

Boundary Process

17/18 Committee Meeting #1

Presented on January 30, 2018



Discussion Points

- **Introductions** (Part One)
 - About RSP
 - Committee Member Background
- **Committee Information** (Part Two)
 - Boundary Process Detail and Roles
 - Presentation Goals
 - Activity – Ice Breaker
 - Activity – Conduct/ Ground Rules
 - Criteria for the Process
 - Considerations
- **Enrollment, Development, and Demographics** (Part Three)
 - Sophisticated Forecast Model
 - Model Components
 - Visuals of Enrollment and Demographics
 - Activity – Map Exercise
 - Committee Member Feedback
- **Moving Forward** (Part Four)
 - Parking Lot
 - Public Forum Information
 - Committee Member Knowledge
 - Homework

Part One: Introductions

Visualizing Success



About RSP

- Founded in 2003
- Professional educational planning firm
- Expertise in multiple disciplines
- Over 20 Years of planning experience
- Over 80 years of education experience
- Over 20 years of GIS experience
- Clients in Arkansas, Iowa, Illinois, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, and Wisconsin
- Projection accuracy of 97% or greater

Planning

Robert Schwarz

CEO, AICP, REFP, CEFP

Grant Lang

Planning Coordinator

Educators

Clay Guthmiller

Education Planner

Jay Harris

Education Planner, EdS

Dave Stoakes

Education Planner, EdD

GIS Analyst

Tyler Link

GIS Analyst

Brandon Sylvester

GIS Analyst

Our Clients

NORTH DAKOTA

Alexander McKenzie County
 Bismarck Minot
 Central Cass New Public School 8
 Fargo Northern Cass
 Garrison Richardton Taylor
 Glenburn Rugby
 Grand Forks West Fargo
 Jamestown Wilton
 Mandan

ILLINOIS

Glenview 34
 Indian Prairie 204
 Keeneyville 20
 Naperville 203
 Norridge 80
 Oswego 308
 Rockford 205
 Yorkville 115

MISSOURI

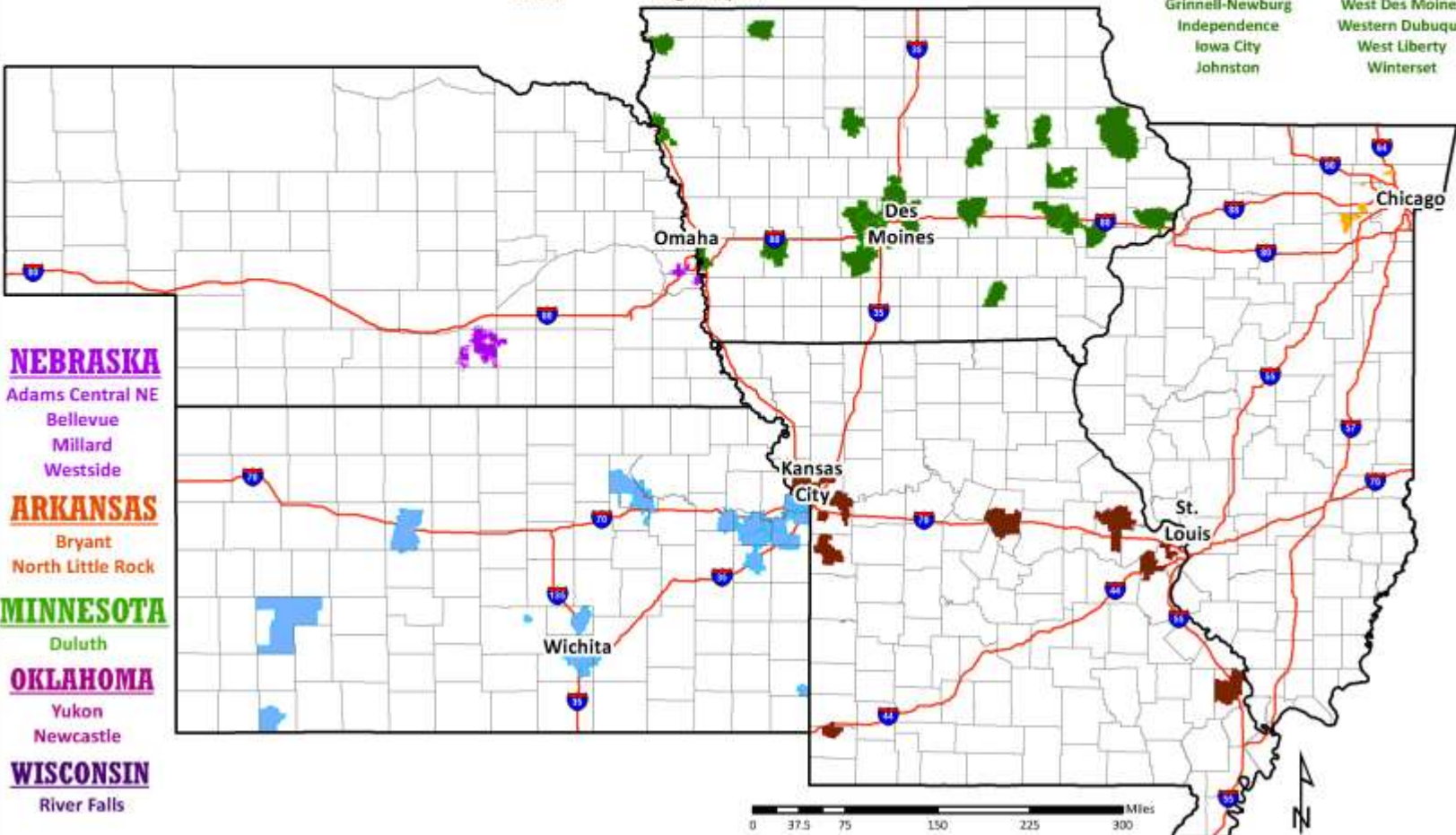
Columbia North Kansas City
 Diamond R-IV Pattonville R-III
 Fort Osage R-I Platte County R-III
 Grain Valley Raymore-Peculiar R-II
 Harrisonville R-IX Raytown C-2
 Jackson Rockwood
 Jennings Troy R-III
 Kearney R-I University City
 Ladue Wright City R-II

KANSAS

Andover
 Baldwin City
 Bonner Springs
 Derby
 De Soto
 Eudora
 Garden City
 Gardner-Edgerton
 Hays
 Hutchinson
 Kansas City
 Lawrence
 Liberal
 Maize
 Manhattan-Ogden
 Newton
 Ottawa
 Pittsburg
 Piper-Kansas City
 Riley County
 Shawnee Heights
 Shawnee Mission
 Spring Hill
 Turner- Kansas City
 Wichita

IOWA

Adel DeSoto Minburn
 Ames
 Ankeny
 Atlantic
 Ballard
 Bettendorf
 Boundurant-Farrar
 Cedar Falls
 Cedar Rapids
 Clear Creek-Amara
 Council Bluffs
 Dallas Center Grimes
 Fort Dodge
 Gladbrook-Reinbeck
 Grinnell-Newburg
 Independence
 Iowa City
 Johnston
 Linn-Mar
 Newton
 North Polk
 North Scott
 Norwalk
 Okoboji
 Ottumwa
 Rock Valley
 Saydel
 Sergeant Bluff-Luton
 Sioux City
 Southeast Polk
 Urbandale
 Waukee
 West Des Moines
 Western Dubuque
 West Liberty
 Winterset



NEBRASKA

Adams Central NE
 Bellevue
 Millard
 Westside

ARKANSAS

Bryant
 North Little Rock

MINNESOTA

Duluth

OKLAHOMA

Yukon
 Newcastle

WISCONSIN

River Falls

Committee Introductions (Activity 1)

At your Table with the person on your right ask them the following question:

1. Which team are you hoping wins the Super Bowl?
2. If they do not care or will not watch what will you be doing

During the report out, state the following:

- Persons Name
- What Elementary Attendance area the person resides

Time Limit – 15 Minutes



(Changing boundaries is emotional and not supported by everyone)

Questions with Clickers

Questions and the use of the Clickers are to help RSP, Board of Education, Administration, and the public better understand what you may be thinking about various issues at this point in the process:

- Keeping your mind engaged
- Get immediate feedback
- Answers will help with future discussions

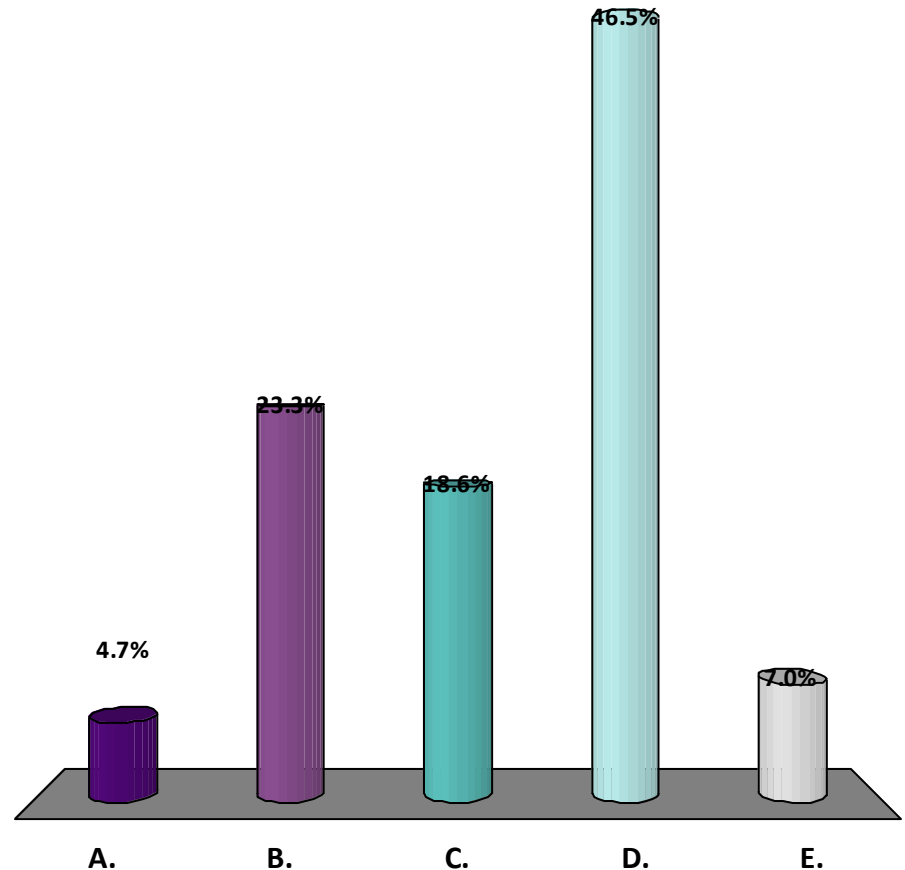


Demographics Question #1



I have lived in the district:

- A. 0 to 3 years
- B. 3 to 6 years
- C. 6 to 9 years
- D. > 10 years
- E. Do not live in the district



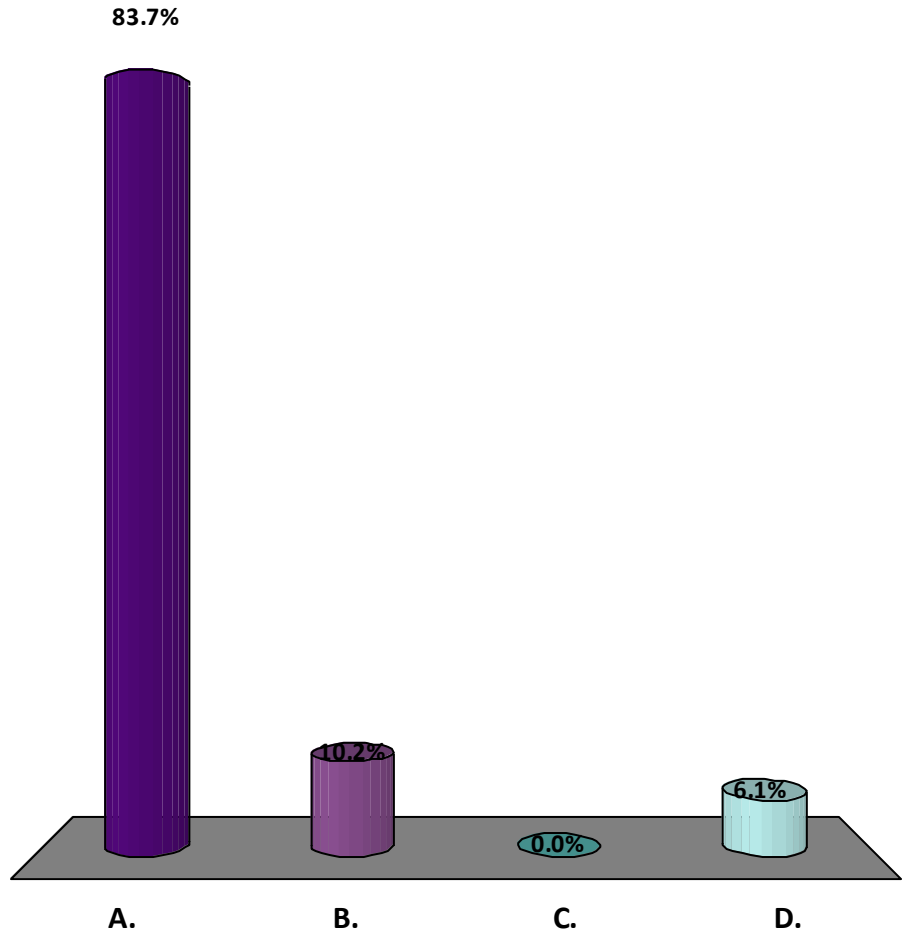
Demographics Question #2



The following describes my affiliation with the district:

- A. Parent or Grandparent
- B. Staff member
- C. Former Student
- D. Other

You can choose up to three answers

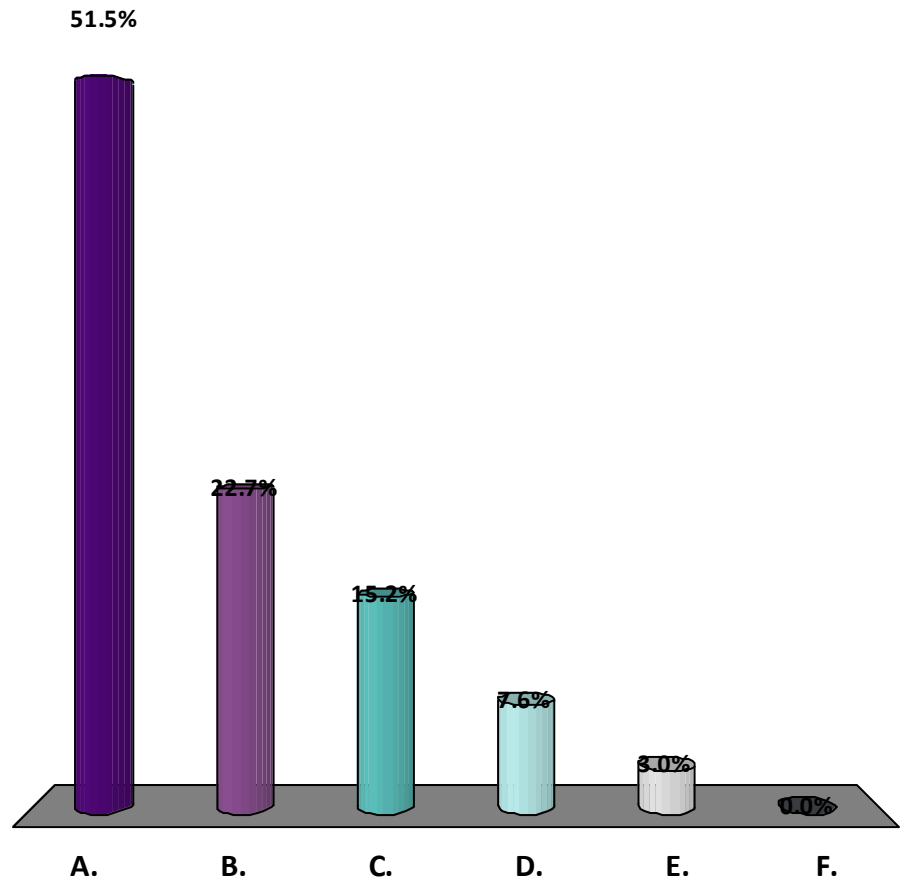


Demographics Question #3



The following are the grade levels of my children and/or grandchildren:

- A. K-5
- B. 6-7
- C. 8-9
- D. 10-12
- E. Graduated
- F. No students



You can choose up to four answers

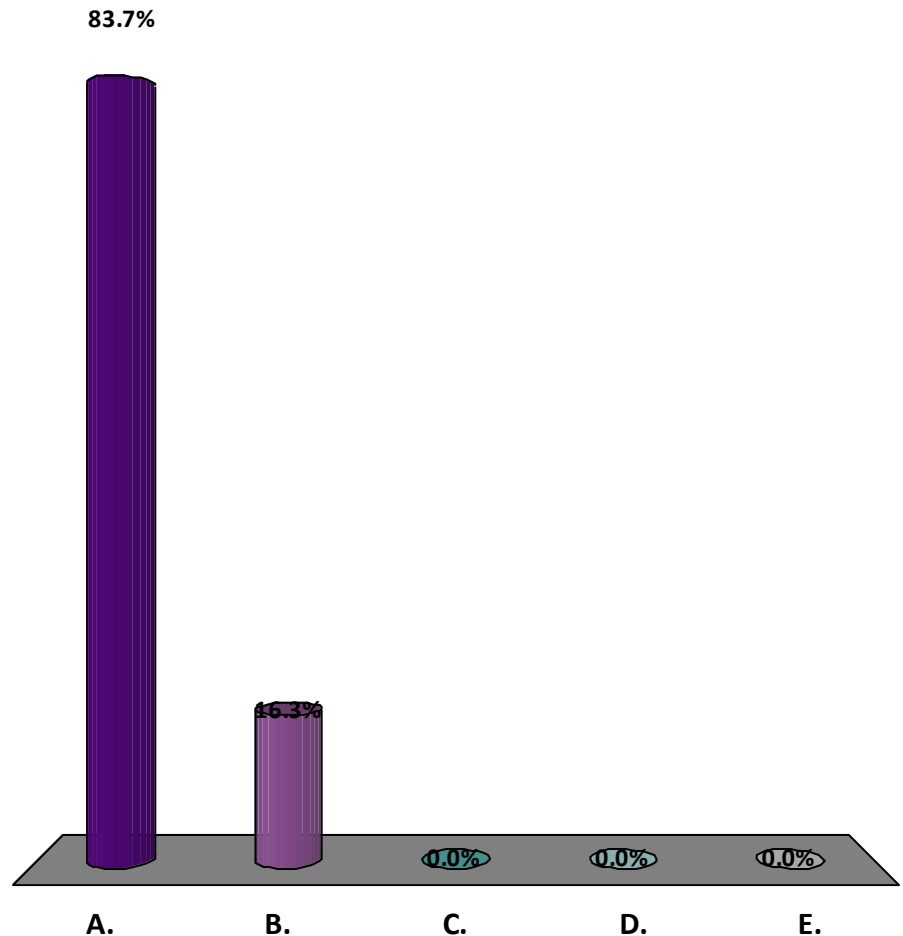
Committee Response 01/30/18

Demographic Question #4



To the best of my ability, I agree to attend every committee meeting :

