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 Date: March 2020
 To: Lumos Investment Committee
 Subject: Investment Opportunity in Project Escuela

I. Executive Summary

The objective of this memo is to brief the Investment Committee of a potential investment in “Escuela” (project name), also referred to herein as the “Company.”

A. **The Company.** Escuela is a market-leading software-as-a-service (SaaS) business marketed to K-12 school districts in the US and serving English Language Learners (ELLs), the fastest growing segment of the US K-12 student population. The Company has two core offerings today: (1) Escuela Platform (“Platform”) which is a software platform used by school districts to manager their entire ELL program; (2) Escuela Strategies (“Strategies”) which is a set of digital resources and tools used by K-12 teachers to plan and differentiate instruction for ELLs in the classroom. In addition, for the fall of 2020, the Company is launching a third product line, Escuela Math (“Math”) which will be a curriculum product designed to help ELLs in grades six through nine to learn math. The Company was founded in 2011 by co-founders Jordan Meranus (CEO) and Teddy Rice (President) with a vision to bridge the achievement gap for ELL students in the classroom and enable them to achieve their highest aspirations. Escuela is headquartered in Boston, MA.

B. **Deal Opportunity.** Lumos has the opportunity to lead a \$14M Series B-1 growth round with a \$9-10M investment at a \$99M pre-money valuation, representing 3.8x 2020E bookings or 4.4x 2020E revenue¹.

Key Terms	
Lumos Investment Size	\$9-10M
Financing Round Size	\$14M
Pre-money Valuation	\$99M (3.8x 2020E Bookings)
Primary / Secondary	100% Primary
Pro Forma Ownership	~9%
Round / Security	B-1 Preferred Stock
Sourcing	Proprietary

¹ Per the Company’s budget/forecast as of February 2020.

Other Investors Participating (all incumbents)	Emerson Collective, Reach Capital, ReThink Education, Chan Zuckerberg Initiative, and The Omidyar Network
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The Company had initially planned on raising up to \$10M only from insiders in an extension to the Series B raised in late 2017. However, the Company’s long term relationship with Lumos, and ongoing discussions between management and Lumos (starting since Lumos’ founding in 2019) on the strategic value we could bring — particularly in terms of prospective M&A, international expansion, and our expertise in growth strategy (e.g., product, go-to-market, etc) in the sector — have created **the opportunity for Lumos to lead this round in a proprietary transaction with participation from existing insiders (all of whom have lengthy pre-existing relationships with Lumos), as the only new investor.**

Victor has known President and Co-Founder Teddy Rice for 16 years (since 2004 when they were classmates in the MBA program at The Wharton School of the University of Pennsylvania) and has tracked the Company’s progress since its founding. The full Investment Team has deep relationships with the Company’s current investors: **Emerson Collective, Reach Capital, ReThink Education, Chan Zuckerberg Initiative, and The Omidyar Network.** Company has been a priority opportunity in Lumos’ deal pipeline since mid-2019. Existing investors’ pro rata participation in this round will total as much as \$5M, with several investors seeking to do super-pro rata investments.

Company Financials (Historical + Management Forecast)

(\$ in M)	2017	2018	2019	2020E	2021E	2022E
Bookings	11	16	21	26	34	47
Revenue	9	13	18	23	30	40
YoY % growth	38%	41%	33%	28%	33%	35%
Gross Margin	37%	46%	60%	64%	68%	73%

- C. **Timing.** The Lumos Investment Team has completed multiple diligence and process calls and in-person meetings to date since Lumos’ founding in 2019 and prior, and particularly over the last two months (see *Section VII*). The Investment Team also had a full day in-person management meeting on site at the Company’s headquarters in Boston, MA on March 5 with the key management and both co-founders. Full confirmatory diligence processes — financial/tax, regulatory, technology, market/customer — have been completed by both the Investment Team and Lumos’ service providers (see *Section VIII*). We anticipate closing the investment before the end of March 2020.

II. The Company

A. Vision and Business.

Escuela was founded to meet the needs of educators and school districts in educating ELLs more effectively, while helping institutions fulfill the requirements of federal and state laws. ELLs are the fastest growing segment of the K-12 population — making up 5M of the over 50M students in US public K-12 schools — but remain one of the most poorly served, with massive achievement gaps relative to non-ELL populations and tremendous shortages in teacher capacity across the system. Historically, EL coordinators and teachers have faced overwhelming administrative burdens and significant capacity constraints in their work. Escuela was founded to address the growing needs of this market.

