



Planning for the Future

2020/21 Enrollment Analysis
January 2021



Discussion Points

1 Introduction

Enrollment and Demographics (Part One)

- Key Considerations
- Maps: Planning Areas and Attendance Areas
- Sophisticated Forecast Model (SFM)
- Past Enrollment and Change
- Baseline Maps and Data

Development (Part Two)

- Population, Development, and Enrollment Trends
- Yield Rate of Students
- Maps and Data

Enrollment Projections (Part Three)

- Past, Current, Future Enrollment
- Building Projections

Moving Forward

- Next Steps
- Demographics

Who Is 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
- Projection accuracy of 97% or greater



Over **130** clients in
Arkansas, Iowa, Illinois,
Kansas, Minnesota,
Missouri, Nebraska, North
Dakota, Oklahoma, and
Wisconsin

Expectations

Below are some key points to think about as you examine how the analysis looked at creating a planning tool for making decisions:

- Project timeline a result of ensuring student data could represent as close as possible the Official Count with attributes that would allow RSP to forecast enrollment at a parcel level geography
- The findings were not focused on supporting or contradicting any past internal or outsourced studies – the analysis is based on data, data, and more data
- The study factored in many different data sets to provide data driven analysis that is the foundation to the RSP Statistical Forecast Model (SFM)
- Enrollment change in the community is influenced by but not limited to the birth rate, demographics, types of development and/or housing affordability
- Other items such as choices people make with the impact of COVID-19 must be monitored to ensure those choices result in good school planning decisions
- The study does not provide specific information about which site would be best suited for a new facility or for that matter should the district build any new facility – this analysis is one portion of how to make that decision
- This analysis is based on the same grade configuration and educational programming expectations the patrons have for each student
- Projecting enrollment is not a science – like life in general some assumptions happen that may lead to greater enrollment while others toward a smaller enrollment
- The goal of this study is to help the board, administration, and public understand how to make the best decision for the students at the classroom level

Making it Happen

School District

- Platte County R-3 School District

County, City & Others

- Platte & Clay County
- Platte City
- MODOT
- KCMO GIS
- United States Geological Survey
- Census Bureau/ Esri



Thank you!

**Accurate projections are a result of the local entities providing quality data.*

**The data utilized in the analysis is the best available information each of the entities could provide at the time of the study.*



Part One

Enrollment & Demographics



100,000 Foot Perspective



- Enrollment decreased but overall forecasted where enrollment will increase to about to about 4,800 students by 2025/26
- Kindergarten enrollment will range from 300 to 400 students
- District increases by nearly 500 students (+10.7%) (+1.4% to +3.9% a year)
- Elementary increases by about 300 students (+14.5%) (+1.2% to +4.5% a year)
- Middle School increases by nearly 60 students (+5.5%) (-2.4% to +4.9% a year)
- High School increases by nearly 130 students (+9.6%) (+0.4% to +3.4% a year)

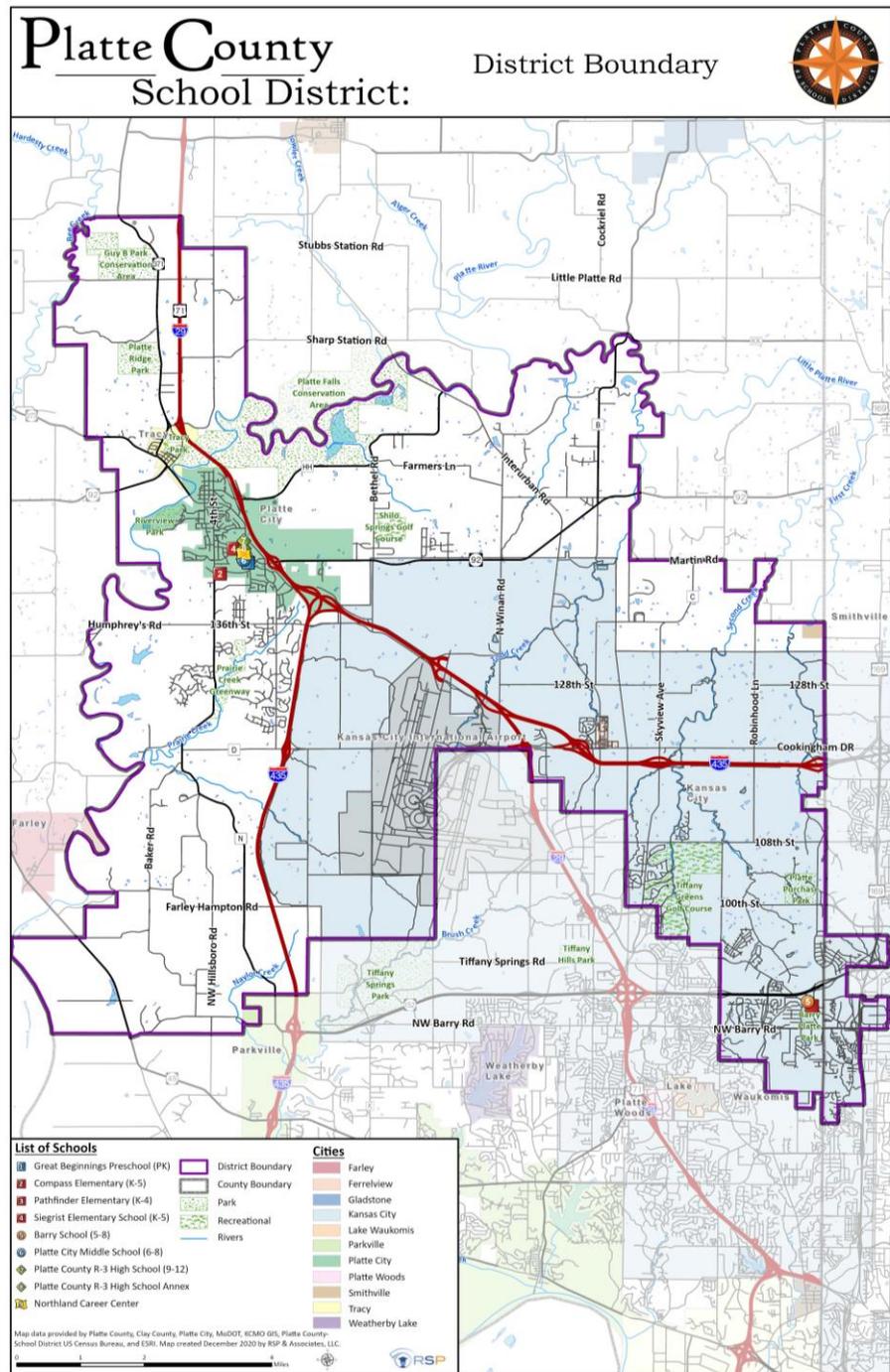


- Elementary Reside Exceed Capacity (District-wide by 2025/26):
 - Great Beginnings PK, Compass ES, and Pathfinder ES
- Middle School Reside Capacity:
 - No school exceeds both capacities
- High School Reside Capacity:
 - No school exceeds both capacities
- Capacity calculations may change to address what has been learned from COVID-19



- There is significant opportunity for growth on vacant land
- The impact COVID-19 may have on the economy and housing starts must be monitored
- Majority of residential development will occur off Platte Purchase Dr. and near Prairie Creek

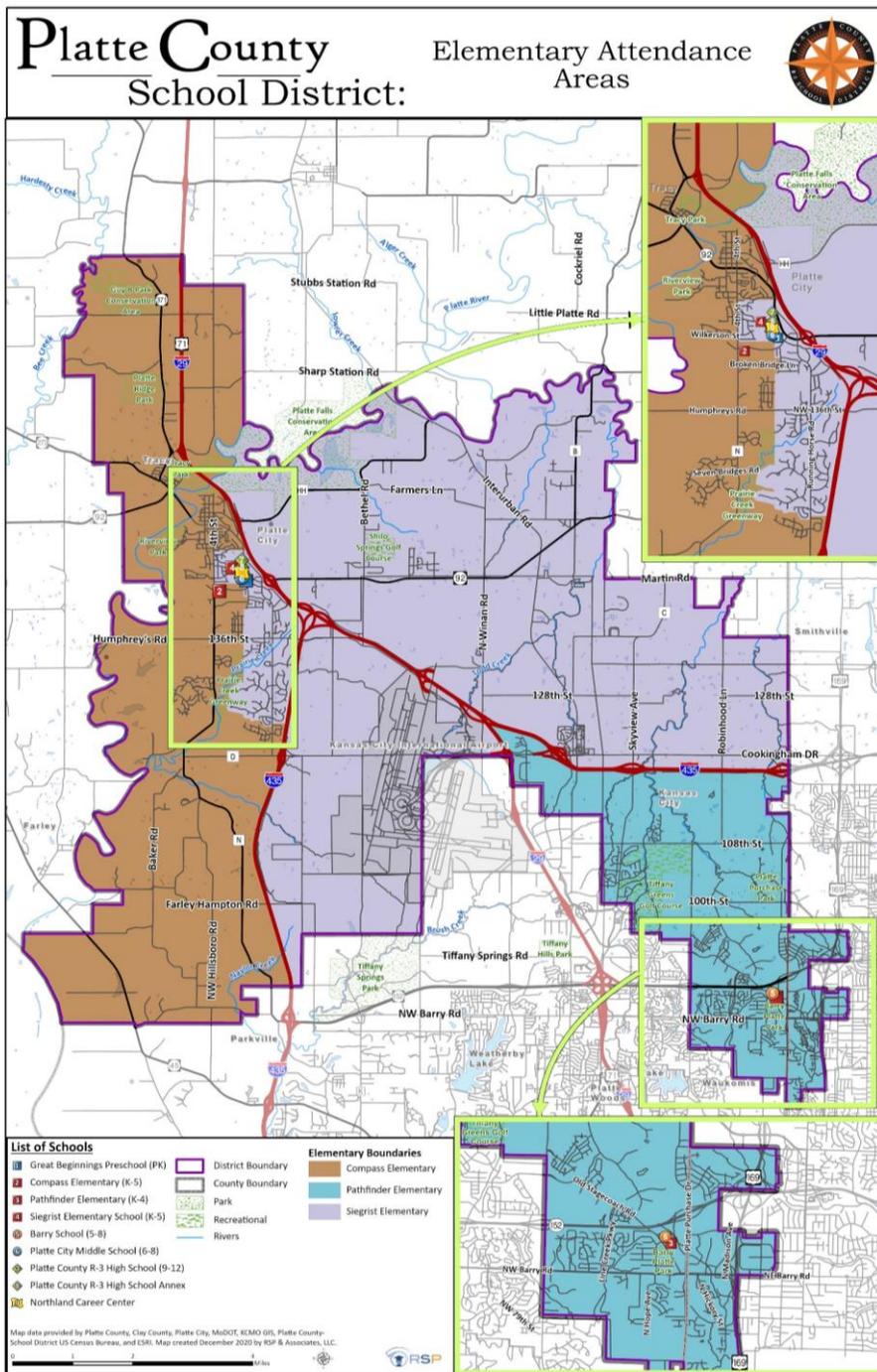
District Boundary



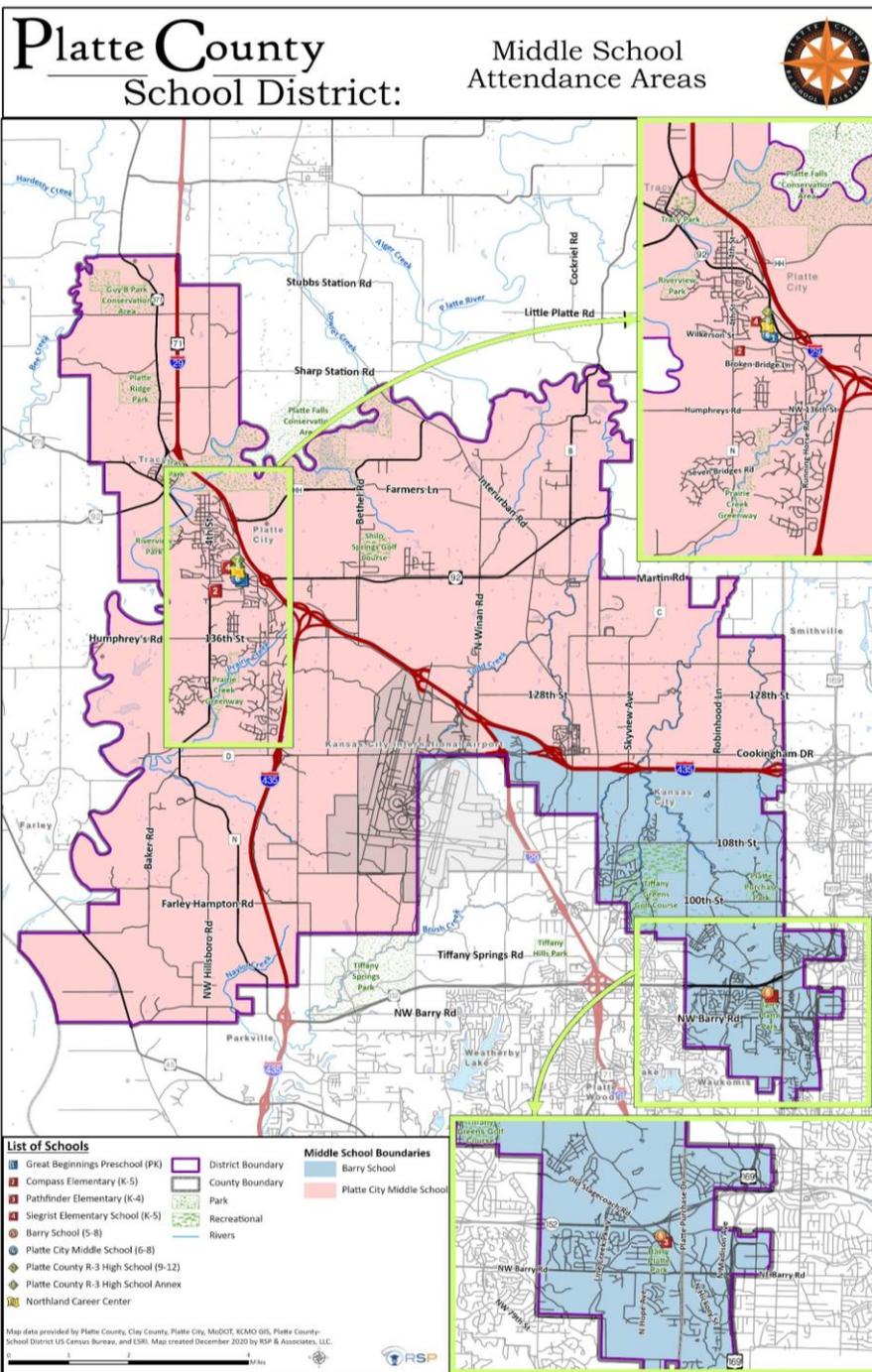
- District Boundary (Purple Line)
- Major Streets
- Major water features & cultural features
- Municipality Limits
 - Farley (Red)
 - Ferrelview (Peach)
 - Gladstone (Blue)
 - Kansas City (Light Blue)
 - Lake Waukomis (Orange)
 - Parkville (Light Green)
 - Platte City (Green)
 - Platte Woods (Pink)
 - Smithville (Tan)
 - Tracy (Yellow)
 - Weatherby Lake (Purple)

Elementary Attendance Areas

- District Boundary (Purple Line)
- Major Streets
- Major water features & cultural features
- Attendance Areas
 2. Compass ES K-5 (Brown)
 3. Pathfinder ES K-4 (Blue)
 5. Barry MS 5-8 (feeder for Pathfinder)
 4. Siegrist ES K-5 (Purple)



