Closing the Gap

The latest National Assessment of Educational Process (NAEP) results[1] reveal that reading scores have continued to decline since 2019. Only 31% of 4th graders and 30% of 8th graders scored *proficient[2] or above* in reading in 2024. A historic number of students, 40% of 4th graders and 33% of 8th graders, scored *below basic*, the lowest achievement level on the test. Furthermore, the gap between the highest- and lowest-performing students continues to grow—a trend that began before the pandemic.

Similarly, in school districts across the country, beginning-of-the-year reading assessments reveal far too many students enter their classrooms reading below grade level. Many of them are multiple years behind and need intensive support to achieve grade-level proficiency. Educators are charged with closing skill and knowledge gaps by the end of the school year to set these students on a trajectory for success.

American Reading Company (ARC) collaborates with district partners who use ARC's high-quality instructional materials to achieve the ultimate goal of getting all students reading and writing on or above grade level. As part of this work, ARC researchers examine data from district partners to understand the extent to which students who begin the school year reading significantly below grade level progress toward grade-level proficiency by the end of the school year. This Research Brief presents results from studies conducted in 13 districts using ARC's core ELA curriculum, ARC Core®.

Methods

Research described in this brief was conducted using extant data from 13 districts across eight states. The districts included in the analysis have been using ARC Core for two or more years and administer the Independent Reading Level Assessment® (IRLA®) throughout the school year to measure student progress toward grade-level standards. In all districts studied, the IRLA was administered independently by school district personnel using standard protocols. ARC researchers accessed the data through SchoolPace®, ARC's performance management system. All districts studied have a research data sharing agreement in place that enables ARC researchers to use their IRLA data for research purposes.

ARC assigns a risk status to students' IRLA scores to classify the intensity of student need, consistent with multitiered systems of support (MTSS). A risk level is assigned each time the IRLA is administered: proficient (at or above grade level), at risk (below grade level) and emergency (significantly below grade level). The expectation is that students who begin the school year working at emergency and at-risk levels will make enough progress to move out of those levels by the end of the school year, and students who begin the year reading at a proficient level will make enough progress to end the school year prepared for the next grade.

1. See The Nation's Report Card: https://www.nationsreportcard.gov/reports/reading/2024/g4_8/

2. *NAEP Proficient* achievement level does not represent grade level proficiency as determined by other assessment standards (e.g., state or district assessments).

While ARC monitors the growth and movement of students at all risk levels, the research presented here is designed to understand the impact of ARC Core combined with district efforts to improve reading outcomes for students at the lowest performance level. Specifically, the research answers the following research questions:

- Did the cohort of students who began the school year working at emergency move out of emergency by the end of the year?
- Did the percentage of students who began the year working at emergency decrease year over year?
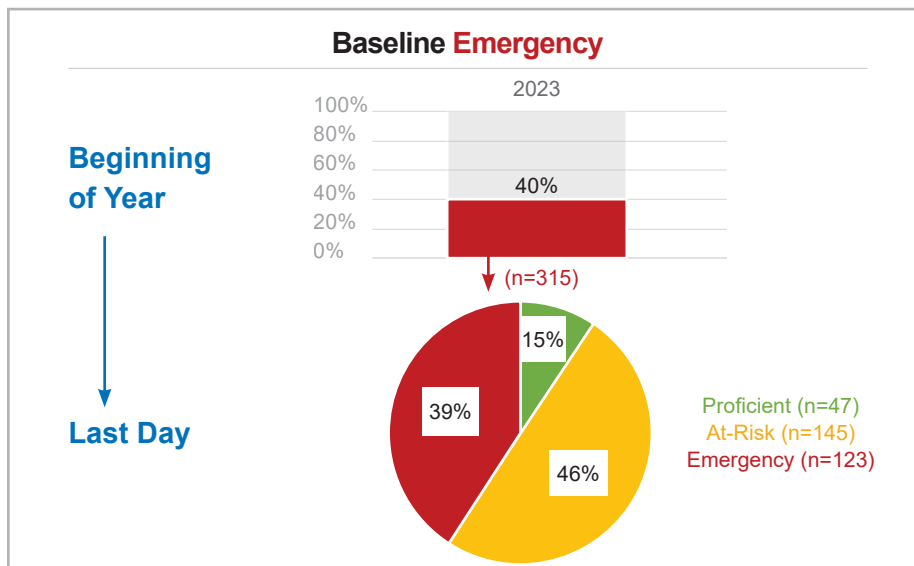
Analysis

The Baseline Cohort Proficiency Analysis begins by selecting students who were administered the IRLA at the beginning of the school year (within the first two months of the academic year) and whose first IRLA score of the year (baseline) indicates they were working at emergency. At the end of the school year, IRLA data from the cohort of students who began the year at emergency is examined to determine how many of them moved to at-risk and proficient.

As an example, see the data display below for Big Rapids Public Schools (MI), who began their ARC Core implementation for grades K–5 in 2023–24. The bar chart below shows that 315 students were working at emergency at baseline, representing 40% of the K–5 students in the district who were administered the IRLA. The pie chart below shows that 46% of the 315 students who began the year at emergency moved to at-risk, and 15% of them moved to proficient. In other words, at the start of Big Rapids Public School's first year of ARC Core implementation, 40% of students were working at emergency. By the end of the school year, 61% of those students moved out of emergency.

To understand the impact of sustained use of ARC Core, a Baseline Cohort Proficiency Analysis was conducted at the end of each academic year over several years. To this end, researchers examined whether the percentage of students who begin the school year reading at emergency decreases over time.

Big Rapids Public Schools, MI, Grades K–5

Baseline Emergency

Beginning of Year

2023

100%
80%
60%
40% — 40%
20%
0%

(n=315)

Last Day

15%
39%
46%

Proficient (n=47)
At-Risk (n=145)
Emergency (n=123)

About the Independent Reading Level Assessment® (IRLA®)

The IRLA is a standards-based, formative assessment that teachers use to measure the extent to which students independently demonstrate reading proficiency. Students who have demonstrated reading proficiency at or above their grade level are considered "proficient" and are not likely to be at risk for academic difficulties. Students who need to make more than a year of growth in one year's time are assigned an "at risk" designation that alerts teachers that the student may need additional support to make sufficient accelerated progress. Students reading significantly below grade level are assigned "emergency" status. These students need multiple years of growth per year to gain grade-level proficiency and require the most intensive support to make accelerated progress.

Research conducted in districts across the country establishes the validity of the IRLA and shows that the IRLA is predictive of how students will perform on standardized tests, including those used for accountability.

