



IOWA CITY
COMMUNITY
SCHOOL DISTRICT
Child-Centered : Future-Focused

ENROLLMENT PROJECTIONS AND STUDENT POTENTIAL ANALYSIS

EXECUTIVE SUMMARY AND ADDITIONAL INFORMATION

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BACKGROUND

The Iowa City Community School District has experienced rapid enrollment growth for quite some time. In the past 10 years, the District has grown by nearly 2,000 students, an increase of nearly 20%!

In December 2012, the District hired DeJONG-RICHTER to create enrollment projections for the next 10 years. DeJONG-RICHTER analyzed potential enrollment using two methodologies: cohort survival and build-out analysis. The two methods both attempt to predict future enrollment, but using different methodologies. As such, it is important to note that *the results from the two reports should not be added together*. Both methods utilize a mix of art and science to use available information to predict enrollment into the future.

The cohort survival method was used in the accompanying “Enrollment Projections” report. This method uses data including live births, historical enrollment, open enrollment, census records, and building permits. A “survival ratio” describes how many students move from one grade to the next. For instance, if there were 100 second grade students in 2011-12 and 105 third grade students in 2012-13, the survival ratio for that cohort would be 105% (that’s 105 divided by 100). If that ratio was consistent over time, and if there were 120 second grade students in 2012-13, then one might predict that there would be 126 (that’s 120 times 1.05) third grade students in 2013-14. Obviously, the real world is not this simple, and many factors influence enrollment changes over time, including such things as boundary changes, schools opening and closing, changes in location for special programs, housing activity, and employment changes in the community.

The build-out analysis method was used in the accompanying “Student Potential Analysis” report. This method uses data including the locations of where students live, migration patterns, and housing

“Remember that all models are wrong; the practical question is how wrong do they have to be to not be useful.”

Box, G. E., & Draper, N. R. (1987). *Empirical model-building and response surfaces*. New York: John Wiley & Sons.

information. This method uses data on existing subdivisions to determine a “student yield” from each. For instance, if a subdivision has 100 houses and there are 20 students living in that subdivision, the student yield is 0.2 (that’s 20 divided by 100). If that subdivision has 60 lots available for new houses, the potential student yield would be 12 students (that’s 60 times 0.2).

“Prediction is very difficult, especially about the future.”

Niels Bohr, Nobel Prize, 1922

FINDINGS

DeJONG-RICHTER predicts that the District's rapid enrollment growth will continue into the future, growing by nearly 3,000 students over the next 10 to 20 years.

SUMMARY OF K-12 ENROLLMENT PROJECTIONS USING COHORT SURVIVAL METHOD

The "Enrollment Projections" report shows large areas of growth likely in the next 10 years in the north, west, and east/southeast. Many elementary schools have potential growth in excess of 50 additional students, with Garner the largest at 202 additional students! In the north, Garner, Penn, Van Allen, and Wickham have a combined growth of 445 students predicted. In the east/southeast, Lemme, Lucas, and Wood have a combined student growth of 228 students predicted. In the west, Borlaug, Horn, and Weber have a combined student growth of 297 students predicted.

Overall, this method predicts **over 2,800 additional K-12 students in the next 10 years.**

Table 1 summarizes the K-12 enrollment projections using the cohort survival method. The table shows how enrollment is predicted to change next year and 10 years from now. Projections for each of the next 10 years, by grade and by school, are available in the accompanying report.

SUMMARY OF K-12 ENROLLMENT PROJECTIONS USING BUILD-OUT ANALYSIS

The "Student Potential Analysis" shows large areas of growth likely in the next 20 years in the north and east/southeast. Many elementary schools have student potentials of 70 or more additional students, with Penn by far the highest at 508! In the north, Garner, Penn, Van Allen, and Wickham have a combined student potential of 999 students. In the east/southeast, Lemme, Twain, and Wood have a combined student potential of 271 students. In the west, Weber has a student potential of 86 students.

Overall, this method indicates potential for **over 2,500 additional K-12 students in the next 20 years.** As explained in the report, the lower prediction using this method is likely due to two primary factors: the focus on areas of significant growth and land use data being unavailable.

Table 2 summarizes the K-12 enrollment projections using the build-out analysis method. The table shows the count of potential students over the next 20+ years. Additional details, including maps of growth areas, are available in the accompanying report.

OTHER STUDENT COUNTS

PRE-SCHOOL STUDENTS

The reports included here reflect counts of students in grades kindergarten through 12, so pre-school students are not included in these counts. The 2012-13 counts for pre-school students by building are included in Table 3.

