# STANDARD &POOR'S

# School Evaluation Services



## Kansas School District Efficiency Study

## Part IIc: School District Efficiency Profiles

Presented alphabetically (school districts O-W)

Commissioned by

Governor Kathleen Sebelius Ewing Marion Kauffman Foundation

April, 2007

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### **OVERVIEW OF DISTRICT EFFICIENCY STUDY**

Governor Kathleen Sebelius and the Ewing Marion Kauffman Foundation have commissioned Standard & Poor's School Evaluation Services to conduct an Educational Efficiency Study of the state's school districts. The overarching objective of the project is to help Kansas better understand which districts are utilizing their resources most efficiently and how less efficient districts may benchmark themselves against these districts to identify improvement opportunities.

Specific objectives of the study include the following:

- Efficiency Measurement provide a relative efficiency measurement system to assess school districts' effective use of resources. Specifically, this study provides relative efficiency scores for individual districts and identifies those districts that are particularly effective in using their financial resources to optimize student learning (i.e., highly efficient districts). The relative efficiency of each school district is scored on a scale from 0% - 100%. Part I of the study (a separate document) focuses on this objective.
- 2. Efficiency Improvement in conjunction with the measurement system, provide information to foster the more efficient use of resources, particularly to raise student achievement. Specifically, this study provides the less efficient districts with improvement targets and benchmarks derived from highly efficient districts to which they can compare themselves a process that can lead to the identification of potential improvement opportunities. This section (Part II) of the study focuses on this objective.

### **GUIDE TO DISTRICT EFFICIENCY PROFILES**

## **Layout of Efficiency Profiles**

The remainder of this section of the Kansas School District Efficiency Study is a series of twopage profiles for the districts in the state that are not on the **efficient frontier**. The purpose of these profiles is to provide each district with a brief summary of its current relative efficiency, as well as benchmarks from the efficient frontier districts that may be able to provide a window into "best practices" and potential improvement targets.

The profiles include the following:

- the district's **relative efficiency score** and **output targets** that, had they been achieved, would have placed the district on the **efficient frontier** (i.e., would have resulted in a relative efficiency score of 100%),
- a **brief guide** to understanding the data and analytical method used to determine the score,
- a list of the 21 efficient frontier districts across the state,
- a **side-by-side comparison** with up to two districts from the **efficient frontier** that appear to be particularly useful benchmarks for the district as it explores ways to improve its outputs and, ultimately, its efficiency.

## **Important Data and Method Notes**

### **Data Sources**

All data used in this study – student performance, enrollment characteristics, and spending – were obtained from the Kansas Department of Education.

### **Data Calculations**

To perform the efficiency analysis, all data have been converted into weighted averages of the districts' 2004-05 and 2005-06 school years, with the most recent year (2005-06) weighted twice as heavily as the least recent year (2004-05). The averaging has been done to mitigate potential problems with data volatility due to small populations and measurement error, while recognizing that the most recent performance should be an important reflection of the districts' most recent efforts.

### **Definition of Outputs and Inputs**

**Proficiency Rate** is an overall indicator created by Standard & Poor's to measure success in meeting state standards in reading and math. The proficiency rate is calculated by summing the total number of reading and math tests systemwide (grades 3-8 and high school) that scored at the "meeting standard" level or better, and dividing by the total number of tests.

**Performance Index** is an overall indicator created by Standard & Poor's to go beyond measuring proficiency and award points on a sliding scale for every test score that reaches at least the "approaches standard" level, with more points given for higher performance levels. The performance index is calculated by summing the total number of reading and math tests systemwide that score in each of the four highest performance levels, with additional weight placed on each higher level, and dividing by total possible number of points. Index points are awarded as follows (out of a maximum 4.0 points): 0.5 points for all scores that are "approaching standard"; 1.0 points for "meeting standard"; 1.5 points for "exceeding standard"; and 2.0 points for "exemplary" scores.

Performance Level Academic Warning	<u>Index Points</u> 0	Effective Weight in Index 0%
Approaching Standard	0.5	10%
Meeting Standard	1.0	20%
Exceeding Standard	1.5	30%
Exemplary	2.0	40%
<b>Possible Points</b>	4.0	100%

**Core Spending** is comprised of a subset of "core" district spending functions that are largely comparable from district to district and most directly tied to efforts to improve student learning. These include expenditures for instruction, instructional staff support, pupil support, general administration, school administration, and operations and maintenance. (Spending for transportation, food services, and enterprise operations are excluded because of variation between districts, often due to reasons outside of district control, while non-operating activities like capital outlays and debt service are excluded both because of variation between districts and

also within the same district from one year to the next). Since the purchasing power of the dollar varies from one region to another across the state, this study uses the Comparable Wage Index from the National Center for Education Statistics to "normalize" each school district's expenditure data, making spending levels more comparable.

**School District Efficiency Profiles** 

Kansas School District Efficiency Study

District: Oakley (D0274)

#### Region: Northwest Kansas (Logan County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **93.05%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score** = 93.05%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	85.1%	91.5%
Performance Index	54.7%	60.7%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- **Reading and Math Proficiency Rate** (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Oakley (D0274)

#### Region: Northwest Kansas (Logan County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Oakley with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Oakley	Halstead	Baldwin City
District Code	D0274	D0440	D0348
County	Logan	Harvey	Douglas
Enrollment	477	735	1,407
Constraints			
Economically Disadvantaged Students	38.7%	34.7%	15.2%
English Language Learners	0.0%	0.0%	0.1%
Students with Disabilities	19.0%	18.7%	13.7%
Inputs			
Core Spending (per student)	\$8,319	\$6,792	\$6,490
Outputs			
Reading and Math Proficiency Rate	85.1%	83.9%	88.7%
Reading (grades 3-8)	92.1%	87.0%	94.3%
Reading (high school)	78.1%	83.8%	72.2%
Math (grades 3-8)	83.9%	86.3%	94.3%
Math (high school)	84.8%	64.0%	66.1%
Reading and Math Performance Index	54.7%	55.8%	64.0%
Reading (grades 3-8)	59.9%	56.7%	67.4%
Reading (high school)	48.4%	55.3%	44.6%
Math (grades 3-8)	54.5%	59.6%	74.1%
Math (high school)	48.7%	41.1%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Oberlin (D0294)

#### Region: Northwest Kansas (Decatur County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **74.97%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 74.97%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	77.2%	>100%
Performance Index	47.3%	68.5%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

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Kansas School District Efficiency Study

District: Oberlin (D0294)

#### Region: Northwest Kansas (Decatur County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Oberlin with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Oberlin	Halstead	Waconda
District Code	D0294	D0440	D0272
County	Decatur	Harvey	Mitchell
Enrollment	446	735	365
Constraints			
Economically Disadvantaged Students	35.5%	34.7%	44.3%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	16.6%	18.7%	12.9%
Inputs			
Core Spending (per student)	\$9,456	\$6,792	\$9,480
Outputs			
Reading and Math Proficiency Rate	77.2%	83.9%	94.5%
Reading (grades 3-8)	75.4%	87.0%	96.9%
Reading (high school)	88.0%	83.8%	88.6%
Math (grades 3-8)	75.3%	86.3%	96.6%
Math (high school)	73.9%	64.0%	92.0%
Reading and Math Performance Index	47.3%	55.8%	70.2%
Reading (grades 3-8)	47.9%	56.7%	70.4%
Reading (high school)	51.6%	55.3%	61.8%
Math (grades 3-8)	43.6%	59.6%	77.0%
Math (high school)	48.4%	41.1%	64.0%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Olathe (D0233)

#### Region: Northeast Kansas (Johnson County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **99.98%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score = 99.98%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	84.3%	86.2%
Performance Index	58.5%	58.5%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on con-

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- **Reading and Math Proficiency Rate** (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Olathe (D0233)

#### Region: Northeast Kansas (Johnson County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Olathe with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance. In this case, the comparison district under both criteria is the same.

		Most Similar	Best-Performing
Indicator	This District	Frontier District*	Frontier District**
District Name	Olathe	Shawnee Mission	Shawnee Mission
District Code	D0233	D0512	D0512
County	Johnson	Johnson	Johnson
Enrollment	24,225	28,667	28,667
Constraints			
Economically Disadvantaged Students	15.1%	16.2%	16.2%
English Language Learners	4.5%	4.7%	4.7%
Students with Disabilities	11.8%	15.2%	15.2%
Inputs			
Core Spending (per student)	\$6,105	\$5,728	\$5,728
Outputs			
Reading and Math Proficiency Rate	84.3%	81.4%	81.4%
Reading (grades 3-8)	86.5%	84.0%	84.0%
Reading (high school)	82.0%	83.6%	83.6%
Math (grades 3-8)	86.1%	82.9%	82.9%
Math (high school)	74.9%	70.4%	70.4%
Reading and Math Performance Index	58.5%	55.3%	55.3%
Reading (grades 3-8)	59.9%	56.8%	56.8%
Reading (high school)	55.6%	56.3%	56.3%
Math (grades 3-8)	60.9%	57.5%	57.5%
Math (high school)	50.1%	46.2%	46.2%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Onaga (D0322)

#### Region: Northeast Kansas (Pottawatomie County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **73.07%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score** = 73.07%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	78.9%	>100%
Performance Index	49.9%	68.5%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

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Kansas School District Efficiency Study

District: Onaga (D0322)

Region: Northeast Kansas (Pottawatomie County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Onaga with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Onaga	Waconda	Leoti
District Code	D0322	D0272	D0467
County	Pottawatomie	Mitchell	Wichita
Enrollment	377	365	501
Constraints			
Economically Disadvantaged Students	33.9%	44.3%	39.5%
English Language Learners	0.0%	0.0%	26.5%
Students with Disabilities	11.7%	12.9%	12.4%
Inputs			
Core Spending (per student)	\$8,740	\$9,480	\$8,455
Outputs			
Reading and Math Proficiency Rate	78.9%	94.5%	88.1%
Reading (grades 3-8)	74.1%	96.9%	84.4%
Reading (high school)	84.4%	88.6%	84.0%
Math (grades 3-8)	83.5%	96.6%	94.8%
Math (high school)	76.9%	92.0%	78.7%
Reading and Math Performance Index	49.9%	70.2%	58.9%
Reading (grades 3-8)	45.4%	70.4%	54.4%
Reading (high school)	62.4%	61.8%	62.3%
Math (grades 3-8)	53.2%	77.0%	63.1%
Math (high school)	43.8%	64.0%	57.5%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Osage City (D0420)

#### Region: Northeast Kansas (Osage County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **94.27%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score** = 94.27%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	74.5%	79.0%
Performance Index	44.6%	53.1%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending

 (\$ per student spent on c

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Osage City (D0420)

#### Region: Northeast Kansas (Osage County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<b>County</b>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Osage City with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Osage City	Halstead	Lansing
District Code	D0420	D0440	D0469
County	Osage	Harvey	Leavenworth
Enrollment	757	735	2,197
Constraints			
Economically Disadvantaged Students	36.5%	34.7%	9.1%
English Language Learners	0.0%	0.0%	0.4%
Students with Disabilities	16.9%	18.7%	10.8%
Inputs			
Core Spending (per student)	\$6,156	\$6,792	\$4,722
Outputs			
Reading and Math Proficiency Rate	74.5%	83.9%	82.9%
Reading (grades 3-8)	76.6%	87.0%	87.3%
Reading (high school)	81.4%	83.8%	78.6%
Math (grades 3-8)	75.4%	86.3%	85.5%
Math (high school)	57.7%	64.0%	70.2%
Reading and Math Performance Index	44.6%	55.8%	54.3%
Reading (grades 3-8)	44.6%	56.7%	57.2%
Reading (high school)	51.3%	55.3%	50.9%
Math (grades 3-8)	45.8%	59.6%	57.8%
Math (high school)	36.0%	41.1%	41.5%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Osborne (D0392)

#### Region: Northwest Kansas (Osborne County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **87.21%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score** = 87.21%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	81.0%	92.9%
Performance Index	52.5%	60.3%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Osborne (D0392)

#### Region: Northwest Kansas (Osborne County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Osborne with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Osborne	Halstead	Waconda
District Code	D0392	D0440	D0272
County	Osborne	Harvey	Mitchell
Enrollment	377	735	365
Constraints			
Economically Disadvantaged Students	47.1%	34.7%	44.3%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	19.1%	18.7%	12.9%
Inputs			
Core Spending (per student)	\$9,268	\$6,792	\$9,480
Outputs			
Reading and Math Proficiency Rate	81.0%	83.9%	94.5%
Reading (grades 3-8)	87.2%	87.0%	96.9%
Reading (high school)	82.0%	83.8%	88.6%
Math (grades 3-8)	78.9%	86.3%	96.6%
Math (high school)	73.0%	64.0%	92.0%
Reading and Math Performance Index	52.5%	55.8%	70.2%
Reading (grades 3-8)	57.9%	56.7%	70.4%
Reading (high school)	54.3%	55.3%	61.8%
Math (grades 3-8)	48.6%	59.6%	77.0%
Math (high school)	52.0%	41.1%	64.0%

\* Efficient frontier district with most similar constraints as this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Oskaloosa (D0341)

#### Region: Northeast Kansas (Jefferson County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **83.27%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score** = 83.27%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	74.6%	89.6%
Performance Index	46.7%	58.1%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Oskaloosa (D0341)

#### Region: Northeast Kansas (Jefferson County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Oskaloosa with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
Indiastan	This District	Frontier	Frontier District**
Indicator	DISTFICT	District*	District
District Name	Oskaloosa	Osawatomie	Baldwin City
District Code	D0341	D0367	D0348
County	Jefferson	Miami	Douglas
Enrollment	638	1,235	1,407
Constraints			
Economically Disadvantaged Students	37.6%	50.8%	15.2%
English Language Learners	0.0%	0.0%	0.1%
Students with Disabilities	15.9%	15.3%	13.7%
Inputs			
Core Spending (per student)	\$7,542	\$6,193	\$6,490
Outputs			
Reading and Math Proficiency Rate	74.6%	75.5%	88.7%
Reading (grades 3-8)	84.6%	78.5%	94.3%
Reading (high school)	67.4%	78.4%	72.2%
Math (grades 3-8)	73.7%	81.4%	94.3%
Math (high school)	54.0%	39.7%	66.1%
Reading and Math Performance Index	46.7%	45.7%	64.0%
Reading (grades 3-8)	54.8%	48.0%	67.4%
Reading (high school)	40.8%	43.0%	44.6%
Math (grades 3-8)	44.6%	50.1%	74.1%
Math (high school)	31.8%	22.0%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Oswego (D0504)

#### Region: Southeast Kansas (Labette County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **89.45%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score** = **89.45%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	76.5%	85.5%
Performance Index	45.1%	55.8%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on cor

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

#### District: Oswego (D0504)

#### Region: Southeast Kansas (Labette County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Oswego with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Oswego	Osawatomie	Baldwin City
District Code	D0504	D0367	D0348
County	Labette	Miami	Douglas
Enrollment	500	1,235	1,407
Constraints			
Economically Disadvantaged Students	51.9%	50.8%	15.2%
English Language Learners	0.0%	0.0%	0.1%
Students with Disabilities	15.1%	15.3%	13.7%
Inputs			
Core Spending (per student)	\$8,592	\$6,193	\$6,490
Outputs			
Reading and Math Proficiency Rate	76.5%	75.5%	88.7%
Reading (grades 3-8)	81.9%	78.5%	94.3%
Reading (high school)	81.6%	78.4%	72.2%
Math (grades 3-8)	74.9%	81.4%	94.3%
Math (high school)	60.5%	39.7%	66.1%
Reading and Math Performance Index	45.1%	45.7%	64.0%
Reading (grades 3-8)	49.9%	48.0%	67.4%
Reading (high school)	49.7%	43.0%	44.6%
Math (grades 3-8)	43.0%	50.1%	74.1%
Math (high school)	34.4%	22.0%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Ottawa (D0290)

#### Region: Southeast Kansas (Franklin County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **87.62%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 87.62%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	66.2%	75.5%
Performance Index	39.6%	51.3%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

<u>Constraints</u> (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- **Reading and Math Proficiency Rate** (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

