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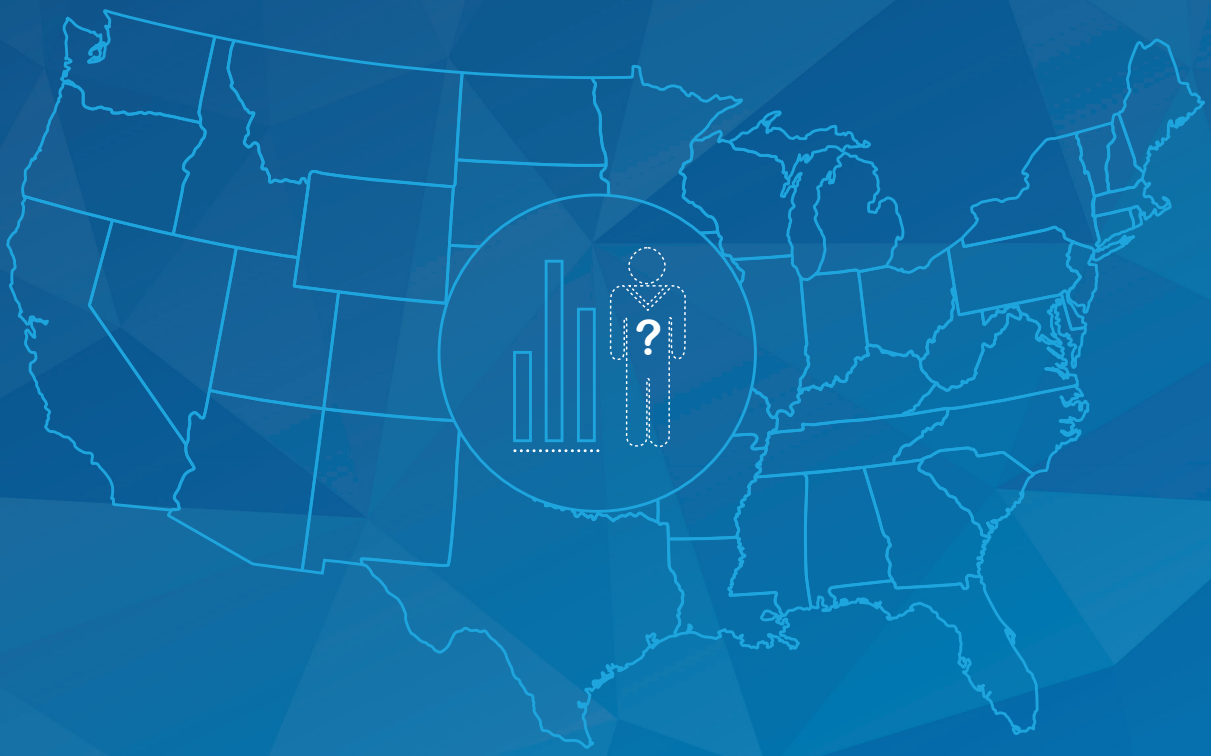

What's the Real Story on **K-12 Employee Absences**

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

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Executive Summary

Each spring, as the number of absences rise, substitute and absence management becomes a common topic of conversation among school districts. And rightly so – district and school leaders need to stay ahead of important trends affecting their schools.

While these conversations and analyses are relevant and important, we've noticed that many industry-related reports represent a minority of districts, simply because access to comprehensive data is not always readily available. We wondered what trends would emerge if somebody had the resources to analyze diverse districts nationwide, rather than merely on a state or city level.

Over the last three months, Frontline Technologies has put its huge pool of aggregate data to work. With a customer base of over 7,500 educational organizations nationwide, we felt we could provide a unique insight into school district trends.

In our first report, we laid the groundwork for the insights and trends we hope to uncover each month. In February, we presented nationwide averages that we thought might form trends. This month, we'll be comparing the first three months' results to see what trends are taking shape across the nation.

Summary of Key Findings

Employee Absences

On average, employees took 1.63 absences in the month of March. This marks a notable jump from January's average of 1.58 absences, and February's average of 1.59. This increase was represented solely by employees in positions that do not require substitutes.

Absences by Day of the Week

Mondays and Fridays were still the highest absence days, with Mondays seeing 23% of all absences, and Friday seeing 21%.

Absences by Reason

The percentage of absences due to illness steadily declined from January's 53% to March's 49%. In addition, vacation absences rose 1% each month to total 4% of all absences in March.

