

What's the Real Story on **K-12 Employee Absences**

*A Monthly National Analysis of Employee Absences &
Substitute Fill Rates in K-12 Education*

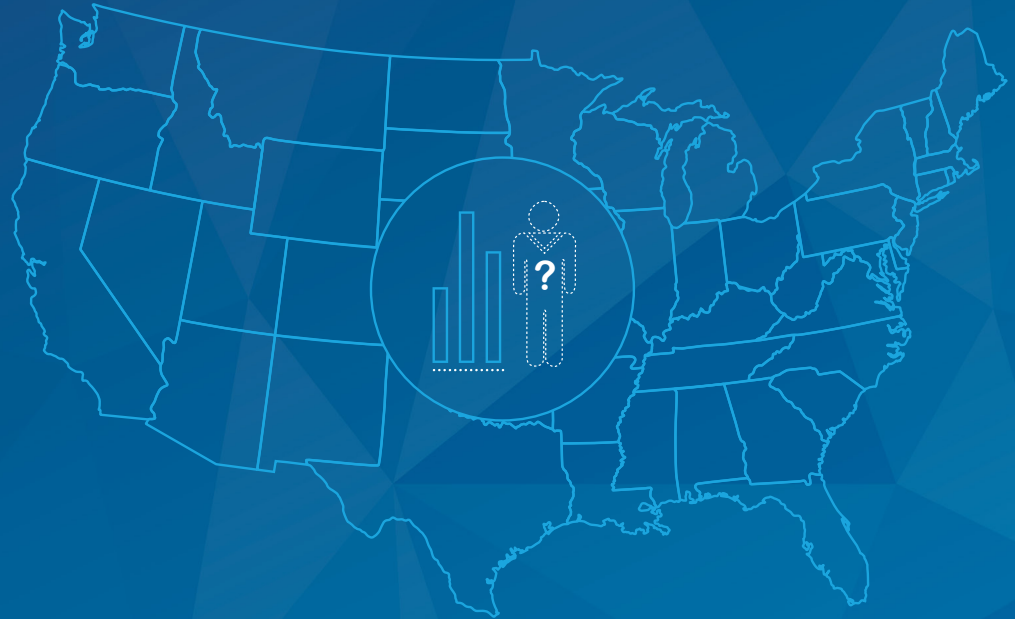
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Introduction

Every day, millions of people serve our students in schools across the country — in the classroom and behind the scenes. But what happens when those employees are absent? Are those absences covered, or is student learning taking a hit?

To answer these questions, districts need to know their own data. But it's not always easy to know what to look for. By providing a view into nationwide data, our future monthly reports will identify trends and give education leaders a benchmark to evaluate their own data. This first summary is setting the stage, showing a summary of the data we'll collect each month, along with a few initial reflections.

Let's analyze, watch and learn together to ensure uninterrupted education in every school.

Executive Summary

Teacher absences. Every district and school has them, and every news outlet loves to talk about them. And perhaps for good reason - studies have shown that districts are not only spending over *25 billion dollars* annually on absences, but that consistent absenteeism negatively impacts student achievement².

Every year, right around “high-absence season” in the spring, employee absenteeism becomes a topic of conversation — all over the news, online and at district board meetings. And every few years, a high-profile report surfaces with new data on absenteeism.

We’ve reviewed and watched these reports with interest, but we felt something was missing. Each of these reports has been limited in scope - often focusing on just a handful of districts. And each has been a one-off report, an indicator of employee absences at a certain point in time.

But what if districts could have access to a true benchmark for comparing their own absences — a reliable set of data that is not only comprehensive enough to represent national conditions, but is also delivered on a consistent, ongoing basis to identify real trends?

That’s what we’ve set out to do as part of the Frontline Research & Learning Institute. This report is the first in a new series of monthly reports on K-12 employee absences and substitute fill rates. With a customer base of over 7,000 school districts, Frontline has unparalleled access to a huge pool of aggregate data, backed by the validation of lead researchers at the Center for Research & Reform in Education at Johns Hopkins University.