- A. Absolutely
- B. Mostly
- C. Somewhat
- D. Not Likely
- E. Not at All



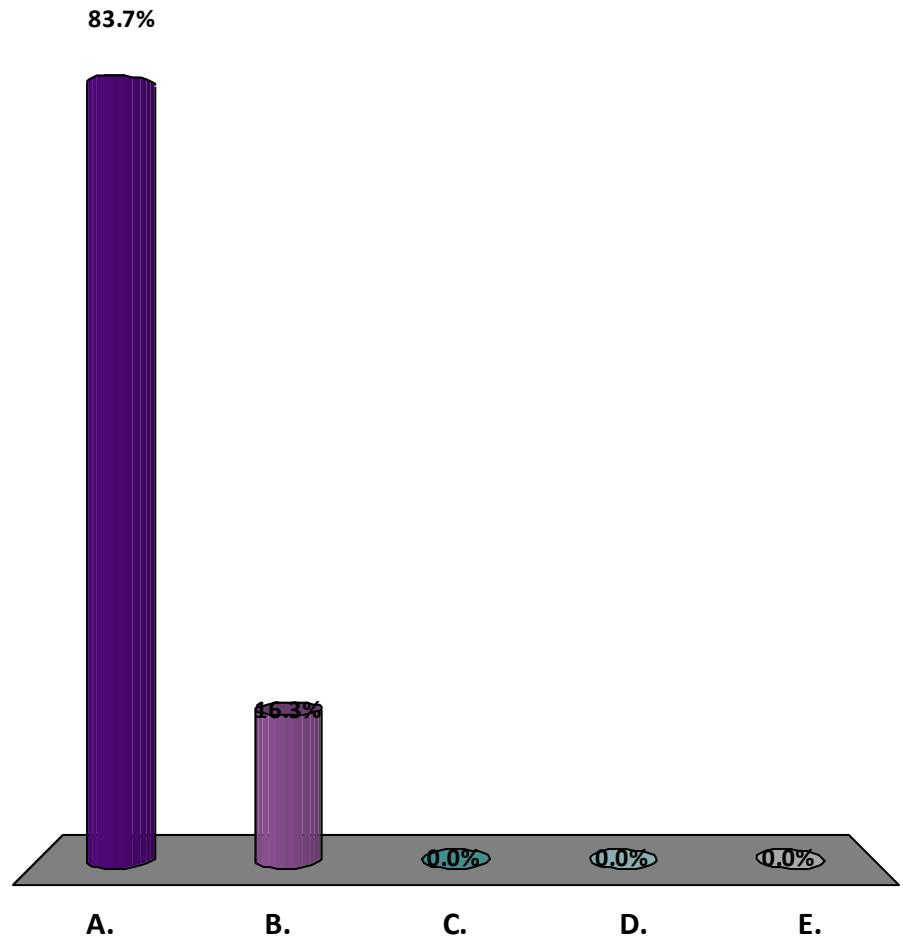
Committee Response 01/30/18

Demographic Question #5



To the best of my ability, I will keep my mind open to solutions that may end up impacting my family, my friends or my neighborhood:

- A. Absolutely
- B. Mostly
- C. Somewhat
- D. Not Likely
- E. Not at All



Part Two: Committee Information

Visualizing Success



Presentation Goals

1. Provide information that will help guide a Boundary Committee discussion for the Elementary and Middle School Attendance area realignment:
 - Boundary Process
 - Boundary Scope and Boundary Criteria
 - General information about Enrollment and Demographics
2. Provide a transparent dialogue between RSP, Administration, BOE, and Committee so the public will better understand the timing for proposed changes and reasons why adjustments to current boundary lines will need to occur in the future

Conduct/Ground Rules (Activity 2)

At your Table discuss what you think all committee members should adhere to at each meeting:

1. Each table will report out one item
2. We will go around each table until all the ideas are reported

Committee will vote by a show of hands if they agree with the list of items that each committee should adhere to at each meeting

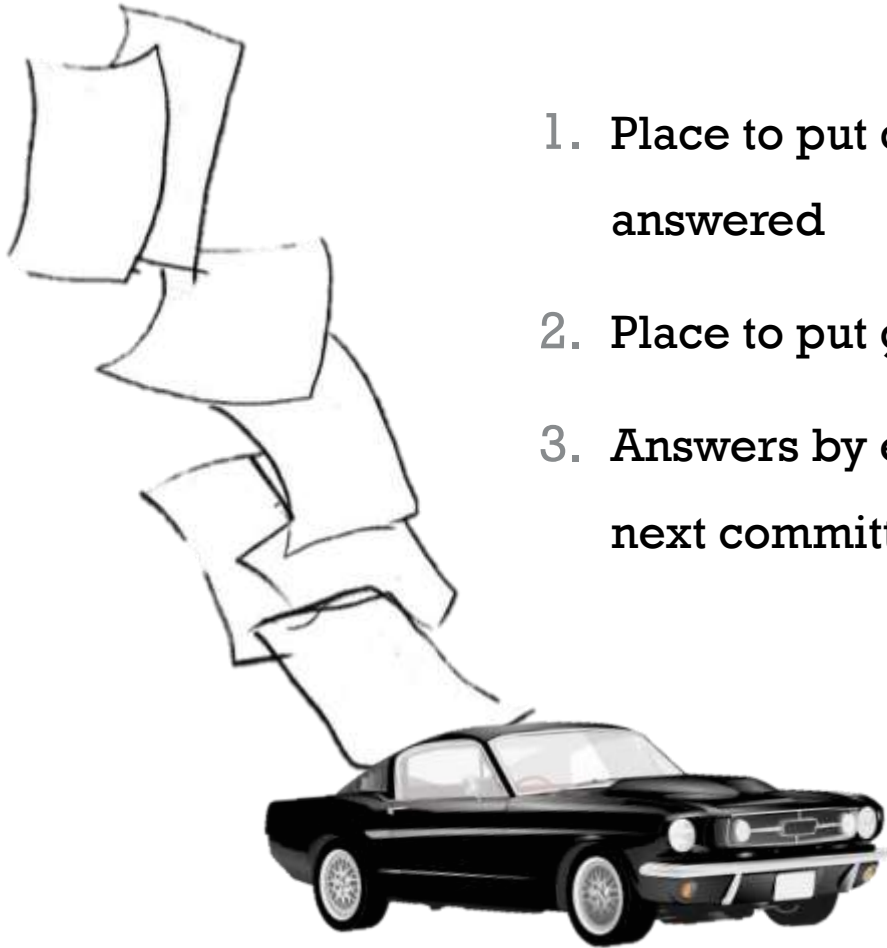
Time Limit – 5 Minutes



(Rules assist with creating a safe environment for everyone)

Parking Lot

1. Place to put questions about items you would like answered
2. Place to put general comments
3. Answers by either RSP or Administration prior to the next committee meeting



Process Roles

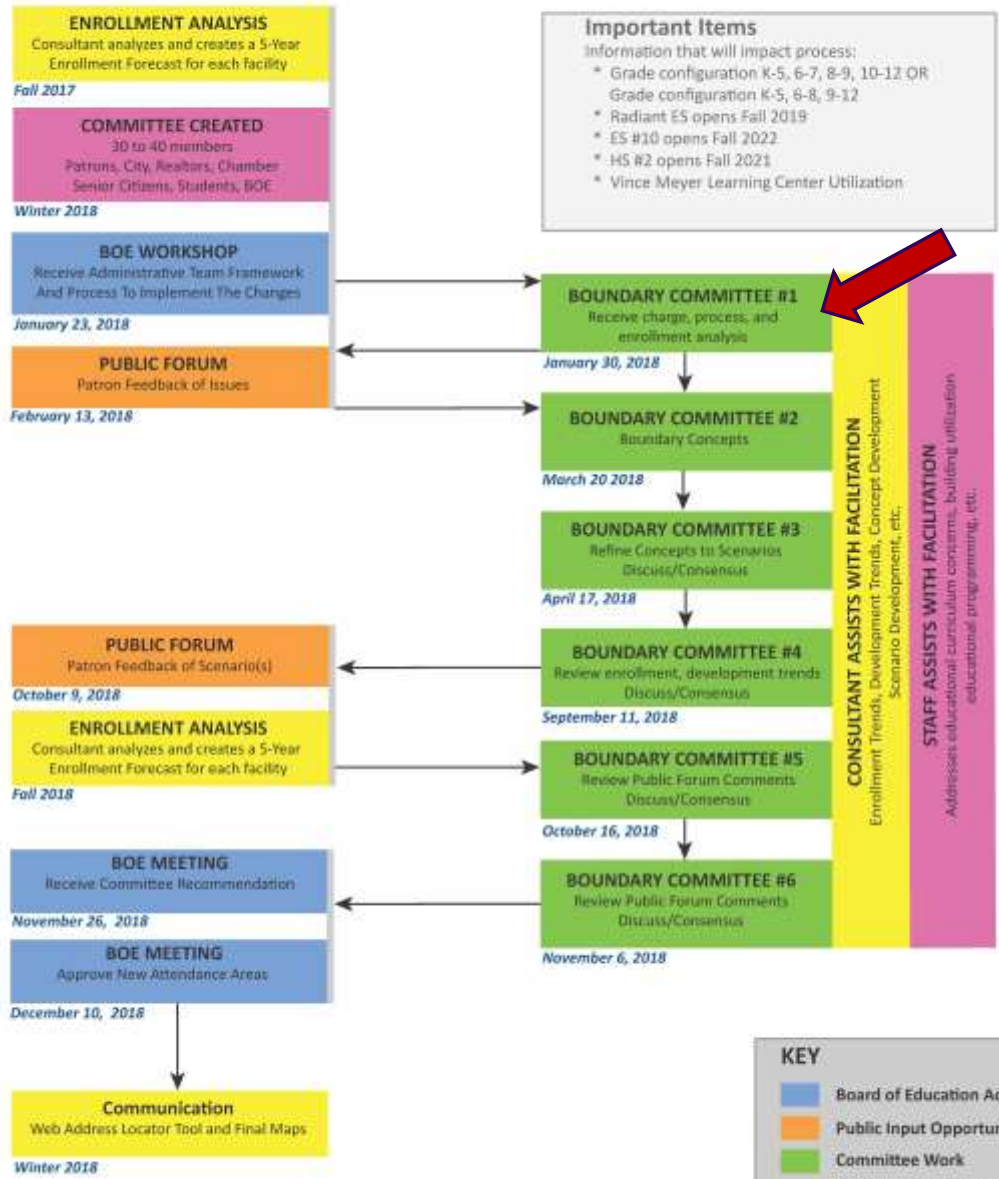
Board of Education: Provide the framework of the process, community values, prioritized boundary criteria, receive the Committee recommendation, listen to community input, and after more discussion approve attendance areas for Radiant ES scheduled to open in the 2019/20 school year, the MS for either the 2019/20 or the 2021/22 school year, and HS#2 scheduled to open in the 2021/22 school year.

Administration: Provide guidance over the process, attend the committee meetings and public forums, be a resource in answering questions related to school district related topics, communicate the educational vision, and provide ongoing progress updates to the school community through a targeted communication plan.

RSP: Facilitator (Board, Committee, and Public Forums). Utilize GIS data, knowledge gained from city jurisdictions and others to create accurate enrollment projections and generate scenarios based on the committee feed back to the Board community values and prioritized boundary criteria.

Committee: Examine scenarios presented and evaluate based on the community values and prioritized boundary criteria so a recommendation can be provide to the Board of Education. Focus is not on knowing where students reside, but rather the community values and prioritized boundary criteria

Community: Review the scenarios and provide constructive feedback so the committee and/or Board can consider how any of these ideas might benefit the boundary plan that will be implemented



- **3 Board of Education Meetings**
- **6 Committee Meetings**
- **2 Public Forums**
- **Starts January 2018**
- **Completed December 2018**

Academics, Culture, Economics (ACE)



June 2017 BOE Responses:

- Relationship between all three and the impact they have on each other
- It is a framework that starts the larger boundary discussion
- Not focused on a physical building or space
- Provides balance and prevents tunnel vision
- Keeps everyone focused on what is important: (Students, Staff, Families, and Community_

Guiding Principles

The following are to be considered:

1. All the Boundary Criteria are important – generally believe an unstated result of the boundary changes are to balance enrollment with the capacity of the school, as well as not adding additional fiscal costs for buildings or staffing.
2. The boundary should reflect providing better educational opportunities at each school for there to be an equitable student experience at each school.
3. Provide some flexibility in the boundary analysis for the committee to examine a K-5, 6-8, 9-12 grade configuration and the use of Vince Meyer as a temporary over flow.
4. The committee recognizes the power of a neighborhood to create community and attendance areas.
5. The boundary can anticipate future growth of the neighborhood (Allow areas of high growth to grow into capacity of the school).
6. The boundary proposed should utilize all of the available district resources – do not increase capital costs to increase capacity.
7. Consider boundary lines that follow natural/manmade boundaries – do not split neighborhoods.
8. Demographics should be a part of the discussion for reasonable equity and similar student experience within the idea of neighborhood schools.
9. If a feeder has to be split that split should happen from elementary school to middle school
10. Grandfathering/Transfers/Student Options are determined by Administration.

Boundary Criteria

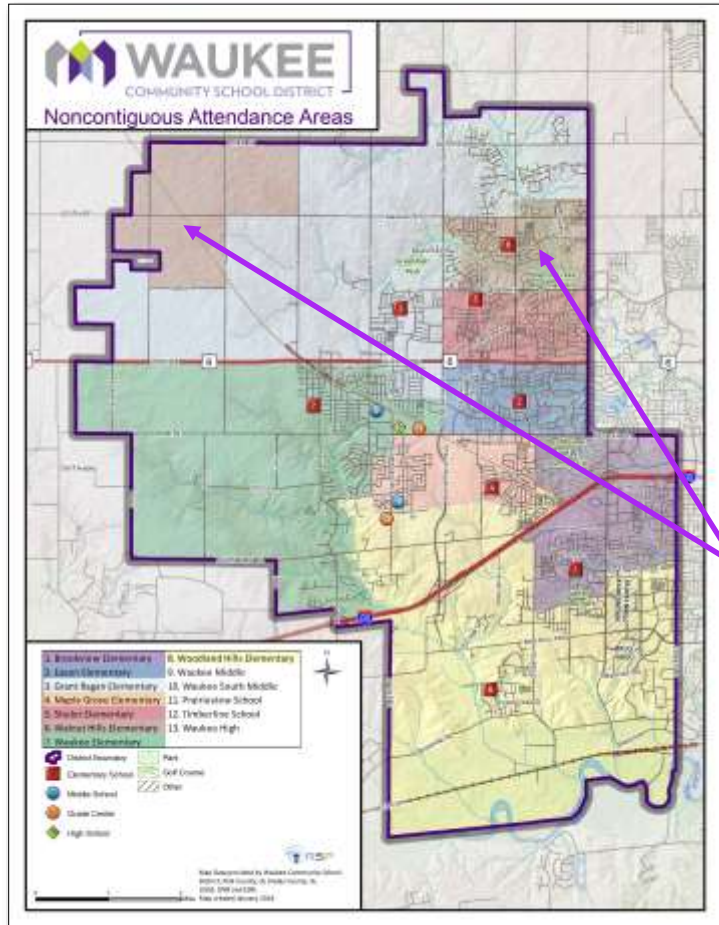
The following are always to be considered:

- Exceptional education must take place at each facility in every option
- The goal is to minimize subjective comments and rumors in order to obtain BOE goals and priorities, and yet provide for the educational need of each student

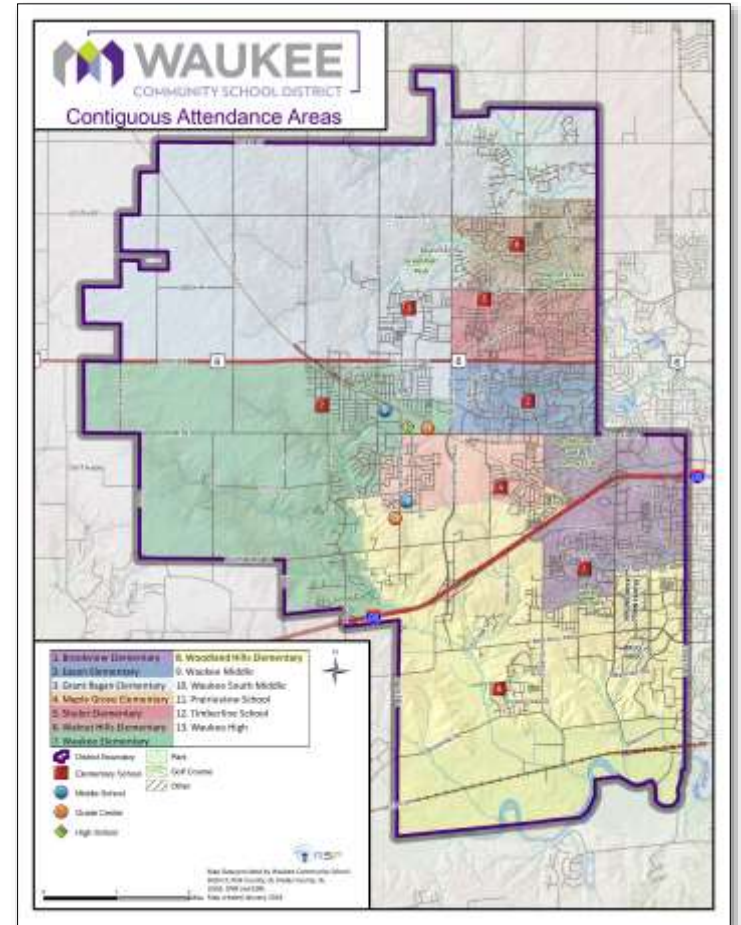
Boundary Criteria Example: (Alphabetized)

1. Contiguous Attendance Areas
2. Demographic Considerations
3. Duration of Boundaries
4. Feeder System Considerations
5. Fiscal Consideration - Capital
6. Fiscal Consideration - Operational
7. Neighborhoods Intact
8. Projected Enrollment/Building Utilization
9. Students Impacted by Boundary Change
10. Transportation Considerations

Attendance Areas



Example illustrates Walnut Hills ES has an attendance area that creates an island resulting in Non-Contiguous Boundaries



Non-Contiguous

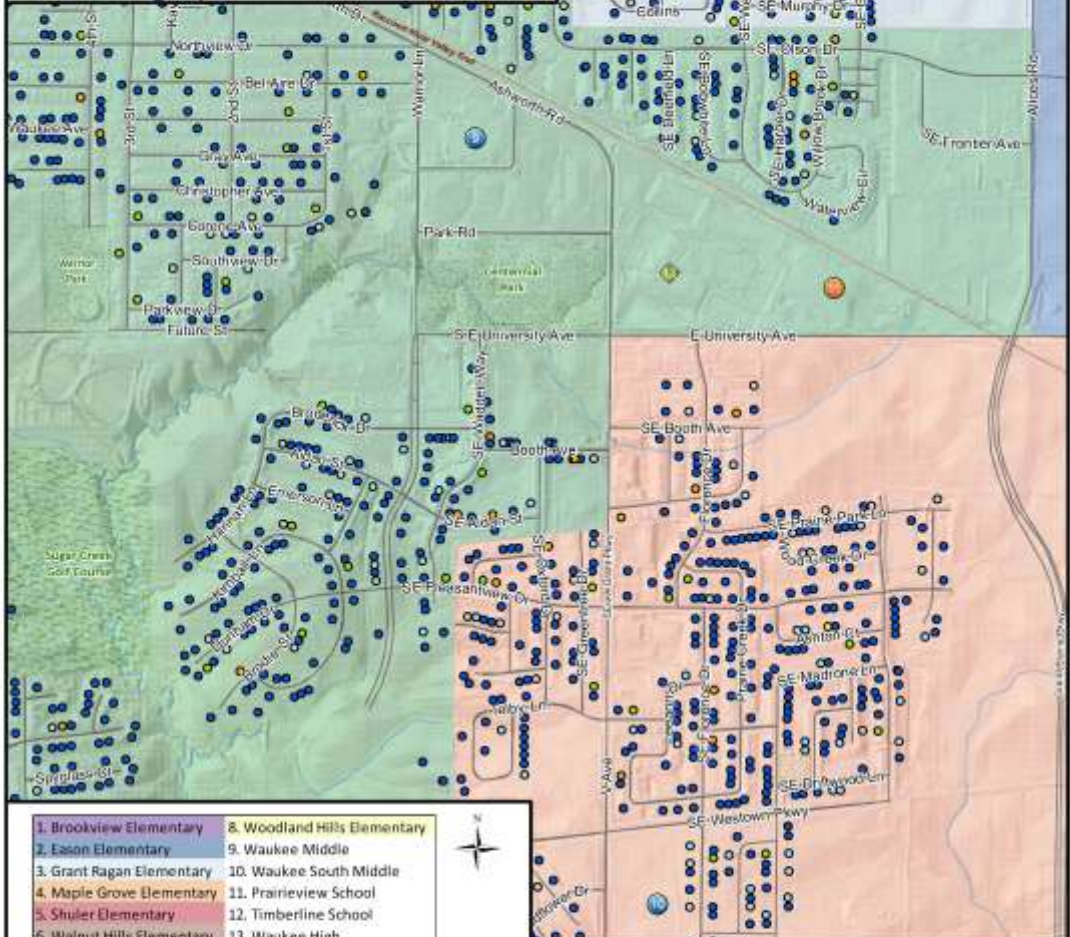
- When it is possible, contiguous attendance areas should be maintained.
- Compact grouping of planning areas should be maintained.
- All areas of the district should be assigned to an ES/MS/HS attendance area

Contiguous

Goal – Have all areas compact (Visually Understandable)

WAUKEE COMMUNITY SCHOOL DISTRICT

Demographic Considerations



Demographics

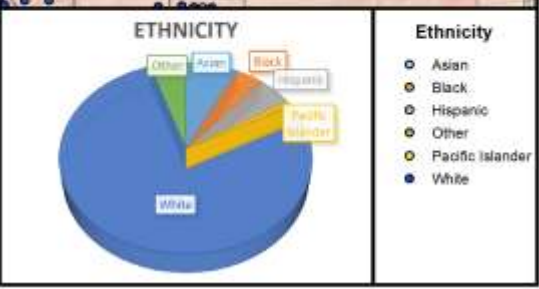
- Demographic diversity could be examined to minimize overloading any school with students that may require significant resources.
- These variables could include census HH salary average, home values, ethnicity, or housing products.