Fill Rates

Schools experienced their lowest average fill rates of the year, with an average of 84%. This average marks a fairly large drop from January's average of 89%. The data showed a large variance in fill rates based on district size and district locale (urban, suburban or rural).

Employee-Sub Ratio & Fill Rates

On average, districts had 2.63 employees per substitute in March, a slightly worse ratio than previous months' averages of 2.46.

That ratio greatly increases when only considering substitutes who have worked in the last month. For example, those with 90% fill rates go from 2.0 employees per substitute to 4.7 employees per substitute when looking at only those who worked in the past month.

Generally, schools with higher employee-sub ratios struggle with lower fill rates.

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Substitute Pool Health & Fill Rates

In March, the data showed that larger schools have higher employee-sub ratios, and higher employee-sub ratios correlate to substitutes working more often. In addition, these substitutes have more opportunities to work overall, since larger districts, with larger numbers of employees, have a higher number of absences each month. Therefore, substitutes in extra-large districts are working significantly more days per month than substitutes in small districts.

FINDING 1

Key Findings

Average Number of Absences Per Employee

One of the major trends we track is the average number of absences each employee is taking, and how those averages compare to the averages of previous months. Let's see if employees took more or fewer absences in March than they did in January and February.

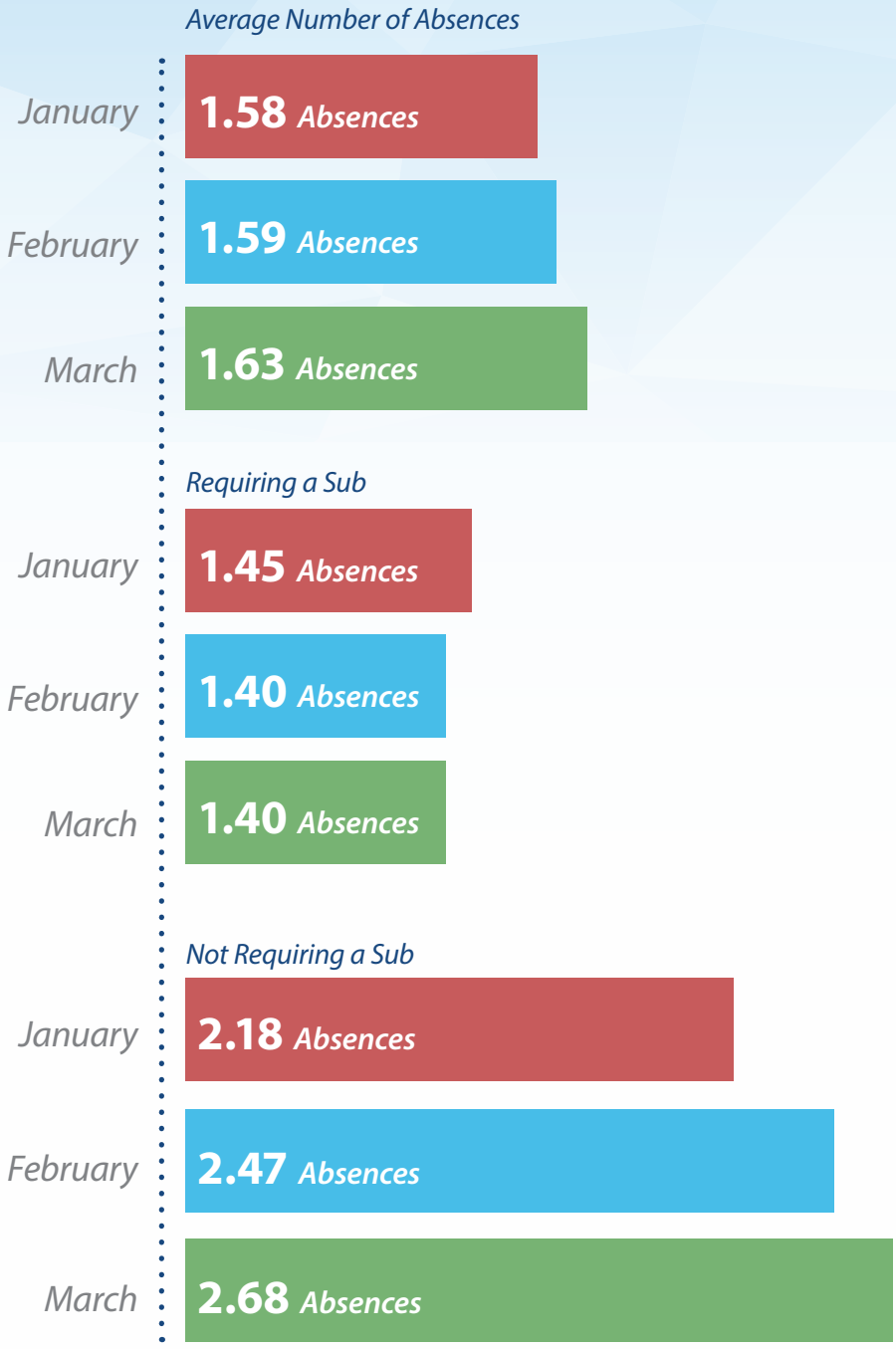
Definitions: *In this section, "absence" refers to an absence event, where any individual absence counts as one absence, regardless of duration. Absences in this context do not include vacancies entered in Aesop. "Requiring a Sub" refers to an absence for a position that may require a substitute, regardless of whether or not 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.*

