# **Planning for the Future**

# 17/18 Elementary Study





Presented: February 5, 2018

Updated 2/6/18

# **Discussion Points**

### Introductions

### Enrollment, Demographics, and Development (Part One)

- Reasons for Study
- Key Things
- Maps: Current and Past Elementary Attendance Areas
- Past Enrollment and Change
- Current and Past Heat Maps
- Demographics
- Population, Development, and Enrollment Trends
- Yield Rate of Students
- Year Built and Growth Maps
- Projections

### Boundary Change Study (Part Two)

- Demographic Shifts
- District Test Scores Analysis
- Individual Elementary Summary
- Next Steps

### Appendix (Part Three)

Elementary school analysis and support data



### **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

**Richard Sanchez** Planning Project Manager

#### Educators

**Clay Guthmiller Education Planner** 

Craig Menozzi **Education Planner** 

**David Stoakes** Education Planner, EdD

Dave Wilkerson Education Planner, PhD

### **GIS** Analyst

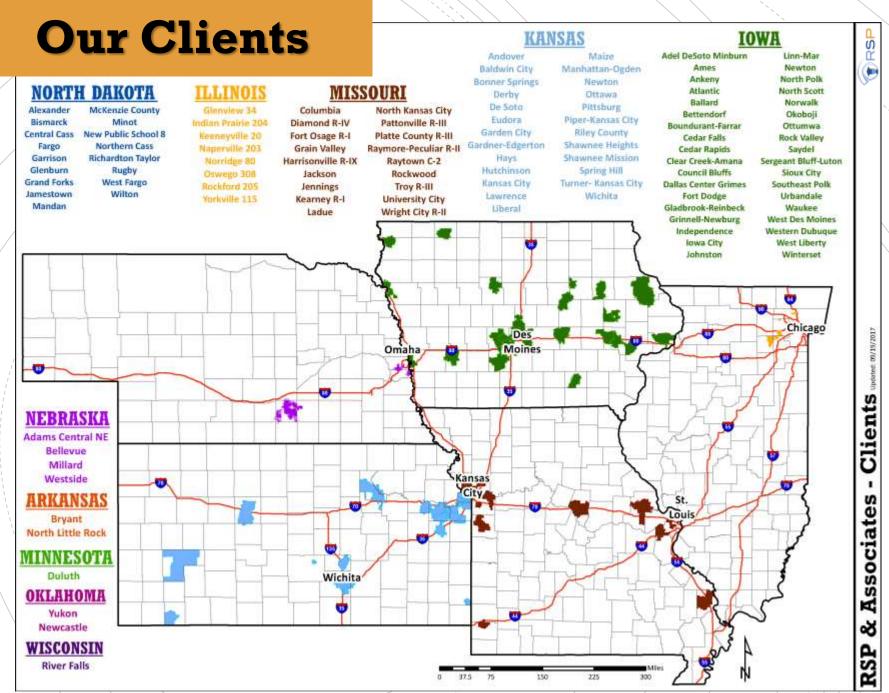
**Tyler Link GIS** Analyst

**Brandon Sylvester GIS** Analyst









# **Making it Happen**

### **Johnston Community School District**

Administration

### County, City, & Others

- Polk County
- City of Johnston
- City of Des Moines
- IDOT
- Census Bureau/ Esri
- United States Geological Survey

# Thank you!

**Development Community** 

**Builders** 

Developers

# Part One: Enrollment & Demographics Background



# **Key Things About Study**

#### Enrollment:

- K-12 enrollment is projected to increase approximately 900 students (12.5%) to nearly 8,000 students (Annual change 1.5% to 3.0%) (From 17/18 to 2022/23)
  - Elementary will increase about 300 students (10.1%)
  - Middle School will increase about 300 students (14.2%)
  - High School will increase by about 200 students (14.6%)
- Future kindergarten student class size over the next five years will likely be closer to 600 students
- The student population will continue to be more diverse over time

#### **Development:**

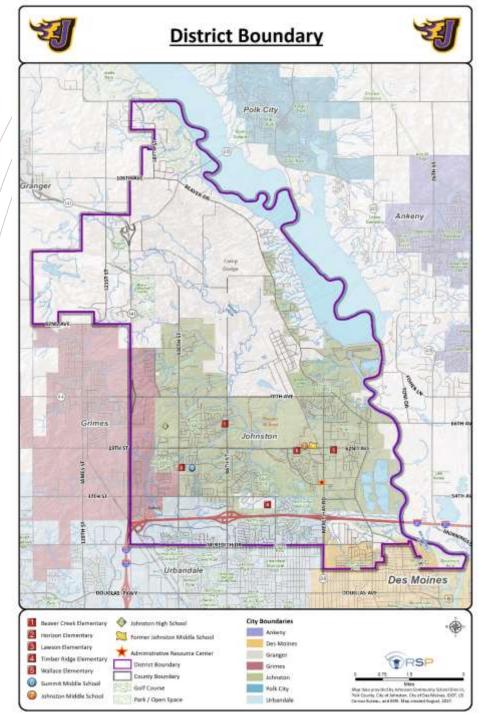
- The district from a residential perspective is mature, but will in the short term see the remaining vacant land zoned for residential develop with great potential for some infill type developments in older areas of the community
- Significant land available for nonresidential development which will help the overall tax base when developed

#### <u>Capacity:</u>

- Timber Ridge (2020/21) and Wallace (2022/23) over mid capacity
- Summit MS the greatest challenge as it will exceed the high capacity 2022/23
- Johnston HS will be over the mid capacity by 2020/21

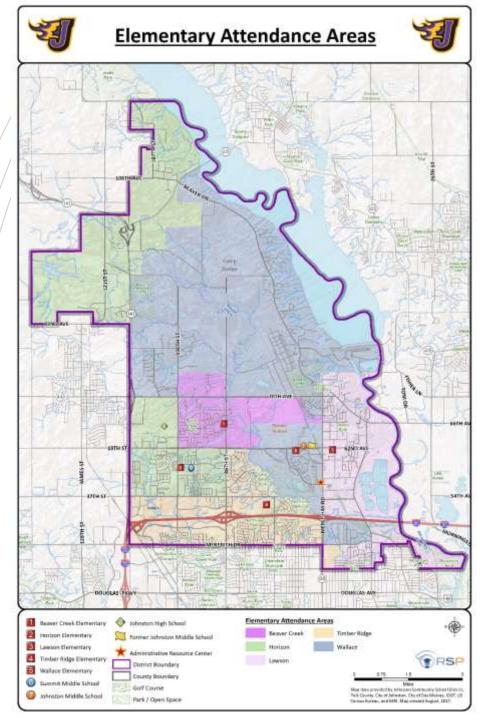
#### **Boundary Change Study:**

- The geography of the elementary boundary change in 2013/14 to 2014/15 was applied to understanding movement of students and how those students in those impacted area may have influenced academic performance at each of the elementary school
- Students impacted by the boundary change statistically tended to score higher than the district average in Reading, Math, and Science
- New students to the district statistically scored lower than the district average



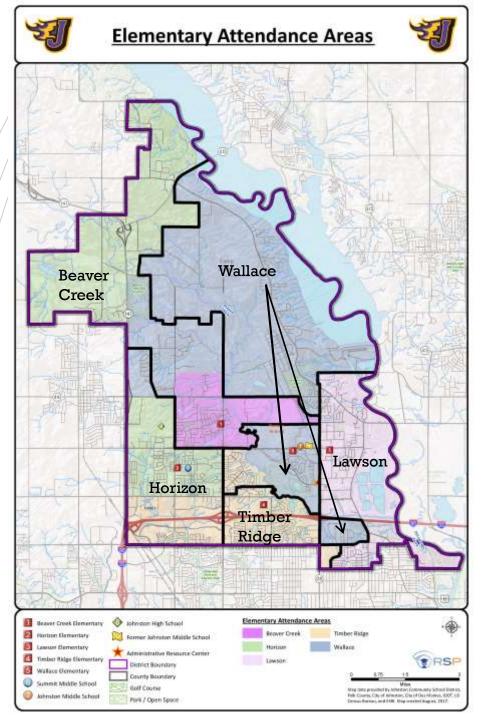
### **Current District Boundary**

- District Boundary (Purple Line)
- Major Streets
- Major water features & cultural features
- Municipality Limits
  - Des Moines (Yellow)
  - Grimes (Pink)
  - Johnston (Green)
  - Urbandale (Light Blue)
- Camp Dodge and Pioneer/Dupont/Dow are major players in what the district looks like today



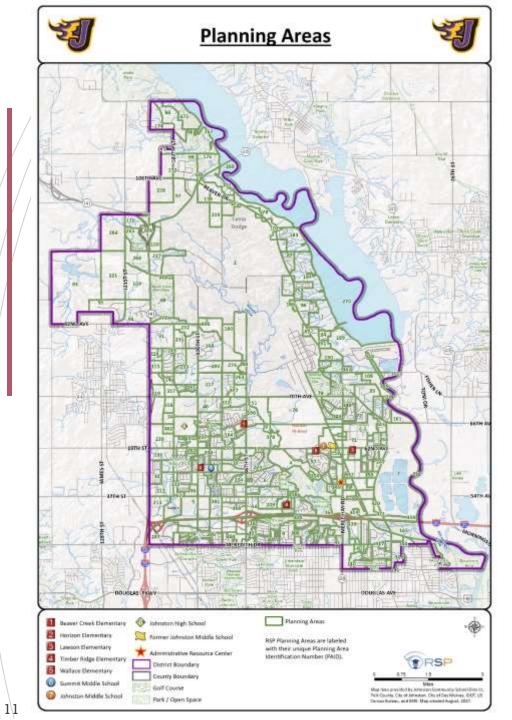
#### **Current Elementary Attendance Areas**

- District Boundary (Purple Line)
- Major Streets
- Major water features & cultural features
- Attendance Areas
  - Beaver Creek (Purple)
  - Horizon (Green)
  - Lawson (Pink)
  - Timber Ridge (Tan)
  - Wallace (Blue)



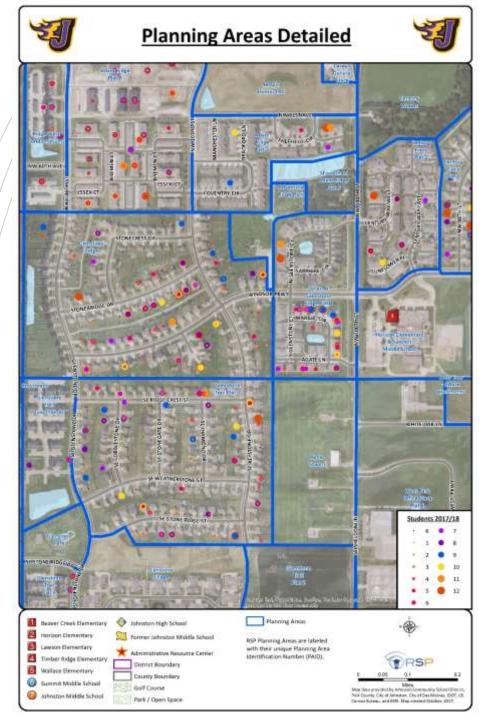
#### **Past Elementary Attendance Areas**

- District Boundary (Purple Line)
- Major Streets
- Major water features & cultural features
- Past Attendance Areas
  - Black Lined and Labeled
- Current Attendance Areas
  - Beaver Creek (Purple)
  - Horizon (Green)
  - Lawson (Pink)
  - Timber Ridge (Tan)
  - Wallace (Blue)



### **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 <u>400</u> planning areas RSP monitors for demographic, development, and enrollment data sets



### **Detailed Planning Areas**

- Zoomed in view of Horizon Elementary
- Planning Areas (Blue 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

# **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** 

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

- The number of students, either an actual count or a projected count
- =A subscript denoting an attendance area in the School District
- = Grade level
- = 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:

Let: S

Let:

- The number of students, either an actual count or a projected count =
- A subscript denoting an attendance area in the School District =
- Grade level 100
- = Time (Years)
- BP = Building permit forecast as given by the Building Permit Allocation Model (BPAM) model
- Student enrollment ratio of cohort c in planning area x Rc. x =
- = Capacity of a planning area as expressed by available housing units CP
- Building history trend of a planning area =
- An index which models the likelihood of development =
- Building permit control total forecast CT  $\equiv$

### **Assumptions for the Future**

- Mortgage interest rates likely will remain below 6%
- Recirculation of existing homes will be healthy
- Final Platted developments will be nearly built-out there is limited land available for development influencing some infill development opportunities
- Unemployment rates should remain below 6% (Currently less than 4%)
- Nonresidential developments continue to be built to meet employment demand and need (North Park Drive will develop)
- Fuel prices will remain between \$2.00 and \$4.00 for the foreseeable future
- Private, Parochial, and Open Enrollment choice remains stable

If more of these variables track toward being positive for the District – Could potentially exceed "Likely RSP Projection" – the converse can also occur – "Likely RSP Projection" is what the District should use for planning purposes.