In this report summary, we are laying the groundwork. We are not identifying many trends yet, as much as we’re setting the stage for the types of data we’ll be collecting each month, what it might indicate and

² Miller, R., Murnane, R., & Willett, J. (2007). Do teacher absences impact student achievement? Logitudinal evidence from one urban school district. National Bureau of Economic Research.

NEWS

**DISTRICTS FACE
EMPTY CLASSROOMS**



**DISTRICTS SPEND
\$25 BILLION +
on absences annually¹**

¹ Addressing teacher absenteeism and attendance. (2012). District Administration Practice.

what to watch for in upcoming reports. Together, we can use this data to detect real changes as they happen and to proactively make a difference in ensuring qualified employees are present in our schools.

Summary of Findings

This report reviewed data from January 2016. While it is too soon to draw major conclusions, we did see some interesting patterns in the data we analyzed. Here are a few:

Absences

On average, employees (both teachers and classified staff) took **1.5 absences this month**. This average was highest in **medium-to-large suburban districts**. Additionally, absences were slightly higher for those in **positions not requiring a substitute**.

Absences by Day of the Week

Absences in January were **highest on Fridays**, followed by **Thursdays**. This was weighted to take into account the number of each weekday in January, as well as federal holidays. As we are able to analyze absence reason data in future reports, the causes behind high absence days may become more clear.

Fill Rates

On average, districts saw an **89% fill rate** in January (meaning that a substitute filled 89% of positions that required a substitute). Interestingly, **rural districts** saw higher average fill rates than suburban or urban districts. This data may prompt districts to consider why some days are harder to fill than others.

Fill rates were highest on **Tuesdays and Wednesdays**, while Mondays and Fridays saw lower fill rates.

1.5 AVERAGE
ABSENCES
per employee in January

89%
average fill rate
in January

Employee-Sub Ratio & Fill Rates

A good indicator of fill rates is the ratio of employees needing a substitute to the actual number of substitutes.

On average, districts have 1 substitute available to work for every **2.5 employees** in the district. But districts with 90% fill rates or better had a 2:1 employee-sub ratio. Consistently, a higher ratio of employees to substitutes was associated with lower fill rates in January.

These ratios increased even more when looking only at substitutes working within the last 1-2 months.

This trend suggests that it's important to consider fill rates not just in context of the overall substitute pool, but specifically related to how many substitutes are working.

Sub Pool
Health & Fill Rates:



58%

Across district substitute pools, **58% of substitutes were not working** in January. Substitute engagement again appears to impact fill rates here, with the percentage of non-working substitutes consistently rising as district fill rates decline.

The data also showed that, in districts with 90% or higher fill rates, substitutes filled an average of **6.4 absences each** in January. This data leaves organizations to consider ways to motivate more substitutes to work and to work more frequently.

In Summary

As more data is released each month, we will learn even more about the state of employee absences, substitute engagement and measures we can take to improve both.

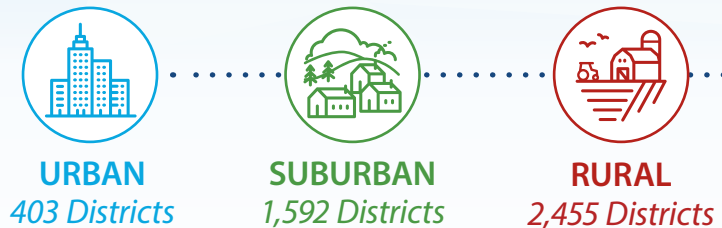
Scope & Validation

Scope

Out of Frontline's 7,000 customers, 4,776 education organizations were studied in this first report — all users of Frontline's Aesop absence and substitute management system. This data includes:

- **4,450** Public School Districts³
- **225** Educational Service Agencies
- **101** Charter and Private Schools

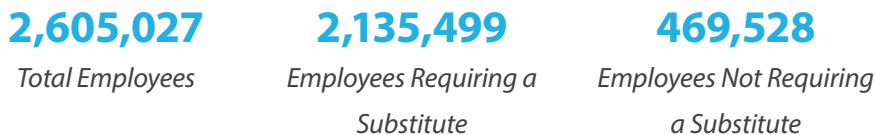
The 4,450 school districts represent diversity in locale and size. Broken down by locale based on NCES statistics, the data includes:



Based on district size, the data includes:



Finally, this data represents 2.6 million educational employees, including classified and certified staff. We have broken down employee types by those in a position that may require a substitute to cover their absence and those in positions that never require a substitute. This data is designated within the Aesop system.