For more information, see Research Brief: Validity of the IRLA: https://arc.red/validity.
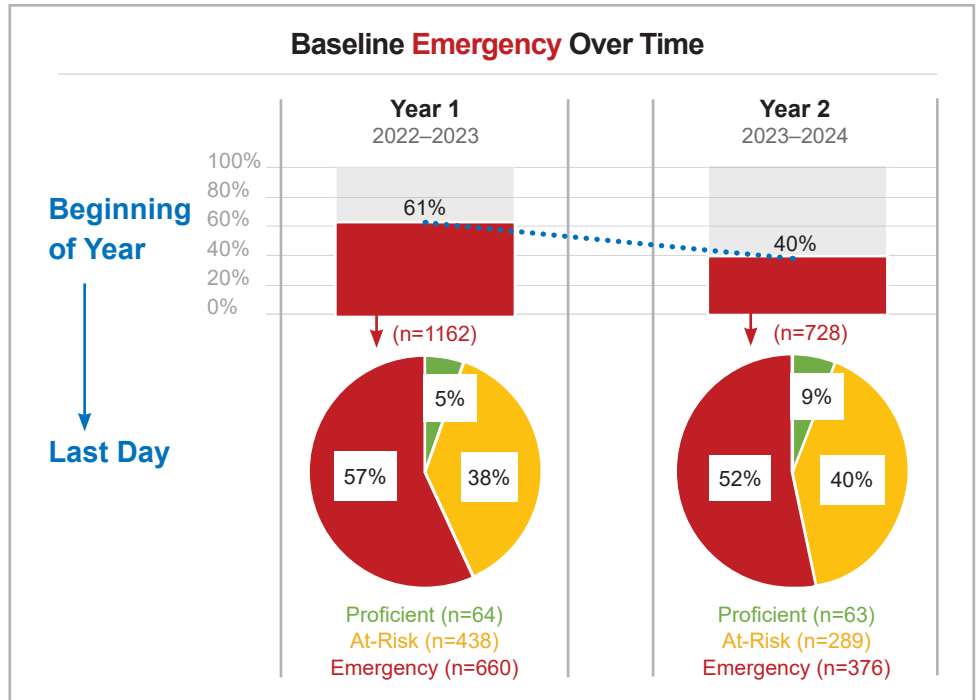
Multi-Year Results Starting with First Year of Implementation

For eight districts, researchers conducted Baseline Cohort Proficiency Analyses starting in the first year of each district's ARC Core implementation. Each year, researchers examined change in the percentage of students who began the year at emergency, shown in the bar graphs, and the percentage of those students who moved out of emergency by the end of year, shown in the pie charts.

Berkeley, IL

Berkeley School District began their ARC Core implementation for grades K–8 in 2022–23. They began year 1 with 61% of students working at emergency. By the end of their year 1 implementation, 43% of the students who began in emergency moved out of emergency. Year 2, 2023–24, began with 40% of students at emergency, a 21 percentage point drop from the prior year. About half of the students who began the year at emergency moved out of emergency by the end of the year.
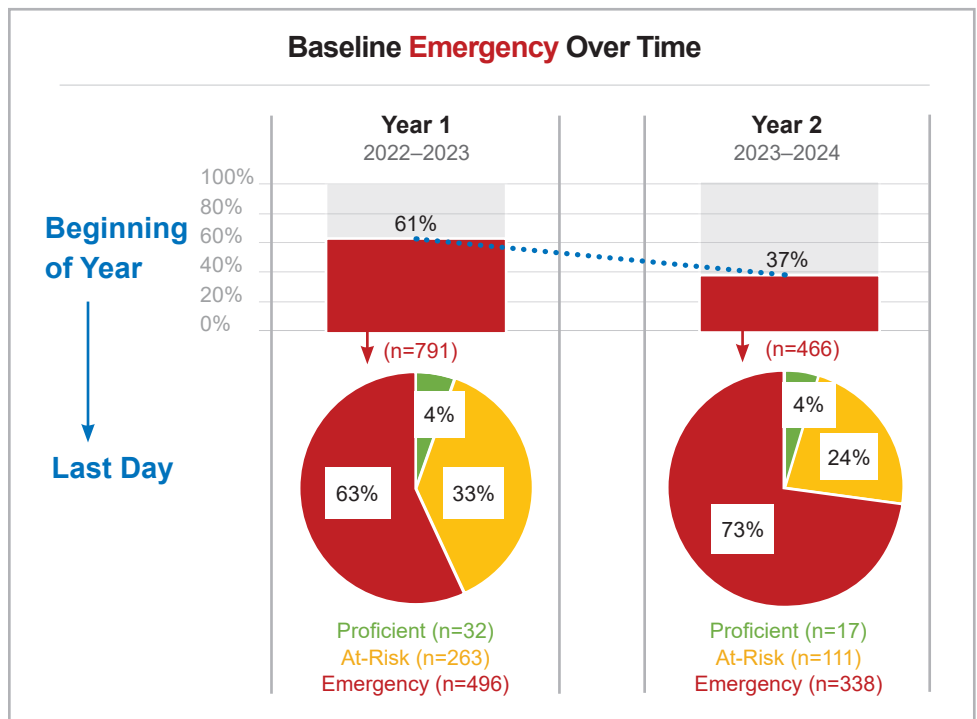
Hazel Park, MI

Hazel Park Schools began their ARC Core implementation for grades K–8 in 2022–23. That fall, 61% of students were identified as working at emergency. Throughout year 1, 37% of those students moved out of emergency. At the start of year 2, a smaller percentage began the year at emergency, just 37%. Across the 2023–24 school year, about 28% of those students moved out of emergency.

Berkeley School District, IL, Grades K–8
Reduced the number of students reading at emergency from 1162 to 376 in 2 years

Baseline Emergency Over Time

Beginning of Year → Last Day

Year 1 (2022–2023): Beginning of Year 61% (n=1162)
Last Day: Proficient 5%, Emergency 57%, At-Risk 38%
Proficient (n=64)
At-Risk (n=438)
Emergency (n=660)

Year 2 (2023–2024): Beginning of Year 40% (n=728)
Last Day: Proficient 9%, Emergency 52%, At-Risk 40%
Proficient (n=63)
At-Risk (n=289)
Emergency (n=376)

Hazel Park Schools, MI, Grades K–8
Reduced the number of students working at emergency from 791 to 338 in 2 years

Baseline Emergency Over Time

Beginning of Year → Last Day

Year 1 (2022–2023): Beginning of Year 61% (n=791)
Last Day: Proficient 4%, Emergency 63%, At-Risk 33%
Proficient (n=32)
At-Risk (n=263)
Emergency (n=496)

Year 2 (2023–2024): Beginning of Year 37% (n=466)
Last Day: Proficient 4%, Emergency 73%, At-Risk 24%
Proficient (n=17)
At-Risk (n=111)
Emergency (n=338)