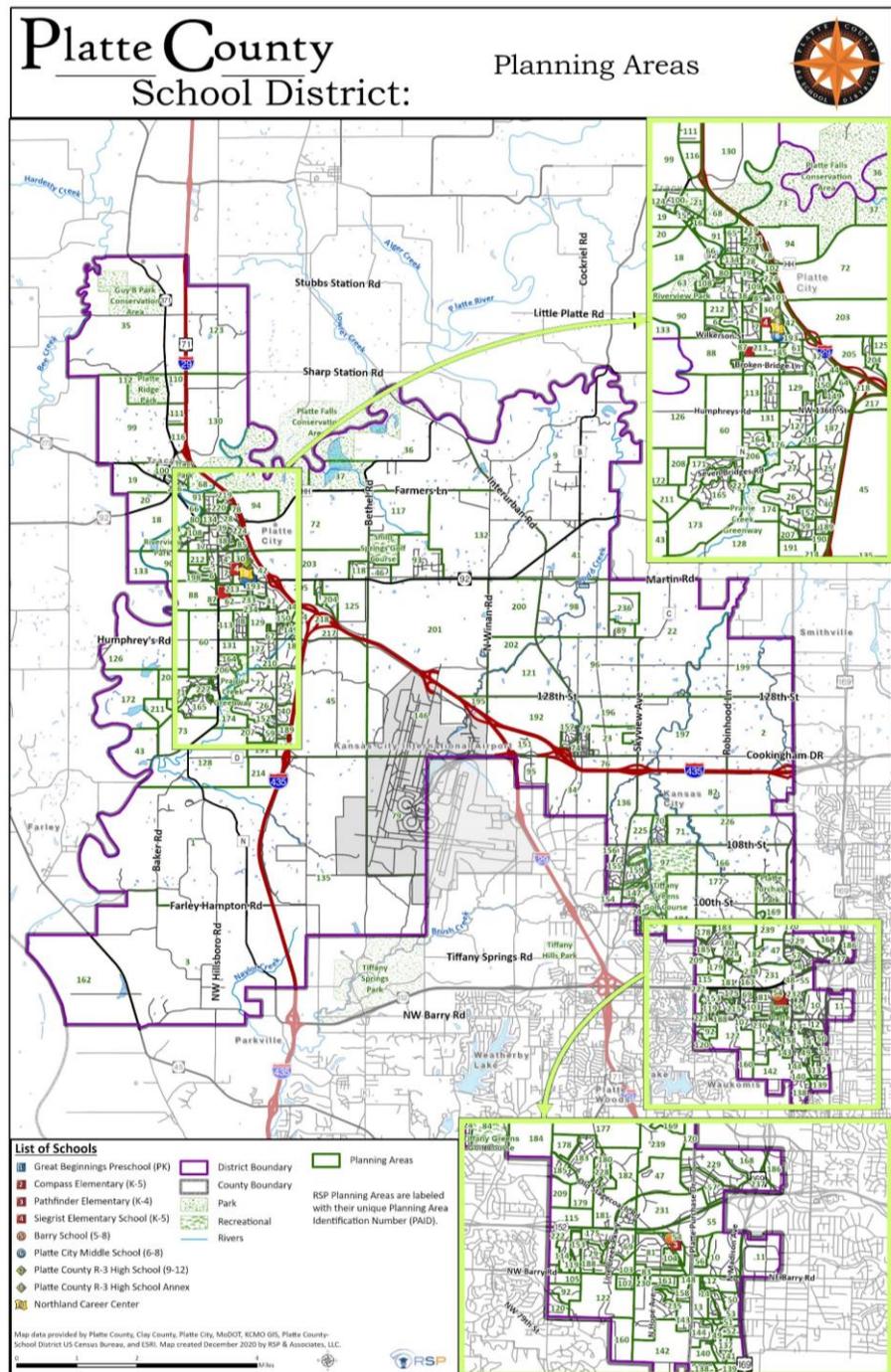
Middle School Attendance Areas



- District Boundary (Purple Line)
 - Major Streets
 - Major water features & cultural features
 - Attendance Areas
5. Barry School (Blue)
 6. Platte City MS (Pink)

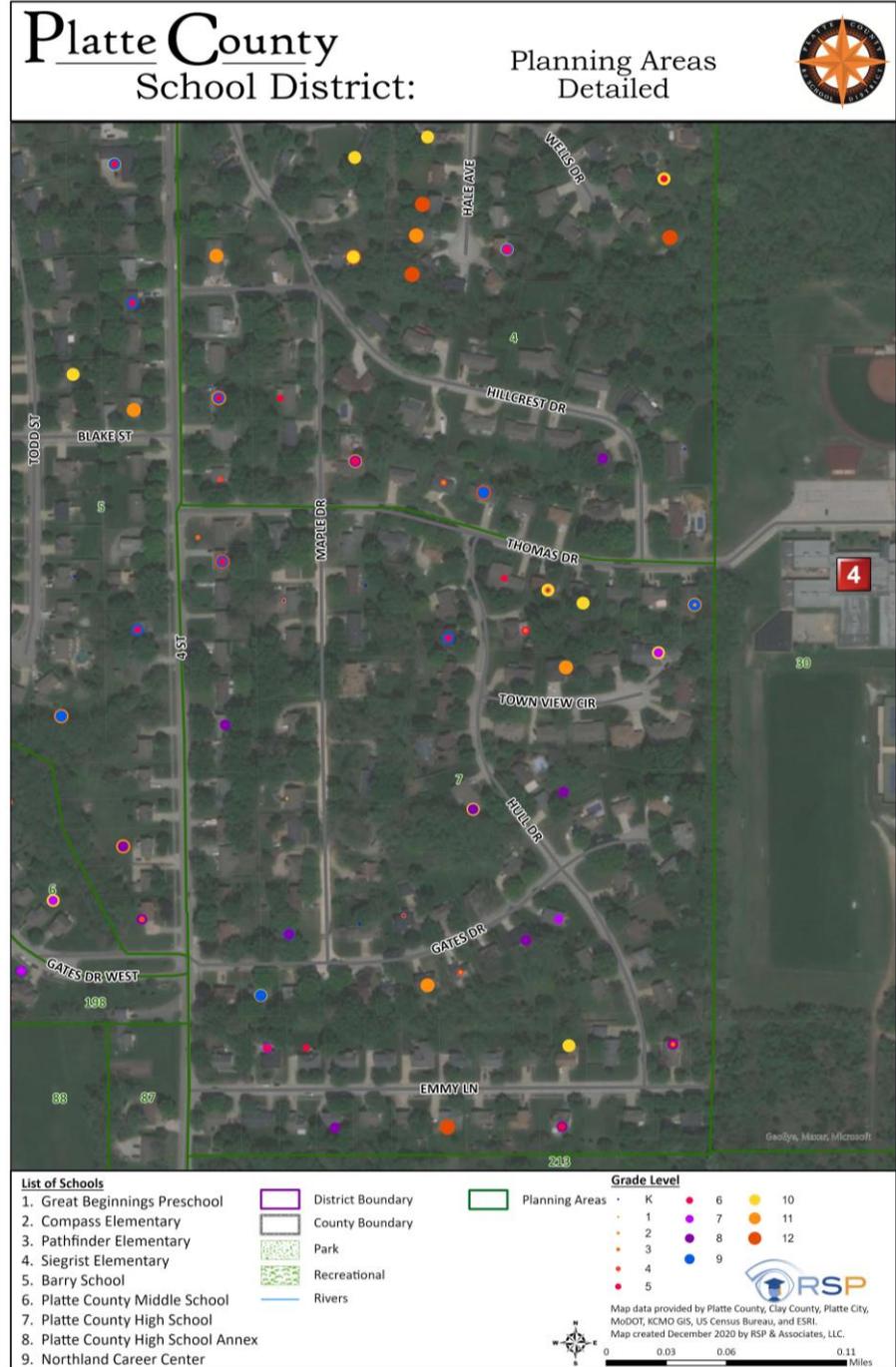
Planning Areas

- There are over 200 planning areas RSP monitors for demographic, development, and enrollment data sets
- Planning Areas are created by:
 - 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



Detailed Planning Areas

- Zoomed in planning areas (green)
- Displays the power of GIS data & Information
- See where students are located by grade (color dots) in relation to streets, subdivisions, and parcels
- For many households, there will be several dots representing households who have multiple students
- Illustrates how the planning areas are tied to development types at the parcel level
- This example displays students near Siegrist Elementary School



Sophisticated Forecast Model

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



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.

RSP SFM Details

- The important factor concerning the RSP SFM is that it is a Social Science not an exact science; it identifies behavior trends to determine the propensity of them to be recreated:
- The value of the RSP SFM is how our team creates and analyzes the geography at a planning area level for any commonality which will help produce an accurate forecast
- Some of the variables examined for each planning area (but not limited to):
 - Natural Cohort (District data)
 - Planning Area Subdivision Lifecycle (RSP variable)
 - Value of Homes (County assessor data)
 - Type of Residential unit (SF, MF, DUP, TH, Resort, etc.) (County assessor data)
 - Year units were built (County assessor data)
 - Estimated female population (Census data)
 - Estimated 0-4 population (Census data)
 - Existing Land Use (County and City data)
 - Future Land Use (County and City data)
 - Capital Improvement Plan (CIP) (County and City data)
 - Future Developments (County and City data)
 - In-Migration of students (District data)
 - Out-Migration of students (District data)

Birth Information

Platte County MO Live Births and Platte County R-3 Kindergarten 5-Years Later

Calendar Year	# Live Births	Birth Change	% Birth Change	School Year	# Kdg	%Kdg of Live Births
2005	1,112			2010/11	314	28.2%
2006	1,068	-44	-4.0%	2011/12	306	28.7%
2007	1,092	24	2.2%	2012/13	302	27.7%
2008	1,088	-4	-0.4%	2013/14	311	28.6%
2009	1,091	3	0.3%	2014/15	292	26.8%
2010	1,157	66	6.0%	2015/16	339	29.3%
2011	1,158	1	0.1%	2016/17	301	26.0%
2012	1,136	-22	-1.9%	2017/18	299	26.3%
2013	1,142	6	0.5%	2018/19	335	29.3%
2014	1,106	-36	-3.2%	2019/20	306	27.7%
2015	1,198	92	8.3%	2020/21	321	26.8%
2016	1,242	44	3.7%			
2017	1,190	-52	-4.2%			
2018	1,219	29	2.4%			
3-Year Average	1,217.0	7.00				
3-Year Weighted Average	1,213.2	4.50				

Source: DHSS - MOPHIMS - Birth MICA and Platte County R-3 School District

Live Birth Observations

- Tracks the number of live births and the corresponding number of kindergarten students five years later
- The number of live births in Platte County is 9.6% greater in 2018 than it was in 2005
- Platte County School District has a range of 26.0% to 29.3% of kindergartens five years later (COVID may have something to do with the lowest range due to choices for home schooling and private schools)
- With greater numbers of live births, it is likely there will be more kindergarten students five years later (estimates from July 2020 from the US Census)

Enrollment by Grade

Enrollment By Grade

Year	PK	K	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Total	Change	% Change
2003/04	0	208	194	188	174	197	199	186	198	191	185	163	145	167	2,395		
2004/05	0	229	207	211	200	191	207	202	199	214	200	186	169	148	2,563	168	7.0%
2005/06	0	224	231	204	223	204	188	215	208	217	222	204	189	171	2,700	137	5.3%
2006/07	29	223	227	234	222	218	223	197	216	212	219	216	209	172	2,817	117	4.3%
2007/08	36	241	236	231	241	229	223	237	203	226	222	229	214	197	2,965	148	5.3%
2008/09	72	283	258	262	238	253	246	244	241	226	244	232	227	208	3,234	269	9.1%
2009/10	66	294	292	255	262	252	262	262	247	254	241	248	244	195	3,374	140	4.3%
2010/11	75	314	294	309	267	283	263	286	267	265	247	245	244	218	3,577	203	6.0%
2011/12	64	306	309	306	313	267	293	279	283	276	280	244	237	210	3,667	90	2.5%
2012/13	68	302	301	312	310	312	292	295	278	292	260	274	237	203	3,736	69	1.9%
2013/14	53	311	310	299	314	314	319	297	293	282	298	263	263	236	3,852	116	3.1%
2014/15	70	292	319	310	307	325	315	320	303	299	292	286	255	270	3,963	111	2.9%
2015/16	67	339	291	328	312	314	343	317	306	305	292	294	265	259	4,032	69	1.7%
2016/17	78	301	351	287	326	321	317	334	315	301	308	291	285	271	4,086	54	1.3%
2017/18	85	299	322	331	303	330	319	312	344	319	320	308	291	289	4,172	86	2.1%
2018/19	68	335	312	326	355	293	347	329	326	338	320	323	295	280	4,247	75	1.8%
2019/20	85	306	338	319	326	370	304	347	337	341	345	322	315	289	4,344	97	2.3%
2020/21	65	321	300	307	300	325	354	320	341	326	346	335	325	305	4,270	-74	-1.7%

Source: Platte County R-3 School District

- Largest K-12 class in 2020/21 – 5th grade (354)
- Smallest K-12 class in 2020/21 – 3rd grade (300)
- The average K-5 class is 318 students
- The average 6-8 class is 329 students
- The average 9-12 class is 328 students
- First decrease in enrollment since student data in 2003/04, likely a result of COVID-19

**All past student data is exported from the district student database allowing the ability to do robust statistical analysis by student geography. The student database export will not always align perfectly with the Official Counts (Statistically 99% greater match by grade).*

Cohort Student Observation

Enrollment Grade Change

From	To	PK PK	PK K	K 1st	1st 2nd	2nd 3rd	3rd 4th	4th 5th	5th 6th	6th 7th	7th 8th	8th 9th	9th 10th	10th 11th	11th 12th	Total Change
2000/01	2001/02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2001/02	2002/03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2002/03	2003/04	0	208	194	188	174	197	199	186	198	191	185	163	145	167	2395
2003/04	2004/05	0	229	-1	17	12	17	10	3	13	16	9	1	6	3	168
2004/05	2005/06	0	224	2	-3	12	4	-3	8	6	18	8	4	3	2	137
2005/06	2006/07	29	223	3	3	18	-5	19	9	1	4	2	-6	5	-17	117
2006/07	2007/08	7	212	13	4	7	7	5	14	6	10	10	10	-2	-12	148
2007/08	2008/09	36	247	17	26	7	12	17	21	4	23	18	10	-2	-6	269
2008/09	2009/10	-6	222	9	-3	0	14	9	16	3	13	15	4	12	-32	140
2009/10	2010/11	9	248	0	17	12	21	11	24	5	18	-7	4	-4	-26	203
2010/11	2011/12	-11	231	-5	12	4	0	10	16	-3	9	15	-3	-8	-34	90
2011/12	2012/13	4	238	-5	3	4	-1	25	2	-1	9	-16	-6	-7	-34	69
2012/13	2013/14	-15	243	8	-2	2	4	7	5	-2	4	6	3	-11	-1	116
2013/14	2014/15	17	239	8	0	8	11	1	1	6	6	10	-12	-8	7	111
2014/15	2015/16	-3	269	-1	9	2	7	18	2	-14	2	-7	2	-21	4	69
2015/16	2016/17	11	234	12	-4	-2	9	3	-9	-2	-5	3	-1	-9	6	54
2016/17	2017/18	7	221	21	-20	16	4	-2	-5	10	4	19	0	0	4	86
2017/18	2018/19	-17	250	13	4	24	-10	17	10	14	-6	1	3	-13	-11	75
2018/19	2019/20	17	238	3	7	0	15	11	0	8	15	7	2	-8	-6	97
2019/20	2020/21	-20	236	-6	-31	-19	-1	-16	16	-6	-11	5	-10	3	-10	-74
3-Yr Avg		-6.7	241.3	3.3	-6.7	1.7	1.3	4.0	8.7	5.3	-0.7	4.3	-1.7	-6.0	-9.0	32.7
3-Yr Wavg		-7.2	239	0.2	-12.5	-5.5	2.8	-1.5	9.7	2	-1.5	5	-3.8	-3.3	-8.8	7.8

