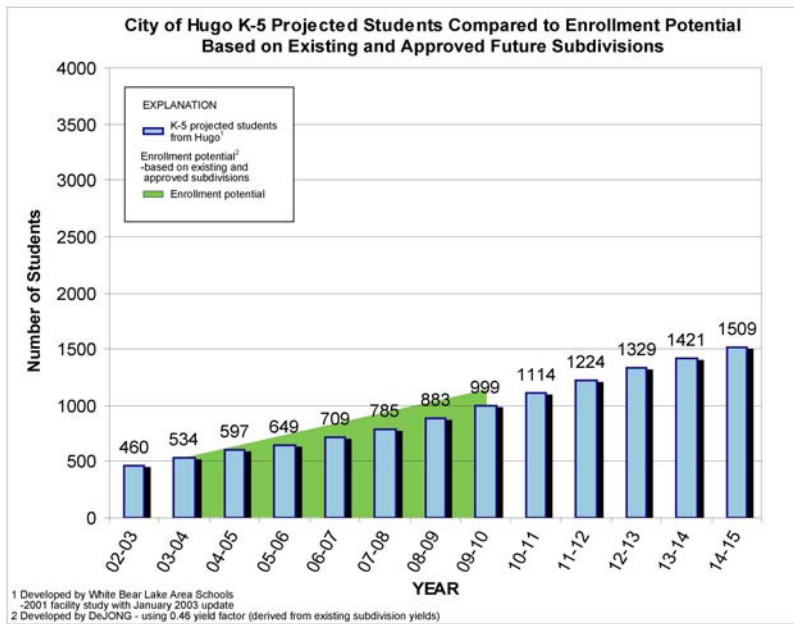
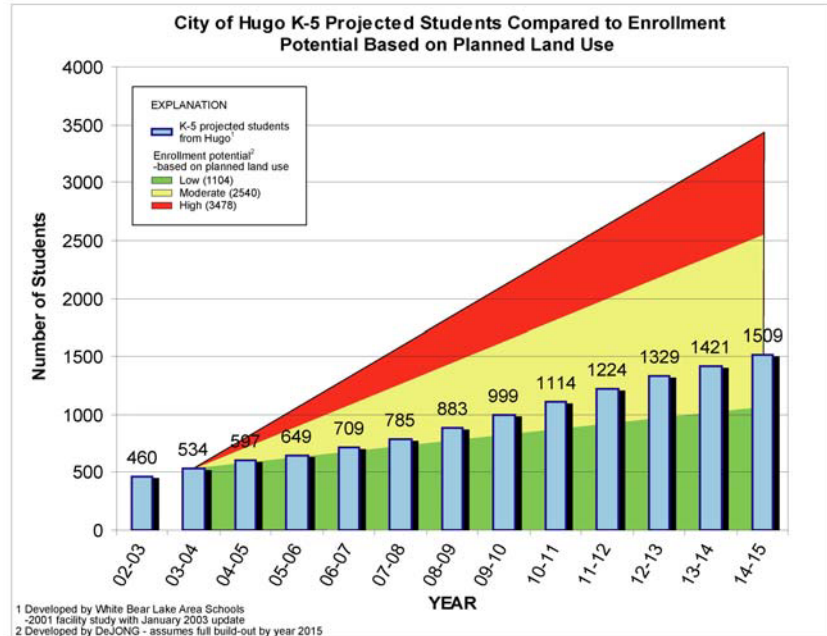


The following graphs compare enrollment potentials using different methodologies. Both graphs compare different factors with enrollment projections developed for the Hugo Facilities Committee during their 2001-2003 study. The first graph to the right illustrates enrollment potential based on planned land use for the area of Hugo that is within White Bear Lake Area Schools. This shows that the projected enrollment falls between the moderate (2,540) and high (3,478) enrollment potential.



The graph to the left compares K-5 enrollment potential based on existing and approved future subdivisions with the enrollment projections developed for the 2001-2003 Hugo Facility Study. As indicated in the graph, the enrollment projections and enrollment potential are very similar. It was assumed that existing and future approved subdivisions will build out in 7 years. The same average yield factor (.46 students per household) that current subdivisions are producing was used to calculate this potential, which amounts to 1,148 students. This is 149 students higher than the original 999 projected for the 2009-2010 school year.

