Planning for the Future

17/18 Enrollment Report

Presented to the District on June 11, 2018
Discussion Points

- **Introductions**
- **Enrollment and Demographics** (Part One)
  - Key Things
  - Maps: Planning Areas and Attendance Areas
  - Sophisticated Forecast Model (SFM)
  - Demographics
  - 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)
  - Projection Accuracy
  - Past, Current, Future Enrollment
  - Building Projections
- **Moving Forward** (Part Four)
  - Key Considerations
About RSP

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

Planning

Robert Schwarz
CEO, AICP, REFP, CEFP

Grant Lang
Planning Coordinator

Educators

Clay Guthmiller
Education Planner

Craig Menozzi
Education Planner

David Stoakes
Education Planner, EdD

Dave Wilkerson
Education Planner, PhD

GIS Analyst

Tyler Link
GIS Analyst

Brandon Sylvester
GIS Analyst
Making it Happen

Adel Desoto Minburn Community School District
- Administration

County and Others
- City of Adel
- City of DeSoto
- Dallas County
- Madison County
- Iowa DOT
- Census Bureau/Esri
- United States Geological Survey

Thank you!
Part One:
Enrollment & Demographics
Key Things About the District

Enrollment:
- By 2022/23 Projected to increase by >500 students (28.7%) (Annually between 4% and 6%)
- By 2018/19 K-12 enrollment greater than 2,000
- By 2017/18 K-5 enrollment >1,000 students

Capacity:
- Elementary greatest immediate need
- Adel ES exceeds Desired Educational Capacity by 2018/19
- DeSoto Inter exceeds Desired Educational Capacity by 2020/21
- Adel MS exceeds Desired Educational Capacity by 2022/23
- The Facility Master Plan Committee is working on potential solutions

Development:
- Significant available land for residential development
- Annexation plans are regularly discussed
- Abatement in Adel and possibly at some point in the future in DeSoto will influence how quickly the ADM enrollment will increase
- District Boundary (Purple Line)
- Major Streets
- Major water features & cultural features
- Municipality Limits (Color Shading)
- **Land Use** *(Residential, Commercial, Industrial)*
- **Residential Density** *(Single-Family, Mobile Home, Duplex, Apartment)*
- **Natural Features** *(Rivers and Creeks)*
- **Manmade Features** *(Railroad and Streets)*
- **Attendance Area**

There are over **145** planning areas RSP monitors for demographic, development, and enrollment data sets.
Sophisticated Forecast Model

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

**Built-Out**

\[ S_{c, t, x} = S_{c - 1, t - 1, x} \times GC \]

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**

\[ S_{c, t, x} = S_{c - 1, t - 1, x} + (BP_{t, x} \times R_{c, x}) \]

Where:

\[ BP_{t, x} = \left( \frac{(CP_x) (BT_x) (A_x)}{\sum_x (CP_x) (BT_x) (A_x)} \right) \times CT \]

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
Population: Ages 0-4

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

Population
2010-2017 Annual rate

Housing Development
2010-2017 Annual Rate

Income
Per Capita; 2017-2022 Annual Rate

Workforce
Public Administration

Source: US Census
## Demographic Comparison

<table>
<thead>
<tr>
<th>Demographic Attribute</th>
<th>ADM Community School District</th>
<th>Dallas County, IA</th>
<th>Madison County, IA</th>
<th>State of Iowa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment Rate</td>
<td>1.3%</td>
<td>1.2%</td>
<td>4.1%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Average Household Size</td>
<td>2.52</td>
<td>2.61</td>
<td>2.57</td>
<td>2.42</td>
</tr>
<tr>
<td>Median Age</td>
<td>38.2</td>
<td>35.4</td>
<td>41.4</td>
<td>38.9</td>
</tr>
<tr>
<td>Total Population</td>
<td>8,950</td>
<td>85,873</td>
<td>16,117</td>
<td>3,199,548</td>
</tr>
<tr>
<td>Median Household Income</td>
<td>$61,481</td>
<td>$78,997</td>
<td>$58,787</td>
<td>$54,832</td>
</tr>
<tr>
<td>Total Housing Units</td>
<td>3,686</td>
<td>35,016</td>
<td>6,823</td>
<td>1,403,034</td>
</tr>
<tr>
<td>Owner Occupied Housing Units</td>
<td>2,651</td>
<td>25,207</td>
<td>4,764</td>
<td>905,162</td>
</tr>
<tr>
<td>Renter Occupied Housing Units</td>
<td>852</td>
<td>7,487</td>
<td>1,421</td>
<td>374,016</td>
</tr>
<tr>
<td>Vacancy Rate</td>
<td>5.0%</td>
<td>6.6%</td>
<td>9.4%</td>
<td>8.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>ADM Community School District</th>
<th>Dallas County, IA</th>
<th>Madison County, IA</th>
<th>State of Iowa</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>93.3%</td>
<td>79.0%</td>
<td>95.3%</td>
<td>82.9%</td>
</tr>
<tr>
<td>Black</td>
<td>0.6%</td>
<td>2.3%</td>
<td>0.5%</td>
<td>3.6%</td>
</tr>
<tr>
<td>American Indian</td>
<td>0.4%</td>
<td>0.3%</td>
<td>0.2%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Asian</td>
<td>0.8%</td>
<td>5.7%</td>
<td>0.6%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>0.2%</td>
<td>0.1%</td>
<td>0.0%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Other Race</td>
<td>0.8%</td>
<td>2.7%</td>
<td>0.3%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>1.2%</td>
<td>2.3%</td>
<td>1.4%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2.7%</td>
<td>7.6%</td>
<td>1.7%</td>
<td>6.1%</td>
</tr>
</tbody>
</table>

