Data Story:

Children and Youth Cabinet (Bailey Elementary)

Essential Question: What are the key factors contributing to attendance in elementary school?

Description:

A data story for and with the Providence Mayor's Children and Youth Cabinet. The primary goal of the story is to understand factors affecting attendance in elementary school. Our focus school is Bailey Elementary.

Author: Providence Mayor's Children and Youth Cabinet

Data Sources: Rhode Island Department of Health, Rhode Island Department of Education, U.S. Census Bureau

URL: http://ridatahub.org/datastories/children-and-youth-cabinet-es

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Introduction

The Providence Mayor's Children and Youth Cabinet was formed to improve outcomes for children and youth in Providence. An early focus of the Cabinet is on data and data-sharing. One piece of the data work is to determine areas where data-sharing and collaboration can improve the delivery of services to children and families in Providence.

There are two goals for data sharing and collaboration:

1. Availability and use of aggregate data to inform policy
2. Provision of relevant, timely data for practitioners on the front line delivering programming.

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Introduction

The goals of this data story include:

1) Understand how data can help our understanding of what strategies we need to focus on to improve outcomes;

2) Understand the issues we will need to focus on to create an integrated data system at the individual level, including data gaps, confidentiality issues, and technical issues;

3) Understand factors affecting attendance at three grade levels and use data story to inform work on attendance.

Our first focus school is **Bailey Elementary**.

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Why Attendance?

Based on a review of research that the Annenberg Institute for School Reform conducted, we know that student engagement and attendance are critical predictors of student success in completing school on time and prepared to pursue their post-secondary goals.

Specifically, the research shows that students who are chronically absent are more likely to:

- have low grade-level promotion (be "held back"),
- have lower reading and math achievement scores, and
- be off-track for graduation.

We also know that the presence of chronically absent students affects their regularly-attending classmates, as teachers may adjust pacing and curriculum.

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The Social Ecology Model

Public source image

As we examine the attendance and absenteeism of students at Bailey, we'll be using a framework that considers the "nested arrangement of family, school, neighborhood, and community contexts in which children grow up."
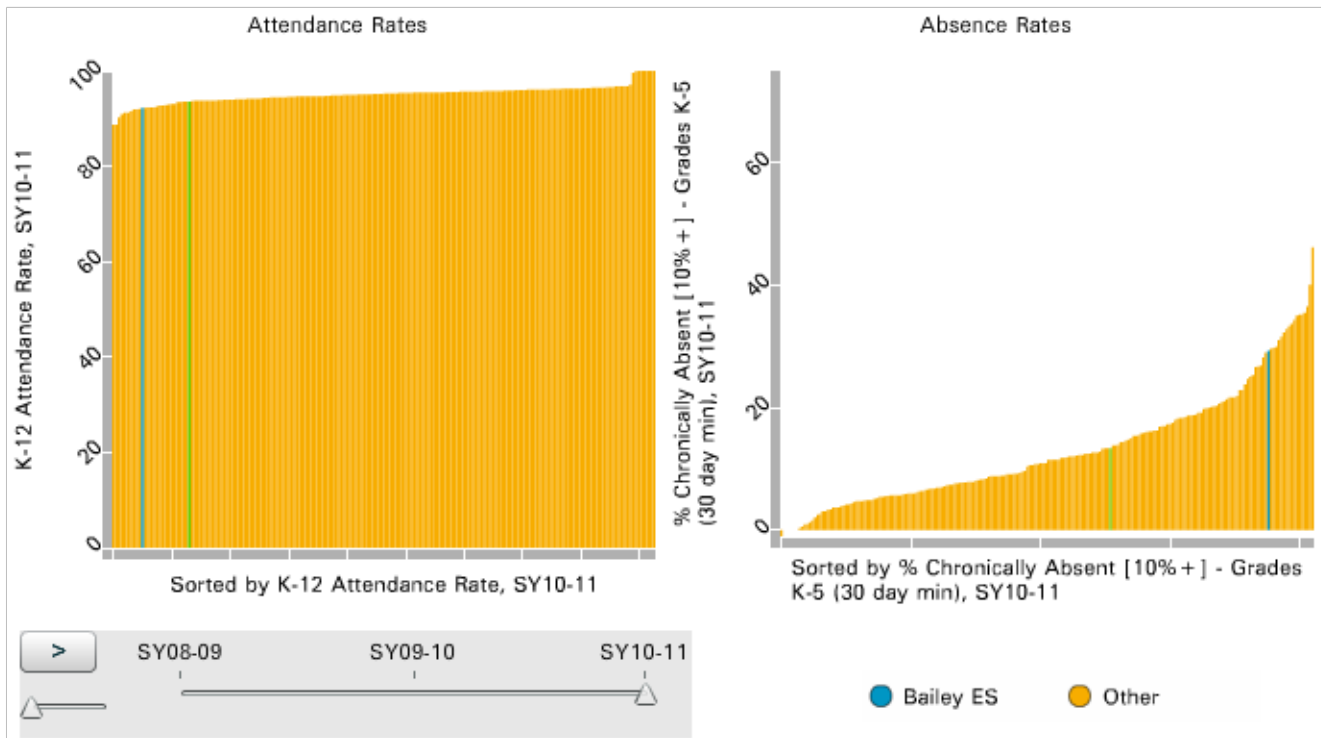
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Bailey in context