#### District: Ottawa (D0290)

#### Region: Southeast Kansas (Franklin County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Ottawa with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Ottawa	Osawatomie	Gardner-Edgerton
District Code	D0290	D0367	D0231
County	Franklin	Miami	Johnson
Enrollment	2,464	1,235	3,782
Constraints			
Economically Disadvantaged Students	35.8%	50.8%	21.5%
English Language Learners	0.7%	0.0%	0.9%
Students with Disabilities	13.4%	15.3%	12.2%
Inputs			
Core Spending (per student)	\$5,525	\$6,193	\$5,565
Outputs			
Reading and Math Proficiency Rate	66.2%	75.5%	89.0%
Reading (grades 3-8)	72.1%	78.5%	88.9%
Reading (high school)	61.0%	78.4%	87.6%
Math (grades 3-8)	69.6%	81.4%	92.0%
Math (high school)	43.2%	39.7%	78.7%
Reading and Math Performance Index	39.6%	45.7%	61.5%
Reading (grades 3-8)	43.0%	48.0%	59.6%
Reading (high school)	34.7%	43.0%	63.8%
Math (grades 3-8)	42.9%	50.1%	65.9%
Math (high school)	25.9%	22.0%	50.3%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Oxford (D0358)

#### Region: South Central Kansas (Sumner County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **71.26%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 71.26%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	71.0%	99.7%
Performance Index	40.7%	66.3%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

#### District: Oxford (D0358)

#### Region: South Central Kansas (Sumner County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Oxford with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
Indicator	This District	Frontier District*	Frontier District**
District Name	Oxford	Halstead	Leoti
District Code	D0358	D0440	D0467
County	Sumner	Harvey	Wichita
Enrollment	406	735	501
Constraints			
Economically Disadvantaged Students	30.8%	34.7%	39.5%
English Language Learners	0.0%	0.0%	26.5%
Students with Disabilities	15.3%	18.7%	12.4%
Inputs			
Core Spending (per student)	\$8,130	\$6,792	\$8,455
Outputs			
Reading and Math Proficiency Rate	71.0%	83.9%	88.1%
Reading (grades 3-8)	80.3%	87.0%	84.4%
Reading (high school)	72.4%	83.8%	84.0%
Math (grades 3-8)	66.9%	86.3%	94.8%
Math (high school)	50.8%	64.0%	78.7%
Reading and Math Performance Index	40.7%	55.8%	58.9%
Reading (grades 3-8)	48.4%	56.7%	54.4%
Reading (high school)	42.1%	55.3%	62.3%
Math (grades 3-8)	36.4%	59.6%	63.1%
Math (high school)	28.4%	41.1%	57.5%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Paola (D0368)

#### Region: Southeast Kansas (Miami County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **89.18%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score = 89.18%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	76.1%	85.3%
Performance Index	46.2%	59.0%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending

 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

#### District: Paola (D0368)

#### Region: Southeast Kansas (Miami County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Paola with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance. In this case, the comparison district under both criteria is the same.

		Most Similar	Best-Performing
Indicator	This District	Frontier District*	Frontier District**
District Name	Paola	Gardner- Edgerton	Gardner-Edgerton
District Code	D0368	D0231	D0231
County	Miami	Johnson	Johnson
Enrollment	2,106	3,782	3,782
Constraints			
Economically Disadvantaged Students	22.9%	21.5%	21.5%
English Language Learners	0.1%	0.9%	0.9%
Students with Disabilities	12.0%	12.2%	12.2%
Inputs			
Core Spending (per student)	\$5,385	\$5,565	\$5,565
Outputs			
Reading and Math Proficiency Rate	76.1%	89.0%	89.0%
Reading (grades 3-8)	82.0%	88.9%	88.9%
Reading (high school)	83.0%	87.6%	87.6%
Math (grades 3-8)	75.4%	92.0%	92.0%
Math (high school)	59.4%	78.7%	78.7%
Reading and Math Performance Index	46.2%	61.5%	61.5%
Reading (grades 3-8)	50.6%	59.6%	59.6%
Reading (high school)	51.8%	63.8%	63.8%
Math (grades 3-8)	45.2%	65.9%	65.9%
Math (high school)	35.1%	50.3%	50.3%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Parsons (D0503)

#### Region: Southeast Kansas (Labette County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **84.11%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score = 84.11%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	65.1%	77.4%
Performance Index	39.4%	50.9%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Parsons (D0503)

#### Region: Southeast Kansas (Labette County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Parsons with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
<b>T</b> 1. (	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Parsons	Osawatomie	Gardner-Edgerton
District Code	D0503	D0367	D0231
County	Labette	Miami	Johnson
Enrollment	1,552	1,235	3,782
Constraints			
Economically Disadvantaged Students	58.0%	50.8%	21.5%
English Language Learners	0.0%	0.0%	0.9%
Students with Disabilities	13.9%	15.3%	12.2%
Inputs			
Core Spending (per student)	\$7,897	\$6,193	\$5,565
Outputs			
Reading and Math Proficiency Rate	65.1%	75.5%	89.0%
Reading (grades 3-8)	71.5%	78.5%	88.9%
Reading (high school)	66.6%	78.4%	87.6%
Math (grades 3-8)	67.1%	81.4%	92.0%
Math (high school)	40.3%	39.7%	78.7%
Reading and Math Performance Index	39.4%	45.7%	61.5%
Reading (grades 3-8)	43.4%	48.0%	59.6%
Reading (high school)	41.8%	43.0%	63.8%
Math (grades 3-8)	40.7%	50.1%	65.9%
Math (high school)	24.6%	22.0%	50.3%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Peabody-Burns (D0398)

#### Region: North Central Kansas (Marion County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **82.37%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score** = 82.37%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	76.1%	92.4%
Performance Index	50.5%	61.3%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on control

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Peabody-Burns (D0398)

Region: North Central Kansas (Marion County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Peabody-Burns with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Peabody-Burns	Halstead	Leoti
District Code	D0398	D0440	D0467
County	Marion	Harvey	Wichita
Enrollment	409	735	501
Constraints			
Economically Disadvantaged Students	37.8%	34.7%	39.5%
English Language Learners	1.1%	0.0%	26.5%
Students with Disabilities	18.4%	18.7%	12.4%
Inputs			
Core Spending (per student)	\$8,484	\$6,792	\$8,455
Outputs			
Reading and Math Proficiency Rate	76.1%	83.9%	88.1%
Reading (grades 3-8)	81.2%	87.0%	84.4%
Reading (high school)	78.1%	83.8%	84.0%
Math (grades 3-8)	80.0%	86.3%	94.8%
Math (high school)	39.1%	64.0%	78.7%
Reading and Math Performance Index	50.5%	55.8%	58.9%
Reading (grades 3-8)	55.1%	56.7%	54.4%
Reading (high school)	51.5%	55.3%	62.3%
Math (grades 3-8)	54.0%	59.6%	63.1%
Math (high school)	22.7%	41.1%	57.5%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Perry (D0343)

#### Region: Northeast Kansas (Jefferson County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **82.53%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score** = 82.53%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	76.6%	92.9%
Performance Index	47.4%	62.7%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on c

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Perry (D0343)

#### Region: Northeast Kansas (Jefferson County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Perry with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
Indicator	This District	Frontier District*	Frontier District**
District Name	Perry	Osawatomie	Baldwin City
District Code	D0343	D0367	D0348
County	Jefferson	Miami	Douglas
Enrollment	1,002	1,235	1,407
Constraints			
Economically Disadvantaged Students	26.2%	50.8%	15.2%
English Language Learners	0.6%	0.0%	0.1%
Students with Disabilities	14.2%	15.3%	13.7%
Inputs			
Core Spending (per student)	\$6,841	\$6,193	\$6,490
Outputs			
Reading and Math Proficiency Rate	76.6%	75.5%	88.7%
Reading (grades 3-8)	78.9%	78.5%	94.3%
Reading (high school)	73.7%	78.4%	72.2%
Math (grades 3-8)	79.1%	81.4%	94.3%
Math (high school)	65.0%	39.7%	66.1%
Reading and Math Performance Index	47.4%	45.7%	64.0%
Reading (grades 3-8)	47.5%	48.0%	67.4%
Reading (high school)	46.5%	43.0%	44.6%
Math (grades 3-8)	49.9%	50.1%	74.1%
Math (high school)	40.9%	22.0%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

#### District: Phillipsburg (D0325)

#### Region: Northwest Kansas (Phillips County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **81.40%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score** = 81.40%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	82.7%	>100%
Performance Index	53.9%	67.3%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Electronic copy available at: https://ssrn.com/abstract=2355447
Kansas School District Efficiency Study

### District: Phillipsburg (D0325)

### Region: Northwest Kansas (Phillips County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<b>County</b>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Phillipsburg with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Phillipsburg	Osawatomie	Baldwin City
District Code	D0325	D0367	D0348
County	Phillips	Miami	Douglas
Enrollment	651	1,235	1,407
Constraints			
Economically Disadvantaged Students	35.4%	50.8%	15.2%
English Language Learners	0.0%	0.0%	0.1%
Students with Disabilities	15.8%	15.3%	13.7%
Inputs			
Core Spending (per student)	\$9,112	\$6,193	\$6,490
Outputs			
Reading and Math Proficiency Rate	82.7%	75.5%	88.7%
Reading (grades 3-8)	88.5%	78.5%	94.3%
Reading (high school)	73.7%	78.4%	72.2%
Math (grades 3-8)	89.9%	81.4%	94.3%
Math (high school)	53.9%	39.7%	66.1%
Reading and Math Performance Index	53.9%	45.7%	64.0%
Reading (grades 3-8)	56.8%	48.0%	67.4%
Reading (high school)	45.0%	43.0%	44.6%
Math (grades 3-8)	60.3%	50.1%	74.1%
Math (high school)	35.1%	22.0%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Pike Valley (D0426)

## Region: North Central Kansas (Republic County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **88.95%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = **88.95%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	82.7%	93.0%
Performance Index	51.1%	61.7%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending

 (\$ per student spent on core

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Pike Valley (D0426)

Region: North Central Kansas (Republic County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Pike Valley with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Pike Valley	Burlingame	Waconda
District Code	D0426	D0454	D0272
County	Republic	Osage	Mitchell
Enrollment	270	351	365
Constraints			
Economically Disadvantaged Students	46.0%	31.1%	44.3%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	21.3%	21.6%	12.9%
Inputs			
Core Spending (per student)	\$9,285	\$6,794	\$9,480
Outputs			
Reading and Math Proficiency Rate	82.7%	81.6%	94.5%
Reading (grades 3-8)	87.7%	82.1%	96.9%
Reading (high school)	74.0%	72.1%	88.6%
Math (grades 3-8)	82.6%	87.5%	96.6%
Math (high school)	76.8%	64.5%	92.0%
Reading and Math Performance Index	51.1%	48.3%	70.2%
Reading (grades 3-8)	56.0%	47.4%	70.4%
Reading (high school)	44.0%	40.8%	61.8%
Math (grades 3-8)	50.7%	53.7%	77.0%
Math (high school)	47.8%	35.7%	64.0%

\* Efficient frontier district with most similar constraints as this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Piper (D0203)

## Region: Northeast Kansas (Wyandotte County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **84.77%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 84.77%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	77.9%	91.9%
Performance Index	50.0%	60.4%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending
 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Piper (D0203)

Region: Northeast Kansas (Wyandotte County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Piper with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
To Produce	This District	Frontier District*	Frontier
Indicator	DISTRICT	District*	District**
District Name	Piper	Lansing	Gardner-Edgerton
District Code	D0203	D0469	D0231
County	Wyandotte	Leavenworth	Johnson
Enrollment	1,434	2,197	3,782
Constraints			
Economically Disadvantaged Students	8.2%	9.1%	21.5%
English Language Learners	0.0%	0.4%	0.9%
Students with Disabilities	7.1%	10.8%	12.2%
Inputs			
Core Spending (per student)	\$5,376	\$4,722	\$5,565
Outputs			
Reading and Math Proficiency Rate	77.9%	82.9%	89.0%
Reading (grades 3-8)	83.0%	87.3%	88.9%
Reading (high school)	74.6%	78.6%	87.6%
Math (grades 3-8)	77.6%	85.5%	92.0%
Math (high school)	68.5%	70.2%	78.7%
Reading and Math Performance Index	50.0%	54.3%	61.5%
Reading (grades 3-8)	52.9%	57.2%	59.6%
Reading (high school)	44.2%	50.9%	63.8%
Math (grades 3-8)	52.3%	57.8%	65.9%
Math (high school)	40.1%	41.5%	50.3%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: **Pittsburg (D0250)** 

## Region: Southeast Kansas (Crawford County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **90.68%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score = 90.68%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	68.8%	75.9%
Performance Index	42.9%	48.4%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending
 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

### District: **Pittsburg (D0250)**

### Region: Southeast Kansas (Crawford County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Pittsburg with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Pittsburg	Newton	Gardner-Edgerton
District Code	D0250	D0373	D0231
County	Crawford	Harvey	Johnson
Enrollment	2,676	3,731	3,782
Constraints			
Economically Disadvantaged Students	54.4%	45.5%	21.5%
English Language Learners	5.0%	5.9%	0.9%
Students with Disabilities	13.2%	15.4%	12.2%
Inputs			
Core Spending (per student)	\$7,397	\$5,915	\$5,565
Outputs			
Reading and Math Proficiency Rate	68.8%	75.1%	89.0%
Reading (grades 3-8)	73.7%	80.8%	88.9%
Reading (high school)	72.9%	72.8%	87.6%
Math (grades 3-8)	70.0%	76.7%	92.0%
Math (high school)	45.2%	55.1%	78.7%
Reading and Math Performance Index	42.9%	50.6%	61.5%
Reading (grades 3-8)	45.7%	54.7%	59.6%
Reading (high school)	42.8%	48.1%	63.8%
Math (grades 3-8)	45.5%	52.2%	65.9%
Math (high school)	25.2%	36.5%	50.3%

\* Efficient frontier district with most similar constraints as this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: **Plainville (D0270)** 

## Region: Northwest Kansas (Rooks County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **69.06%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 69.06%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	68.3%	98.9%
Performance Index	37.4%	64.6%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending
 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

### District: Plainville (D0270)

### Region: Northwest Kansas (Rooks County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Plainville with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Plainville	Halstead	Waconda
District Code	D0270	D0440	D0272
County	Rooks	Harvey	Mitchell
Enrollment	423	735	365
Constraints			
Economically Disadvantaged Students	36.5%	34.7%	44.3%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	18.2%	18.7%	12.9%
Inputs			
Core Spending (per student)	\$9,267	\$6,792	\$9,480
Outputs			
Reading and Math Proficiency Rate	68.3%	83.9%	94.5%
Reading (grades 3-8)	73.6%	87.0%	96.9%
Reading (high school)	80.3%	83.8%	88.6%
Math (grades 3-8)	66.4%	86.3%	96.6%
Math (high school)	52.0%	64.0%	92.0%
Reading and Math Performance Index	37.4%	55.8%	70.2%
Reading (grades 3-8)	40.6%	56.7%	70.4%
Reading (high school)	45.8%	55.3%	61.8%
Math (grades 3-8)	36.6%	59.6%	77.0%
Math (high school)	28.0%	41.1%	64.0%

\* Efficient frontier district with most similar constraints as this district.

\*\* Efficient frontier district with highest performance outputs that is similarly-sized and spends less than this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

### District: **Pleasanton (D0344)**

## Region: Southeast Kansas (Linn County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **79.87%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = **79.87%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	60.5%	75.7%
Performance Index	33.3%	48.2%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## Inputs

Core Spending
 (\$ per student spent on c

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- **Reading and Math Proficiency Rate** (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

#### District: Pleasanton (D0344)

### Region: Southeast Kansas (Linn County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

### How does this district compare to the state's most efficient districts?

The following table compares Pleasanton with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance. In this case, the comparison district under both criteria is the same.