On average, February saw 1.59 absences per employee (when any duration of absence counts as one full absence), a slight increase from January's average of 1.58.

1.63
Average Number of Absences Per Employee

On average, employees took 1.63 absences in the month of March. This marks a notable jump from January's average of 1.58 absences, and February's average of 1.59. Interestingly, employees who did not require a substitute were the only employee type displaying this jump.

AVERAGE NUMBER OF ABSENCES PER EMPLOYEE



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For employees requiring a sub, the number of absences stayed consistent with February's results. However, employees not requiring a substitute showed a half-day increase per month since January.

When broken down by district size and locale, you can see a wide discrepancy between the schools with the most and least average absences per employee. Small urban schools had the fewest average absences per employee, consistent with last month's results. However, medium-sized suburban schools saw almost a whole additional absence per employee in March. Medium-sized rural schools saw the highest average absences per employee in February.

	Urban	Suburban	Rural
Small	0.94	1.60	1.65
Medium	1.65	1.81	1.70
Large	1.62	1.75	1.66
Extra Large	1.40	1.33	1.47

Questions to Consider:

- ***How does your district compare to national employee absence averages?***
- ***Absences are continuing to increase; how does this impact your district?***

FINDING 2

Absences by Day of the Week

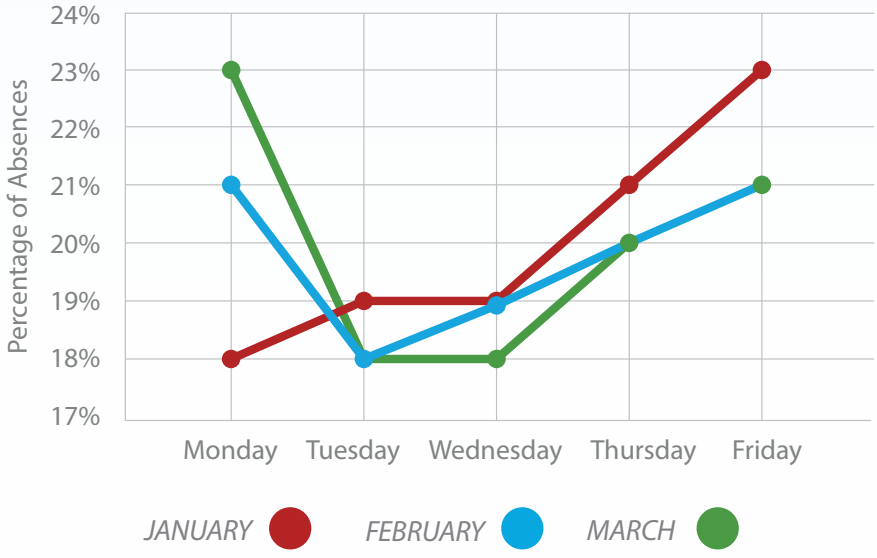
Now let's take a look at how absences varied by day of the week.

Definitions: *In this section, "absence" again refers to an individual absence event, where any individual absence of 8 hours or less 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.*

MONDAY & FRIDAY
Highest Absence Days

As with last month, Monday and Friday are the highest absence days. However, it is interesting to note that Monday and Friday flipped, with Monday now having more absences than any other day of the week.