Attendance rates often mask high rates of absenteeism for groups of students.

Above are all of the public elementary schools in the state of RI. Statewide values have been highlighted in **green**. Robert Bailey, IV elementary school is represented by the **blue** bar. On the left are attendance rates. On the right are chronic absenteeism rates. Going forward, this story will focus on different levels of **absenteeism**.

Our definition of chronic absenteeism is **students who are absent between 10% and 20% of the days they are enrolled in school**. Note that low (0-5%), moderate (5-10%) and excessive absenteeism (20%+) are separate categories for the purposes of this story.
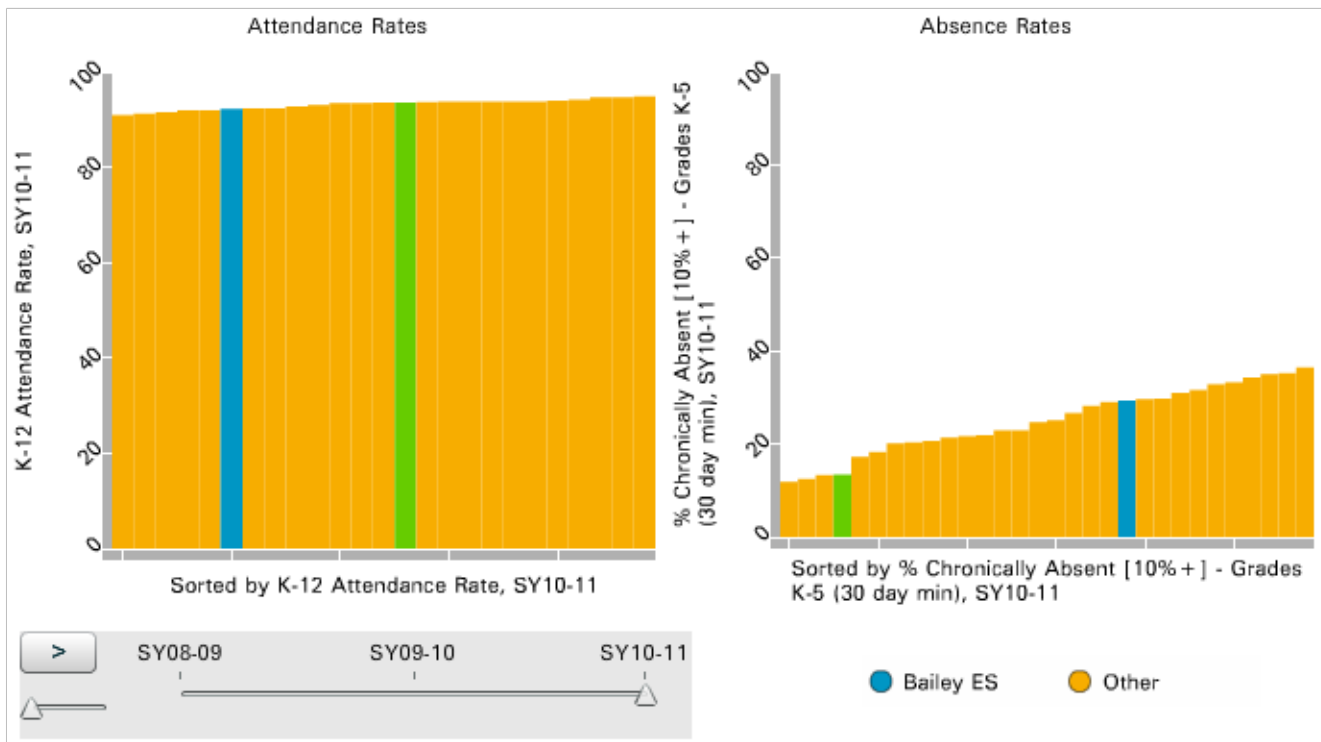
Values of -1 indicate that data were suppressed due to small cell sizes.