		Most Similar	Best-Performing
Indicator	District	Frontier District*	Frontier District**
District Name	Pleasanton	Halstead	Halstead
District Code	D0344	D0440	D0440
County	Linn	Harvey	Harvey
Enrollment	424	735	735
Constraints			
Economically Disadvantaged Students	48.9%	34.7%	34.7%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	19.1%	18.7%	18.7%
Inputs			
Core Spending (per student)	\$6,647	\$6,792	\$6,792
Outputs			
Reading and Math Proficiency Rate	60.5%	83.9%	83.9%
Reading (grades 3-8)	73.5%	87.0%	87.0%
Reading (high school)	49.1%	83.8%	83.8%
Math (grades 3-8)	57.7%	86.3%	86.3%
Math (high school)	33.6%	64.0%	64.0%
Reading and Math Performance Index	33.3%	55.8%	55.8%
Reading (grades 3-8)	39.7%	56.7%	56.7%
Reading (high school)	28.0%	55.3%	55.3%
Math (grades 3-8)	32.0%	59.6%	59.6%
Math (high school)	19.6%	41.1%	41.1%

\* Efficient frontier district with most similar constraints as this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

### District: **Prairie View (D0362)**

## Region: Southeast Kansas (Linn County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **94.93%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score = 94.93%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	81.7%	86.1%
Performance Index	50.9%	58.5%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## Inputs

Core Spending
 (\$ per student spent on the spent of the spent of the spent of the spent of the spending spending

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- **Reading and Math Proficiency Rate** (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

### District: Prairie View (D0362)

### Region: Southeast Kansas (Linn County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<b>County</b>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

### How does this district compare to the state's most efficient districts?

The following table compares Prairie View with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
Indicator	District	Frontier District*	Frontier District**
District Name	Prairie View	Osawatomie	Baldwin City
District Code	D0362	D0367	D0348
County	Linn	Miami	Douglas
Enrollment	1,056	1,235	1,407
Constraints			
Economically Disadvantaged Students	32.0%	50.8%	15.2%
English Language Learners	0.6%	0.0%	0.1%
Students with Disabilities	12.5%	15.3%	13.7%
Inputs			
Core Spending (per student)	\$6,338	\$6,193	\$6,490
Outputs			
Reading and Math Proficiency Rate	81.7%	75.5%	88.7%
Reading (grades 3-8)	84.1%	78.5%	94.3%
Reading (high school)	76.1%	78.4%	72.2%
Math (grades 3-8)	86.8%	81.4%	94.3%
Math (high school)	62.4%	39.7%	66.1%
Reading and Math Performance Index	50.9%	45.7%	64.0%
Reading (grades 3-8)	49.6%	48.0%	67.4%
Reading (high school)	45.4%	43.0%	44.6%
Math (grades 3-8)	58.7%	50.1%	74.1%
Math (high school)	35.5%	22.0%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Pratt (D0382)

## Region: South Central Kansas (Pratt County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **76.87%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 76.87%

How could this district improve its efficiency score? As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	77.4%	>100%
Performance Index	48.5%	64.3%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Pratt (D0382)

## Region: South Central Kansas (Pratt County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Pratt with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
Indicator	This District	Frontier District*	Frontier District**
District Name	Pratt	Osawatomie	Baldwin City
District Code	D0382	D0367	D0348
County	Pratt	Miami	Douglas
Enrollment	1,223	1,235	1,407
Constraints			
Economically Disadvantaged Students	36.8%	50.8%	15.2%
English Language Learners	1.5%	0.0%	0.1%
Students with Disabilities	11.6%	15.3%	13.7%
Inputs			
Core Spending (per student)	\$8,425	\$6,193	\$6,490
Outputs			
Reading and Math Proficiency Rate	77.4%	75.5%	88.7%
Reading (grades 3-8)	83.2%	78.5%	94.3%
Reading (high school)	79.5%	78.4%	72.2%
Math (grades 3-8)	78.8%	81.4%	94.3%
Math (high school)	56.6%	39.7%	66.1%
Reading and Math Performance Index	48.5%	45.7%	64.0%
Reading (grades 3-8)	54.1%	48.0%	67.4%
Reading (high school)	49.2%	43.0%	44.6%
Math (grades 3-8)	49.2%	50.1%	74.1%
Math (high school)	32.7%	22.0%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Pretty Prairie (D0311)

## Region: South Central Kansas (Reno County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **64.69%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 64.69%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	77.6%	>100%
Performance Index	46.9%	80.8%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Pretty Prairie (D0311)

## Region: South Central Kansas (Reno County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<b>County</b>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Pretty Prairie with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance. In this case, the comparison district under both criteria is the same.

		Most Similar	Best-Performing
Indiastan	This District	Frontier District*	Frontier
Indicator	DISTRICT	DISTRICT	District
District Name	Pretty Prairie	Waconda	Waconda
District Code	D0311	D0272	D0272
County	Reno	Mitchell	Mitchell
Enrollment	301	365	365
Constraints			
Economically Disadvantaged Students	28.2%	44.3%	44.3%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	7.6%	12.9%	12.9%
Inputs			
Core Spending (per student)	\$9,414	\$9,480	\$9,480
Outputs			
Reading and Math Proficiency Rate	77.6%	94.5%	94.5%
Reading (grades 3-8)	82.0%	96.9%	96.9%
Reading (high school)	99.1%	88.6%	88.6%
Math (grades 3-8)	71.7%	96.6%	96.6%
Math (high school)	68.7%	92.0%	92.0%
Reading and Math Performance Index	46.9%	70.2%	70.2%
Reading (grades 3-8)	52.2%	70.4%	70.4%
Reading (high school)	58.0%	61.8%	61.8%
Math (grades 3-8)	40.8%	77.0%	77.0%
Math (high school)	46.5%	64.0%	64.0%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Quinter (D0293)

## Region: Northwest Kansas (Gove County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **71.73%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 71.73%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	81.0%	>100%
Performance Index	51.8%	72.3%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

## Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Quinter (D0293)

## Region: Northwest Kansas (Gove County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Quinter with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
Indicator	District	Frontier District*	Frontier District**
District Name	Quinter	Halstead	Waconda
District Code	D0293	D0440	D0272
County	Gove	Harvey	Mitchell
Enrollment	337	735	365
Constraints			
Economically Disadvantaged Students	28.5%	34.7%	44.3%
English Language Learners	0.4%	0.0%	0.0%
Students with Disabilities	15.8%	18.7%	12.9%
Inputs			
Core Spending (per student)	\$10,626	\$6,792	\$9,480
Outputs			
Reading and Math Proficiency Rate	81.0%	83.9%	94.5%
Reading (grades 3-8)	87.0%	87.0%	96.9%
Reading (high school)	75.3%	83.8%	88.6%
Math (grades 3-8)	81.2%	86.3%	96.6%
Math (high school)	67.8%	64.0%	92.0%
Reading and Math Performance Index	51.8%	55.8%	70.2%
Reading (grades 3-8)	57.9%	56.7%	70.4%
Reading (high school)	47.5%	55.3%	61.8%
Math (grades 3-8)	47.7%	59.6%	77.0%
Math (high school)	52.2%	41.1%	64.0%

\* Efficient frontier district with most similar constraints as this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Rawlins (D0105)

## Region: Northwest Kansas (Rawlins County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **74.14%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 74.14%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	79.8%	>100%
Performance Index	46.8%	70.7%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

## Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

### District: Rawlins (D0105)

### Region: Northwest Kansas (Rawlins County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Rawlins with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Rawlins	Halstead	Waconda
District Code	D0105	D0440	D0272
County	Rawlins	Harvey	Mitchell
Enrollment	356	735	365
Constraints			
Economically Disadvantaged Students	41.8%	34.7%	44.3%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	18.2%	18.7%	12.9%
Inputs			
Core Spending (per student)	\$11,148	\$6,792	\$9,480
Outputs			
Reading and Math Proficiency Rate	79.8%	83.9%	94.5%
Reading (grades 3-8)	79.0%	87.0%	96.9%
Reading (high school)	75.6%	83.8%	88.6%
Math (grades 3-8)	85.0%	86.3%	96.6%
Math (high school)	69.4%	64.0%	92.0%
Reading and Math Performance Index	46.8%	55.8%	70.2%
Reading (grades 3-8)	45.5%	56.7%	70.4%
Reading (high school)	45.3%	55.3%	61.8%
Math (grades 3-8)	50.1%	59.6%	77.0%
Math (high school)	41.1%	41.1%	64.0%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Remington-Whitewater (D0206)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **77.45%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 77.45%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	75.8%	97.9%
Performance Index	45.1%	66.2%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending
 (\$ per student spent on c

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- **Reading and Math Proficiency Rate** (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Remington-Whitewater (D0206)

Region: South Central Kansas (Butler County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<b>County</b>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Remington-Whitewater with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

	This	Most Similar	Best-Performing
Indicator	District	District*	District**
District Name	Remington- Whitewater	Kismet-Plains	Baldwin City
District Code	D0206	D0483	D0348
County	Butler	Seward	Douglas
Enrollment	550	731	1,407
Constraints			
Economically Disadvantaged Students	26.6%	62.0%	15.2%
English Language Learners	3.3%	36.3%	0.1%
Students with Disabilities	5.8%	11.5%	13.7%
Inputs			
Core Spending (per student)	\$7,393	\$7,745	\$6,490
Outputs			
Reading and Math Proficiency Rate	75.8%	63.3%	88.7%
Reading (grades 3-8)	83.1%	63.7%	94.3%
Reading (high school)	81.2%	64.2%	72.2%
Math (grades 3-8)	73.2%	65.2%	94.3%
Math (high school)	58.7%	53.7%	66.1%
Reading and Math Performance Index	45.1%	36.7%	64.0%
Reading (grades 3-8)	48.5%	34.1%	67.4%
Reading (high school)	49.8%	38.6%	44.6%
Math (grades 3-8)	43.4%	39.5%	74.1%
Math (high school)	37.9%	34.2%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Renwick (D0267)

## Region: South Central Kansas (Sedgwick County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **90.44%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score = 90.44%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	84.5%	93.4%
Performance Index	56.2%	64.1%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending

 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Renwick (D0267)

## Region: South Central Kansas (Sedgwick County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Renwick with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance. In this case, the comparison district under both criteria is the same.

		Most Similar	Best-Performing
Indicator	This District	Frontier District*	Frontier District**
District Name	Renwick	Gardner- Edgerton	Gardner-Edgerton
District Code	D0267	D0231	D0231
County	Sedgwick	Johnson	Johnson
Enrollment	2,002	3,782	3,782
Constraints			
Economically Disadvantaged Students	16.8%	21.5%	21.5%
English Language Learners	0.2%	0.9%	0.9%
Students with Disabilities	9.2%	12.2%	12.2%
Inputs			
Core Spending (per student)	\$5,796	\$5,565	\$5,565
Outputs			
Reading and Math Proficiency Rate	84.5%	89.0%	89.0%
Reading (grades 3-8)	88.8%	88.9%	88.9%
Reading (high school)	84.4%	87.6%	87.6%
Math (grades 3-8)	85.4%	92.0%	92.0%
Math (high school)	69.7%	78.7%	78.7%
Reading and Math Performance Index	56.2%	61.5%	61.5%
Reading (grades 3-8)	59.1%	59.6%	59.6%
Reading (high school)	53.5%	63.8%	63.8%
Math (grades 3-8)	58.4%	65.9%	65.9%
Math (high school)	44.3%	50.3%	50.3%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Riley (D0378)

## Region: North Central Kansas (Riley County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **76.48%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 76.48%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	82.0%	>100%
Performance Index	51.1%	72.2%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

## Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Riley (D0378)

## Region: North Central Kansas (Riley County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Riley with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Riley	Waconda	Baldwin City
District Code	D0378	D0272	D0348
County	Riley	Mitchell	Douglas
Enrollment	666	365	1,407
Constraints			
Economically Disadvantaged Students	26.2%	44.3%	15.2%
English Language Learners	0.0%	0.0%	0.1%
Students with Disabilities	12.3%	12.9%	13.7%
Inputs			
Core Spending (per student)	\$8,213	\$9,480	\$6,490
Outputs			
Reading and Math Proficiency Rate	82.0%	94.5%	88.7%
Reading (grades 3-8)	85.7%	96.9%	94.3%
Reading (high school)	80.2%	88.6%	72.2%
Math (grades 3-8)	84.8%	96.6%	94.3%
Math (high school)	67.8%	92.0%	66.1%
Reading and Math Performance Index	51.1%	70.2%	64.0%
Reading (grades 3-8)	52.7%	70.4%	67.4%
Reading (high school)	45.1%	61.8%	44.6%
Math (grades 3-8)	54.2%	77.0%	74.1%
Math (high school)	43.8%	64.0%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: **Riverton (D0404)** 

## Region: Southeast Kansas (Cherokee County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **85.43%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 85.43%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	73.5%	86.1%
Performance Index	42.6%	55.1%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## Inputs

Core Spending
 (\$ per student spent on cc

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

### District: **Riverton (D0404)**

### Region: Southeast Kansas (Cherokee County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Riverton with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
<b>T 1</b> (	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Riverton	Osawatomie	Baldwin City
District Code	D0404	D0367	D0348
County	Cherokee	Miami	Douglas
Enrollment	883	1,235	1,407
Constraints			
Economically Disadvantaged Students	49.7%	50.8%	15.2%
English Language Learners	0.2%	0.0%	0.1%
Students with Disabilities	10.7%	15.3%	13.7%
Inputs			
Core Spending (per student)	\$8,263	\$6,193	\$6,490
Outputs			
Reading and Math Proficiency Rate	73.5%	75.5%	88.7%
Reading (grades 3-8)	80.5%	78.5%	94.3%
Reading (high school)	78.0%	78.4%	72.2%
Math (grades 3-8)	72.4%	81.4%	94.3%
Math (high school)	50.3%	39.7%	66.1%
Reading and Math Performance Index	42.6%	45.7%	64.0%
Reading (grades 3-8)	46.7%	48.0%	67.4%
Reading (high school)	46.7%	43.0%	44.6%
Math (grades 3-8)	42.6%	50.1%	74.1%
Math (high school)	28.0%	22.0%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Rose Hill (D0394)

## Region: South Central Kansas (Butler County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **80.62%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 80.62%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	75.2%	93.3%
Performance Index	46.3%	64.1%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending

 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Rose Hill (D0394)

## Region: South Central Kansas (Butler County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Rose Hill with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance. In this case, the comparison district under both criteria is the same.