PERCENTAGE OF ABSENCES BY DAY OF WEEK



Question to Consider:

- ***What does the absence breakdown look like in your district?***

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Absences by Reason

FINDING 3

In January, we saw that 53% of all absences were due to illnesses. That percentage has declined by 4% as we've moved into warmer months. In addition, the percentage of absences for the purpose of vacation has increased by 1% each month.

The increase in absences occurred mainly for employees in positions not requiring a substitute. It's probable that many classified staff took off time around vacations and spring break to extend their holidays.

	January	*February*	*March*
Illness	53%	51%	49%
Vacation	2%	3%	4%
Personal	15%	16%	16%
Professional Development	10%	11%	10%
Bereavement	2%	2%	2%
Jury Duty	1%	0%	0%
Field Trip	0%	1%	1%
Unexcused Absence	1%	1%	1%
Workers Compensation	1%	1%	1%
School Business	7%	8%	8%
Other	8%	7%	8%

Questions to Consider:

- ***Compared to February, employees took less time off in March for illness but more time off for vacation. Was this true in your district?***
- ***Do you know the reasons behind absences in your district?***

FINDING 4

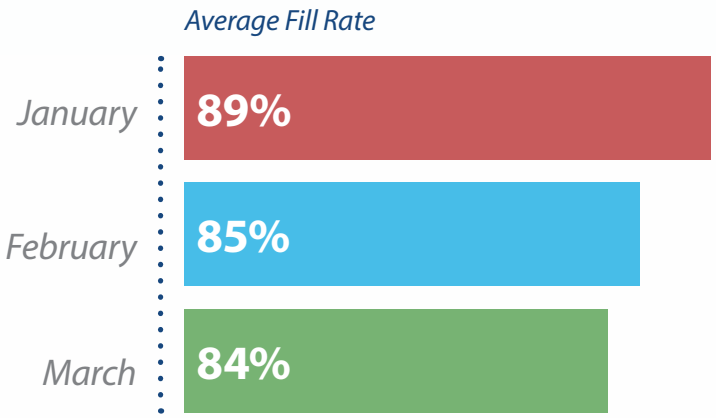
Average Fill Rates

Of all the absences requiring a substitute, what percentage is actually being filled?

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.*

Fill rates have continued to decline since January's average of 89%, meaning more absences that require a substitute are going unfilled. February saw a sharp dip to 85%, and March's average fill rate was just 84%.

AVERAGE FILL RATE PER MONTH



When you break down fill rates for March by district locale and size, you can see a 13% variance between the fill rates of small urban schools (94%) and small suburban schools (81%), with a large amount of variation in between.

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	Urban	Suburban	Rural
Small	94%	81%	89%
Medium	85%	82%	87%
Large	85%	83%	88%
Extra Large	82%	86%	89%

Average Fill Rate by Day of Week

MONDAY & FRIDAY

Lowest Average Fill Rates by Day of the Week

As in previous months, Mondays and Fridays are still the hardest days to fill absences, with Fridays showing the lowest fill rates. Wednesdays saw the highest fill rates in March.

	January	*February*	*March*
Monday	88%	85%	85%
Tuesday	90%	88%	87%
Wednesday	90%	88%	88%
Thursday	89%	88%	87%
Friday	88%	85%	83%

Questions to Consider:

- ***Across the nation, average fill rates have continued to decline. Are you seeing the same in your district?***
- ***What could be done to increase fill rates on Mondays and Fridays?***

FINDING 5

Employee-Sub Ratio & Fill Rates

2.63

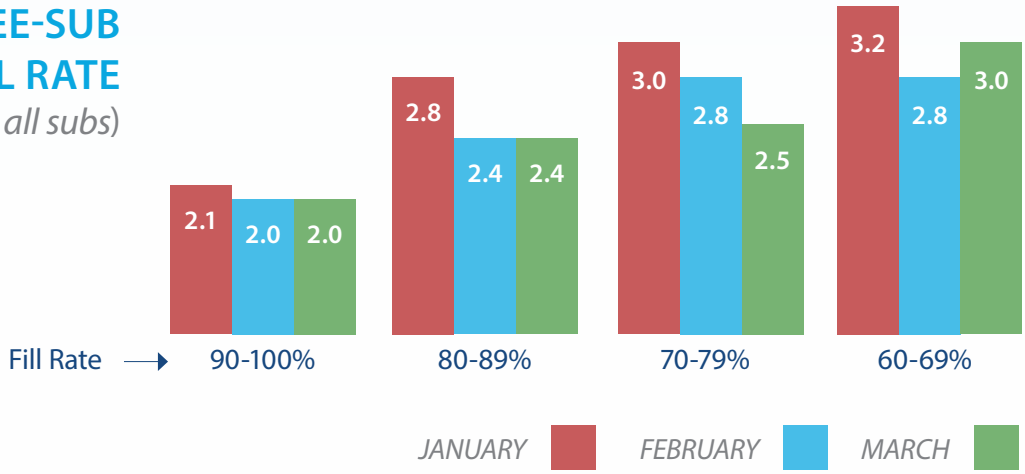
Average Employee-Sub Ratio for All Substitutes