Elk Township, NJ

Elk Township School District began their ARC Core implementation for grades K–6 in 2022–23. That fall, 45% of students were working at emergency. Across year 1, about 68% of students moved out of emergency. In year 2, 2023–24, Elk Township began with 21% of students at emergency—a 24 percentage point drop compared to the year before. Seventy percent of students who began the year working at emergency moved out of emergency by the end of the school year.
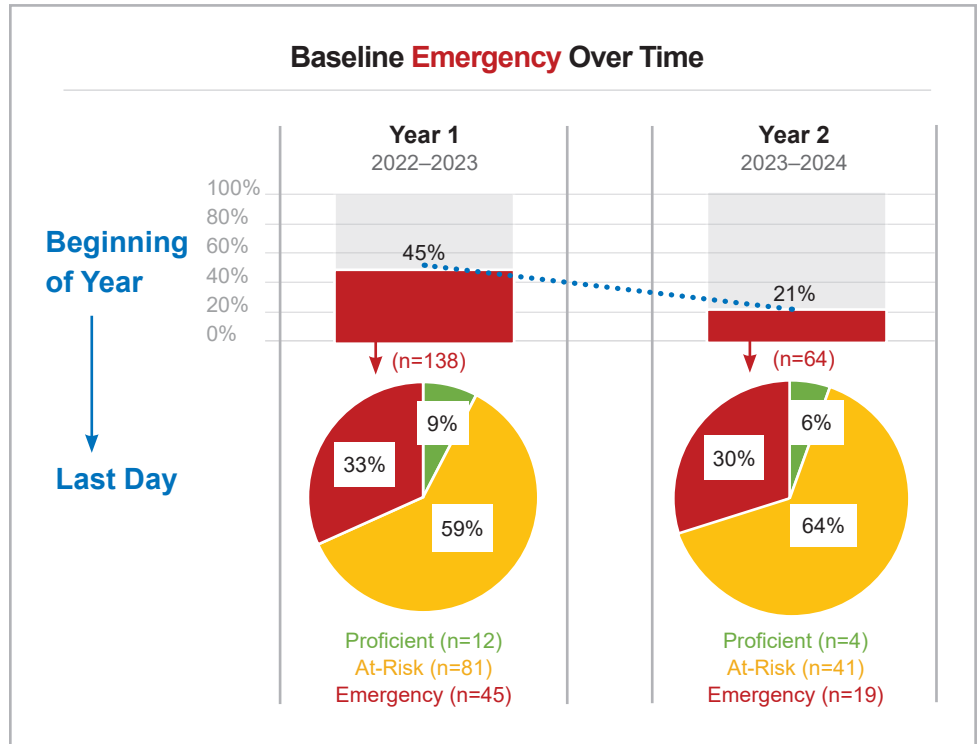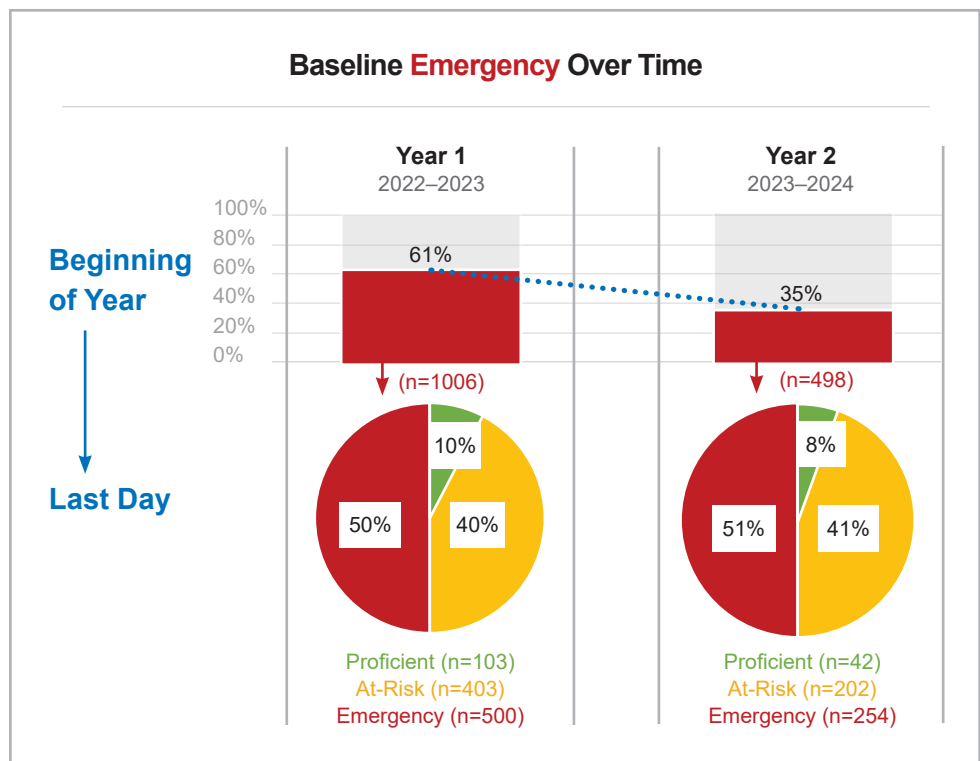
Elk Township School District, NJ, Grades K–6
Reduced the number of students working at emergency from 138 to 19 in 2 years

Baseline Emergency Over Time

Beginning of Year
↓
Last Day

Year 1 2022–2023
45%
(n=138)
9%
33%
59%

Proficient (n=12)
At-Risk (n=81)
Emergency (n=45)

Year 2 2023–2024
21%
(n=64)
6%
30%
64%

Proficient (n=4)
At-Risk (n=41)
Emergency (n=19)

Millville, NJ

Millville School District began their ARC Core implementation for grades K–5 in 2022–23. At the start of year 1, 61% of students were identified as working at emergency. Half of those students moved out of emergency over the course of year 1. Year 2 began with 35% of all students at emergency, a 26 percentage point drop compared to the prior year. Again, about half of the students who began the year working at emergency moved out of emergency by the end of the year.

Millville School District, NJ, Grades K–5
Reduced the number of students working at emergency from 1006 to 254 in 2 years

Baseline Emergency Over Time

Beginning of Year
↓
Last Day

Year 1 2022–2023
61%
(n=1006)
10%
50%
40%

Proficient (n=103)
At-Risk (n=403)
Emergency (n=500)

Year 2 2023–2024
35%
(n=498)
8%
51%
41%

Proficient (n=42)
At-Risk (n=202)
Emergency (n=254)

Mount Vernon School District, WA, Grades K–5
Reduced the number of students working at emergency from 1418 to 500 in 2 years

