ESSER cliff or ESSER blip?

Impact of ESSER expiration on K-12 instructional materials and software markets

June 2024

Prepared for

Summary perspectives

The frenzy about an ESSER cliff is overblown for education investors

- Only 5-10% of ESSER funding was spent on instructional materials or technology, the primary investable segments within K-12 education
- After a few years of above average growth, the next 3-4 years will be largely stable
- Overall K-12 funding remains healthy and market growth should return to long-term historical trends post 2028

Impact of ESSER expiration by K-12 subsegment are uneven

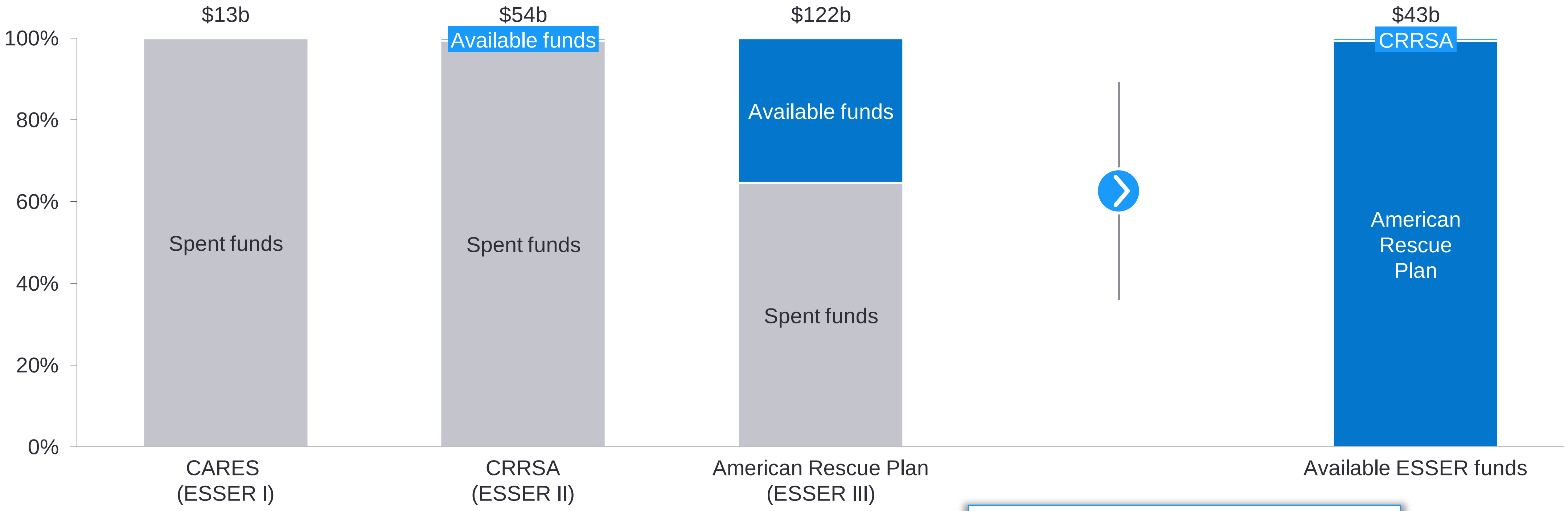
- Categories like core curriculum will see minimal impacts while tutoring could face greater reductions in spending
- Quality and outcomes are still hard to measure, so usage of third party products / services remains key to retention
- Expect more bundling of solutions, vendor consolidation, and less aggressive price increases

Aside from ESSER expiration, enrollment declines and growth in other spending categories (e.g., wages) may also put pressure on district budgets

- Wages and benefits, which comprise ~80% of K-12 spending, may see above average growth as districts work to attract and retain teachers and staff
- Declining birth rates are a structural challenge for K-12 education
- Homeschooling, private schools, and even district charters have all diverted students from public schools
- Large urban districts will continue to dominate the headlines with dire budget woes
  - They have seen substantial enrollment declines
  - Many kept adding staff and admin roles, sometimes using ESSER funding to do so
  - For these districts, cutting a third-party solution (e.g., digital supplemental provider) does not come close to plugging the hole

~$190b in COVID-19 relief funding (i.e., ESSER) has been allocated to K-12 districts, of which ~$43b is still available to be spent

K-12 COVID-19 stimulus funding (ESSER), spent vs. available funds,
Data current through February 29, 2024



Deadline for obligation: September 30, 2022

Deadline for obligation: September 30, 2023

Deadline for obligation: September 30, 2024

Once funds are obligated, states and districts can apply for extensions to spend funds through late March 2026

Source: US Department of Education

EY Parthenon

Recent headlines suggest that an impending "fiscal cliff" for districts is around the corner as ESSER funding is set to expire in 2024

Schools face a funding cliff. How bad will the fall be?

By Matt Barnum | September 13, 2023, 11:13am EDT

Source: Chalkbeat

EDUCATION FUNDING

These 15 States Could Take the Biggest Hit as ESSER Funds Expire

Source: EducationWeek

Ahead of 2024 ESSER funding cliff, here are resources for district and state leaders to make hard budget decisions

Source: EdNC

What Advocates Should Know About the ESSER Fiscal Cliff

Source: The Education Trust

6 budget considerations for districts as ESSER fiscal cliff looms

Districts face "make it or break it" budget decisions in the coming months, said Marguerite Roza, director of Georgetown University's Edunomics Lab.

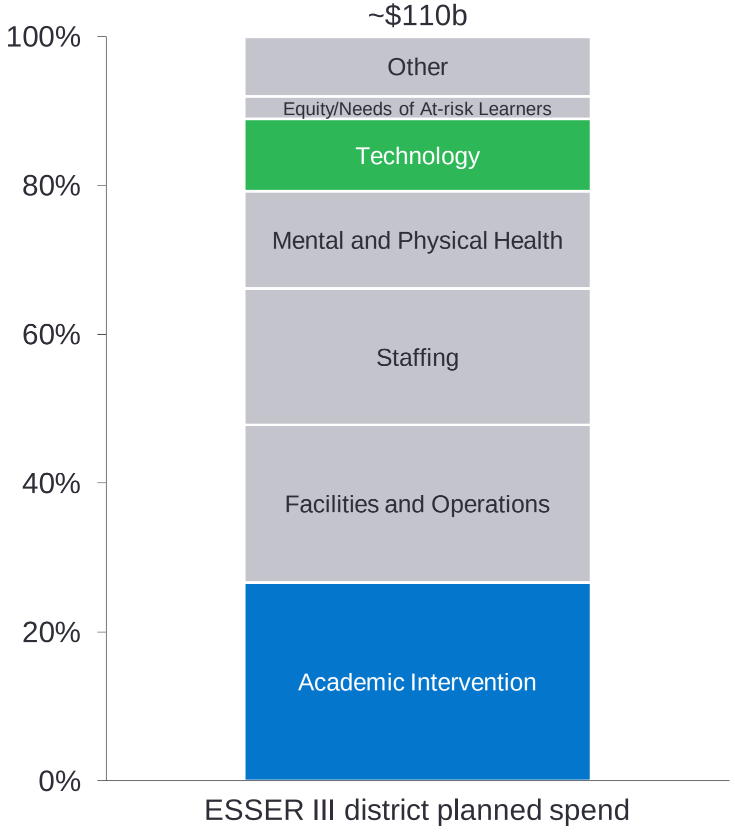
Source: K-12 Dive

Source: News publication websites

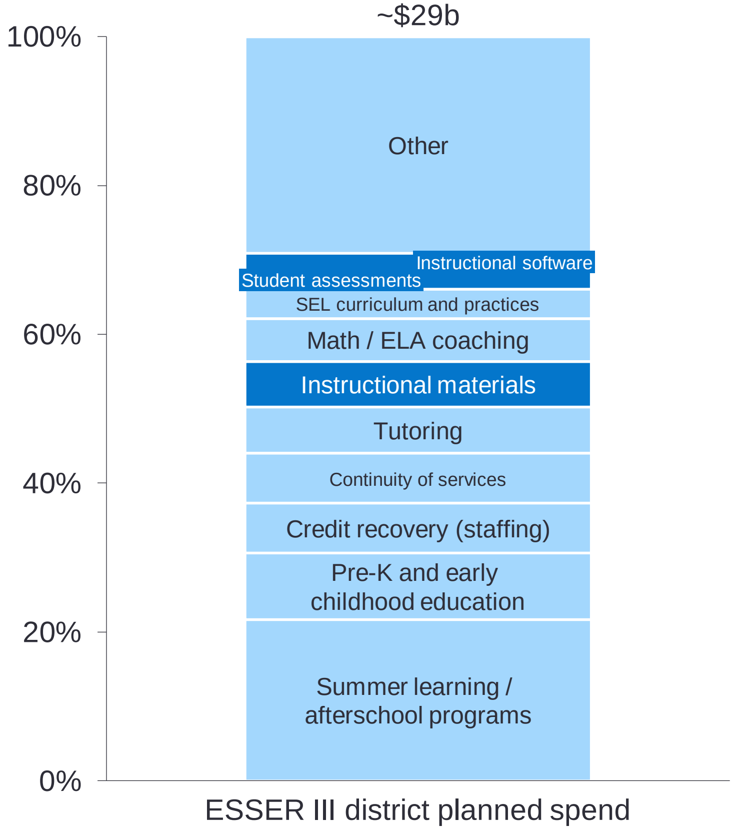
EY Parthenon

An analysis of district plans suggests a wide variety of use-cases for ESSER III funding