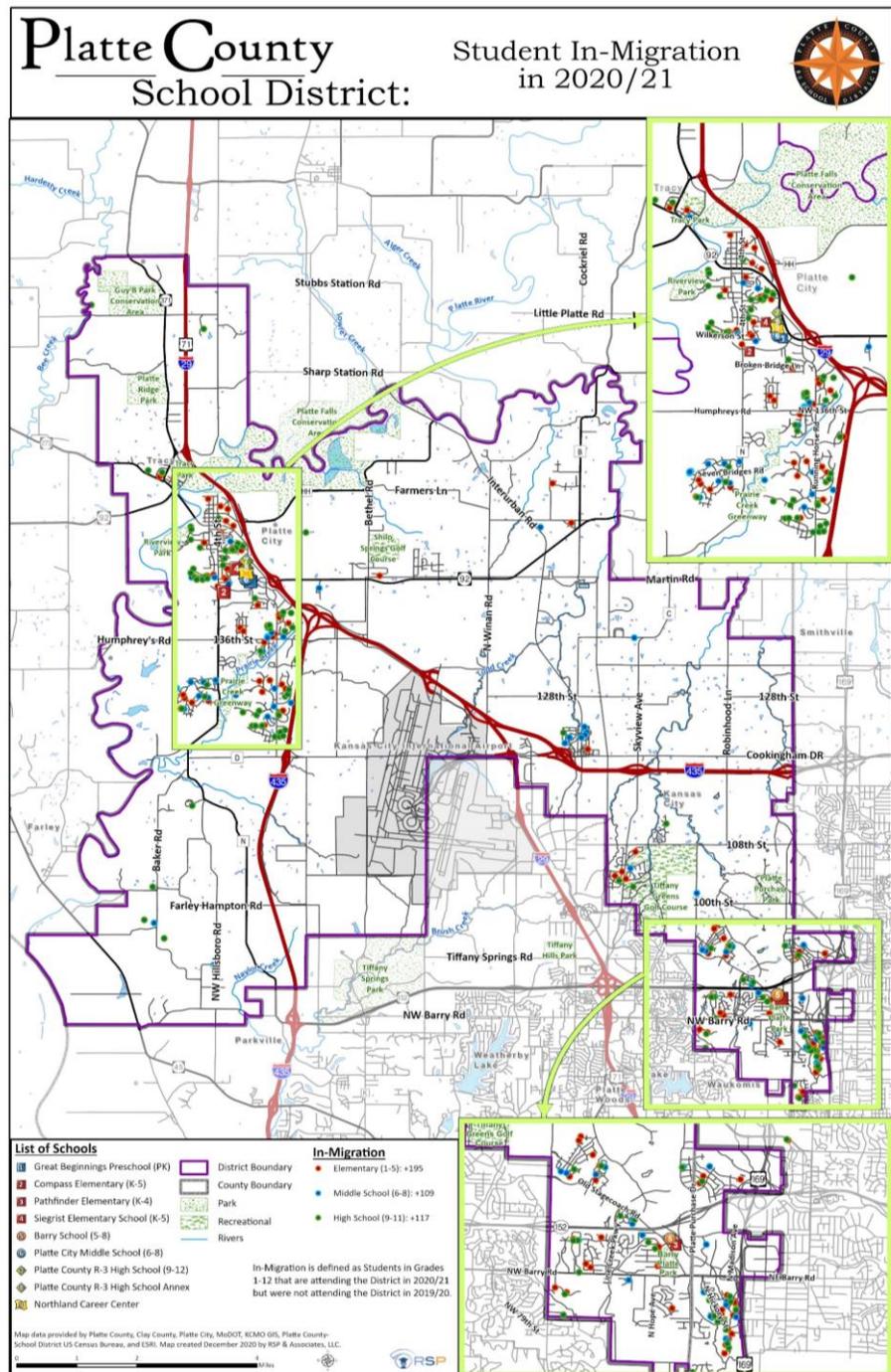
Source: Platte County R-3 School District

- Largest 3-year average K-12 class increase – 5th to 6th grade (+9)
- Largest 3-year average K-12 class decrease – 11th to 12th grade (-9)
- Additional grades had a cohort decrease – potential new negative trend emerging if COVID decisions persist
- Largest decrease in 2020/21 was from 1st to 2nd grade

**All past student data is exported from the district student database allowing the ability to do robust statistical analysis by student geography. The student database export will not always align perfectly with the Official Counts (Statistically 99% greater match by grade).*

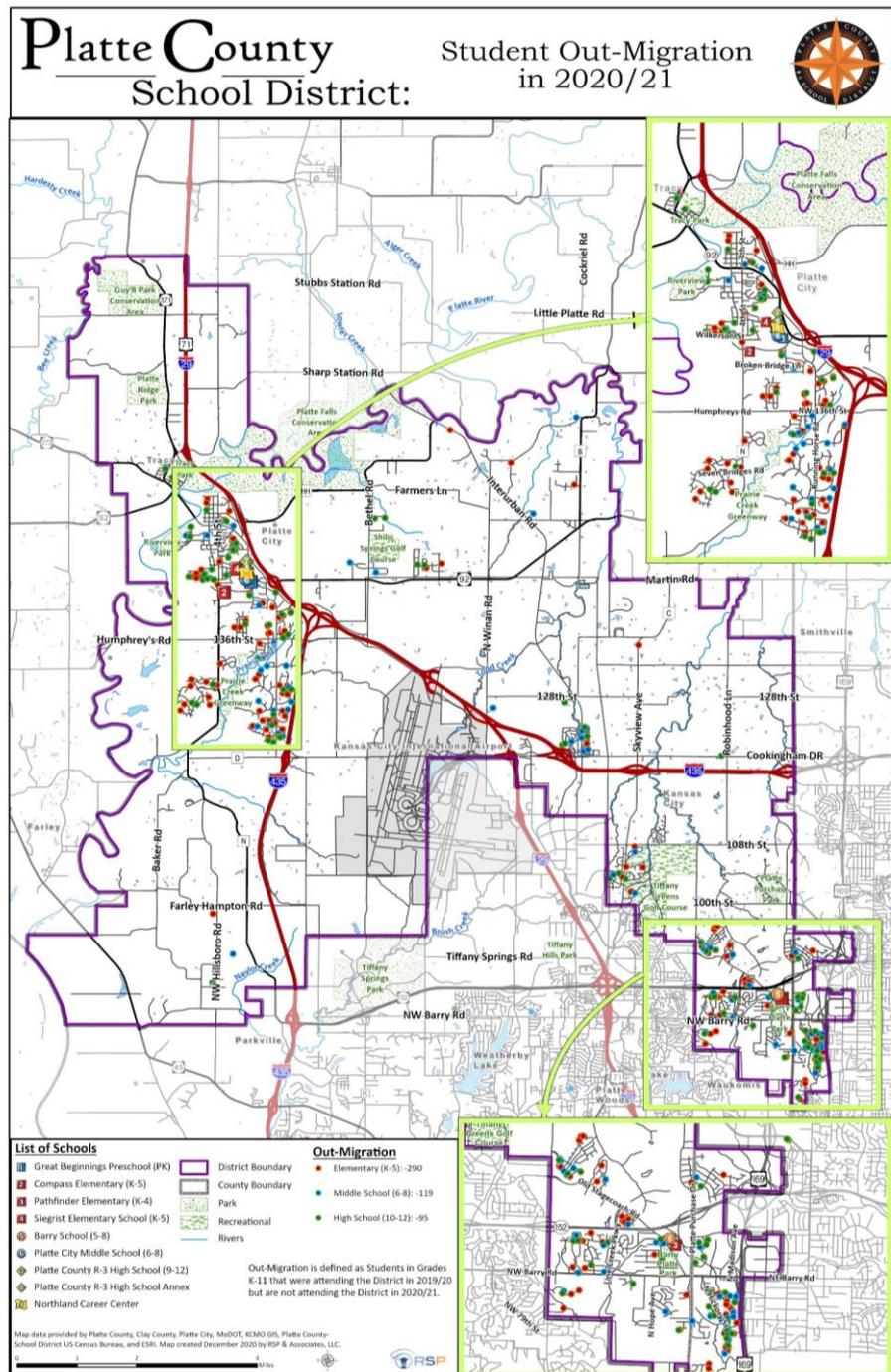
Student In-Migration

- 2020/21 students who are in 1st through 12th grade that were not attending the District in 2019/20 as Kindergarten through 11th grade
- **510** new students in **2018/19**
- **505** new students in **2019/20**
- **421** new students in **2020/21**
- **Fewer new students came to the district in 2020/21**
- These trends impact the enrollment we see in the future



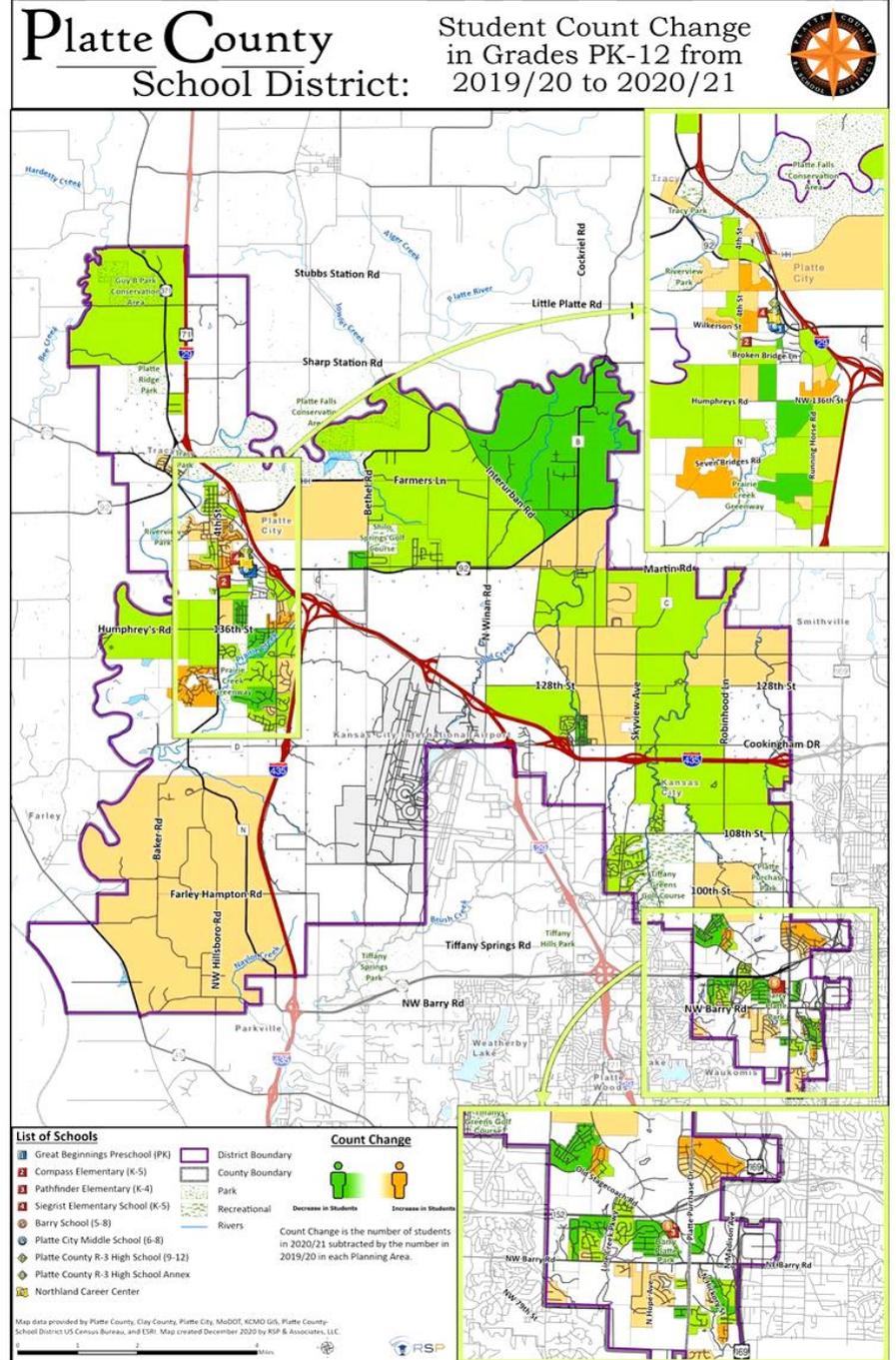
Student Out-Migrations

- 2019/20 students who were in Kindergarten through 11th grades that are not attending the District in 2020/21 as 1st through 12th grade
- **465** left students in **2018/19**
 - **Total Migration +45**
- **456** left students in **2019/20**
 - **Total Migration + 49**
- **504** left students in **2020/21**
 - **Total Migration – 83**
- **More students left the district in 2020/21**
- These trends impact the enrollment we see in the future



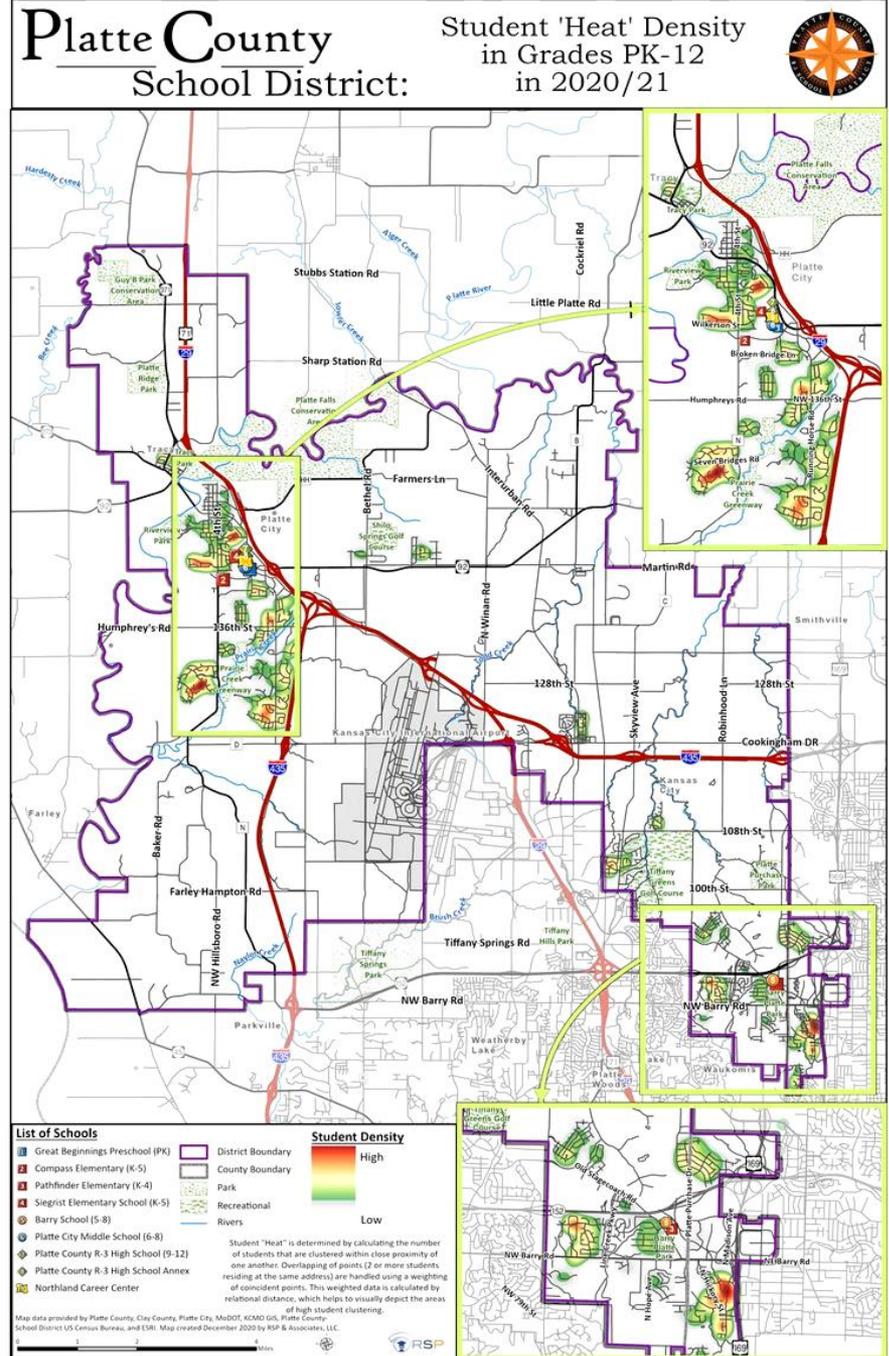
Student Count Change

- Depicts student movement each year at each Planning Area from **2010/11** to **2020/21**
- **Orange** areas experienced an increase year to year, **Green** areas experienced a decrease, **White** areas had no net change of students between **year to year**
- New developments have a greater propensity to have more students in future years
- Current colors do not indicate if area will continue to increase or decrease