**What does this mean?**
- Demographic attribute is mostly consistent between the geographies.
- The district has a lower vacancy rate when compared to the U.S. of 11.3%.
- Total Housing units is expected to increase from its current 3,686 in 2017 to 4,238 by 2022.
### Past School Enrollment

#### Enrollment By Grade

<table>
<thead>
<tr>
<th>Year</th>
<th>K</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
<th>7th</th>
<th>8th</th>
<th>9th</th>
<th>10th</th>
<th>11th</th>
<th>12th</th>
<th>K-12 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000/01</td>
<td>103</td>
<td>107</td>
<td>91</td>
<td>114</td>
<td>115</td>
<td>111</td>
<td>118</td>
<td>106</td>
<td>115</td>
<td>136</td>
<td>124</td>
<td>123</td>
<td>131</td>
<td>1,494</td>
</tr>
<tr>
<td>2001/02</td>
<td>112</td>
<td>88</td>
<td>105</td>
<td>102</td>
<td>114</td>
<td>118</td>
<td>110</td>
<td>121</td>
<td>105</td>
<td>110</td>
<td>135</td>
<td>117</td>
<td>123</td>
<td>1,460</td>
</tr>
<tr>
<td>2002/03</td>
<td>123</td>
<td>98</td>
<td>94</td>
<td>111</td>
<td>102</td>
<td>112</td>
<td>126</td>
<td>116</td>
<td>117</td>
<td>113</td>
<td>111</td>
<td>128</td>
<td>119</td>
<td>1,470</td>
</tr>
<tr>
<td>2003/04</td>
<td>95</td>
<td>114</td>
<td>94</td>
<td>94</td>
<td>118</td>
<td>103</td>
<td>114</td>
<td>127</td>
<td>124</td>
<td>113</td>
<td>118</td>
<td>109</td>
<td>122</td>
<td>1,445</td>
</tr>
<tr>
<td>2004/05</td>
<td>120</td>
<td>98</td>
<td>117</td>
<td>96</td>
<td>97</td>
<td>129</td>
<td>101</td>
<td>113</td>
<td>126</td>
<td>123</td>
<td>114</td>
<td>104</td>
<td>121</td>
<td>1,459</td>
</tr>
<tr>
<td>2005/06</td>
<td>98</td>
<td>95</td>
<td>104</td>
<td>123</td>
<td>102</td>
<td>95</td>
<td>133</td>
<td>107</td>
<td>117</td>
<td>127</td>
<td>120</td>
<td>107</td>
<td>102</td>
<td>1,430</td>
</tr>
<tr>
<td>2006/07</td>
<td>105</td>
<td>99</td>
<td>103</td>
<td>101</td>
<td>120</td>
<td>102</td>
<td>94</td>
<td>137</td>
<td>105</td>
<td>116</td>
<td>119</td>
<td>110</td>
<td>101</td>
<td>1,412</td>
</tr>
<tr>
<td>2007/08</td>
<td>108</td>
<td>112</td>
<td>105</td>
<td>97</td>
<td>101</td>
<td>124</td>
<td>100</td>
<td>106</td>
<td>136</td>
<td>106</td>
<td>114</td>
<td>113</td>
<td>100</td>
<td>1,422</td>
</tr>
<tr>
<td>2008/09</td>
<td>99</td>
<td>114</td>
<td>113</td>
<td>113</td>
<td>104</td>
<td>102</td>
<td>127</td>
<td>101</td>
<td>98</td>
<td>135</td>
<td>108</td>
<td>109</td>
<td>119</td>
<td>1,442</td>
</tr>
<tr>
<td>2009/10</td>
<td>110</td>
<td>101</td>
<td>114</td>
<td>114</td>
<td>113</td>
<td>106</td>
<td>108</td>
<td>133</td>
<td>101</td>
<td>99</td>
<td>137</td>
<td>113</td>
<td>111</td>
<td>1,460</td>
</tr>
<tr>
<td>2010/11</td>
<td>110</td>
<td>107</td>
<td>104</td>
<td>114</td>
<td>116</td>
<td>117</td>
<td>103</td>
<td>110</td>
<td>131</td>
<td>105</td>
<td>98</td>
<td>131</td>
<td>101</td>
<td>1,447</td>
</tr>
<tr>
<td>2011/12</td>
<td>121</td>
<td>108</td>
<td>105</td>
<td>108</td>
<td>112</td>
<td>119</td>
<td>123</td>
<td>110</td>
<td>115</td>
<td>132</td>
<td>106</td>
<td>107</td>
<td>131</td>
<td>1,497</td>
</tr>
<tr>
<td>2012/13</td>
<td>133</td>
<td>128</td>
<td>116</td>
<td>102</td>
<td>110</td>
<td>117</td>
<td>118</td>
<td>130</td>
<td>114</td>
<td>113</td>
<td>130</td>
<td>114</td>
<td>103</td>
<td>1,528</td>
</tr>
<tr>
<td>2013/14</td>
<td>118</td>
<td>133</td>
<td>136</td>
<td>123</td>
<td>103</td>
<td>118</td>
<td>118</td>
<td>117</td>
<td>128</td>
<td>123</td>
<td>109</td>
<td>122</td>
<td>111</td>
<td>1,559</td>
</tr>
<tr>
<td>2014/15</td>
<td>131</td>
<td>125</td>
<td>141</td>
<td>136</td>
<td>124</td>
<td>108</td>
<td>125</td>
<td>117</td>
<td>111</td>
<td>129</td>
<td>116</td>
<td>114</td>
<td>120</td>
<td>1,597</td>
</tr>
<tr>
<td>2015/16</td>
<td>132</td>
<td>139</td>
<td>132</td>
<td>147</td>
<td>136</td>
<td>127</td>
<td>110</td>
<td>128</td>
<td>121</td>
<td>120</td>
<td>127</td>
<td>115</td>
<td>111</td>
<td>1,645</td>
</tr>
<tr>
<td>2016/17</td>
<td>161</td>
<td>144</td>
<td>146</td>
<td>140</td>
<td>148</td>
<td>147</td>
<td>130</td>
<td>120</td>
<td>128</td>
<td>128</td>
<td>123</td>
<td>130</td>
<td>116</td>
<td>1,761</td>
</tr>
<tr>
<td>2017/18</td>
<td>134</td>
<td>163</td>
<td>147</td>
<td>152</td>
<td>153</td>
<td>149</td>
<td>151</td>
<td>135</td>
<td>120</td>
<td>130</td>
<td>129</td>
<td>118</td>
<td>124</td>
<td>1,805</td>
</tr>
</tbody>
</table>