³ As identified by the National Center for Education Statistics (NCES)

Validation

Analyses were conducted by the Center for Research and Reform in Education (CRRE) at Johns Hopkins University to determine if Aesop client data is representative of national norms. Their report concluded that Aesop data did show a high degree of comparability to national norms, and that findings overall can be generalized with reasonable confidence to the population (Ross, Morrison, & Cheung, 2016).

Comparisons were made on four major variables:

- *Percentages of students served in 12 different types of school districts (e.g., large city, mid-sized city, large suburban, remote rural, etc.)*
- *Percentages of districts falling into district-type categories*
- *Percentages of student ethnicities in the districts*
- *Percentages of low-income (free or reduced-price meals or FRM) in the districts*

(Read full analysis here)

*Analyses conducted by the
Center for Research and
Reform in Education (CRRE)
at Johns Hopkins University*

Key Findings

In this first report, we are not yet identifying major trends since we are presenting one month of data (January 2016). This report is the starting point — laying the framework for the types of data we will update and analyze each month.

However, we will highlight interesting data points and offer key questions to consider as you review the results and consider the impact within your own district.

Monthly Absences Overall

What was the state of employee absences in January 2016? Let's take a look at how many absences were recorded for the month.

Definitions: *In this section, "absence" refers to an absence event, where any individual absence counts as one absence, regardless of duration. Absences in this context do not include vacancies entered in Aesop. "Requiring a Sub" refers to an absence for a position that may require a substitute, regardless of whether the specific absence this month required a substitute. "Employee" refers to any K-12 employee in the Aesop data, including both teachers and classified staff.*

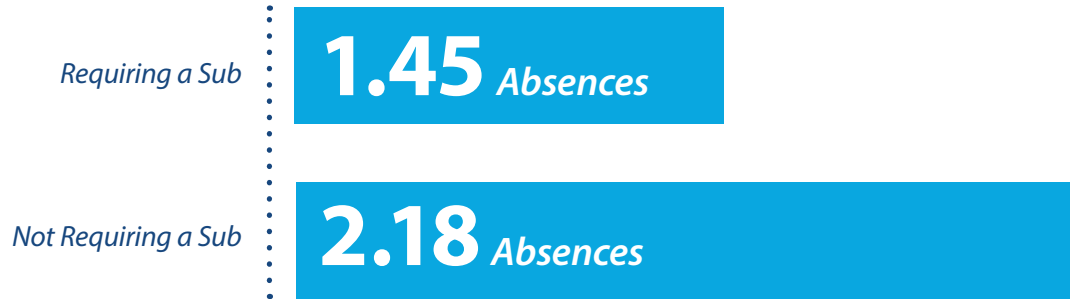
1.58

Average Absences Per Employee

On average in January, employees took 1.58 absences (when any duration of absence counts as one full absence). This number includes all employees — both teachers and classified staff. Absences were slightly higher for those in positions not requiring a substitute.

1 FINDING

ABSENCES PER EMPLOYEE



When broken down by district size and locale, it's interesting to note that average employee absences in January were highest in medium and large-sized suburban districts.

	Urban	Suburban	Rural
<i>Small</i>	1.08	1.50	1.44
<i>Medium</i>	1.62	1.71	1.59
<i>Large</i>	1.62	1.69	1.51
<i>Extra Large</i>	1.47	1.38	1.34

Questions to Consider:

- *How does your district compare to national employee absence averages?*
- *Why might district locale (rural, suburban, urban) impact absenteeism?*
- *Why might district size impact absenteeism?*