Student "Heat" Density

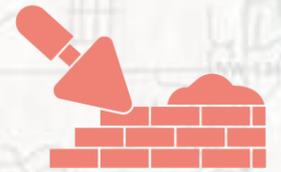
- Video displays student density from 2003/2004 to 2020/21
- **Red** areas depict highest density of students, **Gray** as lowest student density
- Overlapping points (2 or more students) are handled using a weighting of coincident points
- This analysis helps with understanding student population and geographic proximity to schools
- Some new areas do not necessarily lead to similar yield rates of like developments
- Student density is growing near Prairie Creek Greenway and Platte Purchase Drive



Enrollment Observations

The following are some general enrollment observations;

- COVID-19 had an impact on the 2020/21 enrollment
 - Started the 2020/21 school year with hybrid learning
 - PK-5th grade were all in person
 - 6th-12th grade were in person with alternating schedule
 - Families had the option of all remote learning
- First year enrollment decreased since student data in 2003/04, likely a result of COVID-19
 - Where did these students go? (homeschooled, transferred to nonpublic school, open enrolled, etc.)
- The district has maintained contiguous boundaries for elementary schools
- RSP & Associates monitors over 200 planning areas for demographic, development, and enrollment data sets
- Enrollment tends to increase from grade to grade each year at each level
 - Large increases happen from 5th to 6th grade
 - Large decreases happen from 1st to 2nd grade
- Smaller elementary school grades will result in future smaller secondary school grades
- Greatest student density is growing near Prairie Creek Greenway and Platte Purchase Drive
- Student density correlates with new residential development

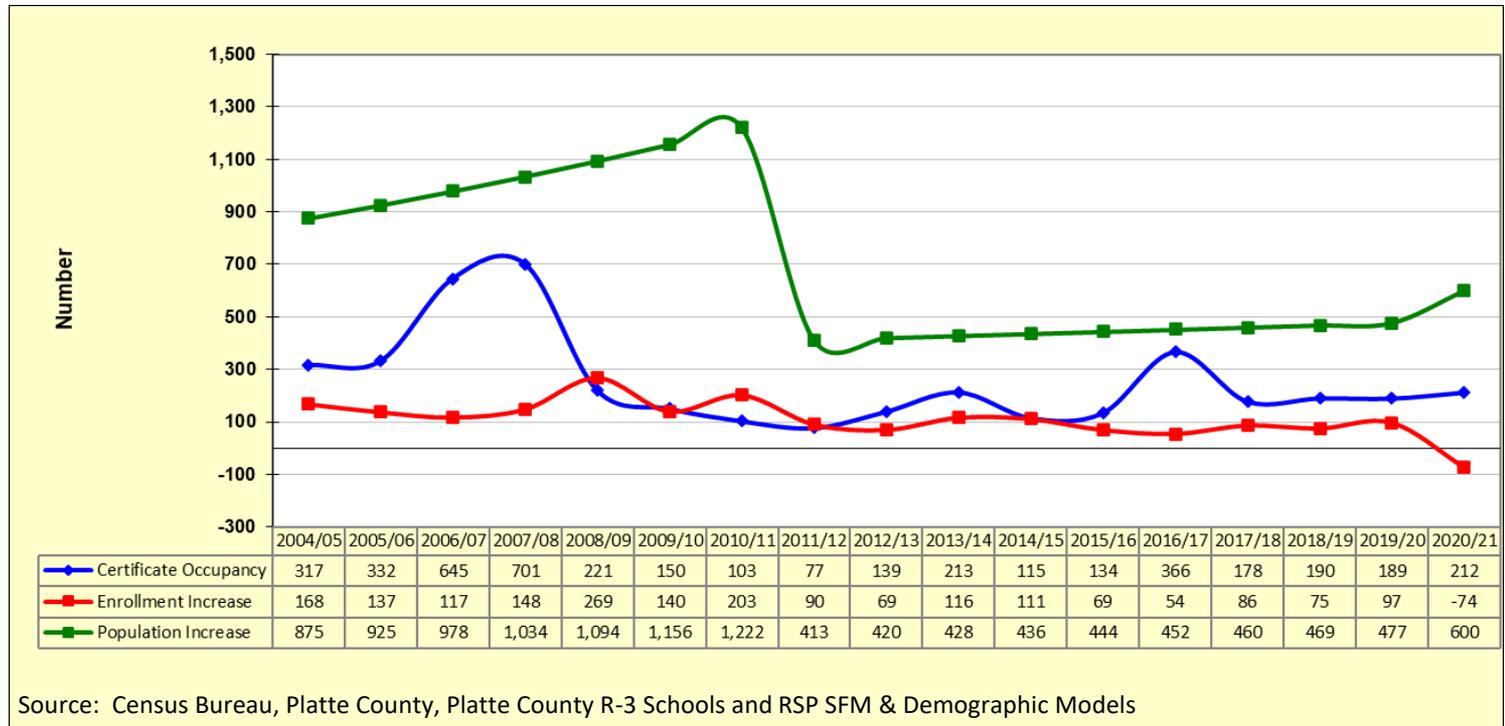


Part Two

Development



Population, Development, & Enrollment



Graphic Explanation

- Census data indicates an increasing population
- Building trend indicates there has been steady new residential activity
- Student Enrollment has negatively decreased for the first time in over a decade

What Does This Mean

- Households moving into the district continue to have school aged children
- With development similar over the next five years there are likely to be more new students

Student Yield Rate

Single-Family Student Yield Rate

Schools	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Avg
Compass Elementary	0.22	0.22	0.21	0.21	0.21	0.22	0.25	0.27	0.27	0.27	0.24	0.24	0.25	0.26	0.25	0.25	0.25	0.25	0.24
Pathfinder Elementary	0.16	0.18	0.16	0.14	0.15	0.16	0.17	0.17	0.18	0.17	0.18	0.18	0.19	0.17	0.18	0.19	0.18	0.17	0.17
Siegrist Elementary	0.22	0.22	0.23	0.24	0.24	0.25	0.25	0.25	0.25	0.24	0.24	0.23	0.22	0.22	0.21	0.21	0.2	0.19	0.23
District (K-5):	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21

Multi-Family Student Yield Rate

Schools	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Avg
Compass Elementary	0.1	0.1	0.1	0.12	0.1	0.1	0.1	0.12	0.11	0.12	0.13	0.13	0.14	0.11	0.11	0.12	0.1	0.11	0.11
Pathfinder Elementary	0.05	0.05	0.06	0.05	0.05	0.06	0.07	0.08	0.1	0.1	0.11	0.11	0.11	0.11	0.1	0.1	0.1	0.09	0.08
Siegrist Elementary	0.13	0.13	0.1	0.11	0.1	0.12	0.1	0.12	0.12	0.12	0.12	0.13	0.13	0.11	0.11	0.1	0.12	0.12	0.12
District (K-5):	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.1	0.1	0.1	0.1	0.1	0.1	0.09

Single Family Table Explanation

- Depicts elementary (K-5) enrollment and the corresponding yield rate for 100 housing units
- Single-Family residential average (.21) has stayed consistent over the past decade
- Adding newer housing inventory typically can increase the yield rate
 - From 2003 to 2020 there were approximately **2,978** single family units added to the building inventory

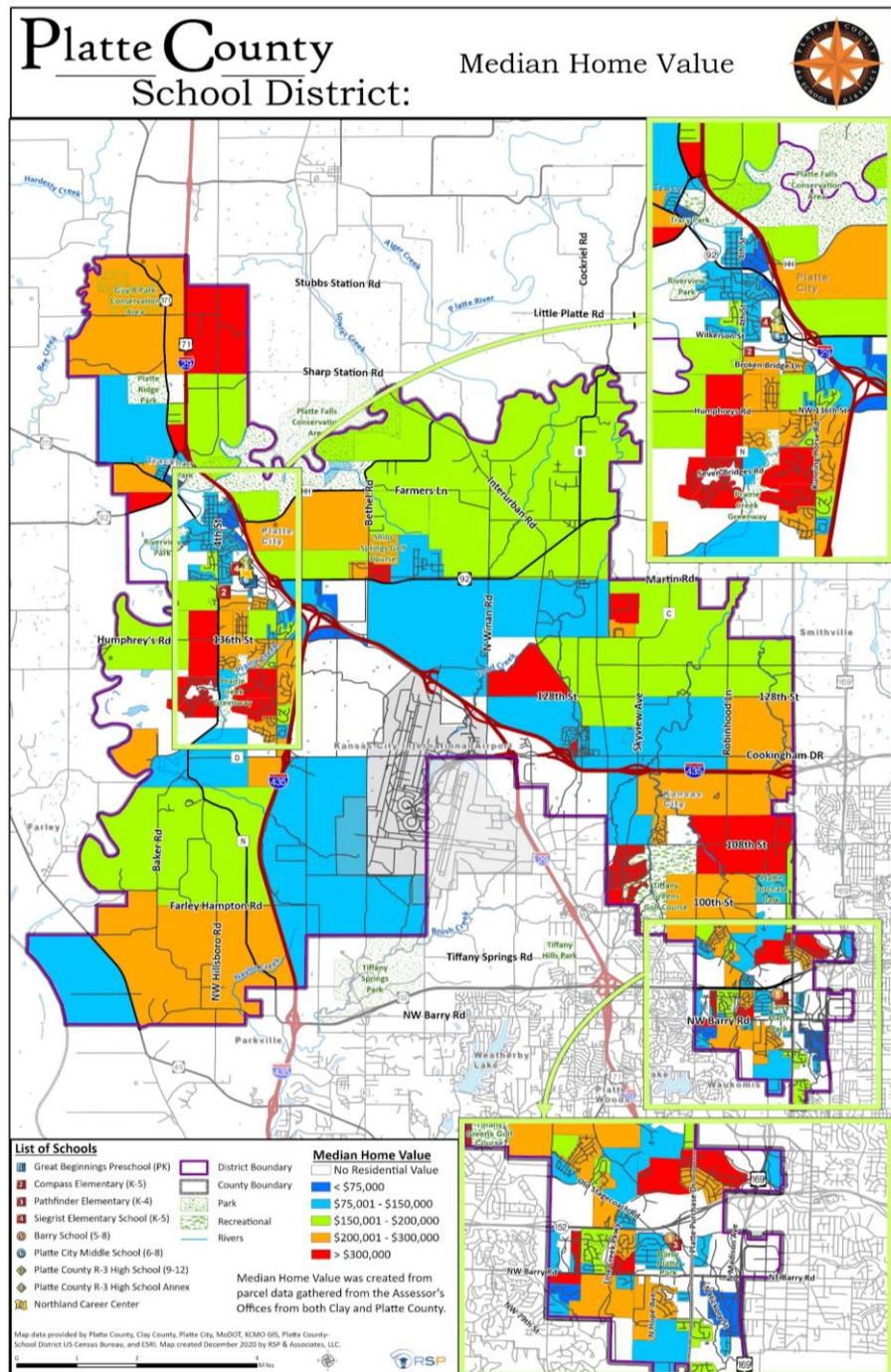
Multi-Family Table Explanation

- Multi-family consists of any residential unit that would be classified as Townhome, Duplex, Apartment, and mobile home – basically everything other than single-family
- Single-Family residential average (.21) has a higher student yield rate when compared to Multi-Family residential (.09) within the district.
- Multi-Family residential average (.09) has stayed increased slightly over the past decade
- Adding newer housing inventory typically can increase the yield rate
 - The Heat map assists in understanding how that has changed over time (Page 21)
 - Residential unit activity provides the basis for timeline and where units likely are built (Page 27)
 - From 2003 to 2020 there were approximately **1,302** multi-family units added to the building inventory

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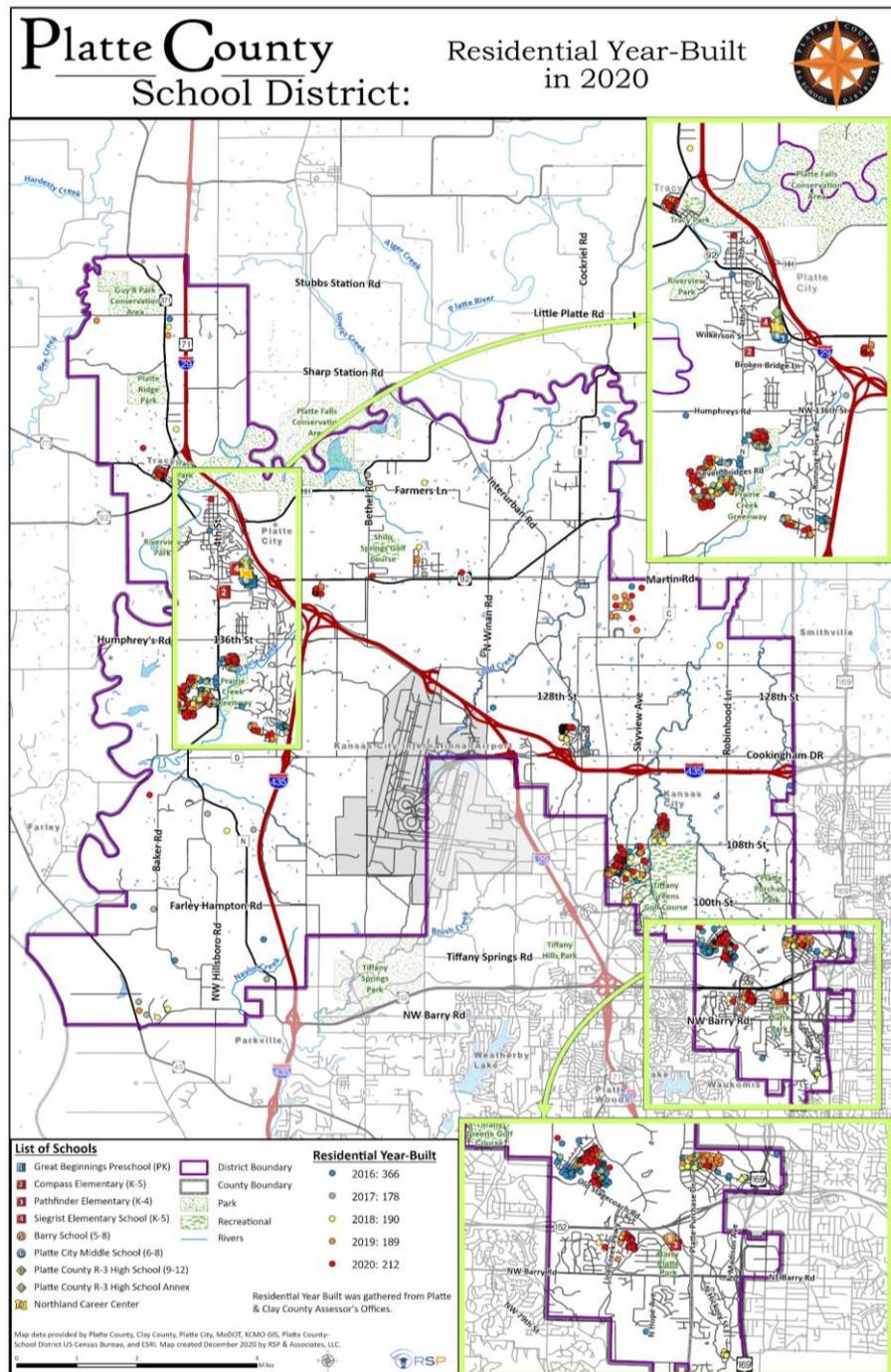
Median Home Value