Goal – Balance demographics or other variables so similar type of student demographics at each school.

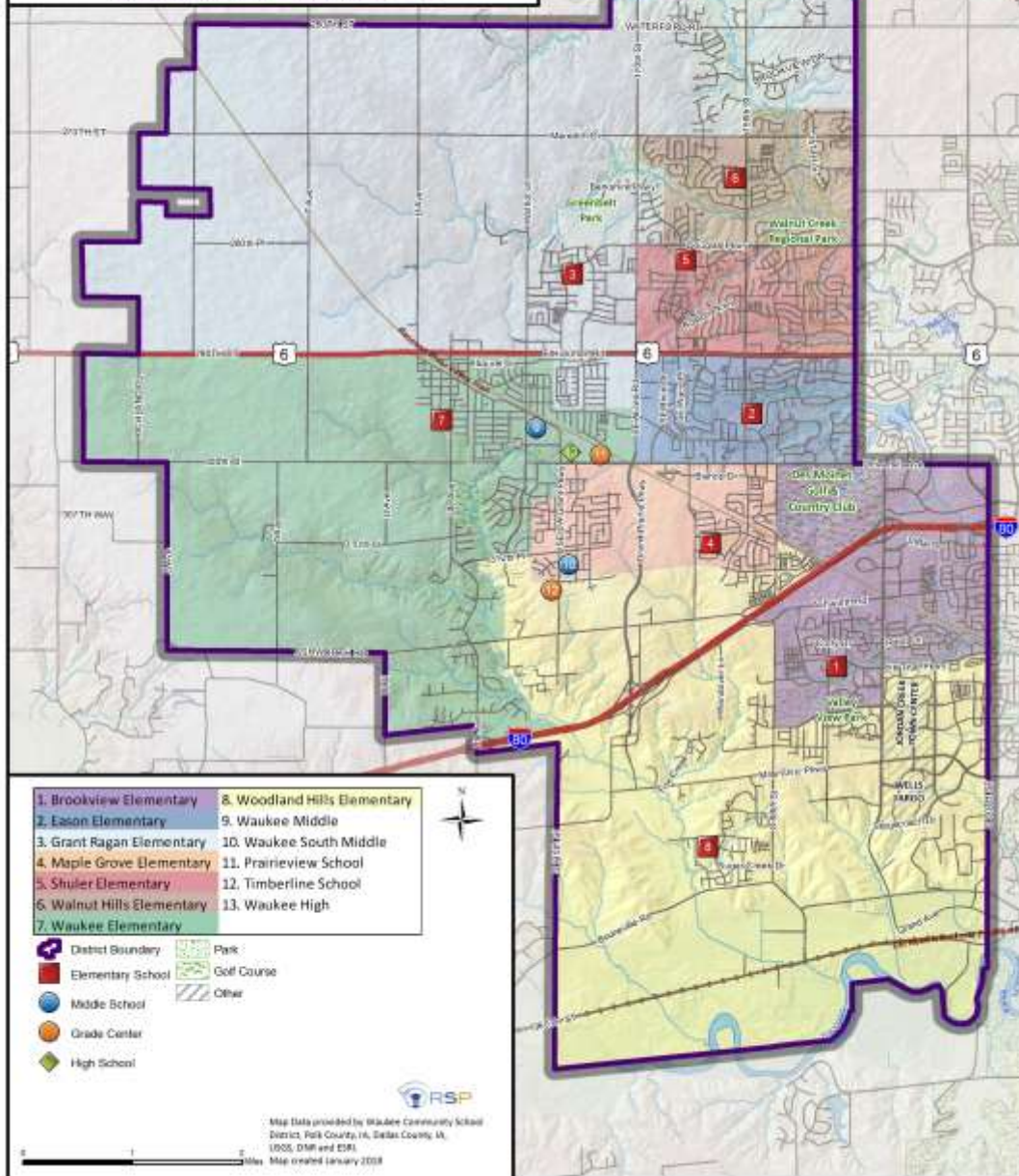
1. Brookview Elementary	8. Woodland Hills Elementary
2. Eason Elementary	9. Waukee Middle
3. Grant Ragan Elementary	10. Waukee South Middle
4. Maple Grove Elementary	11. Prairieview School
5. Shuler Elementary	12. Timberline School
6. Walnut Hills Elementary	13. Waukee High
7. Waukee Elementary	

District Boundary	Park
Elementary School	Golf Course
Middle School	Other
Grade Center	
High School	

Map Data provided by Waukee Community School District, Public Census, US, Dallas County, TX, USGS, DNR and CSR.
Map created January 2018



Duration of Boundaries

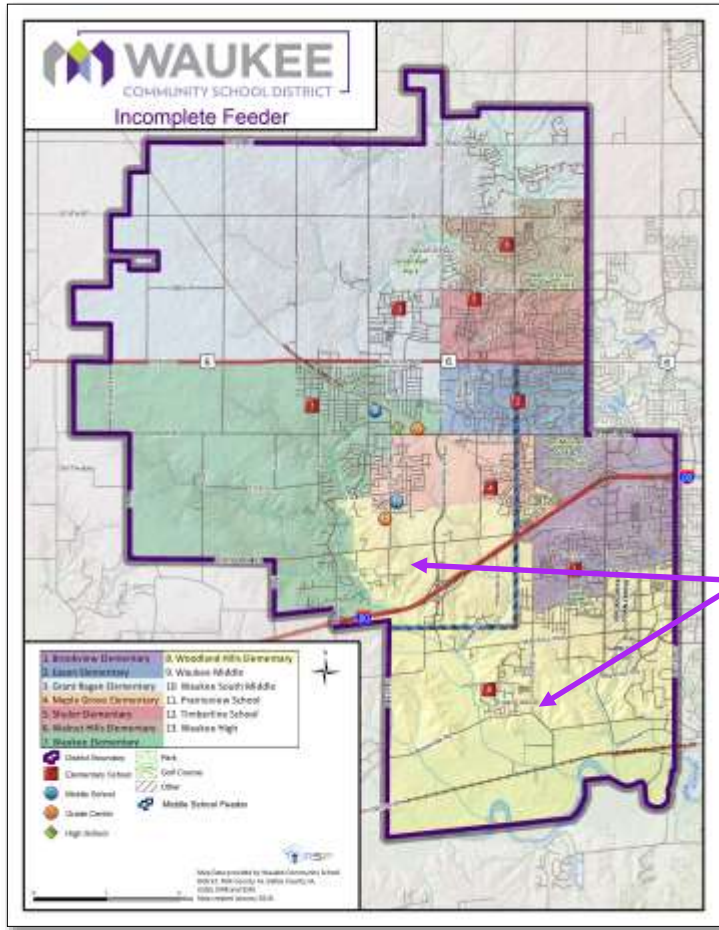


Duration of Boundaries

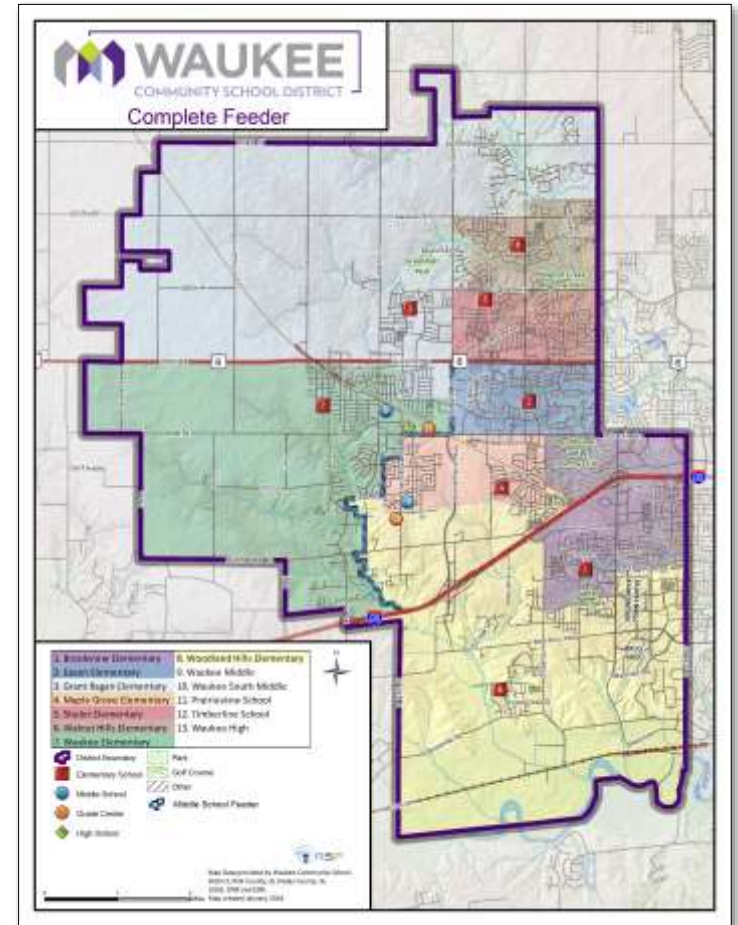
- This factor addresses the ability of an attendance area to accommodate the anticipated enrollments for a projected period of time.
- Where possible, attendance areas should be stabilized to limit the number of boundary changes experienced by students.
- In established areas with little or no demographic change projected, boundaries should be planned to last for a significant period of time.

Goal – Have attendance areas remain the same for as long as possible.

Feeder System



Example illustrates an Incomplete ES to MS Feeder, Woodland Hills ES students attend both middle schools



Incomplete Feeder

Where possible, create boundaries between elementary, junior high, and high schools in an effort to have as many schools as possible at each educational level advance students as one group to the next higher educational level.

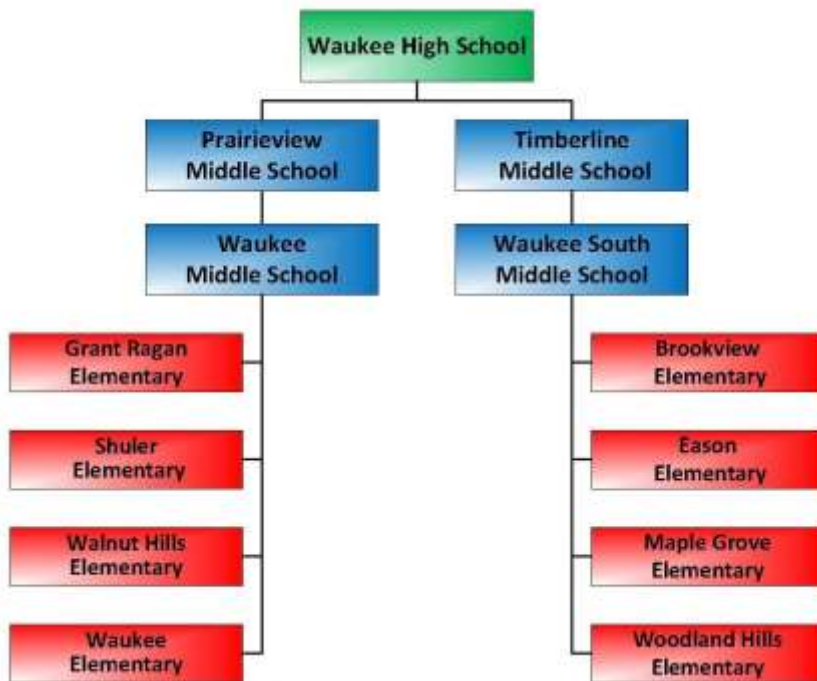
Complete Feeder

When changing boundaries, where possible, avoid small numbers of students being moved from a larger group when transitioning from elementary to junior high school or from junior high to high school.

Goal – Have each elementary school feed into only one middle school

Feeder Information

A feeder is not new for Waukee since each elementary feeds into a 6-7 school which then feeds into a 8-9 school. Having an 8-9 (or other grade configuration) feeding into a high school when the 2nd high school is built is what will be new for the community.



UPDATE:

Board prefers a complete feeder, but if there will need to be a break (Likely this happens), it should be from elementary school to middle school

Listed below are the BOE comments about a feeder from the June 2017 Meeting:

- Focus on academic program for students
- Grade level configuration could be an issue
- Perceptions of what a feeder means
- Maintaining Neighborhoods
- Not knowing the impact this may have on a final plan

Fiscal Consideration

Capital:

- The impact on capital costs should be a consideration.
- This factor addresses:
 - New facility construction
 - Building additions and/or remodeling
 - Mobile classrooms
 - Demountable wall relocations
 - Other capital costs.



Operational:

- Where possible, boundaries should be planned to maximize district resources in a fiscally responsible manner and take advantage of economies of scale.
- This factor addresses:
 - Staffing requirements
 - Educational program needs
 - Other operational costs

Goal – To minimize additional expenses needed to staff each school.



Neighborhoods Intact

- Where possible, boundaries should be structured to maintain a neighborhood within one school's attendance area.
- Neighborhoods should not be split between two schools.
- A *neighborhood* is defined as the smallest division of a planning area that can be subdivided by a natural line of demarcation, such as a stream or major traffic way.
- There should be logical limits to define a neighborhood.

Goal – Have each planning area as defined by RSP (neighborhood) attend one school – not split between two schools.

1. Brookview Elementary	8. Woodland Hills Elementary
2. Eason Elementary	9. Waukee Middle
3. Grant Ragan Elementary	10. Waukee South Middle
4. Maple Grove Elementary	11. Prairieview School
5. Shuler Elementary	12. Timberline School
6. Walnut Hills Elementary	13. Waukee High
7. Waukee Elementary	

■ District Boundary ■ Park
■ Elementary School ■ Golf Course
■ Middle School ■ Planning Areas
■ Grade Center
■ High School

Map Data provided by Waukee Community School District, Public County, IA, Dallas County, IA, USGS, DNR and CSR.
Map created January 2018

Projected Enrollment

School	School Capacity	Student Location	Past School Enrollment			Projections Based on Residence				
			2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Brookview Elementary K to 5th	725	Reside/Attend			653					
		Reside	564	630	663	681	700	707	711	716
		Attend	567	622	656					
Eason Elementary K to 5th	675	Reside/Attend			581					
		Reside	603	629	634	637	638	621	623	619
		Attend	564	576	583					
Grant Ragan K to 5th	750	Reside/Attend			673					
		Reside	0	652	677	787	902	1,012	1,123	1,228
		Attend	6	651	679					
Maple Grove Elementary K to 5th	750	Reside/Attend			641					
		Reside	711	656	644	627	629	636	640	656
		Attend	735	708	704					
Shuler Elementary K to 5th	750	Reside/Attend			679					
		Reside	781	680	681	697	704	715	728	726
		Attend	784	688	685					
Walnut Hills Elementary PreK to 5th	750	Reside/Attend			656					
		Reside	876	591	664	661	660	651	650	658
		Attend	878	587	658					
Waukee Elementary PreK to 5th	750	Reside/Attend			746					
		Reside	720	698	752	763	792	825	845	873
		Attend	730	694	754					
Woodland Hills Elementary PreK to 5th	750	Reside/Attend			563					
		Reside	555	537	570	610	657	705	762	830
		Attend	552	537	566					

- This factor considers building utilization, student enrollment, staffing needs and the educational program(s).
- Where possible, attendance boundaries should be created to anticipate the projected enrollment and the program/current capacity of the building.
- Efficient building utilization should attempt to maximize student population without exceeding capacity long-term.

Goal – Have a balanced, logical enrollment that works within the confines of the assigned school capacity.