The existing Hugo Elementary School cannot support the anticipated growth and expected enrollment of the area. Enrollment and housing projections combined with known information about planned and future development support the recommendations given by the 2001 Hugo Facilities Committee. These recommendations were to acquire two school sites, and plan for a new 750 student elementary facility immediately.

***OLENTANGY LOCAL SCHOOLS
DELAWARE COUNTY, OHIO***

In 2002 DeJong and Associates, Inc. developed enrollment projections for the fast growing Olentangy School District *at build-out*. Included below are excerpts from the build-out scenario report.

The 1990 population of the District was 13,840. Based on 1990 Census data, the Delaware County Regional Planning Commission developed population projections for the District, which were just under 50,000 in 2020. Subsequently, the growth rate from 1990 to 2000 was 164.99 percent. The revised 2020 projection, based on 2000 Census data, is now 87,010.

Housing starts continue to fuel the increasing enrollment, and there is plenty of land yet to be developed in the District. Remaining land in the District slated for residential development is in excess of 15,000 acres. The Delaware County Regional Planning Commission projects that the population of the District will reach approximately 127,000 at build-out. The 2000 population was 39,121 in the District.

The number of single family building permits issued in the Olentangy Local School District continues at a brisk pace. The following table lists the number of permits issued from 1990-2001 in Orange, Berlin, and Liberty townships and the City of Powell. In 1990, a total of 262 single-family permits were issued in these areas. In 2001, the number was 985, an increase of 276 percent.

Year	Single Family Building Permits				
	Orange Twp	Berlin Twp	Liberty Twp	Powell	Total
1990	84	13	73	92	262
1991	103	22	91	73	289
1992	135	26	164	89	414
1993	170	35	153	169	527
1994	180	39	202	166	587
1995	188	65	164	103	520
1996	168	66	101	130	465
1997	352	54	231	150	787
1998	378	98	262	165	903
1999	491	117	320	141	1069
2000	410	128	276	103	917
2001	532	182	198	73*	985
Total	3191	845	2235	1454	7725

Source: Delaware County Regional Planning Commission

* building permits issued through October 2001

For 2000 and 2001, the number of permits in the remaining township portions in the Olentangy Local School District includes:

Year	Single Family Building Permits				
	Berkshire Twp.	Concord Twp.	Delaware Twp.	Genoa Twp.	Total
2000	0	130	3	42	175
2001	10	163	32	59	264
Total	10	293	35	101	439

Source: Delaware County Regional Planning Commission

In the District, there are over 900 housing subdivisions, including multiple phases, with over 19,000 total lots. Following is a summary, by area, of the subdivisions located within the District as of February 2002.

Area	Total # of Lots	Available Lots
Berkshire	75	49
Berlin	1,507	583
Columbus	884	615
Concord	628	321
Delaware	157	52
Genoa	1,434	934
Liberty	5,585	2,773
Orange	6,406	2,352
Powell	2,390	660
Westerville	137	137
Total	19,203	8,496

Source: Delaware County Regional Planning Commission

The Delaware Regional Planning Commission develops projections for the number of new residential building permits. Historically, these projections have been very conservative. While these projections may still be conservative, they are included to indicate rates of potential growth in each of the areas.

Year	Single Family Building Permit Projections				
	Orange Twp	Berlin Twp	Liberty Twp	Powell	Total
2000*	410	128	276	103	917
2001-05	2170	676	1163	505	4,514
2006-10	1373	428	736	320	2,857
2011-15	1562	487	837	351	3,237
2016-20	1457	454	781	317	3,009
Total	6,972	2,173	3,793	1,596	14,534

Source: Delaware County Regional Planning Commission

* actual number

Projections for the other townships were by total area, not just the portions in the Olentangy Local School District, so they are not included in the above chart.

Community Comprehensive Plans

The Delaware County Regional Planning Commission has prepared a projected population at build-out for the Olentangy Local School District based on Census 2000 data and information from the jurisdiction’s comprehensive plans.