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Bailey in context - Providence

Above are all of the public elementary schools in the city of Providence. Again, Robert Bailey elementary school is represented by the **blue** bar. Notice the large variation in rates of chronic absenteeism (12% to 38%) but the relatively small variation in attendance rates (91% to 97%).

Data Story Page Children and Youth Cabinet (ES): Page 6 of 18

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Key Factors

Key Factors Contributing to Attendance in Elementary School

Which factors appear to matter the most at Bailey?

Data Story Page Children and Youth Cabinet (ES): Page 7 of 18

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The Social Ecology Model: Individual Indicators

Individual indicators of consistent attendance can be sub-divided into three groups:

- **Prior Attendance** (attendance rate, excused vs. unexcused absences, suspensions, attendance in out-of-school programs, school mobility, etc.)
- **Prior Academic Performance** (grade retention, academic self-concept, test performance, special education status, school engagement, etc.)
- **Behavioral Development** (health status, pro-social behavior, social competence, mental stability)

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The Social Ecology Model: Individual Indicators

The data subcommittee prioritized the following **individual** (tier 1) indicators based on the research review and data availability:

- **Prior attendance** by grade (moderate, chronic, excessive, consecutive, suspensions)
- **Preschool participation** - *not yet available*
- Child has an **Individualized Education Program** (IEP) or is an **English language learner** (ELL)
- **Academic performance** (by grade)

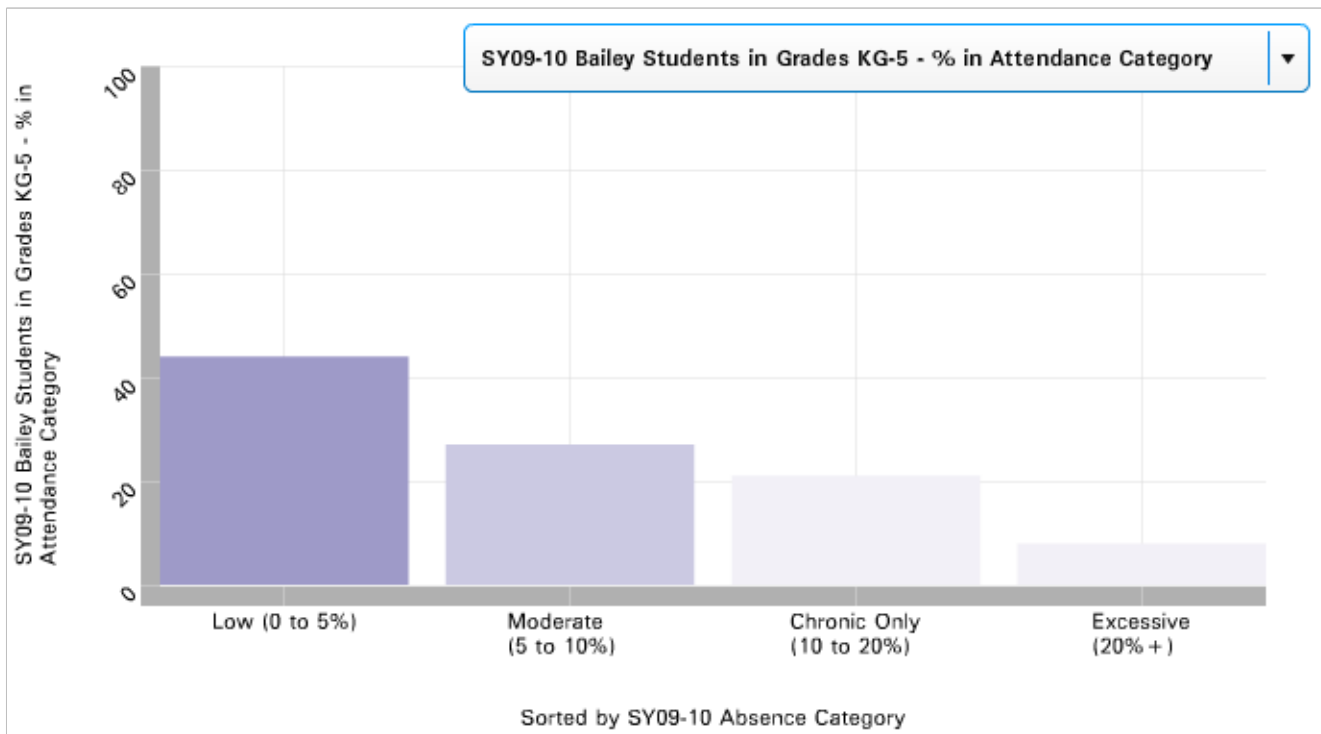Throughout the next several pages, you'll see how these are associated with attendance at Bailey.