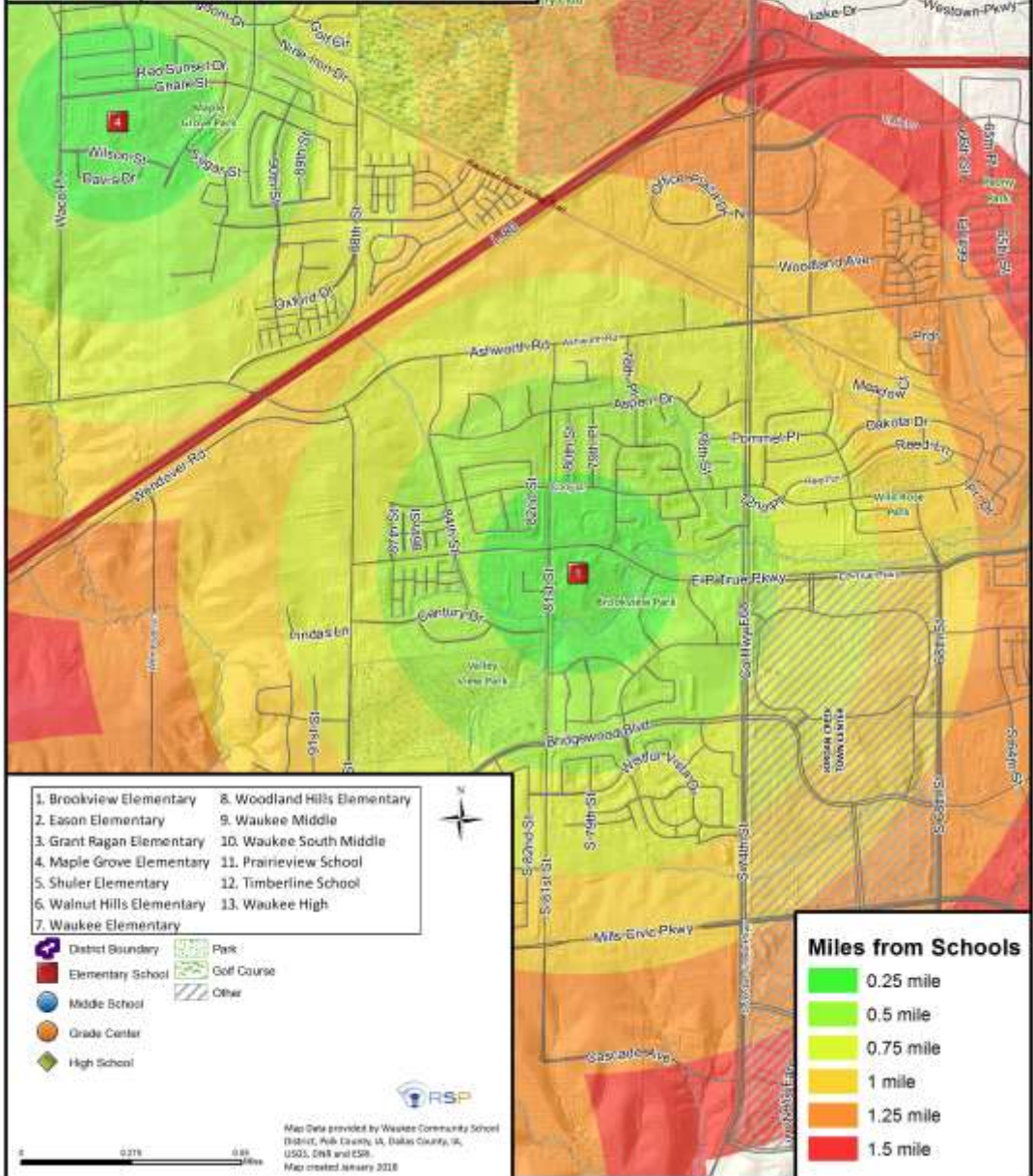
Students Impacted Boundary Change

School	K	1	2	3	4	5	K-5
Brookview Elementary	7	4	6	6	4	5	32
Eason Elementary	8	6	6	6	8	7	42
Maple Grove Elementary	9	7	6	8	7	5	42
Shuler Elementary	5	4	4	4	4	3	24
Walnut Hills Elementary	3	5	3	2	4	3	20
Waukee Elementary	5	4	6	3	4	2	24
Woodland Hills Elementary	1	2	3	1	1	2	10

* Above numbers are an illustration of SIBC

- SIBC determines the number of students that will be impacted by a boundary change.
- Where possible, minimize the number of existing students impacted by a boundary change.
- Consideration should be given the number of students affected by a potential boundary change, specifically how many students from one particular school could be affected.

Goal – Relocate as few students as possible



Transportation

- Road Classifications are the first consideration in transportation planning.
- Proximity to school is an indicator of travel time, need to account for actual travel times (speed limit, stops, etc.)
- While students may not necessarily attend the closest school; distance, transportation time, and routing should be considered, and minimized where possible, in formulating attendance boundaries.

Goal – Have attendance areas that do not require additional transportation expenses and does not result in unreasonable time for a student on a bus.

Past Boundary Criteria

- **Below are the top four BOE prioritized on April 2, 2009:**

1. Projected Enrollment and Building Utilization (Balance enrollment with given building capacity constraints)
2. Neighborhoods Intact (Defined as RSP planning areas)
3. Feeder System (Complete – all ES attendance area to one MS)
4. Contiguous Planning Areas (Compact as reasonably possible)

- **Below are the top three BOE prioritized on April 27, 2015:**

1. Neighborhoods Intact (Defined as RSP planning areas)
2. Projected Enrollment and Building Utilization (Balance enrollment with given building capacity constraints)
3. Duration of Boundaries (Have them last as long as possible)

- **Reasoning for Boundary Criteria Changes between years:**

1. In 2009 there was no real discussion about secondary attendance areas
2. The 2015 boundary changes reinforced how the neighborhoods were critical to the creation of attendance areas
3. Also in 2015 with a boundary change happening six years earlier, the Board wanted to have attendance areas that could have longer duration

Boundary Criteria for Process

- **Below are the top three BOE prioritized Elementary Criteria (January 23, 2018):**
 1. Neighborhoods Intact (Defined as RSP planning areas)
 2. Duration of Boundaries (Have them last as long as possible)
 3. Demographic Considerations (Balance demographics for general similarity between schools)

- **Below are the top three BOE prioritized Secondary Criteria (January 23, 2018):**
 1. Feeder System (Complete – all ES to one MS and one MS to one HS)
 2. Demographic Considerations (Balance demographics for general similarity between schools)
 3. Projected Enrollment and Building Utilization (Balance enrollment with given building capacity constraints)

- **Reasoning for Criteria:**
 1. All of the boundary criteria are important – the prioritized top three for elementary and the secondary are the framework to evaluate the options created
 2. If a split in the feeder is needed have the split should happen from elementary school to middle school
 3. Balancing of demographics important to ensure similar student experience in each high school feeder

Part Three: Enrollment, Development, and Demographics

Visualizing Success

Sophisticated Forecast Model

This is the central focus of everything RSP does. The model is based on what is happening in a school district. The best data is statistically analyzed to provide an accurate enrollment forecast. The District will be able to use RSP's report and maps to better understand demographic trends, school utilization, and the timing of construction projects.

Built-Out

$$S_{c,t,x} = S_{c-1,t-1,x} * GC$$

Let:

- S = The number of students, either an actual count or a projected count
- x = A subscript denoting an attendance area in the School District
- c = Grade level
- t = Time (Years)
- GC = Growth component either modeling enrollment increase or decrease based on historical information, expressed as a real number

Developing

$$S_{c,t,x} = S_{c-1,t-1,x} + (BP_{t,x} * R_{c,x})$$

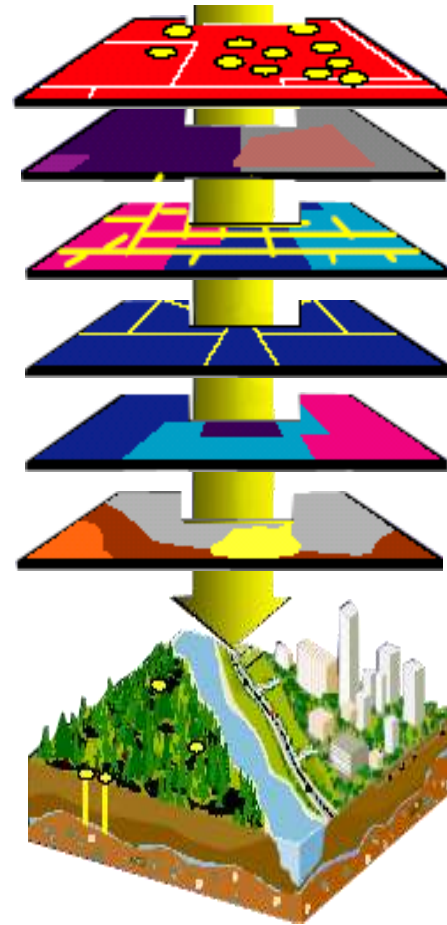
Where:
$$BP_{t,x} = \left(\frac{(CP_x)(BT_x)(A_x)}{\sum_x (CP_x)(BT_x)(A_x)} \right) * CT$$

Let:

- S = The number of students, either an actual count or a projected count
- x = A subscript denoting an attendance area in the School District
- c = Grade level
- t = Time (Years)
- BP = Building permit forecast as given by the Building Permit Allocation Model (BPAM) model
- R_{c, x} = Student enrollment ratio of cohort c in planning area x
- CP = Capacity of a planning area as expressed by available housing units
- BT = Building history trend of a planning area
- A = An index which models the likelihood of development
- CT = Building permit control total forecast

Model Components

- **Cohort Growth**
- **External Growth**
- **Kindergarten Change**
- **Economic Scenarios**



Students & People

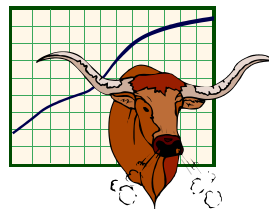
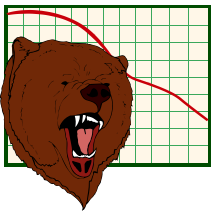
Development

Streets

Attendance Areas

City

County



Past Enrollment

Enrollment By Grade

Year	K	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Total	Change
2000/01	260	233	198	197	220	161	173	168	158	161	154	150	120	2,353	
2001/02	331	277	252	223	215	232	190	195	191	183	191	177	159	2,816	463
2002/03	319	348	294	263	242	232	256	199	221	183	185	177	162	3,081	265
2003/04	445	353	378	323	285	259	246	262	223	246	197	201	187	3,605	524
2004/05	436	464	368	403	348	294	293	256	274	235	259	199	208	4,037	432
2005/06	520	461	485	390	422	360	310	316	263	297	251	258	213	4,546	509
2006/07	548	545	479	502	414	446	374	318	323	272	311	247	272	5,051	505
2007/08	555	575	549	507	509	426	449	367	321	316	283	312	250	5,419	368
2008/09	593	568	584	570	512	521	431	450	378	316	308	304	313	5,848	429
2009/10	586	594	551	593	566	520	525	438	448	381	309	301	295	6,107	259
2010/11	636	616	607	549	595	579	533	537	434	458	373	318	298	6,533	426
2011/12	684	639	616	608	572	596	578	523	522	435	460	380	306	6,919	386
2012/13	770	697	676	642	629	596	631	583	537	540	431	466	383	7,581	662
2013/14	738	775	743	681	664	640	627	639	586	545	537	447	480	8,102	521
2014/15	840	757	780	749	702	667	662	640	636	586	536	546	450	8,551	449
2015/16	852	869	781	818	772	718	681	703	642	635	595	539	550	9,155	604
2016/17	858	870	866	826	839	814	749	706	721	664	650	588	539	9,690	535
2017/18	889	886	888	898	864	860	818	776	728	734	670	665	618	10,294	604

Source: Iowa Department of Education (2000/01 to 2003/04) & Waukee Community School District (2004/05 to 2017/18)

What Does This Mean

- Largest class in 2017/18 – 3rd grade (898)
- Smallest class in 2017/18 – 12th grade (618)
- Graduating senior class will likely be smaller than the next year incoming Kindergarten class

Enrollment provided by the district

Does not include Early Childhood, Home School, Private School, or Parochial School

Past Enrollment Change

Enrollment Grade Change

From	To	K	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Total Change
2000/01	2001/02	71	17	19	25	18	12	29	22	23	25	30	23	9	463
2001/02	2002/03	-12	17	17	11	19	17	24	9	26	-8	2	-14	-15	265
2002/03	2003/04	126	34	30	29	22	17	14	6	24	25	14	16	10	524
2003/04	2004/05	-9	19	15	25	25	9	34	10	12	12	13	2	7	432
2004/05	2005/06	84	25	21	22	19	12	16	23	7	23	16	-1	14	509
2005/06	2006/07	28	25	18	17	24	24	14	8	7	9	14	-4	14	505
2006/07	2007/08	7	27	4	28	7	12	3	-7	3	-7	11	1	3	368
2007/08	2008/09	38	13	9	21	5	12	5	1	11	-5	-8	21	1	429
2008/09	2009/10	-7	1	-17	9	-4	8	4	7	-2	3	-7	-7	-9	259
2009/10	2010/11	50	30	13	-2	2	13	13	12	-4	10	-8	9	-3	426
2010/11	2011/12	48	3	0	1	23	1	-1	-10	-15	1	2	7	-12	386
2011/12	2012/13	86	13	37	26	21	24	35	5	14	18	-4	6	3	662
2012/13	2013/14	-32	5	46	5	22	11	31	8	3	8	-3	16	14	521
2013/14	2014/15	102	19	5	6	21	3	22	13	-3	0	-9	9	3	449
2014/15	2015/16	12	29	24	38	23	16	14	41	2	-1	9	3	4	604
2015/16	2016/17	6	18	-3	45	21	42	31	25	18	22	15	-7	0	535
2016/17	2017/18	31	28	18	32	38	21	4	27	22	13	6	15	30	604
3-Yr Avg		16.3	25.0	13.0	38.3	27.3	26.3	16.3	31.0	14.0	11.3	10.0	3.7	11.3	581.0
3-Yr Wavg		19.5	24.8	12.0	37.3	29.8	27.2	14.7	28.7	17.3	13.7	9.5	5.7	15.7	581.0

Source: Iowa Department of Education (2000/01 to 2003/04) & Waukee Community School District (2004/05 to 2017/18)

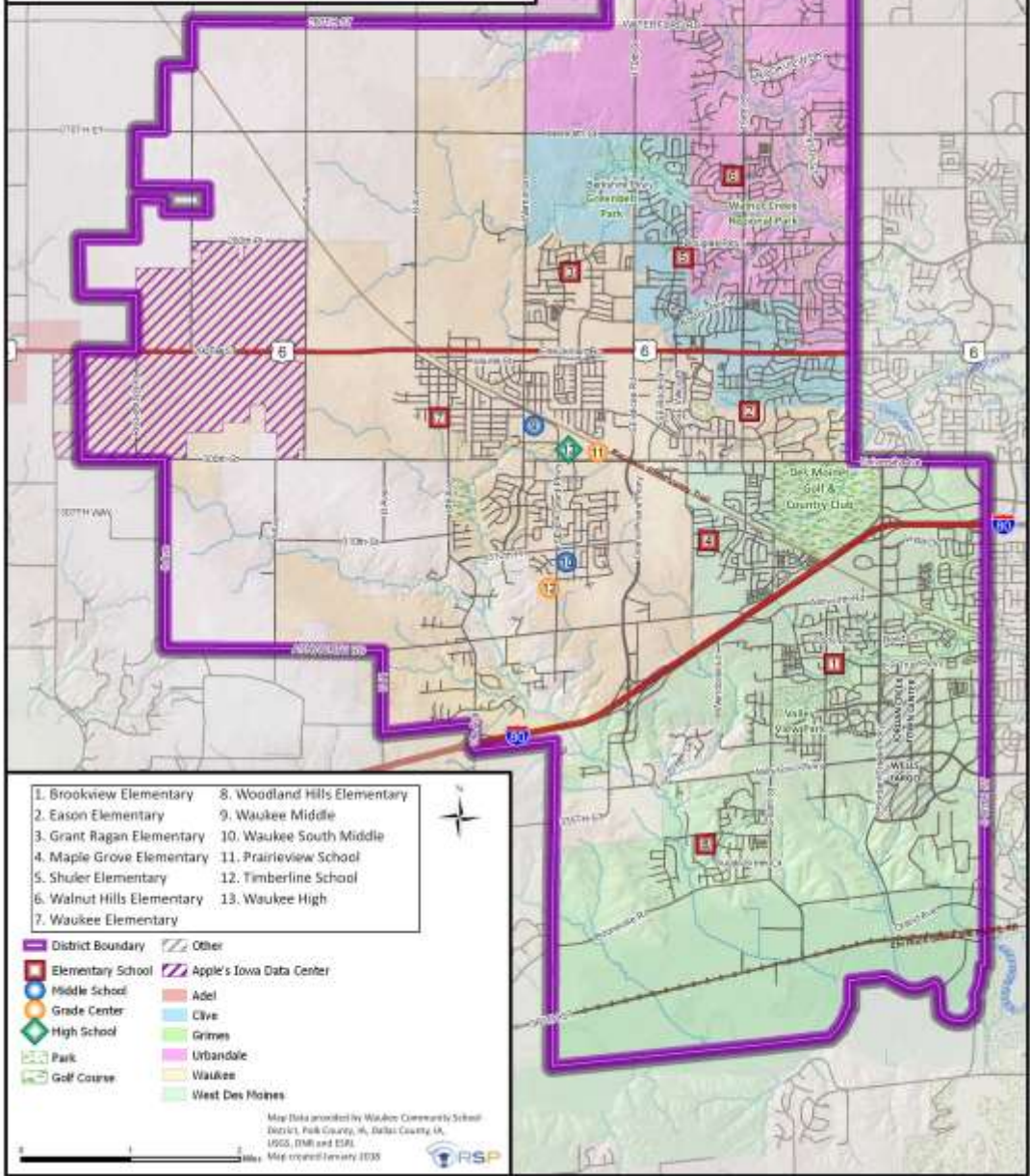
What Does This Mean

- **Largest average class cohort increase – 2nd to 3rd grade (38 students)**
- **Largest average class cohort decrease – likely for each grade to increase year to year**
- **Propensity to have each cohort increase students from year to year in most grades**

Enrollment provided by the district

Does not include Early Childhood, Home School, Private School, or Parochial School

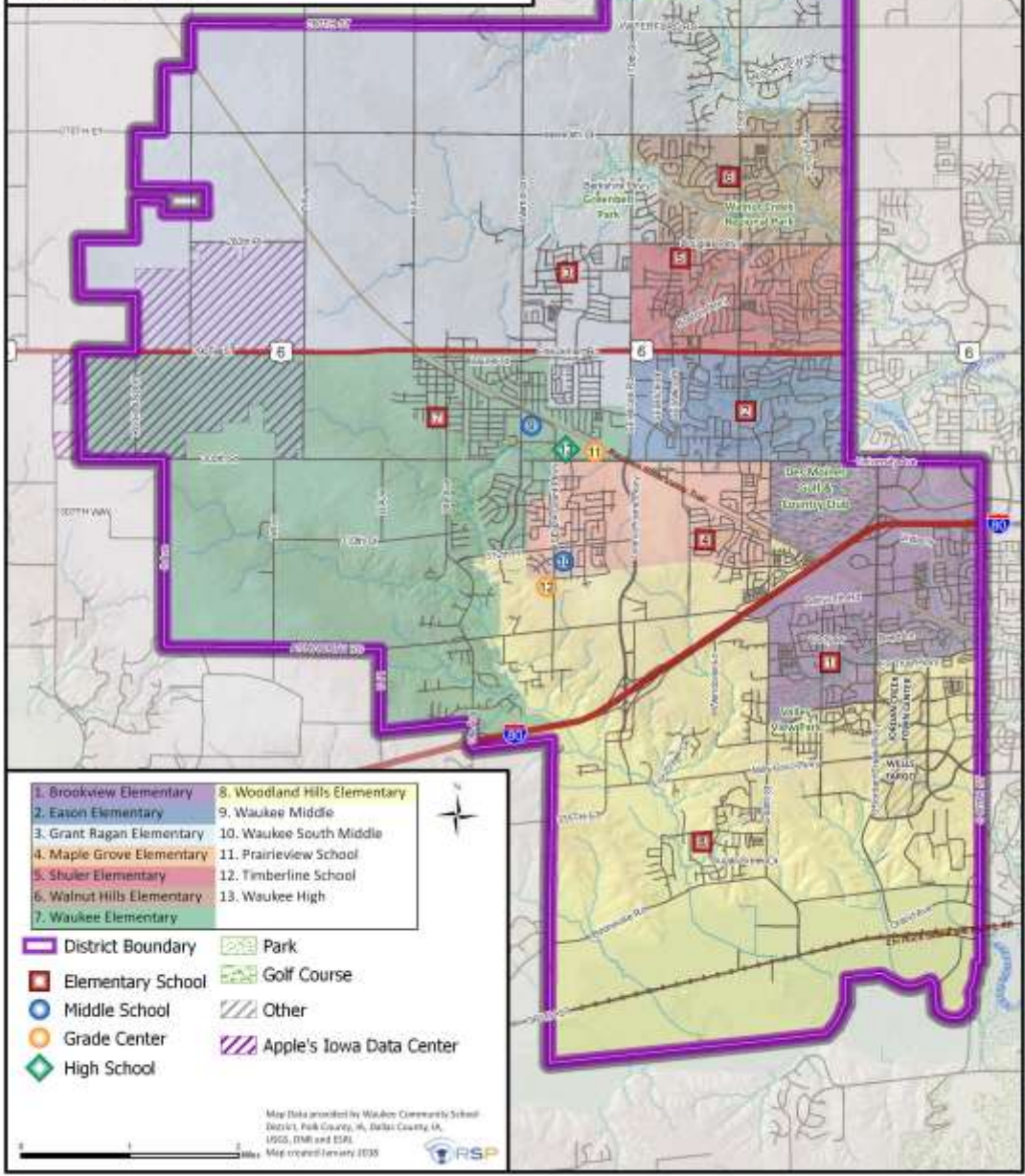
District Boundary



District Boundary

- District Boundary (Purple Line)
- Major Streets
- Major water features & cultural features
- Municipality Limits (Color Shading)