2 FINDING

Absences by Day of the Week

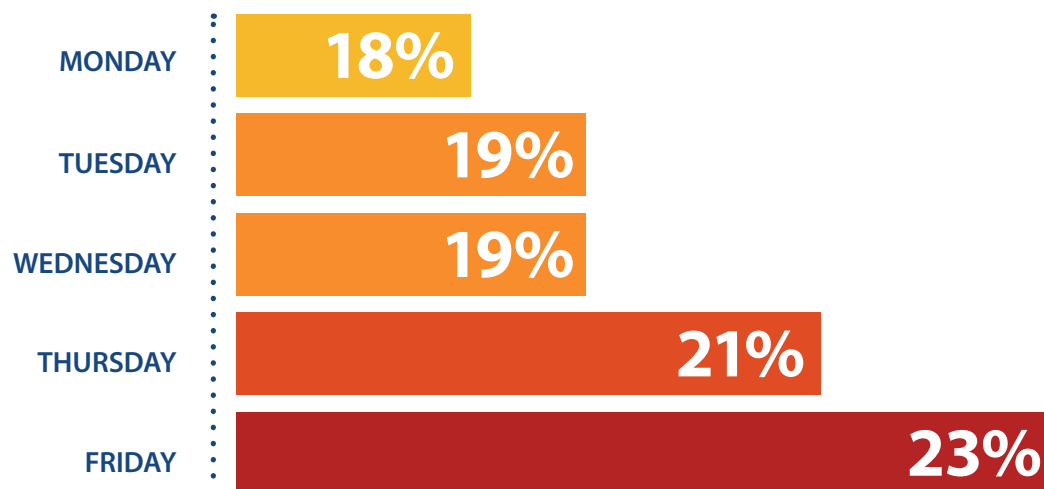
Wondering if absences are higher on some days than others? Let's take a look.

Definitions: In this section, "absence" again refers to an individual absence event, where any individual absence counts as one absence, regardless of duration. The percentages per day of the week were normalized to account for federal holidays and unequal days of the week in the month. The resulting percentages are weighted averages based on the number of school days in that given month.

FRIDAY & THURSDAY Highest Absence Days

In January, absences were highest on Fridays, followed by Thursdays. Absences were lowest on Mondays. This is an interesting note, considering that Mondays and Fridays have often been thought to be the highest absence days. We will keep an eye on this in the coming months.

ABSENCES BY DAY



Questions to Consider:

- *On what days does your district have the highest absences?*
- *Will Thursdays be “the new Mondays?”*
- *Why might absences be higher on one day than another?*

FINDING 3

Fill Rates

So are all those absences being covered by substitutes? Fill rate data shows us how many absences went filled and unfilled.

Definitions: *Fill rate indicates the percentage of absences requiring a substitute that were in fact filled by a substitute. The percentage is calculated by dividing the number of filled absences by the number of absences that required a substitute.*

89%

Average Fill Rate

In January, an average of 89% of absences requiring a substitute did in fact have a substitute to fill the position. The chart below shows the fill rate based on district locale and size. This month, rural districts appeared to have the highest fill rates.

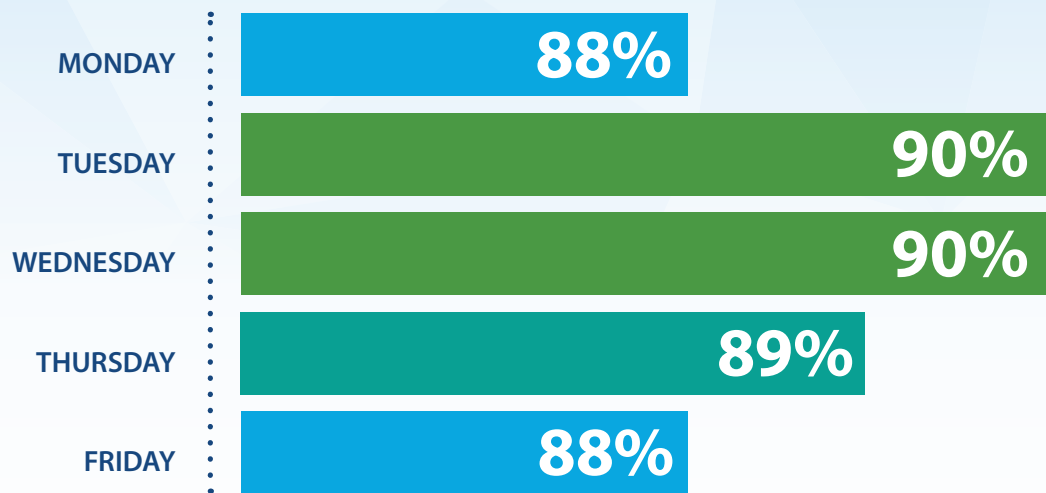
	Urban	Suburban	Rural
Small	89%	86%	92%
Medium	90%	88%	91%
Large	89%	88%	92%
Extra Large	87%	89%	93%

TUESDAY & WEDNESDAY

Highest Average Fill Rates by Day of the Week

In January, average fill rates were highest on Tuesdays and Wednesdays, and lowest on Mondays and Fridays.