Data Story Page Children and Youth Cabinet (ES): Page 9 of 18

Data Story: Children and Youth Cabinet (Bailey Elementary)

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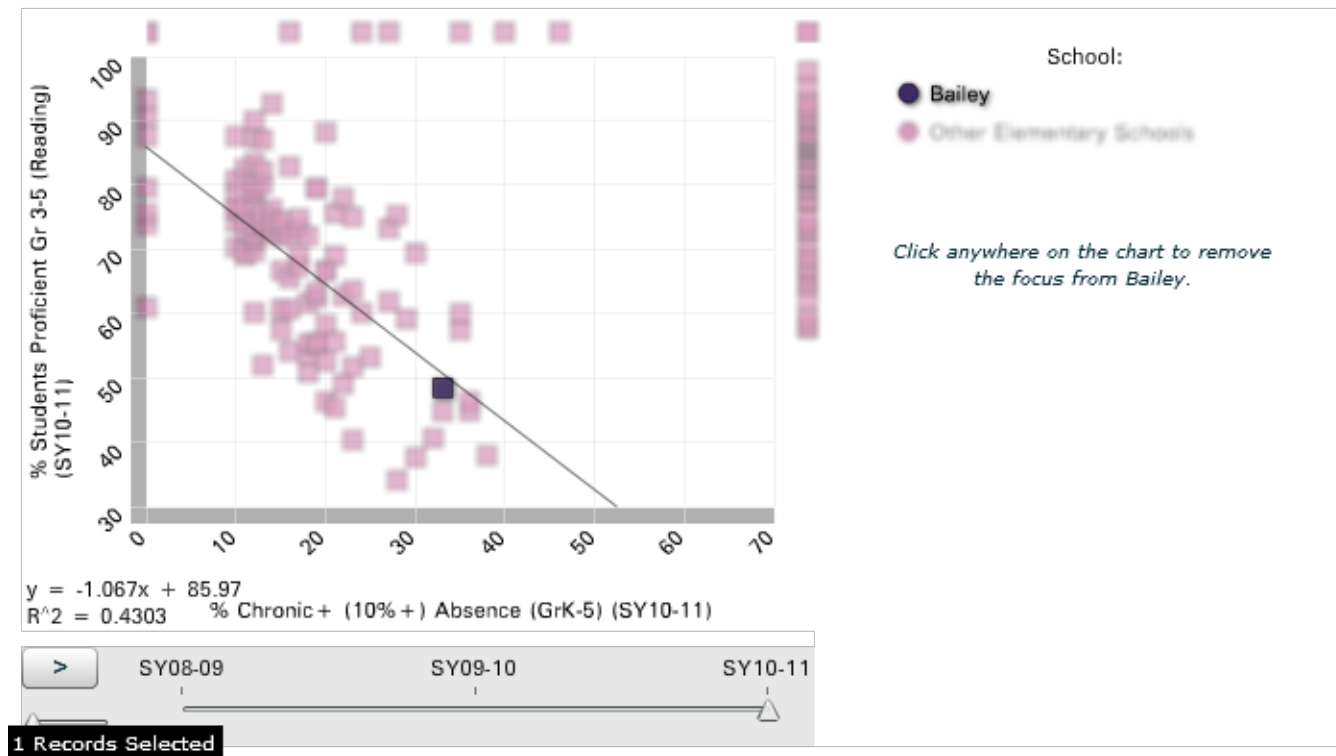## The Social Ecology Model: Individual Indicators

Here you see the distribution of absenteeism by Bailey students. Combining the percentages for chronic and excessive, you can see that nearly 1 in 3 (29%) students were absent at least 10% of the days they were enrolled during the 2009-10 school year.

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The Social Ecology Model: Individual Indicators

