

The Economic Benefits of Ascension Public Schools



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Executive Summary

Ascension Public Schools (APS) provides a high-quality education for children in the parish. Because of the local commitment to public schools, the parish has been able to develop a school system that ranks 2nd statewide in performance. In 2018, the district was home to 27 schools that served 22,862 students. In addition to its primary mission of educating students, the district's 2,917 employees including 1,496 classroom teachers make APS one of the largest employers in the parish and support a sizeable amount of economic activity in Ascension Parish.

This study focuses on the economic benefits of APS across three categories of activity:

How does employment and spending by APS affect the local economy?

- ▶ Direct effect: 2,917 employees; \$127 million in wages
- ▶ Total economic activity supported by APS:
 - 4,688 employees
 - \$251 million in labor income
 - \$421 million in output

How has APS quality helped the parish grow?

Based on an original survey of parents of current APS students, we gathered data on the role schools played in decisions to move to Ascension Parish.

Key findings from the survey:

- ▶ Schools were ranked as the #1 factor for choice to live in Ascension Parish
- ▶ More parents ranked schools as an “extremely important” factor in deciding where to live than any other factor
- ▶ We estimate 28.0% of school parents live in Ascension because of school quality.
- ▶ More broadly, we estimate that 11.5% of all residents have been attracted to Ascension by APS.
- ▶ This implies that 5,100 households were attracted to Ascension Parish by APS, boosting personal income by \$664 million annually.
- ▶ Total economic impact generated by this boost to regional income created by APS:
 - 1,870 new jobs
 - \$53 million in labor income
 - \$196 million in output

How is property value affected by school quality?

Along with the draw of population into the region, it is recognized in the economics literature that higher quality schools can help boost the value of residential property. We estimate that home values have increased by 3-5%, adding between \$138 and \$223 million to the value of homes in the parish.

Economic impacts can be measured in terms of employment, labor income, or output. Except where noted, employment in this study represents average employment across a year. Labor income encompasses all forms of employment income including benefits. Output provides the most comprehensive measure of economic activity and measures the total economic value of all production including total operating expenses in the case of schools.

Introduction

This study examines the economic impact of Ascension Public Schools (APS) as a support to a strong regional economy and a source of long-term growth by making Ascension Parish a more desirable place to live. APS provides a high-quality education for children in the parish, preparing them for future careers, or post-secondary education. While education is the school system's primary purpose, APS also contributes to the parish by boosting economic activity. This study will explore three ways APS contributes to the parish economy: supporting economic activity through APS ongoing operations, helping the parish grow by attracting new residents, by boosting property values because of the quality of the school district.

ASCENSION PARISH SCHOOLS BY THE NUMBERS

22,862 Students

1,496 Teachers

27 Schools

DISTRICT RANKING: 2nd
in Louisiana



The APS school system is the 11th largest school district in Louisiana, with a total enrollment of 22,862 students in October 2018. It is one of the twelve school districts of the Baton Rouge Metropolitan Statistical Area (MSA): Ascension Parish, East Baton Rouge Parish, East Feliciana Parish, Iberville Parish, Livingston Parish, Pointe Coupee Parish, St. Helena Parish, West Baton Rouge Parish, West Feliciana Parish, and the breakaway school districts of Zachary Community School District, City of Baker School District, and Central Community School District. Of these, it is the third largest after East Baton Rouge Parish (41,041) and Livingston Parish (25,855). The size of districts in the Baton Rouge MSA is provided in Figure 1.

The district has 27 schools, including 15 primary and elementary schools, 1 elementary/middle school, 7 middle schools, and 4 high schools. In 2018, 10 APS schools had a letter grade rating of “A” with another 9 having a rating of “B.” The school district as a whole received an “A” rating and scored second in Louisiana in 2018 when ranked by district performance score, coming in just below Zachary Community School District, a smaller school district in the northern part of East Baton Rouge Parish.

Baton Rouge is the second largest city in the state after New Orleans, and has many suburbs and surrounding communities where people live and commute to work within the city. Of the people who work in East Baton Rouge Parish, approximately 50% live in the parish, 9.5% in Livingston Parish, and 7.5% in Ascension Parish (U.S. Census Bureau, 2019). These two parishes are the most important “bedroom communities” or suburbs of Baton Rouge.

The large scale of APS operations provides a significant boost to the Ascension Parish economy. It is one of the largest employers in the parish, with 2,917 employees in 2018. APS supports additional economic activity through local expenditures out of its annual operating budget. The district also has several large ongoing construction projects, with four new schools currently under construction. These employees and contractors support further economic development in the parish through their spending.

In addition to the direct employment and spending by the school district, the school district attracts many new residents to the parish because of its reputation as an excellent school district. Because enrollment in most public schools in Louisiana is based on the student's residence, a common way to exercise school choice is to move into a particular school district within the broader Baton Rouge metropolitan area, such as Ascension Parish, Livingston Parish, or the Zachary Community School District. For residents of Baton Rouge, there are some other ways to exercise school choice, including gifted and talented schools; magnet schools; charter schools; and private schools (in fact, Baton Rouge has the fourth highest percentage of private school students in the United States at 19.1%), but these choices can be limited or costly (Kolko, 2014). To the extent that residents move for affordable access to

quality schools, a school district can be a driving force for local economic development. In this study, we conducted a survey to determine to what extent school choice played a factor in residing in Ascension Parish for parents of the school district and its effect on economic development within the parish.

When a quality school district becomes a magnet for growth, it can also increase property values. While this principle applies both to commercial and residential property, prior literature has focused on the impact to residential property. We rely on this existing research to determine the extent to which school quality in Ascension Parish has increased the value of homes in the parish.

This report is organized based on the three categories of economic impact included in the study. First, we assess the economic impact of ongoing operations, which captures the broader set of jobs, labor income and economic output supported by APS. Second, we summarize our survey and assessment of how APS has helped Ascension Parish to grow. Third, we describe existing research linking school quality with property values and estimate the increase in property value attributable to APS quality. Finally, we provide a discussion of local tax implications for each of the three categories of impact included in the study and summary the findings of the study.

Figure 1: 2018 School District Size within Baton Rouge MSA

SCHOOL DISTRICT SIZE	
Baton Rouge Metropolitan Area	
1. East Baton Rouge Parish	41,041
2. Livingston Parish	25,855
3. Ascension Parish	22,862
4. Zachary Community School District	5,586
5. Iberville Parish	4,827
6. Central Community School District	4,750
7. West Baton Rouge Parish	3,843
8. Pointe Coupee Parish	2,903
9. West Feliciana Parish	2,291
10. East Feliciana Parish	1,891
11. City of Baker School District	1,321
12. St. Helena Parish	1,192

Part 1: Economic Impact of APS Operations

This section describes the direct spending by APS through payroll and other local expenditures and the jobs and economic output that it supports in the local economy. APS has 2,917 direct employees, of which 1,496 are classroom teachers. Total payroll is \$127 million, or \$200 million with benefits. The total operating expenses for FY2018 was \$306 million, not including debt service, with 77% of this spent within parish. The general fund, which provides primarily for instruction and support services, comprises \$241 million of these total operating expenditures, while additional expenditures were supported by FEMA and bond-related construction in 2018.