Mount Vernon, WA

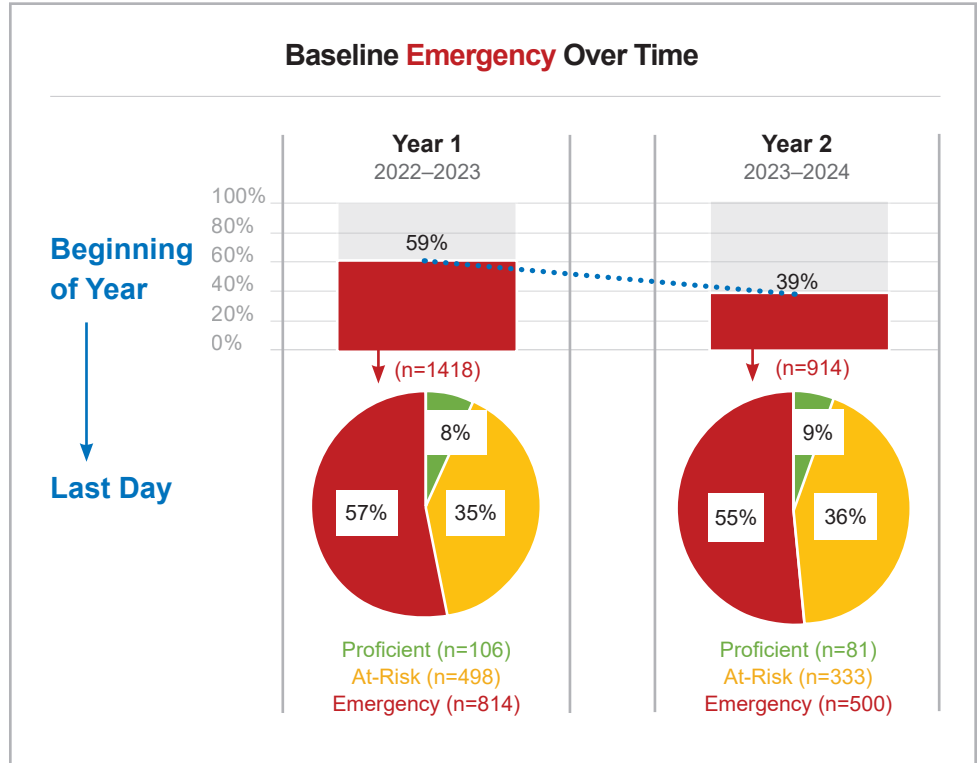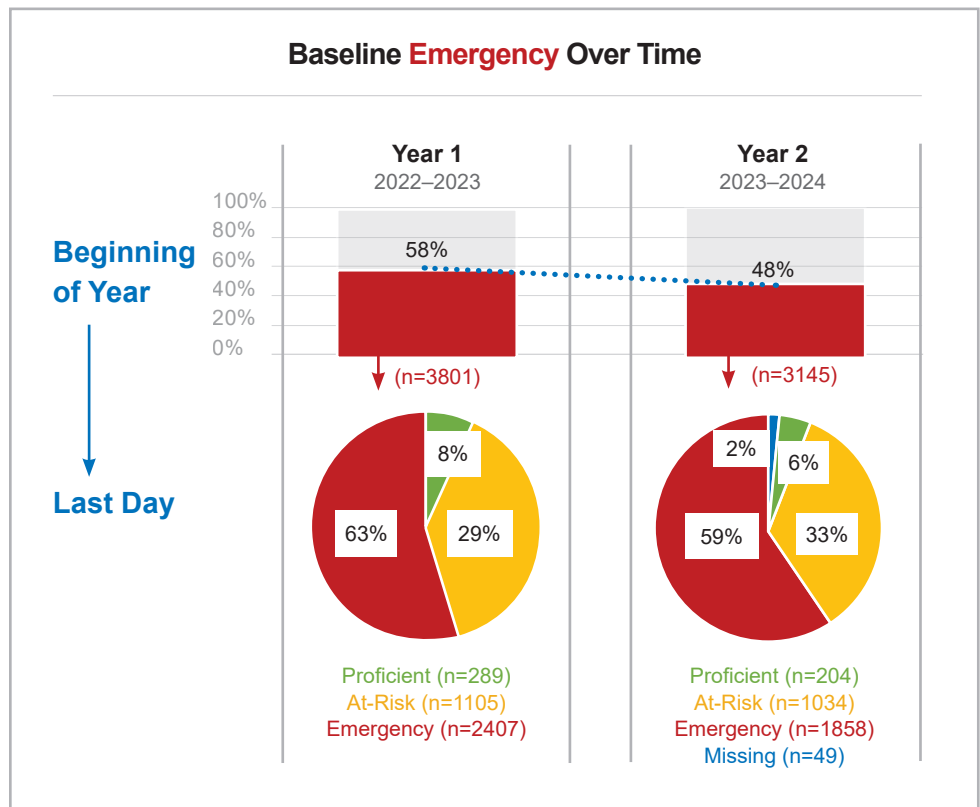Mount Vernon School District began their ARC Core implementation for grades K–5 in 2022–23. At the start of year 1, 59% of students were working at emergency. Across their first year of implementation, 43% of students moved out of emergency. Mount Vernon began year 2 with 39% of students working at emergency, a 20 percentage point drop compared to the previous year. By the end of the 2023-24 school year, 45% of students who began the year in emergency moved out of emergency.

Baseline Emergency Over Time

Year 1
2022–2023

Year 2
2023–2024

Beginning of Year

59%

39%

(n=1418)

(n=914)

Last Day

8%

57%

35%

9%

55%

36%

Proficient (n=106)
At-Risk (n=498)
Emergency (n=814)

Proficient (n=81)
At-Risk (n=333)
Emergency (n=500)

Pasco School District, WA, Grades K–5
Reduced the number of students working at emergency from 3801 to 1858 in 2 years

Pasco, WA

Pasco School District began their ARC Core implementation for grades K–5 in 2022–23. In year 1, 58% of students were identified as working at emergency. By the end of the year, 37% of those students moved out of emergency. In the fall of year 2 (2023–24), 48% of Pasco students were working at emergency—a 10 percentage point drop compared to the prior fall. Additionally, more students moved out of emergency over the course of their second year of implementation, 39%.

Baseline Emergency Over Time

Year 1
2022–2023

Year 2
2023–2024

Beginning of Year

58%

48%

(n=3801)

(n=3145)

Last Day

8%

63%

29%

2%

6%

59%

33%

Proficient (n=289)
At-Risk (n=1105)
Emergency (n=2407)

Proficient (n=204)
At-Risk (n=1034)
Emergency (n=1858)
Missing (n=49)

DuPage-Villa Park, IL

DuPage-Villa Park School District began their ARC Core implementation for grades K–5 in 2021–22. Each year, the percentage of students starting the year at emergency has dropped. At the start of year 1, 48% of their K–5 students were identified as working at emergency. By the end of their first year of implementation, 55% of those students moved out of emergency. At the start of year 2 (2022–23), 35% of students were identified as working at emergency, a 13 percentage point reduction compared to the prior year. Across this second year of implementation, 64% of those students moved out of emergency. At the start of year 3, 21% of all students were identified as working at emergency—a 27 percentage point drop from the initial implementation year. Across 2023–24, 49% of students who were working at emergency in the fall moved out of emergency by the end of the school year.

DuPage-Villa Park School District, IL, Grades K–5
Reduced the number of students working at emergency from 800 to 187 in 3 years

Baseline Emergency Over Time

	Year 1 2021–2022	Year 2 2022–2023	Year 3 2023–2024
Beginning of Year	48% (n=800)	35% (n=600)	21% (n=363)
Last Day	4%, 9%, 40%, 46%	13%, 36%, 51%	9%, 51%, 40%

Year 1:
Proficient (n=75)
At-Risk (n=367)
Emergency (n=323)
Missing (n=35)

Year 2:
Proficient (n=79)
At-Risk (n=306)
Emergency (n=215)