Above is a scatterplot displaying the **correlation** between reading proficiency (as measured by the NECAP test) and chronic absenteeism. Schools with high percentages of students in grades 3-5 proficient on the reading NECAP tend to have lower rates of chronic absenteeism.
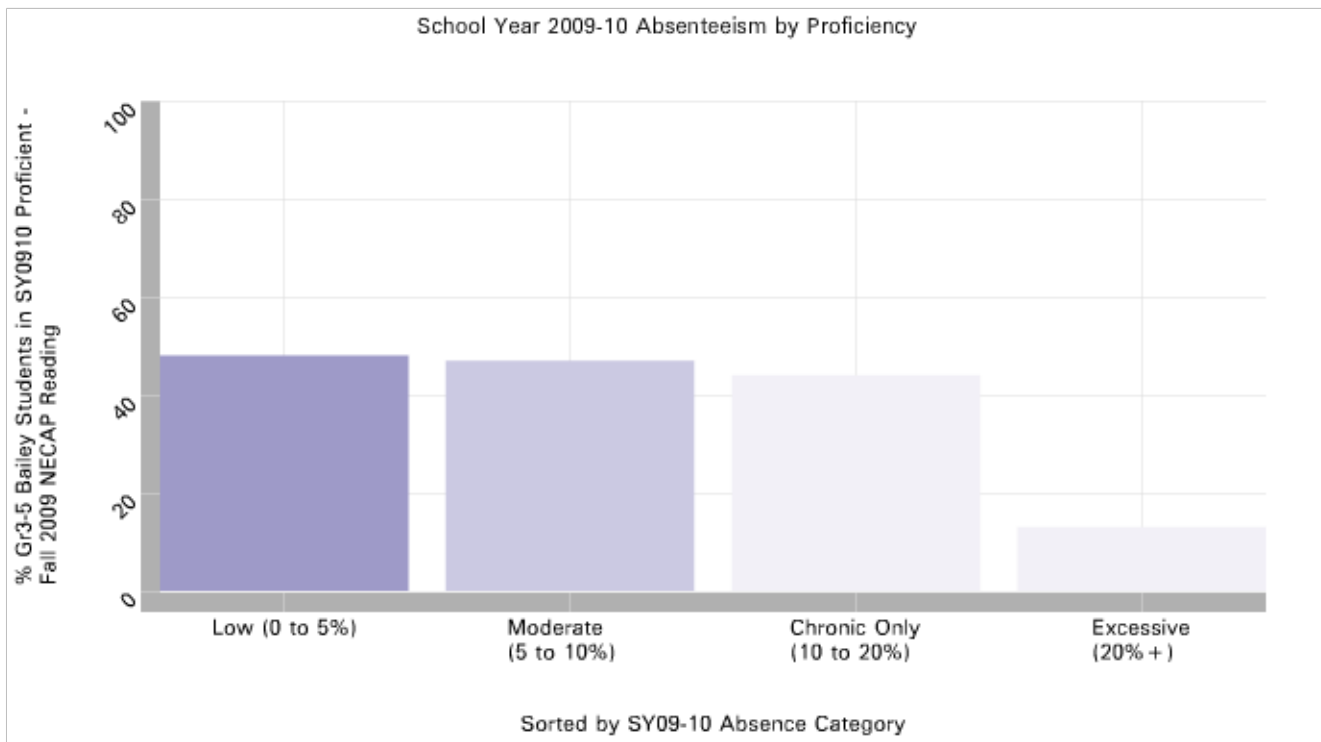
Each point represents an elementary school. Bailey is represented by the dark purple point.

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The Social Ecology Model: Individual Indicators

School Year 2009-10 Absenteeism by Proficiency

Looking just at Bailey, you can see the percent of students who achieved reading proficiency on the 2009 NECAP by each level of absenteeism.

Although there is a downward trend in the direction you would expect, the differences are not large. (We have not yet tested for statistical significance).

Data Story Page Children and Youth Cabinet (ES): Page 12 of 18

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The Social Ecology Model: Interpersonal Indicators

Interpersonal indicators of consistent attendance can be sub-divided into two groups:

- **Family** (parental involvement, perceptions on value of educations, and household stressors such as single parent status, primary language other than English, family mobility, unreliable transportation, homelessness, health concerns, substance use, etc.)
- **Peer interactions** (social competence, neighborhood peer interactions, etc.).

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The Social Ecology Model: Interpersonal Indicators

The data subcommittee prioritized the following **interpersonal** indicators based on the research and data availability:

- Free/Reduced price lunch status
- Out of school suspensions
- Bullying *-not yet available*
- Family mobility
- Family crisis/stressors (single parent, mental health issues) *-not yet available*
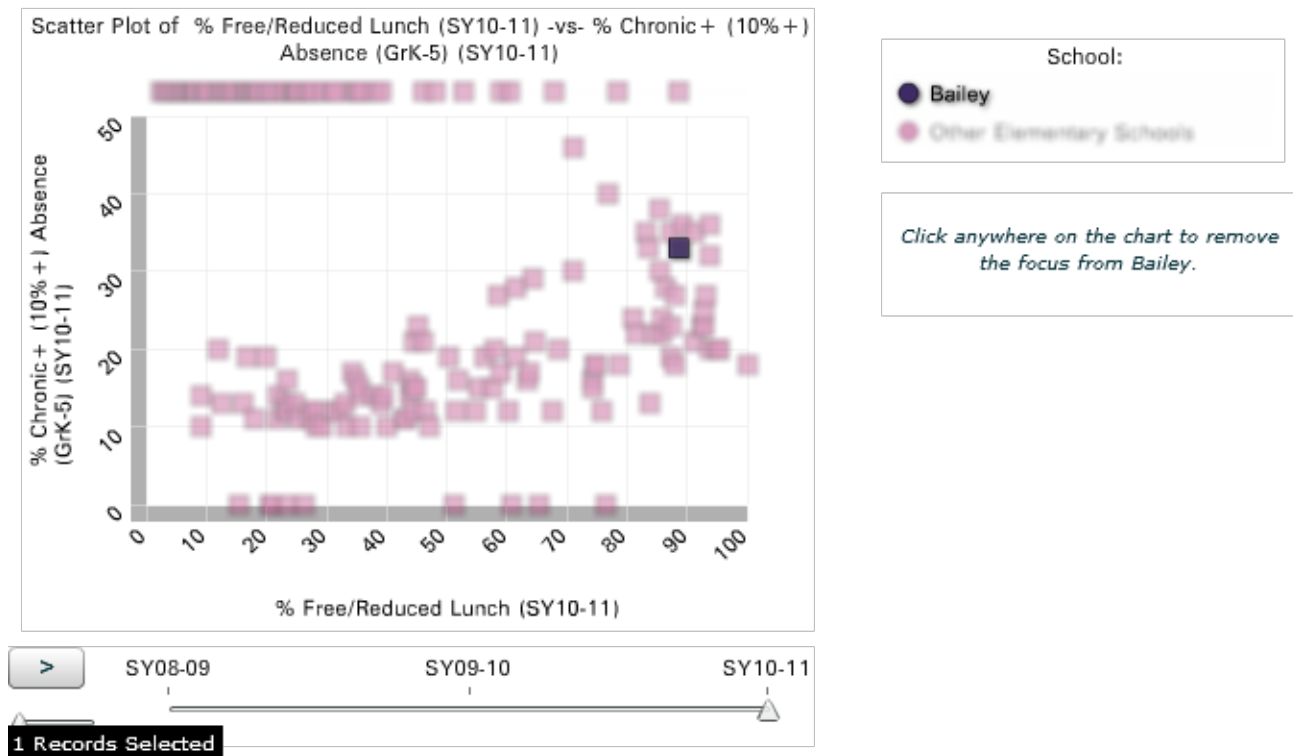- Income/stability of family *-not yet available*

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The Social Ecology Model: Interpersonal Indicators

Above is a scatterplot displaying the **correlation** between chronic absenteeism and poverty (as measured by the % of students in each school receiving free or reduced lunch). Schools with high percentages of students in poverty also tend to have higher rates of chronic absenteeism.
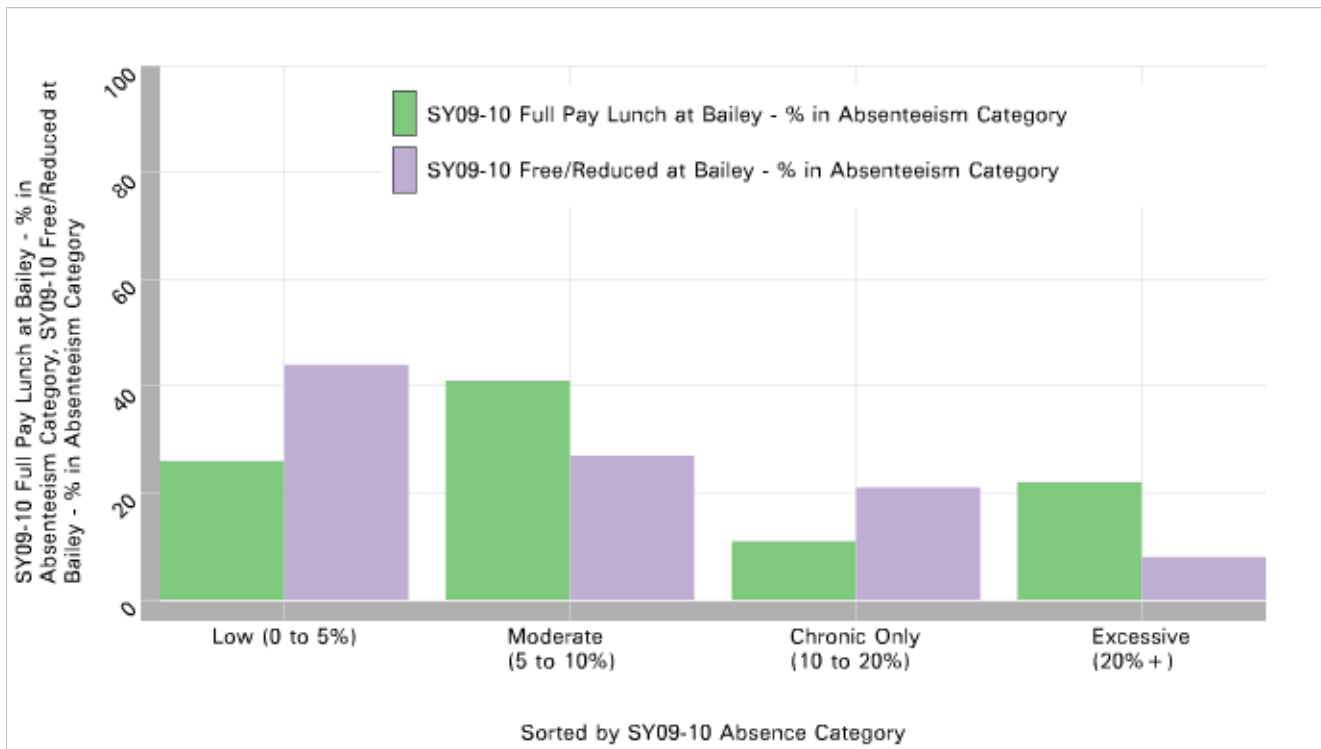
Each point represents an elementary school. Bailey is once again represented by the dark purple point.