Like a rock dropped into a pond, spending by the school district ripples throughout that economy. The school district and its employees support sales in the community. Area businesses that benefit from those expenditures in turn can support payroll for additional workers. Spending by those businesses and their employees then creates another round of sales for other businesses and the process continues. An economic impact analysis provides us with the tools to quantify the full impact of these ripple effects within an economy using jobs, earnings, and output (or total sales) multipliers. Input-output models allows economists to quantify the spillovers from additional activity in one sector. In particular, we use an input-output model developed using IMPLAN, which relies on historical trade flows between locations and industries to estimate indirect and induced activity.

The economic impact analysis measures three types of impact:

- Employment – Total number of jobs including full-time and part-time jobs.
- Labor Income – Total wages including benefits.
- Output – The total value of industry production. Nonprofit institutions and government agencies are considered to have “nonmarket” output, meaning that they do not receive revenues from products that they sell. Output in these cases is measured using current operating expenses rather than receipts.

These measures are broken into the following three components of impact:

- Direct: Amount of employment, labor income, or output produced directly by the school district.
- Indirect: Inter-industry impacts of the school district, such as wholesale suppliers, construction firms, etc.
- Induced: Impacts generated by household spending by employees of the school district.

To estimate the impact of the school district’s spending, an industry change model was developed using IMPLAN, a common software and data package for economic impact analyses. Table 1 presents the direct, indirect, induced, and total effects of APS operational spending within the parish. The direct effect includes employment and labor income by the school board, but the measure of output represents only 77% of total \$306 million budget because that is amount of the total budget estimated to be spent within Ascension Parish. Indirect and Induced effects are calculated based on local spending. In total, we estimate that APS supports 4,688 jobs, \$251 million in labor income, and \$421 million in economic output each year within the parish.

Table 1: Economic Impact of Ascension Public Schools Operations

Impact Type	Employment	Labor Income	Output
Direct Effect	2,917	\$200 million	\$242 million
Indirect Effect	742	\$22 million	\$69 million
Induced Effect	1,028	\$30 million	\$110 million
Total Effect	4,688	251 million	\$421 million

Part 2: Impact of School Quality on Growth

In addition to supporting activity through its operating budget, APS quality has served as a magnet for growth. Even before the introduction of new charter schools and voucher systems, residents of the Baton Rouge Metropolitan Area have exercised school choice through a variety of methods including moving to a school attendance area like Ascension, Livingston, or Zachary. East Baton Rouge Parish has the majority of the jobs in the region, with 256,584 primary jobs compared to 39,246 primary jobs in Ascension Parish. Residents of East Baton Rouge Parish are employed within the parish 73% of the time. By contrast, only 30% of Ascension Parish residents work within the parish, while 40% work in EBR and another 30% in other places like the New Orleans Metropolitan Area (U.S. Census Bureau, 2019). Common commuting destinations for residents of Ascension Parish are listed in Table 2, and a heat map showing where residents work is shown in Figure 2. While nearly a third work in Ascension Parish, the majority are commuting either into EBR or to other places outside the parish. For these residents, jobs are likely not the main factor to reside in Ascension Parish.

Table 2: Parishes Where Residents of Ascension Parish are Employed

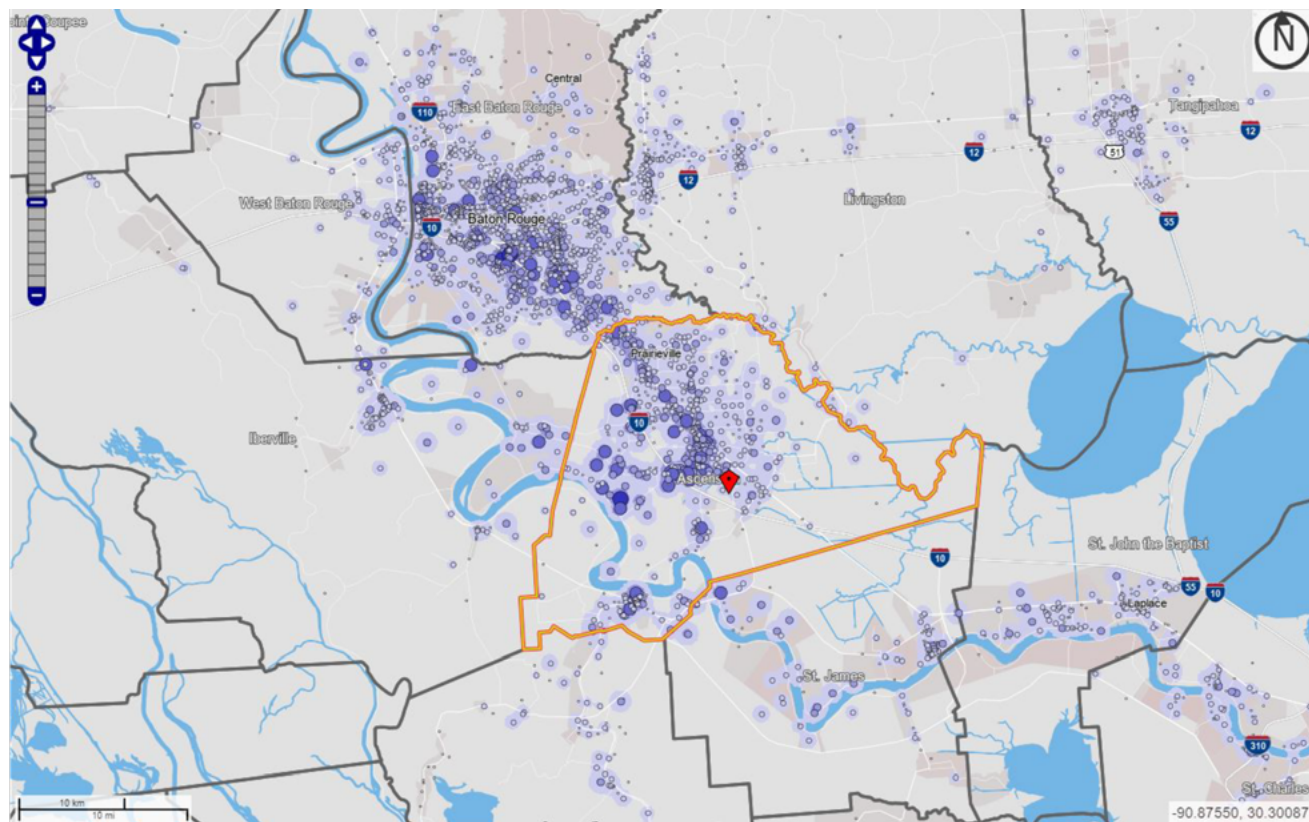
County	Count	Share
East Baton Rouge Parish	19,343	40%
Ascension Parish	14,630	30%
Jefferson Parish	1,599	3%
Iberville Parish	1,522	3%
St. James Parish	1,440	3%
Orleans Parish	992	2%
Livingston Parish	939	2%
St. John the Baptist Parish	870	2%
St Charles Parish	815	2%
Lafayette Parish	665	1%
All Other Locations	5,724	12%