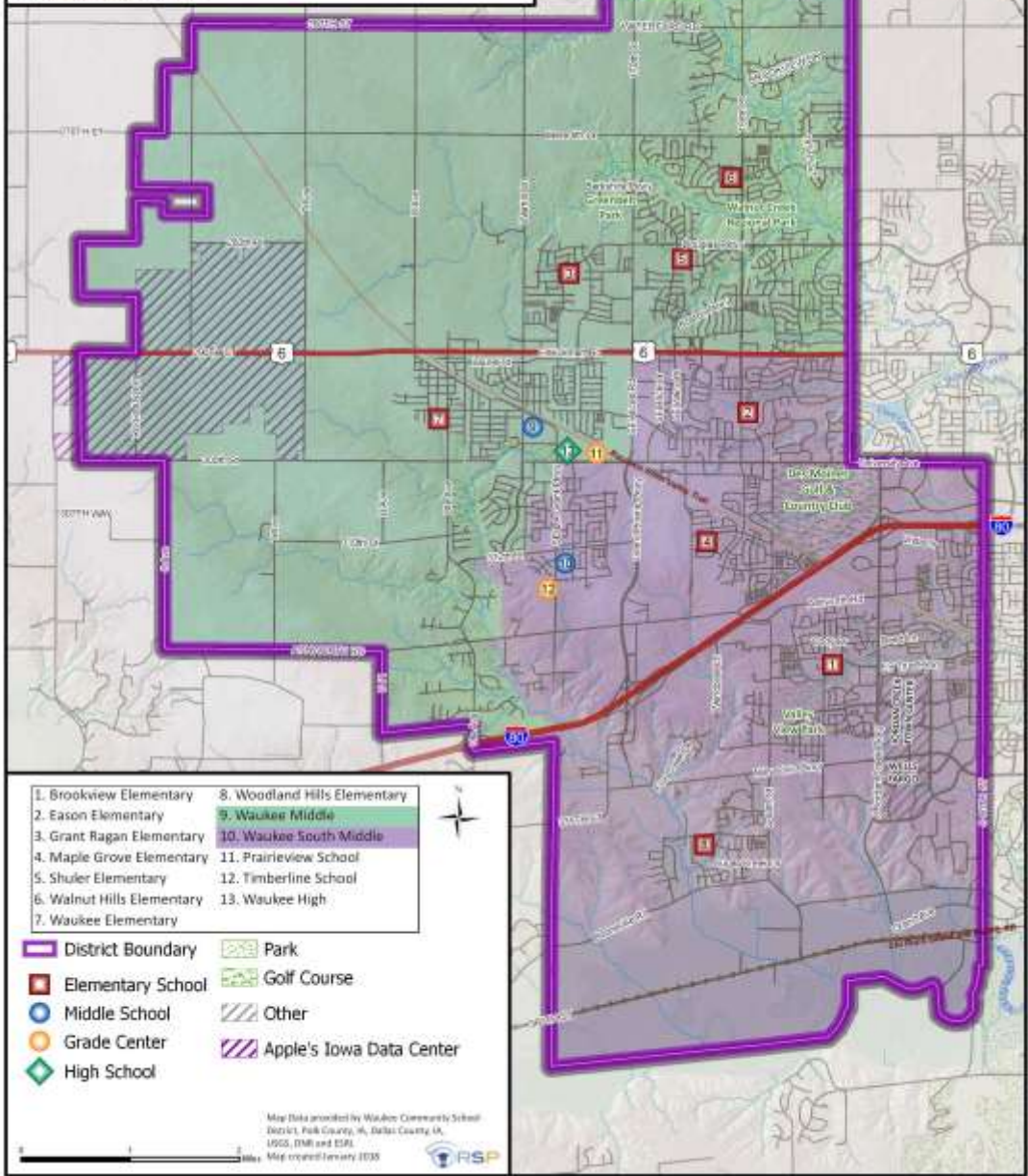
Elementary School Attendance Areas



Elementary Attendance

- District Boundary (**Purple Line**)
- Major Streets
- Major water features & cultural features
- Municipality Limits (**Color Shading**)

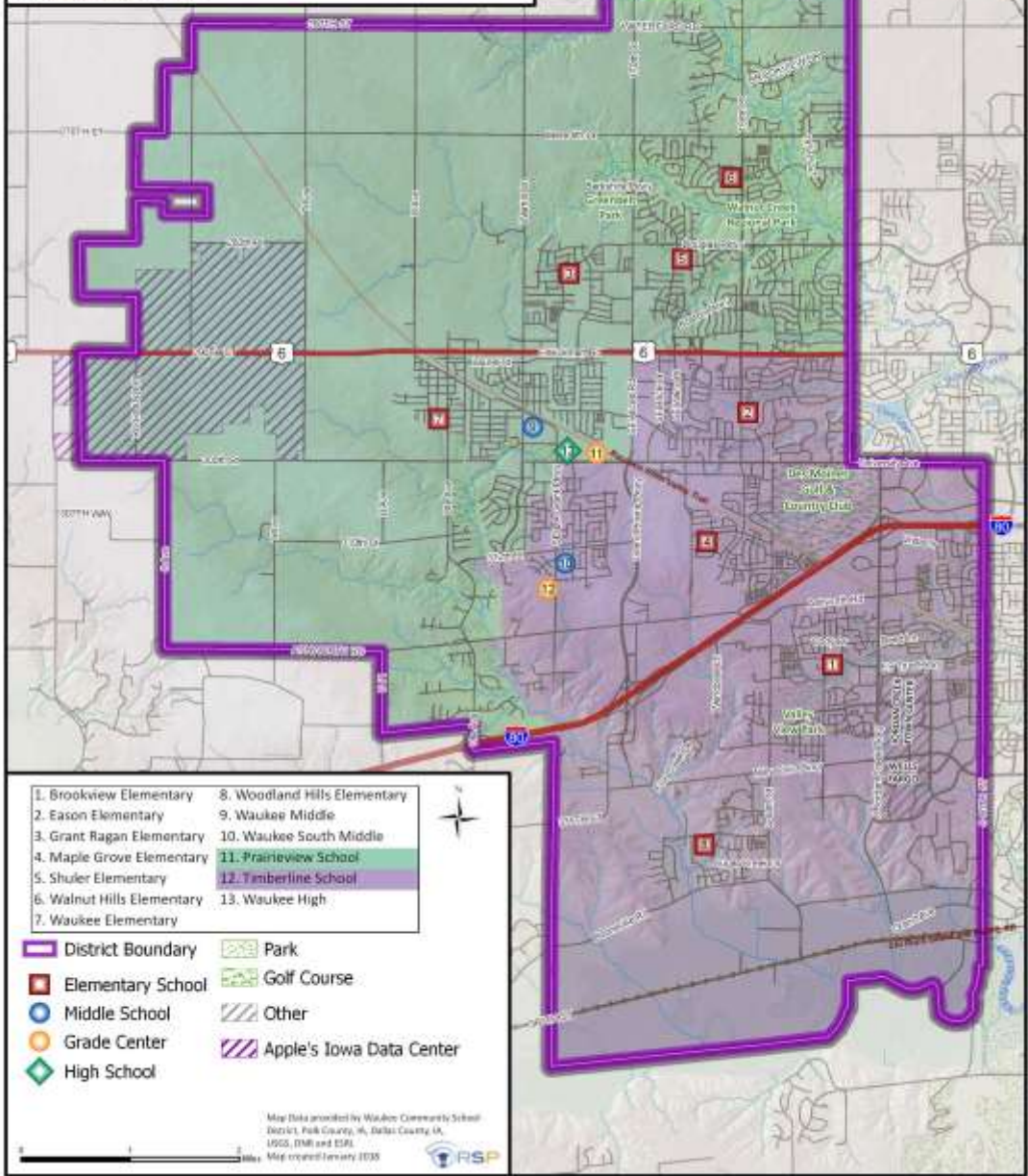
Middle School Attendance Areas



Middle Attendance

- District Boundary (Purple Line)
- Major Streets
- Major water features & cultural features
- Municipality Limits (Color Shading)

Grade Center Attendance Areas

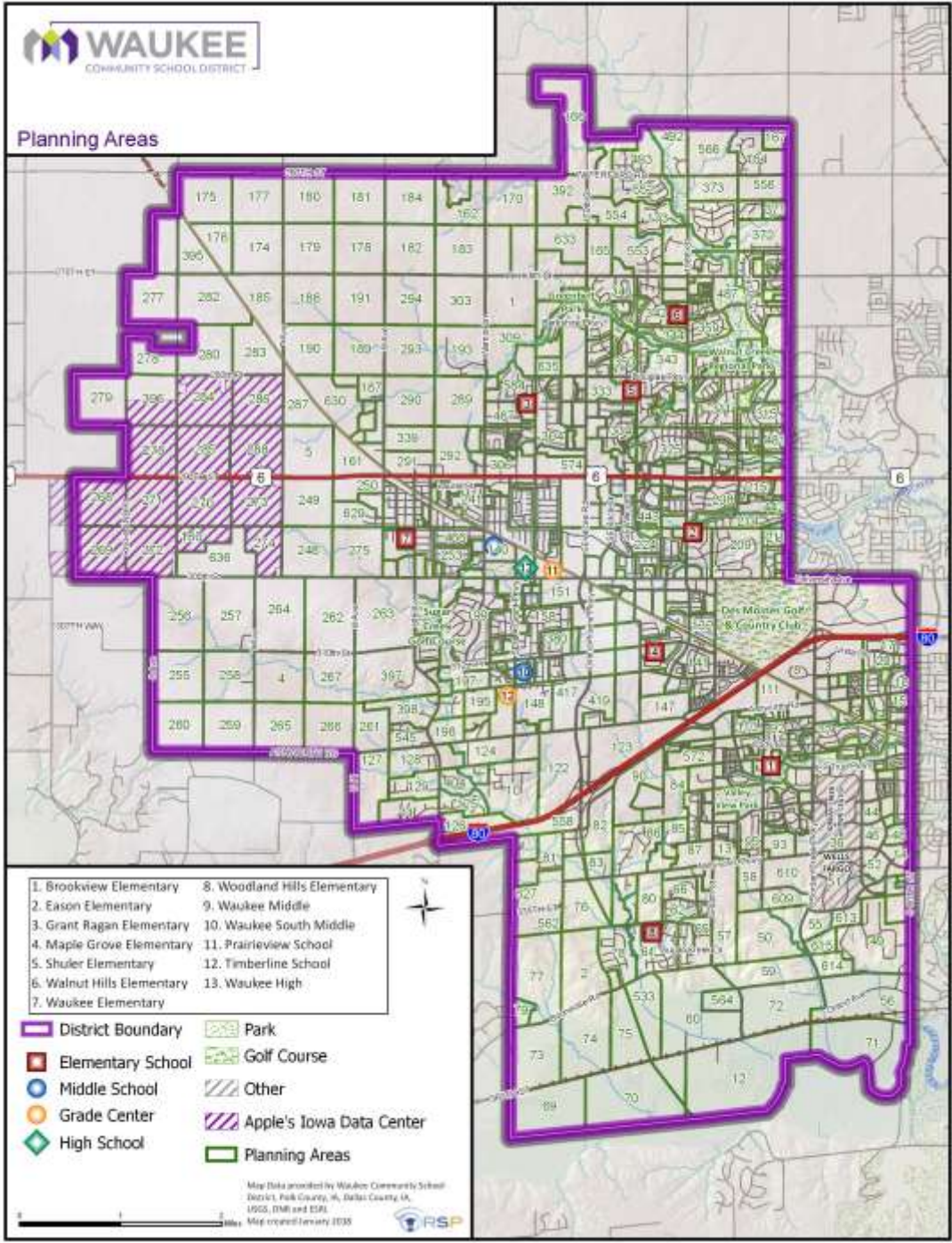


Grade Center Attendance

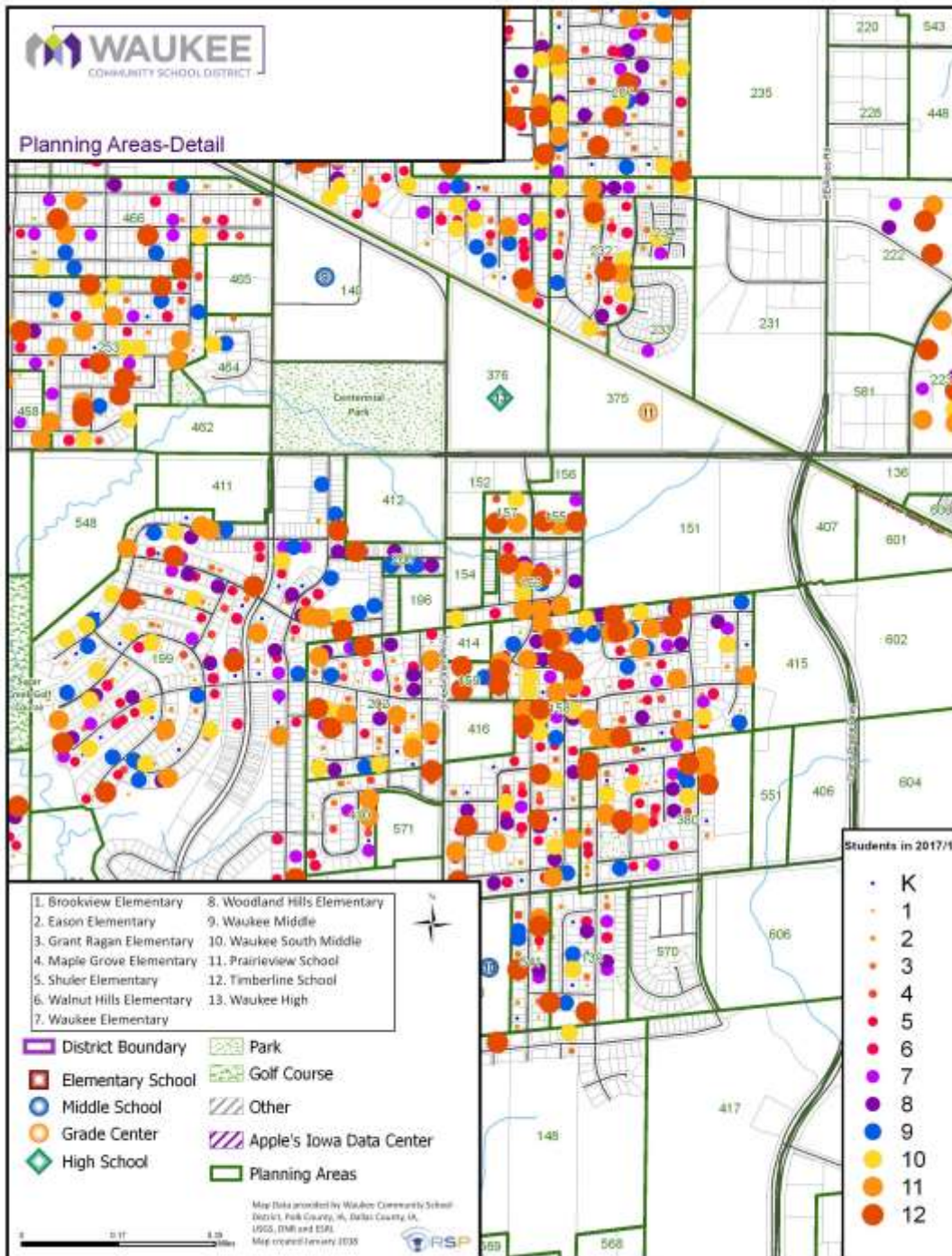
- District Boundary (Purple Line)
- Major Streets
- Major water features & cultural features
- Municipality Limits (Color Shading)

Planning Areas

- Land Use (Residential, Commercial, Industrial)
- Residential Density (Single-Family, Mobile Home, Duplex, Apartment)
- Natural Features (Rivers and Creeks)
- Manmade Features (Railroad and Streets)
- Attendance Area
- There are nearly **650** planning areas RSP monitors for demographic, development, and enrollment data sets