		Most Similar	Best-Performing
Indicator	District	Frontier District*	Frontier District**
District Name	Rose Hill	Gardner- Edgerton	Gardner-Edgerton
District Code	D0394	D0231	D0231
County	Butler	Johnson	Johnson
Enrollment	1,758	3,782	3,782
Constraints			
Economically Disadvantaged Students	17.2%	21.5%	21.5%
English Language Learners	0.0%	0.9%	0.9%
Students with Disabilities	8.9%	12.2%	12.2%
Inputs			
Core Spending (per student)	\$5,795	\$5,565	\$5,565
Outputs			
Reading and Math Proficiency Rate	75.2%	89.0%	89.0%
Reading (grades 3-8)	82.0%	88.9%	88.9%
Reading (high school)	72.5%	87.6%	87.6%
Math (grades 3-8)	74.6%	92.0%	92.0%
Math (high school)	59.2%	78.7%	78.7%
Reading and Math Performance Index	46.3%	61.5%	61.5%
Reading (grades 3-8)	50.2%	59.6%	59.6%
Reading (high school)	42.2%	63.8%	63.8%
Math (grades 3-8)	46.5%	65.9%	65.9%
Math (high school)	36.8%	50.3%	50.3%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Rural Vista (D0481)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **66.76%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 66.76%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	63.3%	94.8%
Performance Index	35.9%	60.5%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending
 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- **Reading and Math Proficiency Rate** (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Rural Vista (D0481)

Region: North Central Kansas (Dickinson County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Rural Vista with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Rural Vista	Osawatomie	Leoti
District Code	D0481	D0367	D0467
County	Dickinson	Miami	Wichita
Enrollment	418	1,235	501
Constraints			
Economically Disadvantaged Students	42.3%	50.8%	39.5%
English Language Learners	0.0%	0.0%	26.5%
Students with Disabilities	15.1%	15.3%	12.4%
Inputs			
Core Spending (per student)	\$8,575	\$6,193	\$8,455
Outputs			
Reading and Math Proficiency Rate	63.3%	75.5%	88.1%
Reading (grades 3-8)	68.5%	78.5%	84.4%
Reading (high school)	73.9%	78.4%	84.0%
Math (grades 3-8)	63.8%	81.4%	94.8%
Math (high school)	43.0%	39.7%	78.7%
Reading and Math Performance Index	35.9%	45.7%	58.9%
Reading (grades 3-8)	38.2%	48.0%	54.4%
Reading (high school)	38.5%	43.0%	62.3%
Math (grades 3-8)	38.2%	50.1%	63.1%
Math (high school)	23.9%	22.0%	57.5%

\* Efficient frontier district with most similar constraints as this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Russell (D0407)

## Region: Northwest Kansas (Russell County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **85.21%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = **85.21%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	81.4%	95.5%
Performance Index	52.6%	62.6%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending

 (\$ per student spent on core

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

### District: Russell (D0407)

### Region: Northwest Kansas (Russell County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Russell with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Russell	Halstead	Baldwin City
District Code	D0407	D0440	D0348
County	Russell	Harvey	Douglas
Enrollment	1,024	735	1,407
Constraints			
Economically Disadvantaged Students	40.2%	34.7%	15.2%
English Language Learners	0.0%	0.0%	0.1%
Students with Disabilities	16.8%	18.7%	13.7%
Inputs			
Core Spending (per student)	\$8,776	\$6,792	\$6,490
Outputs			
Reading and Math Proficiency Rate	81.4%	83.9%	88.7%
Reading (grades 3-8)	82.5%	87.0%	94.3%
Reading (high school)	75.3%	83.8%	72.2%
Math (grades 3-8)	85.0%	86.3%	94.3%
Math (high school)	75.7%	64.0%	66.1%
Reading and Math Performance Index	52.6%	55.8%	64.0%
Reading (grades 3-8)	50.2%	56.7%	67.4%
Reading (high school)	50.2%	55.3%	44.6%
Math (grades 3-8)	58.8%	59.6%	74.1%
Math (high school)	47.7%	41.1%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Sabetha (D0441)

## Region: Northeast Kansas (Nemaha County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **85.45%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 85.45%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	85.1%	>100%
Performance Index	57.8%	67.6%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

## Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Electronic copy available at: https://ssrn.com/abstract=2355447
Kansas School District Efficiency Study

District: Sabetha (D0441)

#### Region: Northeast Kansas (Nemaha County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Sabetha with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
Indicator	This District	Frontier District*	Frontier District**
District Name	Sabetha	Osawatomie	Baldwin City
District Code	D0441	D0367	D0348
County	Nemaha	Miami	Douglas
Enrollment	953	1,235	1,407
Constraints			
Economically Disadvantaged Students	25.6%	50.8%	15.2%
English Language Learners	0.1%	0.0%	0.1%
Students with Disabilities	13.5%	15.3%	13.7%
Inputs			
Core Spending (per student)	\$7,665	\$6,193	\$6,490
Outputs			
Reading and Math Proficiency Rate	85.1%	75.5%	88.7%
Reading (grades 3-8)	89.0%	78.5%	94.3%
Reading (high school)	80.6%	78.4%	72.2%
Math (grades 3-8)	87.2%	81.4%	94.3%
Math (high school)	65.6%	39.7%	66.1%
Reading and Math Performance Index	57.8%	45.7%	64.0%
Reading (grades 3-8)	59.8%	48.0%	67.4%
Reading (high school)	53.3%	43.0%	44.6%
Math (grades 3-8)	58.5%	50.1%	74.1%
Math (high school)	51.3%	22.0%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Salina (D0305)

#### Region: North Central Kansas (Saline County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **87.65%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score** = 87.65%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	73.5%	83.8%
Performance Index	45.5%	54.4%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### Inputs

Core Spending
 (\$ per student spent on core)

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

<u>Constraints</u> (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- **Reading and Math Proficiency Rate** (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

#### District: Salina (D0305)

#### Region: North Central Kansas (Saline County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Salina with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Salina	Newton	Gardner-Edgerton
District Code	D0305	D0373	D0231
County	Saline	Harvey	Johnson
Enrollment	7,428	3,731	3,782
Constraints			
Economically Disadvantaged Students	45.7%	45.5%	21.5%
English Language Learners	3.9%	5.9%	0.9%
Students with Disabilities	14.4%	15.4%	12.2%
Inputs			
Core Spending (per student)	\$7,551	\$5,915	\$5,565
Outputs			
Reading and Math Proficiency Rate	73.5%	75.1%	89.0%
Reading (grades 3-8)	75.6%	80.8%	88.9%
Reading (high school)	72.9%	72.8%	87.6%
Math (grades 3-8)	77.3%	76.7%	92.0%
Math (high school)	55.8%	55.1%	78.7%
Reading and Math Performance Index	45.5%	50.6%	61.5%
Reading (grades 3-8)	46.4%	54.7%	59.6%
Reading (high school)	44.0%	48.1%	63.8%
Math (grades 3-8)	48.8%	52.2%	65.9%
Math (high school)	34.2%	36.5%	50.3%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Santa Fe (D0434)

#### Region: Northeast Kansas (Osage County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **91.03%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

#### This District's **Relative Efficiency Score = 91.03%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	77.6%	85.3%
Performance Index	48.0%	54.8%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending

 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Santa Fe (D0434)

#### Region: Northeast Kansas (Osage County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Santa Fe with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Santa Fe	Halstead	Gardner-Edgerton
District Code	D0434	D0440	D0231
County	Osage	Harvey	Johnson
Enrollment	1,267	735	3,782
Constraints			
Economically Disadvantaged Students	34.6%	34.7%	21.5%
English Language Learners	0.0%	0.0%	0.9%
Students with Disabilities	19.9%	18.7%	12.2%
Inputs			
Core Spending (per student)	\$7,270	\$6,792	\$5,565
Outputs			
Reading and Math Proficiency Rate	77.6%	83.9%	89.0%
Reading (grades 3-8)	85.5%	87.0%	88.9%
Reading (high school)	64.7%	83.8%	87.6%
Math (grades 3-8)	84.0%	86.3%	92.0%
Math (high school)	55.4%	64.0%	78.7%
Reading and Math Performance Index	48.0%	55.8%	61.5%
Reading (grades 3-8)	54.6%	56.7%	59.6%
Reading (high school)	37.7%	55.3%	63.8%
Math (grades 3-8)	52.5%	59.6%	65.9%
Math (high school)	29.1%	41.1%	50.3%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Satanta (D0507)

#### Region: Southwest Kansas (Haskell County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **85.09%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score** = **85.09%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	59.0%	69.3%
Performance Index	32.3%	46.2%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending

 (\$ per student spent on cor

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

#### District: Satanta (D0507)

#### Region: Southwest Kansas (Haskell County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Satanta with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Satanta	Kismet-Plains	Waconda
District Code	D0507	D0483	D0272
County	Haskell	Seward	Mitchell
Enrollment	406	731	365
Constraints			
Economically Disadvantaged Students	49.9%	62.0%	44.3%
English Language Learners	34.9%	36.3%	0.0%
Students with Disabilities	11.5%	11.5%	12.9%
Inputs			
Core Spending (per student)	\$9,550	\$7,745	\$9,480
Outputs			
Reading and Math Proficiency Rate	59.0%	63.3%	94.5%
Reading (grades 3-8)	62.6%	63.7%	96.9%
Reading (high school)	66.8%	64.2%	88.6%
Math (grades 3-8)	55.7%	65.2%	96.6%
Math (high school)	56.4%	53.7%	92.0%
Reading and Math Performance Index	32.3%	36.7%	70.2%
Reading (grades 3-8)	35.3%	34.1%	70.4%
Reading (high school)	37.9%	38.6%	61.8%
Math (grades 3-8)	29.1%	39.5%	77.0%
Math (high school)	30.0%	34.2%	64.0%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Scott (D0466)

#### Region: Southwest Kansas (Scott County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **99.35%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

#### This District's **Relative Efficiency Score = 99.35%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	80.7%	81.2%
Performance Index	51.9%	53.7%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on (\$)

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

#### District: Scott (D0466)

#### Region: Southwest Kansas (Scott County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Scott with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
Indicator	This District	Frontier District*	Frontier District**
District Name	Scott	Leoti	Baldwin City
District Code	D0466	D0467	D0348
County	Scott	Wichita	Douglas
Enrollment	961	501	1,407
Constraints			
Economically Disadvantaged Students	40.2%	39.5%	15.2%
English Language Learners	14.5%	26.5%	0.1%
Students with Disabilities	14.5%	12.4%	13.7%
Inputs			
Core Spending (per student)	\$7,766	\$8,455	\$6,490
Outputs			
Reading and Math Proficiency Rate	80.7%	88.1%	88.7%
Reading (grades 3-8)	87.8%	84.4%	94.3%
Reading (high school)	74.0%	84.0%	72.2%
Math (grades 3-8)	83.2%	94.8%	94.3%
Math (high school)	60.9%	78.7%	66.1%
Reading and Math Performance Index	51.9%	58.9%	64.0%
Reading (grades 3-8)	58.7%	54.4%	67.4%
Reading (high school)	44.7%	62.3%	44.6%
Math (grades 3-8)	53.4%	63.1%	74.1%
Math (high school)	39.5%	57.5%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Seaman (D0345)

#### Region: Northeast Kansas (Shawnee County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **88.75%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score** = **88.75%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	79.2%	89.2%
Performance Index	50.1%	59.8%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending

 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Seaman (D0345)

#### Region: Northeast Kansas (Shawnee County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Seaman with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance. In this case, the comparison district under both criteria is the same.

	<b>TL:</b>	Most Similar	Best-Performing
Indicator	District	District*	Frontier District**
District Name	Seaman	Gardner- Edgerton	Gardner-Edgerton
District Code	D0345	D0231	D0231
County	Shawnee	Johnson	Johnson
Enrollment	3,483	3,782	3,782
Constraints			
Economically Disadvantaged Students	22.5%	21.5%	21.5%
English Language Learners	0.0%	0.9%	0.9%
Students with Disabilities	13.2%	12.2%	12.2%
Inputs			
Core Spending (per student)	\$5,970	\$5,565	\$5,565
Outputs			
Reading and Math Proficiency Rate	79.2%	89.0%	89.0%
Reading (grades 3-8)	80.1%	88.9%	88.9%
Reading (high school)	78.5%	87.6%	87.6%
Math (grades 3-8)	83.6%	92.0%	92.0%
Math (high school)	62.9%	78.7%	78.7%
Reading and Math Performance Index	50.1%	61.5%	61.5%
Reading (grades 3-8)	51.0%	59.6%	59.6%
Reading (high school)	49.2%	63.8%	63.8%
Math (grades 3-8)	52.8%	65.9%	65.9%
Math (high school)	40.1%	50.3%	50.3%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Sedgwick (D0439)

#### Region: South Central Kansas (Harvey County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **96.78%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score** = 96.78%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	82.1%	84.8%
Performance Index	52.0%	58.3%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

• Core Spending (\$ per student spent on a

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

<u>Constraints</u> (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- **Reading and Math Proficiency Rate** (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Sedgwick (D0439)

#### Region: South Central Kansas (Harvey County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Sedgwick with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance. In this case, the comparison district under both criteria is the same.

		Most Similar	Best-Performing
Indicator	This District	Frontier District*	Frontier District**
District Name	Sedgwick	Waconda	Waconda
District Code	D0439	D0272	D0272
County	Harvey	Mitchell	Mitchell
Enrollment	545	365	365
Constraints			
Economically Disadvantaged Students	25.8%	44.3%	44.3%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	10.2%	12.9%	12.9%
Inputs			
Core Spending (per student)	\$5,682	\$9,480	\$9,480
Outputs			
Reading and Math Proficiency Rate	82.1%	94.5%	94.5%
Reading (grades 3-8)	88.0%	96.9%	96.9%
Reading (high school)	82.4%	88.6%	88.6%
Math (grades 3-8)	84.2%	96.6%	96.6%
Math (high school)	49.6%	92.0%	92.0%
Reading and Math Performance Index	52.0%	70.2%	70.2%
Reading (grades 3-8)	56.6%	70.4%	70.4%
Reading (high school)	46.2%	61.8%	61.8%
Math (grades 3-8)	53.5%	77.0%	77.0%
Math (high school)	30.1%	64.0%	64.0%

\* Efficient frontier district with most similar constraints as this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Shawnee Heights (D0450)

#### Region: Northeast Kansas (Shawnee County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **90.84%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

#### This District's **Relative Efficiency Score = 90.84%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	77.3%	85.1%
Performance Index	48.5%	55.8%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on c

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- **Reading and Math Proficiency Rate** (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

#### District: Shawnee Heights (D0450)

Region: Northeast Kansas (Shawnee County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Shawnee Heights with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance. In this case, the comparison district under both criteria is the same.

		Most Similar	Best-Performing
Indicator	This District	Frontier District*	Frontier District**
District Nome	Shawnee	Gardner-	Conducer Education
District Name	Heights	Edgerton	Gardner-Edgerton
District Code	D0450	D0231	D0231
County	Shawnee	Johnson	Johnson
Enrollment	3,485	3,782	3,782
Constraints			
Economically Disadvantaged Students	20.9%	21.5%	21.5%
English Language Learners	0.8%	0.9%	0.9%
Students with Disabilities	14.8%	12.2%	12.2%
Inputs			
Core Spending (per student)	\$5,963	\$5,565	\$5,565
Outputs			
Reading and Math Proficiency Rate	77.3%	89.0%	89.0%
Reading (grades 3-8)	83.1%	88.9%	88.9%
Reading (high school)	72.9%	87.6%	87.6%
Math (grades 3-8)	81.5%	92.0%	92.0%
Math (high school)	54.1%	78.7%	78.7%
Reading and Math Performance Index	48.5%	61.5%	61.5%
Reading (grades 3-8)	51.6%	59.6%	59.6%
Reading (high school)	45.2%	63.8%	63.8%
Math (grades 3-8)	52.8%	65.9%	65.9%
Math (high school)	31.6%	50.3%	50.3%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Silver Lake (D0372)

#### Region: Northeast Kansas (Shawnee County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **87.16%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

#### This District's **Relative Efficiency Score = 87.16%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	91.2%	>100%
Performance Index	64.0%	73.5%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Silver Lake (D0372)

Region: Northeast Kansas (Shawnee County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<b>County</b>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Silver Lake with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Silver Lake	Lansing	Baldwin City
District Code	D0372	D0469	D0348
County	Shawnee	Leavenworth	Douglas
Enrollment	760	2,197	1,407
Constraints			
Economically Disadvantaged Students	11.9%	9.1%	15.2%
English Language Learners	0.0%	0.4%	0.1%
Students with Disabilities	10.9%	10.8%	13.7%
Inputs			
Core Spending (per student)	\$7,062	\$4,722	\$6,490
Outputs			
Reading and Math Proficiency Rate	91.2%	82.9%	88.7%
Reading (grades 3-8)	95.5%	87.3%	94.3%
Reading (high school)	92.8%	78.6%	72.2%
Math (grades 3-8)	92.6%	85.5%	94.3%
Math (high school)	70.2%	70.2%	66.1%
Reading and Math Performance Index	64.0%	54.3%	64.0%
Reading (grades 3-8)	65.5%	57.2%	67.4%
Reading (high school)	64.9%	50.9%	44.6%
Math (grades 3-8)	68.8%	57.8%	74.1%
Math (high school)	41.8%	41.5%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Skyline (D0438)

#### Region: South Central Kansas (Pratt County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: inputs – how much the district spends per pupil; outputs – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as efficient frontier districts. This district's score means that it is 78.99% as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

#### This District's **Relative Efficiency Score** = 78.99%

How could this district improve its efficiency score? As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the efficient frontier. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	80.4%	>100%
Performance Index	53.8%	68.1%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

#### Which data are included in the calculation of the district's efficiency score?

#### Inputs

- **Outputs**
- **Core Spending** (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- **Enrollment of Economically Disadvantaged Students**
- **Enrollment of English Language Learners**
- **Enrollment of Students with Disabilities**

- **Reading and Math Proficiency Rate** (percent of reading and math tests scoring at the "proficient" standard or higher)
- **Reading and Math Performance Index** (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level - "basic", "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

#### District: Skyline (D0438)

#### Region: South Central Kansas (Pratt County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Skyline with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Skyline	Ashland	Waconda
District Code	D0438	D0220	D0272
County	Pratt	Clark	Mitchell
Enrollment	389	217	365
Constraints			
Economically Disadvantaged Students	37.2%	50.3%	44.3%
English Language Learners	3.7%	6.0%	0.0%
Students with Disabilities	11.4%	16.1%	12.9%
Inputs			
Core Spending (per student)	\$9,270	\$11,034	\$9,480
Outputs			
Reading and Math Proficiency Rate	80.4%	86.3%	94.5%
Reading (grades 3-8)	83.5%	82.5%	96.9%
Reading (high school)	87.4%	92.3%	88.6%
Math (grades 3-8)	76.9%	90.3%	96.6%
Math (high school)	79.2%	81.0%	92.0%
Reading and Math Performance Index	53.8%	64.2%	70.2%
Reading (grades 3-8)	57.1%	59.5%	70.4%
Reading (high school)	57.7%	65.1%	61.8%
Math (grades 3-8)	50.2%	71.7%	77.0%
Math (high school)	54.9%	51.3%	64.0%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Smith Center (D0237)

#### Region: Northwest Kansas (Smith County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **71.71%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

#### This District's **Relative Efficiency Score** = 71.71%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	77.3%	>100%
Performance Index	45.1%	71.9%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Smith Center (D0237)

Region: Northwest Kansas (Smith County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<b>County</b>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Smith Center with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Smith Center	Halstead	Waconda
District Code	D0237	D0440	D0272
County	Smith	Harvey	Mitchell
Enrollment	452	735	365
Constraints			
Economically Disadvantaged Students	38.9%	34.7%	44.3%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	17.0%	18.7%	12.9%
Inputs			
Core Spending (per student)	\$10,522	\$6,792	\$9,480
Outputs			
Reading and Math Proficiency Rate	77.3%	83.9%	94.5%
Reading (grades 3-8)	84.3%	87.0%	96.9%
Reading (high school)	68.8%	83.8%	88.6%
Math (grades 3-8)	82.8%	86.3%	96.6%
Math (high school)	39.2%	64.0%	92.0%
Reading and Math Performance Index	45.1%	55.8%	70.2%
Reading (grades 3-8)	51.3%	56.7%	70.4%
Reading (high school)	39.8%	55.3%	61.8%
Math (grades 3-8)	46.9%	59.6%	77.0%
Math (high school)	20.2%	41.1%	64.0%

\* Efficient frontier district with most similar constraints as this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Smoky Valley (D0400)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **77.96%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score** = 77.96%

How could this district improve its efficiency score? As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	79.5%	>100%
Performance Index	51.1%	69.2%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Smoky Valley (D0400)

Region: North Central Kansas (McPherson County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Smoky Valley with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance. In this case, the comparison district under both criteria is the same.