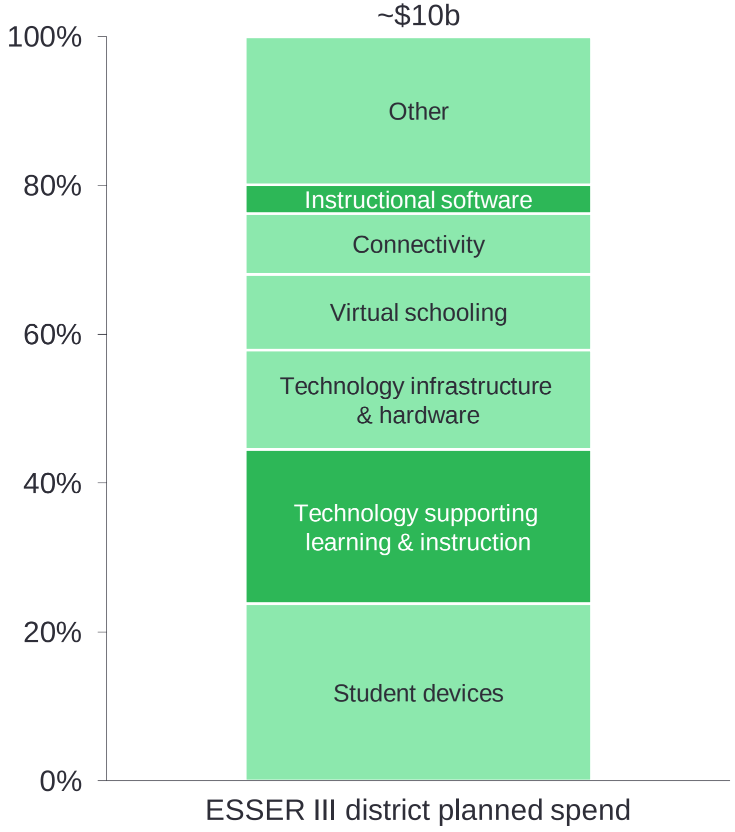
Breakdown of ESSER III planned spend



ESSER III planned spend – academic intervention



ESSER III planned spend – technology



Spend on categories most relevant to third party instructional materials & technology providers:

~$3b (3% of total ESSER III spend)

~$2.5b (2% of total ESSER III spend)

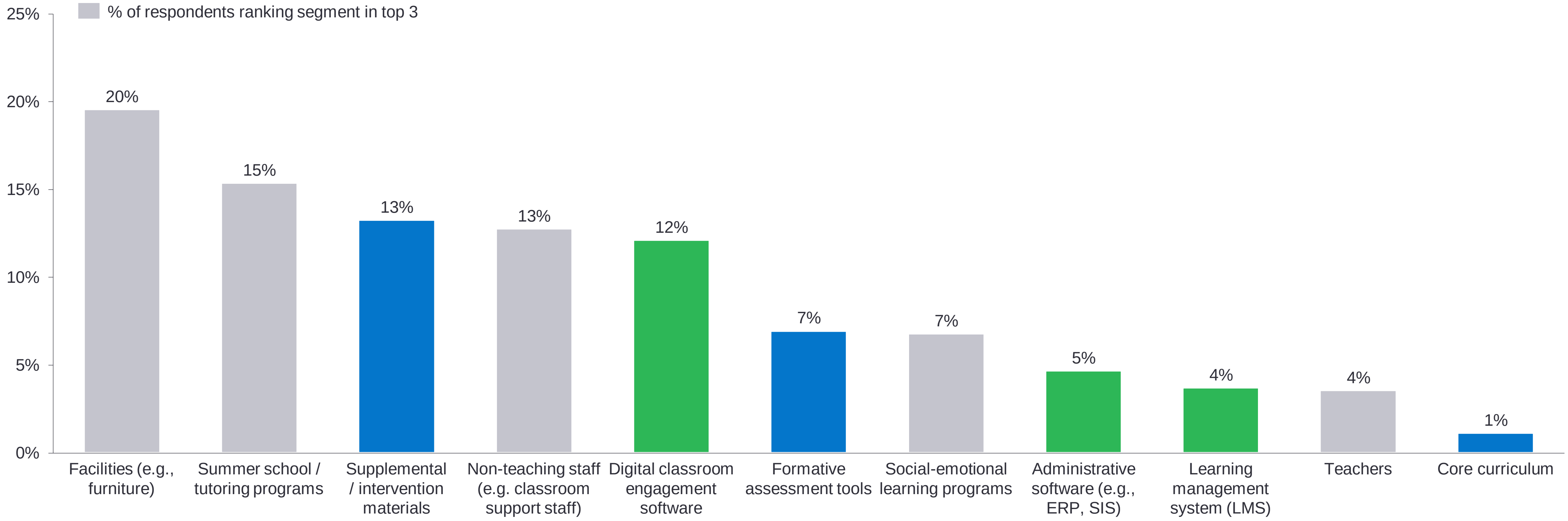
Source: Burbio

EY Parthenon

As ESSER funding expires and budgets tighten, districts must prioritize spending – facilities and summer programming are at greatest risk

Top areas to decrease spending post-ESSER

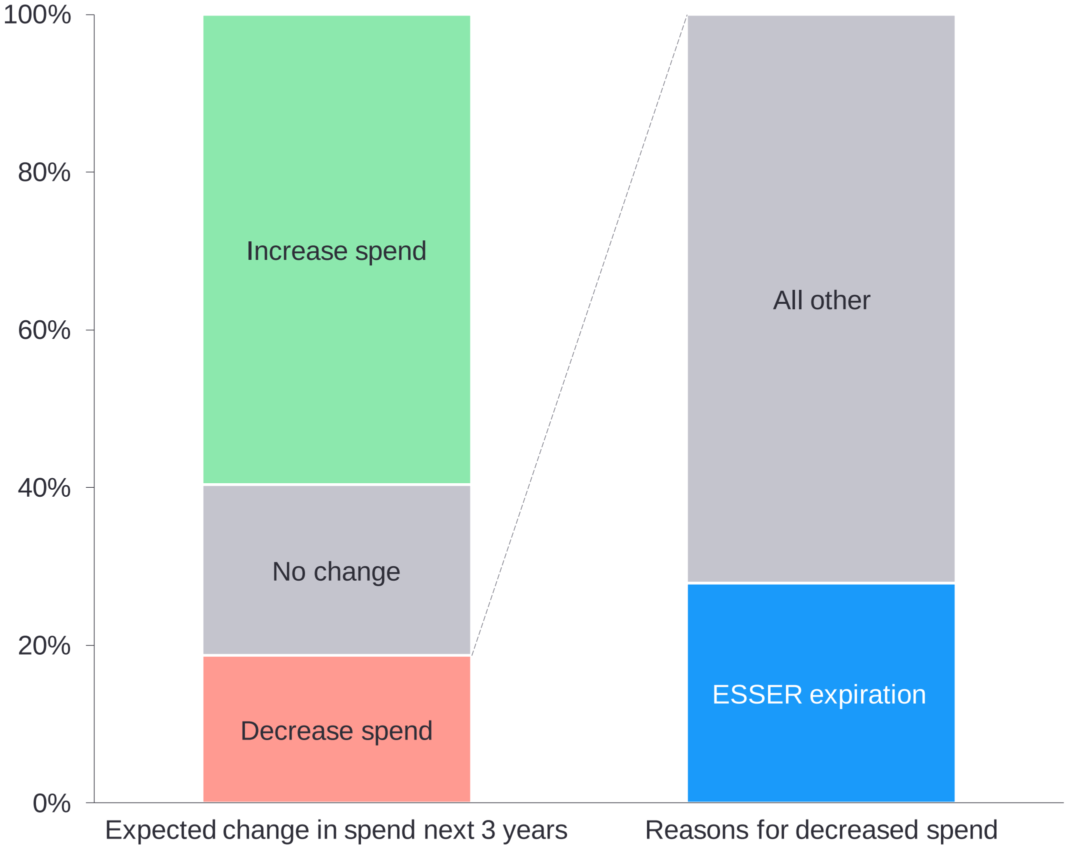
If your school or district were required to reduce its overall spend on the following solutions, in what order would it reduce its spend or eliminate them? Please rank up to 3 choices, where 1="First to cut" by dragging them from the left into the box on the right.



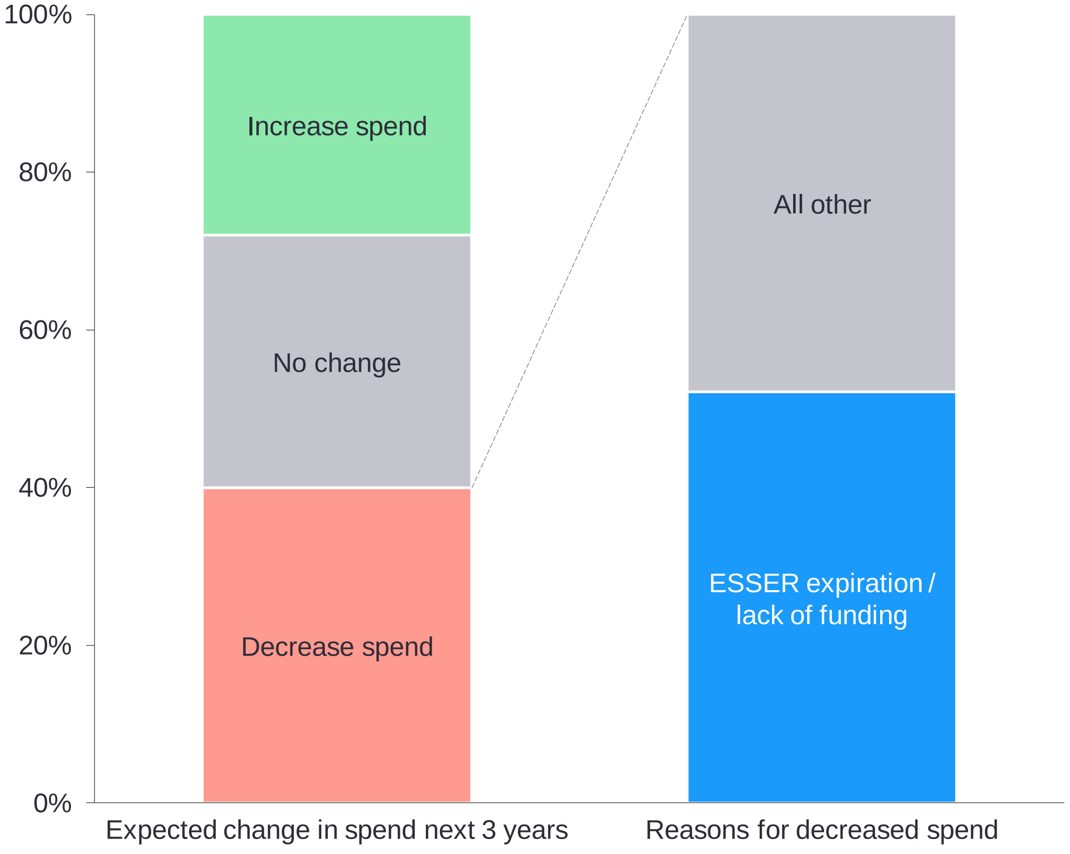
Source: EY-Parthenon interviews & analysis