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The Social Ecology Model: Interpersonal Indicators

In this chart, the bars on the left show the breakdown among students at Bailey who pay full-price for lunch. The bars on the right show the absenteeism level breakdown among Bailey students eligible for free or reduced price lunch.

Surprisingly, we see that full-price students at Bailey have slightly higher rates of moderate and excessive absenteeism than their higher poverty peers. However, one should be cautious when interpreting these figures, as over 90% of students at Bailey fall in the free/reduced price lunch category.

RI DataHUB

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Missing Key Factors

There are many factors that contribute to attendance in elementary school. Some of the **key** individual and interpersonal indicators that are missing from this story at this point include:

- Health status (lead poisoning, asthma, doctor's visits)
- Attendance at community programs
- Bullying
- Transportation
- Family Crisis/Stressors

In addition, we have yet to include some of the school and community factors that the data subcommittee prioritized. Many of these will be available later this year. They include:

- Teacher engagement
- Family involvement in school
- Neighborhood safety

RI DataHUB

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Conclusions & Next Steps

Next Steps:

1) Collect the missing data, engage other stakeholders, implement data sharing and/or parent permissions as needed, and round out the story;

2) Bring Bailey attendance data story back to Bailey for feedback and possible development of strategies to address attendance;

3) Begin compiling attendance data stories for Roger Williams and PAIS, including identifying community organizational data;

4) Use feedback from Cabinet and from Bailey to refine data story and prepare for presentation to Mayor-Elect.

A P P E N D I X

Children and Youth Cabinet (Bailey Elementary)
story link: http://ridatahub.org/datastories/children-and-youth-cabinet-es

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Data Sources

Rhode Island Department of Health
http://www.health.ri.gov/

Rhode Island Department of Education
http://www.ride.ri.gov/

U.S. Census Bureau
http://www.census.gov/

Related Terms

- **INDICATORS**
  - \# Students Fall Support = Attendance Rate
    - Short Definition: % of days students attended school
    - Agency Source(s): RIDE
    - Found on pages: 3, 5, 6
    - Indicator card: http://ridatahub.org/dictionary/indicator/attendancerate/popup/
  - \# Students Fall Support = % ELL
    - Short Definition: % English Language Learner (ELL) students as of October 1
    - Agency Source(s): RIDE
    - Found on pages: 10
    - Indicator card: http://ridatahub.org/dictionary/indicator/elldemo/popup/
  - \# Students Fall Support = % Ever ELL
    - Short Definition: % Ever English Language Learner Students (Current, Monitored, Past)
    - Agency Source(s): RIDE
    - Found on pages: 10
    - Indicator card: http://ridatahub.org/dictionary/indicator/everbeenell/popup/
  - \# Students Fall Support = % Chronically Absent (120day min)
    - Short Definition: % Students Chronically Absent (10% or More of a Minimum 120 Days Enrolled)
    - Agency Source(s): RIDE
    - Found on pages: 5, 6, 11, 12
    - Indicator card: http://ridatahub.org/dictionary/indicator/attdchronicabsent120/popup/
  - \# Students Fall Support = % Chronically Absent (30day min)
    - Short Definition: % Students Chronically Absent (10% or More of a Minimum 30 Days Enrolled)
    - Agency Source(s): RIDE
    - Found on pages: 5, 6, 11, 12