Source: U.S. Census Bureau

In contrast to the imbalance of local jobs and commuting patterns, the quality of APS schools stands out as a potential factor attracting people to the region. A summary of major performance metrics for APS is provided in Figure 3. Ascension Public Schools are the 2nd highest performing school districts in the state and was one of only 4 districts statewide to have received an “A” rating. The cohort high school graduation rate for the district was 88%, compared to 78% statewide. Average ACT scores for high school seniors in Ascension was a 20.3 and 62% of high school graduates enroll in college the semester after graduation.

In fact, Ascension Public Schools ranks favorably among all districts in the region. Table 3 shows the ranking and performance scores of all Baton Rouge area school districts. While APS is not the only A rated school option near Baton Rouge, it is by far the largest and provides a high quality education to a large number of families in the area.

Figure 2: Where Residents of Ascension Parish are Employed



Source: U.S. Census Bureau, using OnTheMap

Table 3. Baton Rouge MSA Performance Scores and Ranks, 2018

District	Rank	Performance Score
Zachary Community School District	1	A
Ascension Parish	2	A
Central Community School District	5	B
West Feliciana	7	B
Livingston Parish	11	B
Iberville Parish	40	C
West Baton Rouge Parish	42	C
East Feliciana Parish	48	C
East Baton Rouge Parish	58	C
Pointe Coupee Parish	62	C
City of Baker School District	67	D
St. Helena Parish	69	F

The outstanding quality of APS schools in the most recently released data is also in line with a long-run trend of consistent quality. APS has received an A every year since 2012, and ranked among the top 15 school districts in Louisiana since at least 2001. Table 4 compiles the score and district ranking for APS for the last 18 years. Letter ratings are not available before 2010 and methodology for scores have varied through the years, but rank among the school districts in Louisiana is consistently favorable whatever the scoring system.

Figure 3: Ascension Parish Schools Performance Metrics

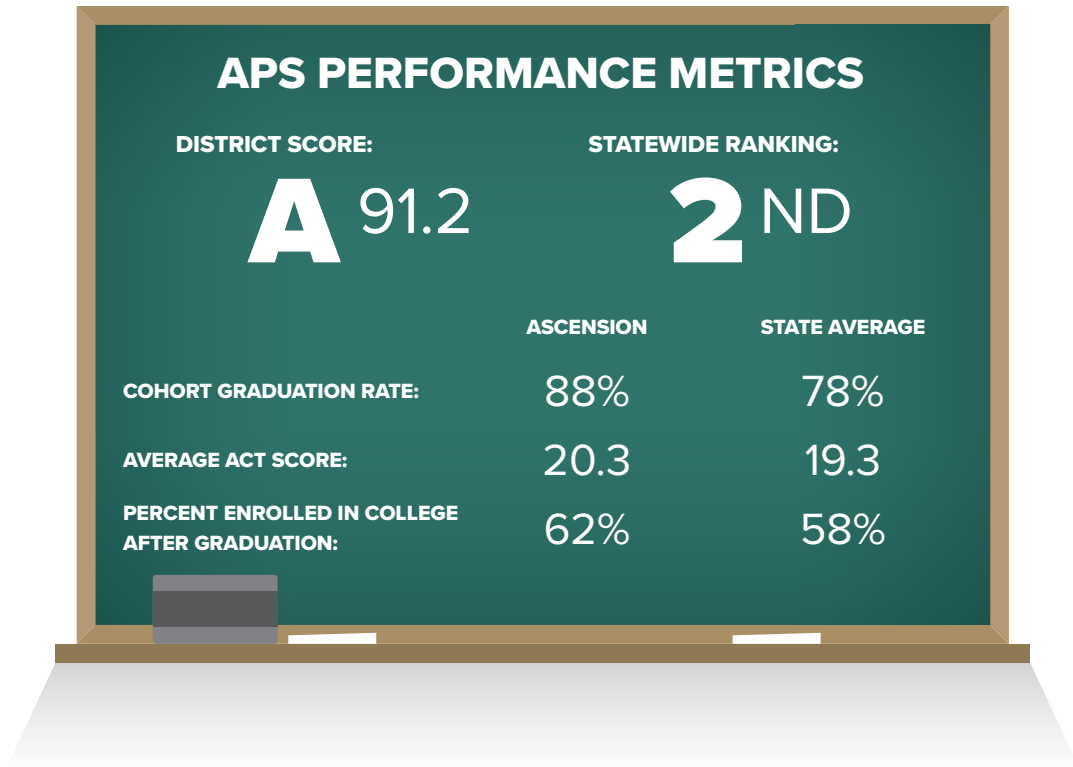


Table 4. Ascension Parish District Performance Scores and Rank since 2001

Year	Score	Rank	Letter
2018	91.2 (110.8*)	2 (3*)	A
2017	110.4	4	A
2016	109.3	4	A
2015	107.4	3	A
2014	106.9	3	A
2013	104.9	2	A
2012	121.2	7	A
2011	109.5	9	B
2010	105.6	7	-
2009	105.9	4	-
2008	99.8	10	-
2007	98.3	8	-
2006	97.1	9	-
2005	102.4	10	-
2004	98	12	-
2003	96.6	10	-
2002	92.7	14	-
2001	94	13	-

*Note: 2018 uses the old formula (in parenthesis) for DPS as well as the new formula.

The 2007 and 2017 population and 10 year growth rate of the metro area and its parishes are given in Table 5. Clearly, Ascension Parish population is growing quickly, with the parish population increasing from 99 thousand in 2007 to 123 thousand in 2017 (24% 10-year growth rate). During that period, school enrollment has grown by 20% (from 18.8 to 22.5 thousand). This is much higher than the average growth rate for the Baton Rouge Metro Area (8%) and East Baton Rouge Parish (4%). Livingston Parish, another bedroom community of Baton Rouge with a relatively high-quality school district within the Baton Rouge MSA, also saw a large growth of 19%.