Some products / services are at higher risk when ESSER expires; others will see stable to increased spend from other funding sources

Expected district spend on core curriculum as ESSER expires



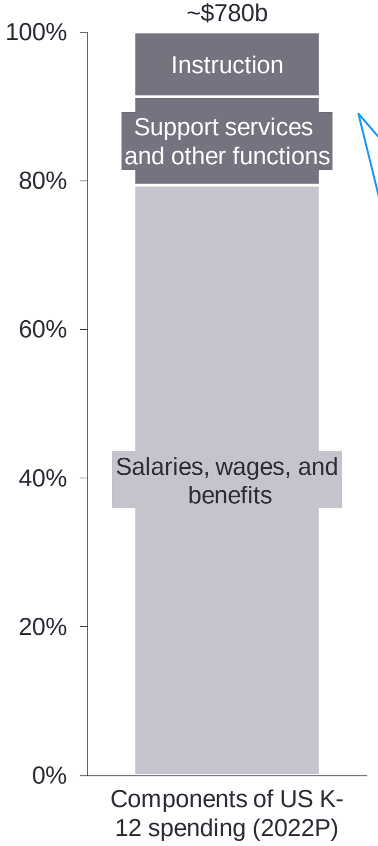
Expected district spend on tutoring as ESSER expires



Source: EY-Parthenon interviews & analysis

The focus of EYP analysis on the impact of ESSER expiry is the ~$15b edtech market, which includes instructional materials and technology

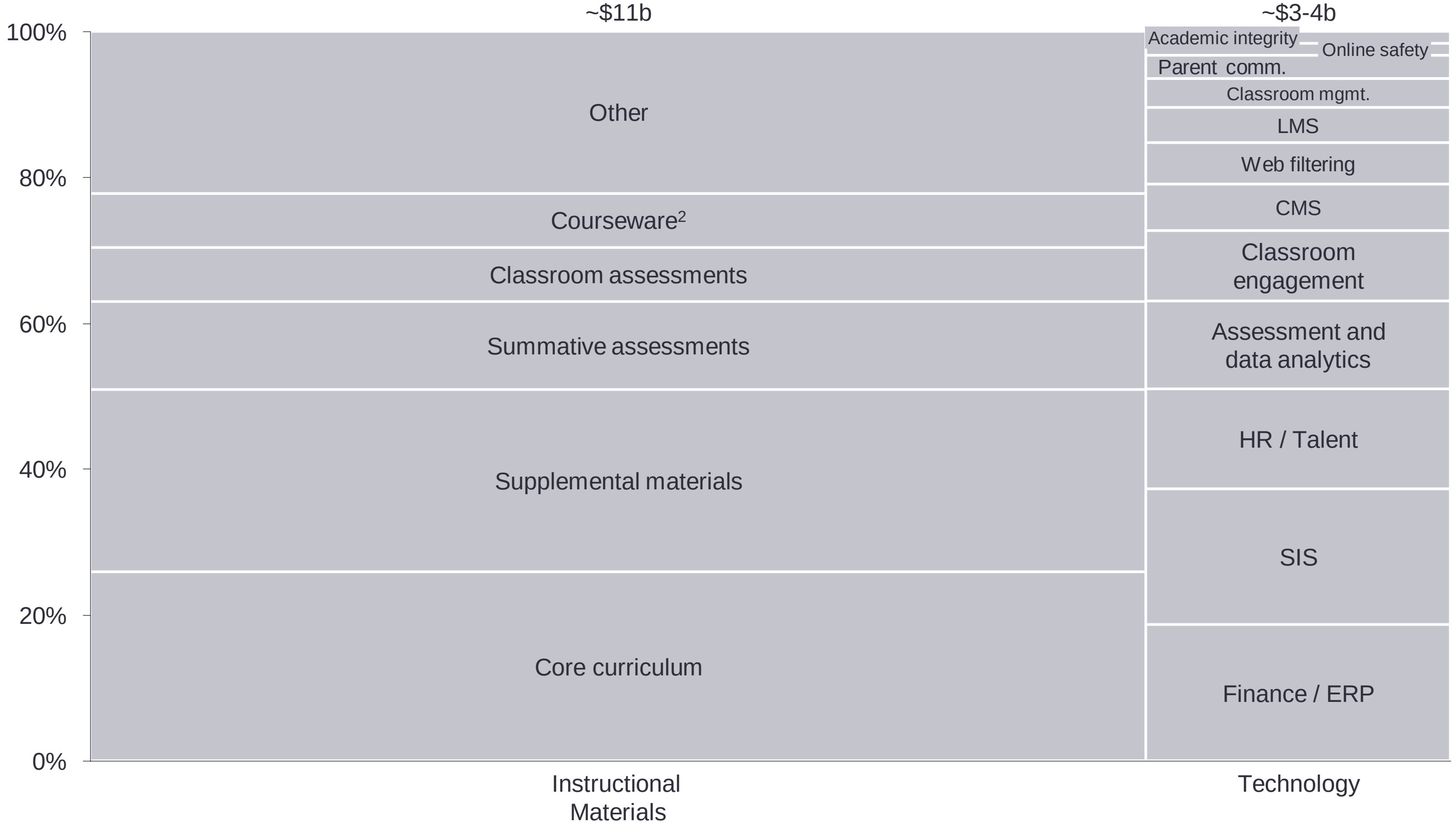
U.S. public K-12 education spending, *2022P*[1]



- Categories in dark gray encompass spend for classroom materials as shown at right, but may also include spend on other contracted services; this chart represents only public spending
- Meanwhile, K-12 classroom spend shown on the right also includes some private / independent school spend

K-12 EdTech spend by product, *2023*[3]

Total = ~$14-15b



1. NCES, BMO, and Simba spend categorizations don't map perfectly; highlighted spend categories indicate areas where classroom / tech spend may sit, though the totality of spend in these areas is not on classroom materials and technology
2. Simba includes some components of formative assessments / digital supplemental in their courseware line, which have been removed
3. Based on triangulation from vendor revenue estimates and top-down market size estimates from third party sources (e.g., SIMBA)

Source: BMO; NCES; Simba; EdWeek; EY-Parthenon analysis

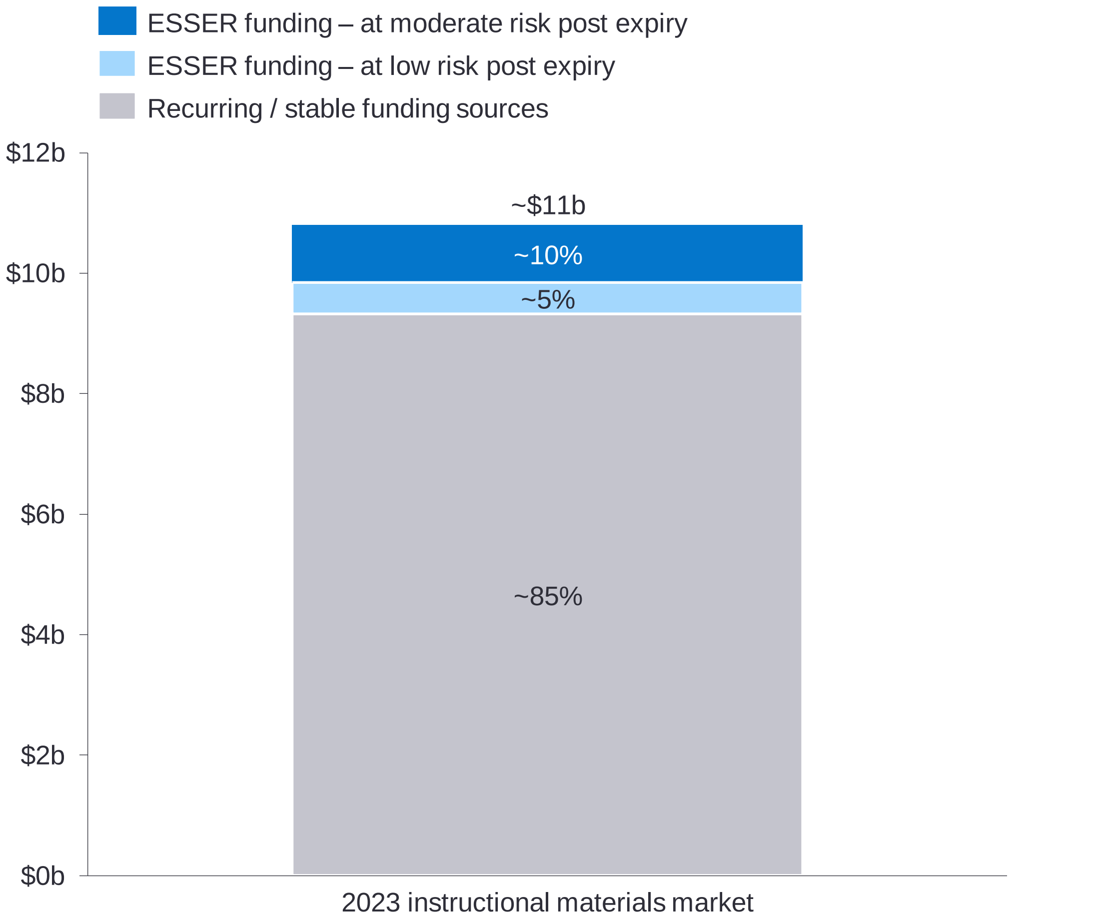
A bottom-up build of the instructional materials market suggests that only ~10-15% of recent spend is comprised of ESSER funds

Instructional materials | K-12 software

Impact of ESSER funding on instructional materials spend

	EY-P assumptions			
	2023 market size	Est. % of spend attributable to ESSER[2]	Risk to spend as ESSER expires[2]	Perspectives
Core curriculum	$2.5-3b	~15%	Low	Spend on these categories is expected to remain stable given the critical nature of core curriculum and assessments to the instructional workflow
Summative assessment	~$1.3b	0%	Low	
Classroom assessment	~$0.8b	10-15%	Low	
Supplemental materials	~$2.8b	~20%	Moderate	Districts may rationalize some products purchased in these categories that have overlapping functionality, low usage, and perceived low efficacy
Courseware	~$0.8b	20%	Moderate	
Other[1]	~$2.3b	10%	Moderate	
Total	**~$11b**	**10-15%**		