- Based on assessed Home Value as provided and maintained by the county assessor's office
- Home values correlated to socio-economic status – new areas tend to be the least affordable
- Areas shaded in **Orange** and **Red** have the greatest Median Home Value, **Blue** represents the greatest affordability
- Newer homes tend to be the least affordable while older homes remain the most affordable

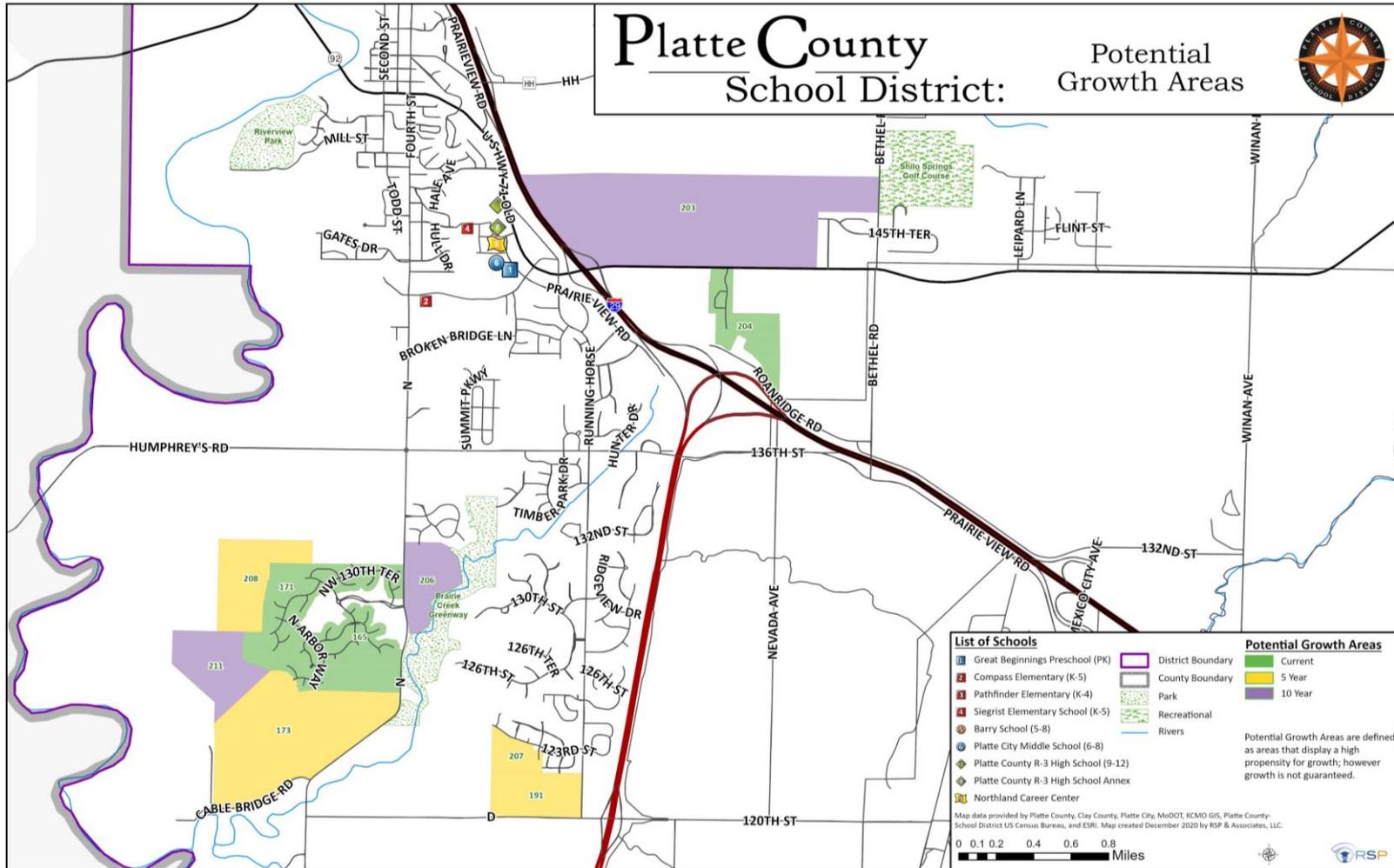


Residential Year Built

- Reveals the build out and timing of residential development within the district
- Some new areas do not necessarily lead to similar yield rates of like developments
- While areas may be platted for residential it may take several years for houses to be built and new student residents to move in
- New residential areas are prevalent near Prairie Creek Greenway, Tiffany Greens Golf Course, and Platte Purchase Drive



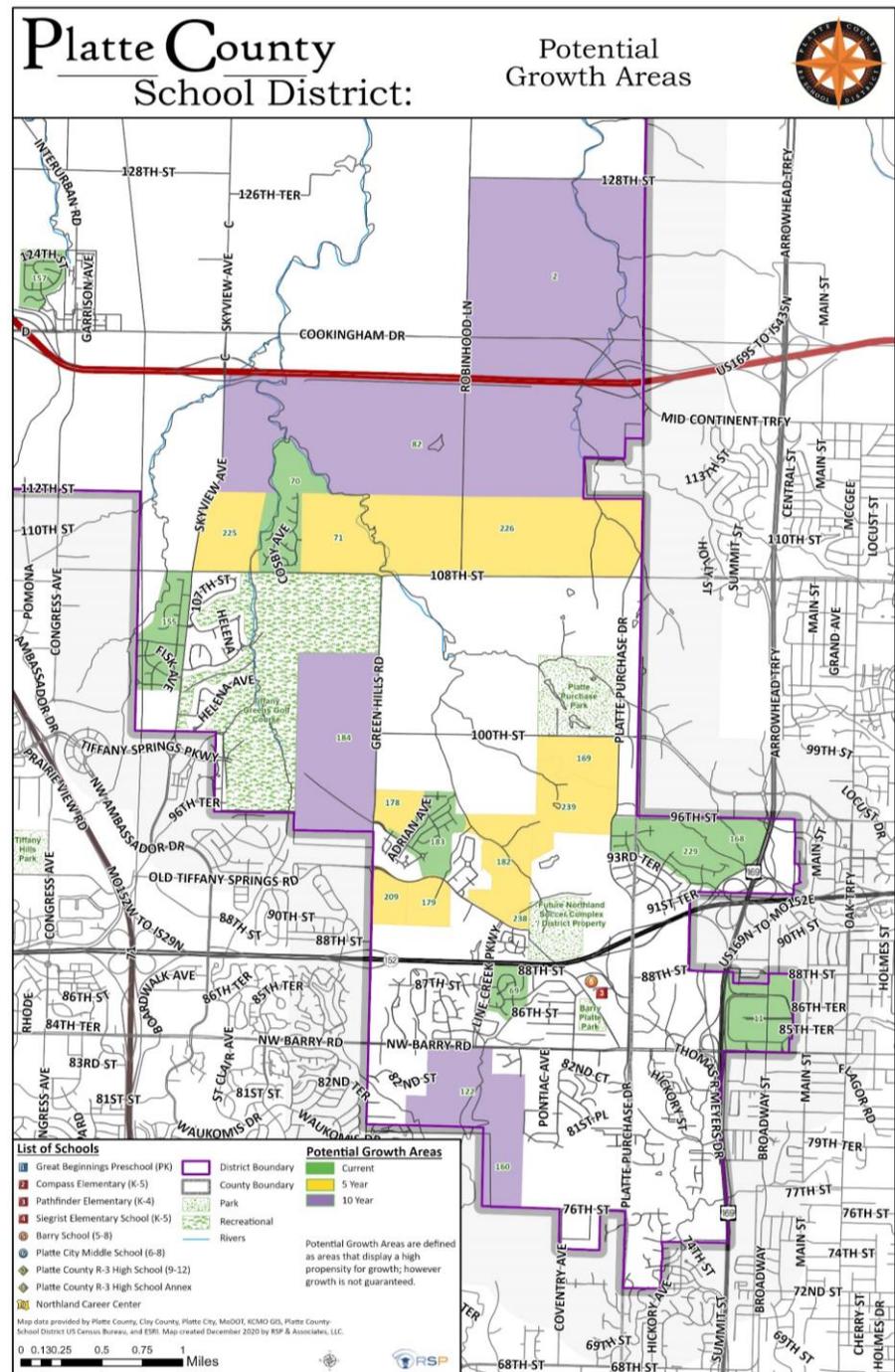
Growth Areas Northwest of Airport



- Identifies where development activity is happening (Green). Identifies possible areas that could develop (Yellow and Purple)
- The market and property owners desire to build guides the timing of development. Other properties not shown might develop while some shown might not develop
- Majority of residential development will occur along Prairie Creek

Growth Areas Southeast of Airport

- Identifies where development activity is happening (**Green**). Identifies possible areas that could develop (**Yellow** and **Purple**)
- The market and property owners desire to build guides the timing of development. Other properties not shown might develop while some shown might not develop
- Majority of residential development will occur between Barry Road and I-435
- Northland Soccer Complex and new Middle School will likely contribute to the growth in this area



Current and Future Development

RSP Plan Area Name	Type	Exist Units	Potential Units	Growth Area	Acres	City
Metro North Crossing	MU	0	249	Current	130.32	Kansas City
Northfield	SF	115	12	Current	46.51	Kansas City
Tiffany Lakes	SF	137	75	Current	132.79	Kansas City
Riverview 2nd	SF	93	10	Current	35.39	Tracy
Hawksbury 1st, 2nd, 3rd, and 4th	SF	199	50	Current	113.52	Kansas City
North Creek Village	SF	134	85	Current	56.05	Kansas City
Seven Bridges, South	SF	194	105	Current	139.88	Rural
Fountain Hills Final Plats	SF	0	105	Current	72.03	Kansas City
Seven Bridges, North	SF	159	90	Current	131.46	Rural
Genesis Place 1st	SF	182	38	Current	88.61	Kansas City
Cutting Crest	SF	13	95	Current	72.53	Platte City
Fountain Hills	SF	179	171	Current	125.06	Kansas City
Crows Corner, Large Lots	SF	11	6	Current	157.82	Rural
Vacant Land Surrounding Tiffany Lakes	VAC	0	125	5 Year	140.66	Kansas City
Bittersweet	AG	0	175	5 Year	77.98	Kansas City
South of Seven Bridges	AG	0	300	5 Year	280.50	Rural
Genesis Place Estates 1st	Rural	2	80	5 Year	42.86	Kansas City
South of Old Stagecoach near Genesis Village	AG	0	70	5 Year	50.42	Kansas City
Twin Creeks Village - Townhomes / Big House Units	Rural	2	484	5 Year	129.62	Kansas City
South of Running Horse	AG	0	75	5 Year	74.87	Rural
West of Running Horse 2nd	AG	0	70	5 Year	31.04	Rural
West of Seven Bridges	AG	0	125	5 Year	100.18	Rural
South of Old Stagecoach near Genesis Village	MU	0	90	5 Year	44.93	Kansas City
West of Tiffany Lakes	VAC	1	175	5 Year	120.94	Kansas City
East of Tiffany Lakes	VAC	4	250	5 Year	529.08	Kansas City
Twin Creeks Village - Future Apartments	MF	0	240	5 Year	9.39	Kansas City
Twin Creeks Village - "Erika's Place"	SF	2	458	5 Year	127.21	Kansas City
Northland Reformed Church & Rural North of I-435 at Robinhood	Rural	7	200	10 Year	898.49	Kansas City
Lynn Acres	Rural	13	300	10 Year	1096.67	Kansas City
East of WAU-LIN-CREE Apartments	Rural	1	300	10 Year	189.96	Kansas City
West of Hunters Ridge 1st	AG	0	165	10 Year	79.52	Kansas City
East of Tiffany Greens	Rural	1	300	10 Year	355.39	Kansas City
Rustic Acres Northeast	Rural	1	250	10 Year	516.82	Platte City
Johnston Farms	Rural	2	125	10 Year	68.72	Rural
West of Seven Bridges, 2	AG	0	150	10 Year	91.69	Rural
		1,452	5,598			

Source: Clay & Platte Counties, KCMO, Platte City & RSP

Table Description

- Table has been created to illustrate the type and amount of potential development
- Type is the potential residential that will be built
- The growth area shows how the developable areas have a timing variable associated with which assists in forecasting future student enrollment
- There are almost **5,600** units that could be built
- The speed in which any developments are built are influenced by who owns the property, access to infrastructure, and economic indicators

Key

SF = Single-Family

MU = Multi-Unit

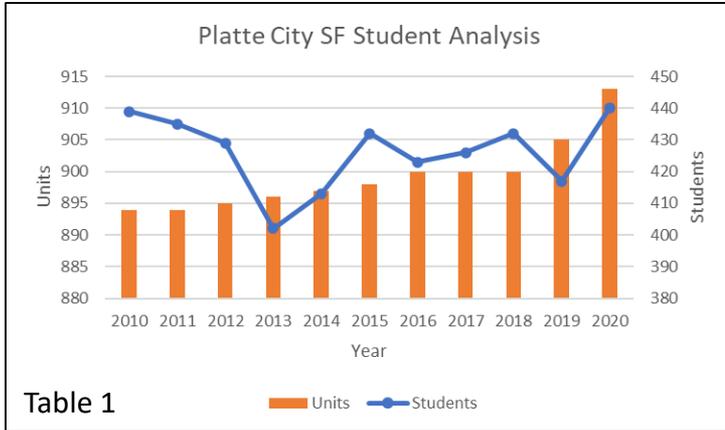
AG = Agriculture

VAC = Vacant Land

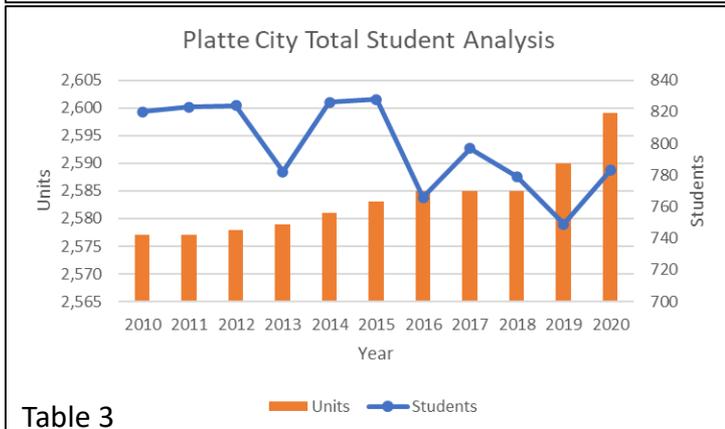
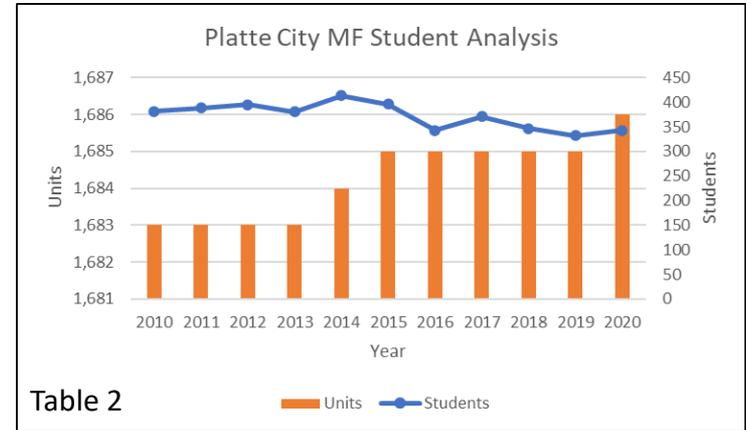
Rural = Rural