Year 3:
Proficient (n=32)
At-Risk (n=144)
Emergency (n=187)
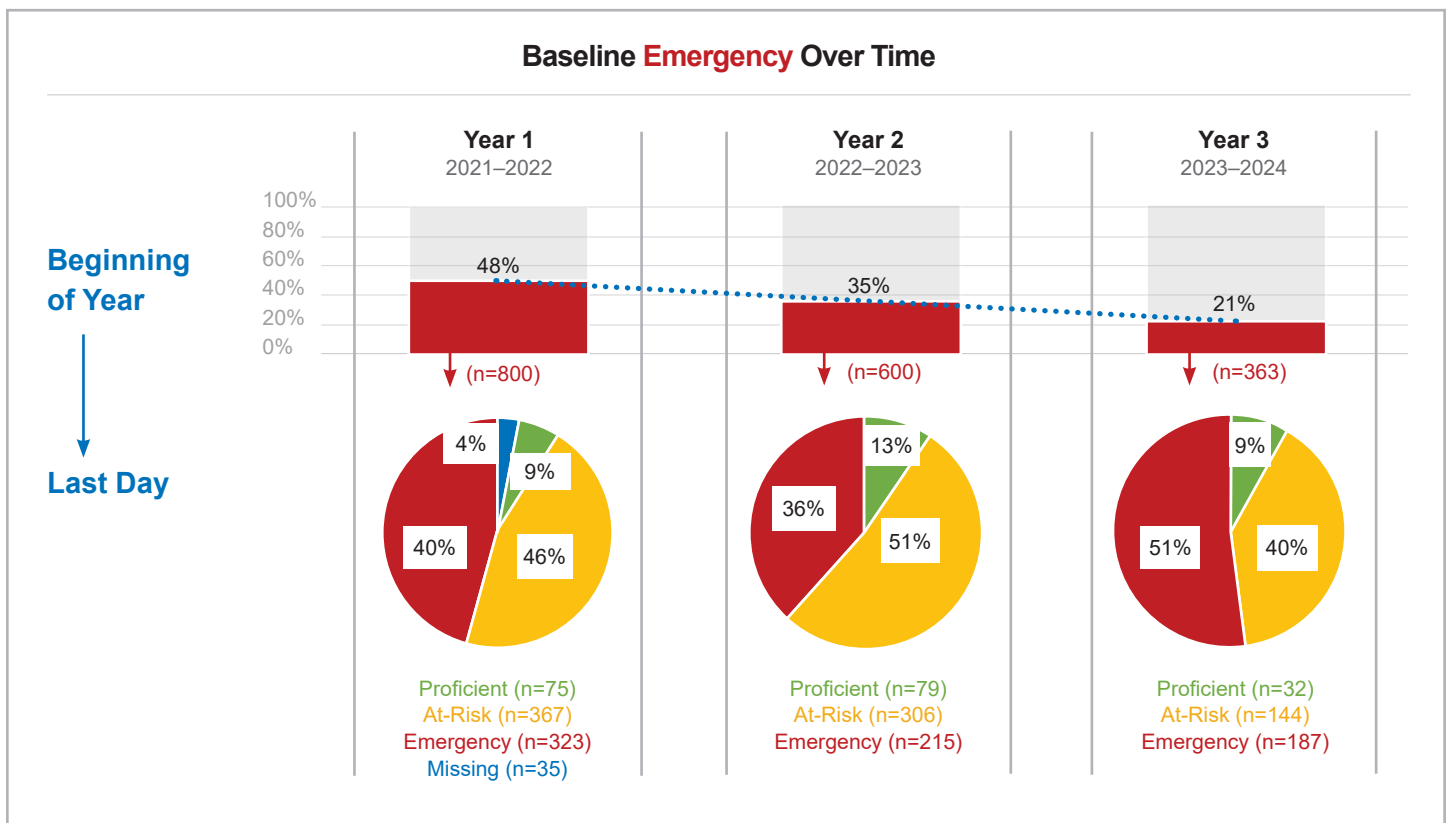
Burlington-Edison, WA

Burlington-Edison School District began their ARC Core implementation for grades K–8 in 2020–21. Across four years of implementation, there was a 30 percentage point drop in baseline emergency. During each of the first three years, 38% to 44% of students moved out of emergency across the school year. In year 4, 27% were identified as working at emergency at the start of the year, and 31% of those moved out of emergency by the end of the year.

Burlington-Edison School District, WA, Grades K–8
Reduced the number of students working at emergency from 942 to 384 in 4 years

Baseline Emergency Over Time

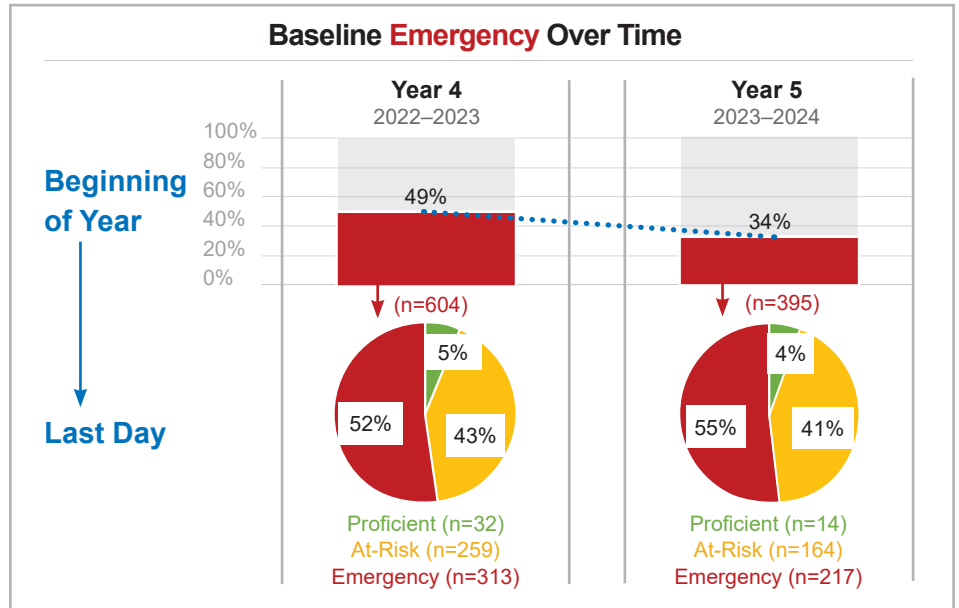|	Year 1 2020–2021	Year 2 2021–2022	Year 3 2022–2023	Year 4 2023–2024
Beginning of Year	57% (n=942)	52% (n=997)	42% (n=841)	27% (n=558)
Last Day	3% / 61% / 35%	4% / 58% / 38%	5% / 56% / 39%	3% / 69% / 28%
	Proficient (n=32) At-Risk (n=332) Emergency (n=578)	Proficient (n=45) At-Risk (n=376) Emergency (n=576)	Proficient (n=42) At-Risk (n=331) Emergency (n=468)	Proficient (n=19) At-Risk (n=155) Emergency (n=384)
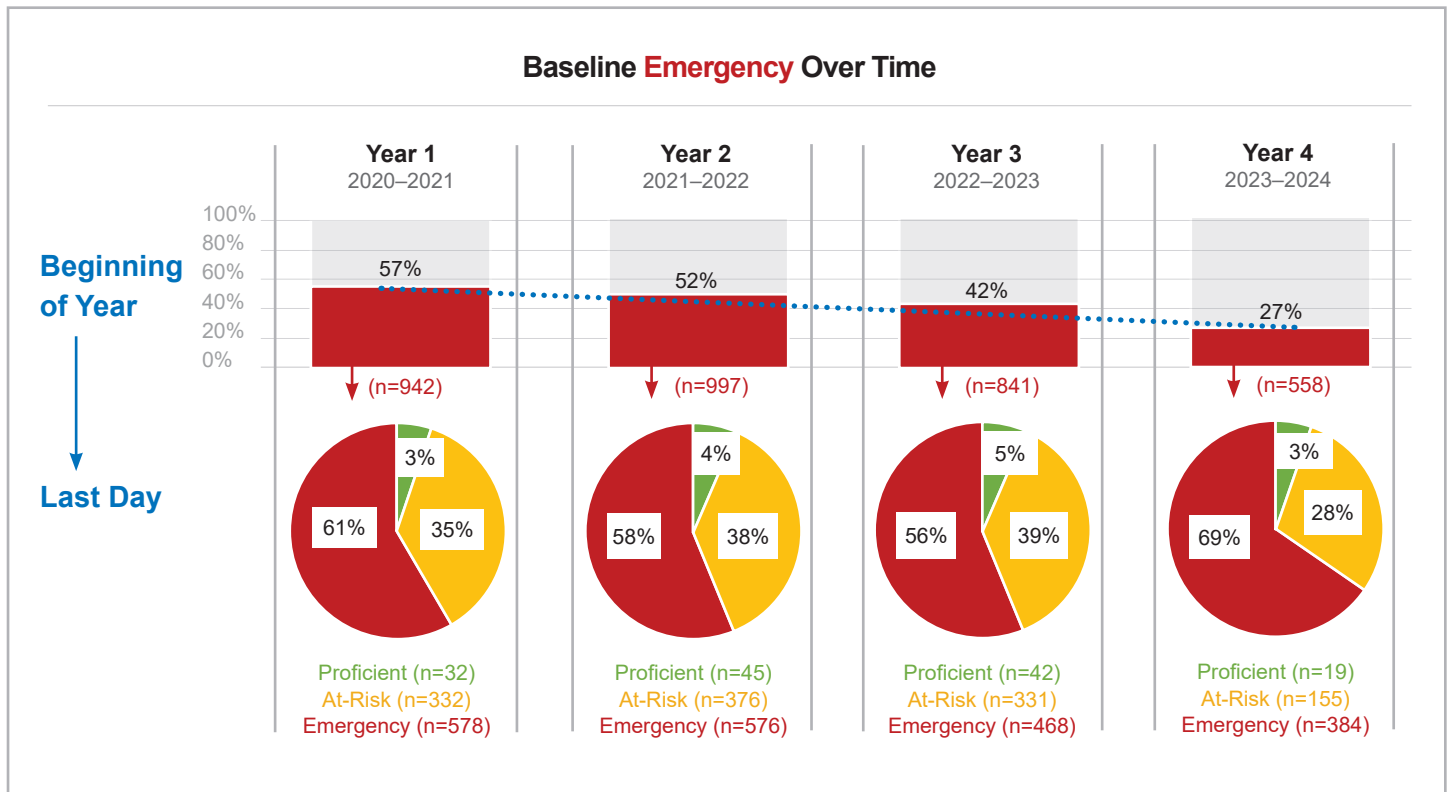
Multi-Year Results Starting with Second Year of Implementation or Beyond