Table 5: Population Growth by Parish in Baton Rouge MSA

Parish	2007 Population	2017 Population	10 Year Growth Rate
Ascension Parish	99,089	122,948	24%
East Baton Rouge Parish	429,914	446,268	4%
East Feliciana Parish	20,827	19,412	-7%
Iberville Parish	32,467	33,027	2%
Livingston Parish	116,469	138,228	19%
Pointe Coupee Parish	22,359	22,268	0%
St. Helena Parish	10,590	10,363	-2%
West Baton Rouge Parish	22,620	26,265	16%
West Feliciana Parish	15,062	15,380	2%
Metro Area	769,397	828,741	8%

APS Survey

Of course, school quality is not the only factor individuals and families weigh when deciding where to live. To more directly assess the effect of school quality on parents' decisions to live in Ascension Parish, we developed an original survey asking current APS parents about factors that influenced their decisions to locate in Ascension Parish.

The survey was first distributed to parents via e-mail on October 24, 2018. Reminders were sent on November 1, 2018 and November 12, 2018 and the survey closed November 18, 2018. A total of 1,938 responses were collected. The total response by school is listed in Table 6 (the total will exceed 1,938 because of parents with children in multiple schools).

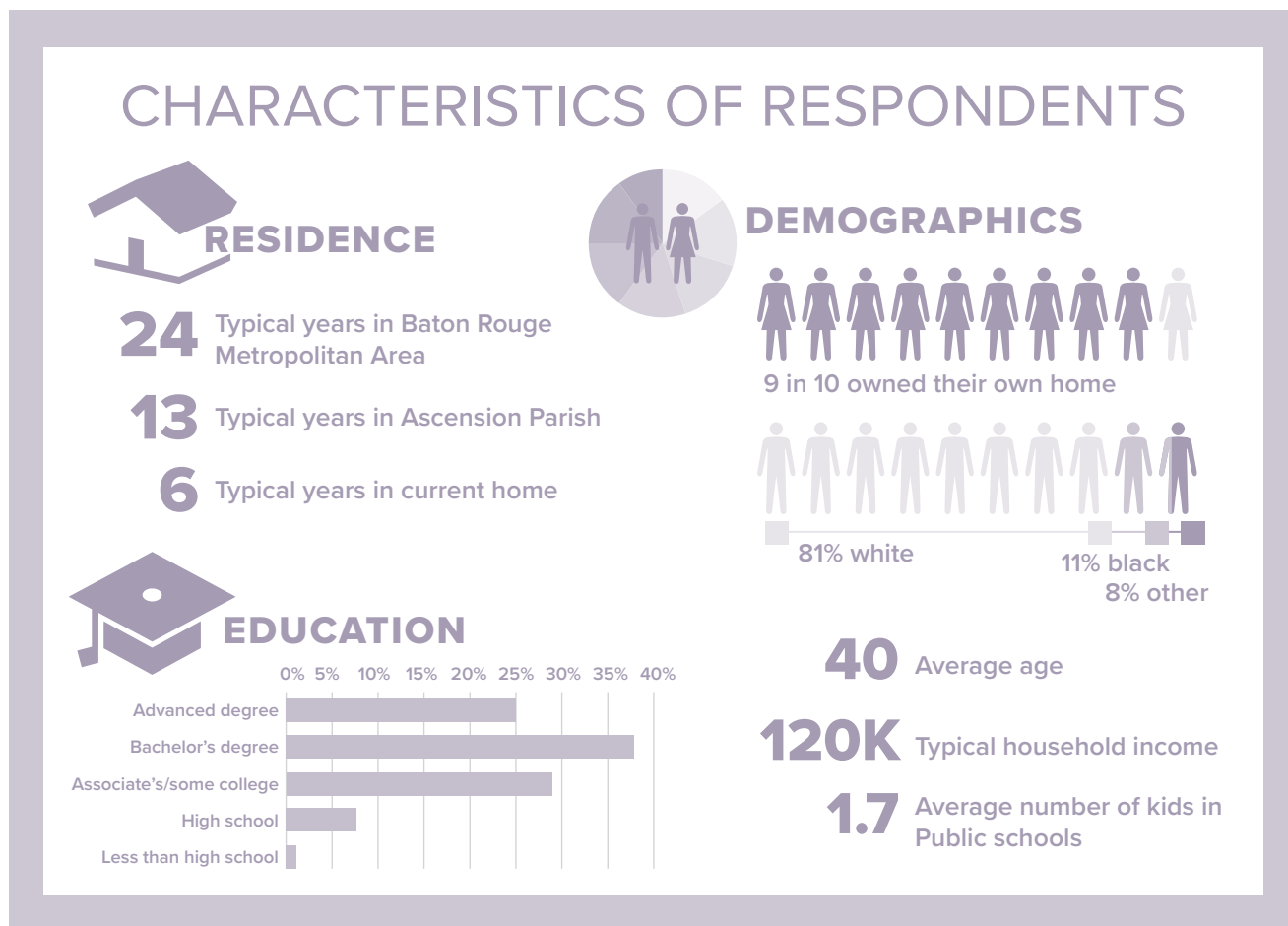
Surveys were sent by email to the parent address on file, so there are differences between survey respondents and the full population of parents. For instance, 90% of respondents were female, as mothers are usually the first contact provided in school files. Respondents also tended to have higher income and more education than averages for the parish, but responses were weighted to represent the distribution of parents across schools.

The survey asked a series of questions about the respondent, the number of children in APS, and how long they had lived in the parish and in the Baton Rouge MSA. The mean number of APS students was 1.7, the median term of residence in the Baton Rouge MSA was 24 years, and the median term of residence in Ascension Parish was 13 years. These basic statistics are shown in Figure 4, Characteristics of Respondents.

Table 6: APS Survey Responses by School

PRIMARY	
Central Primary School	68
Donaldsonville Primary School	18
Duplessis Primary School	49
Dutchtown Primary School	126
G.W. Carver Primary School	19
Galvez Primary School	107
Gonzales Primary School	21
Lake Elementary School	93
Lakeside Primary School	47
Lowery Elementary School	7
Oak Grove Primary School	129
Pecan Grove Primary School	14
Prairieville Primary School	145
Sorrento Primary School	35
Spanish Lake Primary School	104
St. Amant Primary School	52
MIDDLE	
Central Middle School	64
Dutchtown Middle School	135
Galvez Middle School	86
Gonzales Middle School	35
Lowery Middle School	11
Prairieville Middle School	167
St. Amant Middle School	59
HIGH	
Donaldsonville High School	12
Dutchtown High School	356
East Ascension High School	110
St. Amant High School	192

Figure 4: Characteristics of APS Survey Respondents



Next, two key questions were developed to determine the influence of school choice on residence, as follows:

1. Considering the many factors influencing your family's decision to live in Ascension Parish, please indicate how important each of the following possible reasons is to your family: (choices for each will be "Extremely important", "Very important", "Moderately important", "Slightly important" or "Not at all important")
 - a. You or your spouse accepted a new job or other job related reason.
 - b. You wanted more affordable and/or higher quality housing.
 - c. You wanted a better neighborhood/less crime.
 - d. You wanted your children to attend Ascension Parish schools.
 - e. You enjoyed the parish's parks and recreation availability.
 - f. Other family or miscellaneous reason? State if desired.
2. Please rank the following categories in order of importance based on how influential they were in your decision to live in Ascension Parish. (1 being most important and 7 being least important.)
 - a. Work related reasons
 - b. School related reasons
 - c. Housing related reasons
 - d. Family related reasons
 - e. Public Safety related reasons
 - f. Recreation related reasons
 - g. Miscellaneous reasons

The possible answers for each of these two questions were randomized to reduce potential for bias due to the order of presentation of the options. These two questions served as the basis for developing a “school factor” describing the influence the school district had on housing choice relative to other factors. School was ranked by survey respondents as the most important factor in both questions, giving some support to the idea that the growth of population in Ascension Parish is at least partially due to school district quality.