STUDENTS COUNTED IN ONE SCHOOL BUT ATTENDING ANOTHER

Some students are counted in one school although they actually attend in another location. For instance, students served at Transitions or the Theodore Roosevelt Education Center (TREC) are reflected in the counts of the school to which they are assigned (such as City or West, for instance). For purposes of reporting enrollment to the Iowa Department of Education, these are programs, not schools. While Tate High School also draws students from throughout the District without regard to where the students live, much like Transitions and TREC, this is considered a school by the Department of Education, and therefore projections for Tate are provided in these reports.

HEAD COUNTS VERSUS CERTIFIED ENROLLMENT

In the reports summarized here, the K-12 student enrollment for the 2012-13 school year is 12,479. In the 2013-14 Certified Budget report, presented to the Board of Education on March 5th, 2013, the “certified student enrollment” for the 2012-13 school year is 12,774.4. It can be confusing when two official reports present enrollment counts that appear to conflict. In Iowa, students are counted different ways depending on the purpose of the count. Two such ways are “head counts” and certified enrollment. The 2012-13 Enrollment Report, presented to the Board on December 4th, 2012, contains an explanation of the difference between head counts of students and certified enrollment (see pages 5 and 6 of that report). Basically, some students are traditional, full-time students, and others are not (those who are dual-enrolled or utilize home school assistance, for instance). Those who are not will result in less funding to the District than the funding for those who are, thus the various weightings accounted for in certified enrollment.

Table 4 shows how students were counted in the 2012-13 school year. These are the actual categories and counts that were submitted to the Iowa Department of Education. The blue-shaded cells combine to give the “head count” of K-12 students (12,479) that is reflected in Table 1. The purple-shaded cells add up to the “certified enrollment” (12,774.35) upon which District funding for the 2013-14 school year is based. The enrollments in the Enrollment Projections and Student Potential Analysis reports represent head counts.

CONCLUSION

By all accounts, the Iowa City Community School District is likely to continue to experience rapid growth. The District can anticipate an average of **250 to 300 new students every year for the next ten years or more**. The most rapid growth is predicted for the next four years, with predicted increases of 347, 331, 482, and 414 new K-12 students, respectively.

Projected Enrollment and Enrollment Growth

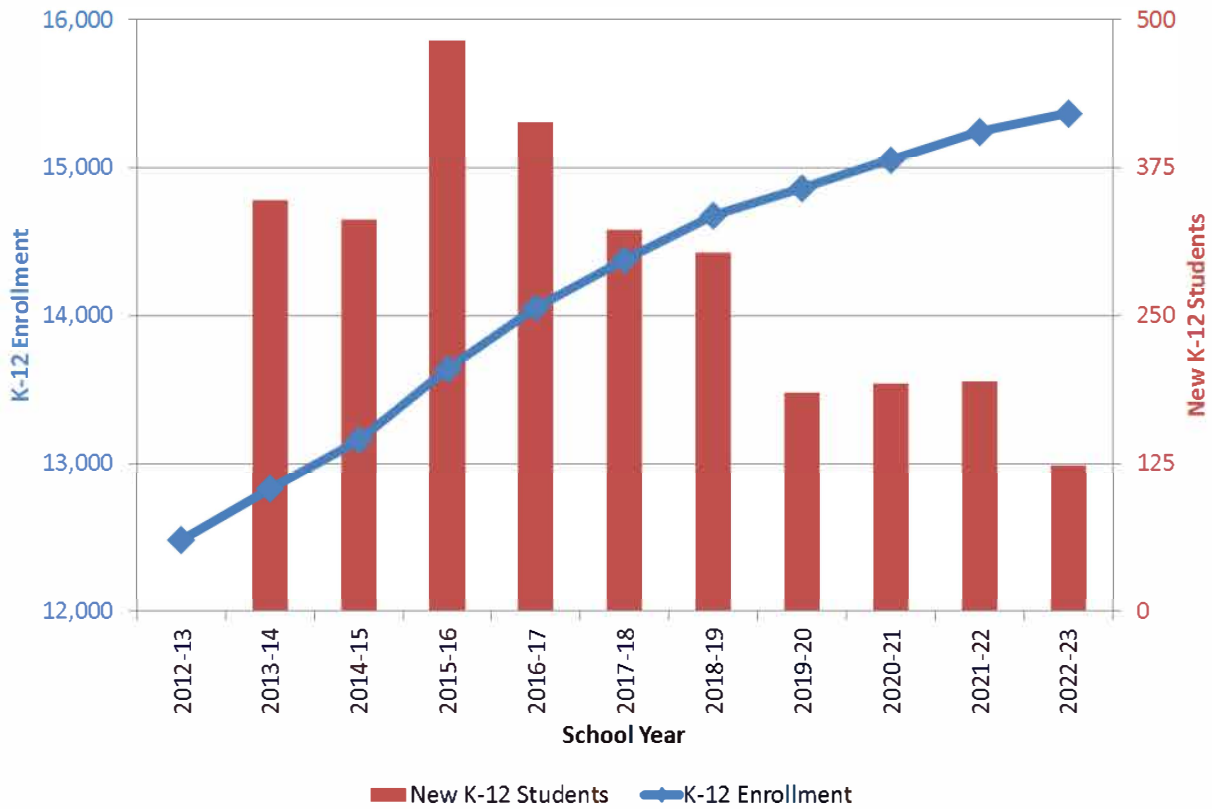


Table 1: K-12 Enrollment Projections 1 Year and 10 Years After 2012-13 Using Cohort Survival Method