# **Past School Enrollment**

Enrollme	ent By G	rade													-	
Year	к	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Total		
2000/01	291	316	344	334	314	340	343	319	323	290	328	300	286	4,128		
2001/02	335	313	326	351	362	329	376	346	321	319	316	346	310	4,350		
2002/03	367	345	323	335	364	374	348	384	345	319	328	307	314	4,453		
2003/04	351	394	353	335	333	398	379	361	389	363	329	323	260	4,568		
2004/05	398	392	410	379	347	355	421	395	368	409	357	316	325	4,872		
2005/06	385	414	404	433	390	368	392	432	397	385	408	363	332	5,103		
2006/07	423	427	435	417	456	407	391	401	438	401	384	402	374	5,356		
2007/08	436	449	454	453	442	472	427	404	407	436	413	395	435	5,623		
2008/09	481	458	458	467	472	451	470	439	393	418	441	419	424	5,791		
2009/10	480	492	472	468	488	487	460	483	446	411	424	441	437	5 <i>,</i> 989		
2010/11	460	473	489	489	487	509	497	472	497	445	411	427	445	6,101		Deursdeur
2011/12	452	466	479	495	492	492	491	506	483	483	453	403	448	6,143	$\rightarrow$	Boundary Change
2012/13	485	460	497	491	519	492	508	507	512	484	494	444	416	6,309		Change
2013/14	496	473	472	491	492	521	506	519	499	529	490	490	471	6,449		5
2014/15	550	451	477	489	498	509	539	511	523	509	520	500	523	6,599		
2015/16	528	525	484	502	504	521	537	554	513	536	517	530	522	6,773		
2016/17	559	478	555	507	520	513	560	552	566	509	537	520	535	6,911		
2017/18	576	522	502	574	504	541	542	574	553	581	532	546	537	7,084		

Source: Iowa Department of Education (2000/01 to 2009/10) & Johnston Community School District (2010/11 to 2017/18)

#### **Graphic Explanation**

- Largest class in 2017/18 9<sup>th</sup> grade (581)
- Smallest class in 2017/18 2<sup>nd</sup> grade (502)
- Graduating senior class likely smaller than the next year incoming Kindergarten class

# **Past School Enrollment**

#### **Enrollment Grade Change**

		. chunge	-												
			к	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	Total
From	То	к	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Change
2000/01	2001/02	44	22	10	7	28	15	36	3	2	-4	26	18	10	222
2001/02	2002/03	32	10	10	9	13	12	19	8	-1	-2	9	-9	-32	103
2002/03	2003/04	-16	27	8	12	-2	34	5	13	5	18	10	-5	-47	115
2003/04	2004/05	47	41	16	26	12	22	23	16	7	20	-6	-13	2	304
2004/05	2005/06	-13	16	12	23	11	21	37	11	2	17	-1	6	16	231
2005/06	2006/07	38	42	21	13	23	17	23	9	6	4	-1	-6	11	253
2006/07	2007/08	13	26	27	18	25	16	20	13	6	-2	12	11	33	267
2007/08	2008/09	45	22	9	13	19	9	-2	12	-11	11	5	6	29	168
2008/09	2009/10	-1	11	14	10	21	15	9	13	7	18	6	0	18	198
2009/10	2010/11	-20	-7	-3	17	19	21	10	12	14	-1	0	3	4	112
2010/11	2011/12	-8	6	6	6	3	5	-18	9	11	-14	8	-8	21	42
2011/12	2012/13	33	8	31	12	24	0	16	16	6	1	11	-9	13	166
2012/13	2013/14	11	-12	12	-6	1	2	14	11	-8	17	6	-4	27	140
2013/14	2014/15	54	-45	4	17	7	17	18	5	4	10	-9	10	33	150
2014/15	2015/16	-22	-25	33	25	15	23	28	15	2	13	8	10	22	174
2015/16	2016/17	31	-50	30	23	18	9	39	15	12	-4	1	3	5	138
2016/17	2017/18	17	-37	24	19	-3	21	29	14	1	15	23	9	17	173
3-Yr Avg		8.7	-37.3	29.0	22.3	10.0	17.7	32.0	14.7	5.0	8.0	10.7	7.3	14.7	161.7
3-Yr Wavg	5	15.2	-39.3	27.5	21.3	7.0	17.3	32.2	14.5	4.8	8.3	13.2	7.2	13.8	161.5

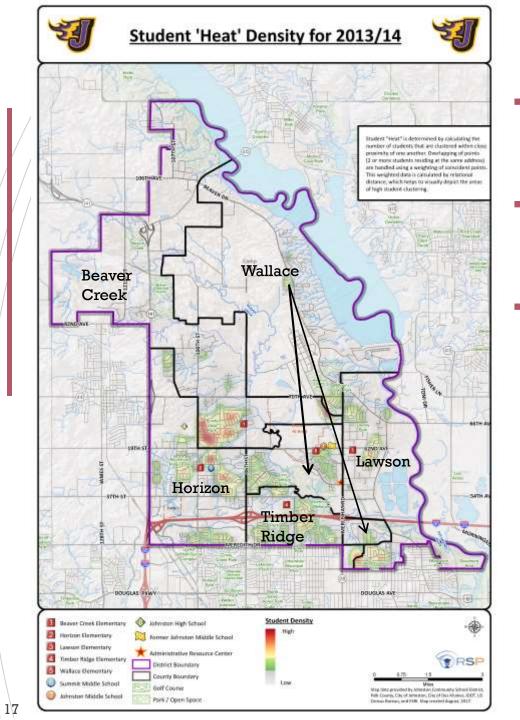
Boundary Change

Source: Iowa Department of Education (2000/01 to 2009/10) & Johnston Community School District (2010/11 to 2017/18)

#### What does this mean? – Change varies by grade

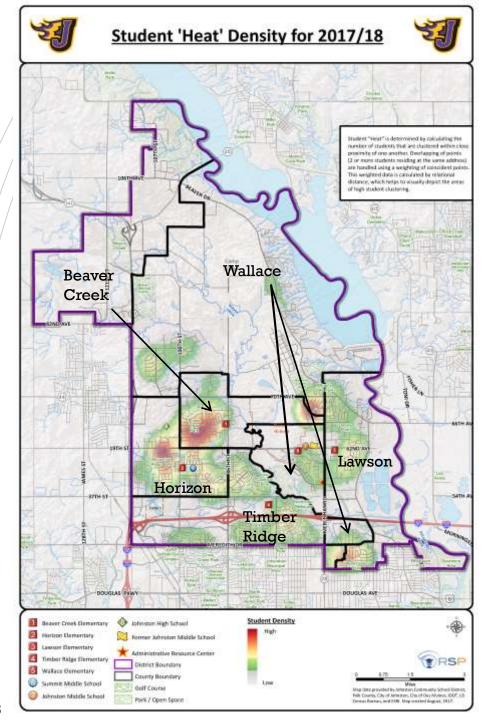
- Largest average K-12 class increase 5<sup>th</sup> to 6<sup>th</sup> grade (+32)
- Largest average K-12 class decrease Kdg to 1<sup>st</sup> grade (-38)
- Propensity to have each cohort increase students from year to year in most grades with no decrease in the high school grades

Enrollment provided by the district – Student data is the Official Count Does not include Early Childhood, Home School, Private School, or Parochial School



### **Past Student "Heat" Density**

- **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



### **Current Student "Heat" Density**

- **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
- Heat density has grown in the southern Beaver Creek attendance boundary, with similarities in the middle of Horizon and the southern portion of the north Wallace boundary.
- Student density has increased since 2013/14 into the more established areas of the district

# Demographics

Variables	Johnston Community	City of	City of	City of	Polk
	School District	Johnston	Urbandale	Grimes	County
Jnemployment Rate	2.10%	2.10%	2.10%	1.50%	3.40%
Average Household Size	2.64	2.71	2.56	2.68	2.5
Vedian Age	37.6	37.5	39	33.6	35.9
Fotal Population	37,013	21,937	45,280	11,411	488,405
Median Household Income	\$89,822	\$96,683	\$86,379	\$79,630	\$62,085
Fotal Housing Units	14,331	8,260	18,303	4,416	203,335
Owner Occupied Housing Units	10,664	6,184	13,609	3,533	129,051
Renter Occupied Housing Units	3,196	1,830	3,984	725	62,133
/acant Housing Units	471	247	710	158	12,151

Race		Johnston Community School District		City of Johnston		City of Urbandale		City of Grimes		olk nty
	#	%	#	%	#	%	#	%	#	%
White	31,185	84.25%	18,831	85.84%	38,087	84.11%	10,340	90.61%	359,419	73.59%
Black/African American	1,367	3.69%	570	2.60%	1,561	3.45%	150	1.31%	33,229	6.80%
American Indian	35	0.09%	20	0.09%	61	0.13%	18	0.16%	1,583	0.32%
Asian	1,991	5.38%	1,327	6.05%	2,409	5.32%	295	2.59%	22,417	4.59%
Pacific Islander	6	0.02%	4	0.02%	15	0.03%	2	0.02%	324	0.07%
Other Race Population	463	1.25%	171	0.78%	464	1.02%	93	0.82%	15,899	3.26%
Two or More Races	732	1.98%	426	1.94%	955	2.11%	185	1.62%	13,858	2.84%
Hispanic	1,234	3.33%	588	2.68%	1,728	3.82%	328	2.87%	41,676	8.53%
Total	37,013	100.00%	21,937	100.00%	45,280	100.00%	11,411	100.00%	488,405	100.00%

- The above table was created from the ESRI Business Analysis Online that compiles US Census Data.
- The Johnston Community School District has significant differences in attribute information comparatively to the other geographies.
- Median Household Income from the school district mirrors the City of Urbandale, which are in line for the district areas.
- The unemployment rate of the district area is far less than the US Average at 4.3%

### **Demographics**

### Population 2010-2017

# **Housing Development**

**Annual Rate of Change** 

Income

**Median Household Income** 

**Services Industries** 

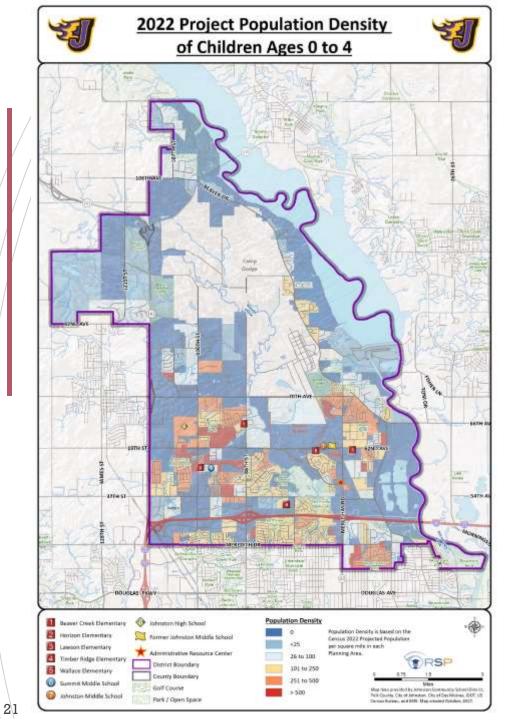
**Located within School District** 





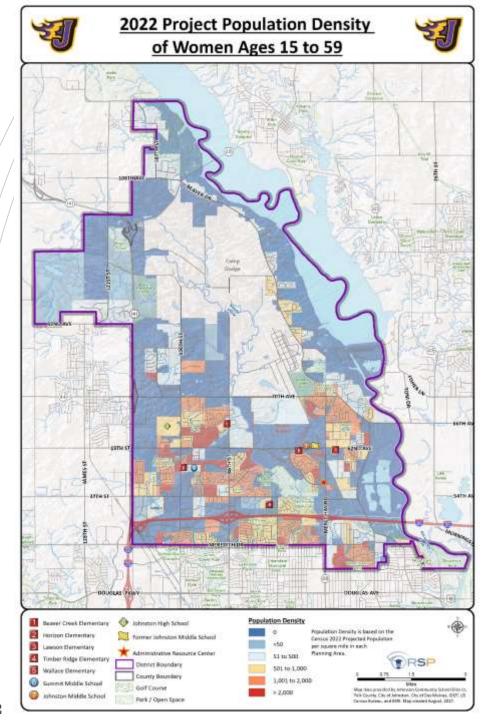


of people who live within the school district, work in the service industry



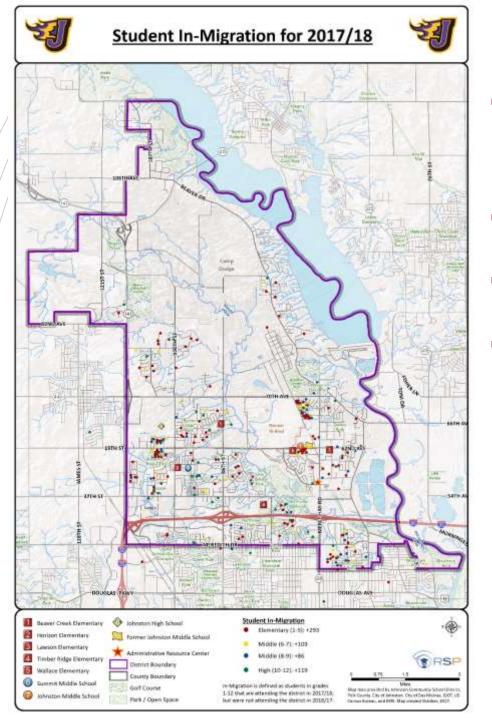
### Population: Ages 0-4, 2022

- Depicted by Census Block Group with 2022 estimates
- Density weighted by land area of each Block Group
- Red areas have greatest density, Blue have the least density
- This data helps benchmark the projection model choices for future student enrollment



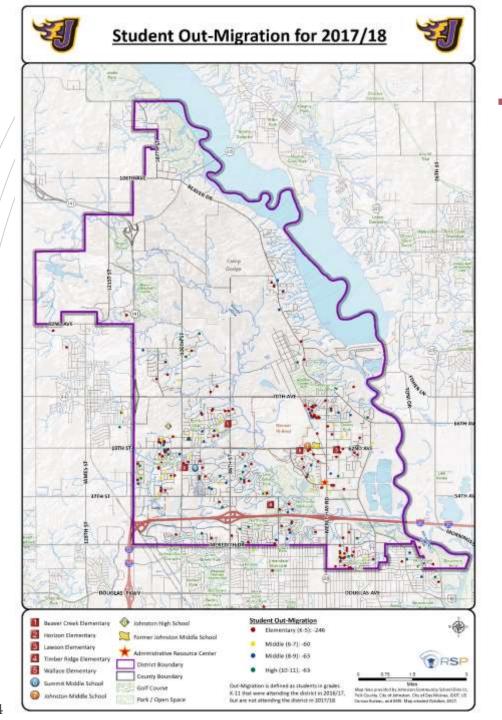
### **Population: Women 15-59, 2022**

- Depicted by Census Block Group with 2022 estimates
- Density weighted by land area of each Block Group
- Red areas have greatest density, Blue have the least density
- This data helps benchmark the projection model choices for future student enrollment



### **Student In-Migration**

- 2017/18 students who are in 1<sup>st</sup> through 12<sup>th</sup> grade that were not attending the District in 2016/17 as Kindergarten through 11<sup>th</sup> grade
- Who is new to the District that was not attending in previous years?
- Is it related to a particular type of Development (SF, MF, Dup)?
- Is it related to perceptions of a school building?
  - <u>639</u> new students in 2015/16
  - <u>536</u> new students in 2016/17
  - <u>601</u> new students in 2017/18