		Most Similar	Best-Performing
Indicator	District	Frontier District*	Frontier District**
District Name	Smoky Valley	Baldwin City	Baldwin City
District Code	D0400	D0348	D0348
County	McPherson	Douglas	Douglas
Enrollment	1,038	1,407	1,407
Constraints			
Economically Disadvantaged Students	23.0%	15.2%	15.2%
English Language Learners	0.7%	0.1%	0.1%
Students with Disabilities	12.3%	13.7%	13.7%
Inputs			
Core Spending (per student)	\$7,336	\$6,490	\$6,490
Outputs			
Reading and Math Proficiency Rate	79.5%	88.7%	88.7%
Reading (grades 3-8)	82.1%	94.3%	94.3%
Reading (high school)	68.7%	72.2%	72.2%
Math (grades 3-8)	84.1%	94.3%	94.3%
Math (high school)	67.4%	66.1%	66.1%
Reading and Math Performance Index	51.1%	64.0%	64.0%
Reading (grades 3-8)	53.1%	67.4%	67.4%
Reading (high school)	44.9%	44.6%	44.6%
Math (grades 3-8)	53.8%	74.1%	74.1%
Math (high school)	42.3%	40.1%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Solomon (D0393)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **81.25%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score** = 81.25%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	77.9%	95.9%
Performance Index	51.0%	62.8%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged
   Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- **Reading and Math Proficiency Rate** (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Solomon (D0393)

Region: North Central Kansas (Dickinson County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Solomon with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Solomon	Osawatomie	Leoti
District Code	D0393	D0367	D0467
County	Dickinson	Miami	Wichita
Enrollment	417	1,235	501
Constraints			
Economically Disadvantaged Students	40.3%	50.8%	39.5%
English Language Learners	0.0%	0.0%	26.5%
Students with Disabilities	14.3%	15.3%	12.4%
Inputs			
Core Spending (per student)	\$8,495	\$6,193	\$8,455
Outputs			
Reading and Math Proficiency Rate	77.9%	75.5%	88.1%
Reading (grades 3-8)	82.4%	78.5%	84.4%
Reading (high school)	69.2%	78.4%	84.0%
Math (grades 3-8)	77.6%	81.4%	94.8%
Math (high school)	68.3%	39.7%	78.7%
Reading and Math Performance Index	51.0%	45.7%	58.9%
Reading (grades 3-8)	52.2%	48.0%	54.4%
Reading (high school)	40.6%	43.0%	62.3%
Math (grades 3-8)	54.5%	50.1%	63.1%
Math (high school)	43.1%	22.0%	57.5%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: South Barber (D0255)

#### Region: South Central Kansas (Barber County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **68.91%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

#### This District's **Relative Efficiency Score** = **68.91%**

How could this district improve its efficiency score? As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	71.8%	>100%
Performance Index	40.8%	67.8%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged
   Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: South Barber (D0255)

Region: South Central Kansas (Barber County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<b>County</b>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares South Barber with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance. In this case, the comparison district under both criteria is the same.

		Most Similar	Best-Performing
To Prove the	This	Frontier	Frontier
Indicator	DISTRICT	DISTRICT	District
District Name	South Barber	Waconda	Waconda
District Code	D0255	D0272	D0272
County	Barber	Mitchell	Mitchell
Enrollment	270	365	365
Constraints			
Economically Disadvantaged Students	42.5%	44.3%	44.3%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	11.1%	12.9%	12.9%
Inputs			
Core Spending (per student)	\$10,528	\$9,480	\$9,480
Outputs			
Reading and Math Proficiency Rate	71.8%	94.5%	94.5%
Reading (grades 3-8)	72.5%	96.9%	96.9%
Reading (high school)	80.1%	88.6%	88.6%
Math (grades 3-8)	73.6%	96.6%	96.6%
Math (high school)	77.3%	92.0%	92.0%
Reading and Math Performance Index	40.8%	70.2%	70.2%
Reading (grades 3-8)	40.7%	70.4%	70.4%
Reading (high school)	49.3%	61.8%	61.8%
Math (grades 3-8)	41.3%	77.0%	77.0%
Math (high school)	50.4%	64.0%	64.0%

\* Efficient frontier district with most similar constraints as this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: South Haven (D0509)

#### Region: South Central Kansas (Sumner County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **88.03%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

#### This District's **Relative Efficiency Score** = **88.03%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	76.7%	87.1%
Performance Index	48.5%	55.2%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on c

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

#### District: South Haven (D0509)

#### Region: South Central Kansas (Sumner County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares South Haven with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	South Haven	Waconda	Halstead
District Code	D0509	D0272	D0440
County	Sumner	Mitchell	Harvey
Enrollment	247	365	735
Constraints			
Economically Disadvantaged Students	40.4%	44.3%	34.7%
English Language Learners	0.4%	0.0%	0.0%
Students with Disabilities	14.2%	12.9%	18.7%
Inputs			
Core Spending (per student)	\$7,100	\$9,480	\$6,792
Outputs			
Reading and Math Proficiency Rate	76.7%	94.5%	83.9%
Reading (grades 3-8)	82.8%	96.9%	87.0%
Reading (high school)	74.1%	88.6%	83.8%
Math (grades 3-8)	75.3%	96.6%	86.3%
Math (high school)	62.7%	92.0%	64.0%
Reading and Math Performance Index	48.5%	70.2%	55.8%
Reading (grades 3-8)	50.1%	70.4%	56.7%
Reading (high school)	55.0%	61.8%	55.3%
Math (grades 3-8)	49.1%	77.0%	59.6%
Math (high school)	36.9%	64.0%	41.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Southeast of Saline (D0306)

#### Region: North Central Kansas (Saline County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **85.70%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

#### This District's **Relative Efficiency Score = 85.70%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	86.5%	>100%
Performance Index	60.6%	70.8%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Southeast of Saline (D0306)

Region: North Central Kansas (Saline County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Southeast of Saline with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
Indicator	District	Frontier District*	Frontier District**
District Name	Southeast of Saline	Waconda	Baldwin City
District Code	D0306	D0272	D0348
County	Saline	Mitchell	Douglas
Enrollment	714	365	1,407
Constraints			
Economically Disadvantaged Students	23.0%	44.3%	15.2%
English Language Learners	0.0%	0.0%	0.1%
Students with Disabilities	9.8%	12.9%	13.7%
Inputs			
Core Spending (per student)	\$7,188	\$9,480	\$6,490
Outputs			
Reading and Math Proficiency Rate	86.5%	94.5%	88.7%
Reading (grades 3-8)	89.4%	96.9%	94.3%
Reading (high school)	72.9%	88.6%	72.2%
Math (grades 3-8)	93.7%	96.6%	94.3%
Math (high school)	65.8%	92.0%	66.1%
Reading and Math Performance Index	60.6%	70.2%	64.0%
Reading (grades 3-8)	58.8%	70.4%	67.4%
Reading (high school)	46.4%	61.8%	44.6%
Math (grades 3-8)	70.4%	77.0%	74.1%
Math (high school)	48.5%	64.0%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

#### District: Southern Lyon (D0252)

#### Region: Northeast Kansas (Lyon County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **87.31%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

#### This District's **Relative Efficiency Score** = 87.31%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	83.5%	95.7%
Performance Index	53.6%	64.5%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on (\$)

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

#### District: Southern Lyon (D0252)

Region: Northeast Kansas (Lyon County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<b>County</b>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Southern Lyon with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Southern Lyon	Waconda	Baldwin City
District Code	D0252	D0272	D0348
County	Lyon	Mitchell	Douglas
Enrollment	610	365	1,407
Constraints			
Economically Disadvantaged Students	31.7%	44.3%	15.2%
English Language Learners	0.0%	0.0%	0.1%
Students with Disabilities	12.5%	12.9%	13.7%
Inputs			
Core Spending (per student)	\$7,363	\$9,480	\$6,490
Outputs			
Reading and Math Proficiency Rate	83.5%	94.5%	88.7%
Reading (grades 3-8)	88.3%	96.9%	94.3%
Reading (high school)	78.3%	88.6%	72.2%
Math (grades 3-8)	87.9%	96.6%	94.3%
Math (high school)	61.9%	92.0%	66.1%
Reading and Math Performance Index	53.6%	70.2%	64.0%
Reading (grades 3-8)	55.4%	70.4%	67.4%
Reading (high school)	54.9%	61.8%	44.6%
Math (grades 3-8)	57.6%	77.0%	74.1%
Math (high school)	35.8%	64.0%	40.1%

\* Efficient frontier district with most similar constraints as this district.

\*\* Efficient frontier district with highest performance outputs that is similarly-sized and spends less than this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: **Spearville (D0381)** 

#### Region: Southwest Kansas (Ford County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **79.09%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

#### This District's **Relative Efficiency Score** = **79.09%**

How could this district improve its efficiency score? As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	84.6%	>100%
Performance Index	50.8%	71.8%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: **Spearville (D0381)** 

#### Region: Southwest Kansas (Ford County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<b>County</b>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Spearville with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Spearville	Waconda	Leoti
District Code	D0381	D0272	D0467
County	Ford	Mitchell	Wichita
Enrollment	355	365	501
Constraints			
Economically Disadvantaged Students	22.1%	44.3%	39.5%
English Language Learners	0.0%	0.0%	26.5%
Students with Disabilities	12.9%	12.9%	12.4%
Inputs			
Core Spending (per student)	\$8,203	\$9,480	\$8,455
Outputs			
Reading and Math Proficiency Rate	84.6%	94.5%	88.1%
Reading (grades 3-8)	87.7%	96.9%	84.4%
Reading (high school)	75.0%	88.6%	84.0%
Math (grades 3-8)	92.7%	96.6%	94.8%
Math (high school)	64.9%	92.0%	78.7%
Reading and Math Performance Index	50.8%	70.2%	58.9%
Reading (grades 3-8)	47.9%	70.4%	54.4%
Reading (high school)	40.9%	61.8%	62.3%
Math (grades 3-8)	58.9%	77.0%	63.1%
Math (high school)	45.6%	64.0%	57.5%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Spring Hill (D0230)

#### Region: Northeast Kansas (Johnson County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **85.01%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

#### This District's **Relative Efficiency Score** = **85.01%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	79.8%	93.9%
Performance Index	50.4%	64.0%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending

 (\$ per student spent on core

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)
Kansas School District Efficiency Study

District: Spring Hill (D0230)

## Region: Northeast Kansas (Johnson County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<b>County</b>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Spring Hill with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Spring Hill	Baldwin City	Gardner-Edgerton
District Code	D0230	D0348	D0231
County	Johnson	Douglas	Johnson
Enrollment	1,702	1,407	3,782
Constraints			
Economically Disadvantaged Students	14.7%	15.2%	21.5%
English Language Learners	0.4%	0.1%	0.9%
Students with Disabilities	10.8%	13.7%	12.2%
Inputs			
Core Spending (per student)	\$5,785	\$6,490	\$5,565
Outputs			
Reading and Math Proficiency Rate	79.8%	88.7%	89.0%
Reading (grades 3-8)	81.0%	94.3%	88.9%
Reading (high school)	76.4%	72.2%	87.6%
Math (grades 3-8)	84.2%	94.3%	92.0%
Math (high school)	70.6%	66.1%	78.7%
Reading and Math Performance Index	50.4%	64.0%	61.5%
Reading (grades 3-8)	50.9%	67.4%	59.6%
Reading (high school)	47.9%	44.6%	63.8%
Math (grades 3-8)	54.8%	74.1%	65.9%
Math (high school)	40.6%	40.1%	50.3%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: St. Francis (D0297)

## Region: Northwest Kansas (Cheyenne County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **79.53%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = **79.53%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	78.8%	99.1%
Performance Index	46.6%	61.6%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending

 (\$ per student spent on core

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

<u>Constraints</u> (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- **Reading and Math Proficiency Rate** (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: St. Francis (D0297)

### Region: Northwest Kansas (Cheyenne County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares St. Francis with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	St. Francis	Waconda	Leoti
District Code	D0297	D0272	D0467
County	Cheyenne	Mitchell	Wichita
Enrollment	327	365	501
Constraints			
Economically Disadvantaged Students	40.4%	44.3%	39.5%
English Language Learners	0.0%	0.0%	26.5%
Students with Disabilities	13.3%	12.9%	12.4%
Inputs			
Core Spending (per student)	\$8,891	\$9,480	\$8,455
Outputs			
Reading and Math Proficiency Rate	78.8%	94.5%	88.1%
Reading (grades 3-8)	84.4%	96.9%	84.4%
Reading (high school)	78.4%	88.6%	84.0%
Math (grades 3-8)	81.6%	96.6%	94.8%
Math (high school)	54.3%	92.0%	78.7%
Reading and Math Performance Index	46.6%	70.2%	58.9%
Reading (grades 3-8)	49.8%	70.4%	54.4%
Reading (high school)	45.4%	61.8%	62.3%
Math (grades 3-8)	50.4%	77.0%	63.1%
Math (high school)	25.9%	64.0%	57.5%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: St. John-Hudson (D0350)

## Region: South Central Kansas (Stafford County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **69.97%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 69.97%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	65.6%	93.8%
Performance Index	39.3%	60.1%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending
 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: St. John-Hudson (D0350)

Region: South Central Kansas (Stafford County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares St. John-Hudson with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
Indicator	This District	Frontier District*	Frontier District**
District Name	St John-Hudson	Ashland	Waconda
District Code	D0250	D0220	D0272
Country	D0350	D0220	D0272
	Stafford	Clark	Mitchell
Enrollment	420	217	365
Constraints			
Economically Disadvantaged Students	45.1%	50.3%	44.3%
English Language Learners	4.1%	6.0%	0.0%
Students with Disabilities	17.2%	16.1%	12.9%
Inputs			
Core Spending (per student)	\$9,592	\$11,034	\$9,480
Outputs			
Reading and Math Proficiency Rate	65.6%	86.3%	94.5%
Reading (grades 3-8)	73.3%	82.5%	96.9%
Reading (high school)	84.6%	92.3%	88.6%
Math (grades 3-8)	61.2%	90.3%	96.6%
Math (high school)	41.0%	81.0%	92.0%
Reading and Math Performance Index	39.3%	64.2%	70.2%
Reading (grades 3-8)	42.5%	59.5%	70.4%
Reading (high school)	57.2%	65.1%	61.8%
Math (grades 3-8)	35.5%	71.7%	77.0%
Math (high school)	25.8%	51.3%	64.0%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Stafford (D0349)