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 or an employee who can choose whether or not they need a substitute. An employee requiring a substitute is often a teacher, but could also include other certified or classified employees.*

In March, schools saw a slight increase in their employee-sub ratios, with an average of 2.63 employees-per substitute, rather than January's and February's averages of 2.46. As we learned in both January and February, higher employee-sub ratios correlate with lower average fill rates, so this increase may shed some light on March's fill-rate decline.

AVERAGE EMPLOYEE-SUB RATIO BY FILL RATE

(counting all subs)



While the above chart shows the average employee-sub ratios for school districts, these ratios change significantly if you only include substitutes who have worked recently.

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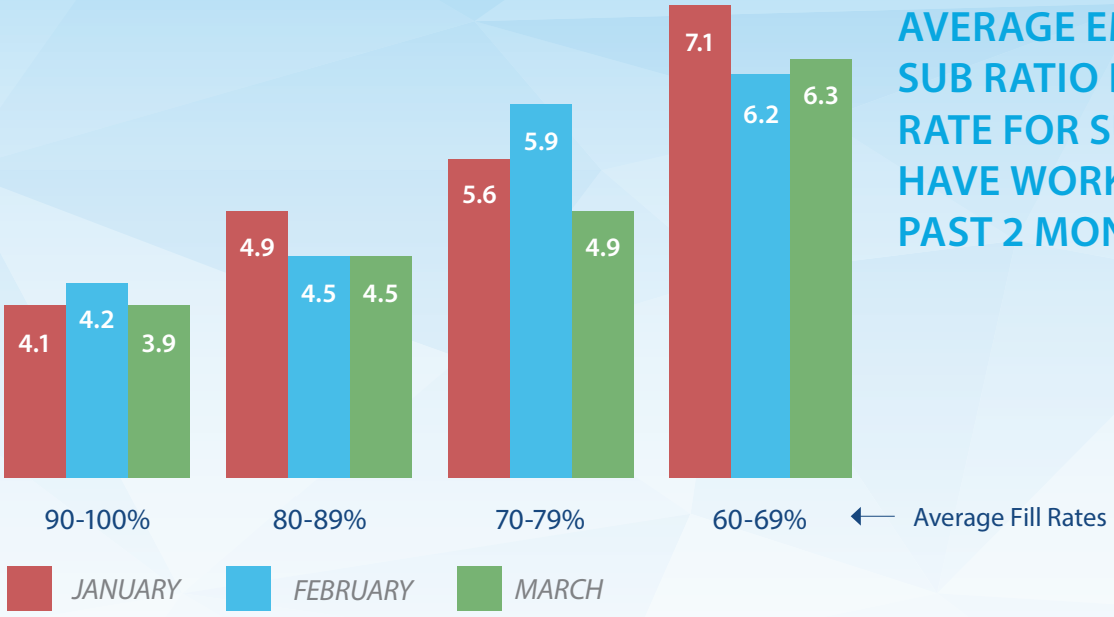
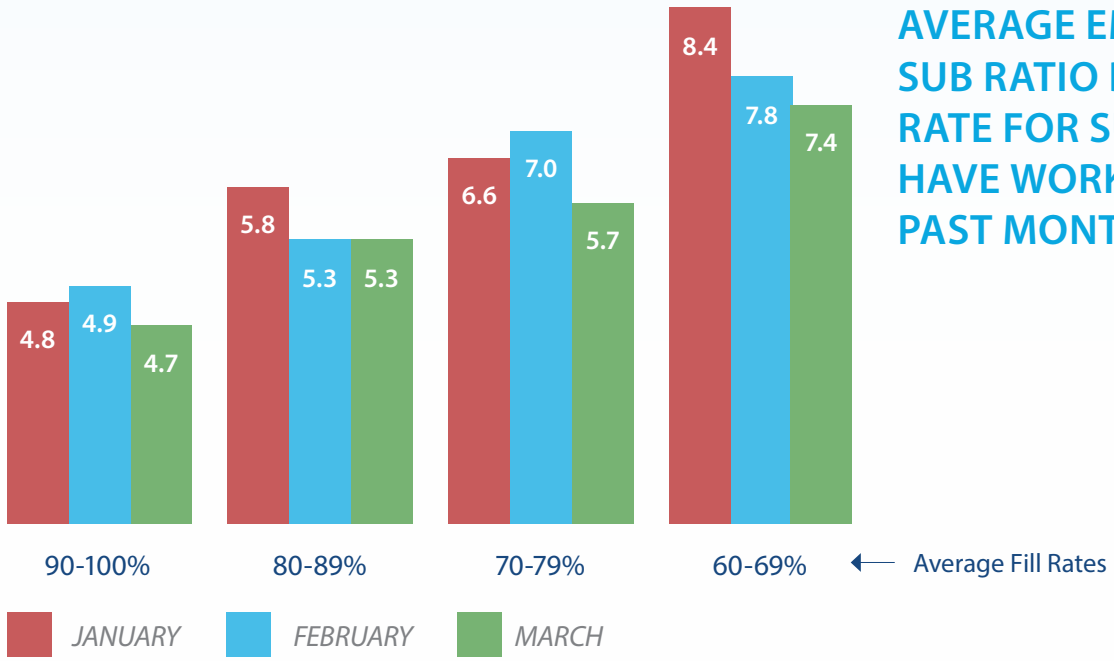
AVERAGE EMPLOYEE-SUB RATIO BY FILL RATE FOR SUBS THAT HAVE WORKED IN THE PAST 2 MONTHS