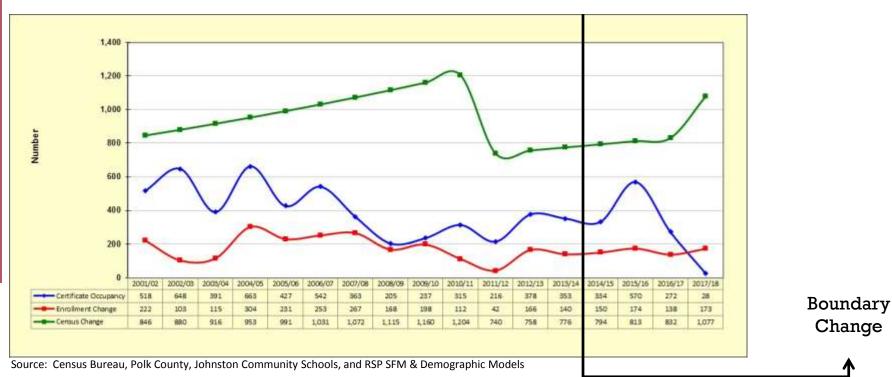
### **Student Out-Migration**

- Students attending the District in
   2016/17 who were in Kindergarten
   through 11<sup>th</sup> grade that did not attend in
   2017/18 as 1<sup>st</sup> through 12<sup>th</sup> graders
  - <u>434</u> students left the district in 2015/16, Total Migration +205
  - <u>412</u> students left the district in 2016/17, Total Migration +<u>124</u>
  - <u>432</u> students left the district in 2017/18, Total Migration +<u>169</u>

## **Enrollment Conclusions**

- Enrollment should continue to increase with larger incoming Kdg replacing smaller graduating 12<sup>th</sup> grade classes
- With just the existing students, the district would naturally be stable to some increase
- The district 2017/18 enrollment has passed 7,000 students
- Some elementary school students attend a school which is not the assigned school based on their address
- Wallace elementary enrollment will have to be closely monitored during the transition timeframe
- Enrollment tends to increase from 1<sup>st</sup> to 12<sup>th</sup> grade
- The largest increase from grade to grade is 1<sup>st</sup> to 2<sup>nd</sup> grade
- Enrollment increases have occurred in some of the older developed areas of the community
- The district should continue to annually monitor enrollment

### **Population, Development, Enrollment**



#### **Graphic Explanation**

- Census data indicates the area has a slightly increasing population which has increased in 2017 more than in recent years
- Since 2001-02 student enrollment growth correlates somewhat with population change
- Residential building activity has varied from year to year 2017 Certificate Occupancy lower because of recording delays
- There are 100+ residential building permits issued in 2017

#### What Does This Mean

- People locating in the Johnston Community School District tend to have school aged children
- The housing market is responsive to demographic shifts
- New residential development is attracting younger families with school aged children

#### Enrollment provided by the district - Student data is last school day count;

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

# **Yield Rate of Students**

#### **Student Yield Rate**

School		Grade Configuration				K to 5	6 to 7	8 to 9	10 to 12	District
Year	K to 5	6 to 7	8 to 9	10 to 12	Units	Yield Rate				
2000/01	1,939	662	613	914	7,885	0.246	0.084	0.078	0.116	0.524
2001/02	2,016	722	640	972	8,403	0.240	0.086	0.076	0.116	0.518
2002/03	2,108	732	664	949	9,051	0.233	0.081	0.073	0.105	0.492
2003/04	2,164	740	752	912	9,442	0.229	0.078	0.080	0.097	0.484
2004/05	2,281	816	777	998	10,105	0.226	0.081	0.077	0.099	0.482
2005/06	2,394	824	782	1,103	10,532	0.227	0.078	0.074	0.105	0.485
2006/07	2,565	792	839	1,160	11,074	0.232	0.072	0.076	0.105	0.484
2007/08	2,706	831	843	1,243	11,437	0.237	0.073	0.074	0.109	0.492
2008/09	2,787	909	811	1,284	11,642	0.239	0.078	0.070	0.110	0.497
2009/10	2,887	943	857	1,302	11,879	0.243	0.079	0.072	0.110	0.504
2010/11	2,907	969	942	1,283	12,194	0.238	0.079	0.077	0.105	0.500
2011/12	2,876	997	966	1,304	12,410	0.232	0.080	0.078	0.105	0.495
2012/13	2,944	1,015	996	1,354	12,788	0.230	0.079	0.078	0.106	0.493
2013/14	2,945	1,025	1,028	1,451	13,141	0.224	0.078	0.078	0.110	0.491
2014/15	2,974	1,050	1,032	1,543	13,475	0.221	0.078	0.077	0.115	0.490
2015/16	3,064	1,091	1,049	1,569	14,045	0.218	0.078	0.075	0.112	0.482
2016/17	3,132	1,112	1,075	1,592	14,317	0.219	0.078	0.075	0.111	0.483
2017/18	3,219	1,116	1,134	1,615	14,345	0.224	0.078	0.079	0.113	0.494

Boundary Change

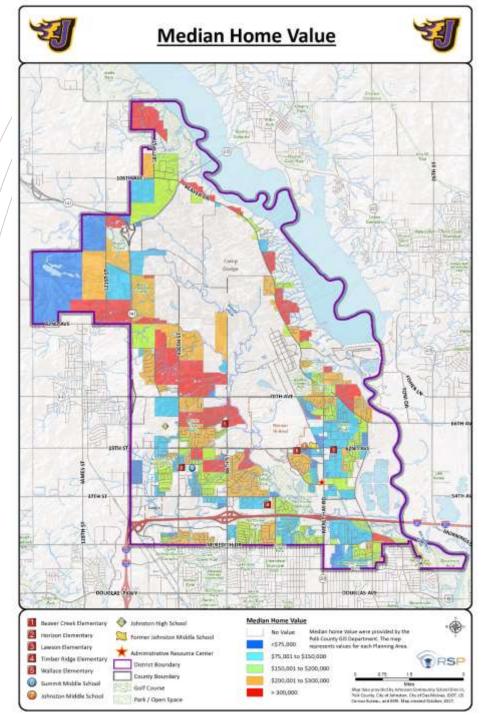
Source: Polk County, Johnston Community School, and RSP

#### **Graphic Explanation**

- In 2000/01 there were about 52 students for every 100 units
- In 2017/18 there were about 49 students for every 100 units
- Housing inventory increased by over 6,000 units (82%) resulting in more housing and students
- Yield rates differ by type of residential unit (SF, TH, Apt), as well as by value of the unit

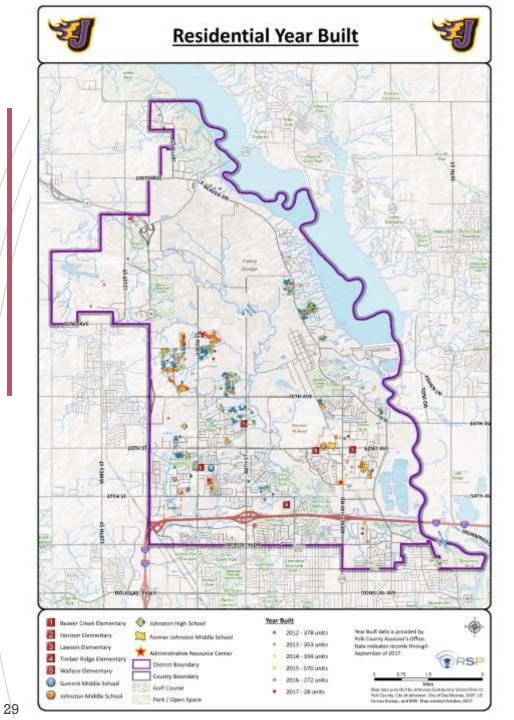
Enrollment provided by the district – Student data is the Official Count

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



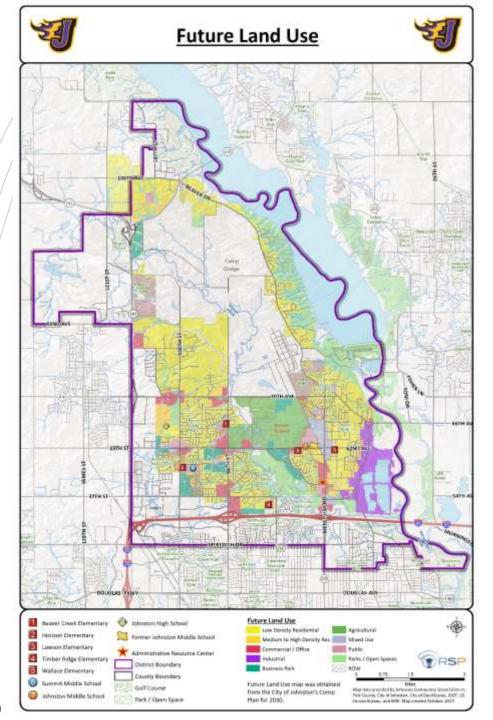
### **Median Home Value**

- Based on assessed Home Value as provided and maintained by the Polk County Assessor's Office
- Depicted by Median Value in each Planning Area
- Home values likely correlated to socioeconomic status
- Areas shaded in Orange and Red have the greatest Median Home Value
- Areas shaded in **Blue** represent the greatest affordability



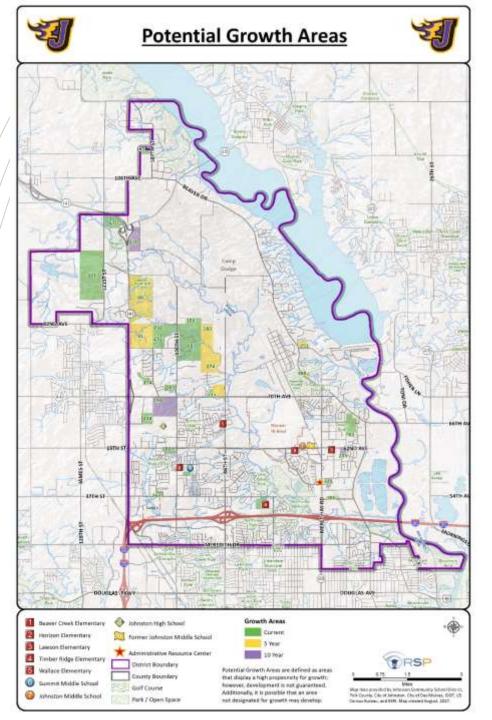
### **Residential Year Built**

- Where has the growth been?
- Will this impact enrollment?
- Will the development continue as initially planned?
- Areas developing tend to be clustered together
- Colors of dots represent a specific year according to Polk County Assessors Office



### **Future Land Use**

- Identifies possible areas that could develop
- Is development changing will it impact enrollment and use of facilities?
- Will residential development continue to build out into the rural/agricultural areas of the District?
- Yellow areas represent residential



#### **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

# **Development Conclusions**

- Looking out five years, new residential development will occur at a much slower rate impacting enrollment yield rates – the district is maturing – more change will be based on household demographics
- Future residential development will likely continue on the west side of the district, mostly north of NW 70th Avenue with Infill Development off of NW Beaver Drive
- The land purchases Camp Dodge has made on its NW boundary impacts the potential future growth of residential
- The 141 Hwy and I-35/I-80 interchange may impact household choices to purchase homes because of associated short term delays – when completed access will be much improved
- A decision will need to be made on the need and/or use of land in the Cross Haven Subdivision – based on the defined school capacity there appears to be available capacity

# **Projection Accuracy**

### **Elementary**

- Projected: 3,214
- Actual: 3,219
- Accuracy: **99.8**%

### Middle School

- **Projected: 2,252**
- Actual: 2,250
- Accuracy: 99.9%



### <u>High School</u>

- Projected: 1,600
- Actual: 1,615
- Accuracy: **99.1**%

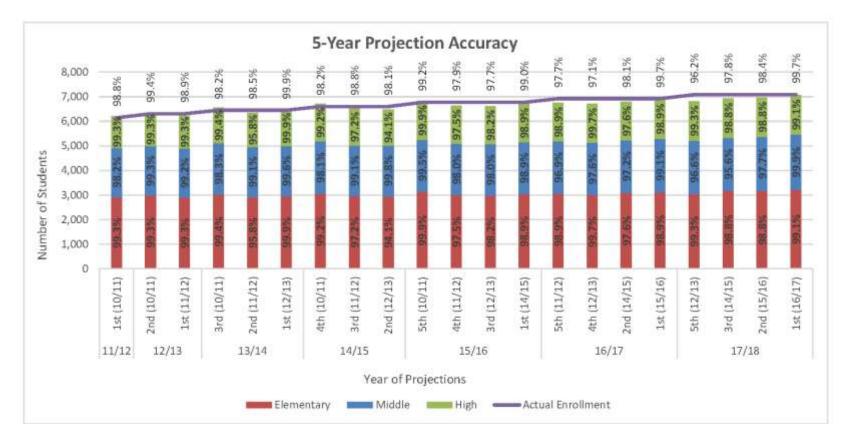
### **District**

- Projected: 7,066
- Actual: 7,084
- Accuracy: **99.8**%

#### Notes:

- This accuracy is the 1<sup>st</sup> 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 each planning area to enhance the accuracy at the building level

## **Projection Accuracy** (Long Range)

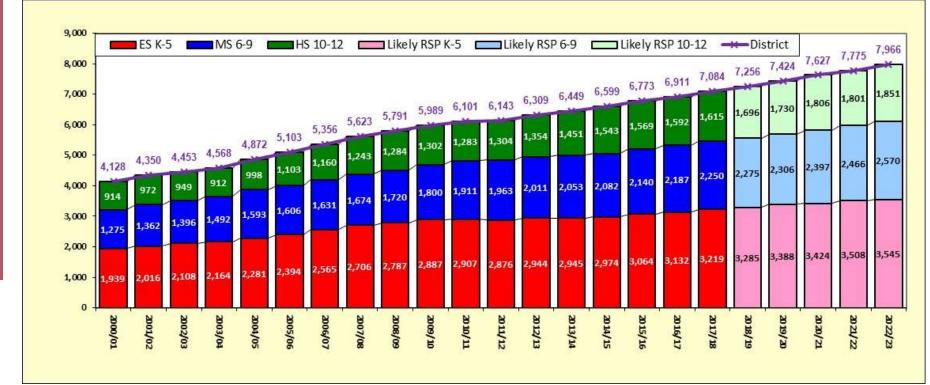


Source: Johnston Community School District and RSP Midpoint Projections

#### Notes:

- From 11/12 to 17/18 RSP has maintained an average accuracy of 98.5%
- The most accurate projections tend to be the 1<sup>st</sup> year of the projection
- The 5<sup>th</sup> year of the projection accuracy tends to be 96% or greater
- The district did not have an enrollment Study conducted in 2013/14