### Table Explanation:

- Largest K-12 class in 2017/18 – 1st grade (163)
- Smallest K-12 class in 2017/18 – 11th grade (118)
- Graduating senior class smaller than the next year incoming Kindergarten class

Enrollment provided by the district

Does not include Early Childhood, Preschool, Age 5 Not in kindergarten, Home School, Private School, or Parochial School
### Past School Enrollment Change

#### Table Explanation: Change varies by grade
- Largest average class increase – Kindergarten to 1st grade (+7 students)
  - 2016/17 to 2017/18 was not as large as previous years
- Largest average class decrease – 11th to 12th grade (-3 students)
- Propensity to have varying cohort change in ES, MS, and HS levels

Enrollment provided by the district
Does not include Early Childhood, Preschool, Age 5 Not in kindergarten, Home School, Private School, or Parochial School

#### Past School Enrollment Change

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>K</th>
<th>K 1st</th>
<th>2nd 3rd</th>
<th>3rd 4th</th>
<th>4th 5th</th>
<th>5th 6th</th>
<th>6th 7th</th>
<th>7th 8th</th>
<th>8th 9th</th>
<th>9th 10th</th>
<th>10th 11th</th>
<th>11th 12th</th>
<th>Total Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000/01</td>
<td>2001/02</td>
<td>9</td>
<td>-15</td>
<td>-2</td>
<td>11</td>
<td>0</td>
<td>3</td>
<td>-1</td>
<td>3</td>
<td>-1</td>
<td>-5</td>
<td>-1</td>
<td>-7</td>
<td>0</td>
</tr>
<tr>
<td>2001/02</td>
<td>2002/03</td>
<td>11</td>
<td>-14</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>-2</td>
<td>8</td>
<td>6</td>
<td>-4</td>
<td>8</td>
<td>1</td>
<td>-7</td>
<td>2</td>
</tr>
<tr>
<td>2002/03</td>
<td>2003/04</td>
<td>-28</td>
<td>-9</td>
<td>-4</td>
<td>0</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>8</td>
<td>-4</td>
<td>5</td>
<td>-2</td>
<td>-6</td>
</tr>
<tr>
<td>2003/04</td>
<td>2004/05</td>
<td>25</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>11</td>
<td>-2</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>1</td>
<td>-14</td>
<td>12</td>
</tr>
<tr>
<td>2004/05</td>
<td>2005/06</td>
<td>-22</td>
<td>-25</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>-2</td>
<td>4</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>-3</td>
<td>-7</td>
<td>-2</td>
</tr>
<tr>
<td>2005/06</td>
<td>2006/07</td>
<td>7</td>
<td>1</td>
<td>8</td>
<td>-3</td>
<td>-3</td>
<td>0</td>
<td>-1</td>
<td>4</td>
<td>-2</td>
<td>-1</td>
<td>-8</td>
<td>-10</td>
<td>-6</td>
</tr>
<tr>
<td>2006/07</td>
<td>2007/08</td>
<td>3</td>
<td>7</td>
<td>6</td>
<td>-6</td>
<td>0</td>
<td>4</td>
<td>-2</td>
<td>12</td>
<td>-1</td>
<td>1</td>
<td>-2</td>
<td>-6</td>
<td>-10</td>
</tr>
<tr>
<td>2007/08</td>
<td>2008/09</td>
<td>-9</td>
<td>6</td>
<td>1</td>
<td>8</td>
<td>7</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>-8</td>
<td>-1</td>
<td>2</td>
<td>-5</td>
<td>6</td>
</tr>
<tr>
<td>2008/09</td>
<td>2009/10</td>
<td>11</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>2009/10</td>
<td>2010/11</td>
<td>0</td>
<td>-3</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>-3</td>
<td>2</td>
<td>-2</td>
<td>4</td>
<td>-1</td>
<td>-6</td>
<td>-12</td>
</tr>
<tr>
<td>2010/11</td>
<td>2011/12</td>
<td>11</td>
<td>-2</td>
<td>-2</td>
<td>4</td>
<td>-2</td>
<td>3</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>2011/12</td>
<td>2012/13</td>
<td>12</td>
<td>7</td>
<td>8</td>
<td>-3</td>
<td>2</td>
<td>5</td>
<td>-1</td>
<td>7</td>
<td>4</td>
<td>-2</td>
<td>-2</td>
<td>8</td>
<td>-4</td>
</tr>
<tr>
<td>2012/13</td>
<td>2013/14</td>
<td>-15</td>
<td>0</td>
<td>8</td>
<td>7</td>
<td>1</td>
<td>8</td>
<td>1</td>
<td>-1</td>
<td>-2</td>
<td>9</td>
<td>-4</td>
<td>-8</td>
<td>-3</td>
</tr>
<tr>
<td>2013/14</td>
<td>2014/15</td>
<td>13</td>
<td>7</td>
<td>8</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>7</td>
<td>-1</td>
<td>-6</td>
<td>1</td>
<td>-7</td>
<td>5</td>
<td>-2</td>
</tr>
<tr>
<td>2014/15</td>
<td>2015/16</td>
<td>1</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>9</td>
<td>-2</td>
<td>-1</td>
<td>-3</td>
</tr>
<tr>
<td>2015/16</td>
<td>2016/17</td>
<td>29</td>
<td>12</td>
<td>7</td>
<td>8</td>
<td>1</td>
<td>11</td>
<td>3</td>
<td>10</td>
<td>0</td>
<td>7</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>2016/17</td>
<td>2017/18</td>
<td>-27</td>
<td>2</td>
<td>3</td>
<td>6</td>
<td>13</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>-5</td>
<td>-6</td>
</tr>
</tbody>
</table>

| 3-Yr Avg | 1.0 | 7.3 | 5.7 | 6.7 | 4.7 | 5.0 | 3.0 | 6.0 | 1.3 | 6.0 | 0.7 | -1.0 | -2.7 | 69.3 |
| 3-Yr Weighted Avg | -3.7 | 6.3 | 5.0 | 6.7 | 6.8 | 4.7 | 3.3 | 6.3 | 0.7 | 4.8 | 1.2 | -1.7 | -3.2 | 68.7 |

Student In-Migration

- 2017/18 students who are in 1st through 12th grade that were not attending the District in 2016/17 as Kindergarten through 11th grade
- Who is new to the district that was not attending in previous years?
  - 135 new students in 2016/17
  - 118 new students in 2017/18
Students attending the district in 2016/17 who were in Kindergarten through 11th grade that did not attend in 2017/18 as 1st through 12th graders

- 69 students left the district in 2016/17, Total Migration +54
- 90 students left the district in 2017/18, Total Migration +28
**Student “Heat” Density**

- **Red** areas depict highest density of students, **Gray** as lowest student density.
- Overlapping points (2 or more students) are handled using a weighting of coincident points.
- Newer developments and/or most affordable areas tend to have the greatest density.
Enrollment Conclusions

The following are some general enrollment observations:

- By 2022/23 Projected to increase by >500 students (28.7%) (Annually between 4% and 6%)
- By 2018/19 K-12 enrollment greater than 2,000
- By 2017/18 K-5 enrollment >1,000 students
- Enrollment tends to increase from grade to grade each year, larger class sizes are replacing smaller classes as they would their way through the system
- Enrollment increases have mostly occurred due to the tax abetment in Adel
- Overall the district saw 118 new students enter the district and 90 students leave, a total migration of 28 new students
Part Two: Development
Population, Development, Enrollment