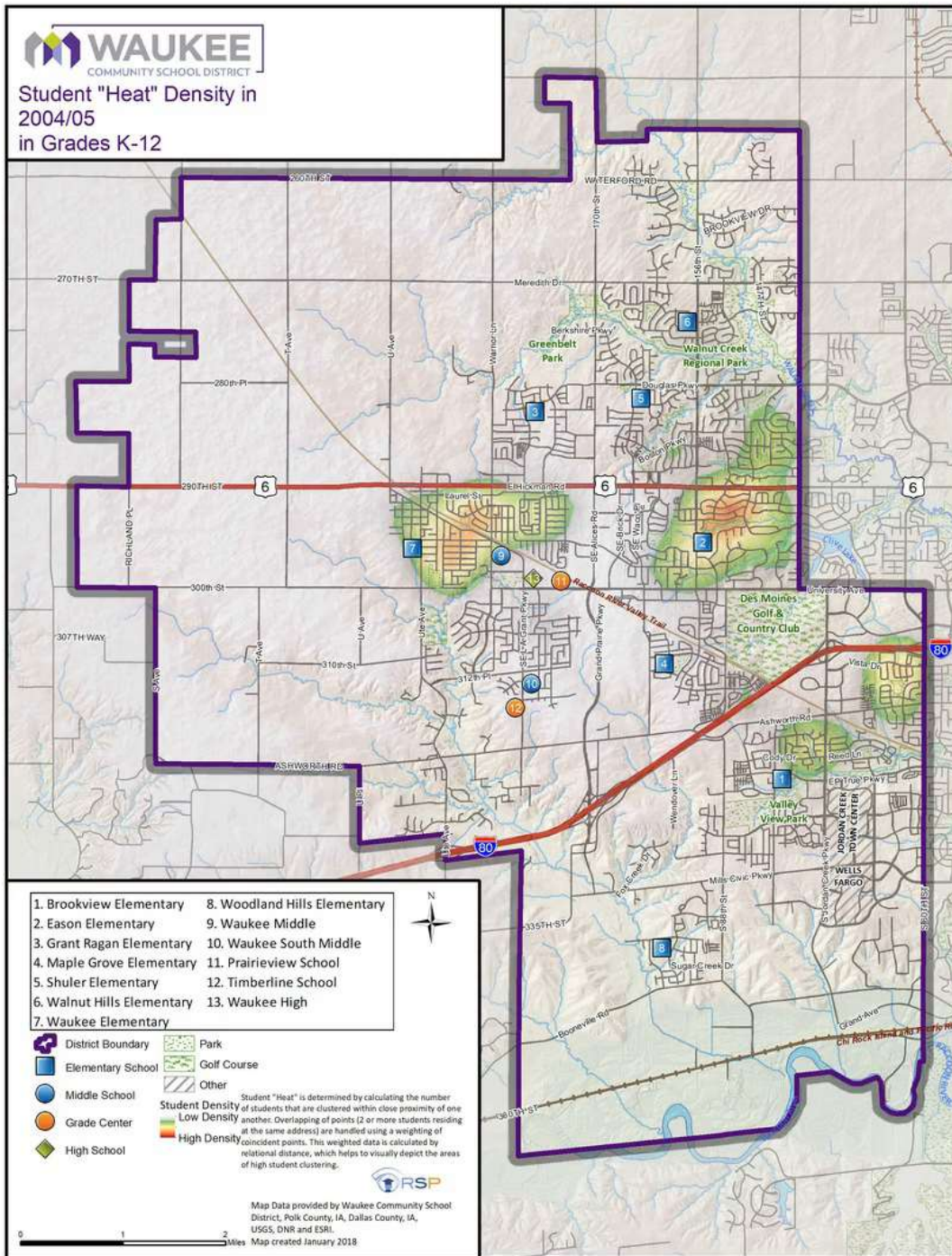
Detailed Planning Areas



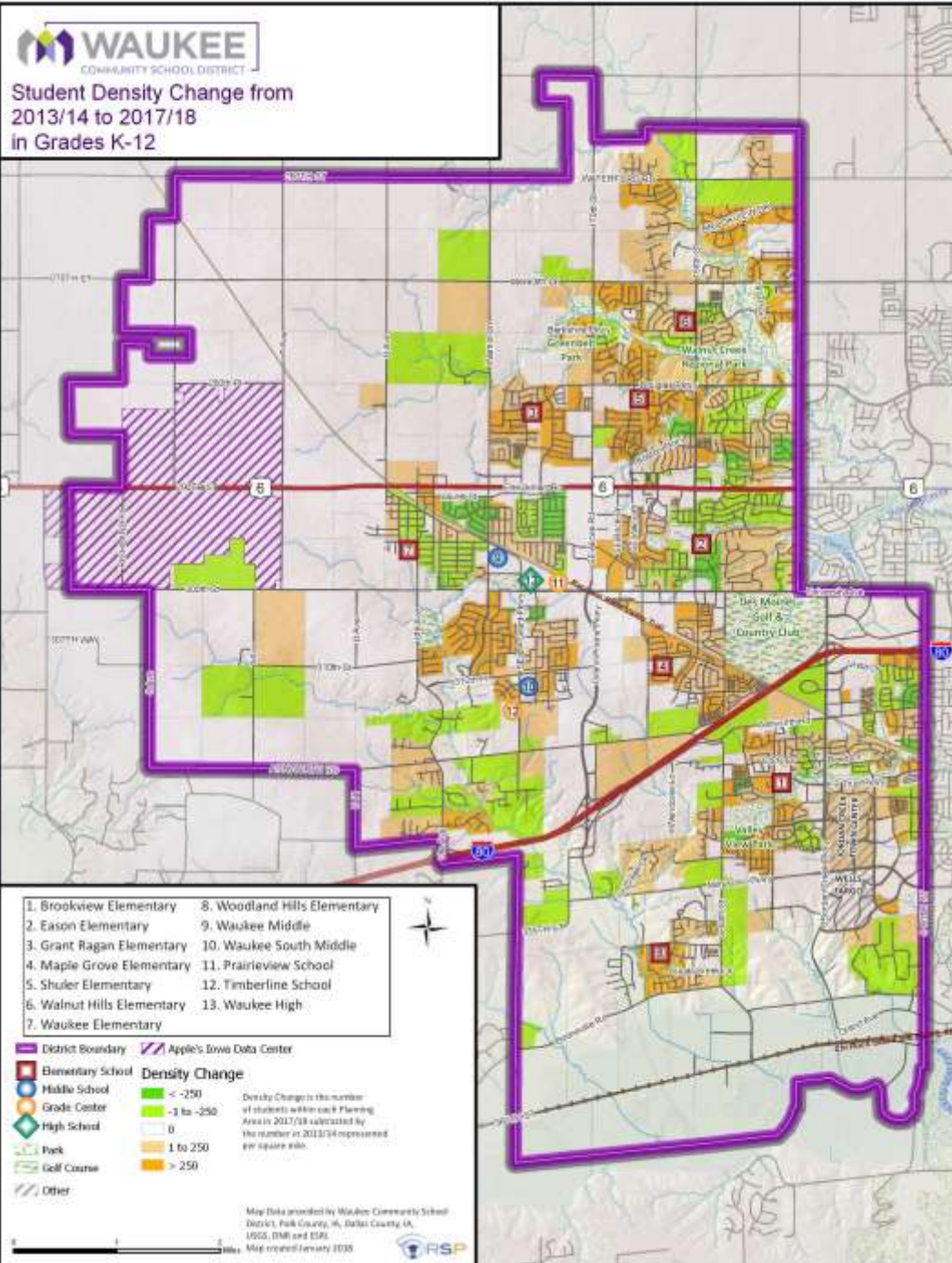
- Zoomed in view Planning Areas (Green Line)
- Displays the power of GIS data & Information
- See where students are located in relation to streets, subdivisions, and parcels.
- Illustrates how the planning areas are tied to development types at the parcel level

"Heat" Density (Video)

- **Red** areas depict highest density of students, **Gray** as lowest student density
- Overlapping points (2 or more students) are handled using a weighting of coincident points
- This type of analysis can help with understanding student population and geographic proximity to schools



Student Density Change



- Shows change in students relative to land area at each Planning Area from **2013/14** to **2017/18**
- Enrollment change is weighted by land area of each Planning Area to show density
- Orange** areas experienced an increase since **2013/14**
- Green** areas experienced a decrease since **2013/14**
- White areas had no net change of students between **2013/14** and **2017/18**

Yield Rate

Enrollment Grade Level Change

School Year	K to 5 Enrollment	6 to 9 Enrollment	10 to 12 Enrollment	K to 12 Enrollment	Total Units	K to 5 % Change	K to 5 Yield Rate	6 to 9 % Change	6 to 9 Yield Rate	10 to 12 % Change	10 to 12 Yield Rate	K to 12 % Change	K to 12 Yield Rate
2000/01	1,269	660	424	2,353	6,509		19.5		10.1		6.5		36.1
2001/02	1,530	759	527	2,816	7,094	20.6%	21.6	15.0%	10.7	24.3%	7.4	19.7%	39.7
2002/03	1,698	859	524	3,081	7,741	11.0%	21.9	13.2%	11.1	-0.6%	6.8	9.4%	39.8
2003/04	2,043	977	585	3,605	8,955	20.3%	22.8	13.7%	10.9	11.6%	6.5	17.0%	40.3
2004/05	2,313	1,058	666	4,037	10,025	13.2%	23.1	8.3%	10.6	13.8%	6.6	12.0%	40.3
2005/06	2,638	1,186	722	4,546	11,002	14.1%	24.0	12.1%	10.8	8.4%	6.6	12.6%	41.3
2006/07	2,934	1,287	830	5,051	12,587	11.2%	23.3	8.5%	10.2	15.0%	6.6	11.1%	40.1
2007/08	3,121	1,453	845	5,419	13,271	6.4%	23.5	12.9%	10.9	1.8%	6.4	7.3%	40.8
2008/09	3,348	1,575	925	5,848	14,002	7.3%	23.9	8.4%	11.2	9.5%	6.6	7.9%	41.8
2009/10	3,410	1,792	905	6,107	14,650	1.9%	23.3	13.8%	12.2	-2.2%	6.2	4.4%	41.7
2010/11	3,582	1,962	989	6,533	15,967	5.0%	22.4	9.5%	12.3	9.3%	6.2	7.0%	40.9
2011/12	3,715	2,058	1,146	6,919	16,652	3.7%	22.3	4.9%	12.4	15.9%	6.9	5.9%	41.6
2012/13	4,010	2,291	1,280	7,581	17,710	7.9%	22.6	11.3%	12.9	11.7%	7.2	9.6%	42.8
2013/14	4,241	2,397	1,464	8,102	18,736	5.8%	22.6	4.6%	12.8	14.4%	7.8	6.9%	43.2
2014/15	4,495	2,524	1,532	8,551	20,446	6.0%	22.0	5.3%	12.3	4.6%	7.5	5.5%	41.8
2015/16	4,810	2,661	1,684	9,155	22,356	7.0%	21.5	5.4%	11.9	9.9%	7.5	7.1%	41.0
2016/17	5,073	2,840	1,777	9,690	23,116	5.5%	21.9	6.7%	12.3	5.5%	7.7	5.8%	41.9
2017/18	5,285	3,056	1,953	10,294	23,414	4.2%	22.6	7.6%	13.1	9.9%	8.3	6.2%	44.0

Source: Iowa Department of Education (2000/01 to 2003/04) & Waukee Community School District (2004/05 to 2017/18)

Note: Yield rate is number of students per 100 units

Table Explanation:

- In 2000/01 for every 100 units the district had about 36 K-12 students attending Waukee schools
- In 2017/18 for every 100 units the district had about 44 K-12 students attending Waukee schools (Increase of 8 students)
- The inventory has increased by nearly 17,000 units (+260%)
- The type of residential housing product influences the amount of students attending Waukee schools

Enrollment provided by the district

Does not include Early Childhood, Home School, Private School, or Parochial School

Yield Rate by Attendance and Type

Single Family (SF)

School	Year													
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Brookview Elementary	0.40	0.41	0.43	0.43	0.45	0.43	0.38	0.36	0.34	0.34	0.32	0.31	0.30	0.29
Eason Elementary	0.43	0.43	0.42	0.41	0.41	0.39	0.38	0.36	0.36	0.34	0.33	0.32	0.32	0.31
Grant Ragan Elementary	0.29	0.27	0.30	0.31	0.34	0.34	0.34	0.32	0.31	0.31	0.31	0.30	0.29	0.32
Maple Grove Elementary	0.28	0.29	0.26	0.28	0.28	0.30	0.32	0.32	0.33	0.32	0.34	0.35	0.37	0.37
Shuler Elementary	0.31	0.37	0.37	0.36	0.38	0.38	0.39	0.41	0.38	0.39	0.39	0.39	0.40	0.39
Walnut Hills Elementary	0.29	0.32	0.34	0.34	0.38	0.40	0.40	0.37	0.37	0.38	0.39	0.39	0.38	0.39
Waukee Elementary	0.31	0.32	0.31	0.30	0.30	0.30	0.30	0.29	0.29	0.28	0.28	0.29	0.27	0.30
Woodland Hills Elementary	0.16	0.18	0.18	0.20	0.21	0.18	0.18	0.15	0.16	0.17	0.20	0.21	0.24	0.25

- More students reside in single-family housing inventory
- Each attendance area has seen an increase in the MF yield rate

Source: Waukee Community School District and Dallas County

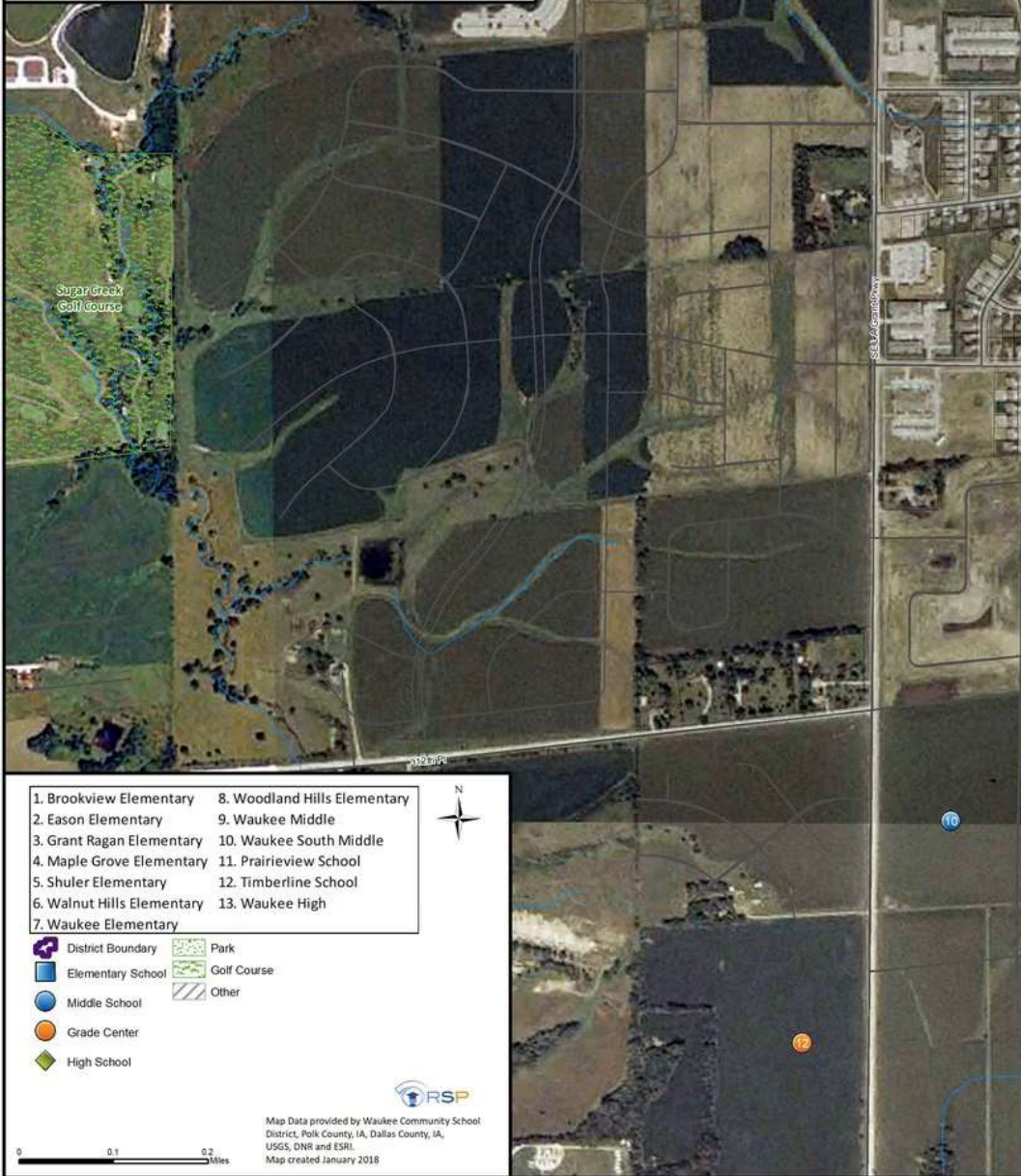
Multi-Family (MF)

School	Year													
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Brookview Elementary	0.06	0.06	0.05	0.05	0.05	0.05	0.04	0.05	0.07	0.07	0.07	0.07	0.08	0.09
Eason Elementary	0.03	0.04	0.06	0.08	0.08	0.07	0.11	0.11	0.13	0.15	0.17	0.09	0.12	0.12
Grant Ragan Elementary	0.16	0.16	0.15	0.13	0.14	0.15	0.14	0.12	0.13	0.13	0.10	0.12	0.12	0.11
Maple Grove Elementary	0.05	0.05	0.06	0.05	0.07	0.06	0.06	0.07	0.10	0.10	0.11	0.12	0.12	0.11
Shuler Elementary	0.00	0.00	0.01	0.01	0.02	0.04	0.02	0.02	0.01	0.01	0.01	0.03	0.05	0.05
Walnut Hills Elementary	0.01	0.01	0.02	0.03	0.04	0.04	0.07	0.06	0.07	0.06	0.06	0.07	0.08	0.09
Waukee Elementary	0.08	0.08	0.11	0.09	0.10	0.08	0.10	0.10	0.11	0.10	0.11	0.10	0.13	0.11
Woodland Hills Elementary	0.08	0.09	0.11	0.11	0.11	0.09	0.07	0.09	0.10	0.10	0.10	0.09	0.08	0.09

Source: Waukee Community School District and Dallas County

Enrollment provided by the district

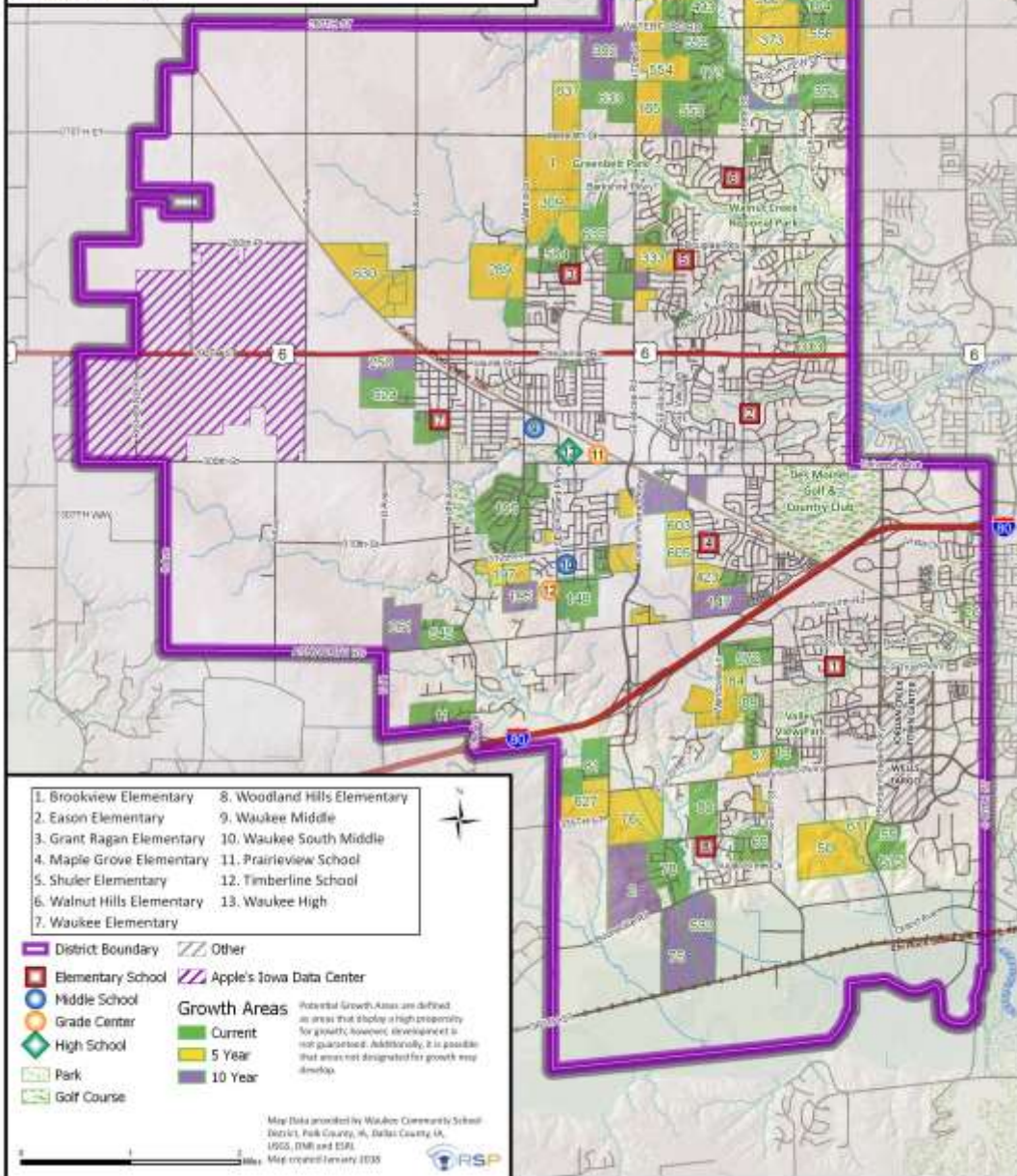
Does not include Early Childhood, Home School, Private School, or Parochial School