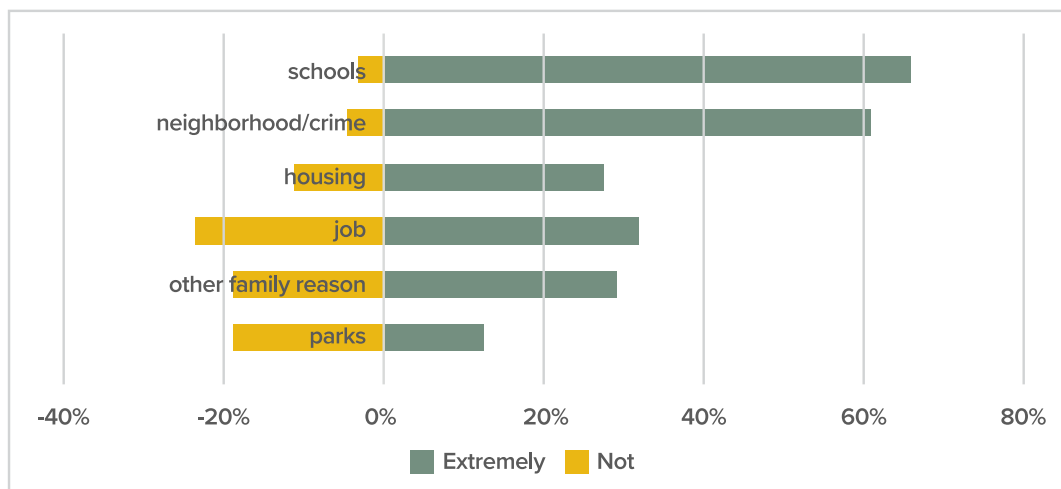
For the importance question, each of the levels of importance was assigned a value increasing as importance decreased, so “Extremely Important” received a 1 and “Not Important” received a 5. Schools were ranked “extremely important” by 69% of respondents, closely followed by better neighborhoods/less crime (61% of respondents). Other responses were significantly less important in aggregate, as shown in Table 7 by the mean responses. The lower the mean importance, the more important this factor was to respondents.

Table 7: Mean Importance of Factors

Factor	Mean Importance
Ascension Public Schools	1.5
Neighborhood/Crime	1.6
Affordable and/or Quality Housing	2.4
Job Related Reason	2.7
Other Family or Miscellaneous Reason	2.7
Parks and Recreation	3.2

The graph in Figure 5 shows the relative importance attributed by respondents to each factor focusing only on the extreme responses of “Not Important” and “Extremely Important.” For the full spectrum of responses, including “Slightly Important,” “Moderately Important,” and “Very Important,” see Figure A1 in the Appendix. Schools stand out as the most important factor and better neighborhood/less crime is second most important. While a new job received more “Extremely important” responses than affordable housing, it also received the largest number of “not important” responses of all the factors, even parks and recreation (the factor with the lowest mean) and therefore received a mean lower than the housing factor. This reflects the role Ascension Parish plays as a suburb of Baton Rouge; while there are many jobs attracting people to Ascension, it is also seen by a large fraction of the community as an attractive alternative to living in East Baton Rouge Parish.

Figure 5: Extremely Important and Not Important Factors for Living in Ascension Parish



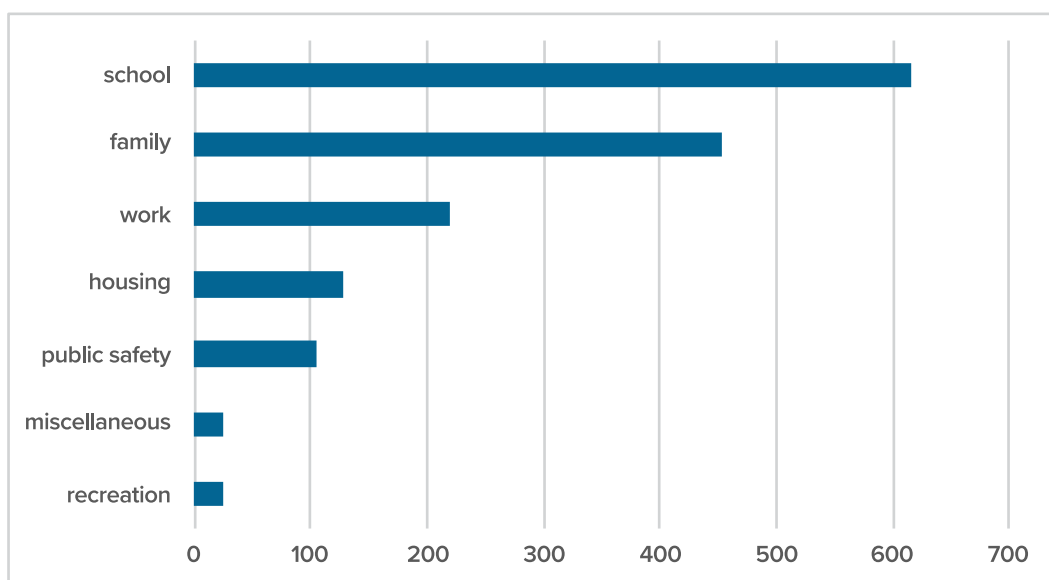
The second question used to determine the extent to which the school district influences location choice asked respondents to rank the factors from most to least important. In this case, a lower mean ranking signifies a higher level of importance relative to other factors. Overall, schools were ranked as the number one reason for living in Ascension Parish. Schools were ranked as the first factor by 43% of respondents, and second by 29% of respondents. The second most important factor was family (ranked first by 26% and second by 13%). Table 8 shows the mean ranking, where the lower the mean, the more important that factor was considered.