Graphic Explanation:
- Census data indicates the area has an increasing population
- Student Enrollment growth varies each year not necessarily follow Census population estimate change
- Building activity has been stable with propensity to have many good years with Adel abatement

What does this mean?
- The new households moving into the district like past yield rates for children to attend school
- With several developments being multi-family projects over the next five years enrollment trends could change where yield rates could be slightly lower
- Older areas of the community subdivision life cycles constantly are changing, but likely will have fewer children than what the maximum number has been in the past

Source: Census data, Dallas County GIS data, and ADM Community School District
Student Yield Rate

Single Family (SF)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.52</td>
<td>0.51</td>
<td>0.53</td>
<td>0.51</td>
<td>0.51</td>
<td>0.53</td>
<td>0.52</td>
<td>0.52</td>
<td>0.53</td>
<td>0.53</td>
<td>0.52</td>
<td>0.52</td>
<td>0.53</td>
<td>0.53</td>
<td>0.52</td>
<td></td>
</tr>
</tbody>
</table>

Source: Adel DeSoto Minburn Community School District, Dallas County, and Madison County

Multi-Family (MF)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.28</td>
<td>0.27</td>
<td>0.29</td>
<td>0.25</td>
<td>0.27</td>
<td>0.28</td>
<td>0.27</td>
<td>0.26</td>
<td>0.25</td>
<td>0.26</td>
<td>0.29</td>
<td>0.29</td>
<td>0.27</td>
<td>0.26</td>
<td>0.22</td>
<td>0.27</td>
</tr>
</tbody>
</table>

Source: Adel DeSoto Minburn Community School District, Dallas County, and Madison County

**Graphic Explanation:**
- Single-Family residential on average has a higher student yield rate than that of Multi-Family
- The average yield rate for Single family is .52 when compared to the Multi-Family average yield rate of .27
- Yield rates throughout the district have remained stable for each of the housing types, 2017 saw a slight decrease in Multi-Family yield rate
Based on assessed Home Value as provided and maintained by the county assessor’s office

Depicted by Median Value in each Planning Area

Home values likely 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

Areas shaded in Blue represent the greatest affordability
Timberview West Time-lapse 2017

- Time-lapse reveals the build out of Timberview subdivision starting in 2006
- Each year new parcels are platted and developed
- Some new areas do not necessarily lead to similar yield rates of like developments
- Majority of new residential development within the district is happening in Adel
Growth Areas

- Identifies where development activity is happening (Green)
- Identifies possible areas that could develop (Yellow and Purple)
- The market and property owner desire to build guides the timing of development
- Potential growth areas are along 169 and in De Soto
- Other properties not shown might develop while some shown might not develop
Residential Tax Abatements

**Adel:**
- 3-year; (75% first year, 50% second year, 25% third year)
- Applies to structure and land
- Abatement ends January 01, 2021. (11 years earlier than when it was established)

**De Soto:** (Not Yet Approved: Target Unknown – this is what has been discussed)
- 10 Year Tax Abatement:
  - First 7-year, 100% tax abatement for single family owner occupied residential
  - Last 3-year, sliding scale tax abatement for single family owner occupied residential
- Applies to structure only and capped at $350,000 (Lot is taxable)
- $300.00 cost per home added to building permit
- No limit on new homes
Development Conclusions

The following are some general development observations:

- Residential development will continue if the housing product is affordable and have active residential projects
- There is a considerable amount of development opportunity
- Future residential development activity is dependent on the economy, specifically employment, interest rates, and home foreclosures
- Residential development may start to slow as the tax abetment ends in 2021
- The City of De Soto has the infrastructure in place for grown as soon as the tax abetment is put into effect
- 2018 saw nearly 150 new housing permits
- With access to employment centers improving with the Alice Road / 105th Street interchange on I-80, more people will look west to reside
Part Three: Enrollment Projections
Projection Accuracy

**Elementary K-5**
- Projected: 933
- Actual: 898
- Accuracy: **96.1%**

**Middle School 6-8**
- Projected: 406
- Actual: 406
- Accuracy: **100.0%**

**High School 9-12**
- Projected: 513
- Actual: 501
- Accuracy: **97.6%**

**District K-12**
- Projected: 1,852
- Actual: 1,805
- Accuracy: **97.4%**

**Notes:**
- This accuracy is the 1st year of the 2017/18 RSP Projections conducted in 2016/17
- Demographic shifts with millennials impacting future enrollment (Jobs, Jobs, Jobs)
- Lower Kdg enrollment than what was projected amounted to 95% of the Elementary offage
- Many areas of the community having significant demographic shifts influencing changes in enrollment (type of households not generating similar yield rates of students)
- A good portion of analysis spent on what is happening at the middle school grades to determine if there are emerging trends
Past, Current, & Future Enrollment

Table Details

- Enrollment: Similar household demographics locating to the community, *continued open enrollment policy*, and building activity point toward significant increases with the enrollment – Projections do not include PS and PK students
- Open enrollment closed – exception for those families already enrolled – closure annually reviewed
- Development: Abatement incentives ending result in spike next couple of years in Adel
Capacity Terms Defined

- **Functional Maximum Capacity** = measured by counting the number of standard classrooms in a school multiplied by the maximum allowable class size.