## Region: South Central Kansas (Stafford County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **90.65%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 90.65%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	71.6%	79.0%
Performance Index	41.4%	49.5%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending
 (\$ per student spent on control

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Stafford (D0349)

## Region: South Central Kansas (Stafford County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Stafford with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Stafford	Halstead	Waconda
District Code	D0349	D0440	D0272
County	Stafford	Harvey	Mitchell
Enrollment	324	735	365
Constraints			
Economically Disadvantaged Students	58.9%	34.7%	44.3%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	19.3%	18.7%	12.9%
Inputs			
Core Spending (per student)	\$10,662	\$6,792	\$9,480
Outputs			
Reading and Math Proficiency Rate	71.6%	83.9%	94.5%
Reading (grades 3-8)	80.7%	87.0%	96.9%
Reading (high school)	53.3%	83.8%	88.6%
Math (grades 3-8)	80.6%	86.3%	96.6%
Math (high school)	38.9%	64.0%	92.0%
Reading and Math Performance Index	41.4%	55.8%	70.2%
Reading (grades 3-8)	46.4%	56.7%	70.4%
Reading (high school)	31.9%	55.3%	61.8%
Math (grades 3-8)	45.1%	59.6%	77.0%
Math (high school)	23.6%	41.1%	64.0%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Stanton (D0452)

## Region: Southwest Kansas (Stanton County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **88.11%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = **88.11%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	67.8%	76.9%
Performance Index	40.6%	46.9%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending
 (\$ per student spent on c

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

#### District: Stanton (D0452)

## Region: Southwest Kansas (Stanton County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Stanton with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
<b>.</b>	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Stanton	Kismet-Plains	Baldwin City
District Code	D0452	D0483	D0348
County	Stanton	Seward	Douglas
Enrollment	491	731	1,407
Constraints			
Economically Disadvantaged Students	49.2%	62.0%	15.2%
English Language Learners	28.7%	36.3%	0.1%
Students with Disabilities	11.5%	11.5%	13.7%
Inputs			
Core Spending (per student)	\$8,981	\$7,745	\$6,490
Outputs			
Reading and Math Proficiency Rate	67.8%	63.3%	88.7%
Reading (grades 3-8)	71.9%	63.7%	94.3%
Reading (high school)	80.6%	64.2%	72.2%
Math (grades 3-8)	65.6%	65.2%	94.3%
Math (high school)	52.8%	53.7%	66.1%
Reading and Math Performance Index	40.6%	36.7%	64.0%
Reading (grades 3-8)	44.2%	34.1%	67.4%
Reading (high school)	49.4%	38.6%	44.6%
Math (grades 3-8)	37.6%	39.5%	74.1%
Math (high school)	28.8%	34.2%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Sterling (D0376)

## Region: South Central Kansas (Rice County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **82.84%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 82.84%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	80.9%	97.7%
Performance Index	50.9%	61.6%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending

 (\$ per student spent on core

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

<u>Constraints</u> (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- **Reading and Math Proficiency Rate** (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Sterling (D0376)

## Region: South Central Kansas (Rice County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Sterling with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Sterling	Osawatomie	Waconda
District Code	D0376	D0367	D0272
County	Rice	Miami	Mitchell
Enrollment	528	1,235	365
Constraints			
Economically Disadvantaged Students	42.6%	50.8%	44.3%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	14.2%	15.3%	12.9%
Inputs			
Core Spending (per student)	\$9,122	\$6,193	\$9,480
Outputs			
Reading and Math Proficiency Rate	80.9%	75.5%	94.5%
Reading (grades 3-8)	86.0%	78.5%	96.9%
Reading (high school)	73.0%	78.4%	88.6%
Math (grades 3-8)	84.4%	81.4%	96.6%
Math (high school)	60.9%	39.7%	92.0%
Reading and Math Performance Index	50.9%	45.7%	70.2%
Reading (grades 3-8)	52.4%	48.0%	70.4%
Reading (high school)	48.9%	43.0%	61.8%
Math (grades 3-8)	55.2%	50.1%	77.0%
Math (high school)	34.5%	22.0%	64.0%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Stockton (D0271)

## Region: Northwest Kansas (Rooks County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **69.53%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 69.53%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	61.7%	88.7%
Performance Index	38.0%	58.7%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending
 (\$ per student spent on (\$)

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Stockton (D0271)

## Region: Northwest Kansas (Rooks County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Stockton with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Stockton	West Elk	Waconda
District Code	D0271	D0282	D0272
County	Rooks	Elk	Mitchell
Enrollment	361	445	365
Constraints			
Economically Disadvantaged Students	42.0%	54.7%	44.3%
English Language Learners	0.0%	0.1%	0.0%
Students with Disabilities	25.9%	27.7%	12.9%
Inputs			
Core Spending (per student)	\$9,787	\$8,950	\$9,480
Outputs			
Reading and Math Proficiency Rate	61.7%	85.1%	94.5%
Reading (grades 3-8)	64.9%	89.0%	96.9%
Reading (high school)	65.6%	70.5%	88.6%
Math (grades 3-8)	67.1%	92.6%	96.6%
Math (high school)	30.1%	62.0%	92.0%
Reading and Math Performance Index	38.0%	56.6%	70.2%
Reading (grades 3-8)	40.3%	58.4%	70.4%
Reading (high school)	39.6%	40.3%	61.8%
Math (grades 3-8)	41.7%	66.4%	77.0%
Math (high school)	19.4%	34.7%	64.0%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Sublette (D0374)

## Region: Southwest Kansas (Haskell County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **88.77%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = **88.77%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	67.0%	75.5%
Performance Index	40.4%	46.0%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending
 (\$ per student spent on co.

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

## District: Sublette (D0374)

## Region: Southwest Kansas (Haskell County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Sublette with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
Indicator	This District	Frontier District*	Frontier District**
District Name	Sublette	Kismet-Plains	Baldwin City
District Code	D0374	D0483	D0348
County	Haskell	Seward	Douglas
Enrollment	531	731	1,407
Constraints			
Economically Disadvantaged Students	54.1%	62.0%	15.2%
English Language Learners	21.9%	36.3%	0.1%
Students with Disabilities	7.8%	11.5%	13.7%
Inputs			
Core Spending (per student)	\$8,748	\$7,745	\$6,490
Outputs			
Reading and Math Proficiency Rate	67.0%	63.3%	88.7%
Reading (grades 3-8)	61.6%	63.7%	94.3%
Reading (high school)	79.9%	64.2%	72.2%
Math (grades 3-8)	70.5%	65.2%	94.3%
Math (high school)	63.0%	53.7%	66.1%
Reading and Math Performance Index	40.4%	36.7%	64.0%
Reading (grades 3-8)	35.8%	34.1%	67.4%
Reading (high school)	55.7%	38.6%	44.6%
Math (grades 3-8)	40.9%	39.5%	74.1%
Math (high school)	50.7%	34.2%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Syracuse (D0494)

## Region: Southwest Kansas (Hamilton County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **96.68%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score = 96.68%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	70.8%	73.2%
Performance Index	41.9%	45.8%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending
 (\$ per student spent on c

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Syracuse (D0494)

## Region: Southwest Kansas (Hamilton County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Syracuse with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
Indicator	This District	Frontier District*	Frontier District**
District Name	Syracuse	Deerfield	Baldwin City
District Code	D0494	D0216	D0348
County	Hamilton	Kearny	Douglas
Enrollment	488	362	1,407
Constraints			
Economically Disadvantaged Students	53.1%	53.2%	15.2%
English Language Learners	21.8%	32.3%	0.1%
Students with Disabilities	15.6%	16.4%	13.7%
Inputs			
Core Spending (per student)	\$8,556	\$9,619	\$6,490
Outputs			
Reading and Math Proficiency Rate	70.8%	71.4%	88.7%
Reading (grades 3-8)	74.3%	84.0%	94.3%
Reading (high school)	62.4%	55.3%	72.2%
Math (grades 3-8)	70.7%	81.4%	94.3%
Math (high school)	73.7%	16.3%	66.1%
Reading and Math Performance Index	41.9%	43.1%	64.0%
Reading (grades 3-8)	44.2%	51.6%	67.4%
Reading (high school)	43.2%	35.0%	44.6%
Math (grades 3-8)	41.3%	48.7%	74.1%
Math (high school)	42.4%	11.6%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Tonganoxie (D0464)

## Region: Northeast Kansas (Leavenworth County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **87.55%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 87.55%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	71.4%	81.5%
Performance Index	44.4%	56.3%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending
 (\$ per student spent on c

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Tonganoxie (D0464)

Region: Northeast Kansas (Leavenworth County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Tonganoxie with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Tonganoxie	Baldwin City	Lansing
District Code	D0464	D0348	D0469
County	Leavenworth	Douglas	Leavenworth
Enrollment	1,679	1,407	2,197
Constraints			
Economically Disadvantaged Students	18.2%	15.2%	9.1%
English Language Learners	0.6%	0.1%	0.4%
Students with Disabilities	13.2%	13.7%	10.8%
Inputs			
Core Spending (per student)	\$5,082	\$6,490	\$4,722
Outputs			
Reading and Math Proficiency Rate	71.4%	88.7%	82.9%
Reading (grades 3-8)	80.0%	94.3%	87.3%
Reading (high school)	68.6%	72.2%	78.6%
Math (grades 3-8)	70.2%	94.3%	85.5%
Math (high school)	52.6%	66.1%	70.2%
Reading and Math Performance Index	44.4%	64.0%	54.3%
Reading (grades 3-8)	50.1%	67.4%	57.2%
Reading (high school)	44.5%	44.6%	50.9%
Math (grades 3-8)	44.1%	74.1%	57.8%
Math (high school)	32.3%	40.1%	41.5%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Topeka (D0501)

## Region: Northeast Kansas (Shawnee County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **86.03%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score = 86.03%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	60.6%	70.4%
Performance Index	35.8%	45.0%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

• Core Spending (\$ per student spent on core day-to-day operations,

adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Topeka (D0501)

## Region: Northeast Kansas (Shawnee County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Topeka with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
Indiastan	This	Frontier District*	Frontier
Indicator	District	District*	District**
District Name	Topeka	Dodge City	Shawnee Mission
District Code	D0501	D0443	D0512
County	Shawnee	Ford	Johnson
Enrollment	13,435	5,947	28,667
Constraints			
Economically Disadvantaged Students	62.4%	68.9%	16.2%
English Language Learners	4.2%	40.1%	4.7%
Students with Disabilities	16.7%	13.2%	15.2%
Inputs			
Core Spending (per student)	\$7,449	\$7,703	\$5,728
Outputs			
Reading and Math Proficiency Rate	60.6%	57.2%	81.4%
Reading (grades 3-8)	65.3%	60.0%	84.0%
Reading (high school)	66.3%	56.8%	83.6%
Math (grades 3-8)	63.3%	61.1%	82.9%
Math (high school)	37.7%	35.6%	70.4%
Reading and Math Performance Index	35.8%	32.9%	55.3%
Reading (grades 3-8)	38.0%	33.8%	56.8%
Reading (high school)	40.4%	32.5%	56.3%
Math (grades 3-8)	37.9%	35.8%	57.5%
Math (high school)	22.6%	21.9%	46.2%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Troy (D0429)

## Region: Northeast Kansas (Doniphan County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **81.21%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = **81.21%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	73.7%	90.7%
Performance Index	43.4%	59.4%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending
 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Troy (D0429)

#### Region: Northeast Kansas (Doniphan County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Troy with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance. In this case, the comparison district under both criteria is the same.

		Most Similar	Best-Performing
To Produce	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Troy	Halstead	Halstead
District Code	D0429	D0440	D0440
County	Doniphan	Harvey	Harvey
Enrollment	383	735	735
Constraints			
Economically Disadvantaged Students	32.7%	34.7%	34.7%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	17.3%	18.7%	18.7%
Inputs			
Core Spending (per student)	\$7,468	\$6,792	\$6,792
Outputs			
Reading and Math Proficiency Rate	73.7%	83.9%	83.9%
Reading (grades 3-8)	78.9%	87.0%	87.0%
Reading (high school)	86.3%	83.8%	83.8%
Math (grades 3-8)	74.7%	86.3%	86.3%
Math (high school)	48.1%	64.0%	64.0%
Reading and Math Performance Index	43.4%	55.8%	55.8%
Reading (grades 3-8)	46.7%	56.7%	56.7%
Reading (high school)	54.4%	55.3%	55.3%
Math (grades 3-8)	43.3%	59.6%	59.6%
Math (high school)	30.3%	41.1%	41.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Turner (D0202)

## Region: Northeast Kansas (Wyandotte County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **84.23%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 84.23%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	57.8%	68.6%
Performance Index	32.5%	46.2%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending
 (\$ per student spent on cordinate on content spent on content spent on content spent on content spending spendin

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Turner (D0202)

Region: Northeast Kansas (Wyandotte County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Turner with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Turner	Newton	Gardner-Edgerton
District Code	D0202	D0373	D0231
County	Wyandotte	Harvey	Johnson
Enrollment	3,874	3,731	3,782
Constraints			
Economically Disadvantaged Students	48.7%	45.5%	21.5%
English Language Learners	4.4%	5.9%	0.9%
Students with Disabilities	14.6%	15.4%	12.2%
Inputs			
Core Spending (per student)	\$5,369	\$5,915	\$5,565
Outputs			
Reading and Math Proficiency Rate	57.8%	75.1%	89.0%
Reading (grades 3-8)	64.4%	80.8%	88.9%
Reading (high school)	55.2%	72.8%	87.6%
Math (grades 3-8)	57.1%	76.7%	92.0%
Math (high school)	40.9%	55.1%	78.7%
Reading and Math Performance Index	32.5%	50.6%	61.5%
Reading (grades 3-8)	36.5%	54.7%	59.6%
Reading (high school)	31.0%	48.1%	63.8%
Math (grades 3-8)	32.4%	52.2%	65.9%
Math (high school)	20.6%	36.5%	50.3%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Twin Valley (D0240)

## Region: North Central Kansas (Ottawa County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **77.12%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 77.12%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	79.4%	>100%
Performance Index	47.9%	69.0%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

## Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Twin Valley (D0240)

Region: North Central Kansas (Ottawa County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Twin Valley with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Twin Valley	Waconda	Baldwin City
District Code	D0240	D0272	D0348
County	Ottawa	Mitchell	Douglas
Enrollment	665	365	1,407
Constraints			
Economically Disadvantaged Students	30.2%	44.3%	15.2%
English Language Learners	0.2%	0.0%	0.1%
Students with Disabilities	12.9%	12.9%	13.7%
Inputs			
Core Spending (per student)	\$8,185	\$9,480	\$6,490
Outputs			
Reading and Math Proficiency Rate	79.4%	94.5%	88.7%
Reading (grades 3-8)	79.6%	96.9%	94.3%
Reading (high school)	79.4%	88.6%	72.2%
Math (grades 3-8)	83.8%	96.6%	94.3%
Math (high school)	70.1%	92.0%	66.1%
Reading and Math Performance Index	47.9%	70.2%	64.0%
Reading (grades 3-8)	47.5%	70.4%	67.4%
Reading (high school)	48.6%	61.8%	44.6%
Math (grades 3-8)	51.3%	77.0%	74.1%
Math (high school)	43.8%	64.0%	40.1%

\* Efficient frontier district with most similar constraints as this district.