ESSER as a proportion of instructional materials spend, 2023



1. Includes courseware, videos, manipulatives, trade books, etc.
2. Based on synthesis of district decision-maker surveys and interviews

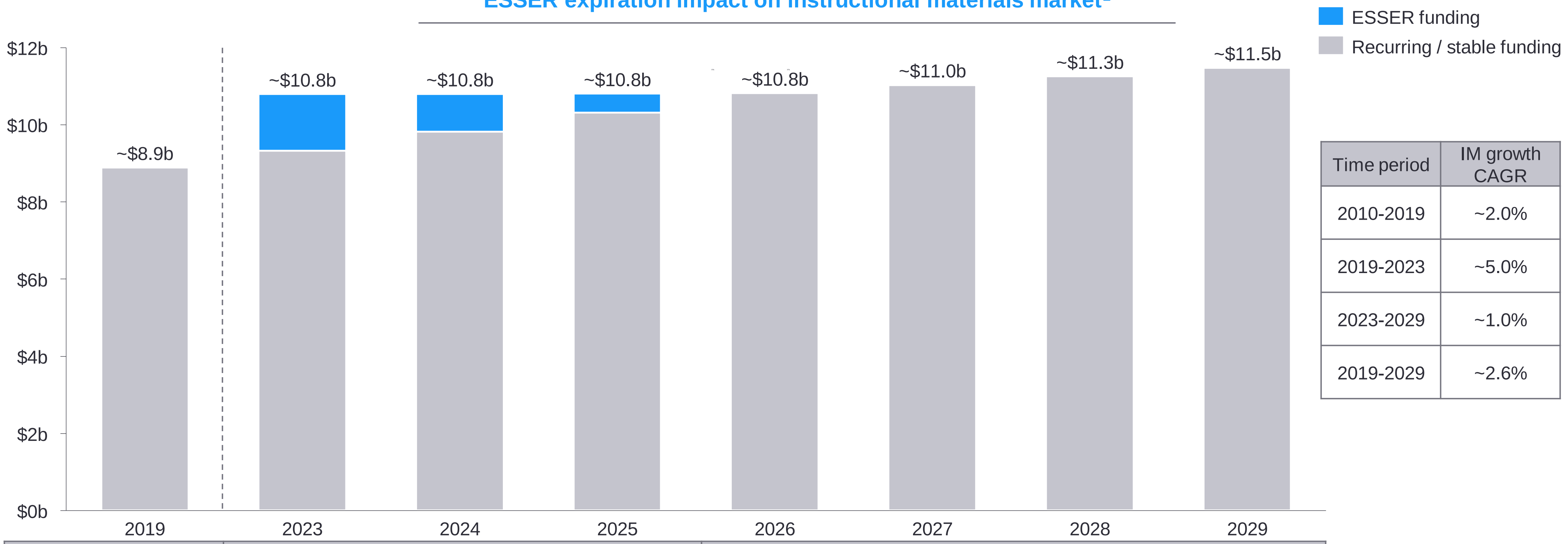
Source: Burbio, Edunomics Lab, EY-Parthenon interviews and analysis

EY Parthenon

As districts wind down usage of ESSER on instructional materials, the market is expected to grow at ~1% CAGR over the next 5 years

Instructional materials | K-12 software

ESSER expiration impact on instructional materials market[1]



Time period	IM growth CAGR
2010-2019	~2.0%
2019-2023	~5.0%
2023-2029	~1.0%
2019-2029	~2.6%

2019	Next 3 years	2026 and beyond
▸ Pre-COVID spend on instructional materials triangulated from SIMBA and EYP analysis	▸ Districts will gradually unwind usage of ESSER funding for instructional materials through SY2025 ▸ Assumes ~85% of "low risk" ESSER spend (e.g., core curriculum) and ~50% of "moderate risk" ESSER spend is replaced by recurring / stable funding ▸ Assumes non-ESSER funded IM spend grows at 2%, in line with long term historical trends	▸ Post 2026 after all ESSER funding is spent, the instructional materials market is expected to return to long-term growth rates (e.g., 2%) ▸ Growth will be driven by digital-forward segments (e.g., digital supplemental materials) and offset by stable (e.g., core curriculum) and declining segments (e.g., print supplemental materials)

1. Reflects overall trends; year-to-year fluctuations will occur given the lumpy nature of core curriculum spending based on adoption state schedules

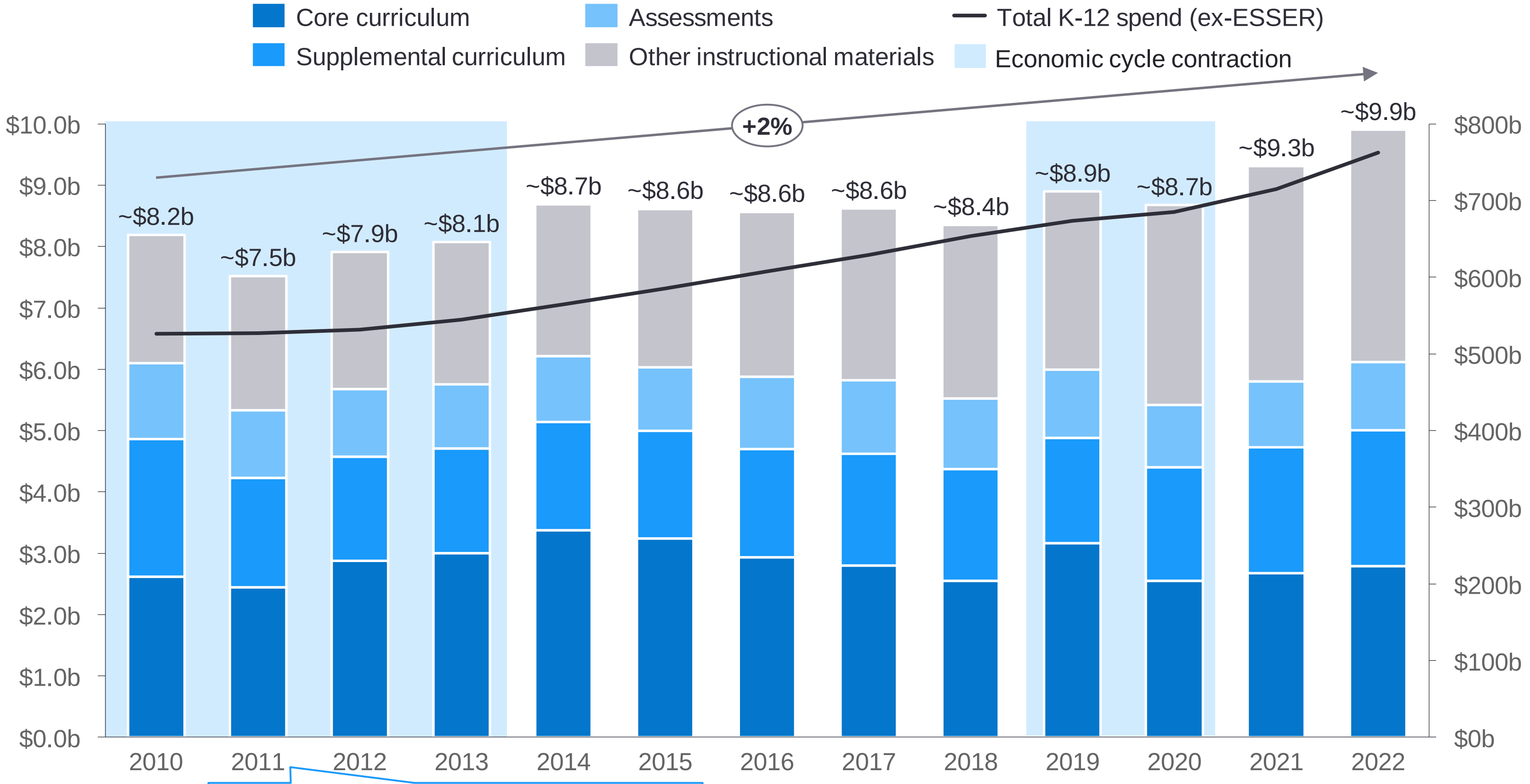
Source: Burbio, Edunomics Lab, EY-Parthenon interviews and analysis

EY Parthenon

During the Great Recession, instructional materials spend remained generally flat, followed by a period of growth as K-12 spend increased

Instructional materials | K-12 software

Instructional materials market spend, *2010 to 2023 ($b)*



Fluctuations in IM spend is in part driven by core curriculum adoption schedules in major states (e.g., CA, NY, FL)

Time period	IM spend CAGR	Total K-12 spend CAGR[2]
2010-2013	**-0.5%**	**1.6%**
2013-2019	1.6%	3.5%
2020-2022	6.8%	6.6%
2010-2022	1.6%	3.4%

1. Other instructional materials includes courseware, manipulatives, trade books, videos, and classroom magazines
2. Exclusive of ESSER stimulus funding; year refers to the starting school year of total K-12 spend (e.g., 2010 refers to SY2010-11)