# Past, Current, & Future



Source: Johnston Community School District and RSP SFM & Demographic Models

#### **What Does This Mean**

- Future enrollment growth outlook is slightly higher than previous years with Kdg classes creeping toward 600 students
- Enrollment growth increase anticipated to coincide with development activity and demographic changes
- Outlook for growth changed resulting in about a 2% more students (Compare 2016/17 Year 5 to the 2017/18 Year 4)

Enrollment provided by the district – Student data is the Official Count Does not include Early Childhood, Home School, Private School, or Parochial School

## **Elementary Projections**

										•						
School Desired Student			Past	Past School Enrollment			Projection	ns Based on	Residence		Projections Based on Attendance					
	Capacity	Tracking	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2018/19	2019/20	2020/21	2021/22	2022/23	
Beaver Creek Elementary	690	Res/Attend	621	631	632											
K to 5th	750	Reside	652	646	655	659	642	650	656	655	662	645	653	659	658	
	840	Attend	641	649	657											
Horizon Elementary	690	Res/Attend	615	628	648											
K to 5th	750	Reside	634	659	695	704	729	727	735	714	674	699	697	705	684	
	840	Attend	636	640	660											
Lawson Elementary	621	Res/Attend	555	537	536											
PreK to 5th	675	Reside	582	550	558	556	576	585	610	628	578	598	607	632	650	
	756	Attend	576	581	576											
Timber Ridge Elementary	690	Res/Attend	657	678	677											
PreK to 5th	750	Reside	672	694	705	717	751	752	779	782	744	778	779	806	809	
	840	Attend	702	718	734											
Wallace Elementary	690	Res/Attend	495	529	556											
K to 5th	750	Reside	524	583	606	649	690	710	728	766	627	668	688	706	744	
18/19 relocate to old MS	840	Attend	509	544	592											
ELEMENTARY TOTAL	3,381															
K to 5th	3,675	Reside	3,064	3,132	3,219	3,285	3,388	3,424	3,508	3,545	3,285	3,388	3,424	3,508	3,545	
	4,116	Attend	3,064	3,132	3,219											

Source: RSP & Associates, LLC - November 2017

Note 1: Student Projections are based on the residence of the student. Early Childhood and Wild Rose students not in projections

Note 2: The Enrollment Model is based on a Head count of students by Planning Area at each facility with a grade configuration K-5, 6-7,8-9,10-12

Note 3: School capacity and timing of facilities provided by the Johnston Community School District (Capacity per classroom Low = 23, Mid = 25, High = 28)

Note 4: Transfers between facilities are factored into the projections

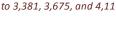
Note 5: Attend is the facility the student has been assigned by the District

Note 6: Reside is the placement of a student in the model either geographically or by attendance area for out of district students

Note 7: Res/Attend is a subset of Reside where that student resided in the attendance area and attended that facility

Note 8: In 2018/19 when Wallace ES relocates to the MS, Wallace ES capacity will be 690, 750, and 840. Also increasing the overall ES capacity to 3,381, 3,675, and 4,116.

Note 9: In 2017/18 new HS opens and the MS will relocate to the old HS (MS Capacity will be 1,500, 1,550, 1,600)



Over Low Capacity

Over Low & Mid Capacity Over Low, Mid, & High Capacity

# **Secondary Projections**

School	Desired	Student	Past	School Enrol	lment		Projection	s Based on	Residence			Projection	s Based on A	Attendance	
	Capacity	Tracking	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2018/19	2019/20	2020/21	2021/22	2022/23
		ITACKINg	2013/10	2010/17	2017/18	2010/19	2019/20	2020/21	2021/22	2022/25	2010/19	2019/20	2020/21	2021/22	2022/23
Summit Middle School	1,080														
6th and 7th	1,200	Reside	1,091	1,112	1,116	1,130	1,147	1,221	1,266	1,291	1,130	1,147	1,221	1,266	1,291
	1,280	Attend	1,091	1,112	1,118										
Johnston Middle School	1,500														
8th and 9th	1,550	Reside	1,048	1,075	1,134	1,145	1,159	1,176	1,200	1,279	1,145	1,159	1,176	1,200	1,279
17/18 Relocated Old HS	1,600	Attend	1,048	1,075	1,137										
Johnston High School	1,750														
10th to 12th	1,800	Reside	1,570	1,589	1,615	1,696	1,730	1,806	1,801	1,851	1,696	1,730	1,806	1,801	1,851
17/18 New HS opens	1,850	Attend	1,570	1,589	1,610										
ELEMENTARY TOTAL	3,381														
K to 5th	3,675	Reside	3,064	3,132	3,219	3,285	3,388	3,424	3,508	3,545	3,285	3,388	3,424	3,508	3,545
	4,116	Attend	3,064	3,132	3,219										
MIDDLE TOTAL	2,580														
6th to 9th	2,750	Reside	2,139	2,187	2,250	2,275	2,306	2,397	2,466	2,570	2,275	2,306	2,397	2,466	2,570
	2,880	Attend	2,139	2,187	2,255										
HIGH TOTAL	1,750														
10th to 12th	1,800	Reside	1,570	1,589	1,615	1,696	1,730	1,806	1,801	1,851	1,696	1,730	1,806	1,801	1,851
	1,850	Attend	1,570	1,589	1,610										
DISTRICT TOTALS	7,711														
K to 12th	8,225	Reside	6,773	6,908	7,084	7,256	7,424	7,627	7,775	7,966	7,256	7,424	7,627	7,775	7,966
	8,846	Attend	6,773	6,908	7,084										

Source: RSP & Associates, LLC - November 2017

Note 1: Student Projections are based on the residence of the student. Early Childhood and Wild Rose students not in projections

Note 2: The Enrollment Model is based on a Head count of students by Planning Area at each facility with a grade configuration K-5, 6-7,8-9,10-12

Note 3: School capacity and timing of facilities provided by the Johnston Community School District (Capacity per classroom Low = 23, Mid = 25, High = 28)

Note 4: Transfers between facilities are factored into the projections

Note 5: Attend is the facility the student has been assigned by the District

Note 6: Reside is the placement of a student in the model either geographically or by attendance area for out of district students

Note 7: Res/Attend is a subset of Reside where that student resided in the attendance area and attended that facility

Note 8: In 2018/19 when Wallace ES relocates to the MS, Wallace ES capacity will be 690, 750, and 840. Also increasing the overall ES capacity to 3,381, 3,675, and 4,116.

Note 9: In 2017/18 new HS opens and the MS will relocate to the old HS (MS Capacity will be 1,500, 1,550, 1,600)



Over Low Capacity Over Low & Mid Capacity Over Low, Mid, & High Capacity

Enrollment provided by the district – Student data is the Official Count Does not include Early Childhood, Home School, Private School, or Parochial School

# **Part Two:** Boundary Change Study



## **Reasons for Study**

#### **REASONS:**

- In recent years, the district has seen a change in test score results
- The community, as well as the district has experienced a shift in demographics where the population has become more diverse
- Elementary boundaries were changed in 2013/14 for the 2014/15 school year that when combined with the demographic shifts and student academic results, a study was commissioned to see if the 13/14 boundary change or other variables were impacting student achievement

#### HAVING A STUDY:

- There could be many reasons why the district test score results have changed to include: demographics, relocation (In-migration/Out-migration), housing value or even the 13/14 elementary boundary change
- This study analyzed the test scores of students who were assigned to attend a different school after the 13/14 boundary changes
- 2<sup>nd</sup> grade academic results were only available for 2013/14 and 2014/15
- This analysis includes test scores, special education status, and other demographic categories

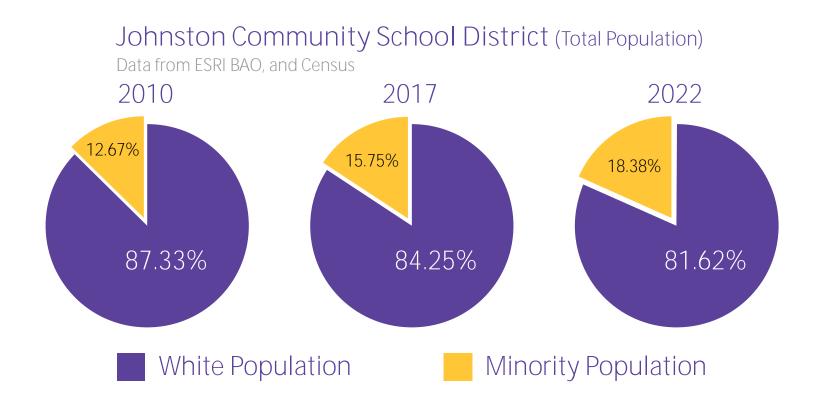
### **District Demographic Summary**

- The Johnston Community School District is seeing a change in demographics, like the rest of the state of Iowa.
- The district has seen a 10% decrease in the white students from 2012/13 to 2017/18.
- Test Scores have decreased since the elementary boundary changes went into effect in 2013/14.
- The district had lost an average of 2.1 points each year on state assessments since the boundary changes – these trends do not appear to be the result of the boundary change.
- Incoming students into the district tend to lower test score results more than students who
  resided and attended the district the previous school year.
- Since 2013/14 Free and Reduce Lunch (FRL) and Limited English Proficient (LEP) have all significantly increased.

Student	201	3/14	201	4/15	201	5/16	201	6/17	Total Difference	Total Change
Туре	#	%	#	%	#	%	#	%	#	%
FRL	1,103	16.2%	990	14.2%	1,188	16.6%	1,379	19.0%	+ 276	25.0%
LEP	251	3.7%	410	5.9%	416	5.8%	508	7.0%	+ 257	102.4%
SPED	579	8.5%	606	8.7%	607	8.5%	624	8.6%	+ 45	7.8%
All Students	6,827	100.0%	6,965	100.0%	7,155	100.0%	7,263	100.0%	+ 436	6.4%

Notes: 1. LEP students were not collected for the 2014/15 school year

## **District Demographic Change**



#### <u>What Does This Mean</u>

- Johnston is gaining a minority population at a faster pace than the State of Iowa
- There is a direct correlation between the school district demographic shift, and the student population

## **District Test Results**

### 2013/14 District Averages

#### Iowa Proficiency Standards (Midyear Scores)

Crada		Math			Reading			Science	
Grade	<b>Not Proficient</b>	Proficient	Advanced	<b>Not Proficient</b>	Proficient	Advanced	<b>Not Proficient</b>	Proficient	Advanced
2	110-151	152-173	>173	110-150	151-171	>171	110-155	156-181	>181
3	125-172	173-197	>197	125-169	170-208	>208	125-170	171-211	>211
4	130-184	185-216	>216	130-184	185-230	>230	130-184	185-229	>229
5	135-196	197-235	>235	135-197	198-247	>247	135-197	198-243	>243

Note: 2nd Grade Test scores were only recorded in 13/14 and 14/15

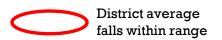
### 2014/15 District Averages

#### Iowa Proficiency Standards (Midyear Scores)

Crede		Math			Reading			Science	
Grade	<b>Not Proficient</b>	Proficient	Advanced	<b>Not Proficient</b>	Proficient	Advanced	<b>Not Proficient</b>	Proficient	Advanced
2	110-151	152-173	>173	110-150	151-171	>171	110-155	156-181	>181
3	125-172	173-197	>197	125-169	170-208	>208	125-170	171-211	>211
4	130-184	185-216	>216	130-184	185-230	>230	130-184	185-229	>229
5	135-196	197-235	>235	135-197	198-247	>247	135-197	198-243	>243

Note: 2nd Grade Test scores were only recorded in 13/14 and 14/15

#### What Does This Mean



 After the elementary boundary changes, the districts test scores decreased slightly but stayed within the proficiency range over the next 3 years.

### **District Test Results**

### 2015/16 District Averages

#### Iowa Proficiency Standards (Midyear Scores)

Crode		Math			Reading			Science	
Grade	<b>Not Proficient</b>	Proficient	Advanced	<b>Not Proficient</b>	Proficient	Advanced	<b>Not Proficient</b>	Proficient	Advanced
2	110-151	152-173	>173	110-150	151-171	>171	110-155	156-181	>181
3	125-172	173-197	>197	125-169	170-208	>208	125-170	171-211	>211
4	130-184	185-216	>216	130-184	185-230	>230	130-184	185-229	>229
5	135-196	197-235	>235	135-197	198-247	>247	135-197	198-243	>243

Note: 2nd Grade Test scores were only recorded in 13/14 and 14/15

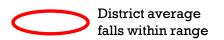
### 2016/17 District Averages

#### Iowa Proficiency Standards (Midyear Scores)

Crede		Math			Reading			Science	
Grade	<b>Not Proficient</b>	Proficient	Advanced	<b>Not Proficient</b>	Proficient	Advanced	<b>Not Proficient</b>	Proficient	Advanced
2	110-151	152-173	>173	110-150	151-171	>171	110-155	156-181	>181
3	125-172	173-197	>197	125-169	170-208	>208	125-170	171-211	>211
4	130-184	185-216	>216	130-184	185-230	>230	130-184	185-229	>229
5	135-196	197-235	>235	135-197	198-247	>247	135-197	198-243	>243

Note: 2nd Grade Test scores were only recorded in 13/14 and 14/15

#### What Does This Mean



 After the elementary boundary changes, the districts test scores decreased slightly but stayed within the proficiency range over the next 3 years.