MF = Multi-Family

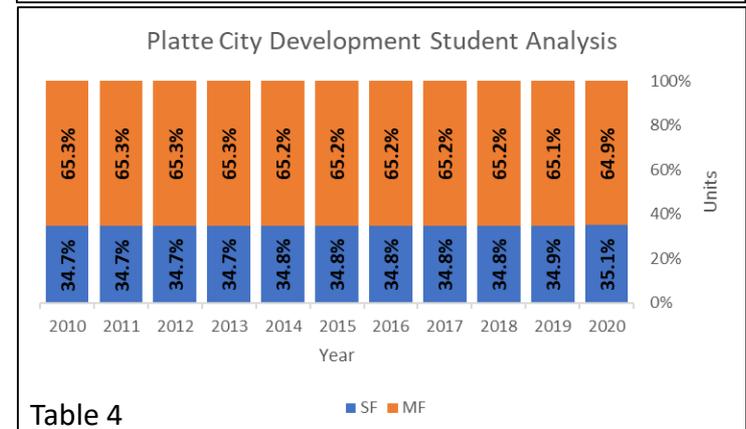
Platte City Analysis



Overall, students decreased by 4.5%



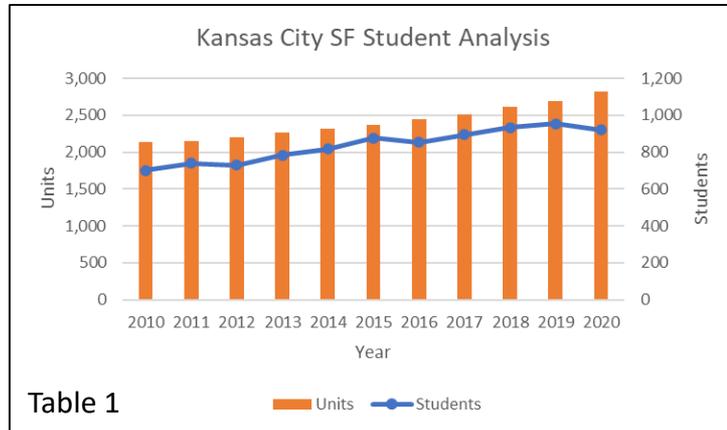
Overall, Development increased by .9%



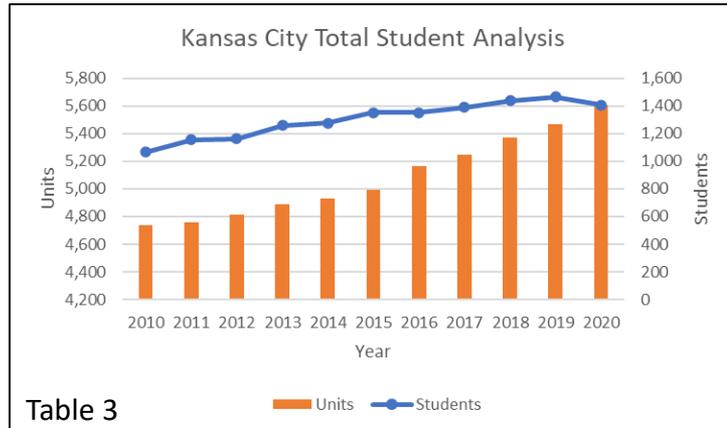
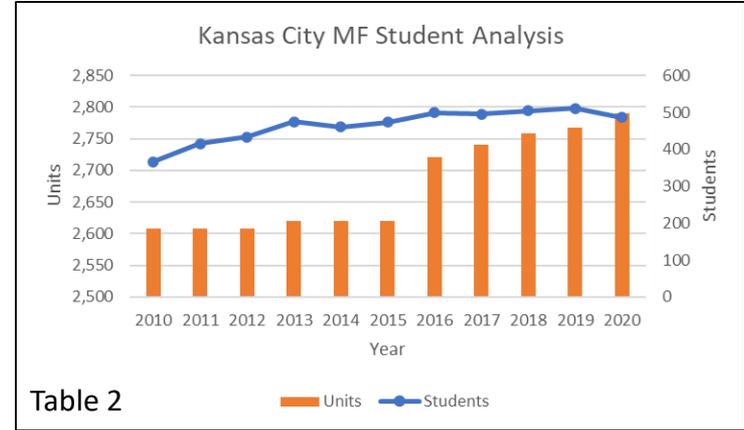
Notes:

- Table 1: The number of Single-Family (SF) units available by year in the Platte City boundary and the number of students attending
- Table 2: The number of Multi-Family (MF) units available by year in the Platte City boundary and the number of students attending
- Table 3: The number of total units available by year in the Platte City boundary and the number of students attending
- Table 4: The percentage of units by development type (Blue is SF and Orange is MF)
- Multi-family development has remained about 65% of development in Platte City

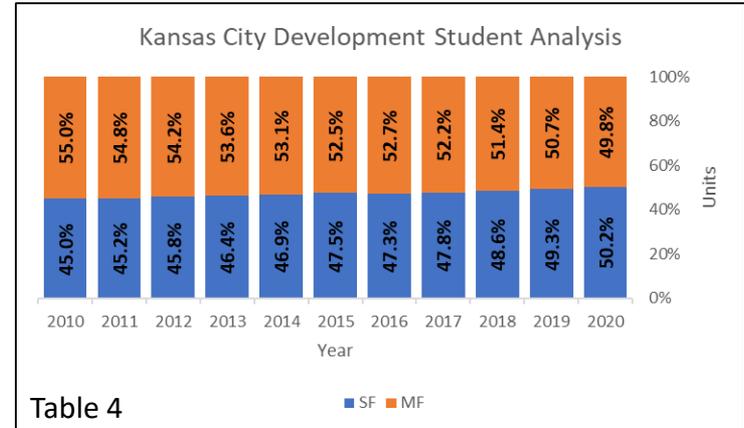
Kansas City Analysis (Within the District)



Overall,
students
increased
by 31.9%



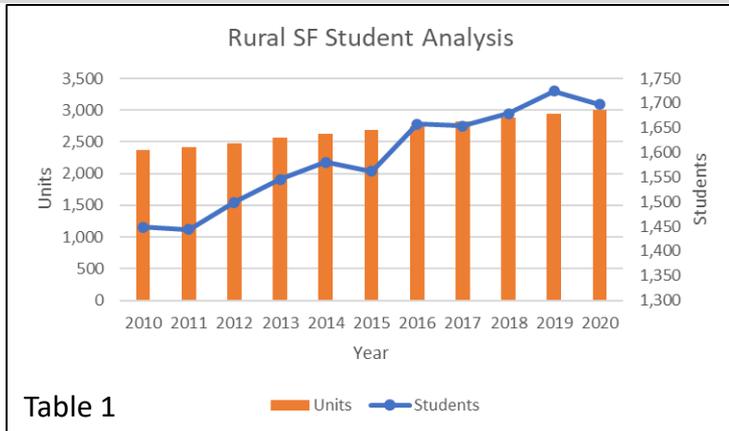
Overall,
Development
increased
by 18.3%



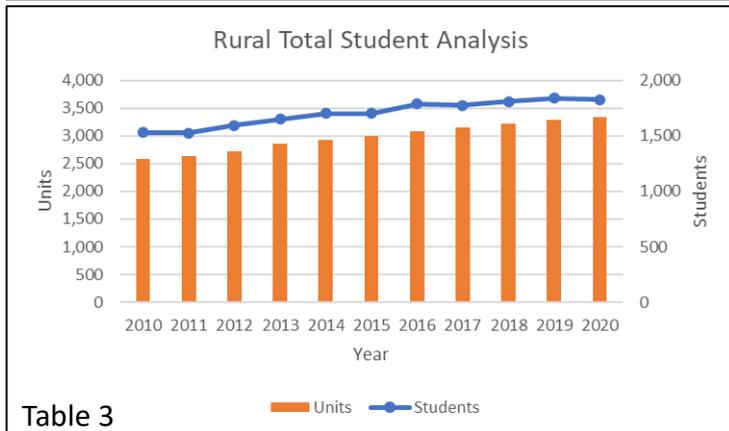
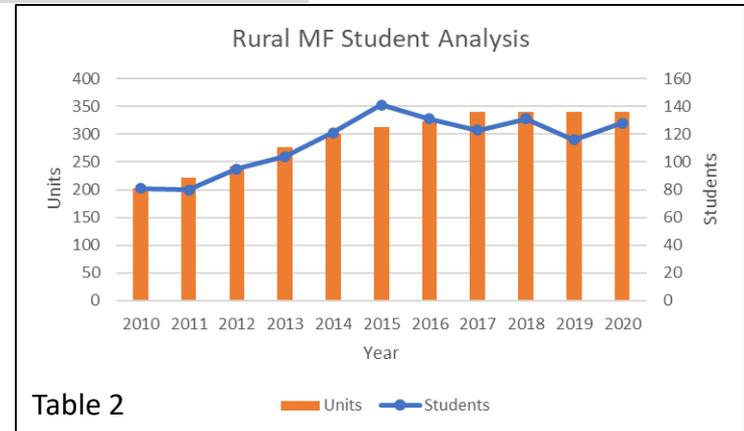
Notes:

- Table 1: The number of Single-Family (SF) units available by year in the Kansas City boundary and the number of students attending
- Table 2: The number of Multi-Family (MF) units available by year in the Kansas City boundary and the number of students attending
- Table 3: The number of total units available by year in the Kansas City boundary and the number of students attending
- Table 4: The percentage of units by development type (Blue is SF and Orange is MF)
- Single-family development continues to increase in the Kansas City boundary

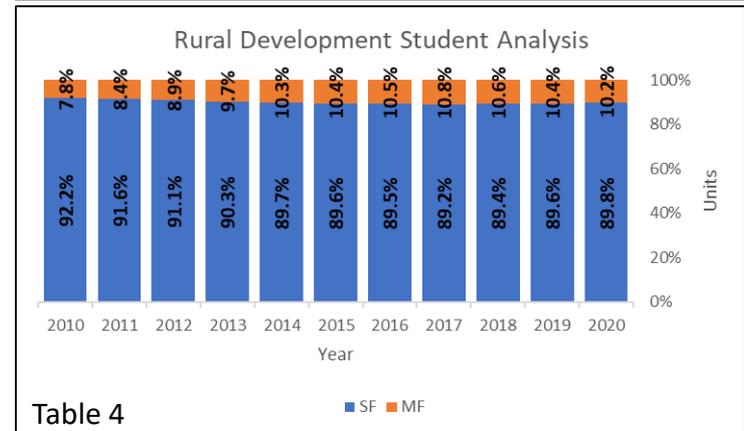
Rural Analysis



Overall,
students
increased
by 19.3%



Overall,
Development
increased by
29.5%



Notes:

- Table 1: The number of Single-Family (SF) units available by year in rural areas within the boundary and the number of students attending
- Table 2: The number of Multi-Family (MF) units available by year in rural areas within the boundary and the number of students attending
- Table 3: The number of total units available by year in rural areas within the boundary and the number of students attending
- Table 4: The percentage of units by development type (Blue is SF and Orange is MF)
- Single-family development is most prevalent in the rural areas within the district's boundary

Development Observation

The following are some general development observations;

- Population and Building activity continue to increase (steady)
- Prairie Creek Greenway area is growing with residential development that will is expected to continue over the next 20-30 years
- Significant amount of development near the east portion of the district
 - Soccer complex at MO-152 and Platte Purchase Dr. to be complete in the next couple of years
 - Redevelopment of Metro North Mall
 - T-Shotz (golf entertainment complex), restaurants
 - Luxury apartments
 - Retail, hotel, grocery store, health club
 - Twin Creek Village
 - Planned location for new middle school, high school, sport fields, and amenities
 - Potential for single-family, multi-family, apartments, and hotels
- There is a considerable amount of development opportunity in vacant lots and rural areas
- Single-Family residential has the highest propensity to have school aged students, yield rates of this development type are much higher than that of Multi-Family
- Areas for growth are most likely to happen at the five-to-ten-year mark, growth in these areas are dependent on access to infrastructure
- Future residential development activity is dependent on the economy, specifically employment, interest rates, and home foreclosures
- Tracking the types of development is important to understand the yield rate of students for every part of the community – there are varying yield rates with all developments
- Local incentives will allow for future industrial development growth