Source: NCES; BEA; Simba; EY-Parthenon macroeconomic forecast

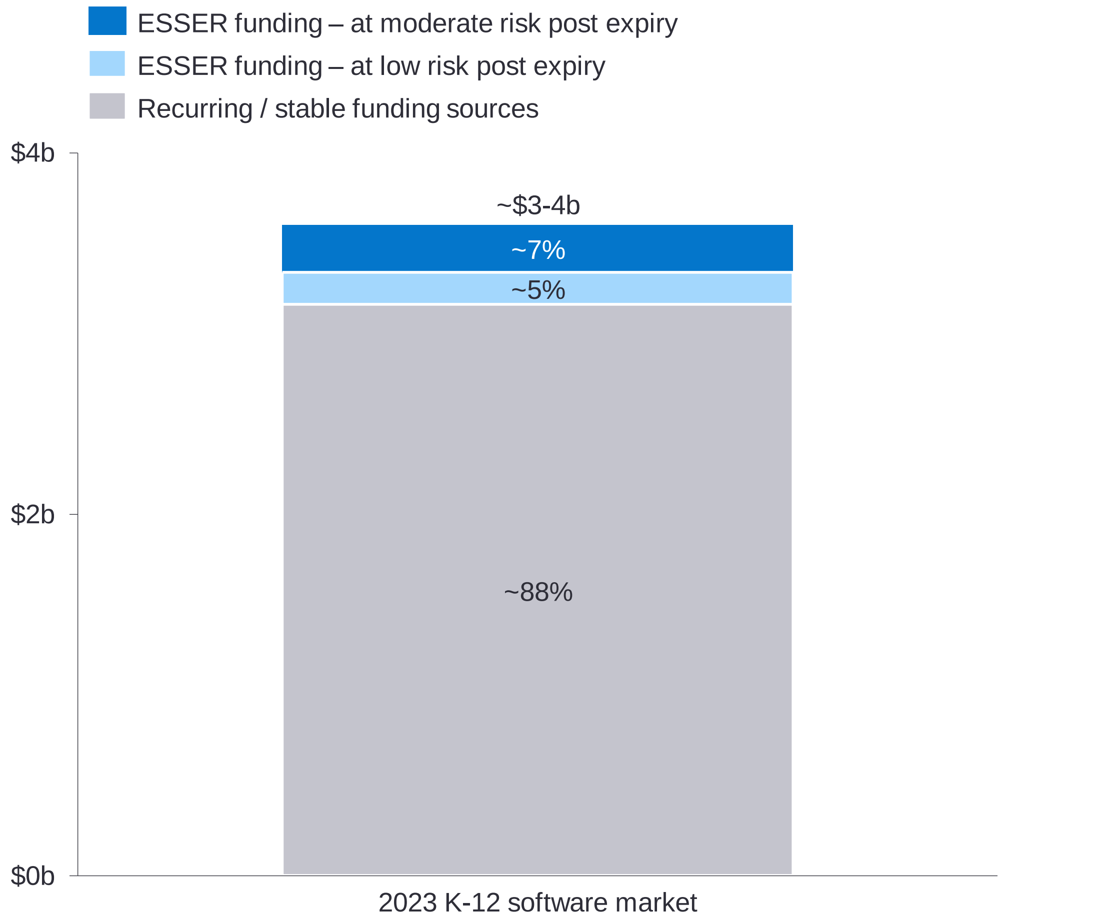
EY Parthenon

A similar analysis of the K-12 software market suggests ~10% of recent spend is comprised of ESSER funds

Impact of ESSER funding on K-12 software spend

	EY-P assumptions			
	2023 market size	Est. % of spend attributable to ESSER[2]	Risk to spend as ESSER expires[2]	Perspectives
SIS	~$0.6b	~5%	Low	Spend on these core solutions that are critical to district operations saw limited impact from ESSER and are at minimal risk post ESSER expiration
ERP / finance	~$0.6b	~5%	Low	
Talent / HR	~$0.4b	~5%	Low	
Assessment / analytics	~$0.4b	~15%	Moderate	Spend on these segments saw moderate uplift from ESSER funding and may be at risk as districts rationalize products with overlapping functionality and lower usage
Classroom engagement	~$0.3b	~30%	Moderate	
Dropout recovery	~$0.3b	~30%	Moderate	
CMS	~$0.2b	5-10%	Low	Spend on these solutions is at low risk post ESSER expiration given their importance and lower cost
Other[1]	~$1.0b	5-15%	Low	
Total	**~$3-4b**	**~10%**		

ESSER as a proportion of software spend, 2023



1. Includes web filtering, classroom management, LMS, parent communications, online safety, and other smaller market segments
2. Based on synthesis of district decision-maker surveys and interviews

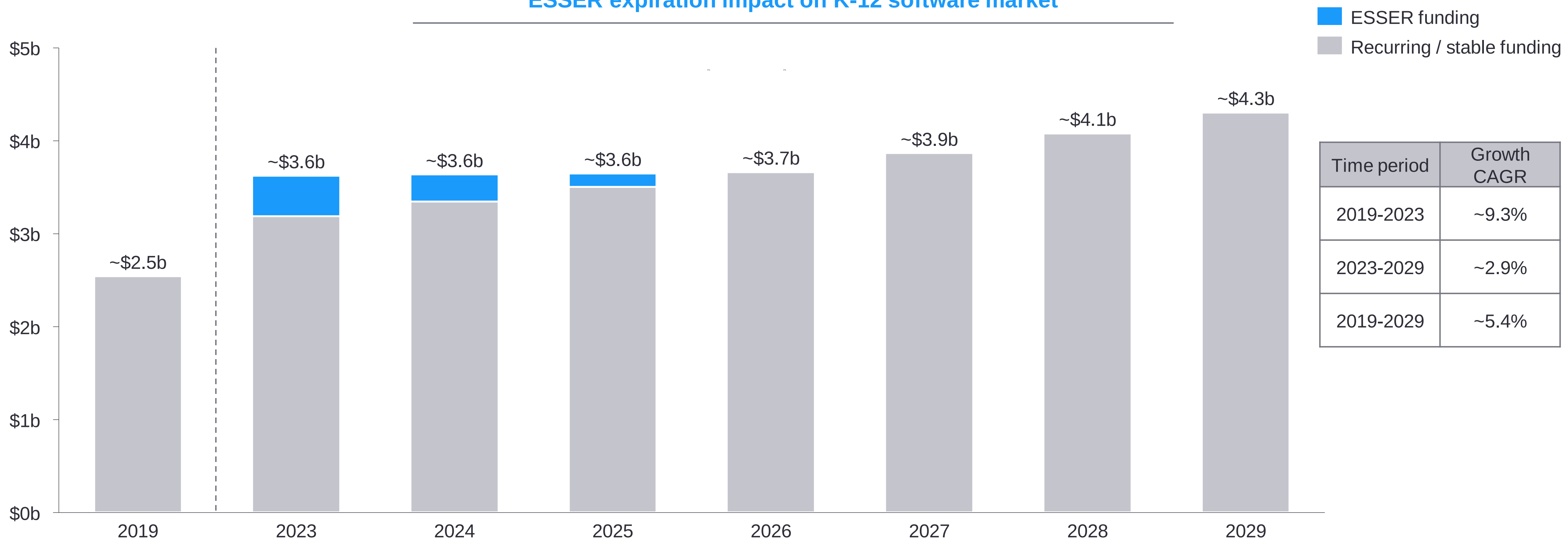
Source: Burbio, Edunomics Lab, EY-Parthenon interviews and analysis

EY Parthenon

As districts wind down usage of ESSER on instructional materials, the market is expected to grow at ~3% CAGR over the next 5 years

Instructional materials | **K-12 software**

ESSER expiration impact on K-12 software market



Time period	Growth CAGR
2019-2023	~9.3%
2023-2029	~2.9%
2019-2029	~5.4%

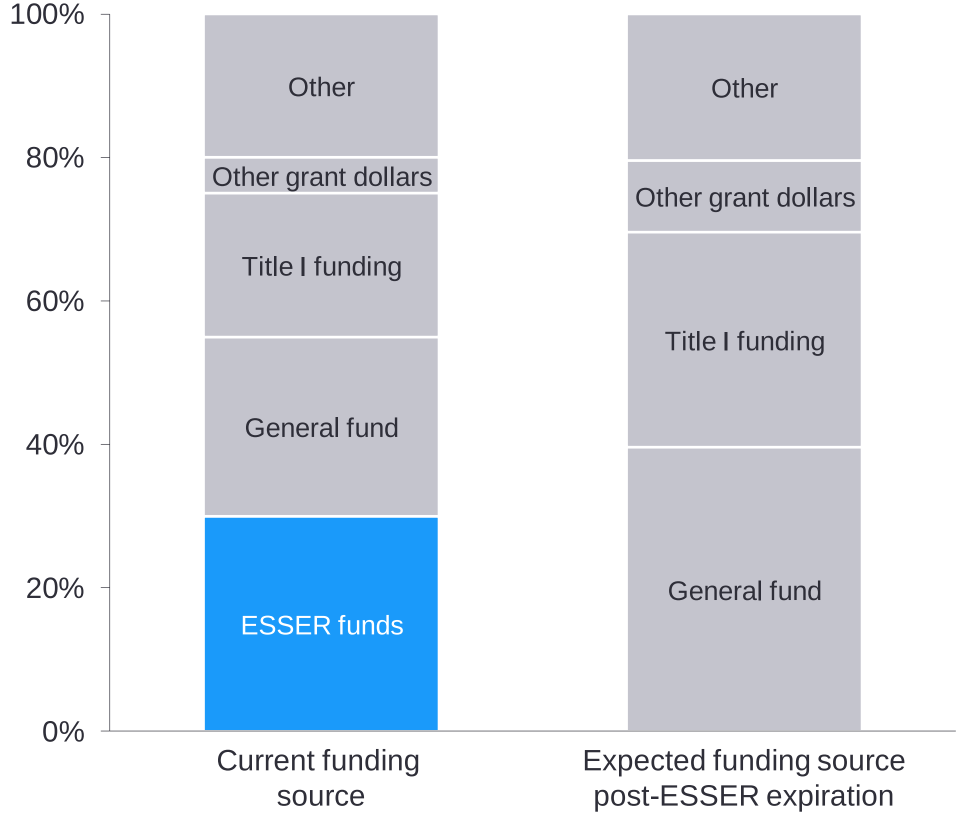
2019	Next 3 years	2026 and beyond
▸ Pre-COVID spend on K-12 software based on EYP analysis	▸ Districts will gradually unwind usage of ESSER funding for K-12 software through SY2025 ▸ Assumes ~85% of “low risk” ESSER spend (e.g., on SIS and ERP) and ~50% of “moderate risk” ESSER spend is replaced by recurring / stable funding ▸ Assumes non-ESSER funded software spend grows in line with historical pre-COVID trends	▸ Post 2026 after all ESSER funding is spent, the K-12 software market is expected to return to long-term growth rates (e.g., 5-6%) ▸ Growth will be driven by segments with lower adoption (e.g., digital safety, digital payments) and offset by stable segments (e.g., SIS, ERP)

Source: Burbio, Edunomics Lab, EY-Parthenon interviews and analysis

Districts that are using ESSER funding to purchase products / services expect to be able to leverage Title I & other funding post-2024

Current and future funding sources

Illustrative analysis based on decision-maker perspectives on tutoring, but is also applicable to instructional materials and software spend



Perspectives

Districts expect to replace some portion of ESSER funding with recurring / stable funding sources