- **Square Footage per student** = ratio of the number of students to total building floor plan, compared to adopted standards.

- **Program Capacity** = maximum number of students a facility can accommodate after applying grade level or content area class averages to standard teaching stations within a facility.

- **Desired Class Size** = an ideal number of students in a particular content area class for planning and scheduling purposes.

- **Standard Class Size** = a number of students in a particular content area class used to establish a high end student-to-teacher ratio for planning and scheduling purposes.

- **Desired Educational Capacity** = number of students a building can accommodate by using a formula that considers educational programs, class size expectations per age group/program and building schedules. Functional capacity measures the current usage of educational program space and the pre-determined student class size range assigned to each space.

- **Mid-Range Educational Capacity** = has slightly higher Standard Class Size than the Desired Educational Capacity
### Building Enrollment Projections

<table>
<thead>
<tr>
<th>School</th>
<th>Desired Educational</th>
<th>Mid-Range Educational</th>
<th>Functional Maximum</th>
<th>Past School Enrollment</th>
<th>Future Enrollment By Student Residence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adel Elementary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grades K-2</td>
<td>464</td>
<td>511</td>
<td>552</td>
<td>387</td>
<td>397</td>
</tr>
<tr>
<td>DeSoto Intermediate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grades 3-5</td>
<td>500</td>
<td>550</td>
<td>625</td>
<td>344</td>
<td>368</td>
</tr>
<tr>
<td>ADM Middle School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grades 6-8</td>
<td>550</td>
<td>600</td>
<td>675</td>
<td>363</td>
<td>353</td>
</tr>
<tr>
<td>ADM High School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grades 9-12</td>
<td>682</td>
<td>744</td>
<td>837</td>
<td>465</td>
<td>479</td>
</tr>
<tr>
<td>ELEMENTARY TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grades K-5</td>
<td>964</td>
<td>1,061</td>
<td>1,177</td>
<td>731</td>
<td>765</td>
</tr>
<tr>
<td>MIDDLE TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grades 6-8</td>
<td>550</td>
<td>600</td>
<td>675</td>
<td>363</td>
<td>353</td>
</tr>
<tr>
<td>HIGH TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grades 9-12</td>
<td>682</td>
<td>744</td>
<td>837</td>
<td>465</td>
<td>479</td>
</tr>
<tr>
<td>DISTRICT K-12 TOTALS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grades K-12</td>
<td>2,196</td>
<td>2,405</td>
<td>2,689</td>
<td>1,559</td>
<td>1,597</td>
</tr>
</tbody>
</table>

Source: RSP & Associates, LLC - June 2018

**Note 1:** Student Projections are based on the residence of the official student count provided by the district  
**Note 2:** Past School enrollment is the current grade configuration (K-2, 3-5, 6-8, 9-12)  
**Note 3:** PS and PK students are not in the enrollment projections (65 to 80 students projected each year based on last two school years)  
**Note 4:** Open Enrollment students included in past and projected enrollment  
**Note 5:** Capacity provided by Administration  
**Note 6:** Capacity provided in three ways to illustrate how the class size could impact how many students could be accommodated

Enrollment provided by the district  
Does not include Early Childhood, Preschool, Age 5 Not in kindergarten, Home School, Private School, or Parochial School
Projections Beyond 2022/23

Assumptions for the Future:

- **Enrollment**: Similar household demographics locating to the community as in 2018; continued open enrollment policy (allow students not residing in the district to attend), and having the appropriate educational spaces for student learning is restricted because there is not available space.

- **Development**: Continue to be steady – the future may have some spikes greater than 100 units in the city – areas in De Soto will likely experience significant residential activity as suburban areas east in Waukee along the Grand Prairie Pkwy increase employment opportunities.

- **Projections**: They include potential demographic shifts when older areas continue to change over time, as well as the City of Adel abatement ending.

- **Capacity**: Adel Elementary exceeds Desired Educational Capacity by 2018/19, Mid-Range Educational Capacity by 2020/21 and Functional Maximum Capacity by 2022/23; Desoto Intermediate exceeds Desired Educational Capacity by 2020/21 and ADM Middle School exceeds Desired Educational Capacity by 2022/23; and High School educational capacity is being examined in relation the programming to determine capacity challenges.