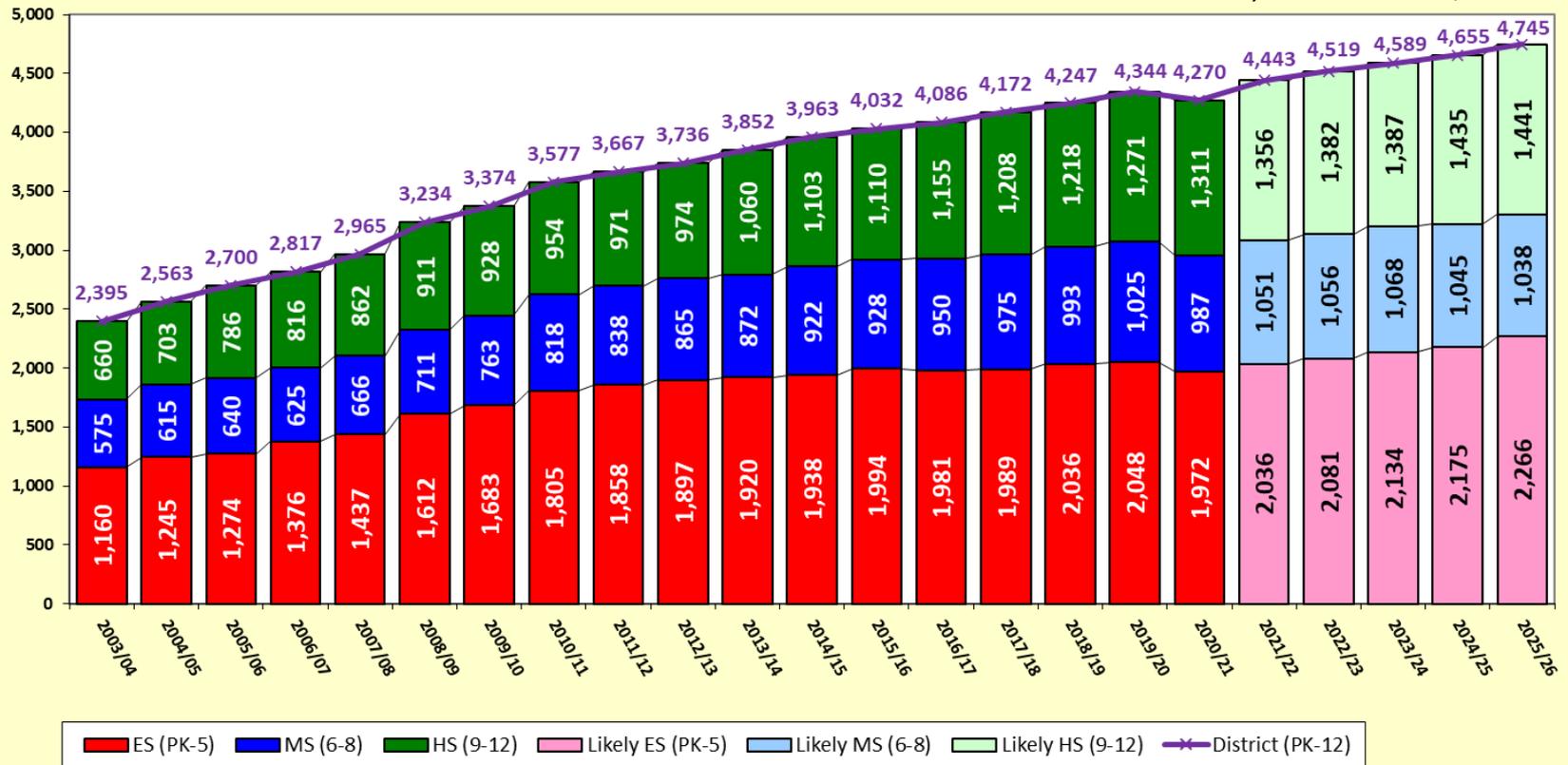
Part Three

Enrollment Projections



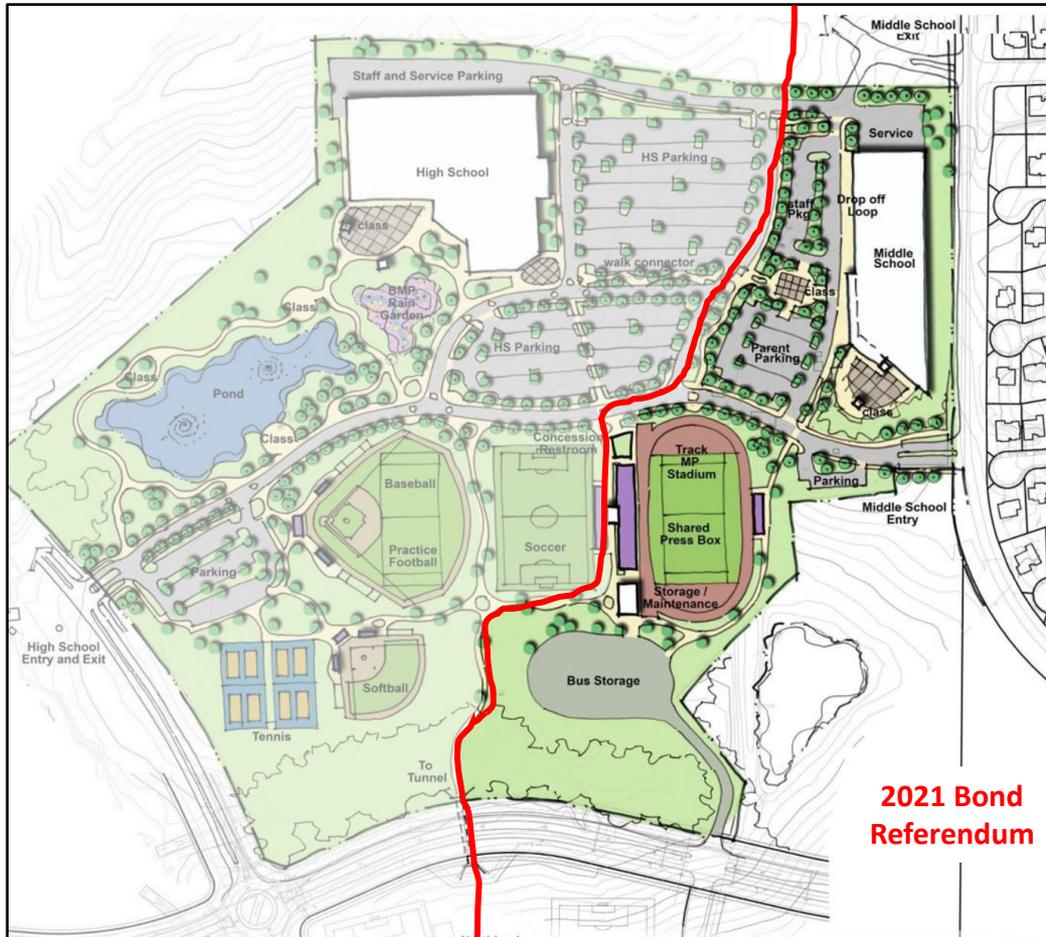
Past, Current, & Future Enrollment

Source: Platte County R-3 School District, and RSP



- Enrollment Change – Overall enrollment increase anticipated (At all Grade Levels)
- Parent choices will be influenced by how the district responds to student's educational experience (In-Person, Hybrid, Online)
- COVID has impacted projections with short term decline but continued and anticipated building activity result stay on long term forecast
- District increases by nearly 500 students (+10.7%) (+1.4% to +3.9% a year)
- Elementary increases by about 300 students (+14.5%) (+1.2% to +4.5% a year)
- Middle School increases by nearly 60 students (+5.5%) (-2.4% to +4.9% a year)
- High School increases by nearly 130 students (+9.6%) (+0.4% to +3.4% a year)

Future District Building Plan(s)



- April 2021 Bond Referendum Plan:
 - Build new South Middle School for 2023/24 with a 600-student capacity
 - Barry Middle School and Pathfinder Elementary School are converted to K-5 Elementary Schools
 - 1st phase of rebuilding the High School begins
- Future Bond Referendum Plan:
 - Rebuild of High School is completed
 - High School capacity will remain 1,600-student capacity

Projection Notes

- Past Enrollment is shown three different ways:

1. Reside (Based on where a student Resides in relation to the attendance area – includes Open Enrollment)
2. Attend (Based on what school the student is attending includes Open Enrollment)
3. Reside/Attend (Subset of Reside to know how many of the Reside attend the school based on the attendance area they are assigned to)

- Projections are shown two ways:

1. Reside (Based on where a student Resides in relation to the attendance area: Includes Open Enrollment)
2. Attend (Based on what school the student is attending includes Open Enrollment)

- Capacity

- Provided by district administration
- Should be annually examined to ensure appropriate education space is available

- Other Items

- Enrollment Grade Configuration in Student Forecast Model (K-5, 6-8, 9-12)
- Open enrollment trends are assumed to follow district policy and will continue like those trends during the projection time frame
- COVID-19 has impacted K-12 enrollment
 - Students that chose to not enroll in the district in 2020/21, assumptions have been made that over the next two years a certain percentage of them will enroll back into the district – not all will likely make that choice

Building Projections

School	Functional Capacity	Student Location	Past School Enrollment			Projections Based on Residence				
			2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Great Beginnings Preschool PK	80	Reside/Attend	68	85	65					
		Reside	68	85	65	73	80	83	89	92
		Attend	68	85	65	73	80	83	89	92
Compass Elementary K to 5th NORTH FEEDER	615	Reside/Attend	613	575	592					
		Reside	629	613	626	616	613	618	627	649
		Attend	632	613	604	590	602	607	616	638
Pathfinder Elementary K to 4th SOUTH FEEDER	660	Reside/Attend	610	642	574					
		Reside	622	653	580	637	664	684	717	769
		Attend	610	652	580	638	663	683	716	768
Siegrist Elementary K to 5th NORTH FEEDER	680	Reside/Attend	576	552	570					
		Reside	589	590	577	595	588	608	607	622
		Attend	601	590	599	620	599	619	618	633
Barry School 5th to 8th SOUTH FEEDER	588	Reside/Attend	408	424	452					
		Reside	420	437	457	487	510	541	541	559
		Attend	408	431	455	487	506	537	537	555
Platte City Middle School 6th to 8th NORTH FEEDER	807	Reside/Attend	701	691	652					
		Reside	701	695	654	679	682	668	639	613
		Attend	710	702	656	679	687	673	644	618
Platte County High School 9th to 12th	1,604	Reside/Attend	1,218	1,271	1,311					
		Reside	1,218	1,271	1,311	1,356	1,382	1,387	1,435	1,441
		Attend	1,218	1,271	1,311	1,356	1,382	1,387	1,435	1,441
ES BUILDING SCHOOL TOTAL PK to 5th (Barry School 5th grade in MS Total)	2,035	Reside/Attend	1,867	1,854	1,801					
		Reside	1,908	1,941	1,848	1,921	1,945	1,993	2,040	2,132
		Attend	1,911	1,940	1,848	1,921	1,944	1,992	2,039	2,131
MS BUILDING SCHOOL TOTAL 6th to 8th (Barry School 5th grade in MS Total)	1,395	Reside/Attend	1,109	1,115	1,104					
		Reside	1,121	1,132	1,111	1,166	1,192	1,209	1,180	1,172
		Attend	1,118	1,133	1,111	1,166	1,193	1,210	1,181	1,173
HIGH TOTAL 9th to 12th	1,604	Reside/Attend	1,218	1,271	1,311					
		Reside	1,218	1,271	1,311	1,356	1,382	1,387	1,435	1,441
		Attend	1,218	1,271	1,311	1,356	1,382	1,387	1,435	1,441
DISTRICT TOTALS PK to 12th	5,034	Reside/Attend	4,194	4,240	4,216					
		Reside	4,247	4,344	4,270	4,443	4,519	4,589	4,655	4,745
		Attend	4,247	4,344	4,270	4,443	4,519	4,589	4,655	4,745

Source: RSP & Associates, LLC - December 2020

 Over School Functional Capacity

**All past student data is exported from the district student database allowing the ability to do robust statistical analysis by student geography. The student database export will not always align perfectly with the Official Counts (Statistically 99% greater match by grade).*

Building Grade Level Projections

RESIDE

2021/22 School Year

School	Functional Capacity	Grade														Total
		PK	Kind	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	
Great Beginnings Preschool	80	73														73
Compass Elementary	615		103	100	94	103	102	114								616
Pathfinder Elementary	660		128	122	123	133	131									637
Siegrist Elementary	680		98	115	86	104	88	104								595
Barry School	588							115	134	114	124					487
Platte City Middle School	807								243	214	222					679
Platte County High School	1,604											350	350	330	326	1,356
DISTRICT TOTALS	5,034	73	329	337	303	340	321	333	377	328	346	350	350	330	326	4,443

Source: RSP & Associates, LLC - December 2020



Over School Functional Capacity

ATTEND

2021/22 School Year

School	Functional Capacity	Grade														Total
		PK	Kind	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	
Great Beginnings Preschool	80	73														73
Compass Elementary	615		96	93	91	103	97	110								590
Pathfinder Elementary	660		129	123	123	131	132									638
Siegrist Elementary	680		104	121	89	106	92	108								620
Barry School	588							115	135	115	122					487
Platte City Middle School	807								242	213	224					679
Platte County High School	1,604											350	350	330	326	1,356
DISTRICT TOTALS	5,034	73	329	337	303	340	321	333	377	328	346	350	350	330	326	4,443

Source: RSP & Associates, LLC - December 2020



Over School Functional Capacity

**All past student data is exported from the district student database allowing the ability to do robust statistical analysis by student geography. The student database export will not always align perfectly with the Official Counts (Statistically 99% greater match by grade).*

Long Range Projections

Past, Current, and Future Enrollment

Grade	School Year																	
	2005/06	2010/11	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
PK	0	75	67	78	85	68	85	65	73	80	83	89	92	94	105	109	112	116
K	224	314	339	301	299	335	306	321	329	331	344	357	379	388	388	404	415	428
1st	231	294	291	351	322	312	338	300	337	344	345	357	371	381	389	407	406	423
2nd	204	309	328	287	331	326	319	307	303	336	345	344	358	375	370	393	399	394
3rd	223	267	312	326	303	355	326	300	340	315	346	354	354	369	371	385	398	395
4th	204	283	314	321	330	293	370	325	321	346	319	348	360	354	370	377	385	406
5th	188	263	343	317	319	347	304	354	333	329	352	326	352	376	358	377	385	389
6th	215	286	317	334	312	329	347	320	377	339	335	357	330	351	380	362	375	383
7th	208	267	306	315	344	326	337	341	328	386	345	342	364	333	355	389	366	381
8th	217	265	305	301	319	338	341	326	346	331	388	346	344	372	331	353	385	372
9th	222	247	292	308	320	320	345	346	350	352	339	395	355	353	376	339	357	377
10th	204	245	294	291	308	323	322	335	350	354	357	341	398	356	357	376	340	361
11th	189	244	265	285	291	295	315	325	330	344	348	351	337	388	360	346	370	345
12th	171	218	259	271	289	280	289	305	326	332	343	348	351	330	416	360	346	400
PK-5	1,274	1,805	1,994	1,981	1,989	2,036	2,048	1,972	2,036	2,081	2,134	2,175	2,266	2,337	2,351	2,452	2,500	2,551
6-8	640	818	928	950	975	993	1,025	987	1,051	1,056	1,068	1,045	1,038	1,056	1,066	1,104	1,126	1,136
9-12	786	954	1,110	1,155	1,208	1,218	1,271	1,311	1,356	1,382	1,387	1,435	1,441	1,427	1,509	1,421	1,413	1,483
District	2,700	3,577	4,032	4,086	4,172	4,247	4,344	4,270	4,443	4,519	4,589	4,655	4,745	4,820	4,926	4,977	5,039	5,170
Enrollment Change	137	203	69	54	86	75	97	-74	173	76	70	66	90	75	106	51	62	131

Sources: 2003/04 to 2020/21 Platte County R3 School District

-  2021/22 to 2025/26 RSP & Associates SFM Projections from the 2018/19 Enrollment 5-Year Projections
-  2026/27 to 2030/31 RSP & Associates estimates based on past enrollment change factors

Future Considerations

- The projections are utilizing the best available information:
 - State, County, City, and Census
- The projections are created from a Sophisticated Forecast Model (SFM) that tracks past and emerging trends using a Regression Statistical formula
- Many things could change over the next Five years impacting how the projections play out:
 - Birth Rates, Household Demographics, Employment Opportunities
 - Residential Activity (Number of units constructed)
 - Type of Residential Activity (Single-Family, Duplexes, Apartments)

**All past student data is exported from the district student database allowing the ability to do robust statistical analysis by student geography. The student database export will not always align perfectly with the Official Counts (Statistically 99% greater match by grade).*