> “We're probably going to be looking at a general fund substitute when ESSER ends. I am sure we could also turn to grant writing. We also have a section of our budget set aside that is sort of labeled intervention which we could repurpose from other things. We have lots of levers to pull but Title and grant funding would be big ones”
>
> Director of Academics, Mid-sized school district

Some districts will turn to federal Title funding and general funding to maintain spend on high-priority instructional materials / software solutions

- Title I funding is provided by the federal government for targeted or school-wide initiatives supporting low-income students in meeting learning standards, and is commonly spent on additional curriculum, technology, and / or after-school programs
- ~$16.5b in Title I funding was granted to school districts in 2021; Title funding has historically been stable and growing (1.8% CAGR from 2015-2020)

1. Includes discretionary school allocations, e-rate program and other grant dollars
Source: EY-Parthenon interviews and analysis

For market segments where districts will rationalize spending, solutions with high usage and unique value proposition will likely be retained

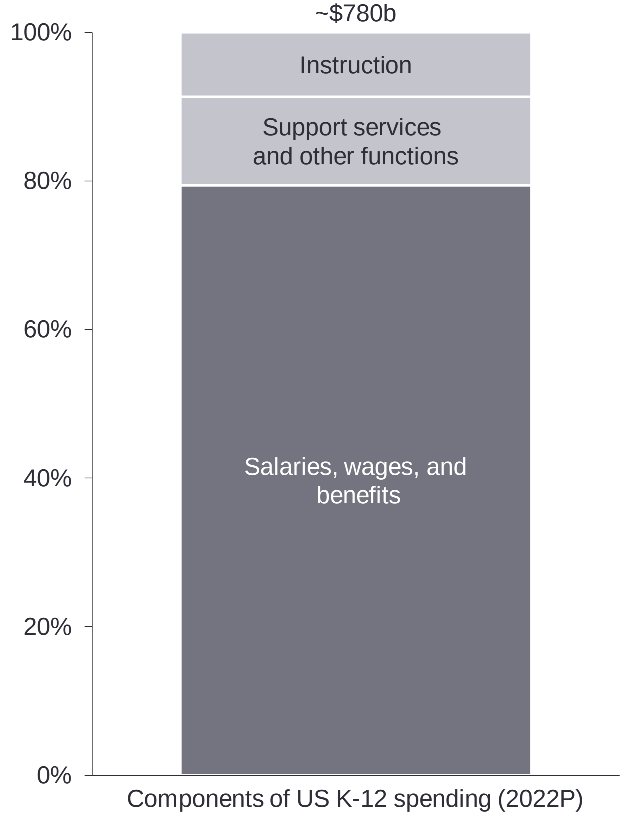
Criteria to evaluate instructional materials & software solutions

Criteria	Perspectives
1 Value proposition	▸ Solutions that have a unique value proposition with limited overlapping functionality with other adopted offerings will have a higher likelihood of being retained ▸ Products that are duplicative (i.e., multiple digital curriculum solutions for middle school math; multiple interactive quiz software) may be rationalized within districts facing budget constraints
2 Usage	▸ Districts will prioritize retaining instructional material and software solutions that demonstrate high levels of usage ▸ For lower-cost solutions (e.g., classroom engagement software), districts can justify continued adoption if ~20-30% of teachers are using on a consistent basis (i.e., at least once per week) ▸ For higher-cost offerings (e.g., assessment, curriculum solutions), higher teacher usage (e.g., 40-60%) is likely required
3 Cost	▸ Lower cost offerings (e.g., parent communications software, CMS, certain K-12 classroom software) are more likely to be retained, as districts perceive limited benefit to rationalization – i.e., cutting a lower cost solution does not move the needle in alleviating budget constraints
4 Alignment with district priorities	▸ District leaders are more likely to retain solutions that are aligned with strategic priorities (e.g., districts that prioritize learning loss recovery will continue to invest in supplemental materials; districts that focus on digital-forward instruction will continue to purchase classroom engagement software)
5 Suite vs. point solution	▸ Districts will prioritize vendor consolidation if functionality appears similar ▸ Discounts for bundling have been pushed by certain vendors in the software space which districts may expect from all competitors

Source: EY-Parthenon interviews and analysis

Salaries and benefits, which make up ~80% of K-12 spend, may see above average growth, leading to additional budget pressure

U.S. public K-12 education spending, *2022P*[1]



Perspectives

- **Historically, teacher salaries have grown at ~2% annually, in-line with overall K-12 spend**
- **Going forward, districts may feel pressure to increase wages at higher rates due to teacher staffing shortages; this could put additional pressure on school budgets**

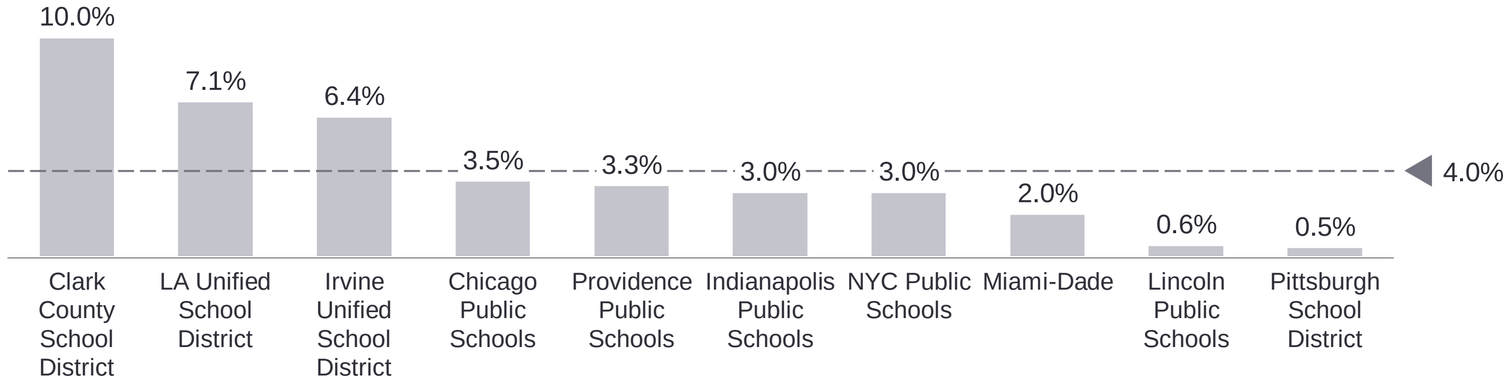

Teachers Are Quitting. Some States Want to Pay More to Keep Them.
Even with funding up, teacher pay hasn't increased in three decades; new bills would change that

Source: Wall Street Journal


Biden Calls for Teacher Pay Raises, Expanded Pre-K in State of the Union

Source: EdWeek

Y/Y change in teacher starting salaries for select large and mid-sized districts[2], *SY2022-2023 to SY2023-24*



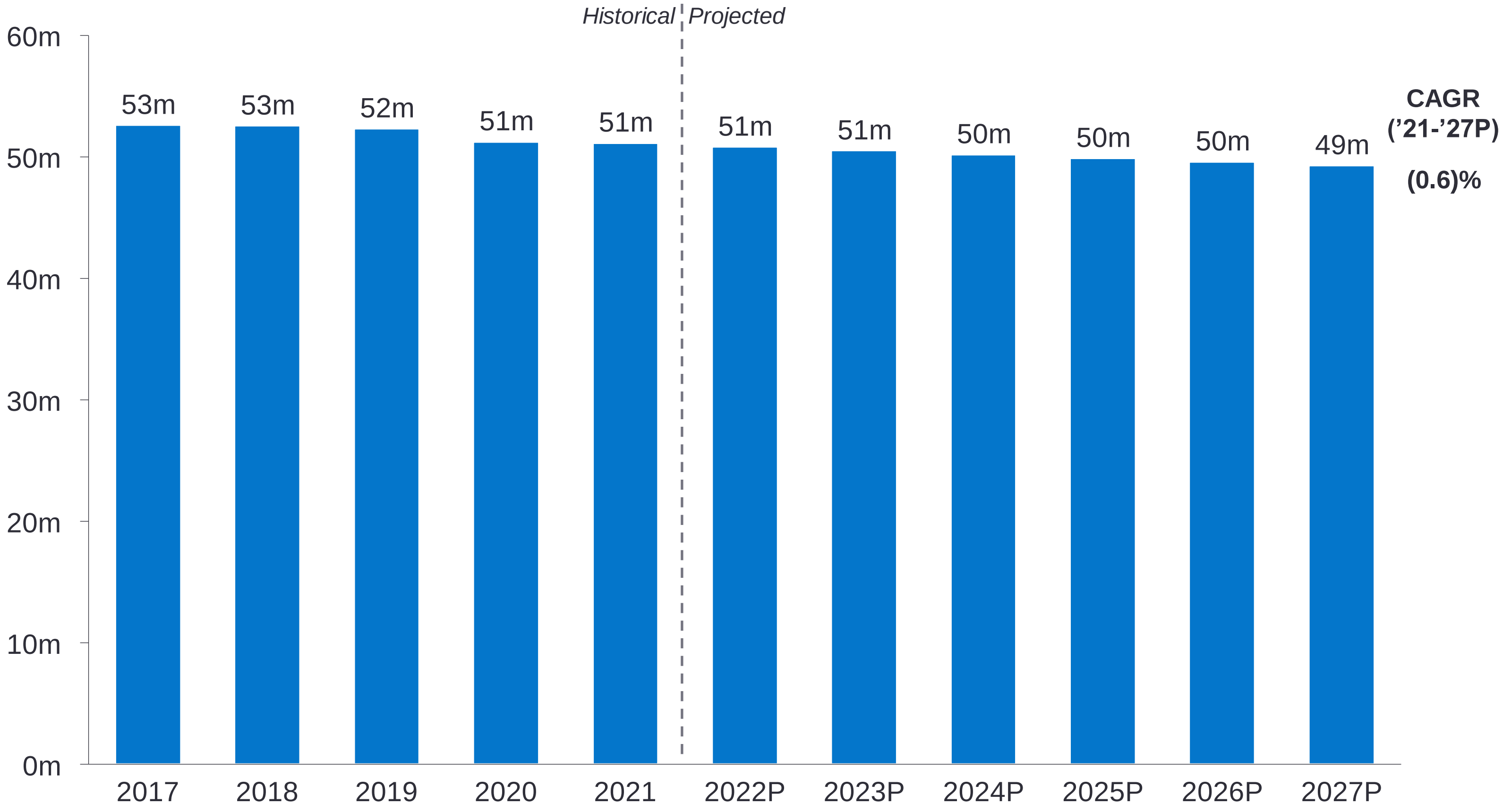
1. NCES, BMO, and Simba spend categorizations don't map perfectly; highlighted spend categories indicate areas where classroom / tech spend may sit, though the totality of spend in these areas is not on classroom; not materials and technology
2. Enrollments of sample set range from ~20k to ~900k students; compensation schedule structures vary from district-to-district – numbers reflect change in annual salary for new, licensed instructors with zero years of experience