Year Built (video)

- Reveals the clusters of where residential development has occurred
- Some new areas do not necessarily lead to similar yield rates of like developments
- New residential development has begun to happen outside the district boundary
- Colors of dots represent a specific year according to Dallas County Assessor's Office

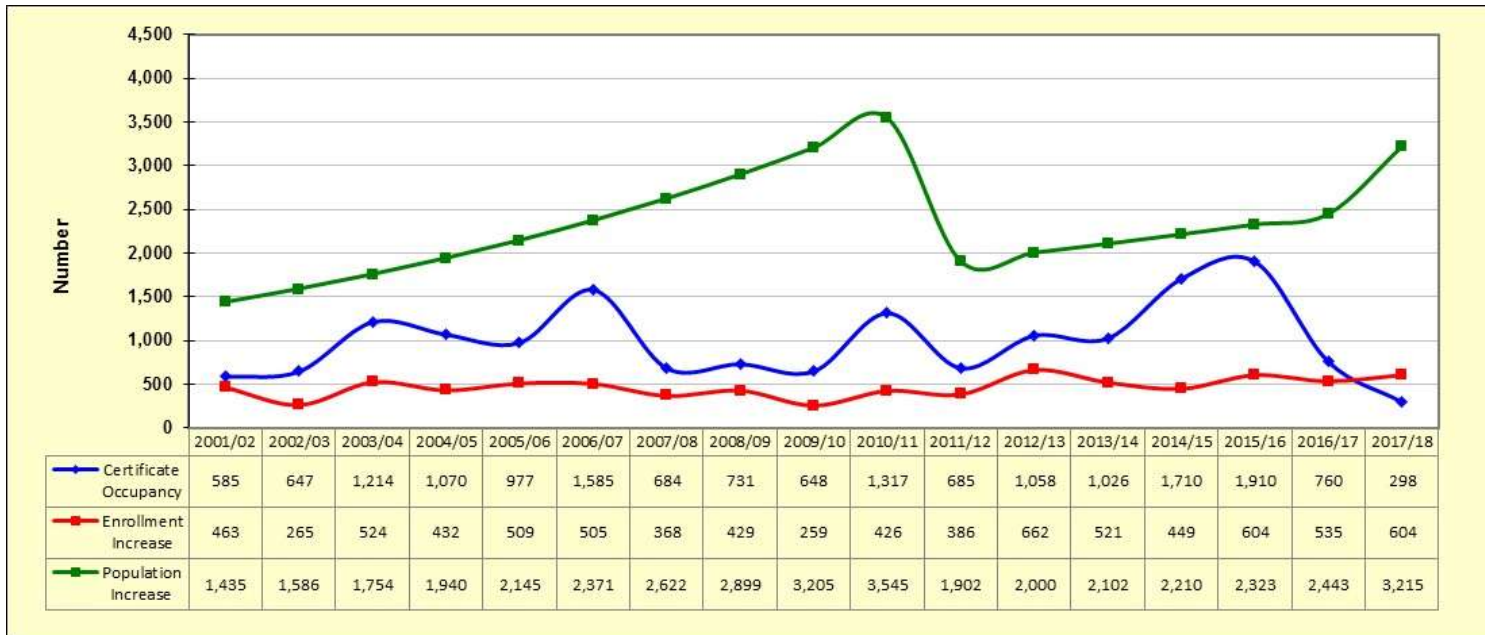
Growth Areas



Growth Areas

- Identifies where development activity is happening (**Green**)
- Identifies possible areas that could develop (**Yellow and Purple**)
- The market and property owner desire to build guides the timing of development
- Other properties not shown might develop while some shown might not develop

Population, Development, Enrollment



Source: Dallas County, Waukee Community School District, and RSP

Graphic Explanation

- Census data indicates the area has an increasing population
- Student Enrollment growth varies each year not necessarily follow Census population estimate or building trends
- Building activity has been stable but has decreased in the last couple of years

What Does This Mean

- The new households moving into the District similar to less than past yield rates for children to attend school
- With development more likely to be MF projects over the next five years enrollment trends likely similar to current outcome
- Older areas of the community are in the subdivision life cycle to potentially have more children than in the past

Enrollment provided by the district

Does not include Early Childhood, Home School, Private School, or Parochial School

Projection Accuracy

Elementary

- Projected: 5,276
- Actual: 5,285
- Accuracy: **99.8%**



High School

- Projected: 1,904
- Actual: 1,953
- Accuracy: **97.5%**

Middle School

- Projected: 3,051
- Actual: 3,056
- Accuracy: **99.8%**

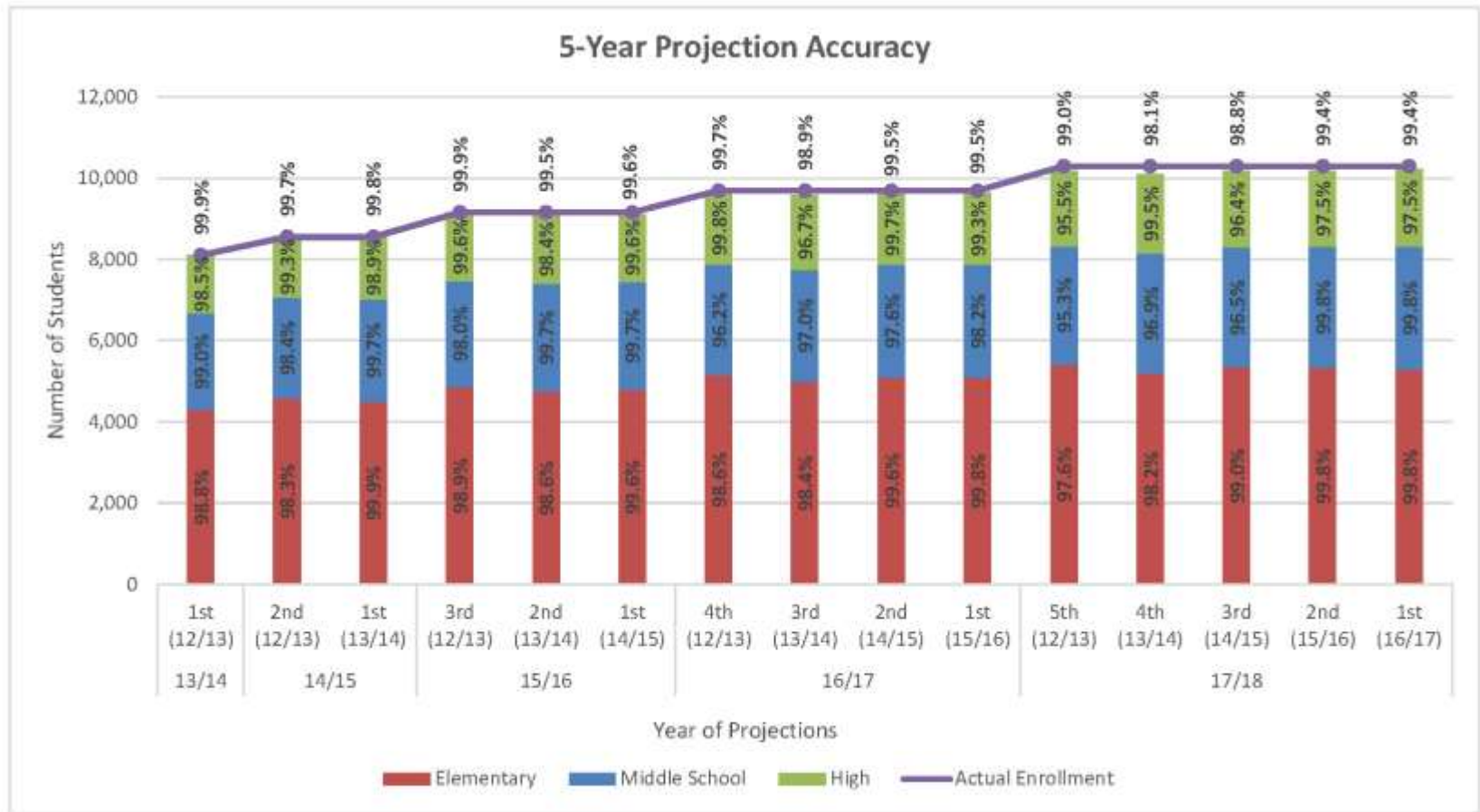
District

- Projected: 10,231
- Actual: 10,294
- Accuracy: **99.4%**

Notes:

- This accuracy is the 1st year of the 2016/17 RSP Projections
- Demographic shifts with millennials impacting future enrollment (Jobs, Jobs, Jobs)
- Many areas of the community having significant demographic shifts influencing changes in enrollment (type of households not generating similar yield rates of students)
- A good portion of analysis spent on what is happening at the elementary and middle school grades to determine if there are emerging trends

Long Range Projection Accuracy

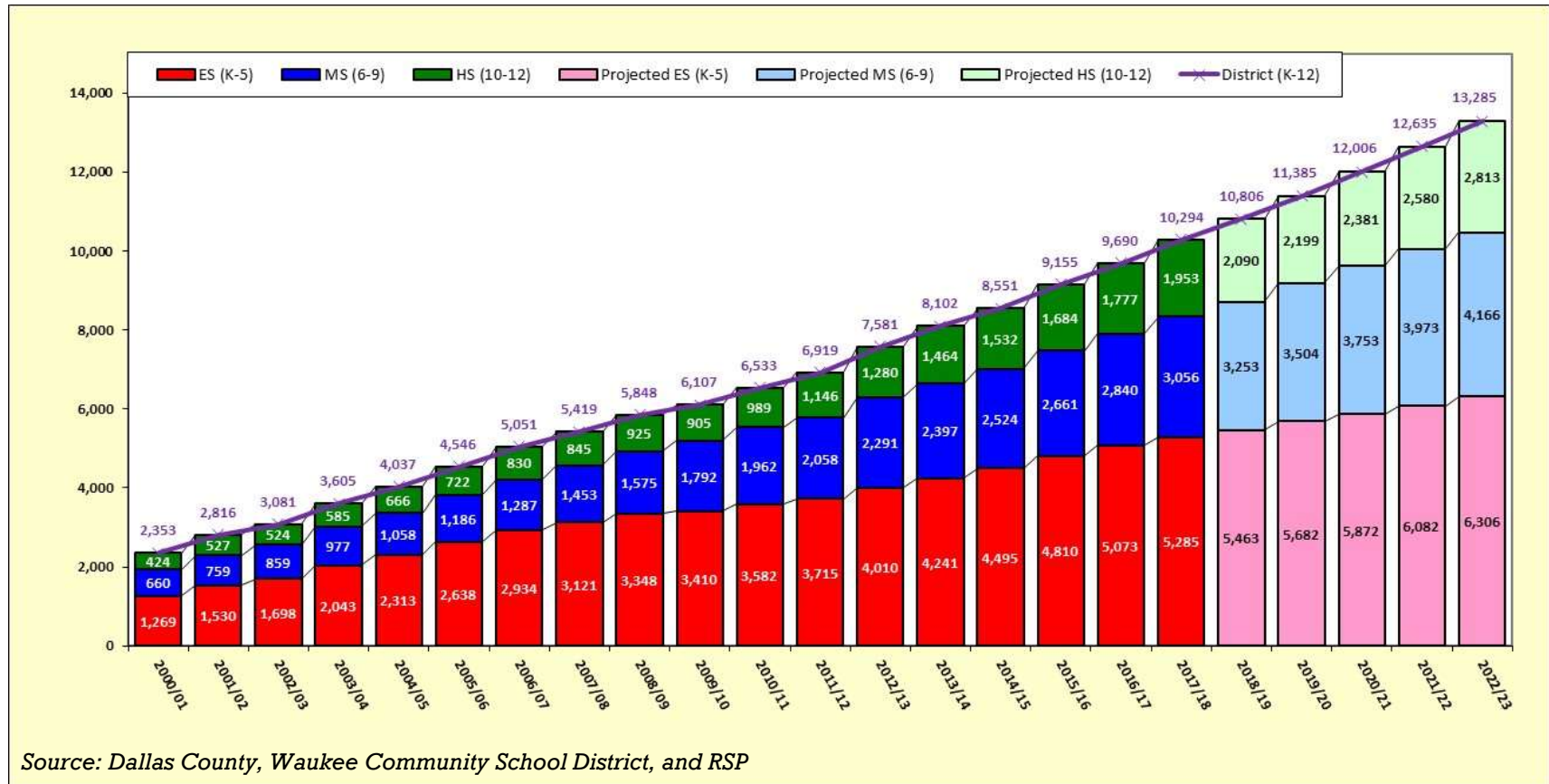


Actual enrollment provided by Waukee School District, Projections provided by RSP Midpoint Projections

What Does This Mean

- As the projection year gets closer, propensity for an increase in accuracy is likely
- 17/18 is the first year where five year projections can be seen, Projections conducted in 12/13 had an accuracy of 99% for the 17/18 school year
- RSP has maintained an accuracy of 99.4% over the course of 15 projected years

Past, Current, & Future Enrollment



What Does This Mean

- The above enrollment totals are Kdg to 12th grade (ES +19.3%, MS: +36.3%, HS: +44.0%, District : +29.1%)
- The district annual increase is between 500 and 650 students (+5.0% and +5.5%)
- The future grade configuration will influence the timing of additional capacity


Enrollment provided by the district

Does not include Early Childhood, Home School, Private School, or Parochial School

Elementary Projections

School	School Capacity	Student Location	Past School Enrollment			Projections Based on Residence				
			2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Brookview Elementary K to 5th	725	Reside/Attend			653					
		Reside	564	630	663	681	700	707	711	716
		Attend	567	622	656					
Eason Elementary K to 5th	675	Reside/Attend			581					
		Reside	603	629	634	637	638	621	623	619
		Attend	564	576	583					
Grant Ragan K to 5th	750	Reside/Attend			673					
		Reside	0	652	677	787	902	1,012	1,123	1,228
		Attend	0	661	679					
Maple Grove Elementary K to 5th	750	Reside/Attend			641					
		Reside	711	656	644	627	629	636	640	656
		Attend	735	708	704					
Shuler Elementary K to 5th	750	Reside/Attend			679					
		Reside	781	680	681	697	704	715	728	726
		Attend	784	688	685					
Walnut Hills Elementary PreK to 5th	750	Reside/Attend			656					
		Reside	876	591	664	661	660	651	650	658
		Attend	878	587	658					
Waukee Elementary PreK to 5th	750	Reside/Attend			746					
		Reside	720	698	752	763	792	825	845	873
		Attend	730	694	754					
Woodland Hills Elementary PreK to 5th	750	Reside/Attend			563					
		Reside	555	537	570	610	657	705	762	830
		Attend	552	537	566					
ELEMENTARY TOTAL K to 5th	5,900	Reside	4,810	5,073	5,285	5,463	5,682	5,872	6,082	6,306
		Attend	4,810	5,073	5,285					

Source: RSP & Associates, LLC - January 2018

 Over School Capacity

Note 1: Student Projections are based on the residence of the student.

Note 2: The Enrollment Model is based on a Head count of students by Planning Area at each school

Note 3: Transfers between schools are not factored into the Projections

Note 4: The Enrollment Model assumes ES(K-5) MS(6-7 and 8-9) and HS (10-12)

Note 5: Each planning area is assigned the 2014/15 attendance area - Vince Meyer Learning Center currently not being utilized

Note 6: Woodland Hills ES opened in 2013/14 and Timberline MS opens in 2015/16 - 2014/15 Reside Enrollment based on current attendance area assignment

Note 7: Grant Ragan opened 2016/17, Timberline MS opening allowed the district to again have the grade configuration of K-5, 6-7, 8-9, 10-12

Note 8: School capacity provided by the District

Note 9: Reside is based on the student home address


Note 10: Attend is based on which facility the student attends

Note 11: Reside/Attend are the students who reside in the attendance area that they have chosen to attend

Secondary Projections

School	School Capacity	Student Location	Past School Enrollment			Projections Based on Residence				
			2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Waukee Middle School 6th and 7th	932	Reside/Attend			800	899	953	1,004	1,076	1,142
		Reside	688	745	811					
		Attend	698	720	804					
Waukee South Middle School 6th and 7th	1,000	Reside/Attend			779	826	865	915	959	964
		Reside	696	710	783					
		Attend	687	735	790					
Prairieview Middle School 8th and 9th	1,016	Reside/Attend			722	789	858	952	1,016	1,074
		Reside	619	704	757					
		Attend		679	728					
Timberline Middle School 8th and 9th	1,047	Reside/Attend			699	739	828	882	922	986
		Reside	658	681	705					
		Attend		706	734					
Waukee High School 10th to 12th	2,000	Reside	1,684	1,777	1,953	2,090	2,199	2,381	2,580	2,813
		Attend	1,683	1,777	1,953					
ELEMENTARY TOTAL K to 5th	5,900	Reside	4,810	5,073	5,285	5,463	5,682	5,872	6,082	6,306
		Attend	4,810	5,073	5,285					
MIDDLE TOTAL 6th to 9th	3,995	Reside	2,003	2,840	3,056	3,253	3,504	3,753	3,973	4,166
		Attend	2,001	2,840	3,056					
HIGH TOTAL 10th to 12th	2,000	Reside	1,684	1,777	1,953	2,090	2,199	2,381	2,580	2,813
		Attend	1,683	1,777	1,953					
DISTRICT TOTALS K to 12th	11,895	Reside	8,497	9,690	10,294	10,806	11,385	12,006	12,635	13,285
		Attend	8,494	9,690	10,294					

Source: RSP & Associates, LLC - January 2018

 Over School Capacity

Note 1: Student Projections are based on the residence of the student.

Note 2: The Enrollment Model is based on a Head count of students by Planning Area at each school

Note 3: Transfers between schools are not factored into the Projections

Note 4: The Enrollment Model assumes ES(K-5) MS(6-7 and 8-9) and HS (10-12)

Note 5: Each planning area is assigned the 2014/15 attendance area - Vince Meyer Learning Center currently not being utilized

Note 6: Woodland Hills ES opened in 2013/14 and Timberline MS opens in 2015/16 - 2014/15 Reside Enrollment based on current attendance area assignment

Note 7: Grant Ragan opened 2016/17, Timberline MS opening allowed the district to again have the grade configuration of K-5, 6-7, 8-9, 10-12

Note 8: School capacity provided by the District

Note 9: Reside is based on the student home address

Note 10: Attend is based on which facility the student attends

Note 11: Reside/Attend are the students who reside in the attendance area that they have chosen to attend

Key Things About the District

Enrollment:

Projected to increase over the next five years, nearly 3,000 students (+29.1%)

- Elementary >+1,000 students (+19.3%)
- Middle School > 1,100 students (+36,3%)
- High School > 850 students (+44.0%)

Capacity:

Pressure is alleviated at the elementary when Radiant opens in 19/20, at the high school when HS #2 opens in 2021/22. At the building level the following challenges happen at the following schools:

- Grant Ragan Elementary *(2018/19 to 2022/23)*
- Waukee Elementary *(2018/19 to 2022/23)*
- Woodland Hills Elementary *(2021/22 to 2022/23)*
- Waukee Middle School *(2019/20 to 2022/23)*
- Prairieview Middle School *(2022/23)*
- Waukee High School *(2018/19 to 2022/23)* (Nearly 600 over when HS #2 planned to open)

Development:

Significant areas of vacant land that when they are developed will have a drastic effect on future enrollment

The Starting Point (Activity 3)

It is important to understand the complexity of the boundary process.