### Enrollment Change

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>K-5</td>
<td>641</td>
<td>617</td>
<td>668</td>
<td>813</td>
<td>898</td>
<td>938</td>
<td>979</td>
<td>1,020</td>
<td>1,069</td>
<td>1,110</td>
<td>1,159</td>
<td>1,189</td>
<td>1,248</td>
<td>1,295</td>
<td>1,345</td>
</tr>
<tr>
<td>6-8</td>
<td>339</td>
<td>357</td>
<td>344</td>
<td>359</td>
<td>406</td>
<td>444</td>
<td>481</td>
<td>501</td>
<td>519</td>
<td>552</td>
<td>552</td>
<td>580</td>
<td>575</td>
<td>605</td>
<td>612</td>
</tr>
<tr>
<td>9-12</td>
<td>514</td>
<td>456</td>
<td>435</td>
<td>473</td>
<td>501</td>
<td>500</td>
<td>525</td>
<td>566</td>
<td>607</td>
<td>661</td>
<td>698</td>
<td>705</td>
<td>754</td>
<td>749</td>
<td>781</td>
</tr>
<tr>
<td>District</td>
<td>1,494</td>
<td>1,430</td>
<td>1,447</td>
<td>1,645</td>
<td>1,805</td>
<td>1,882</td>
<td>1,985</td>
<td>2,087</td>
<td>2,195</td>
<td>2,323</td>
<td>2,409</td>
<td>2,474</td>
<td>2,577</td>
<td>2,649</td>
<td>2,738</td>
</tr>
</tbody>
</table>

**Note**: Enrollment Change Row is change from previous year.

Sources:
- 2000/01 to 2017/18 Iowa Department of Education and ADM School District
- 2018/19 to 2022/23 RSP & Associates SFM Projections from the 2017/18 Enrollment Report
- 2023/24 to 2027/28 RSP & Associates estimates based on past enrollment change factors

Source: ADM Community School District and RSP SFM & Demographic Models
Long Term Considerations with Desired Educational Capacity as the Baseline:

- Elementary level need most pressing at the K-2 level – a solution must be in place by 2021/22
- Intermediate level – a solution must be in place prior to 2023/24
- Middle School level – a solution must be in place prior to 2026/27
- High School level – educational programming space being evaluated to determine that timeline