DAILY FILL RATES



Questions to Consider:

- *On what days does your district have the highest absences?*
- *Why might it be harder to find substitutes for some days more than others?*
- *What could incentivize substitutes to work on hard-to-fill days?*

FINDING 4

Employee-Sub Ratio & Fill Rates

We've looked at absence data and the percentage of absences being filled. So are there enough substitutes to cover the number of absences? One indicator of an appropriately-sized substitute pool is the employee-sub ratio. However, the percentage of working substitutes is just as important as the overall number.

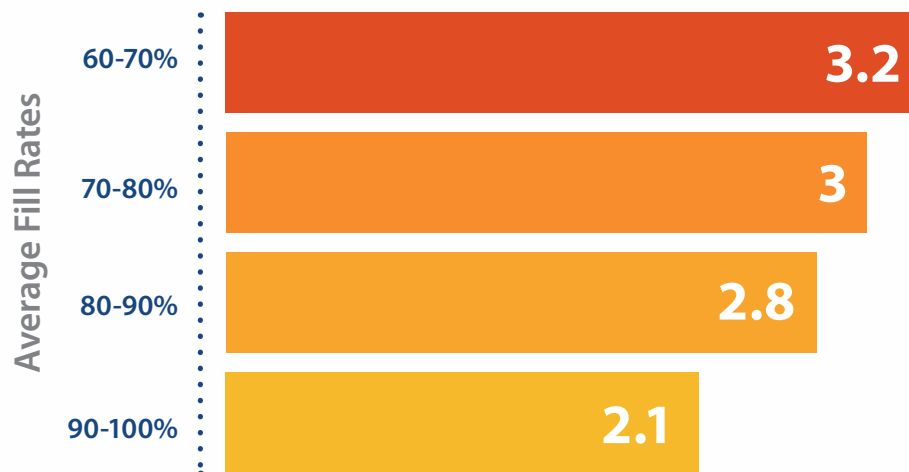
Definitions: Employee-Sub Ratio refers to the average number of employees requiring a substitute compared to the number of substitutes signed up to work in the district. In this section, "employee" refers to an employee requiring a substitute. An employee requiring a substitute is often a teacher, but could also include other certified or classified employees.

2.5

Average Employee-Sub Ratio for All Substitutes

On average, districts have 1 substitute available to work for every 2.5 employees in the school district. Let's take a look at how variances in this ratio impact fill rates.