Five districts agreed to participate in the research during year 2 of ARC Core or later. In these districts, students who began the year working at emergency continued to move out of emergency by the end of the school year, and year-over-year trends show a positive reduction in beginning-of-year emergency percentages.

Ocean View, CA

Ocean View School District began their ARC Core implementation for grades K–5 in 2019–20, the year of the COVID-19 shut down. In year 4 (2022–23), 49% of K–5 students began the school year working at emergency. Forty-eight percent of those students moved out of emergency by the end of the year. In year 5 (2023–24), 34% of students began the year working at emergency—15 percentage points fewer than the prior year. In 2023–24, 45% of students who began the year working at emergency moved out of emergency by the end of the school year.
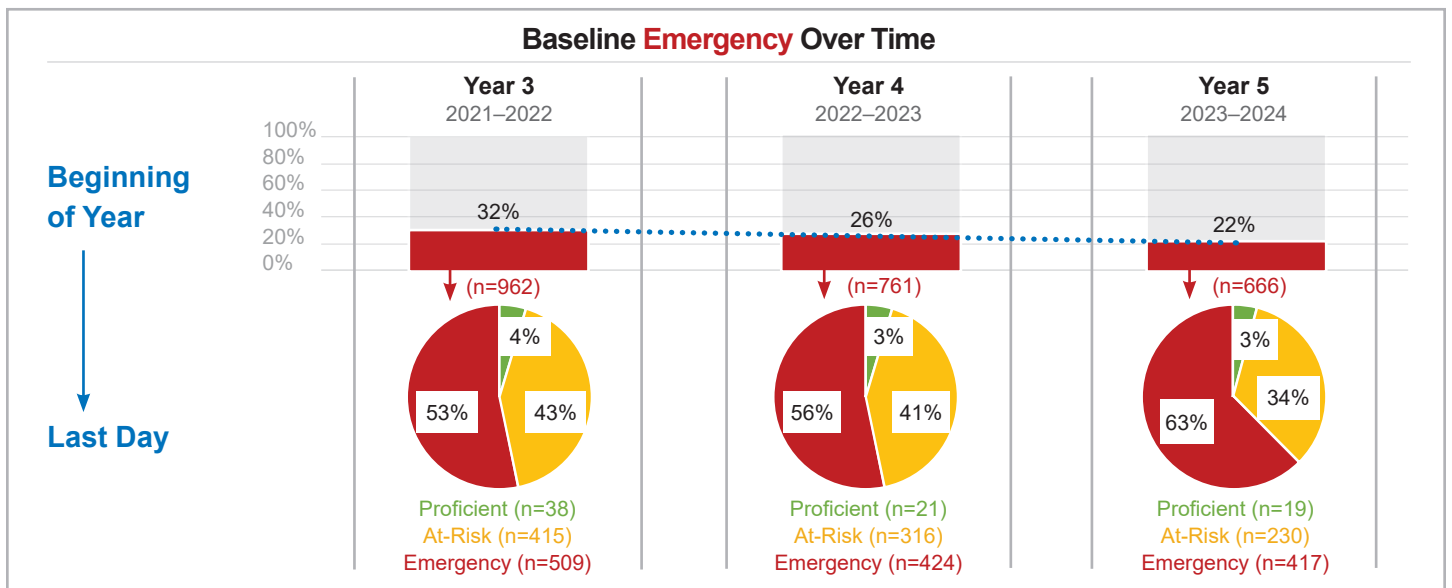
Ocean View School District, CA, Grades K–5
Reduced the number of students working at emergency from 604 to 217 in 2 years

Baseline Emergency Over Time

	Year 4 2022–2023	Year 5 2023–2024
Beginning of Year	49% (n=604)	34% (n=395)
Last Day	Proficient 5%, At-Risk 43%, Emergency 52%	Proficient 4%, At-Risk 41%, Emergency 55%

Proficient (n=32) / At-Risk (n=259) / Emergency (n=313)
Proficient (n=14) / At-Risk (n=164) / Emergency (n=217)