Projections Beyond 2022/23

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>103</td>
<td>98</td>
<td>110</td>
<td>132</td>
<td>134</td>
<td>160</td>
<td>162</td>
<td>168</td>
<td>178</td>
<td>196</td>
<td>200</td>
<td>210</td>
<td>213</td>
<td>216</td>
<td>211</td>
</tr>
<tr>
<td>1st</td>
<td>107</td>
<td>95</td>
<td>107</td>
<td>139</td>
<td>163</td>
<td>142</td>
<td>169</td>
<td>170</td>
<td>174</td>
<td>185</td>
<td>194</td>
<td>206</td>
<td>225</td>
<td>219</td>
<td>231</td>
</tr>
<tr>
<td>2nd</td>
<td>91</td>
<td>104</td>
<td>104</td>
<td>132</td>
<td>147</td>
<td>169</td>
<td>150</td>
<td>176</td>
<td>177</td>
<td>182</td>
<td>188</td>
<td>203</td>
<td>204</td>
<td>233</td>
<td>224</td>
</tr>
<tr>
<td>3rd</td>
<td>114</td>
<td>123</td>
<td>114</td>
<td>147</td>
<td>152</td>
<td>152</td>
<td>177</td>
<td>158</td>
<td>184</td>
<td>185</td>
<td>190</td>
<td>192</td>
<td>212</td>
<td>211</td>
<td>240</td>
</tr>
<tr>
<td>4th</td>
<td>115</td>
<td>102</td>
<td>116</td>
<td>136</td>
<td>153</td>
<td>156</td>
<td>158</td>
<td>184</td>
<td>164</td>
<td>190</td>
<td>187</td>
<td>193</td>
<td>191</td>
<td>215</td>
<td>213</td>
</tr>
<tr>
<td>5th</td>
<td>111</td>
<td>95</td>
<td>117</td>
<td>127</td>
<td>149</td>
<td>159</td>
<td>163</td>
<td>164</td>
<td>192</td>
<td>172</td>
<td>200</td>
<td>185</td>
<td>203</td>
<td>201</td>
<td>226</td>
</tr>
<tr>
<td>6th</td>
<td>118</td>
<td>133</td>
<td>103</td>
<td>110</td>
<td>149</td>
<td>159</td>
<td>163</td>
<td>164</td>
<td>192</td>
<td>172</td>
<td>200</td>
<td>185</td>
<td>203</td>
<td>201</td>
<td>226</td>
</tr>
<tr>
<td>7th</td>
<td>106</td>
<td>107</td>
<td>110</td>
<td>128</td>
<td>135</td>
<td>156</td>
<td>157</td>
<td>171</td>
<td>176</td>
<td>175</td>
<td>200</td>
<td>176</td>
<td>211</td>
<td>190</td>
<td>214</td>
</tr>
<tr>
<td>8th</td>
<td>115</td>
<td>117</td>
<td>131</td>
<td>121</td>
<td>120</td>
<td>136</td>
<td>159</td>
<td>161</td>
<td>174</td>
<td>179</td>
<td>178</td>
<td>176</td>
<td>193</td>
<td>130</td>
<td>193</td>
</tr>
<tr>
<td>9th</td>
<td>136</td>
<td>127</td>
<td>105</td>
<td>120</td>
<td>130</td>
<td>125</td>
<td>141</td>
<td>165</td>
<td>167</td>
<td>180</td>
<td>177</td>
<td>176</td>
<td>194</td>
<td>178</td>
<td>222</td>
</tr>
<tr>
<td>10th</td>
<td>124</td>
<td>120</td>
<td>98</td>
<td>127</td>
<td>129</td>
<td>129</td>
<td>126</td>
<td>143</td>
<td>167</td>
<td>169</td>
<td>178</td>
<td>191</td>
<td>173</td>
<td>210</td>
<td>180</td>
</tr>
<tr>
<td>11th</td>
<td>123</td>
<td>107</td>
<td>131</td>
<td>115</td>
<td>118</td>
<td>128</td>
<td>130</td>
<td>128</td>
<td>145</td>
<td>168</td>
<td>165</td>
<td>175</td>
<td>193</td>
<td>169</td>
<td>213</td>
</tr>
<tr>
<td>12th</td>
<td>131</td>
<td>102</td>
<td>101</td>
<td>111</td>
<td>124</td>
<td>118</td>
<td>128</td>