### **Test Results**

#### Student Test Scores (2nd Grade)

		District			Wallace		т	Timber Ridg	e	E	Beaver Cree	k		Horizon			Lawson	
	Math	Reading	Science	Math	Reading	Science	Math	Reading	Science	Math	Reading	Science	Math	Reading	Science	Math	Reading	Science
13/14	173	171	175	176	174	181	171	165	172	184	179	185	173	170	175	169	169	169
14/15	171	168	171	176	173	180	179	180	179	178	168	176	157	154	158	167	164	166

Note: Only the years 13/14 and 14/15 data included 2nd graders

#### Student Test Scores (Averages of Students in 3rd Grade)

	_	District		_	Wallace		٦	Timber Ridg	ge	. 1	Beaver Cree	k		Horizon		_	Lawson	_
	Math	Reading	Science	Math	Reading	Science	Math	Reading	Science	Math	Reading	Science	Math	Reading	Science	Math	Reading	Science
13/14	192	197	196	197	204	207	188	192	189	198	202	202	193	198	195	184	186	183
14/15	193	198	195	192	202	196	189	197	191	191	193	192	194	197	194	200	200	202
15/16	191	197	193	196	204	203	197	205	198	192	200	192	180	182	180	190	193	192
16/17	186	188	185	191	196	191	181	182	180	183	182	178	188	197	192	187	187	186

#### Student Test Scores (Averages of Students in 4th Grade)

		District			Wallace		٦	Timber Ridg	e	E	Beaver Cree	k		Horizon			Lawson	
	Math	Reading	Science	Math	Reading	Science	Math	Reading	Science	Math	Reading	Science	Math	Reading	Science	Math	Reading	Science
13/14	211	215	213	208	217	214	217	218	221	216	218	218	211	218	214	201	203	200
14/15	214	219	217	217	222	221	212	215	216	213	221	220	218	225	216	211	211	211
15/16	213	221	217	225	235	227	218	225	219	206	212	216	209	217	211	210	217	216
16/17	207	213	210	208	214	214	224	229	227	205	215	207	193	199	194	204	207	207

#### Student Test Scores (Averages of Students in 5th Grade)

	_	District		_	Wallace		7	Timber Ridg	<i>j</i> e	F	Beaver Cree	ek	_	Horizon		_	Lawson	_
	Math	Reading	Science	Math	Reading	Science	Math	Reading	Science	Math	Reading	Science	Math	Reading	Science	Math	Reading	Science
13/14	236	234	225	242	242	232	231	229	219	243	236	229	237	233	226	230	230	221
14/15	231	233	221	227	224	217	241	243	225	234	236	228	229	232	222	223	228	214
15/16	230	233	222	239	245	234	228	232	220	233	235	227	226	230	216	224	225	214
16/17	226	235	221	237	246	228	226	236	223	218	227	216	227	237	219	225	234	220

### Subject Not Proficient Proficient Advanced

#### What Does This Mean

 Schools like Wallace and Timber Ridge had sustainable increases in test scores after the elementary boundary changes, while all other schools saw decreases

Test scores provided by the Johnston Community School District

## **Student Impacted Test Results**

#### 13/14 to 14/15

	2nd Grade			3rd Grade			4th Grade			5th Grade		
	District			District			District			District		ti e
Math	Reading	Science	District Average									
173	171	175	192	197	196	211	215	213	236	234	225	Dist Avei
0.29%	-1.32%	2.12%	1.78%	2.00%	3.71%	1.28%	2.40%	2.82%	0.08%	-0.74%	-0.77%	
174	168	179	196	201	203	213	220	219	237	232	223	ent cted
Math	Reading	Science	Student Impacte									
	Students			Students			Students			Students		I S E
Total	75			85			91			99		er
SPED	2			1			0			2		Number Of Students
FRL	5			13			6			18		Nu Stu

Notes: 1. Data includes students who attended an elementary in the school district in 13/14, and attended a different elementary school in 14/15

2. Students who graduated on to Middle School were not counted

3. Data represented shows 13/14 Test Scores, for students who attended different schools from 13/14 to 14/15

#### <u>What Does This Mean</u>

- The table shows a breakdown of student by grade who were impacted by the 13/14 boundary change
- The table shows how these students performed (above or below district average)
- Although students may have left their elementary school, to a different elementary, little impact was done to change the district average.
- Student migration can account for changes in average test scores at each elementary, but it had little to do with the district average.

All enrollment, demographic, and test data provided by the Johnston Community School District Only 2013/14 and 2014/15 Test data was provided for 2<sup>nd</sup> Grade

45

## **District New Student Test Results**

#### New Students in 14/15

2nd Grade	3rd Grade	4th Grade	5th Grade
District	District	District	District
Math Reading Science 173 171 175	Math Reading Science 192 197 196	Math Reading Science 211 215 213	Math Reading Science 236 234 225
-11.03% -10.86% -15.34%	-8.78% -10.94% -8.26%	-5.08% -8.88% -5.62%	-8.41% -9.71% -5.43%
154 152 149 Math Reading Science <b>Students</b>	176 175 180 Math Reading Science <b>Students</b>	200 196 201 Math Reading Science <b>Students</b>	217 211 213 Math Reading Science <b>Students</b>

Notes: 1. Data includes students who did not attend an elementary in the school district in 13/14, but were new to the district in 14/15

2. Only 2nd through 5th grade were calculated for Elementary School

3. Data represented shows 14/15 Test Scores, for students who were new to the district in 14/15

lowa Prof	owa Proficiency Standards (Midyear Scores)												
Grade	Math Reading Science												
Grade	<b>Not Proficient</b>	Proficient	Advanced	<b>Not Proficient</b>	Proficient	Advanced	<b>Not Proficient</b>	Proficient	Advanced				
2	110-151	152-173	>173	110-150	151-171	>171	110-155	156-181	>181				
3	125-172	173-197	>197	125-169	170-208	>208	125-170	171-211	>211				
4	130-184	185-216	>216	130-184	185-230	>230	130-184	185-229	>229				
5	<b>5</b> 135-196 197-235 >235 135-197 198-247 >247 135-197 198-243 >243												
Note: 2nd G	ote: 2nd Grade Test scores were only recorded in 13/14 and 14/15												

#### What Does This Mean

New incoming students fall in line with declining district averages

### **Beaver Creek Elementary Summary**

- In 2016/17, only the 4<sup>th</sup> Grade Reading Test average was above the district average.
- A total of **32** students attended Beaver Creek Elementary and attended a different school since the elementary boundary changes.
- The 2013/14 boundary had Horizon and Wallace gain areas from Beaver Creek
- After the elementary boundary changes in 2013/14 to 2014/15, the school test scores have declined in all grades.
- A majority of students who attended a different school after the boundary changes were white.
- Since 2013/14 enrollment at Beaver Creek is slightly higher, but Free and Reduce Lunch (FRL), Limited English Proficient (LEP) and Special Education (SPED) have all significantly increased.

Total Change
Beaver Creek District
% %
78.8% 25.0%
675.0% 102.4%
54.8% 7.8%
3.5% 6.4%
כ ק

### **Horizon Elementary Summary**

- Students from Horizon did not have a direct effect on test scores after the boundary change, but did start declining the years after 2014/15 similar to the rest of the district.
- A total of 53 students attended Horizon Elementary and attended a different school since the elementary boundary changes.
- The 2013/14 boundary change had Timber Ridge and Wallace gain area from Horizon and Horizon gain area from Beaver Creek.
- A majority of students who attended a different school after the boundary changes were white.
- The 2<sup>nd</sup> grade students were impacted the greatest with a 16.2 point drop from the 2013/14 school year.
- Since 2013/14 enrollment has decreased, but Free and Reduce Lunch (FRL), Limited English Proficient (LEP) and Special Education (SPED) have all significantly increased.

		13,	/14			14,	/15			15,	/16			16,	/17		Total Di	ference	Total C	Change
Student Type	Но	rizon	Dis	trict	Horizon	District	Horizon	District												
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	#	%	%
FRL	94	13.4%	1,103	16.2%	78	11.6%	990	14.2%	106	15.8%	1,188	16.6%	162	24.4%	1,379	19.0%	+ 68	+ 276	72.3%	25.0%
LEP	48	6.8%	251	3.7%	58	8.7%	410	5.9%	62	9.2%	416	5.8%	69	10.4%	508	7.0%	+21	+ 257	43.8%	102.4%
SPED	51	7.3%	579	8.5%	69	10.3%	606	8.7%	59	8.8%	607	8.5%	62	9.3%	624	8.6%	+11	+ 45	21.6%	7.8%
All Students	701	100.0%	6,827	100.0%	670	100.0%	6,965	100.0%	673	100.0%	7,155	100.0%	665	100.0%	7,263	100.0%	- 36	+ 436	-5.1%	6.4%

### **Lawson Elementary Summary**

- Lawson had the least amount of change to its boundaries in 2013/14 to 2014/15. With very little movement of boundaries, test scores continued to decline at rates similar to the district.
- A total of **38** students attended Lawson Elementary and attended a different school since the elementary boundary changes.
- The 2013/14 boundary change did not change the boundary for Lawson.
- A majority of students who attended a different school after the boundary changes were white.
- Lawson test scores were closely related to the district averages increases and decreases.
- Since 2013/14 enrollment has decreased with Special Education (SPED) decreasing and Limited English Proficient (LEP) and Free and Reduce Lunch (FRL) have increased.

		13,	/14			14,	/15			15,	/16			16,	/17		Total Di	fference	Total C	Change
Student Type	Lav	wson	Dis	trict	Lav	wson	Dis	strict	Lav	wson	Dis	trict	Lav	wson	Dis	trict	Lawson	District	Lawson	District
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	#	%	%
FRL	158	22.8%	1,103	16.2%	124	20.5%	990	14.2%	160	24.5%	1,188	16.6%	167	25.3%	1,379	19.0%	+ 9	+ 276	5.7%	25.0%
LEP	43	6.2%	251	3.7%	46	7.6%	410	5.9%	67	10.3%	416	5.8%	82	12.4%	508	7.0%	+ 39	+ 257	90.7%	102.4%
SPED	87	12.6%	579	8.5%	70	11.6%	606	8.7%	66	10.1%	607	8.5%	63	9.5%	624	8.6%	- 24	+ 45	-27.6%	7.8%
All Students	693	100.0%	6,827	100.0%	604	100.0%	6,965	100.0%	652	100.0%	7,155	100.0%	660	100.0%	7,263	100.0%	- 33	+ 436	-4.8%	6.4%

### **Timber Ridge Elementary Summary**

- Timber Ridge had the least amount of students who attended a different school within the district after the boundary changes. With very little student movement, test scores were at one point above proficiency after the boundary changes.
- A total of **17** students attended Timber Ridge Elementary and attended a different school since the elementary boundary changes.
- The 2013/14 boundary change had Timber Ridge gaining areas from Horizon and Wallace.
- Since 2013/14 enrollment significantly increased and Free and Reduce Lunch (FRL), Limited English Proficient (LEP) and Special Education (SPED) have all significantly increased.

		13	/14			14,	/15			15	/16			16	/17		Total Di	fference	Total (	Change
Student Type		nber dge	Dis	trict		nber idge	Dis	trict		nber idge	Dis	trict		nber dge	Dis	trict	Timber Ridge	District	Timber Ridge	District
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	#	%	%
FRL	97	18.1%	1,103	16.2%	85	12.1%	990	14.2%	122	17.4%	1,188	16.6%	143	19.1%	1,379	19.0%	+ 46	+ 276	47.4%	25.0%
LEP	32	6.0%	251	3.7%	65	9.2%	410	5.9%	73	10.4%	416	5.8%	83	11.1%	508	7.0%	+51	+ 257	159.4%	102.4%
SPED	42	7.8%	579	8.5%	47	6.7%	606	8.7%	59	8.4%	607	8.5%	55	7.4%	624	8.6%	+13	+ 45	31.0%	7.8%
All Students	537	100.0%	6,827	100.0%	703	100.0%	6,965	100.0%	702	100.0%	7,155	100.0%	731	97.7%	7,263	100.0%	+ 194	+ 436	36.1%	6.4%

### **Wallace Elementary Summary**

- Wallace had a large amount of students who attended a different school after the boundary changes.
- A total of 36 students attended Wallace Elementary and attended a different school since the elementary boundary changes.
- The 2013/14 boundary change had Timber Ridge gain areas from Wallace and Wallace gaining areas from Beaver Creek and Horizon.
- A majority of students who attended a different school after the boundary changes were white.
- Since 2013/14 enrollment has increased with Free and Reduce Lunch (FRL) decreasing and Limited English Proficient (LEP) and Special Education (SPED) have increased.

		13,	/14			14,	/15			15,	/16			16,	/17		Total Dif	fference	Total C	Change
Student Type	Wa	allace	Dis	trict	Wa	allace	Dis	strict	Wa	llace	Dis	trict	Wa	allace	Dis	trict	Wallace	District	Wallace	District
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	#	%	%
FRL	81	14.3%	1,103	16.2%	76	13.2%	990	14.2%	66	11.4%	1,188	16.6%	72	12.4%	1,379	19.0%	- 9	+ 276	-11.1%	25.0%
LEP	28	4.9%	251	3.7%	25	4.3%	410	5.9%	32	5.5%	416	5.8%	33	5.7%	508	7.0%	+ 5	+ 257	17.9%	102.4%
SPED	39	6.9%	579	8.5%	45	7.8%	606	8.7%	42	7.3%	607	8.5%	49	8.4%	624	8.6%	+ 10	+ 45	25.6%	7.8%
All Students	567	100.0%	6,827	100.0%	575	100.0%	6,965	100.0%	577	100.0%	7,155	100.0%	582	100.0%	7,263	100.0%	+ 15	+ 436	2.6%	6.4%

### **Findings Summary**

Listed below are the general findings of the boundary study:

- There are no statistical test score correlations of student academic achievement with students impacted by the 13/14 boundary realignment.
- While the reasons to be assigned a different attendance area were not available in the data examined, it appears students who attend a different school had minimal impact on academic score results and tend to perform higher than the district test score averages in all areas.
- New students who move into the district do not perform at the same proficiency level of established Johnston students, no matter what race or demographic situation.
- In 2016/17 district average student performance in Reading, Math, and Science has dropped below scoring 190 – this is the lowest in the data analyzed for this study.
- While the district's free and reduced lunch (FRL) population has increased (13/14 = 16%, 16/17 = 19.0%), all five elementary schools have also increased in FRL students. With the largest increase at Horizon (13.4% to 24.4%) and smallest increase at Timber Ridge (18.1% to 19.1%).
- While the district's Limited English Proficient (LEP) population has increased (13/14 = 3.7%, 16/17 = 7.0%), all five elementary schools have also increased in FRL students. With the largest increase at Lawson (6.3% to 12.4%) and smallest increase at Wallace (4.9% to 7.0%).
- While the district's special education population as a percentage has remained relatively the same (13/14 = 8.5%, 16/17 = 8.6%), two elementary schools have increased, two have decreased and one remains close to the same in special education students. With the largest increase at Beaver Creek (5.8% to 8.7%) and greatest decrease at Lawson (12.6% to 9.5%).
- The District uses an annual process to allocate resources accordingly(title funds and other district staffing).