Table 8: Mean Ranking of Factors

Factor	Mean Ranking
Ascension Public Schools	2.2
Family Reason	3.2
Affordable and/or Quality Housing	3.4
Neighborhood/Crime	3.7
Job Related Reason	3.7
Parks and Recreation	5.8
Miscellaneous Reason	6.0

Figure 6 shows the number of respondents that ranked various factors as #1. Schools are the most important reason by far, trailed by family, work, housing, and public safety and crime. To provide a sense of how much variability there was in ranking these factors, the results are displayed in a box-and-whisker chart in Figure A2 in the Appendix.

Figure 6: Highest Ranked Reason to Live in Ascension Parish

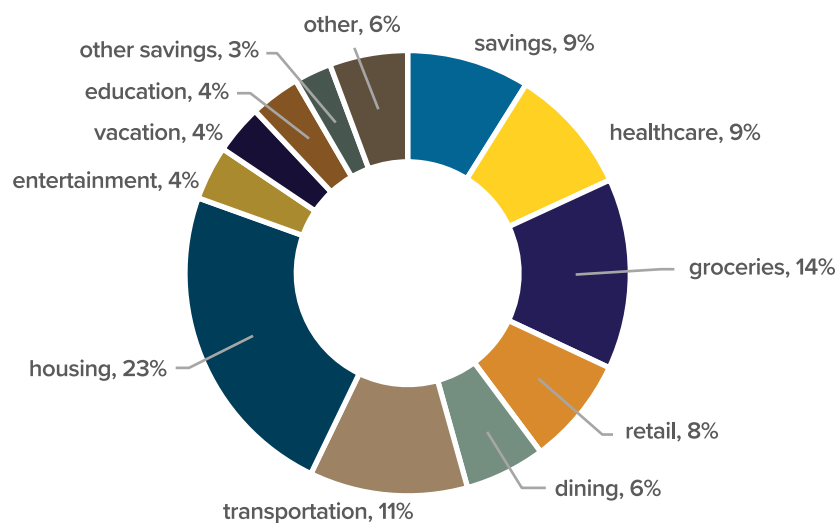


Because respondents differed from the income distribution of residents of Ascension Parish, we also looked at these location choice-related questions for 6 different income groups: (1) Less than \$20,000; (2) \$20,000 - \$39,999; (3) \$40,000 - \$59,999; (4) \$60,000 - \$79,999; (5) \$80,000 - \$99,999; (6) More than \$100,000. Responses were

fairly similar across all groups. The very lowest income groups rate family and neighborhood/crime more important or about the same as schools, while these factors fall in importance as household income increases. However, across all income groups, schools are rated between “Very Important” and “Extremely Important” in aggregate. We also looked at the question of rank across income groups. In all income groups, school was ranked as the most important factor, though family serves a close second in the lowest income group. Overall, the relative role schools play in decisions to locate in Ascension Parish is similar across income groups.

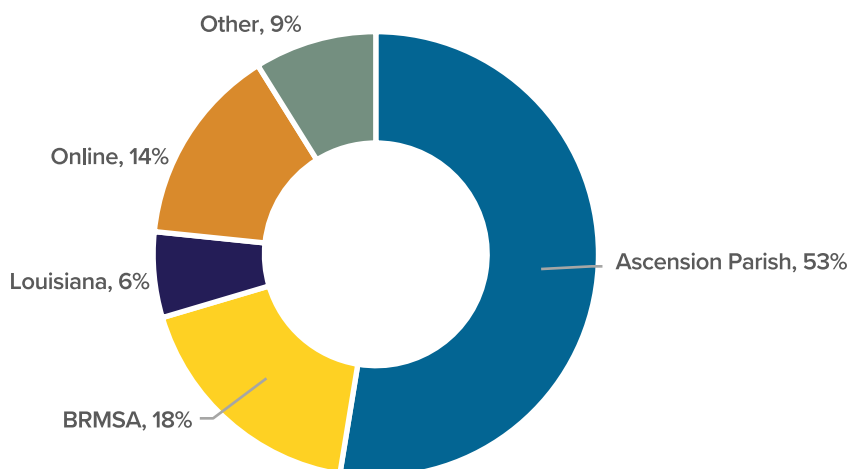
The different categories of spending by respondents are shown in Figure 7. The largest category of expenses is housing, followed by groceries. Other significant expenditures include transportation, savings, and healthcare. These data were used to validate the local spending profiles for calculating economic impacts from APS-induced growth.

Figure 7: Spending Patterns Among Respondents



Respondents were also asked how much spending was local (within Ascension Parish) compared to spending elsewhere in the Baton Rouge MSA to assist with calculation of economic impacts. More than half (53%) of spending was local, with another 18% going to other Baton Rouge Metropolitan Area parishes.

Figure 8: Percentage of Spending by Location



Estimating Influence of School Quality

The basic methodology of determining the influence of school quality on growth is to develop a “school factor” from the survey that provides an assessment of the percentage influence school district had on the decision to live in Ascension Parish for all parents of public school students. Next, we divide the Ascension Parish population into different household types and apply a percentage of the “school factor” to each household type to arrive at an overall parish-level school factor.

To create the school factor, we looked at whether schools were ranked the number 1, 2, or other rank influencing housing choice as well as how important schools were to the decision to living in Ascension Parish and whether any other factors were marked as “extremely important.” If parents ranked schools number one, thought that they were “extremely important,” and said nothing else was “extremely important,” it was assumed that they moved to Ascension Parish almost entirely for the schools. To be conservative, this group was given a score of 90% (implying that 90% of the decision to live in Ascension could be attributed to APS, or alternatively that about 90% of these families moved to Ascension because of APS). A score of 75% was given to parents who ranked schools number one, but had one other “extremely important” factor affecting their decision. Lower scores were given to parents who thought schools were extremely important but didn’t rank them at least their number 2 reason or ranked schools in their top 2 without saying they were extremely important. Any other responses (meaning that schools were ranked less than 2 and not “extremely important”) received a score of 0.

With these scores, we assembled an aggregate “school factor” for APS parents by multiplying each respondent by their respective scores and then dividing by the total number of respondents. This is the formula:

$$\text{school factor} = \frac{\sum_{i=1}^N \text{score}_i * \text{respondent}_i}{N}$$

N = Number of Respondents

This results in a school factor of 28.5% across APS parents, meaning that for the average public school parent about 28.5% of the reason they decided to live in Ascension Parish was the quality of the school district. Alternatively, this factor can be interpreted as implying that approximately 28.5% of the school population moved to Ascension Parish for the schools.

This school factor can only be applied to public school parents. In order to extrapolate the importance of public schools to the entire population, we separated households into five types:

- ▶ Households with school age kids
- ▶ Households with young kids only
- ▶ Households that never had/will never have kids
- ▶ Households that have not had kids yet, but may in the future
- ▶ Households that used to have kids.

Each of these five categories is then given a modifier indicating what portion of the population in this category is expected to be influenced by the “school factor.”