Source: BMO; District websites; NEA; NCES; Simba; EdWeek; EY-Parthenon analysis

EY Parthenon

Several non-ESSER drivers are a source of tightening budgets; notably, K-12 enrollment is expected to decline through 2027

U.S. K-12 public enrollment
Fall 2017 – Fall 2027P[1]



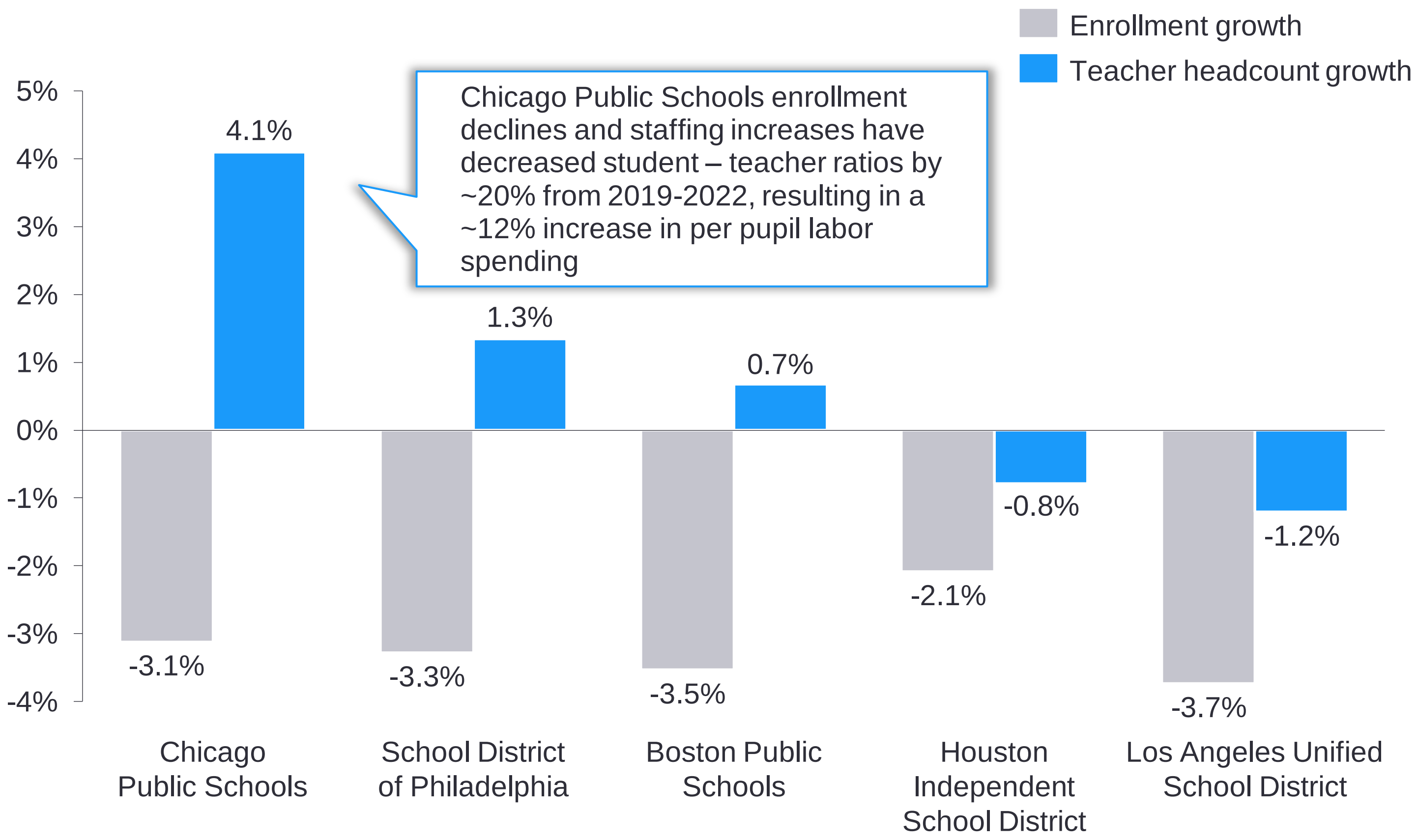
Perspectives

- Public K-12 enrollment is expected to decline at 0.5-1% YoY through 2027
  - The decline is driven by demographic trends as well as exits to alternatives (e.g., private, virtual, charter, and homeschool)
- Some districts have experience more acute declines than others; notably, some of the largest districts have experienced declines in the range of ~2-4%
  - For example, Chicago Public Schools is experiencing outmigrations of Black and Latino/a families, as well as declining birth-rates
  - Los Angeles Unified School District has seen a spike in the number of students exiting to homeschooling
- As a result, districts that are seeing enrollment declines may invest more heavily in edtech solutions that help attract and retain students, including:
  - Content management systems (CMS): software that manages district and school websites, serving as a marketing tool to recruit students and families
  - Parent communication solutions: software that enables easy communication between district staff, teachers, and families, contributing to greater family engagement and supporting retention

1. Most recent data released by NCES reflects SY21-22
Source: NCES; EY-Parthenon analysis

These higher-than-average enrollment declines have the potential to result in financially unsustainable labor costs for large districts

Annual enrollment and teacher headcount growth[1],
FY19 – FY22



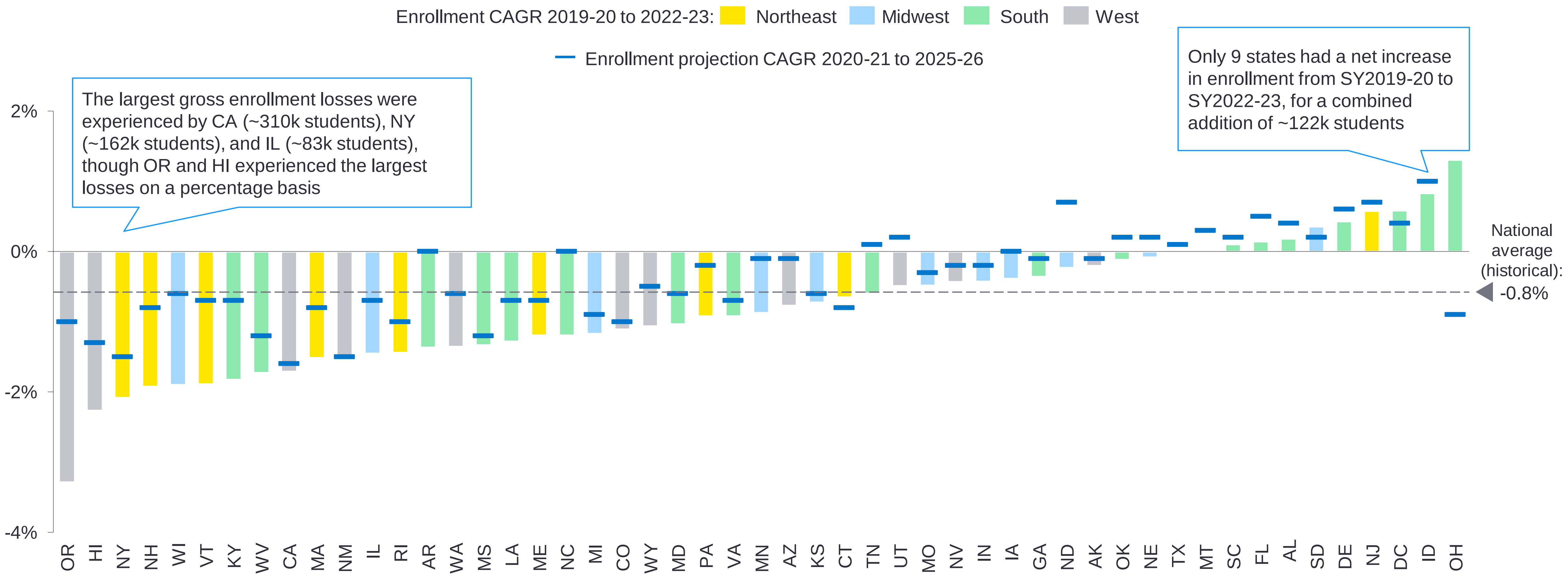
Perspectives

- Large districts experiencing higher than average enrollment decline relative to teacher headcount will result in reduced student - teacher ratios
- Although research suggests that lower student - teacher ratios create positive academic outcomes for students, the reduced ratio produces a financially unsustainable situation as labor costs per student increase

1. Growth rates shown are FY19-22 CAGRs for student enrollment and teacher headcount
Source: School district financial reports; ELSI

K-12 enrollment declines have not impacted states uniformly since COVID-19, with some states experiencing deeper declines than others