School	2012-13 Head Count	2013-14 (1 year)			2022-23 (10 years)		
		Head Count	Change from 2012-13		Head Count	Change from 2012-13	
Borlaug ES	326	364	+38	+11.7%	476	+150	+46.0%
C. Central ES	429	422	-7	-1.6%	454	+25	+5.8%
Garner ES	491	534	+43	+8.8%	693	+202	+41.1%
Hills ES	108	110	+2	+1.9%	122	+14	+13.0%
Hoover ES	361	360	-1	-0.3%	376	+15	+4.2%
Horn ES	461	466	+5	+1.1%	512	+51	+11.1%
Kirkwood ES	331	338	+7	+2.1%	365	+34	+10.3%
Lemme ES	372	391	+19	+5.1%	488	+116	+31.2%
Lincoln ES	246	251	+5	+2.0%	291	+45	+18.3%
Longfellow ES	334	333	-1	-0.3%	370	+36	+10.8%
Lucas ES	436	436	0	0.0%	499	+63	+14.4%
Mann ES	247	244	-3	-1.2%	302	+55	+22.3%
Penn ES	516	557	+41	+7.9%	651	+135	+26.2%
Shimek ES	199	207	+8	+4.0%	219	+20	+10.1%
Twain ES	268	266	-2	-0.7%	291	+23	+8.6%
Van Allen ES	467	489	+22	+4.7%	527	+60	+12.8%
Weber ES	477	475	-2	-0.4%	573	+96	+20.1%
Wickham ES	481	476	-5	-1.0%	529	+48	+10.0%
Wood ES	530	547	+17	+3.2%	579	+49	+9.2%
ES Total	7,080	7,266	+186	+2.6%	8,317	+1,237	+17.5%
North Central JHS	469	479	+10	+2.1%	750	+281	+59.9%
Northwest JHS	650	685	+35	+5.4%	670	+20	+3.1%
South East JHS	761	812	+51	+6.7%	1,049	+288	+37.8%
JHS Total	1,880	1,976	+96	+5.1%	2,469	+589	+31.3%
City HS	1,414	1,481	+67	+4.7%	2,077	+663	+46.9%
Tate HS	149	150	+1	+0.7%	187	+38	+25.5%
West HS	1,956	1,953	-3	-0.2%	2,322	+366	+18.7%
HS Total	3,519	3,584	+65	+1.8%	4,586	+1,067	+30.3%
Grand Total	12,479	12,826	+347	+2.8%	15,372	+2,893	+23.2%

Table 2: K-12 Enrollment Projections 20+ Years After 2012-13 Using Build-Out Analysis Method

School	2012-13 Head Count	Next 20+ Years			Comparison to Cohort Survival Method	
		Head Count	Change from 2012-13		CS Method (2022-23)	Difference
Borlaug ES	326	364	+38	+11.7%	476	+112
C. Central ES	429	480	+51	+11.9%	454	-26
Garner ES	491	586	+95	+19.3%	693	+107
Hills ES	108	N/A			122	N/A
Hoover ES	361	369	+8	+2.2%	376	+7
Horn ES	461	473	+12	+2.6%	512	+39
Kirkwood ES	331	337	+6	+1.8%	365	+28
Lemme ES	372	468	+96	+25.8%	488	+20
Lincoln ES	246	277	+31	+12.6%	291	+14
Longfellow ES	334	355	+21	+6.3%	370	+15
Lucas ES	436	459	+23	+5.3%	499	+40
Mann ES	247	266	+19	+7.7%	302	+36
Penn ES	516	1,024	+508	+98.4%	651	-373
Shimek ES	199	220	+21	+10.6%	219	-1
Twain ES	268	340	+72	+26.9%	291	-49
Van Allen ES	467	680	+213	+45.6%	527	-153
Weber ES	477	563	+86	+18.0%	573	+10
Wickham ES	481	664	+183	+38.0%	529	-135
Wood ES	530	633	+103	+19.4%	579	-54
Elem Total	7,080	8,666	+1,586	+22.4%	8,317	-349
North Central JHS	469	692	+223	+47.5%	750	+58
Northwest JHS	650	739	+89	+13.7%	670	-69
South East JHS	761	859	+98	+12.9%	1,049	+190
JH Total	1,880	2,290	+410	+21.8%	2,469	+179
City High	1,414	1,633	+219	+15.5%	2,077	+444
Tate HS	149	N/A			187	N/A
West High	1,956	2,305	+349	+17.8%	2,322	+17
HS Total	3,519	4,087	+568	+16.1%	4,586	+499
Grand Total	12,479	15,043	+2,564	+20.5%	15,372	+329