<td>130</td>
<td>128</td>
<td>144</td>
<td>166</td>
<td>163</td>
<td>174</td>
<td>192</td>
<td>166</td>
</tr>
<tr>
<td>K-5</td>
<td>641</td>
<td>617</td>
<td>668</td>
<td>813</td>
<td>898</td>
<td>938</td>
<td>979</td>
<td>1,020</td>
<td>1,069</td>
<td>1,110</td>
<td>1,159</td>
<td>1,189</td>
<td>1,248</td>
<td>1,295</td>
<td>1,345</td>
</tr>
<tr>
<td>6-8</td>
<td>399</td>
<td>357</td>
<td>344</td>
<td>359</td>
<td>406</td>
<td>444</td>
<td>481</td>
<td>501</td>
<td>519</td>
<td>552</td>
<td>552</td>
<td>580</td>
<td>575</td>
<td>605</td>
<td>612</td>
</tr>
<tr>
<td>9-12</td>
<td>514</td>
<td>456</td>
<td>435</td>
<td>473</td>
<td>501</td>
<td>500</td>
<td>525</td>
<td>566</td>
<td>607</td>
<td>661</td>
<td>698</td>
<td>705</td>
<td>754</td>
<td>749</td>
<td>781</td>
</tr>
<tr>
<td>District</td>
<td>1,494</td>
<td>1,430</td>
<td>1,447</td>
<td>1,645</td>
<td>1,805</td>
<td>1,882</td>
<td>1,985</td>
<td>2,087</td>
<td>2,195</td>
<td>2,323</td>
<td>2,409</td>
<td>2,474</td>
<td>2,577</td>
<td>2,649</td>
<td>2,738</td>
</tr>
<tr>
<td>Enrollment Change</td>
<td>-29</td>
<td>-13</td>
<td>48</td>
<td>44</td>
<td>77</td>
<td>103</td>
<td>102</td>
<td>108</td>
<td>128</td>
<td>86</td>
<td>65</td>
<td>103</td>
<td>72</td>
<td>89</td>
<td></td>
</tr>
</tbody>
</table>

Sources: 2000/01 to 2017/18 Iowa Department of Education and ADM School District
2018/19 to 2022/23 RSP & Associates SFM Projections from the 2017/18 Enrollment Report
2023/24 to 2027/28 RSP & Associates estimates based on past enrollment change factors

Note: Enrollment Change Row is change from previous year
Part Four: Moving Forward
Key Considerations

The following items will assist in ensuring the district is able to advance its educational goals:

▪ Study the impact of future educational programming that will be integrated into the schools and its relation to capacity (Elementary Grade Center or Neighborhood Boundaries)

▪ Capacity (Desired Educational, Mid-Range Educational, and Functional Maximum) need at the elementary grades will be a driving force in future discussions about educational programming, class size, additions, and/or new facilities

▪ Annually review enrollment projections

▪ Monitor the type of residential development and how affordable it is will determine likely location and number of students, Single-Family residential tend to have a higher student yield rate than Multi-Family

▪ Housing stock will continue to increase with the help of the residential tax abatement in Adel, but is scheduled to end in 2021, while DeSoto has room for additional residential development (a tax abatement program in the past has been considered by the city)

▪ The Facility Master Plan Committee will continue to examine information to work toward a viable solution for the community