AVERAGE EMPLOYEE-SUB RATIO BY FILL RATE FOR SUBS THAT HAVE WORKED IN THE PAST MONTH



When only considering substitutes who have actually filled an absence in the past month, districts saw an increase in employee-sub ratios.

Questions to Consider:

- ***Do you know if you have enough substitutes for the size of your school or district?***

FINDING 6

Sub Pool Health & Fill Rates

We compared the average percentage of substitutes actually working in districts with their average fill rates to see if the two averages correlate. Let's take a look.

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

58% of all substitutes did not work in the past month. This average is consistent with the averages of previous months. But when you break down the results by locale and size, you'll see the that district sub-pool health varies significantly.

PERCENTAGE OF SUBS WHO DID NOT WORK IN THE PAST MONTH

	Urban	Suburban	Rural
Small	84%	80%	76%
Medium	56%	61%	60%
Large	52%	53%	51%
Extra Large	49%	46%	43%

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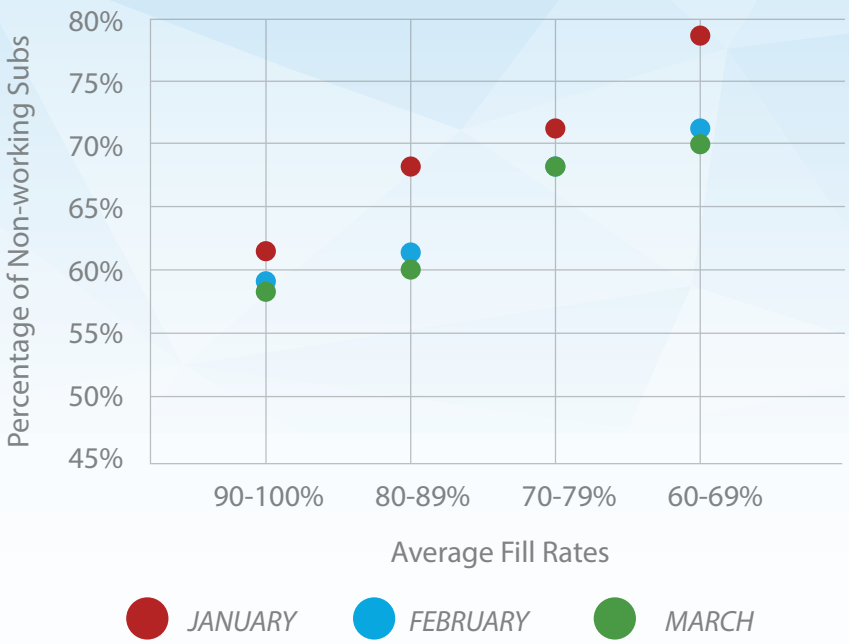
Percentage of non-working subs based on fill rate

When comparing district fill rates with their sub-pool health, you see that districts with the lowest fill rates had the highest percentage of non-working subs.