Table 3: 2012-13 Pre-School Enrollment

School	2012-13 Head Count
Borlaug ES	27
C. Central ES	16
Garner ES	13
Hills ES	4
Hoover ES	10
Kirkwood ES	16
Mann ES	13
Shimek ES	29
Twain ES	31
Van Allen ES	32
Wood ES	39
Total	230

Table 4: 2012-13 Enrollment as Reported to the Iowa Department of Education

	Count	Weight	Weighted Count
Residents			
Resident public students for whom your district provides all, or a major portion of, the instructional program within your district.			
Full-time K-12	12,207	1.000	12,207.00
Pre-K Special Education	107	1.000	107.00
Dual Enrolled K-8 or 9-12 Enrolled for Activity Program	43	0.100	4.30
Home School Assistance K-12	33	0.300	9.90
Dual Enrolled and Home School Assistance K-8 or 9-12 Enrolled for Activity Program	55	0.400	22.00
Students Leaving			
Open Enrolled Out			
Full time K-12	360	1.000	360.00
Dual Enrolled K-8 or 9-12 Enrolled for Activity Program	3	0.100	0.30
Home School Assistance K-12	0	0.300	0.00
Dual Enrolled and Home School Assistance K-8 or 9-12 Enrolled for Activity Program	82	0.400	32.80
Tuitioned Out			
Full time K-12	26	1.000	26.00
Dual Enrolled K-8 or 9-12 Enrolled for Activity Program	0	0.100	0.00
Home School Assistance K-12	0	0.300	0.00
Dual Enrolled and Home School Assistance K-8 or 9-12 Enrolled for Activity Program	0	0.400	0.00
Whole Grade Sharing Out			
Full time K-12	0	1.000	0.00
Dual Enrolled K-8 or 9-12 Enrolled for Activity Program	0	0.100	0.00
Home School Assistance K-12	0	0.300	0.00
Dual Enrolled and Home School Assistance K-8 or 9-12 Enrolled for Activity Program	0	0.400	0.00
Students Entering			
Open Enrolled In			
Full time K-12	110	1.000	110.00
Dual Enrolled K-8 or 9-12 Enrolled for Activity Program	1	0.100	0.10
Home School Assistance K-12	5	0.300	1.50
Dual Enrolled and Home School Assistance K-8 or 9-12 Enrolled for Activity Program	4	0.400	1.60
Tuitioned In			
Full time K-12	21	1.000	21.00
Dual Enrolled K-8 or 9-12 Enrolled for Activity Program	0	0.100	0.00
Home School Assistance K-12	0	0.300	0.00
Dual Enrolled and Home School Assistance K-8 or 9-12 Enrolled for Activity Program	0	0.400	0.00
Whole Grade Sharing In			
Full time K-12	0	1.000	0.00
Dual Enrolled K-8 or 9-12 Enrolled for Activity Program	0	0.100	0.00
Home School Assistance K-12	0	0.300	0.00
Dual Enrolled and Home School Assistance K-8 or 9-12 Enrolled for Activity Program	0	0.400	0.00

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Table 4: Continued

	Count	Weight	Weighted Count
District Courses			
Non-Public Shared Time K-8	0		0.00
Non-Public Shared Time 9-12	3	0.100	0.30
Non-Public Shared Time 9-12	2	0.500	1.00
CPI Dual Enrolled/CPI Dual Enrolled and HSAP (9-12)			
Resident	13	0.000	0.00
Resident	7	0.100	0.70
Resident	1	0.300	0.30
Resident	5	0.500	2.50
Open Enrolled In	0		0.00
Tuitioned In	0		0.00
Whole Grade Sharing In	0		0.00
PSEO Courses (Spring 11-12)			
Non-Public Shared Time K-8	0		0.00
Non-Public Shared Time 9-12	2	0.085	0.17
CPI Dual Enrolled/CPI Dual Enrolled and HSAP (9-12)			
Resident	0		0.00
Open Enrolled In	1	0.040	0.04
Tuitioned In	0		0.00
Whole Grade Sharing In	0		0.00
PSEO Courses (Fall 12-13)			
Non-Public Shared Time K-8	0		0.00
Non-Public Shared Time 9-12	0		0.00
CPI Dual Enrolled/CPI Dual Enrolled and HSAP (9-12)			
Resident	1	0.040	0.04
Open Enrolled In	0		0.00
Tuitioned In	0		0.00
Whole Grade Sharing In	0		0.00
TOTAL of corresponding shaded cells	12,479		12,774.35
	Head Count		Certified Enrollment