### **Next Steps**

#### Next Steps:

- Analyze the information in report
- Continue to take steps that will increase test scores district-wide
- Work on how to more quickly assist new students to Johnston to have similar proficiency levels to that of the established resident students
- Determine the best solution which will change the district wide test scores trend

# **Part Three:** Appendix



### **Beaver Creek Elementary**



Beaver Creek Student Migration Change	
2013/14 to 14/15 Student Change	Totals
Out Migration	43
Affected by Boundaries (K-4 in 13/14, 1-5 in 14/15)	103
Resided in Boundary in 13/14, did not attend in 14/15 (Not Affected by Boundaries)	7
In Migration	58
2014/15 to 15/16 Student Change	Totals
Out Migration	67
Affected by Boundaries (K-3 in 13/14, 2-5 in 15/16)	80
Resided in Boundary in 14/15, did not attend in 15/16 (Not Affected by Boundaries)	8
In Migration	74
2015/16 to 16/17 Student Change	Totals
Out Migration	51

	Annual 9	% Change	Total % Difference					
Student Type	Beaver Creek	District	Beaver Creek	District				
	%	%	%	%				
FRL	2.01%	0.71%	8.05%	2.83%				
LEP	0.90%	0.83%	3.59%	3.32%				
SPED	0.72%	0.03%	2.88%	0.11%				

2015/16 to 16/17 Student Change	Tota
Out Migration	51
Affected by Boundaries (K-2 in 13/14, 3-5 in 16/17)	58
Resided in Boundary in 15/16, did not attend in 16/17 (Not Affected by Boundaries)	17
In Migration	55

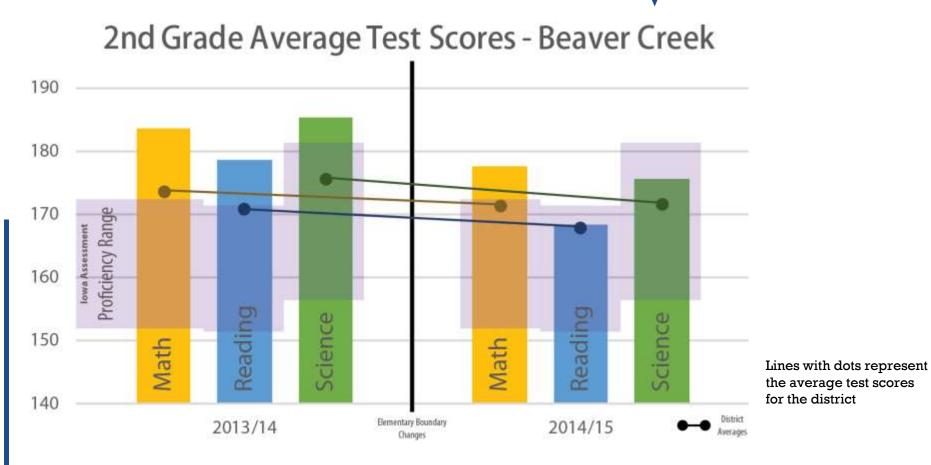
Student Population	Students 13/14 to 14/15	Students 14/15 to 15/16	Students 15/16 to 16/17
Asian	-	-	-
Black	42.9%	25.0%	5.9%
Hispanic	-	-	29.4%
Mixed	-	-	5.9%
White	57.1%	75.0%	58.8%

first year, but did not attend in the following year. (Red Font Numbers)

#### <u>What Does This Mean</u>

- The boundary changes moved a large portion of students to other elementary schools
- The amount of students who were assigned to another school within the district had little impact on Beaver Creek test score averages.

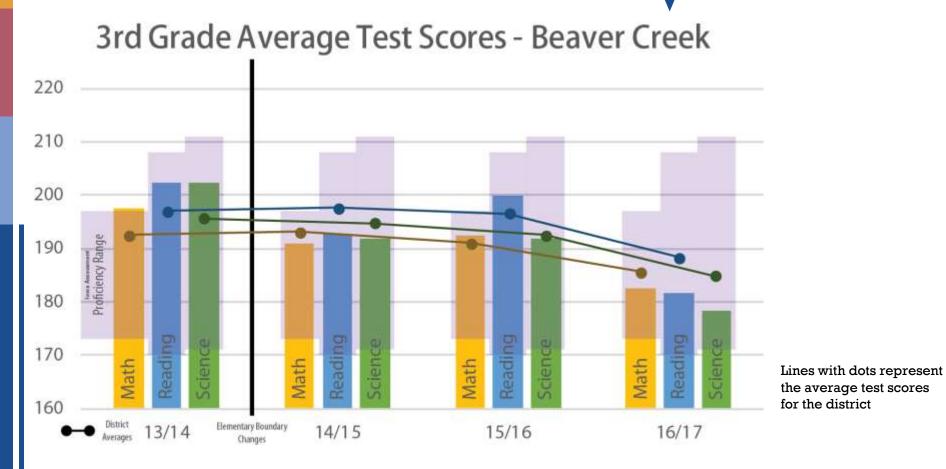
### **Beaver Creek Elementary: 2<sup>nd</sup> Grade**



#### <u>What Does This Mean</u>

- In 2013/14, Beaver Creek was above proficiency in all 3 categories for 2<sup>nd</sup> Graders.
- After the boundary change, test scores dropped by an average of 8.7 points.

### **Beaver Creek Elementary: 3rd Grade**



#### <u>What Does This Mean</u>

- Beaver Creek 3<sup>rd</sup> grade students had decreasing test scores by an average of 6.6 points per year.
- Beaver Creek students only met district averages in all three areas in 15/16.

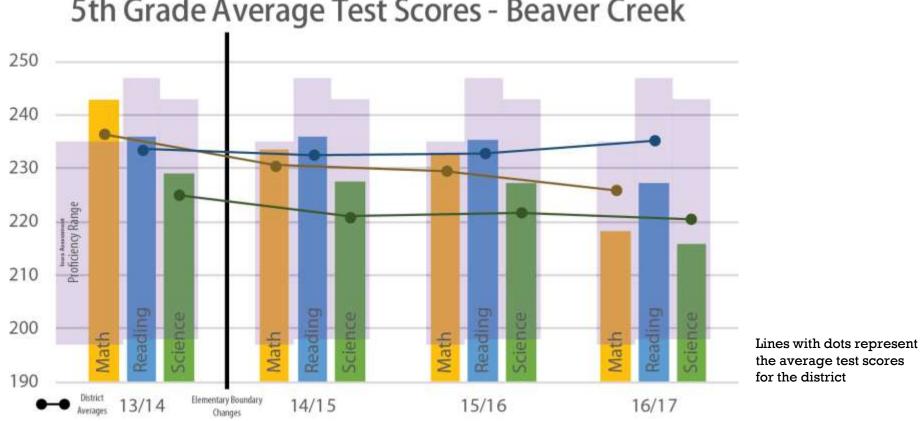
### **Beaver Creek Elementary:** 4<sup>th</sup> Grade

#### 4th Grade Average Test Scores - Beaver Creek 240 230 220 210 Proficiency Range 200 190 science 180 Math Math Math Math Lines with dots represent the average test scores 170 for the district Averages 13/14 Elementary Boundary 14/15 15/16 16/17 Changes

#### <u>What Does This Mean</u>

- Beaver Creek 4<sup>th</sup> grade students had decreasing test scores by an average of 2.9 points per year.
- In 2015/16, no category of test was able to reach district averages.
- In 2016/17, reading scores were higher than the district average

### **Beaver Creek Elementary: 5th Grade**



### 5th Grade Average Test Scores - Beaver Creek

#### What Does This Mean

- Beaver Creek 5<sup>th</sup> grade students had decreasing test scores by an average of 5.1 points per year.
- By 2016/17, Beaver Creek 5<sup>th</sup> grade students average test scores were well below district averages.

### **Horizon Elementary**



Horizon Creek Student Migration Change	
2013/14 to 14/15 Student Change	Totals
Out Migration	65
Affected by Boundaries (K-4 in 13/14, 1-5 in 14/15)	173
Resided in Boundary in 13/14, did not attend in 14/15 (Not Affected by Boundaries)	17
In Migration	83
	_
2014/15 to 15/16 Student Change	Totals
Out Migration	69
Affected by Boundaries (K-3 in 13/14, 2-5 in 15/16)	95
Resided in Boundary in 14/15, did not attend in 15/16 (Not Affected by Boundaries)	24
In Migration	95
2015/16 to 16/17 Student Change	Totals
Out Migration	69
Affected by Boundaries (K-2 in 13/14, 3-5 in 16/17)	81

	Annual %	6 Change	Total % D	oifference
Student Type	Horizon	District	Horizon	District
	%	%	%	%
FRL	2.74%	0.71%	10.95%	2.83%
LEP	0.88%	0.83%	3.53%	3.32%
SPED	0.51%	0.03%	2.05%	0.11%

Reside Studen			
Student Population	Students 13/14 to 14/15	Students 14/15 to 15/16	Students 15/16 to 16/17
Asian	5.9%	4.2%	-
Black	5.9%	-	8.3%
Hispanic	-	8.3%	-
Mixed	-	4.2%	-
White	88.2%	83.3%	91.7%

Note: References students who resided in their elementary boundary in the first year, but did not attend in the following year. (Red Font Numbers)

#### <u>What Does This Mean</u>

In Migration

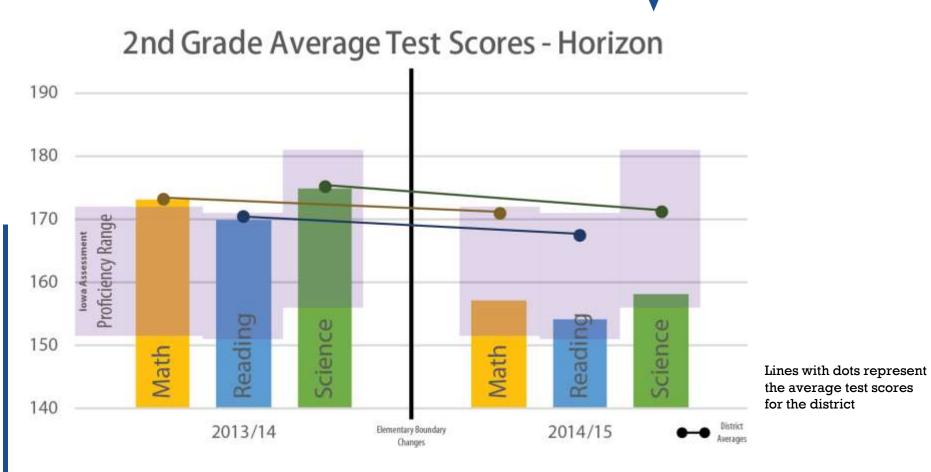
Horizon had significant changes to its boundaries

Resided in Boundary in 15/16, did not attend in 16/17 (Not Affected by Boundaries)

 A majority of students who were assigned a different school, were white and had little impact on the schools average test scores.

12 65

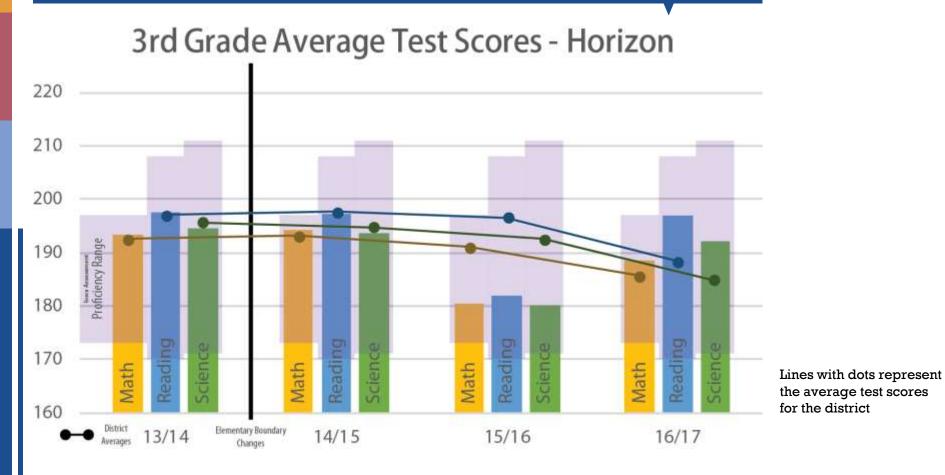
### **Horizon Elementary: 2<sup>nd</sup> Grade**



#### <u>What Does This Mean</u>

- Horizon 2<sup>nd</sup> Grade had decreasing test scores by an average of 16.2 points.
- The Math test was over proficiency in 2013/14, and after the boundary change, was well below district average.

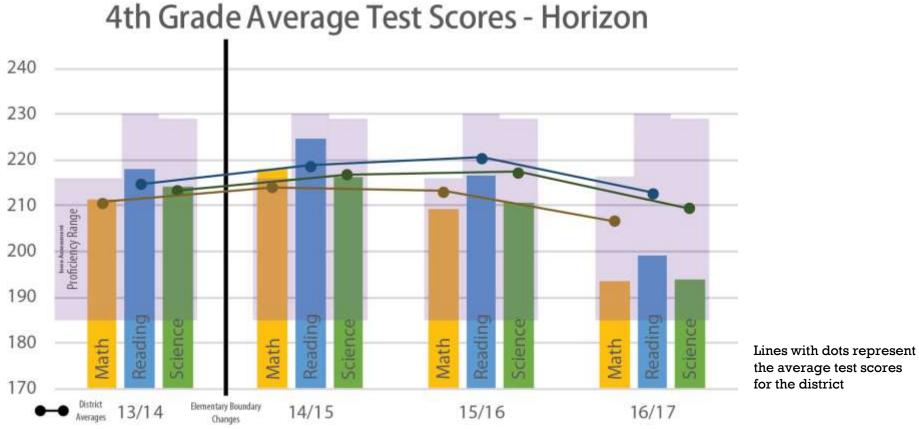
### Horizon Elementary: 3<sup>rd</sup> Grade



#### <u>What Does This Mean</u>

- 2015/16 scores had a major decline, but increased by 2016/17 to be over the district average in all three tests.
- Horizon 3<sup>rd</sup> Grade students had their average test scores decrease by 0.86 points per year.