Smyrna, DE

Smyrna School District began their ARC Core implementation for grades K–6 in 2019–20, the year of the COVID-19 shut down. Over the last three years, the district has consistently reduced the percentage of students starting the year at emergency. At the start of year 3 of ARC Core (2021–22), 32% of students were working at emergency. By the end of year 3, 47% of those students had moved out of emergency. The pattern was similar in years 4 (2022–23) and 5 (2023–24), each year starting with fewer students working at emergency and between 37% to 44% of students moving out of emergency over the course of the school year.
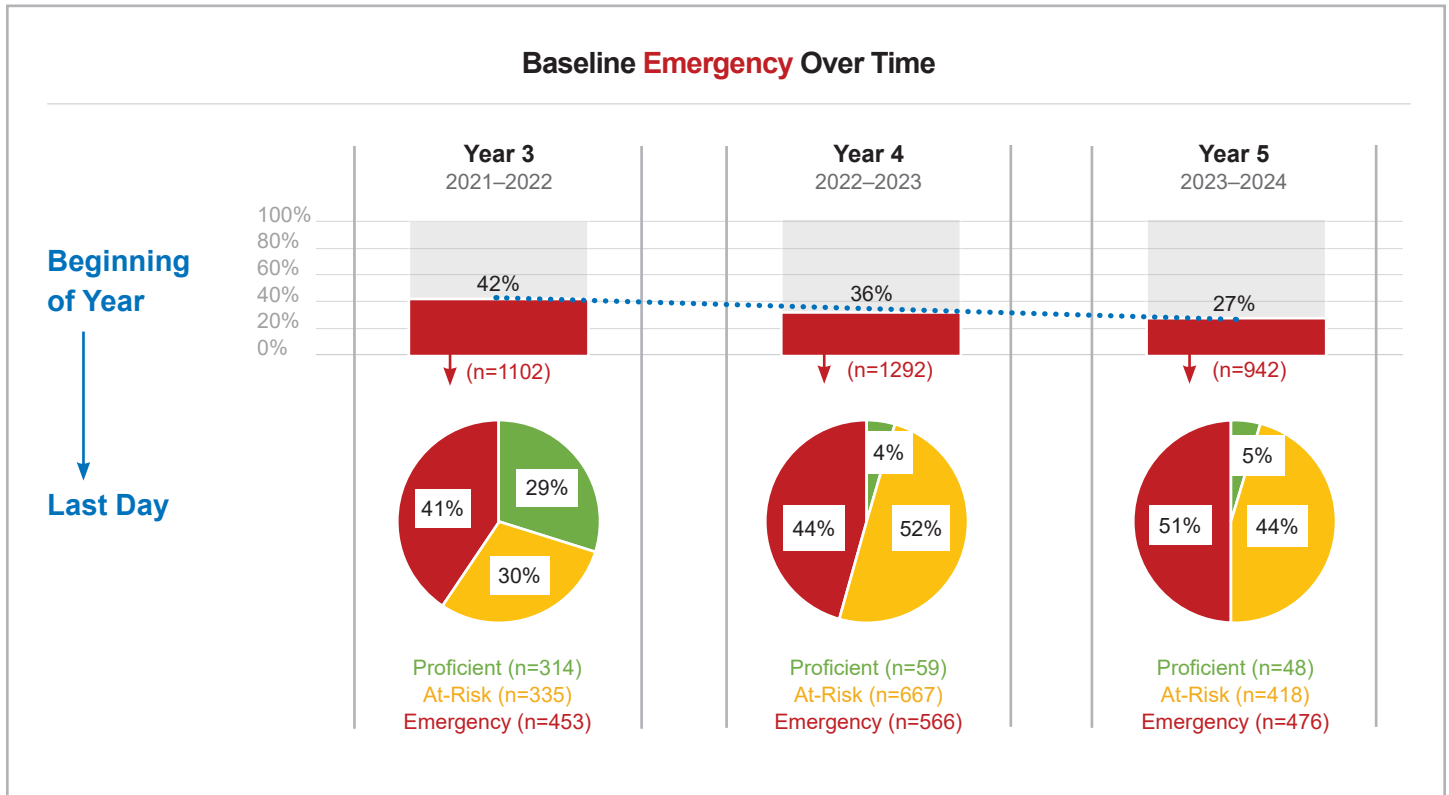
Smyrna School District, DE, Grades K–6
Reduced the number of students working at emergency from 962 to 417 in 3 years

Baseline Emergency Over Time

	Year 3 2021–2022	Year 4 2022–2023	Year 5 2023–2024
Beginning of Year	32% (n=962)	26% (n=761)	22% (n=666)
Last Day	Proficient 4%, At-Risk 43%, Emergency 53%	Proficient 3%, At-Risk 41%, Emergency 56%	Proficient 3%, At-Risk 34%, Emergency 63%

Proficient (n=38) / At-Risk (n=415) / Emergency (n=509)
Proficient (n=21) / At-Risk (n=316) / Emergency (n=424)
Proficient (n=19) / At-Risk (n=230) / Emergency (n=417)

Caesar Rodney, DE

Caesar Rodney School District began their ARC Core implementation for grades K–5 in 2019–20, the year of the COVID-19 shut down. Over the last three years there has been a 15 percentage point drop in baseline emergency. In year 3, 2021–22, 42% of students began the school year at emergency. By the end of the year, 29% moved to grade-level proficiency and 30% moved to at-risk. Year 4, 2022-23, began with 36% of students at emergency and throughout the year 56% of them moved out of emergency. In year 5, 2023–24, 27% of students began the year in emergency and about half of them moved out of emergency by the end of the year.
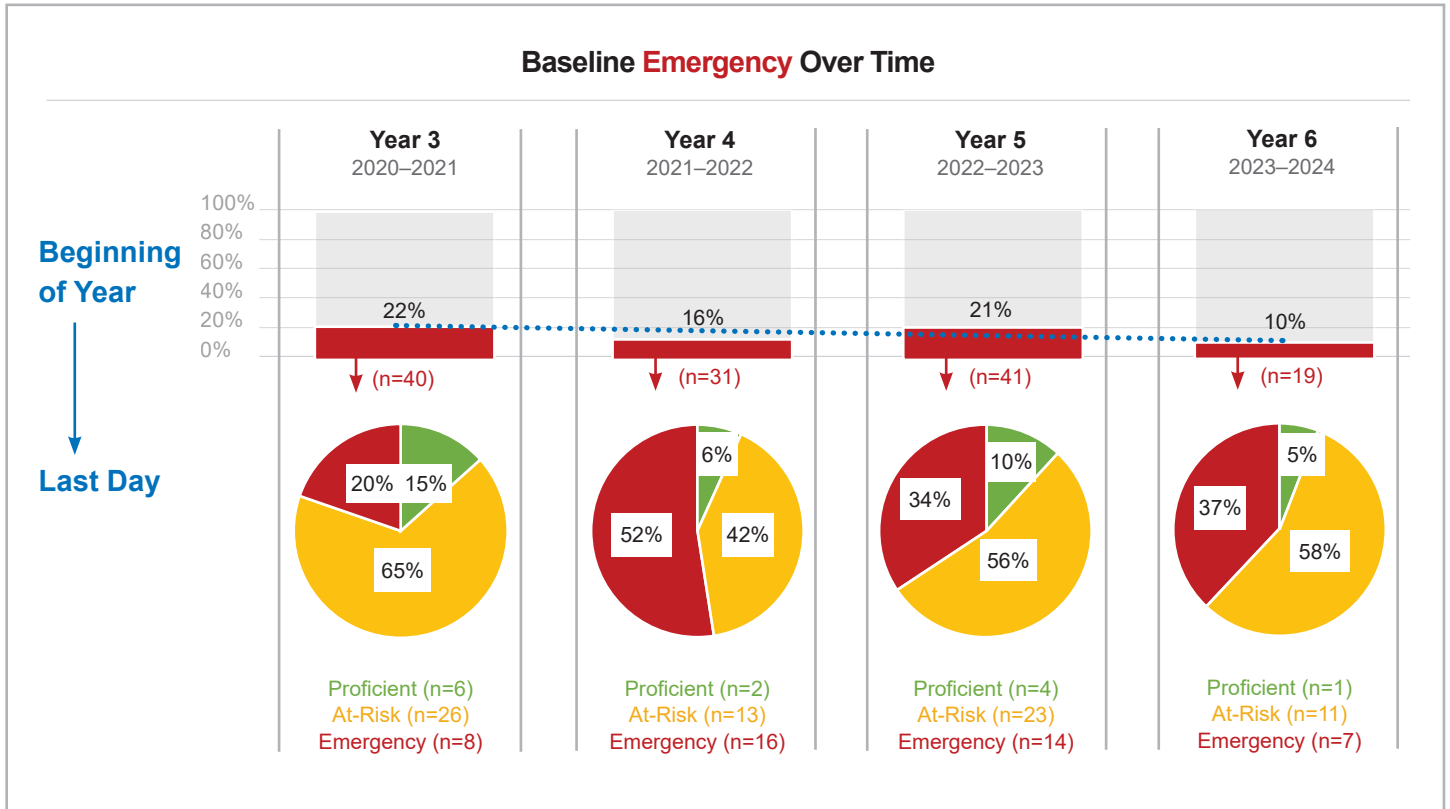
Caesar Rodney School District, DE, Grades K–5
Reduced the number of students working at emergency from 1102 to 476 in 3 years