Average number of days subs worked overall

In March, the average number of days worked per substitute declined slightly, from 7 to 6.8 days per substitute, even though the average number of absences for employees requiring a substitute remained the same.

Questions to Consider:

- ***Do you know what percentage of your sub pool is actively working and why they are or are not choosing to work?***

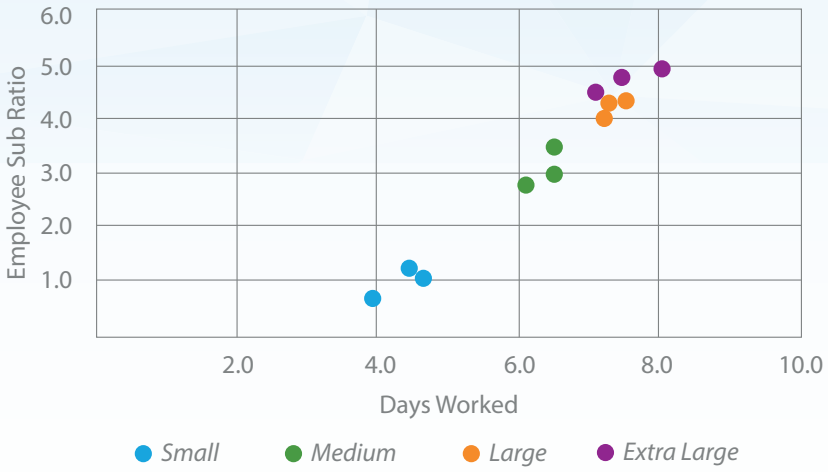
FINDING 7

Correlation Between District Size, Employee/Sub Ratio and Average Days Worked Per Substitute

This month we discovered a new finding: a correlation between district size, employee-sub ratios and the average days worked per substitute.

The larger a district, the higher its employee-sub ratio. And the higher the employee-sub ratio, the more often individual substitutes are working. These substitutes have more opportunities to work overall, since larger districts, with larger numbers of employees, have a higher number of absences each month (and fewer substitutes to go around).

EMPLOYEE-SUB RATIO AND DAYS WORKED



The three data points per color above represent urban, suburban and rural districts of each district size. See the chart below for the full breakdown.

EMPLOYEE-SUB RATIO BY DISTRICT LOCALE AND SIZE

	Urban	Suburban	Rural
Small	0.6	1.0	1.2
Medium	3.4	2.9	2.7
Large	4.3	4.3	4.0
Extra Large	4.9	4.7	4.5

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Questions to Consider:

- ***Do you understand what relationships exist between the employee-sub ratio and average days worked per substitute in your district?***

Final Thoughts

March saw a rise in the average number of absences per employee, primarily driven by those not requiring a substitute. Meanwhile, fill rates continued to decline, but the average percentage of substitutes not working (58%) remained the same. As we continue to approach the late spring months, we expect the number of absences for employees requiring a substitute to rise. Districts should consider what they can do now to engage substitutes and generate high fill rates as the school year comes to a close.

Scope & Validation

Scope

Out of Frontline's 7,500 customers, data from 4,847 education organizations was included in this March report – all users of Frontline's Aesop absence and substitute management system. This data includes:

- **4,518** *Public School Districts*[1]
- **228** *Educational Service Agencies*
- **101** *Charter and Private Schools*

The 4,518 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:

URBAN
413 Districts

SUBURBAN
1,610 Districts

RURAL
2,495 Districts

Based on district size, the data includes:

S **603** *Small Districts* *(1-100 Employees)*

M **3,298** *Medium Districts* *(101-1000 Employees)*

L **459** *Large Districts* *(1001-2500 Employees)*

XL **158** *Extra Large Districts* *(2501+ Employees)*

Finally, this data represents 2.7 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.

2,654,328
Total Employees

2,171,585
Employees Requiring a Substitute

482,743
Employees Not Requiring a Substitute

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

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About the Frontline Research and 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 7,500 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.

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