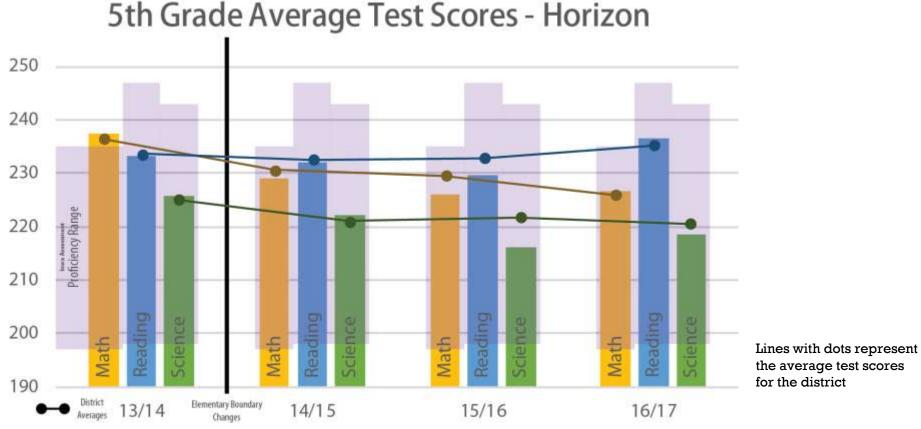
### Horizon Elementary: 4th Grade



#### What Does This Mean

- After the elementary boundary change, the 4<sup>th</sup> grade students from Horizon continued to increase their test scores the next year, but then proceeded to decline to well below district averages.
- Horizon 4<sup>th</sup> grade students decreased their average test score by 6.3 points per year

### **Horizon Elementary: 5th Grade**



#### What Does This Mean

- Math scores were above proficiency before the elementary boundary changes, then proceeded to decline, but achieving above district average in 2016/17.
- Although test scores have declined by an average of 1.6 points per year, in 2016/17, Math and Reading scores were above district averages.

### Lawson Elementary



Lawson Creek Student Migration Change	
2013/14 to 14/15 Student Change	Totals
Out Migration	72
Affected by Boundaries (K-4 in 13/14, 1-5 in 14/15)	11
Resided in Boundary in 13/14, did not attend in 14/15 (Not Affected by Boundaries)	11
In Migration	43
2014/15 to 15/16 Student Change	Totals
Out Migration	43
Affected by Boundaries (K-3 in 13/14, 2-5 in 15/16)	7
Resided in Boundary in 14/15, did not attend in 15/16 (Not Affected by Boundaries)	7
In Migration	65
2015/16 to 16/17 Student Change	Totals
Out Migration	42

	Annual %	6 Change	Total % Difference	
Student Type	Lawson	District	Lawson	District
	%	%	%	%
FRL	0.63%	0.71%	2.50%	2.83%
LEP	1.55%	0.83%	6.22%	3.32%
SPED	-0.75%	0.03%	-3.01%	0.11%

2015/16 to 16/17 Student Change	Totals
Out Migration	42
Affected by Boundaries (K-2 in 13/14, 3-5 in 16/17)	3
Resided in Boundary in 15/16, did not attend in 16/17 (Not Affected by Boundaries)	20
In Migration	59

Student Population	Students 13/14 to 14/15	Students 14/15 to 15/16	Students 15/16 to 16/17
Asian	-	-	10.0%
Black	-	-	5.0%
Hispanic	18.2%	-	5.0%
Mixed	-	-	5.0%
White	81.8%	100.0%	75.0%

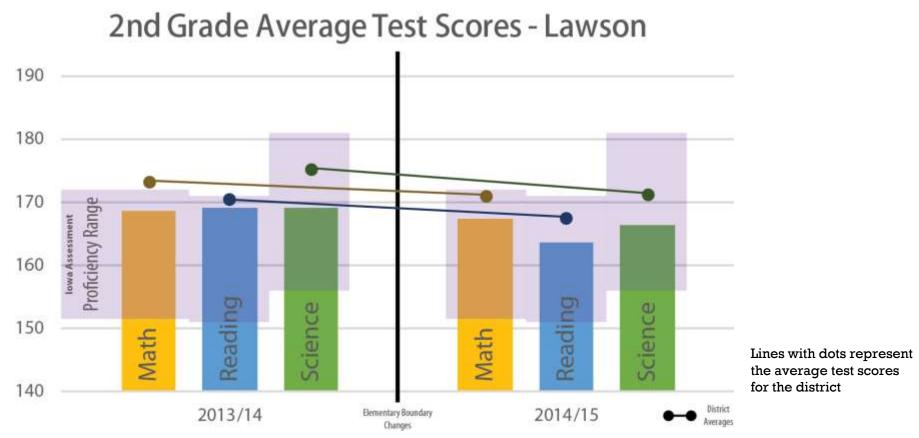
first year, but did not attend in the following year. (Red Font Numbers)

#### <u>What Does This Mean</u>

Laura and Charles Church and Mignation Change

- Lawson had little changes to its boundaries between the 2013/14 and 2014/15 years.
- With little boundary changes, Lawson had the largest number of students assigned a different school within the district A large majority of students were white.

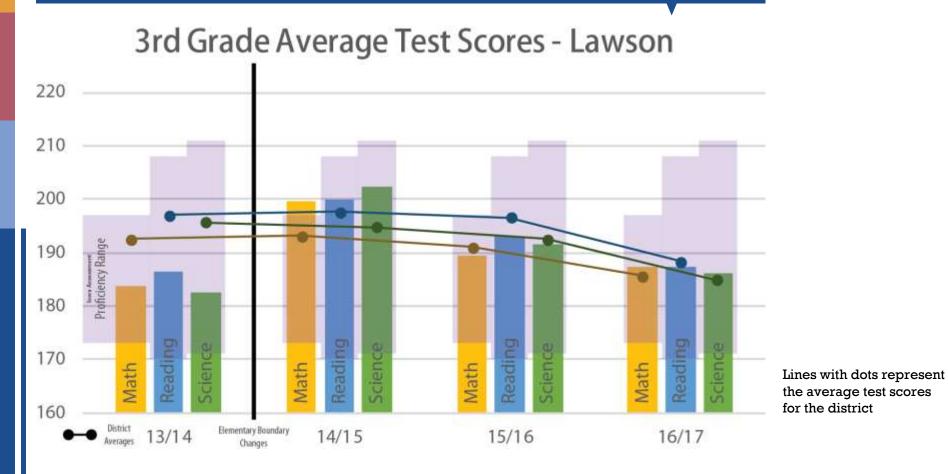
### Lawson Elementary: 2<sup>nd</sup> Grade



#### <u>What Does This Mean</u>

- Lawson 2<sup>nd</sup> Grade students test scores declined by 3.2 points per year, a faster rate than the district at 3.0 points per year.
- Lawson 2<sup>nd</sup> grade students were below district averages before and after the elementary boundary change.

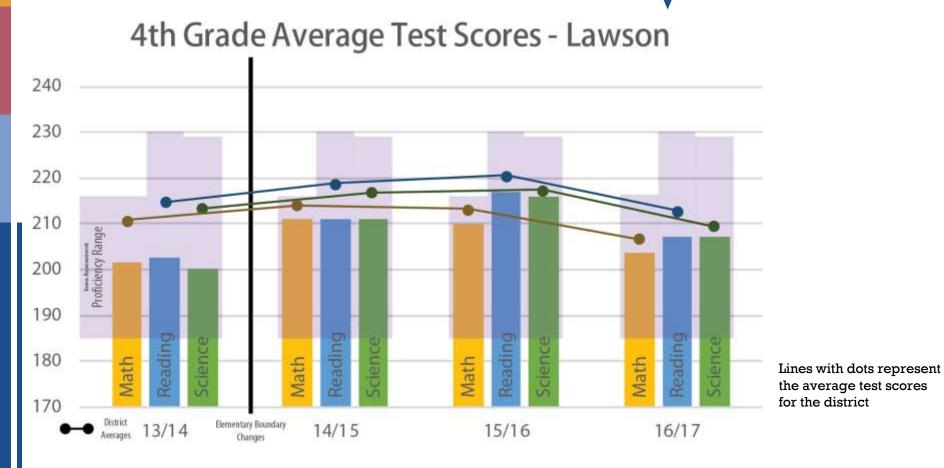
### Lawson Elementary: 3<sup>rd</sup> Grade



#### <u>What Does This Mean</u>

- Lawson 3<sup>rd</sup> grade students increased their test scores the year after the boundary change by an average of 16.3 points, reaching above proficiency in Math the next year.
- After the 2014/15 school year, scores started to decline similar to the district averages.

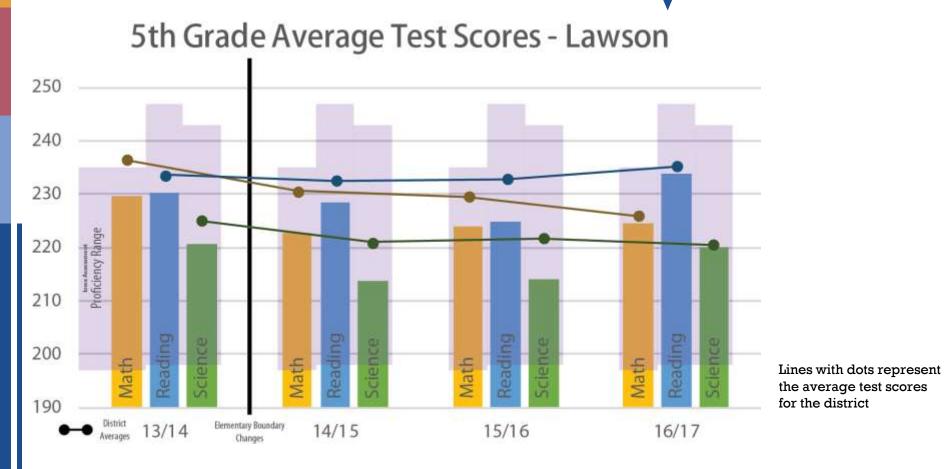
### Lawson Elementary: 4<sup>th</sup> Grade



#### <u>What Does This Mean</u>

- Lawson 4<sup>th</sup> grade students did not reach the district average in any test category in any year.
- Although Lawson students were not able to reach district averages, they did increase their scores from 13/14 by an average of 1.5 points per year.

### Lawson Elementary: 5<sup>th</sup> Grade



#### <u>What Does This Mean</u>

- Lawson 5<sup>th</sup> grade students saw a natural reduction in test scores by an average of 0.3 points per year.
- Lawson 5<sup>th</sup> grade students did not achieve district averages in any year, but were closest in their Science scores in 2016/17.

### **Timber Ridge Elementary**



Timber Ridge Student Migration Change	
2013/14 to 14/15 Student Change	Totals
Out Migration	51
Affected by Boundaries (K-4 in 13/14, 1-5 in 14/15)	5
Resided in Boundary in 13/14, did not attend in 14/15 (Not Affected by Boundaries)	1
In Migration	47
2014/15 to 15/16 Student Change	Totals
Out Migration	46
Out Migration Affected by Boundaries (K-3 in 13/14, 2-5 in 15/16)	46 0
5	

	Annual % Change		<b>Total % Difference</b>		
Student Type	Timber Ridge	District	Timber Ridge	District	
	%	%	%	%	
FRL	0.26%	0.71%	1.05%	2.83%	
LEP	1.28%	0.83%	5.14%	3.32%	
SPED	-0.12%	0.03%	-0.47%	0.11%	

2015/16 to 16/17 Student Change	Totals
Out Migration	54
Affected by Boundaries (K-2 in 13/14, 3-5 in 16/17)	0
Resided in Boundary in 15/16, did not attend in 16/17 (Not Affected by Boundaries)	7
In Migration	39

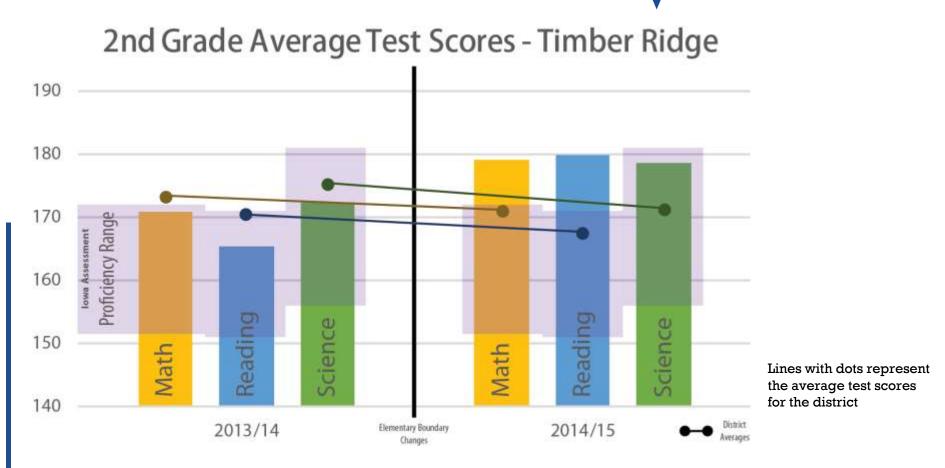
Student Population	Students 13/14 to 14/15	Students 14/15 to 15/16	Students 15/16 to 16/17
Asian	-	-	14.3%
Black	-	-	-
Hispanic	100.0%	22.2%	-
Mixed	-	11.1%	-
White	-	66.7%	85.7%

first year, but did not attend in the following year. (Red Font Numbers)

#### <u>What Does This Mean</u>

- Timber Ridge had the least amount of students who attended another school within the district.
- In 2015/16 students performed above proficiency in all but 5<sup>th</sup> grade.