Future Olentangy Local School District Population at Build-Out	
Jurisdiction	Population
Berkshire Twp. (partial)	4,370
Berlin Twp.	24,000
Columbus (partial)	1,891
Concord Twp. (partial)	2,332
Delaware Twp. (partial)	1,880
Genoa Twp. (partial)	8,175
Liberty Twp.	43,274
Orange Twp.	35,000
Powell	6,247
Westerville (partial)	295
Total	127,464

Source: Delaware County Regional Planning Commission

Based on each of the jurisdictions’ comprehensive plans, the Delaware Regional Planning Commission developed a projected number of housing units, once the District is completely built out. The township figures include the municipalities within them that are part of the Olentangy Local School District, i.e.,

Columbus, Westerville, and Powell. The following table illustrates total number of units at build-out as well as the number of lots yet to be developed.

Additional tables illustrate data for each of the townships extracted from their respective comprehensive plans.

Olentangy Local School District Housing Units			
Jurisdiction	Total Units at Build-out	Existing Units	Remaining
Berkshire Twp. (partial)	1,554	62	1,492
Berlin Twp.	9,586	1,239	8,347
Concord Twp. (partial)	851	134	717
Delaware Twp. (partial)	715	80	635
Genoa Twp. (partial)	2,789	436	2,353
Liberty Twp.	14,425	5,501	8,924
Orange Twp.	13,100	5,055	8,045
Total	43,020	12,507	30,513
Source: Delaware County Regional Planning Commission			

Berlin Township encompasses a total of 16,544 acres. The potential residential acreage is 6,727 acres, or approximately 41% of the total acreage. Taking the average of the unit per acre densities in the township of 1 and 1.85 would result in 9,586 units in Berlin Township at build-out.

	Future Land Use - 1999 Berlin Township			
	1999 DALIS Acreage	% of Total	Total Build-out	% of Total
Single Family	1525.34	9.22%	6724.9	40.64%
Multi Family	1.84	0%	2.26	.01%*
Total	1,527.18	9.22%	6,727.16	40.65%
Source: Delaware County Regional Planning Commission; 1999 Berlin Township Comprehensive Plan				

* this number could be higher if Cheshire redevelops into mixed use with some multi-family

Liberty Township encompasses 21,664 acres. For Liberty Township [including Powell], housing units are expected to increase by 7,966 when developable land is built out for a total of 14,425 units. Densities for future development range from 1 to 2 units per acre.

	Future Liberty Township at Build-out			
	Existing Acreage	% of Total	Total Build-out	% of Total
Residential	7,701.03	35.5%	12,844.8	59.3%
Source: Delaware County Regional Planning Commission; 1995 Liberty Township Comprehensive Plan				

Orange Township encompasses 14,701 acres. Of this, 5,840 acres are slated for single family housing with a total of 11,680 housing units. There are an additional 284 acres for multi-family units, totaling 1,420 units. Densities for future single and multi-family uses are 2 and 5 units per acre, respectively.

	Future Land Use- 2001 Orange Township*			
	1999 DALIS Acreage	% of Total	Total Build-out	% of Total
Single Family	2,042	13.89%	5,840	39.73%
Multi Family	129	.88%	284	1.93%*
Total	2,171	14.77%	6,124	40.65%
Source: Delaware County Regional Planning Commission; 2001 Orange Township Comprehensive Plan				

* with a complete build-out scenario, there is no agricultural land left. Open space should be set aside as part of planned developments.

For the remaining areas of land in the Olentangy Local School District, the following charts were developed by the Delaware Regional Planning Commission. For these areas, there is a total of 2,666 acres slated for future residential development in the Olentangy Local School District. Development of this land will result in an additional 3,277 housing units. In addition, there are currently 1,920 lots under development as well.

	Remaining Land in Berkshire Township		
	Maximum Density	Acreage	Increase in Housing Units
Residential up to 5 units/acre	5	32.28	161
Single Family*	1.25	1039.43	1,299
Total	n/a	1,071.71	1,460
Source: Delaware County Regional Planning Commission			

* with centralized public sewer

Residential Uses	Remaining Land in Genoa Township		
	Maximum Density	Acreage	Increase in Housing Units
Area I - Medium Density	2.2	70.65	155
Area IV - Low Density	.5	75.96	38
Area V - Medium Density	1.35	663.23	895
Total	n/a	809.84	1,088
Source: Delaware County Regional Planning Commission			

	Remaining Land in Concord Township		
	Maximum Density	Acreage	Increase in Housing Units
Farm Residential	.8	276.34	221
Source: Delaware County Regional Planning Commission			

	Remaining Land in Delaware Township		
	Maximum Density	Acreage	Increase in Housing Units
Farm Residential	1	508.19	508
Source: Delaware County Regional Planning Commission			

In developing the enrollment projections, several factors were taken into consideration, including: historical enrollment, historical and projected building permit data, live birth rates, and student retention.