Households with school age kids are the most directly connected group in this analysis. The US Census Bureau publishes an estimate of the number of households with own children between 5 and 18 years old, which we use to represent households with school age children. In Ascension parish, 12,199 households have school-aged children, which is 28% of households. Some portion of these do not use public schools because they send their kids to private school, homeschool, drop out, etc. We compared the school age population with Ascension Parish school enrollment, and found that 90% of children in Ascension Parish are enrolled in the public school system. Thus, the modifier for this household type is 0.9.

5 HOUSEHOLD TYPES

AND THE INFLUENCE OF SCHOOL DISTRICT ON HOUSING CHOICE

Households with School Age Kids

This group gives the most weight to school quality as a deciding factor for housing choice. Approximately 90% of this group is in public school (with the remainder in private school, home school, etc.)



Households that Have Not Had Kids Yet

These young adults are highly mobile and are assumed to put no weight in school district for their housing choices.



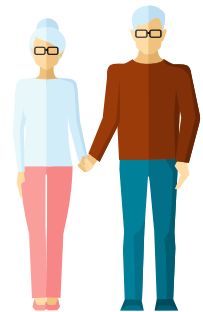
Households with Young Kids Only

This group has kids not yet in kindergarten. They are assumed to give some weight to school as they make housing choices, but not as strongly as those with school age kids.



Households that Used to Have Kids in Home

These households no longer use public schools, but is not very mobile, often in the same home as when kids were still in school. School district is assumed to have a small influence on housing choice.



Households that Never Had/Will Never Have Kids

These households are assumed to have no interest in school district.



The second type of household is households with only young kids not yet in kindergarten. The Census Bureau estimates this household population at 2,379 households, or 5% of the population. Because these households are likely to be concerned about schools, but do not yet have children in school, they receive a modifier of 0.5, which implies that approximately 50% of these individuals may have been planning for the future and considered schools in their decision to locate in Ascension Parish.

The next two household types are assumed to not factor school district into their decision to live in Ascension Parish at all, and receive a modifier of 0. Households that never had or plan to never have kids do not care about school district. The Census Bureau estimates that approximately 16% of women at the end of their child-bearing years remain childless. This group comprises 7,047 households. Households that have not had kids yet, such as young adults and new professionals are likewise assumed to have no interest in school districts. This population was estimated by looking at an age distribution of households with kids. After age 40, there is a significant increase in households without kids because kids are beginning to graduate and leave the home. Approximately 16% of this group falls into the category of not yet having kids, or a total of 3,631 households and 8% of the population.

The final household type includes households that used to have kids in their home, but whose kids are no longer school-aged. There are an estimated 19,063 households of this type, or 43% of the population. This group would no longer be expected move to Ascension Parish for access to the school district. However, many in this group may have moved to the area, or stayed in the area because of school quality and now remain in the same residence they did while their kids were in school as is common with many empty-nesters. This group is given a modifier of 30%, based on geographic mobility data from the Census Bureau and the likelihood that a resident remains in the same parish for 30 years.

Therefore, the influence of school quality on growth can be calculated as follows:

$$school\ influence = \frac{\sum_{i=1}^H school\ factor_i * modifier_i * household_i}{H}$$

$H = \text{Number of Households}$

Using the modifiers and population distribution described by the household types above, the influence of school district on location choice is 11.5% in Ascension Parish. This equates to an estimate that APS has helped spur growth in population of approximately 5,100 households in the parish and helped boost personal income each year by \$664 million (including wages and benefits). This number will be used to determine the portion of spending in Ascension Parish attributable to the influence of good public schools.

School Influence =

11.5%

Economic Impact Analysis

The economic impact of this growth in population was measured using a Labor Income Change in IMPLAN. Labor income was estimated using 11.5% of household income in the parish according to the Bureau of Economic Analysis. The spending generated by an increase in labor income is called the induced economic effect, which creates new jobs, additional income and new sales in the parish. The total induced effect from the population change is 1,871 new jobs, \$53 million of labor income, and \$196 million output.

Table 9: Induced Effect from Population Growth

Impact Type	Employment	Labor Income	Output
Induced Effect	1,871	\$53 million	\$196 million

Between the \$664 million in personal income attracted to the parish by APS school quality and the \$53 million in induced economic activity, APS school quality can be said to add \$717 million in wages and benefits to Ascension Parish.

Part 3: Impact of School Quality on Property Value

The families attracted to Ascension Parish by the quality of APS schools have helped spur development, which can be looked at an increase in the number of single and multi-family homes built in the parish over time. This pattern has also been confirmed more generally by previous research. For areas within 30 miles of metropolitan cities, test scores at public schools have been found to be positively correlated with residential population growth (Barkley et al. 1998).

Previous research has shown that the value of homes is also higher in areas with better schools. Several studies found positive correlations between home prices and school quality, with home values increasing 1.3-2.1% for every standard deviation increase in test scores (Clapp et al. 2008; Black 1999; Dougherty et al. 2009; Figlio & Lucas 2000). Another study used Florida's school report cards, which rank districts on a letter grade scale (ABCD) similar to rankings is done in Louisiana, to estimate the impact of school district quality on home values and found significant changes to home values following an "A" grade (Figlio & Lucas 2000). Higher home values are indicative of the monetary value parents place on school quality and reflect an increasing demand for homes in the parish, which in turn increases spending in local stores and services (Barrow 2002). Therefore, we will include a third source of economic impact stemming from quality school districts: the increase in home values and the increase in equity and wealth for residents of the parish.

To apply this analysis, we compare the APS school district with the East Baton Rouge Parish school district. Ascension is a suburb of Baton Rouge, with more residents commuting into East Baton Rouge Parish than working in Ascension Parish so it is natural to think many residents would have considered Baton Rouge as a primary alternative to Ascension Parish. To compare school districts, we look at the 2018 school district performance scores published by the Louisiana Department of Education. In 2018, APS received a district performance score of 91.2. East Baton Rouge received a district performance score of 65.4. The state average district performance scored was 76.1, with a standard deviation of 11, which puts Ascension at 2.3 standard deviations above East Baton Rouge.

The 2017 Louisiana Tax Commission Annual Report lists the total value of residential property in Ascension at \$4.6 billion. Using the range of 1.3 to 2.1% per standard deviations identified in prior research, we estimate that home values have increased by an average of 3-5% in Ascension Parish, adding between \$138 and \$223 million to the value of homes in the parish.