### **Timber Ridge Elementary: 2<sup>nd</sup> Grade**

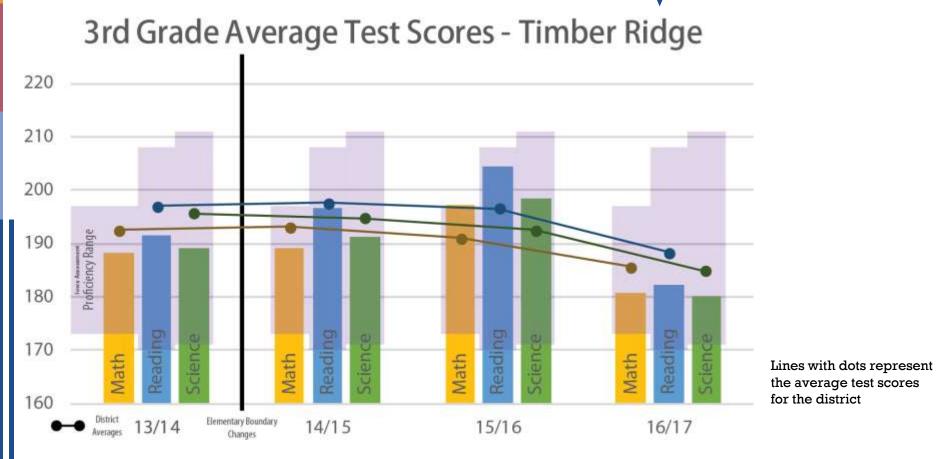


#### <u>What Does This Mean</u>

71

- Timber Ridge 2<sup>nd</sup> grade students increased their scores by an average of 9.6 points per year.
- Both Math and Reading average test scores were above proficiency after the boundary changes.

### **Timber Ridge Elementary: 3<sup>rd</sup> Grade**



#### <u>What Does This Mean</u>

- Timber Ridge 3<sup>rd</sup> grade students increased their scores from 2013/14 to 2015/16, then declined harshly to well below district averages
- With such an abrupt decline in 2016/17, the district averaged a decline of 2.8 points per year. Before 2016/17 the students averaged an increase of 5.3 points per year.

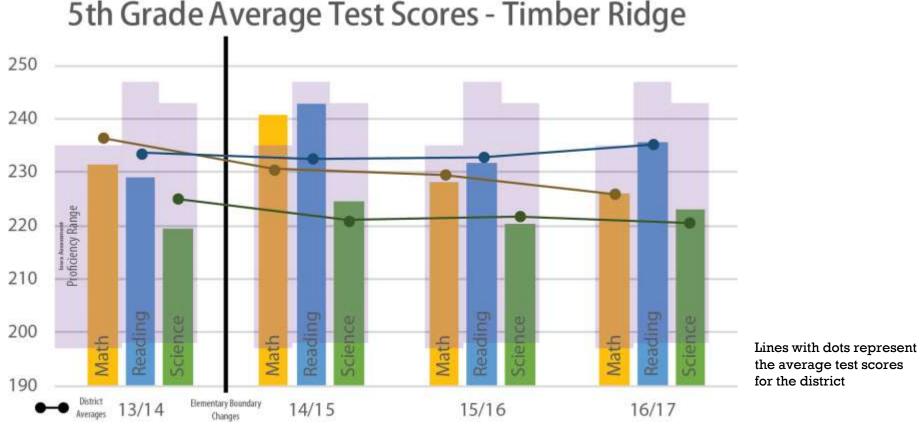
### **Timber Ridge Elementary:** 4<sup>th</sup> Grade

#### 4th Grade Average Test Scores - Timber Ridge 240 230 220 210 Proficiency Range 200 190 cience science 180 Math Math Math Math Lines with dots represent the average test scores 170 for the district Averages 13/14 Elementary Boundary 14/15 15/16 16/17 Changes

#### <u>What Does This Mean</u>

- Timber Ridge 4<sup>th</sup> grade students increased their test scores every year by an average of 2.8 points per year, and were above proficiency in Math in 2013/14, 2015/16, and 2016/17.
- While the rest of the district was seeing declining scores from 2015/16 to 2016/17, Timber Ridge 4<sup>th</sup> graders were had increasing scores.

### **Timber Ridge Elementary: 5th Grade**



### 5th Grade Average Test Scores - Timber Ridge

#### What Does This Mean

- The year after the elementary boundary change, test scores increased above district averages, then started to follow district tendencies of decreasing.
- Timber Ridge 5<sup>th</sup> graders increased their scores by 0.6 points per year

### **Wallace Elementary**



2013/14 to 14/15 Student Change	Totals
Out Migration	49
Affected by Boundaries (K-4 in 13/14, 1-5 in 14/15)	109
Resided in Boundary in 13/14, did not attend in 14/15 (Not Affected by Boundaries)	6
In Migration	147
2014/15 to 15/16 Student Change	Totals
Out Migration	65
Affected by Boundaries (K-3 in 13/14, 2-5 in 15/16)	80
Resided in Boundary in 14/15, did not attend in 15/16 (Not Affected by Boundaries)	14
In Migration	147
2015/16 to 16/17 Student Change	Totals
Out Migration	46
Affected by Boundaries (K-2 in 13/14, 3-5 in 16/17)	66
Resided in Boundary in 15/16, did not attend in 16/17 (Not Affected by Boundaries)	16
In Migration	117

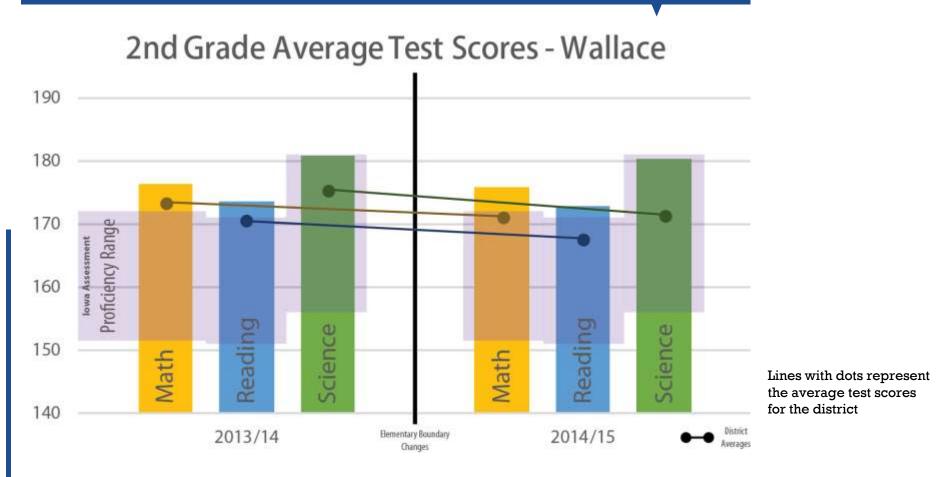
	Annual % Change		Total % Difference		
Student Type	Wallace	District	Wallace	District	
	%	%	%	%	
FRL	-0.48%	0.71%	-1.91%	2.83%	
LEP	0.18%	0.83%	0.73%	3.32%	
SPED	0.39%	0.03%	1.54%	0.11%	

Student	Students	Students	Students
Population	13/14 to 14/15	14/15 to 15/16	15/16 to 16/17
Asian	16.67%	7.14%	6.25%
Black	16.67%	-	18.75%
Hispanic	-	7.14%	-
Mixed	-	-	-
White	16.67%	85.71%	68.75%
Blank	50.00%	-	6.25%

#### <u>What Does This Mean</u>

- Wallace Elementary had significant changes to its boundaries in 13/14 but increased its test scores
- Although students were assigned a different elementary boundary to attend, Wallace had the highest test scores in the district

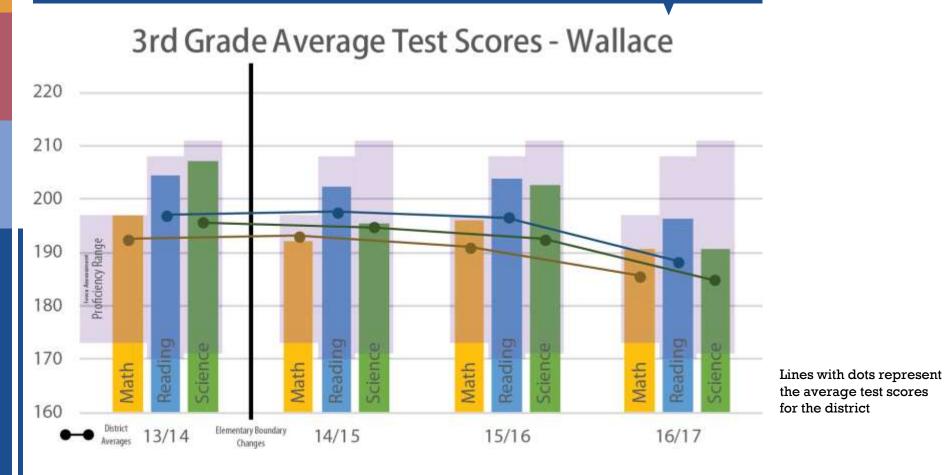
### Wallace Elementary: 2<sup>nd</sup> Grade



#### <u>What Does This Mean</u>

- Wallace Elementary test scores were relatively steady after the boundary change for 2<sup>nd</sup> graders.
- The district was seeing declines in test scores during this same time for its other 2<sup>nd</sup> graders.

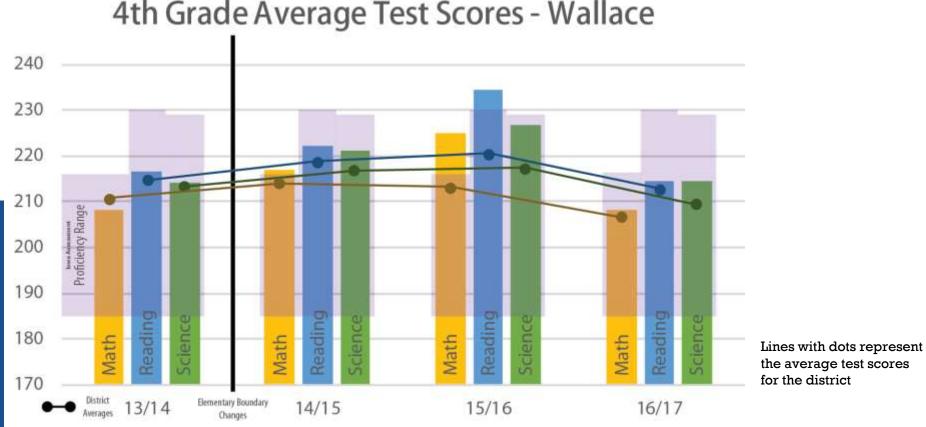
### Wallace Elementary: 3<sup>rd</sup> Grade



#### <u>What Does This Mean</u>

- Wallace 3<sup>rd</sup> grade students declined the year after the boundary change, but came back the next year to be over the district averages in all categories.
- The district continued to see decline in test scores amongst its other 3<sup>rd</sup> grade classes.

### Wallace Elementary: 4<sup>th</sup> Grade

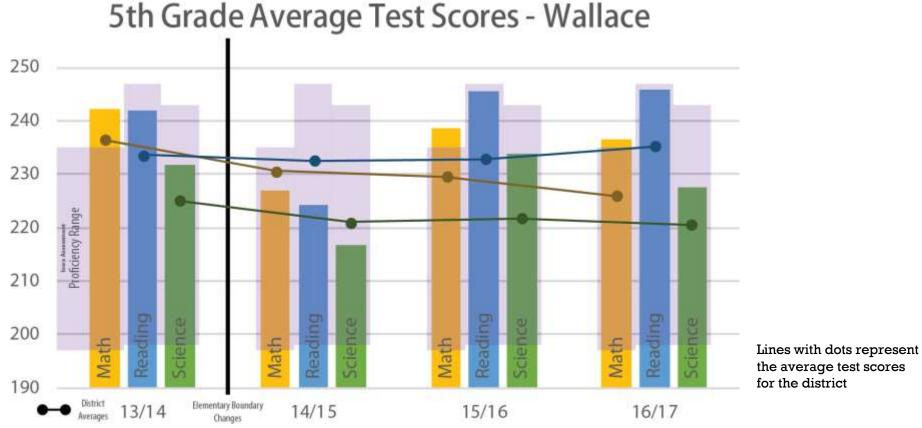


### 4th Grade Average Test Scores - Wallace

#### What Does This Mean

- 4<sup>th</sup> grade students increased their test scores until the 16/17 year, but were still above the district average.
- In this same time, the district was seeing an increase in test scores in all other 4<sup>th</sup> grade classes.

### Wallace Elementary: 5<sup>th</sup> Grade



#### What Does This Mean

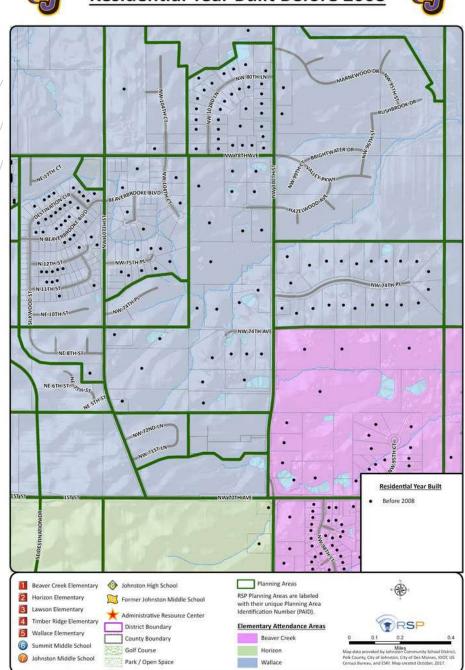
- Wallace 5th grader test scores declined well below the district averages in 14/15, but increased again the next couple of years being to become above proficiency in Math in 15/16 and 16/17.
- Overall, Wallace has been one of the highest performing schools in the district.

NOTES	



#### **Residential Year Built Before 2008**





### **Residential Year Built Video**

This video will illustrate how quickly an area can develop

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