- At your table look at the large map which has the location of each school and the K-5 heat density of students.
- There are markers on the table to draw or write things on the map
- With the limited information or experiences you may have draw where you think elementary attendance areas should be considered
- Each table will report out what was discussed and/or drawn on the map



(There is always a beginning which will lead to an ending)

Time Limit – 5 to 10 minutes

Grade Configuration and Capacity

Waukee Community Schools Enrollment (K-5, 6-7, 8-9, 10-12)

School Year	# ES	# MS	# HS	K-5 Enrollment	6-9 Enrollment	10-12 Enrollment	Total K-12 Enrollment
2018/19 School Year	8	4	1	5,463	3,253	2,090	10,806
2019/20 School Year	9	4	1	5,682	3,504	2,199	11,385
2020/21 School Year	9	4	1	5,872	3,753	2,381	12,006
2021/22 School Year	9	4	1	6,082	3,973	2,580	12,635
2022/23 School Year	9	4	2	6,306	4,166	2,813	13,285

Source: RSP & Associates 2017/18 Projection Model

Notes:

Grade Configuration illustrated as K-5, 6-7, 8-9, 10-12

ES Capacity is 6,650 when ES #9 opens as a 750 student capacity

MS Capacity is 4,000 regardless of grade configuration at the four middle schools

HS Capacity is 4,000 when 2nd HS opens in 2021/22 if it is a 2,000 student capacity

Current Grade Configuration:

- Elementary – Plan for Radiant ES 2019/20
- Middle School - Over MS capacity in 2022/23
- High School – Plan for new HS 2021/22

Waukee Community Schools Enrollment (K-5, 6-8, 9-12)

School Year	# ES	# MS	# HS	K-5 Enrollment	6-8 Enrollment	9-12 Enrollment	Total K-12 Enrollment
2018/19 School Year	8	4	1	5,463	2,515	2,828	10,806
2019/20 School Year	9	4	1	5,682	2,680	3,023	11,385
2020/21 School Year	9	4	1	5,872	2,853	3,281	12,006
2021/22 School Year	9	4	1	6,082	3,000	3,553	12,635
2022/23 School Year	9	4	2	6,306	3,158	3,821	13,285

Source: RSP & Associates 2017/18 Projection Model

Notes:

Grade Configuration illustrated as K-5, 6-8, 9-12

ES Capacity is 6,650 when ES #9 opens as a 750 student capacity

MS Capacity is 4,000 regardless of grade configuration at the four middle schools

HS Capacity is 4,000 when 2nd HS opens in 2021/22 if it is a 2,000 student capacity

New Grade Configuration:

- Elementary – Plan for Radiant ES 2019/20
- Middle School – Adequate capacity
- High School – Plan for new HS 2021/22

Grade Configuration and Capacity

Board Decision:

If a break in the feeder is needed (Likely will happen in the future), the Board supports the break occurring from the elementary school to the middle school

Listed below are the comments from the June 2017 BOE grade configuration and capacity discussion:

- Keep ESL programming in mind
- Staffing/programming for kids
- Focus on academic programming for kids throughout the district
- Consider students that change addresses (move to a different address in the district)
- Grade level configuration will affect choices
- Have/have not perceptions
- Neighborhood concept must be kept in mind
- Timing of additional middle school capacity
- Don't set up a system that incentivizes coaches/teachers to stay at a certain building
- Make sure people understand what "neighborhood" means in relationship to boundary process

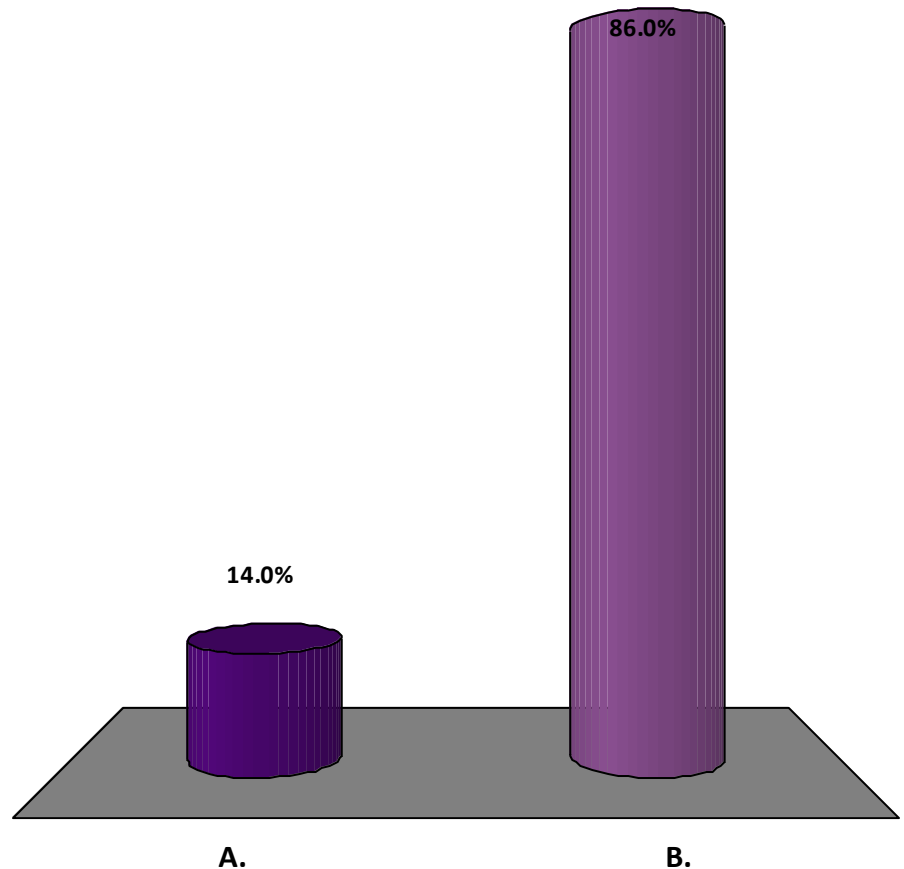
Feeder System #1



I have experience in a broken feeder system
(Student, Parent, and/or Teacher):

A. Yes

B. No



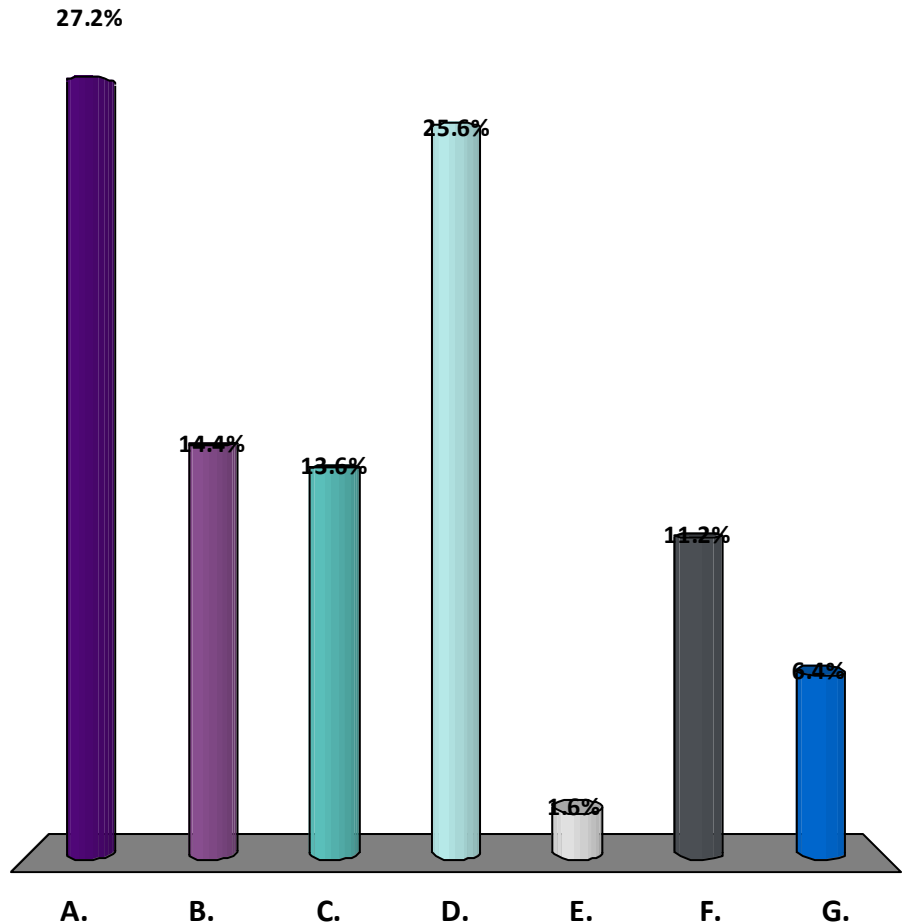
Feeder System #2



Based on what I know today, I believe the top three reasons for maintaining a complete feeder pattern are:

- A. Continued student relationships
- B. Balance in student diversity
- C. Efficiency in building utilization
- D. Geographic proximity to a school
- E. Parent Involvement opportunities
- F. Academic programming opportunities
- G. Extracurricular opportunities

You can choose up to three answers



Committee Response 01/30/18

Grade Configuration #1

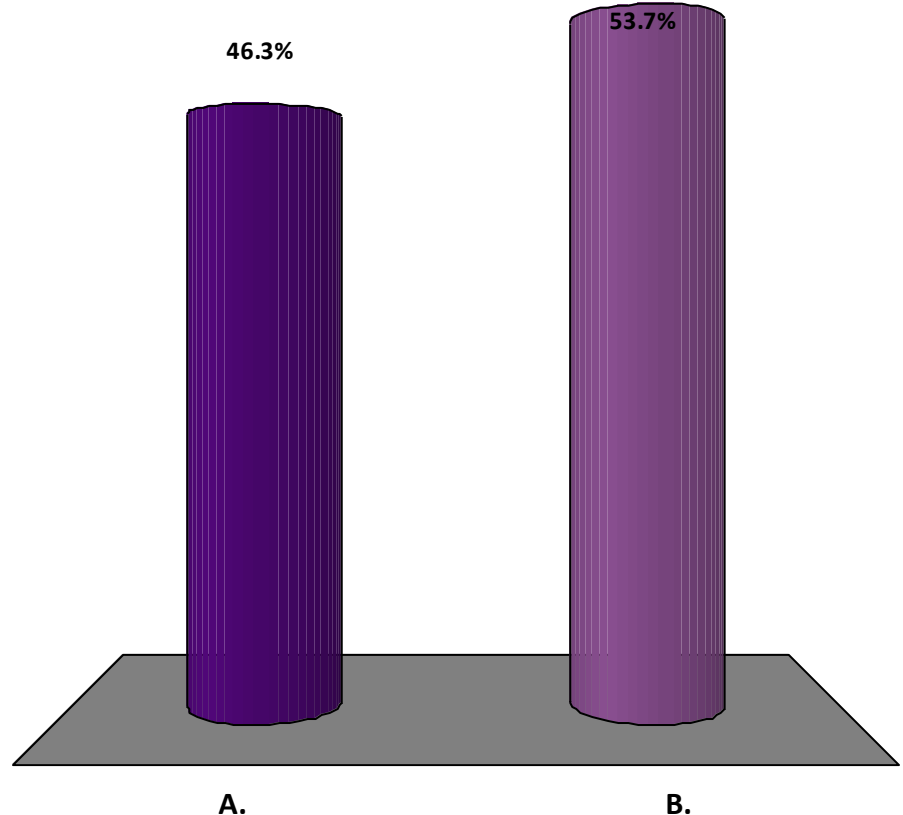


Based on what I know today, I support the following grade configuration:

A. K-5, 6-7, 8-9, 10-12

B. K-5, 6-8, 9-12

Board providing committee the opportunity to only explore these grade configurations



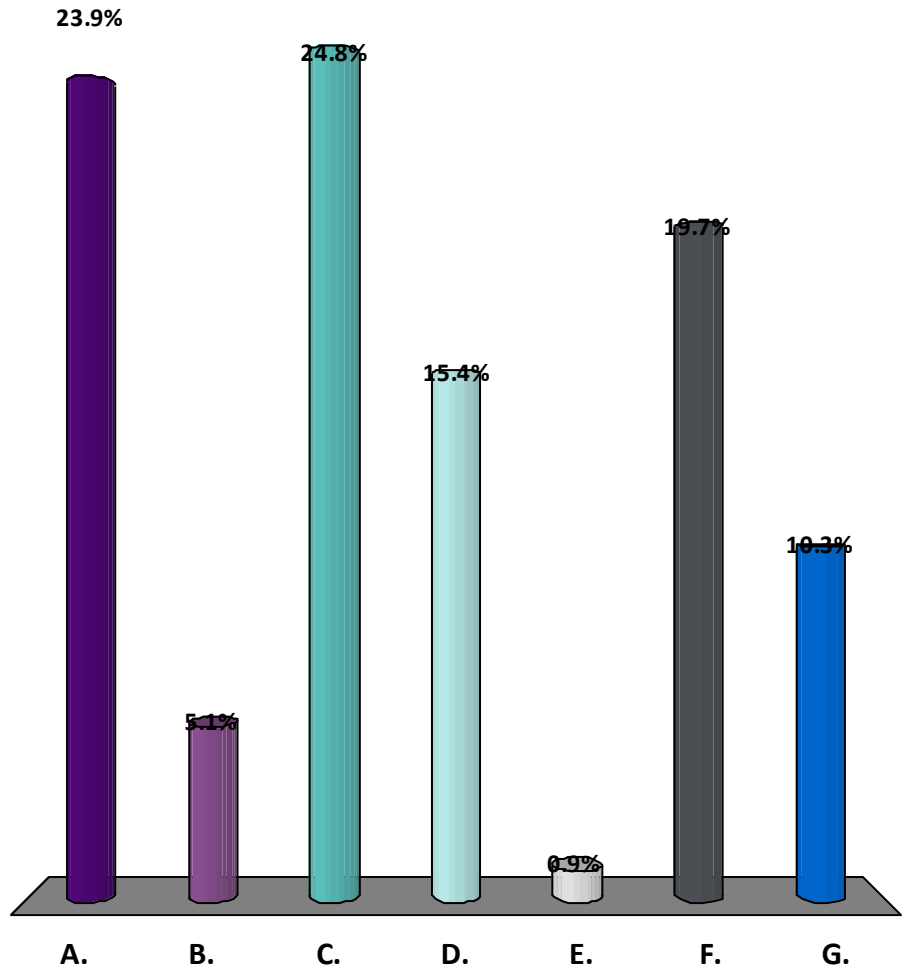
Grade Configuration #2



Based on what I know today, I believe the top three reasons for the grade configuration are:

- A. Continued student relationships
- B. Balance in student diversity
- C. Efficiency in building utilization
- D. Geographic proximity to a school
- E. Parent Involvement opportunities
- F. Academic programming opportunities
- G. Extracurricular opportunities

You can choose up to three answers



Committee Response 01/30/18

Part Four: Moving Forward

Visualizing Success

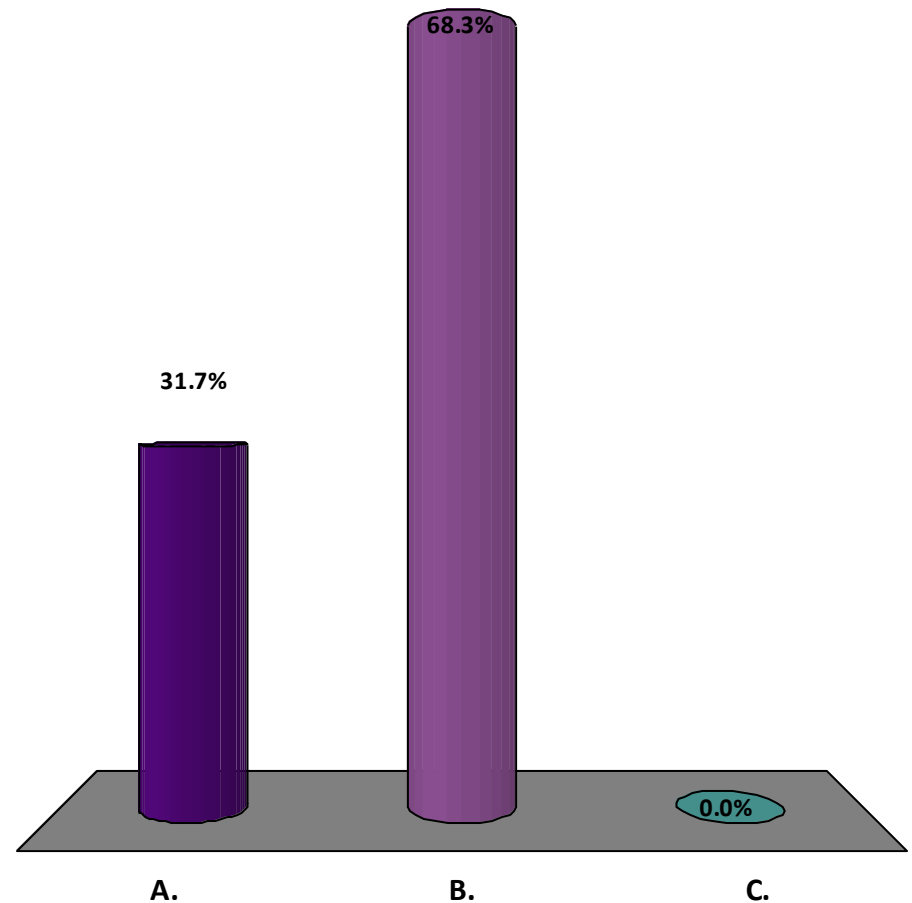


Final Question



The information presented was:

- A. Too Fast
- B. Just Right
- C. Too Slow



Committee Response 01/30/18

Public Forum Information

Public Forum: February 13, 2018

- **Sign Up Sheet:** Being passed around
- **Expectations:** Committee Members Attend to hear community input
- **Public Forum Format:** Brief Presentation about Process, Guiding Principles and Boundary Criteria than a break out to small groups for discussion
- **Goal of Public Forum:** Hear and Collect patron input on their concerns, challenges and/or outlook for the opening of Radiant Elementary and the 2nd comprehensive high school

Next Steps

Complete your parking lot information and place on the Parking Lot

- This can include additional information you will need in the process

Next Public Forum: February 13, 2018

- Preliminary Agenda: Process/Guiding Principles/Boundary Criteria

Next Committee Meeting: March 20, 2018

- Preliminary Agenda: Scenario Development

Homework:

Part 1 - Talk about what you have discussed with other members in the community, listen to their ideas and provide those responses at the next committee meeting

Part 2 – District Tour

- Drive to elementary schools look at the types of housing, road configuration around the area
- What is the proximity of developments to a school?