Baseline Emergency Over Time

Beginning of Year → Last Day

Year 3
2021–2022
42%
(n=1102)
Proficient (n=314)
At-Risk (n=335)
Emergency (n=453)
41% / 29% / 30%

Year 4
2022–2023
36%
(n=1292)
Proficient (n=59)
At-Risk (n=667)
Emergency (n=566)
44% / 52% / 4%

Year 5
2023–2024
27%
(n=942)
Proficient (n=48)
At-Risk (n=418)
Emergency (n=476)
51% / 44% / 5%

Fremont County, WY

Fremont County School District began their ARC Core implementation for grades K–6 in 2019–20, the year of the COVID-19 shut down. In year 3, the 2020–21 school year, 22% of grade K–6 students entered the school year working at emergency. That year, 80% of those students moved out of emergency. In year 6, the 2023–24 school year, Fremont had just 10% of all students entering at emergency. By the end of year 6, 63% of those students moved out of emergency.
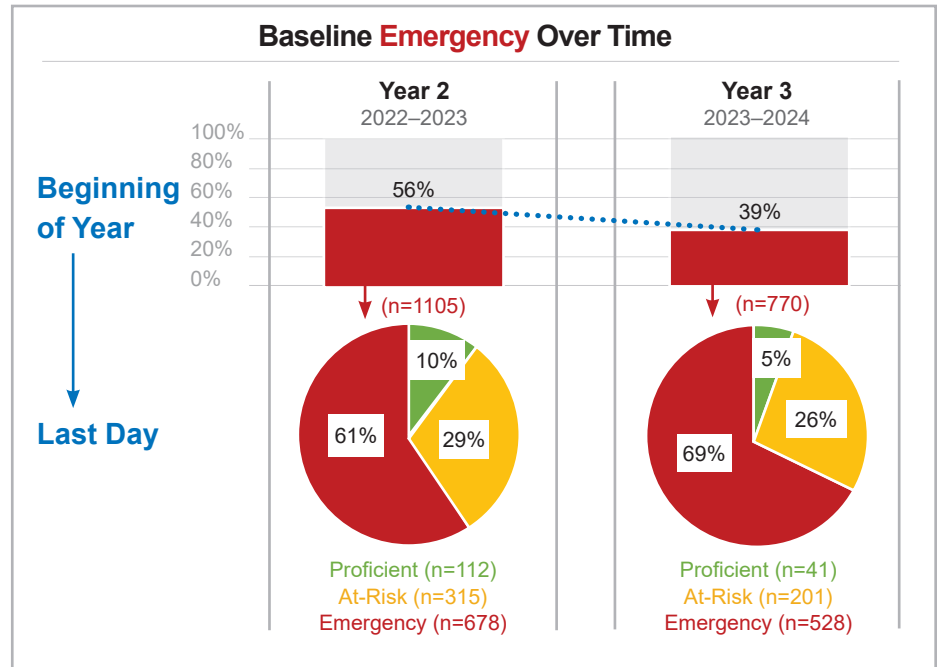
Fremont County School District, WY, Grades K–6
Reduced the number of students working at emergency from 40 to 7 in 4 years

Baseline Emergency Over Time

	Year 3	Year 4	Year 5	Year 6
	2020–2021	2021–2022	2022–2023	2023–2024

Beginning of Year

| | 22% (n=40) | 16% (n=31) | 21% (n=41) | 10% (n=19) |

Last Day

Proficient	(n=6)	(n=2)	(n=4)	(n=1)
At-Risk	(n=26)	(n=13)	(n=23)	(n=11)
Emergency	(n=8)	(n=16)	(n=14)	(n=7)

Year 3: 20%, 15%, 65%
Year 4: 6%, 52%, 42%
Year 5: 10%, 34%, 56%
Year 6: 5%, 37%, 58%

Beloit, WI

School District of Beloit began their ARC Core implementation for grades K–5 in 2021–22. At the start of year 2 (2022–23), 56% of students were working at emergency. Throughout that year, 39% of students moved out of emergency, with 10% of those moving to grade-level proficiency. Year 3, 2023–24, began with 39% of students at emergency, a 17 percentage point drop from the prior year. In year 3, 31% of the students who began the year at emergency moved out of emergency by the end of the year.

School District of Beloit, WI, Grades K–5
Reduced the number of students working at emergency from 1105 to 528 in 2 years

Baseline Emergency Over Time

Year 2
2022–2023

Beginning of Year — 56%

(n=1105)

Last Day

Proficient: 10%
At-Risk: 29%
Emergency: 61%

Proficient (n=112)
At-Risk (n=315)
Emergency (n=678)

Year 3
2023–2024

Beginning of Year — 39%

(n=770)

Last Day

Proficient: 5%
At-Risk: 26%
Emergency: 69%

Proficient (n=41)
At-Risk (n=201)
Emergency (n=528)

Conclusion

In light of declining reading performance and increasing gaps between the highest- and lowest-performing students nationwide, ARC researchers sought to understand the impact of ARC Core on students who begin the school year reading significantly below grade level, the lowest performance category on ARC's assessment, the IRLA. These students require both strong core ELA instruction and intensive intervention to make the accelerated progress they need to catch up with their peers who are reading on grade level. The study examined the extent to which these students made enough progress to move out of the lowest performance category (emergency) by the end of year.

The study found positive outcomes in grades K–8. In all 13 districts studied, a large portion of students who began the school year working at emergency moved out of emergency during the school year. Additionally, the research found that the percentage of students starting each year in emergency decreased year over year in all districts studied. This research illustrates that ARC Core is changing trajectories for students, beating the odds, and closing the achievement gap.

Suggested Citation

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