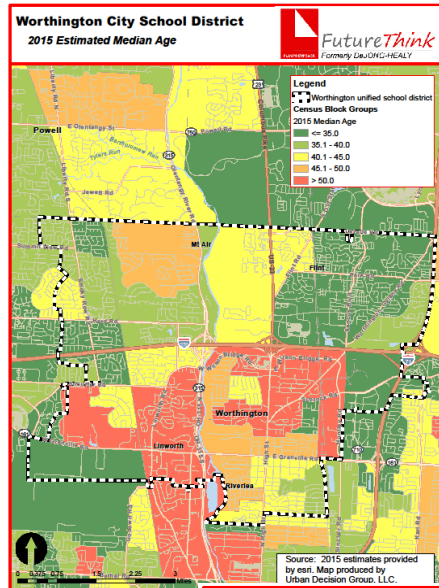
District maps included in the report indicate an increase in district population and a decline in the median age. Comparing the maps illustrating these two factors indicates that student enrollment may be stable or have slight growth due to changes in age and population migration.



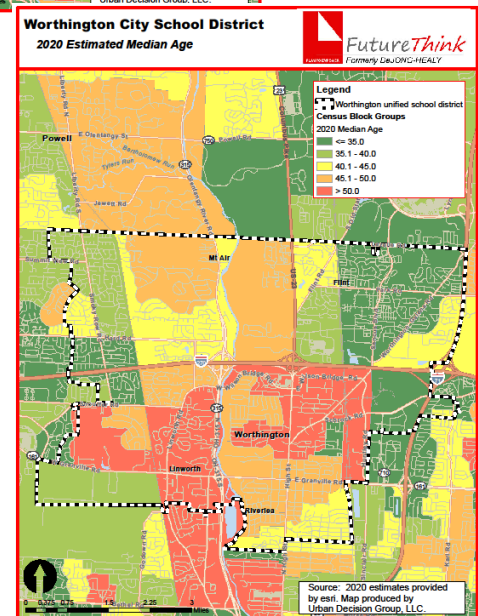FutureThink, October 22, 2015, page 28 & 29

## Housing

Changes in the number of new single family homes can affect enrollment. FutureThink's report indicates a small number of permits have been issued in Worthington City. [Refer to table below]

Based on our discussion with District administrators, Worthington Schools is experiencing a change in the family unit in previously constructed housing. Mature families are moving out and younger families, with children, are moving in.

It is important to note that because of the decline in the size of a family unit, it takes a higher number of new homes to affect student enrollment. The District should continue to monitor this factor.



| # 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
* through August 2015

FutureThink, October 22, 2015, page 32

# Executive Summary

In summary, the following conclusions can be drawing:

- Both reports reflect the use of data collected from the district as well as local, state and national demographic factors. The reports reflect a "snap shot" of the current state of the district and is an acceptable method for projecting enrollment.

- "Best practices" in enrollment projection methodologies were used by an experienced and knowledgable expert in the field.

- The conclusions reached represent an understanding of the factors considered and their affect on student enrollment.

- The projected increase in student enrollment of 624 students over the next 10 years is a reasonable projection based on the information available.

- If additional data becomes available or if changes in the factors considered change, then modifications to the projections should be considered.

# Recommendations

The recommendations derived from this study is that the district embrace the following:

- It is recommended that these two reports be recognized to be valid and should be used as planning tools for both district-wide and school specific decision making by the District.

- If additional data becomes available, the District should would review the results of the studies to determine if modifications need to be made.

- The District should review the results on an annual basis to determine any impact on student enrollment.

**Worthington City School District**
**Projected Enrollment**

| 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

**WARNER** CONCEPTS LLC.

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

| | 2015-16 Actual | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | 2025-26 |

January 8, 2016

7