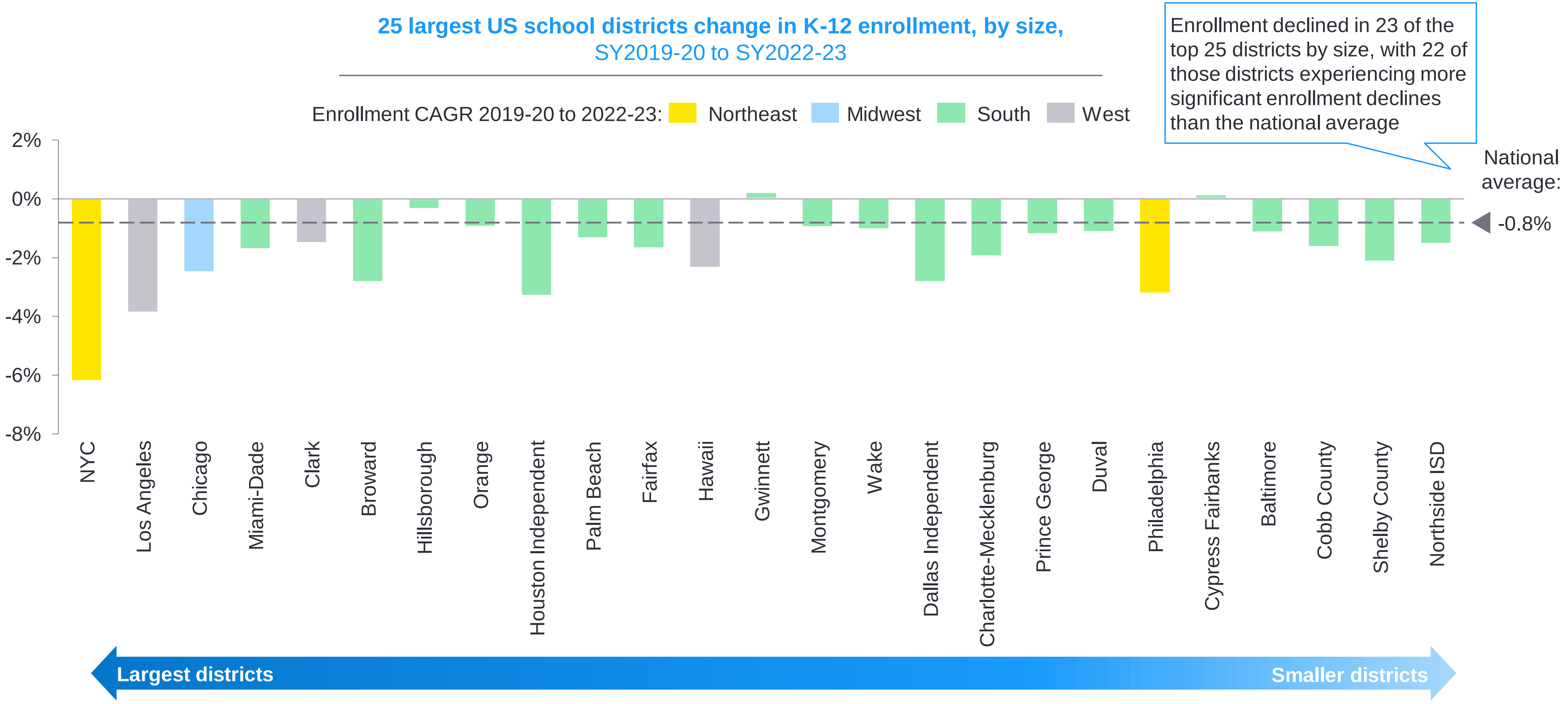
Change in K-12 enrollment by state,
SY2019-20 to SY2022-23[1]



1. Kentucky, Alabama, and Tennessee CAGRs are based on SY 2021-2022 enrollment as SY 2022-2023 enrollment data was not available
Source: Department of Education; NCES; State Boards of Education; Louisiana believes; Bridge Michigan; EdNC; Texas Education Agency

EY Parthenon

Larger districts experienced outsized impact of enrollment decline; 22 of the 25 largest contributed ~40% of the total national decline



Total enrollment SY22-23	NYC	Los Angeles	Chicago	Miami-Dade	Clark	Broward	Hillsborough	Orange	Houston Independent	Palm Beach	Fairfax	Hawaii	Gwinnett	Montgomery	Wake	Dallas Independent	Charlotte-Mecklenburg	Prince George	Duval	Philadelphia	Cypress Fairbanks	Baltimore	Cobb County	Shelby County	Northside ISD
	881k	429k	322k	330k	314k	247k	221k	203k	190k	187k	180k	169k	182k	161k	158k	141k	141k	131k	126k	118k	118k	111k	107k	106k	103k

Source: CPS; EdNC; Fairfax County Public Schools; Hawaii Public Schools; Houston ISD; LAUSD; Maryland Dept. of Education; Montgomery Schools; NCES; Nevada Dept. of Education; NYSED; PA Dept. of Education; PGCPS; Shelby County Schools; TEA

Declining enrollment is partially driven by exits to alternatives, which are enabled by growth in Education Savings Accounts (ESAs)

Education savings account overview & history

Education savings accounts (ESAs) give families access to per-pupil funds so they can use them to pay for items like private school tuition, homeschooling supplies, curriculum materials, educational therapy services, etc.

2011
Arizona became the first state to give families access to ESAs, originally limiting access to students with disabilities, low-income students, and students in failing schools

2019
*Nevada Supreme Court strikes down proposed ESA program due to the proposed funding method, while ruling that **use of taxpayer money for private education is constitutional**; meanwhile, courts in AZ and TN have ruled in favor of ESA*

2021
West Virginia becomes the first state to enact an ESA with universal or near universal access

2022-2023
Five states, including AZ, enact or expand access to universal or near-universal ESA programs, bringing the total number of universal programs to six

Number of students using ESAs and $ spent on ESAs by state, 2023

In the 2023 school year, ~325k students – the equivalent of .7% of 50m public school students – used an ESA

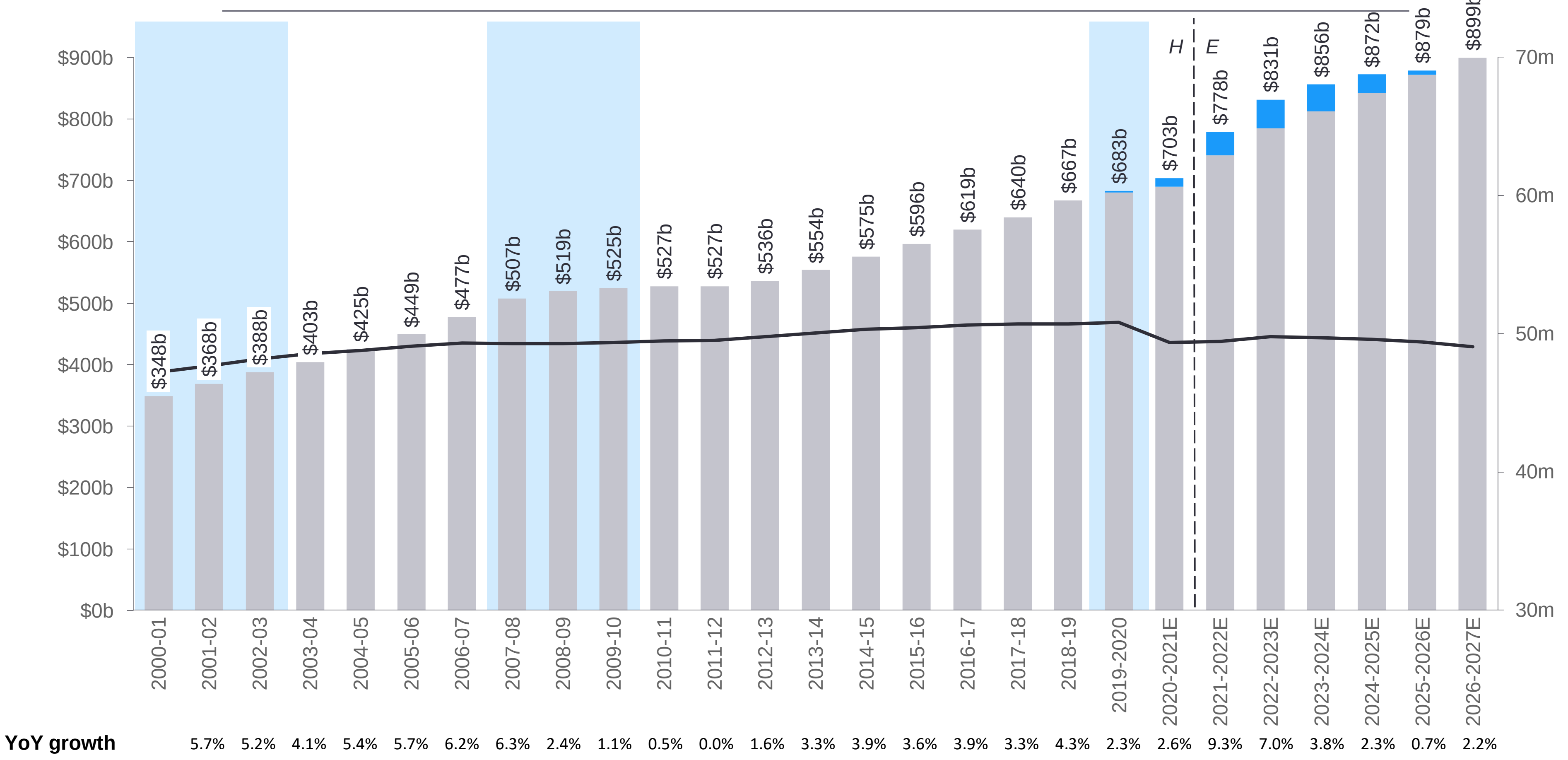
State	Total students in ESAs	Total $ spend on ESAs
Florida	~220K	~$1,900m
Arizona	~71k	~$496m
Iowa	~19k	~$140m
North Carolina	~6k	~$37m
Arkansas	~5k	~$32m
New Hampshire	~3k	~$25m
West Virginia	>500	~$25m
Mississippi	>500	~$3m
Tennessee	>500	~$3m
Indiana	>500	~$2m
Total	**~325k**	**~$2,700m**

Source: EdWeek.org; EdChoice.org; Las Vegas Review-Journal

Appendix

K-12 spending has consistently increased YoY for several decades; growth is expected to continue post-expiration of federal stimulus funds

K-12 education current spending[1,2],
SY2000-21 to SY2026-27E ($b)



K-12 current spend (excluding ESSER) ESSER Enrollment
Economic cycle contraction

CAGR (19-26E)	CAGR (22E-26E)
4.0%	2.0%

Perspectives

- Accelerated growth in spending from 2020-2025 driven by **~$190b in federal stimulus funding** allocated to K-12 schools
- There is ~$43b federal stimulus funding remaining to be spent; **spend down will occur gradually** over the next 2 school years due to latest federal guidelines on spend deadlines and extensions
- Meanwhile, **ongoing sources of funding at the local, state, and federal levels are expected to continue growing modestly**
- As a result, K-12 spending is expected to **grow beyond the expiration of ESSER in SY2025**

1. Excludes ~10-15% of ESSER funding that is assumed to go towards capital expenditures
2. Total spending figures listed here are for school years; spend is not adjusted for inflation

Source: NCES; BEA; EY-Parthenon macroeconomic forecast

EY Parthenon