\*\* Efficient frontier district with highest performance outputs that is similarly-sized and spends less than this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Udall (D0463)

## Region: South Central Kansas (Cowley County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **80.40%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 80.40%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	78.5%	97.6%
Performance Index	48.6%	63.9%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending

 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Udall (D0463)

## Region: South Central Kansas (Cowley County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Udall with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Udall	Waconda	Halstead
District Code	D0463	D0272	D0440
County	Cowley	Mitchell	Harvey
Enrollment	390	365	735
Constraints			
Economically Disadvantaged Students	33.3%	44.3%	34.7%
English Language Learners	0.1%	0.0%	0.0%
Students with Disabilities	14.2%	12.9%	18.7%
Inputs			
Core Spending (per student)	\$7,986	\$9,480	\$6,792
Outputs			
Reading and Math Proficiency Rate	78.5%	94.5%	83.9%
Reading (grades 3-8)	85.0%	96.9%	87.0%
Reading (high school)	66.5%	88.6%	83.8%
Math (grades 3-8)	80.4%	96.6%	86.3%
Math (high school)	58.7%	92.0%	64.0%
Reading and Math Performance Index	48.6%	70.2%	55.8%
Reading (grades 3-8)	50.4%	70.4%	56.7%
Reading (high school)	34.2%	61.8%	55.3%
Math (grades 3-8)	53.9%	77.0%	59.6%
Math (high school)	36.9%	64.0%	41.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Ulysses (D0214)

## Region: Southwest Kansas (Grant County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **96.09%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score = 96.09%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	73.6%	76.6%
Performance Index	44.5%	50.6%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## Inputs

Core Spending
 (\$ per student spent on control

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- **Reading and Math Proficiency Rate** (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Ulysses (D0214)

## Region: Southwest Kansas (Grant County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Ulysses with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
<b>T</b> 1. (	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Ulysses	Great Bend	Gardner-Edgerton
District Code	D0214	D0428	D0231
County	Grant	Barton	Johnson
Enrollment	1,797	3,211	3,782
Constraints			
Economically Disadvantaged Students	46.2%	52.9%	21.5%
English Language Learners	13.8%	13.0%	0.9%
Students with Disabilities	12.7%	13.9%	12.2%
Inputs			
Core Spending (per student)	\$7,082	\$7,274	\$5,565
Outputs			
Reading and Math Proficiency Rate	73.6%	74.7%	89.0%
Reading (grades 3-8)	74.6%	79.7%	88.9%
Reading (high school)	71.0%	72.6%	87.6%
Math (grades 3-8)	79.2%	76.0%	92.0%
Math (high school)	53.6%	53.8%	78.7%
Reading and Math Performance Index	44.5%	46.8%	61.5%
Reading (grades 3-8)	43.7%	50.1%	59.6%
Reading (high school)	42.9%	42.6%	63.8%
Math (grades 3-8)	50.1%	48.4%	65.9%
Math (high school)	28.7%	33.2%	50.3%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Uniontown (D0235)

## Region: Southeast Kansas (Bourbon County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **86.18%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score = 86.18%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	73.6%	85.4%
Performance Index	48.3%	56.0%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending
 (\$ per student spent on c

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Uniontown (D0235)

## Region: Southeast Kansas (Bourbon County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<b>County</b>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Uniontown with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Uniontown	Waconda	Baldwin City
District Code	D0235	D0272	D0348
County	Bourbon	Mitchell	Douglas
Enrollment	470	365	1,407
Constraints			
Economically Disadvantaged Students	51.1%	44.3%	15.2%
English Language Learners	0.4%	0.0%	0.1%
Students with Disabilities	10.8%	12.9%	13.7%
Inputs			
Core Spending (per student)	\$8,451	\$9,480	\$6,490
Outputs			
Reading and Math Proficiency Rate	73.6%	94.5%	88.7%
Reading (grades 3-8)	74.5%	96.9%	94.3%
Reading (high school)	72.9%	88.6%	72.2%
Math (grades 3-8)	76.3%	96.6%	94.3%
Math (high school)	63.1%	92.0%	66.1%
Reading and Math Performance Index	48.3%	70.2%	64.0%
Reading (grades 3-8)	52.0%	70.4%	67.4%
Reading (high school)	42.0%	61.8%	44.6%
Math (grades 3-8)	47.9%	77.0%	74.1%
Math (high school)	40.3%	64.0%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Valley Center (D0262)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **99.28%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score = 99.28%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	73.6%	74.1%
Performance Index	44.9%	49.6%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

Core Spending
 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Valley Center (D0262)

Region: South Central Kansas (Sedgwick County)

## Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

## How does this district compare to the state's most efficient districts?

The following table compares Valley Center with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Valley Center	Baldwin City	Lansing
District Code	D0262	D0348	D0469
County	Sedgwick	Douglas	Leavenworth
Enrollment	2,504	1,407	2,197
Constraints			
Economically Disadvantaged Students	22.2%	15.2%	9.1%
English Language Learners	0.3%	0.1%	0.4%
Students with Disabilities	16.1%	13.7%	10.8%
Inputs			
Core Spending (per student)	\$4,980	\$6,490	\$4,722
Outputs			
Reading and Math Proficiency Rate	73.6%	88.7%	82.9%
Reading (grades 3-8)	77.1%	94.3%	87.3%
Reading (high school)	75.8%	72.2%	78.6%
Math (grades 3-8)	77.5%	94.3%	85.5%
Math (high school)	50.9%	66.1%	70.2%
Reading and Math Performance Index	44.9%	64.0%	54.3%
Reading (grades 3-8)	46.1%	67.4%	57.2%
Reading (high school)	45.6%	44.6%	50.9%
Math (grades 3-8)	48.6%	74.1%	57.8%
Math (high school)	31.7%	40.1%	41.5%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Valley Halls (D0338)

## Region: Northeast Kansas (Jefferson County)

## Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

## What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **75.84%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = **75.84%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

## **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	76.5%	>100%
Performance Index	50.7%	68.4%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

## Which data are included in the calculation of the district's efficiency score?

## **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Electronic copy available at: https://ssrn.com/abstract=2355447
Kansas School District Efficiency Study

District: Valley Halls (D0338)

Region: Northeast Kansas (Jefferson County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Valley Halls with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Valley Halls	Waconda	Halstead
District Code	D0338	D0272	D0440
County	Jefferson	Mitchell	Harvey
Enrollment	448	365	735
Constraints			
Economically Disadvantaged Students	29.0%	44.3%	34.7%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	9.6%	12.9%	18.7%
Inputs			
Core Spending (per student)	\$7,592	\$9,480	\$6,792
Outputs			
Reading and Math Proficiency Rate	76.5%	94.5%	83.9%
Reading (grades 3-8)	82.2%	96.9%	87.0%
Reading (high school)	74.2%	88.6%	83.8%
Math (grades 3-8)	78.6%	96.6%	86.3%
Math (high school)	51.3%	92.0%	64.0%
Reading and Math Performance Index	50.7%	70.2%	55.8%
Reading (grades 3-8)	55.3%	70.4%	56.7%
Reading (high school)	48.9%	61.8%	55.3%
Math (grades 3-8)	51.8%	77.0%	59.6%
Math (high school)	31.5%	64.0%	41.1%

\* Efficient frontier district with most similar constraints as this district.

\*\* Efficient frontier district with highest performance outputs that is similarly-sized and spends less than this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Valley Heights (D0498)

#### Region: Northeast Kansas (Marshall County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **75.43%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = **75.43%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	82.4%	>100%
Performance Index	53.4%	70.8%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

#### District: Valley Heights (D0498)

#### Region: Northeast Kansas (Marshall County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Valley Heights with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance. In this case, the comparison district under both criteria is the same.

		Most Similar	Best-Performing
Indicator	This District	Frontier District*	Frontier District**
District Name	Valley Heights	Waconda	Waconda
District Code	D0498	D0272	D0272
County	Marshall	Mitchell	Mitchell
Enrollment	401	365	365
Constraints			
Economically Disadvantaged Students	38.8%	44.3%	44.3%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	14.5%	12.9%	12.9%
Inputs			
Core Spending (per student)	\$10,522	\$9,480	\$9,480
Outputs			
Reading and Math Proficiency Rate	82.4%	94.5%	94.5%
Reading (grades 3-8)	92.6%	96.9%	96.9%
Reading (high school)	79.0%	88.6%	88.6%
Math (grades 3-8)	83.1%	96.6%	96.6%
Math (high school)	48.0%	92.0%	92.0%
Reading and Math Performance Index	53.4%	70.2%	70.2%
Reading (grades 3-8)	59.0%	70.4%	70.4%
Reading (high school)	48.8%	61.8%	61.8%
Math (grades 3-8)	55.6%	77.0%	77.0%
Math (high school)	30.2%	64.0%	64.0%

\* Efficient frontier district with most similar constraints as this district.

\*\* Efficient frontier district with highest performance outputs that is similarly-sized and spends less than this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Vermillon (D0380)

#### Region: Northeast Kansas (Marshall County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **98.39%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score = 98.39%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	91.2%	96.7%
Performance Index	63.4%	64.5%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending

 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Vermillon (D0380)

#### Region: Northeast Kansas (Marshall County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Vermillon with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	<b>Best-Performing</b>
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Vermillon	Halstead	Baldwin City
District Code	D0380	D0440	D0348
County	Marshall	Harvey	Douglas
Enrollment	572	735	1,407
Constraints			
Economically Disadvantaged Students	30.5%	34.7%	15.2%
English Language Learners	0.0%	0.0%	0.1%
Students with Disabilities	17.1%	18.7%	13.7%
Inputs			
Core Spending (per student)	\$8,433	\$6,792	\$6,490
Outputs			
Reading and Math Proficiency Rate	91.2%	83.9%	88.7%
Reading (grades 3-8)	89.2%	87.0%	94.3%
Reading (high school)	84.8%	83.8%	72.2%
Math (grades 3-8)	97.0%	86.3%	94.3%
Math (high school)	92.7%	64.0%	66.1%
Reading and Math Performance Index	63.4%	55.8%	64.0%
Reading (grades 3-8)	61.0%	56.7%	67.4%
Reading (high school)	49.3%	55.3%	44.6%
Math (grades 3-8)	72.9%	59.6%	74.1%
Math (high school)	63.4%	41.1%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Victoria (D0432)

#### Region: Northwest Kansas (Ellis County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **62.03%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 62.03%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	88.1%	>100%
Performance Index	56.5%	96.4%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Victoria (D0432)

#### Region: Northwest Kansas (Ellis County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Victoria with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance. In this case, the comparison district under both criteria is the same.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Victoria	Waconda	Waconda
District Code	D0432	D0272	D0272
County	Ellis	Mitchell	Mitchell
Enrollment	273	365	365
Constraints			
Economically Disadvantaged Students	15.7%	44.3%	44.3%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	8.5%	12.9%	12.9%
Inputs			
Core Spending (per student)	\$10,326	\$9,480	\$9,480
Outputs			
Reading and Math Proficiency Rate	88.1%	94.5%	94.5%
Reading (grades 3-8)	95.0%	96.9%	96.9%
Reading (high school)	60.5%	88.6%	88.6%
Math (grades 3-8)	91.9%	96.6%	96.6%
Math (high school)	83.2%	92.0%	92.0%
Reading and Math Performance Index	56.5%	70.2%	70.2%
Reading (grades 3-8)	60.8%	70.4%	70.4%
Reading (high school)	38.1%	61.8%	61.8%
Math (grades 3-8)	60.8%	77.0%	77.0%
Math (high school)	48.8%	64.0%	64.0%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Wabaunsee East (D0330)

#### Region: Northeast Kansas (Wabaunsee County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **79.38%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = **79.38%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	71.3%	89.8%
Performance Index	37.6%	58.2%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on of

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Wabaunsee East (D0330)

Region: Northeast Kansas (Wabaunsee County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Wabaunsee East with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
Indicator	District	Frontier District*	Frontier District**
District Name	Wabaunsee East	Halstead	Baldwin City
District Code	D0330	D0440	D0348
County	Wabaunsee	Harvey	Douglas
Enrollment	541	735	1,407
Constraints			
Economically Disadvantaged Students	32.2%	34.7%	15.2%
English Language Learners	0.0%	0.0%	0.1%
Students with Disabilities	17.5%	18.7%	13.7%
Inputs			
Core Spending (per student)	\$7,341	\$6,792	\$6,490
Outputs			
Reading and Math Proficiency Rate	71.3%	83.9%	88.7%
Reading (grades 3-8)	76.5%	87.0%	94.3%
Reading (high school)	65.6%	83.8%	72.2%
Math (grades 3-8)	75.1%	86.3%	94.3%
Math (high school)	56.9%	64.0%	66.1%
Reading and Math Performance Index	37.6%	55.8%	64.0%
Reading (grades 3-8)	39.7%	56.7%	67.4%
Reading (high school)	34.7%	55.3%	44.6%
Math (grades 3-8)	39.8%	59.6%	74.1%
Math (high school)	30.6%	41.1%	40.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

#### District: WaKeeney (D0208)

#### Region: Northwest Kansas (Trego County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **80.81%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score = 80.81%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	80.1%	99.1%
Performance Index	50.6%	66.0%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

### Inputs

Core Spending
 (\$ per student spent on column

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

#### District: WaKeeney (D0208)

#### Region: Northwest Kansas (Trego County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares WaKeeney with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	WaKeeney	Burlingame	Waconda
District Code	D0208	D0454	D0272
County	Trego	Osage	Mitchell
Enrollment	407	351	365
Constraints			
Economically Disadvantaged Students	34.2%	31.1%	44.3%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	20.5%	21.6%	12.9%
Inputs			
Core Spending (per student)	\$9,905	\$6,794	\$9,480
Outputs			
Reading and Math Proficiency Rate	80.1%	81.6%	94.5%
Reading (grades 3-8)	84.1%	82.1%	96.9%
Reading (high school)	74.8%	72.1%	88.6%
Math (grades 3-8)	89.9%	87.5%	96.6%
Math (high school)	49.8%	64.5%	92.0%
Reading and Math Performance Index	50.6%	48.3%	70.2%
Reading (grades 3-8)	53.5%	47.4%	70.4%
Reading (high school)	51.0%	40.8%	61.8%
Math (grades 3-8)	57.1%	53.7%	77.0%
Math (high school)	31.2%	35.7%	64.0%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Wamego (D0320)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **92.77%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 92.77%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	87.6%	98.1%
Performance Index	60.7%	65.4%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending

 (\$ per student spent on core

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- **Reading and Math Proficiency Rate** (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Wamego (D0320)

Region: Northeast Kansas (Pottawatomie County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Wamego with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Wamego	Halstead	Gardner-Edgerton
District Code	D0320	D0440	D0231
County	Pottawatomie	Harvey	Johnson
Enrollment	1,343	735	3,782
Constraints			
Economically Disadvantaged Students	25.8%	34.7%	21.5%
English Language Learners	0.0%	0.0%	0.9%
Students with Disabilities	15.1%	18.7%	12.2%
Inputs			
Core Spending (per student)	\$7,764	\$6,792	\$5,565
Outputs			
Reading and Math Proficiency Rate	87.6%	83.9%	89.0%
Reading (grades 3-8)	91.6%	87.0%	88.9%
Reading (high school)	87.5%	83.8%	87.6%
Math (grades 3-8)	90.6%	86.3%	92.0%
Math (high school)	67.7%	64.0%	78.7%
Reading and Math Performance Index	60.7%	55.8%	61.5%
Reading (grades 3-8)	61.0%	56.7%	59.6%
Reading (high school)	59.3%	55.3%	63.8%
Math (grades 3-8)	66.9%	59.6%	65.9%
Math (high school)	42.1%	41.1%	50.3%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Washington (D0222)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **73.66%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 73.66%

How could this district improve its efficiency score? As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**. This district's unattainable proficiency output target (greater than 100%) indicates that reaching the efficient frontier would also require reducing inputs; improving outputs alone would not be sufficient.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	87.5%	>100%
Performance Index	59.1%	80.2%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

Note: A target value of ">100%" indicates that output improvements alone are not sufficient; input reductions are also necessary.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

- **Outputs**
- Core Spending
   (\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index

   (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level "basic",
   "proficient", "advanced", and "exemplary" with higher scores awarded more points than lower scores)

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Washington (D0222)

Region: North Central Kansas (Washington County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Washington with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance. In this case, the comparison district under both criteria is the same.