Moving Forward



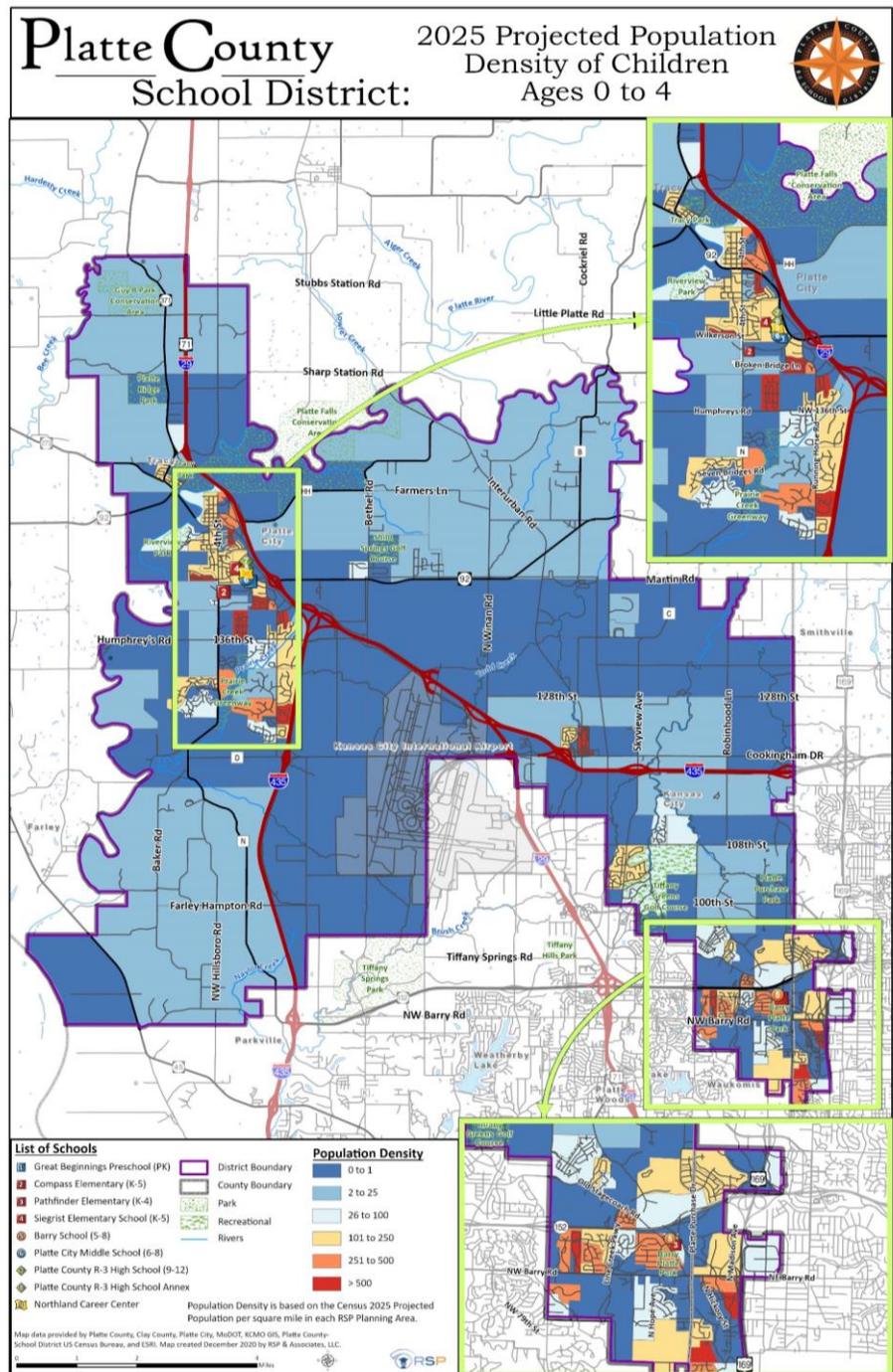
Next Steps

The following items will assist the district to advance its educational goals;

- Utilize the enrollment projections to assist with planning for staff need for the following school year
- District administration and the Board of Education further study the enrollment, demographic, and development information presented
- Annually review enrollment projections
- COVID-19 and learning options had an impact on the 2020/21 enrollment
 - Students that chose to not enroll in the district in 2020/21, assumptions have been made that over the next two years a certain percentage of them will enroll back into the district – not all will likely make that choice
 - Enrollment needs to be monitored to determine if this will become an overall new enrollment trend
- Demographic shifts will happen over the next decade related to housing type, affordable price, and diversity of students
- Many residential opportunities being discussed – the plats and building permits must be monitored to know how it may impact future student enrollment (Twin Creeks and East of I-29) (Significant Growth Potential)
- Administration continue to examine facility utilization opportunities to improve the student education experiences
- Continue to make decisions and communicate that information to the community so they can understand how educational opportunities will support College and Career Ready students
- RSP Enrollment forecasting is based on the best-known information at the time of the study
 - RSP has integrated into its analysis the instructional modality (In-Person, Hybrid, Virtual/Online) options a district may choose based on the analysis of all the school districts RSP has worked with in the 2020/21 school year
 - The analysis is presented as neutral toward how the district determined the student learning experience and does not seek to influence decisions that would minimize creating and maintaining healthy environments for all who come to each school, but does provide information to plan for the potential impact of that decision in areas such as staffing or building need
 - Future planning requires seeking answers to questions outside of the determined COVID response

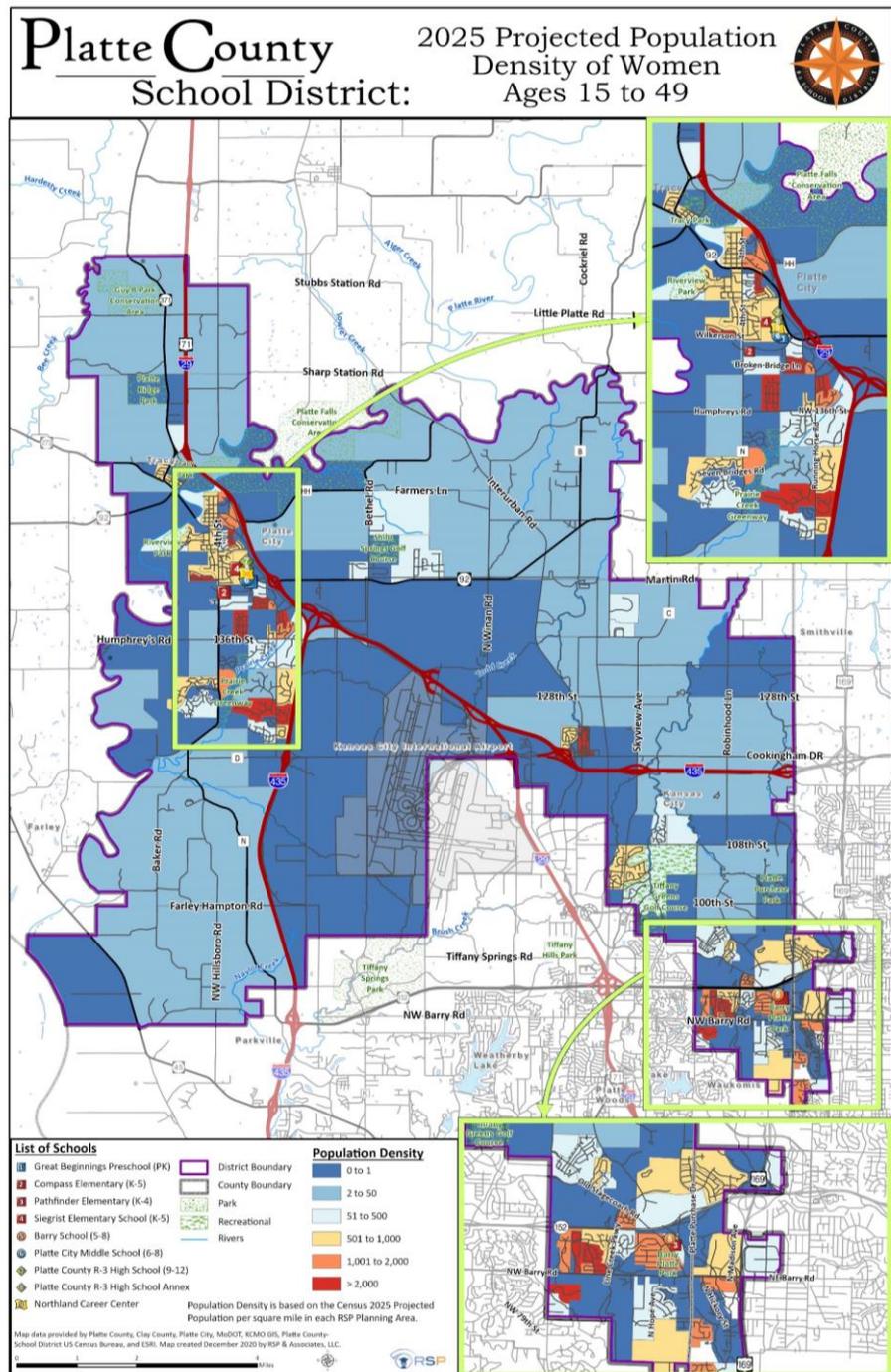
Population of Kids 0-4, 2025

- Depicted by Census Block Group with 2025 estimates
- Density weighted by land area of each Block Group
- **Red** areas have greatest density, **Blue** areas have the least
- This data helps benchmark the projection model choices for future student enrollment



Population of Women 15-49, 2025

- Depicted by Census Block Group with 2025 estimates
- Density weighted by land area of each Block Group
- **Red** areas have greatest density, **Blue** areas have the least
- This data helps benchmark the projection model choices for future student enrollment
- Population of women 15-49 correlates with children 0-4



District Demographics



Annual Rate;
Percent Change

2000-2010: 5.73%
2010-2020: 1.83%
2020-2025: 1.48%



Annual Rate;
Percent Change

2000-2010: 5.97%
2010-2020: 1.77%
2020-2025: 1.46%



Per Capita;
Percent Change

2020: \$40,750
2025: \$45,031
2020-2025: 2.02%



Unemployment Rate

2020: 10.5%

Notes:

Overall, the District is experiencing an **increase** in population at a lower rate than the previous ten years. Overall, the District is experiencing an increase in housing at a lower rate than the previous ten years. In a growing community housing and population should have a correlation and, on the surface, indicate a general housing supply/demand. The type of residential unit is not known in these numbers or how affordable the units are so more analysis is required. Income is projected to increase by nearly two percent by 2025. Unemployment is **lower** than the State of Missouri.

Demographic Consideration

	Platte County R-3 School District	Kearney School District	Raymore- Peculiar R-II School District	Grain Valley Schools	Platte County	State of Missouri
Unemployment Rate	10.5%	9.8%	9.0%	9.3%	10.5%	11.7%
Average Household Size	2.36	2.77	2.64	2.8	2.46	2.44
Median Age	37.4	41.7	40.3	34.3	39.8	39.3
Total Population	27,157	20,704	38,152	20,268	106,650	6,268,211
Median Household Income	\$75,607	\$84,735	\$80,439	\$77,496	\$79,047	\$54,596
Total Housing Units	12,031	7,681	15,013	7,551	45,132	2,867,520
Owner Occupied Housing Units	6,393	6,163	11,731	5,118	28,709	1,672,086
Renter Occupied Housing Units	4,986	1,304	2,610	2,092	14,344	824,462
Vacancy Rate	5.4%	2.8%	4.5%	4.5%	4.6%	12.9%

Ethnicity	Platte County R-3 School District	Kearney School District	Raymore- Peculiar R-II School District	Grain Valley Schools	Platte County	State of Missouri
White	84.1%	92.2%	78.4%	82.9%	84.2%	84.2%
Black	4.5%	1.5%	4.3%	3.5%	4.0%	4.0%
American Indian	0.2%	0.2%	0.1%	0.2%	0.3%	0.3%
Asian	3.6%	2.1%	7.4%	2.5%	2.9%	2.9%
Pacific Islander	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%
Other Race	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%
Two or More Races	2.5%	1.5%	2.0%	2.2%	1.9%	1.9%
Hispanic	5.0%	2.4%	7.7%	8.4%	6.5%	6.5%

Source: U.S. Census, Esri BAO

Demographics Information

- Demographic attribute information for Platte County School District is similar to the other Kansas City suburban districts in different aspects
- The Unemployment Rate is lower in Platte County than the State of Missouri (Note this is estimated from July due to COVID-19)
- The Median Household Income is lower in Platte County than the other school districts in this comparison
- Platte County has a larger percent of Black population compared to the other districts in this comparison

Employment Information

	Platte County R-3 School District	Kearney School District	Raymore-Peculiar R-II School District	Grain Valley Schools	Platte County	State of Missouri
2019 Agriculture/Mining (SIC01-14) Employees	0.7%	1.8%	2.5%	1.2%	1.0%	1.4%
2019 Construction (SIC15-17) Employees	3.8%	7.1%	6.6%	8.9%	3.6%	3.7%
2019 Manufacturing (SIC20-39) Employees	2.1%	4.5%	2.6%	6.7%	6.1%	9.2%
2019 Transportation (SIC40-47) Employees	9.9%	2.5%	2.4%	2.2%	6.1%	3.0%
2019 Communication (SIC48) Employees	0.1%	2.0%	0.3%	2.8%	0.7%	0.9%
2019 Utility (SIC49) Employees	0.8%	2.9%	1.4%	3.1%	0.2%	0.6%
2019 Wholesale Trade (SIC50-51) Employees	2.7%	3.8%	8.7%	9.4%	5.5%	3.8%
2019 Home Improvement (SIC52) Employees	0.6%	7.6%	2.1%	0.4%	1.4%	1.3%
2019 General Merchandise (SIC53) Employees	4.6%	1.0%	6.5%	0.8%	2.0%	2.5%
2019 Food Stores (SIC54) Employees	2.5%	1.9%	1.8%	1.3%	3.5%	2.5%
2019 Auto Dealer/Gas Station (SIC55) Employees	4.2%	2.9%	2.9%	4.3%	4.5%	2.3%
2019 Apparel/Accessory (SIC56) Employees	0.1%	0.2%	0.0%	0.1%	2.8%	0.7%
2019 Furniture/Home Furnishings (SIC57) Employees	0.1%	0.4%	0.4%	0.5%	0.7%	0.7%
2019 Eating & Drinking (SIC58) Employees	6.9%	9.7%	13.3%	5.8%	9.7%	7.2%
2019 Miscellaneous Retail (SIC59) Employees	3.8%	2.1%	2.1%	0.7%	3.5%	3.5%
2019 Banks (SIC60-61) Employees	0.9%	3.8%	1.9%	0.9%	1.7%	2.0%
2019 Securities Broker (SIC62) Employees	0.1%	0.3%	0.6%	0.6%	0.3%	1.0%
2019 Insurance (SIC63-64) Employees	1.3%	1.3%	0.9%	3.2%	1.0%	1.5%
2019 Real Estate/Holding (SIC65-67) Employees	3.2%	1.9%	1.0%	2.6%	2.1%	2.3%
2019 Hotel/Lodging (SIC70) Employees	3.8%	0.8%	0.3%	0.4%	3.3%	1.4%
2019 Auto Services (SIC75) Employees	4.1%	1.9%	1.7%	2.3%	2.4%	1.5%
2019 Movie/Amusement (SIC78-79) Employees	16.1%	1.3%	1.7%	1.6%	10.0%	3.1%
2019 Health Services (SIC80) Employees	4.2%	3.4%	5.1%	1.7%	6.3%	13.3%
2019 Legal Services (SIC81) Employees	0.5%	0.5%	0.4%	0.9%	0.3%	0.8%
2019 Education/Library (SIC82) Employees	6.1%	13.2%	10.0%	9.8%	6.9%	8.5%
2019 Other Service (SIC72-89SEL) Employees	10.3%	17.2%	17.3%	19.8%	10.6%	15.5%
2019 Government (SIC91-97) Employees	6.2%	4.1%	5.2%	5.6%	2.7%	5.6%
2019 Unclassified Establishments (SIC99) Employees	0.2%	0.1%	0.3%	2.6%	0.9%	0.4%

Employment Information

- This table provides the type of employment a person has based on the geography of each column
- Highest percentage of employees are in Movie / Amusement (16.1%)
- When compared to all neighboring geographies, Platte County School District has a greater percentage of employees working in transportation and lower percentage of employees working in Communications (estimates from July 2020 from the US Census)

Source: U.S. Census, Esri BAO