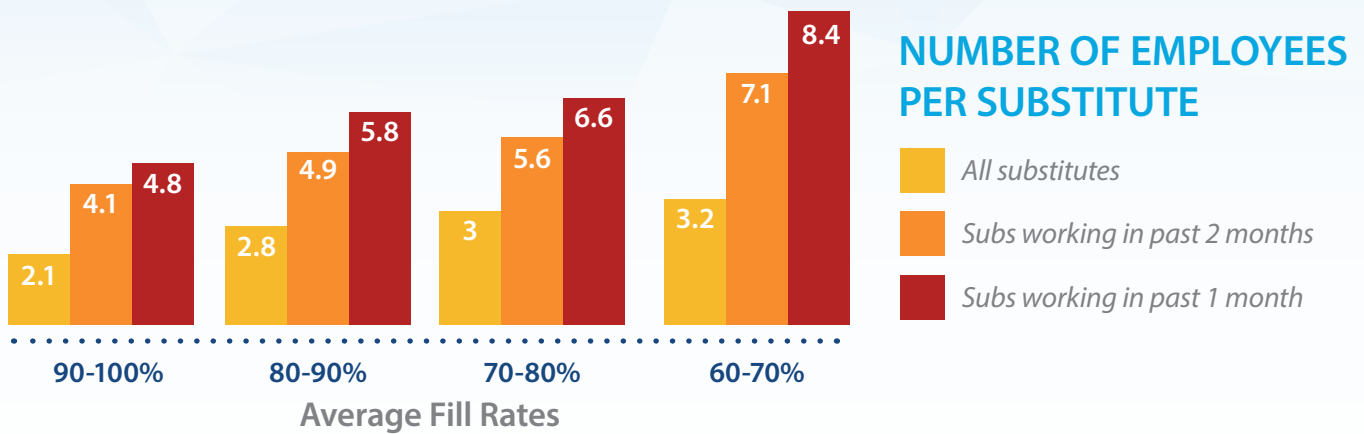
NUMBER OF EMPLOYEES PER SUBSTITUTE



Employee-Sub Ratio Compared to Fill Rates

Overall in January, the data shows a worsening ratio (more employees per substitute) as fill rates decline. In this chart representing all substitutes (whether active or not), districts with a 90% or higher fill rate have 2 employees for every substitute, while those with fill rates of 60% or lower have over 7 employees per substitute.

However, it is also interesting to review this data based on those substitutes who are actually working. We looked at the same data based on all substitutes, substitutes who had accepted a job in the past 2 months, and substitutes accepting a job in the past 1 month.



It is interesting to observe that the employee-sub ratio continually increases as you “raise the bar” on who is considered a working substitute. This could suggest that, on the surface, substitute pools appear to be larger than they actually are — either due to substitutes who no longer wish to work, or to *disengaged* substitutes who are not motivated to work.

Questions to Consider:

- *Is there a shortage of substitutes or a shortage of substitutes who want to work?*
- *How could you encourage your substitutes to actively work in your district?*

FINDING 5

Sub Pool Health & Fill Rates

Let's look from a different angle at the health of district substitute pools. In addition to analyzing employee-sub ratios, we also took a look at overall sub pool health. What percentage of substitutes really are working? And how often are they working? This data begins to give us a pulse on substitute engagement.

Definitions: *Sub Pool refers to the number of substitutes available to work in the district. When looking at sub pool health, we reviewed how often substitutes are working in the district. We also looked at the correlation between the percentage of non-working substitutes and district fill rates.*

58%

Percentage of Non-Working Substitutes
in the Past Month

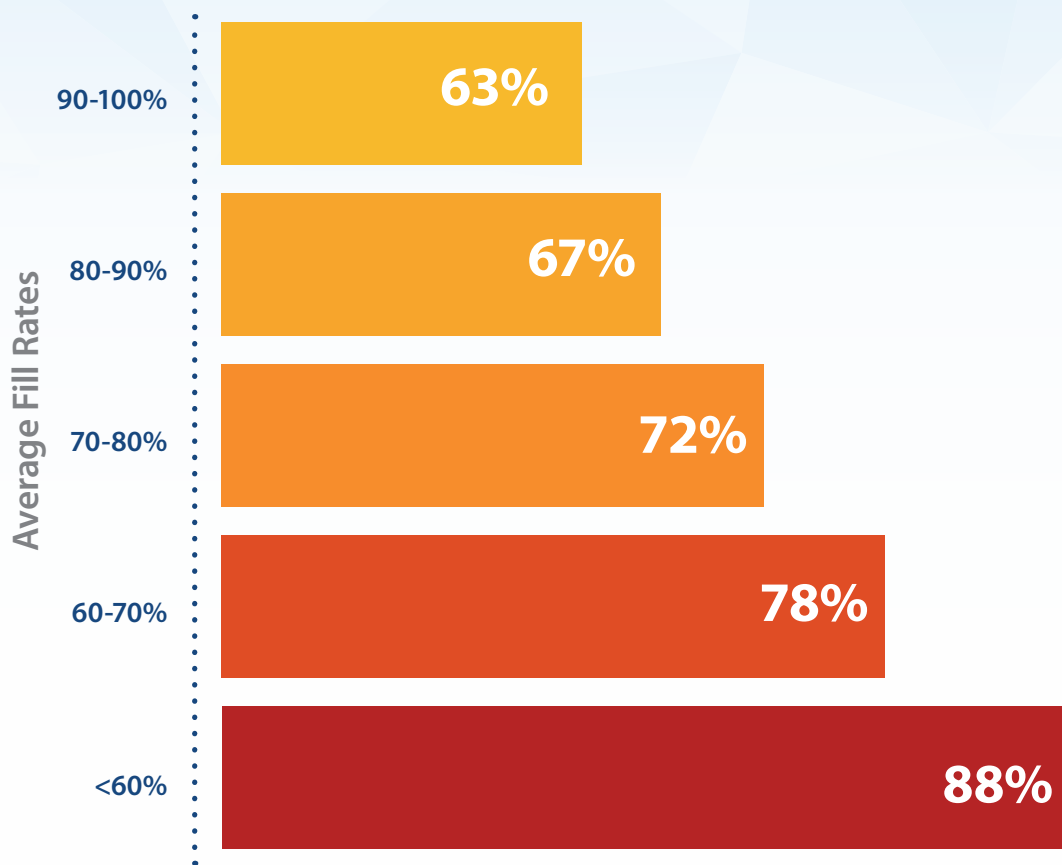
In January, 58% of all substitutes did not fill an absence. This percentage will be valuable to watch each month as absences rise in the spring. Below, you'll see the percentage of substitutes who were not working, based on district locale and size.