		Most Similar	Best-Performing
Indiastan	This District	Frontier	Frontier
Indicator	DISTRICT	District*	District
District Name	Washington	Waconda	Waconda
District Code	D0222	D0272	D0272
County	Washington	Mitchell	Mitchell
Enrollment	370	365	365
Constraints			
Economically Disadvantaged Students	37.1%	44.3%	44.3%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	13.1%	12.9%	12.9%
Inputs			
Core Spending (per student)	\$12,200	\$9,480	\$9,480
Outputs			
Reading and Math Proficiency Rate	87.5%	94.5%	94.5%
Reading (grades 3-8)	93.8%	96.9%	96.9%
Reading (high school)	85.8%	88.6%	88.6%
Math (grades 3-8)	88.3%	96.6%	96.6%
Math (high school)	65.5%	92.0%	92.0%
Reading and Math Performance Index	59.1%	70.2%	70.2%
Reading (grades 3-8)	64.4%	70.4%	70.4%
Reading (high school)	59.3%	61.8%	61.8%
Math (grades 3-8)	59.7%	77.0%	77.0%
Math (high school)	42.3%	64.0%	64.0%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Wathena (D0406)

#### Region: Northeast Kansas (Doniphan County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **68.43%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = **68.43%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	66.9%	97.7%
Performance Index	41.0%	66.8%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending

 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

#### District: Wathena (D0406)

#### Region: Northeast Kansas (Doniphan County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Wathena with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Wathena	Waconda	Halstead
District Code	D0406	D0272	D0440
County	Doniphan	Mitchell	Harvey
Enrollment	393	365	735
Constraints			
Economically Disadvantaged Students	23.9%	44.3%	34.7%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	12.1%	12.9%	18.7%
Inputs			
Core Spending (per student)	\$6,758	\$9,480	\$6,792
Outputs			
Reading and Math Proficiency Rate	66.9%	94.5%	83.9%
Reading (grades 3-8)	66.4%	96.9%	87.0%
Reading (high school)	70.0%	88.6%	83.8%
Math (grades 3-8)	74.6%	96.6%	86.3%
Math (high school)	44.2%	92.0%	64.0%
Reading and Math Performance Index	41.0%	70.2%	55.8%
Reading (grades 3-8)	37.3%	70.4%	56.7%
Reading (high school)	47.1%	61.8%	55.3%
Math (grades 3-8)	50.2%	77.0%	59.6%
Math (high school)	23.8%	64.0%	41.1%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Wellington (D0353)

#### Region: South Central Kansas (Sumner County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **85.39%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score = 85.39%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	67.2%	78.7%
Performance Index	39.3%	50.6%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- **Reading and Math Proficiency Rate** (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Wellington (D0353)

#### Region: South Central Kansas (Sumner County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Wellington with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Wellington	Osawatomie	Gardner-Edgerton
District Code	D0353	D0367	D0231
County	Sumner	Miami	Johnson
Enrollment	1,724	1,235	3,782
Constraints			
Economically Disadvantaged Students	45.6%	50.8%	21.5%
English Language Learners	0.0%	0.0%	0.9%
Students with Disabilities	19.1%	15.3%	12.2%
Inputs			
Core Spending (per student)	\$6,891	\$6,193	\$5,565
Outputs			
Reading and Math Proficiency Rate	67.2%	75.5%	89.0%
Reading (grades 3-8)	73.2%	78.5%	88.9%
Reading (high school)	64.2%	78.4%	87.6%
Math (grades 3-8)	73.9%	81.4%	92.0%
Math (high school)	32.8%	39.7%	78.7%
Reading and Math Performance Index	39.3%	45.7%	61.5%
Reading (grades 3-8)	42.5%	48.0%	59.6%
Reading (high school)	34.8%	43.0%	63.8%
Math (grades 3-8)	44.3%	50.1%	65.9%
Math (high school)	19.1%	22.0%	50.3%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Wellsville (D0289)

#### Region: Southeast Kansas (Franklin County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **91.89%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score = 91.89%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	79.5%	86.5%
Performance Index	47.0%	53.9%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on core

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

<u>Constraints</u> (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- **Reading and Math Proficiency Rate** (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

#### District: Wellsville (D0289)

#### Region: Southeast Kansas (Franklin County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Wellsville with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance. In this case, the comparison district under both criteria is the same.

		Most Similar	Best-Performing
Indicator	District	District*	Frontier District**
District Name	Wellsville	Baldwin City	Baldwin City
District Code	D0289	D0348	D0348
County	Franklin	Douglas	Douglas
Enrollment	828	1,407	1,407
Constraints			
Economically Disadvantaged Students	18.4%	15.2%	15.2%
English Language Learners	0.0%	0.1%	0.1%
Students with Disabilities	17.1%	13.7%	13.7%
Inputs			
Core Spending (per student)	\$6,669	\$6,490	\$6,490
Outputs			
Reading and Math Proficiency Rate	79.5%	88.7%	88.7%
Reading (grades 3-8)	85.5%	94.3%	94.3%
Reading (high school)	74.9%	72.2%	72.2%
Math (grades 3-8)	76.9%	94.3%	94.3%
Math (high school)	65.5%	66.1%	66.1%
Reading and Math Performance Index	47.0%	64.0%	64.0%
Reading (grades 3-8)	51.8%	67.4%	67.4%
Reading (high school)	40.7%	44.6%	44.6%
Math (grades 3-8)	45.2%	74.1%	74.1%
Math (high school)	38.2%	40.1%	40.1%

\* Efficient frontier district with most similar constraints as this district.

\*\* Efficient frontier district with highest performance outputs that is similarly-sized and spends less than this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: West Franklin (D0287)

#### Region: Southeast Kansas (Franklin County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **90.30%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

### This District's **Relative Efficiency Score = 90.30%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	70.6%	78.2%
Performance Index	42.4%	50.8%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending

 (\$ per student spent on c

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

#### District: West Franklin (D0287)

#### Region: Southeast Kansas (Franklin County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares West Franklin with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
Indicator	This District	Frontier District*	Frontier District**
District Name	West Franklin	Halstead	Baldwin City
District Code	D0287	D0440	D0348
County	Franklin	Harvey	Douglas
Enrollment	920	735	1,407
Constraints			
Economically Disadvantaged Students	38.4%	34.7%	15.2%
English Language Learners	0.4%	0.0%	0.1%
Students with Disabilities	21.9%	18.7%	13.7%
Inputs			
Core Spending (per student)	\$6,683	\$6,792	\$6,490
Outputs			
Reading and Math Proficiency Rate	70.6%	83.9%	88.7%
Reading (grades 3-8)	75.8%	87.0%	94.3%
Reading (high school)	70.6%	83.8%	72.2%
Math (grades 3-8)	72.6%	86.3%	94.3%
Math (high school)	53.6%	64.0%	66.1%
Reading and Math Performance Index	42.4%	55.8%	64.0%
Reading (grades 3-8)	44.8%	56.7%	67.4%
Reading (high school)	40.0%	55.3%	44.6%
Math (grades 3-8)	45.1%	59.6%	74.1%
Math (high school)	31.3%	41.1%	40.1%

\* Efficient frontier district with most similar constraints as this district.

\*\* Efficient frontier district with highest performance outputs that is similarly-sized and spends less than this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Westmoreland (D0323)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **90.69%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score = 90.69%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	88.8%	98.0%
Performance Index	58.9%	66.0%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on co.

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Westmoreland (D0323)

Region: Northeast Kansas (Pottawatomie County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Westmoreland with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Westmoreland	Osawatomie	Baldwin City
District Code	D0323	D0367	D0348
County	Pottawatomie	Miami	Douglas
Enrollment	801	1,235	1,407
Constraints			
Economically Disadvantaged Students	28.4%	50.8%	15.2%
English Language Learners	0.0%	0.0%	0.1%
Students with Disabilities	13.2%	15.3%	13.7%
Inputs			
Core Spending (per student)	\$7,492	\$6,193	\$6,490
Outputs			
Reading and Math Proficiency Rate	88.8%	75.5%	88.7%
Reading (grades 3-8)	94.3%	78.5%	94.3%
Reading (high school)	84.0%	78.4%	72.2%
Math (grades 3-8)	91.7%	81.4%	94.3%
Math (high school)	71.3%	39.7%	66.1%
Reading and Math Performance Index	58.9%	45.7%	64.0%
Reading (grades 3-8)	63.4%	48.0%	67.4%
Reading (high school)	47.7%	43.0%	44.6%
Math (grades 3-8)	61.4%	50.1%	74.1%
Math (high school)	47.7%	22.0%	40.1%

\* Efficient frontier district with most similar constraints as this district.

\*\* Efficient frontier district with highest performance outputs that is similarly-sized and spends less than this district.

Electronic copy available at: https://ssrn.com/abstract=2355447

Kansas School District Efficiency Study

District: Wichita (D0259)

#### Region: South Central Kansas (Sedgwick County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **95.06%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 95.06%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	61.6%	64.8%
Performance Index	36.7%	40.8%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Wichita (D0259)

#### Region: South Central Kansas (Sedgwick County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Wichita with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Wichita	Dodge City	Shawnee Mission
District Code	D0259	D0443	D0512
County	Sedgwick	Ford	Johnson
Enrollment	48,548	5,947	28,667
Constraints			
Economically Disadvantaged Students	65.8%	68.9%	16.2%
English Language Learners	11.3%	40.1%	4.7%
Students with Disabilities	14.1%	13.2%	15.2%
Inputs			
Core Spending (per student)	\$6,798	\$7,703	\$5,728
Outputs			
Reading and Math Proficiency Rate	61.6%	57.2%	81.4%
Reading (grades 3-8)	67.1%	60.0%	84.0%
Reading (high school)	60.9%	56.8%	83.6%
Math (grades 3-8)	62.5%	61.1%	82.9%
Math (high school)	39.3%	35.6%	70.4%
Reading and Math Performance Index	36.7%	32.9%	55.3%
Reading (grades 3-8)	39.8%	33.8%	56.8%
Reading (high school)	37.5%	32.5%	56.3%
Math (grades 3-8)	37.4%	35.8%	57.5%
Math (high school)	23.4%	21.9%	46.2%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Winfield (D0465)

#### Region: South Central Kansas (Cowley County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **77.89%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score** = 77.89%

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	65.8%	84.5%
Performance Index	38.5%	56.3%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on co

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

**<u>Constraints</u>** (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

District: Winfield (D0465)

Region: South Central Kansas (Cowley County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Winfield with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	Best-Performing
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Winfield	Newton	Gardner-Edgerton
District Code	D0465	D0373	D0231
County	Cowley	Harvey	Johnson
Enrollment	2,598	3,731	3,782
Constraints			
Economically Disadvantaged Students	43.9%	45.5%	21.5%
English Language Learners	1.9%	5.9%	0.9%
Students with Disabilities	17.7%	15.4%	12.2%
Inputs			
Core Spending (per student)	\$7,518	\$5,915	\$5,565
Outputs			
Reading and Math Proficiency Rate	65.8%	75.1%	89.0%
Reading (grades 3-8)	73.0%	80.8%	88.9%
Reading (high school)	64.2%	72.8%	87.6%
Math (grades 3-8)	63.8%	76.7%	92.0%
Math (high school)	54.1%	55.1%	78.7%
Reading and Math Performance Index	38.5%	50.6%	61.5%
Reading (grades 3-8)	42.2%	54.7%	59.6%
Reading (high school)	36.9%	48.1%	63.8%
Math (grades 3-8)	37.5%	52.2%	65.9%
Math (high school)	33.5%	36.5%	50.3%

\* Efficient frontier district with most similar constraints as this district.

Kansas School District Efficiency Study

District: Woodson (D0366)

#### Region: Southeast Kansas (Woodson County)

#### Why was this profile produced?

Governor Sebelius and the Ewing Marion Kauffman Foundation commissioned Standard & Poor's to study the relative efficiency of the state's school districts. A key component of the study is this two-page profile, produced for each of the state's less efficient school districts to provide them with a resource to help in their efforts to become more efficient.

#### What is a relative efficiency score? What does this district's score mean?

The relative efficiency score is derived by examining the relationship between three variables: **inputs** – how much the district spends per pupil; **outputs** – how well the district's students perform in reading and math; and **constraints** – how many of the district's students have special needs (i.e., economically disadvantaged backgrounds, physical or learning disabilities, or limited English proficiency), which are common factors that are outside of a district's control but can affect its spending and achievement levels.

Using linear mathematics, the district's data are then compared to all other school districts in the state to determine its relative efficiency score. Districts with the highest ratio of outputs to inputs in light of their constraints are considered to be on the efficiency frontier, and receive relative efficiency scores of 100%. Accordingly, they are referred to as **efficient frontier** districts. This district's score means that it is **87.60%** as efficient as the state's most efficient districts, taking into account its particular combination of inputs, outputs, and constraints.

## This District's **Relative Efficiency Score = 87.60%**

*How could this district improve its efficiency score?* As noted above, this district has produced less than 100% of the outputs that might have been expected for its level of inputs and constraints, based on the performance of other districts. Had the district been able to increase its outputs to the target values shown in the accompanying table, while maintaining its current level of inputs, it would have reached the **efficient frontier**.

#### **Output Improvement Targets**

Outputs	Actual Value	Target Value*
Proficiency Rate	80.9%	92.4%
Performance Index	54.0%	61.6%

\*Had this district achieved the target values, it would have received a 100% relative efficiency score.

#### Which data are included in the calculation of the district's efficiency score?

#### **Inputs**

Core Spending
 (\$ per student spent on cord)

(\$ per student spent on core day-to-day operations, adjusted for local differences in purchasing power)

Constraints (factors outside of the district's control)

- Enrollment of Economically Disadvantaged Students
- Enrollment of English Language Learners
- Enrollment of Students with Disabilities

- Reading and Math Proficiency Rate (percent of reading and math tests scoring at the "proficient" standard or higher)
- Reading and Math Performance Index (an index that goes beyond measuring proficiency by awarding points for all tests that score above the lowest level – "basic", "proficient", "advanced", and "exemplary" – with higher scores awarded more points than lower scores)

Kansas School District Efficiency Study

#### District: Woodson (D0366)

#### Region: Southeast Kansas (Woodson County)

#### Which Kansas districts are the most efficient?

A total of 21 districts across the state have been identified as **efficient frontier** districts (achieving relative efficiency scores of 100%); these are listed alphabetically in the following table. One (or more) of these districts may serve as the source of promising practices that might be replicated in order to improve this district's performance.

<b>District</b>	<u>County</u>	<b>District</b>	<u>County</u>	<b>District</b>	<b>County</b>
Arkansas City	Cowley	Dodge City	Ford	Lyons	Rice
Ashland	Clark	Gardner-Edgerton	Johnson	Newton	Harvey
Baldwin City	Douglas	Great Bend	Barton	Osawatomie	Miami
Brown County	Brown	Halstead	Harvey	Rolla	Morton
Burlingame	Osage	Kismet-Plains	Seward	Shawnee Mission	Johnson
Deerfield	Kearny	Lansing	Leavenworth	Waconda	Mitchell
DeSoto	Johnson	Leoti	Wichita	West Elk	Elk

#### How does this district compare to the state's most efficient districts?

The following table compares Woodson with two of the state's **efficient frontier** districts using two different criteria. The first comparison is made to the efficient frontier district with the most similar demographic constraints to this district. The second comparison is made to a similarly-sized efficient frontier district that spends no more than this district and produces the highest overall student performance.

		Most Similar	<b>Best-Performing</b>
	This	Frontier	Frontier
Indicator	District	District*	District**
District Name	Woodson	Osawatomie	Waconda
District Code	D0366	D0367	D0272
County	Woodson	Miami	Mitchell
Enrollment	486	1,235	365
Constraints			
Economically Disadvantaged Students	46.8%	50.8%	44.3%
English Language Learners	0.0%	0.0%	0.0%
Students with Disabilities	16.8%	15.3%	12.9%
Inputs			
Core Spending (per student)	\$9,165	\$6,193	\$9,480
Outputs			
Reading and Math Proficiency Rate	80.9%	75.5%	94.5%
Reading (grades 3-8)	85.1%	78.5%	96.9%
Reading (high school)	80.5%	78.4%	88.6%
Math (grades 3-8)	86.1%	81.4%	96.6%
Math (high school)	62.6%	39.7%	92.0%
Reading and Math Performance Index	54.0%	45.7%	70.2%
Reading (grades 3-8)	58.2%	48.0%	70.4%
Reading (high school)	49.1%	43.0%	61.8%
Math (grades 3-8)	58.2%	50.1%	77.0%
Math (high school)	41.9%	22.0%	64.0%

\* Efficient frontier district with most similar constraints as this district.