RI DataHUB

- o Indicator card: http://ridatahub.org/dictionary/indicator/attdchronicabsent30/popup/
- # Students Fall Support = % Free or Reduced Lunch
  - o Short Definition: % free or reduced lunch students as of October 1 (up to 185% of Federal Poverty Guidelines)
  - o Agency Source(s): RIDE
  - o Found on pages: 15
  - o Indicator card: http://ridatahub.org/dictionary/indicator/freeorreducedlunch/popup/
- # Students Fall Support = % IEP
  - o Short Definition: % Students with an Individual Education Plan (IEP) as of October 1.
  - o Agency Source(s): RIDE
  - o Found on pages: 10
  - o Indicator card: http://ridatahub.org/dictionary/indicator/iepdemo/popup/
- # Students Fall Support = % Proficient or Higher - NECAP Reading (Gr3-5)
  - o Short Definition: % Students Proficient or Proficient with Distinction - NECAP Reading (Grades 3-5)
  - o Agency Source(s): RIDE
  - o Found on pages: 3, 11, 12
  - o Indicator card: http://ridatahub.org/dictionary/indicator/readingproficiencygr3to5/popup/
- # Students Fall Support = % Proficient or Higher - NECAP Math (Gr3-5)
  - o Short Definition: % Students Proficient or Proficient with Distinction - NECAP Math (Grades 3-5)
  - o Agency Source(s): RIDE
  - o Found on pages: 11, 12
  - o Indicator card: http://ridatahub.org/dictionary/indicator/mathproficiencygr3to5/popup/
- # Students Fall Support = % Chronically Absent [10%+] (no min)
  - o Short Definition: % students who were absent from school 10% or more of days enrolled
  - o Agency Source(s): RIDE
  - o Found on pages: 5, 6, 11, 12, 15
  - o Indicator card: http://ridatahub.org/dictionary/indicator/attdchronicabsent/popup/
- # Students Fall Support = % Proficient Only - NECAP Reading
  - o Short Definition: % of Students Proficient - NECAP Reading (level 3 only)
  - o Agency Source(s): RIDE
  - o Found on pages: 3
  - o Indicator card: http://ridatahub.org/dictionary/indicator/percentproficientnecapreading/popup/
- # Students Fall Support = % Ever Retained in Grade
  - o Short Definition: % of students ever retained in grade ("held back")
  - o Agency Source(s): RIDE
  - o Found on pages: 10
  - o Indicator card: http://ridatahub.org/dictionary/indicator/everbeenretainedindicator/popup/
- # Students Fall Support = Avg Length of Out of School Suspensions
  - o Short Definition: Avg Days of Student Suspensions (Out-of-School Suspensions)
  - o Agency Source(s): RIDE
  - o Found on pages: 10
  - o Indicator card: http://ridatahub.org/dictionary/indicator/dscpsuspoosdays/popup/
- # Students Fall Support = Avg # Infractions/Student
  - o Short Definition: Avg number of discipline infractions per student with any infractions
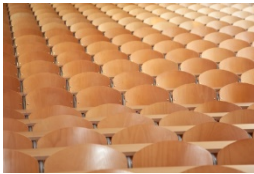 - o Agency Source(s): RIDE
  - o Found on pages: 10

- o Indicator card: http://ridatahub.org/dictionary/indicator/dscpsusppsavg/popup/
- # Students Fall Support = Avg Length of Suspensions
  - o Short Definition: Avg Days of Student Suspensions (Total)
  - o Agency Source(s): RIDE
  - o Found on pages: 10
  - o Indicator card: http://ridatahub.org/dictionary/indicator/dscpsuspdays/popup/
- **KEYWORDS**
  - o Education, Early-Warning, Children & Youth Cabinet
- **Tags**
  - o Education, Absenteeism, Attendance, Bailey, Making Connections

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Related Data Stories

Chronic Absenteeism Among Kindergarten Students
http://ridatahub.org/datastories/chronic-absenteeism-in-kindergarten/1/

High School Chronic Absenteeism & College Persistence: Linking K-12 data to Post-secondary outcomes
http://ridatahub.org/datastories/high-school-absenteeism-college-persistence/1/

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