	Urban	Suburban	Rural
<i>Small</i>	85%	81%	77%
<i>Medium</i>	56%	62%	61%
<i>Large</i>	51%	53%	54%
<i>Extra Large</i>	49%	46%	45%

Percentage of Non-Working Substitutes & Fill Rates

So how does the percentage of non-working substitutes compare to district fill rates? Perhaps not surprisingly — the worse the fill rate, the greater the percentage of substitutes who did not accept a job this month.

PERCENTAGE OF NON-WORKING SUBSTITUTES



6.4

Average Number of Absences Filled Per Substitute
in Districts with 90% or Higher Fill Rates

Another way to view substitute engagement is the average number of absences filled per substitute. We can see that in January, districts with fill rates of 90% or above had substitutes who had filled 6.4 absences. This data includes only substitutes who accepted a job in the past month.

Below is the breakdown of those with 90% or greater fill rates, based on district locale and size. We can see that substitutes are working more frequently the larger the district (and the higher the absence needs).

	Urban	Suburban	Rural
<i>Small</i>	3.7	4.4	4.3
<i>Medium</i>	6.2	6.1	5.7
<i>Large</i>	7.1	7.1	6.5
<i>Extra Large</i>	7.6	7.2	6.6

Questions to Consider:

- *Do you know what percentage of your own substitute pool is working?*
- *Would January data be more likely than other months to have more non-working substitutes?*
- *Is there a direct correlation between substitute engagement and fill rates in your district?*
- *How could you help substitutes be more engaged in your district?*

Final Thoughts

We hope this report provided you with some insights to ponder and benchmarks to consider for your own district. Every month, we encourage you to evaluate your own data to see where you stack up against national averages.

This report for January gives us a starting point to review the real state of K-12 employee absences and substitute supply nationwide. As we continue to release new data each month, we look forward to exploring together the impact of the data and actions that could be taken to keep our students learning without interruption.

Learn More

For more information on the Frontline Research & Learning Institute, please visit

www.FrontlineInstitute.com

About the Frontline Research & Learning Institute

The Frontline Research and Learning Institute is a learning organization launched in early 2016 with one mission: to provide data-driven research, resources and observations to support and advance the educational community. The Institute's research is driven by the vast amount of data from Frontline's many education administrative solutions.

With over 7,000 K-12 organizations and several million users, Frontline's systems are uniquely positioned to collect an array of information that can provide invaluable insights into issues affecting the education world. To this end, the Institute is committed to providing rigorously-validated research reports and analyses for educators and education administrators. Furthermore, the Institute will provide Frontline clients with benchmarks to inform strategic decision-making within their organizations.

Our Commitment to Integrity

Maintaining the trust and confidence that clients have come to expect from Frontline Technologies is of utmost importance. All Institute publications will report only aggregate and anonymous data to protect the privacy of our clients and their stakeholders. Additionally, every report will be independently validated by reliable third-party organizations.