Tax Implications

Traditionally, schools are thought of as a sales tax consumer, but they are also part of the sales tax engine in the parish. School operations are exempt from sales tax, but the salaries paid to employees circulate in the local economy and support spending on taxable retail purchases, real estate, and other tax generating activities. In addition, expenditures by APS at other local businesses support income for employees at those local businesses as well as additional rounds of spending as the initial spending ripples through the economy. In total, APS operations are estimated to support approximately \$6.7 million in sales taxes. In addition, income paid by APS helps employees pay for housing expenses including an estimated \$1.8 million in property taxes. The economic activity generated by new population and income attracted to the parish by APS quality is estimated to create \$19.0 million in new sales taxes and \$6.1 million in new property taxes in Ascension Parish. Finally, an increase in home values due to the high quality of APS schools increases property taxes within the parish, which results in an increase of \$1.6 million in new property taxes each year. These three types of activity attributed to APS are estimated to generate \$25.7 million in sales tax and \$7.9 million in property tax and can be seen as recapturing a portion of the taxes that form the basis of the APS budget.

Table 10: APS Impact on Local Taxes

	Sales Taxes	Property Taxes
Taxes from Part 1 School Operations	\$ 6.7 million	\$ 1.8 million
Taxes from Part 2 Population Growth	\$ 19.0 million	\$ 6.1 million
Taxes from Part 3 Home Value Increase		\$ 1.6 million
Total	\$ 25.7million	\$ 7.9 million

Summary and Conclusions

Ascension Public Schools is one of the top ranked school districts in the state of Louisiana providing quality education to almost 23,000 students, setting these students on a path to higher income and, for some, higher education. Beyond the core educational mission, the school district also supports economic activity, income, and wealth creation in the parish. This study focused on assessing three ways in which schools impact the parish economy: how employment and spending by the school affects the local economy, how the quality of the school district has helped the parish grow, and how home values are affected by school quality. We estimate that APS operations support 4,700 employees and \$251 million in labor income in the parish. While any school district's operations can help support economic activity at some level, Ascension Public Schools stand out in their contribution to long-term population and income growth within the parish. We surveyed parents of APS students and find that schools were ranked as the #1 factor in their choice to live in Ascension Parish. We estimate that 28% of school parents or 11.5% of all residents live in Ascension because of school quality. APS is a real contributor to the rapid population growth, housing construction boom, and expanding retail and consumer service economy experienced in the parish today. The total economic impact of population and income increases driven by school quality is an increase of \$717 million in wages and benefits in Ascension Parish. Finally, we discuss the ways the quality of the school district has increased wealth in the parish by adding between \$138 and \$223 million to home value. Ascension Public Schools is an asset to the parish not just for the top-notch education they provide, but also as a magnet for population growth and economic development.

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Appendix

Figure A1

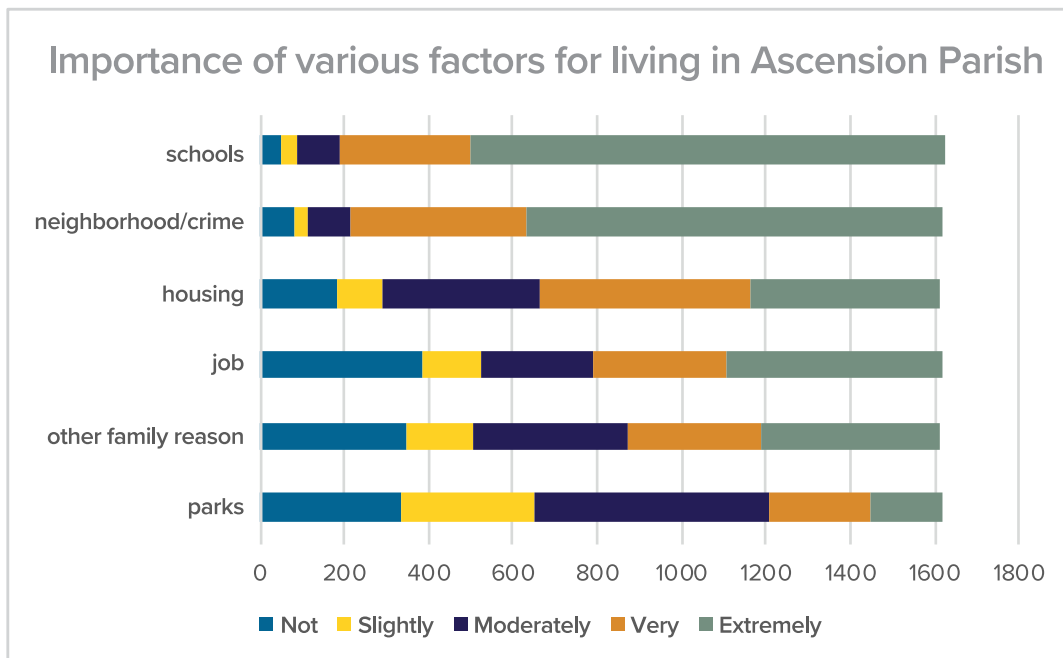


Figure A1 shows the importance of various factors to APS parents in their decision to live in Ascension Parish. In Figure 8 in the survey results section, the ratings of “Not Important” and “Extremely Important” were the only ones shown; this figure gives the full spectrum of responses.

Figure A2

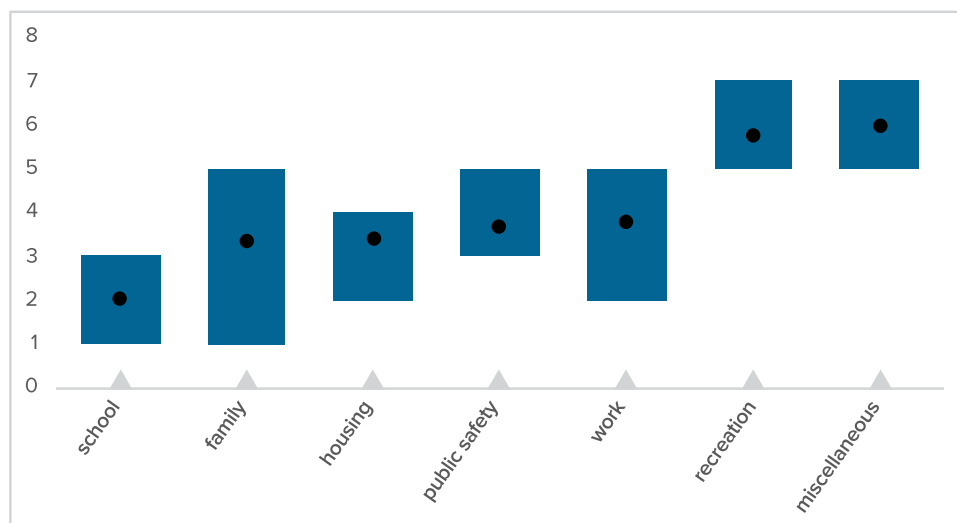


Figure 2 A displays results from the question asking parents to rank factors in significance to their decision to live in Ascension Parish. This is a box and whisker chart, which shows the range of typical answers (the 25th and 75th percentile of responses) with the blue bar and the mean response with the black dot. The lower and tighter the bar and black dot, the more important this factor is.

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