As a quick reference, the national average of school-age children per household is between .6 and .75. Based on the projected total housing units of 43,020, the District could expect between 25,812 and 32,265 students. This reference provides a range of potential students based on national averages. Historically, the yield factor for the Olentangy Local School District has been a little less than .6, based on the yield factors of new housing over the past several years.

For build-out purposes, two projections have been completed. The first is based on the current methodology used in the District, multiplying the average yield factor by projected housing. The second projection uses a variation of the first method.

Projection #1

In previous enrollment projection reports, building permits in only Powell and Berlin, Liberty, and Orange townships were taken into consideration using yield factors by grade. Projection #1 continues with this methodology.

Using a total of 25,000 housing units left to build in these areas, build-out would take approximately:

- 32 years at 800 new homes per year
- 28 years at 900 new homes per year
- 25 years at 1,000 new homes per year
- 23 years at 1,100 new homes per year

Carrying out these projections from 2011-12 over an additional 12 to 21 years would translate into the following build-out projections over the final 10 years.

Grade	District-Wide Projections over the Final 10 Years of Build-out									
K	1579	1639	1699	1759	1819	1879	1939	1999	2059	2119
1	1606	1666	1726	1786	1846	1906	1966	2026	2086	2146
2	1597	1657	1717	1777	1837	1897	1957	2017	2077	2137
3	1598	1658	1718	1778	1838	1898	1958	2018	2078	2138
4	1575	1635	1695	1755	1815	1875	1935	1995	2055	2115
5	1550	1610	1670	1730	1790	1850	1910	1970	2030	2090
K-5	9505	9865	10225	10585	10945	11305	11665	12025	12385	12745
6	1523	1583	1643	1703	1763	1823	1883	1943	2003	2063
7	1496	1556	1616	1676	1736	1796	1856	1916	1976	2036
8	1453	1513	1573	1633	1693	1753	1813	1873	1933	1993
6-8	4472	4652	4832	5012	5192	5372	5552	5732	5912	6092
9	1395	1455	1515	1575	1635	1695	1755	1815	1875	1935
10	1352	1412	1472	1532	1592	1652	1712	1772	1832	1892
11	1307	1367	1427	1487	1547	1607	1667	1727	1787	1847
12	1247	1307	1367	1427	1487	1547	1607	1667	1727	1787
9-12	5301	5541	5781	6021	6261	6501	6741	6981	7221	7461
Total	19278	20058	20838	21618	22398	23178	23958	24738	25518	26298

Source: DeJong & Associates, Inc.

Projection #2

To determine the second projection, the current enrollment was reviewed by where students live in the area. Liberty Township accounts for 43% of the student population, and Orange Township accounts for 38 percent.

It is important to note that in Genoa Township, which currently houses about 4% of the student population, 146 students are at the elementary school level. This area, while not a large land area, will need to be monitored carefully for elementary school students due to its potential impact on future enrollments. Currently, there are over 950 available lots in the development stages in Genoa Township.

Because data by address was available only for the current school year, an average yield factor could not be developed by township area. Instead an assumption was made that the current yield factor would remain constant. Based on this assumption, a set of projections was developed using the following methodology:

1. current enrollment by township / existing housing units = yield factor
2. yield factor x total projected number of housing units = projection

Projection based on Current Yield			
Jurisdiction	2001-02 Enrollment	Yield Factor	Projection
Berkshire Twp. (partial)	41	.6613	1,028
Berlin Twp.	789	.6368	6,104
Concord Twp. (partial)	70	.5224	445
Delaware Twp. (partial)	71	.8875	635
Genoa Twp. (partial)	270	.6193	1,727
Liberty Twp.	2,890	.5254	7,578
Orange Twp.	2,561	.5066	6,637
Total	6,692*		24,154

Source: DeJong & Associates, Inc.

* there are 48 students whose residence is not within one of the above areas

The following table illustrates the range of projections, which is relatively small—within 2,144 students.

Build-out Projections	Projection Methodology		
	#1	#2	National Average of .6
# of Students	26,298	24,154	25,812

Source: DeJong & Associates, Inc.