The pain points Escuela addresses include the following:

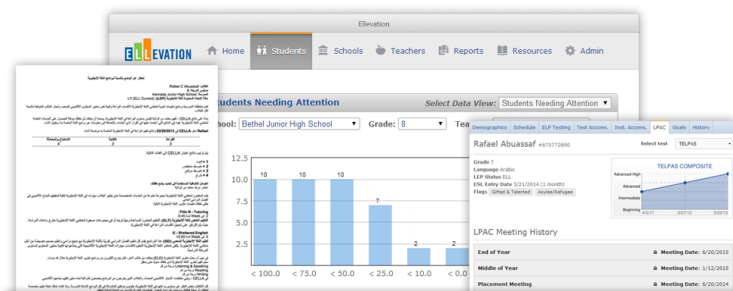
- a. *Administrators:* School districts are required by law (e.g. Every Student Succeeds Act (“ESSA”) of 2015) to manage and monitor their ELLs and report on their progress over time. This process requires EL coordinators to organize and synthesize vast amounts of data, which historically has been done manually at great time and expense. Administrators must also communicate with students’ families in their native language (over 400 languages are spoken at home by US families). See *Section III*.
- b. *Educators:* There is a significant teacher shortage for trained English as a Second Language (ESL) teachers, with 32 out of 50 states reporting not having sufficient teachers. Teachers have few resources to differentiate instruction for students who are at different levels of proficiency. In addition, teachers must find ways to effectively collaborate with their colleagues who are working with the same students, either as classroom teachers or as specialists in other areas (such as speech and language services). These challenges are complicated by the fact that many ELL teachers work with students in multiple schools and at multiple grade levels.
- c. *Students:* ELLs typically lack the academic language needed to learn other subjects such as math and science. This causes them to fall behind at much higher rates, exacerbating their school drop-out rate (only 63% of ELLs graduate from high school, compared with the overall national rate of 82%; in some states such as New York, the high school graduation rate for ELLs is only 37%).

Escuela’s starting value proposition to school districts and educators is as a turn-key software solution to help manage ELLs in a powerful, streamlined way that meets compliance requirements while enhancing educators’ ability to teach these students. The software consolidates all manual, time-consuming data reporting for a district’s ELLs into

one dashboard that teachers, specialists, administrators, and parents can access. The software also allows teachers, specialists, and administrators to collaborate on individual ELL instruction plans and goals, communicate with parents, and access district wide aggregate assessment data. Over time, Escuela has added to its product suite to expand its services to include resources for classroom teachers and curriculum products to serve ELL students directly. The Company’s different product modules are summarized below:

- (1) **Platform.** The flagship product of the Escuela product suite is called Platform. It was designed for Administrators, Specialists, and Educators working with ELLs. Platform allows districts to create EL programs that are data rich, and enables them to meet the monitoring and reporting requirements with much greater efficiency. Educators can input data on each EL student and review their students' English proficiency levels and accommodations, and they can monitor not only their current students, but also students who have been reclassified and have exited Limited English Proficiency (LEP) services. They can also group students by proficiency level or by performance in specific domains such as reading, based on a variety of English language proficiency assessments, including ACCESS, NYSESLAT, TELPAS, CELLA, CELDT, and ELPA. Because Escuela presents data not only at the student level, but also at the classroom, grade, school and district level, administrators can use rich information sets to track overall trends in student progress. Escuela saves administrators significant time by automating a wide range of reports, including automatically generating Title III letters in 28 different languages (so that schools can provide such letters to ELL families in their native language, as required). These applications are hosted on the cloud, making it particularly accessible for administrators who often serve ELLs in multiple schools.

Snapshot of the Platform Dashboard:

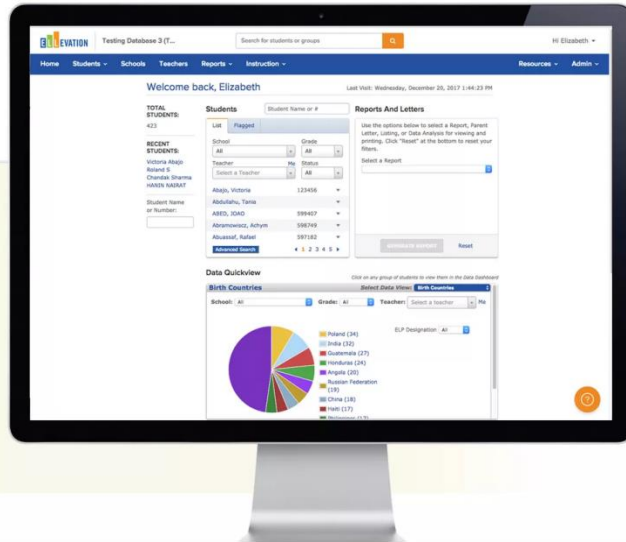


Use Cases:

For ELL Coordinators & Specialists

Program Management

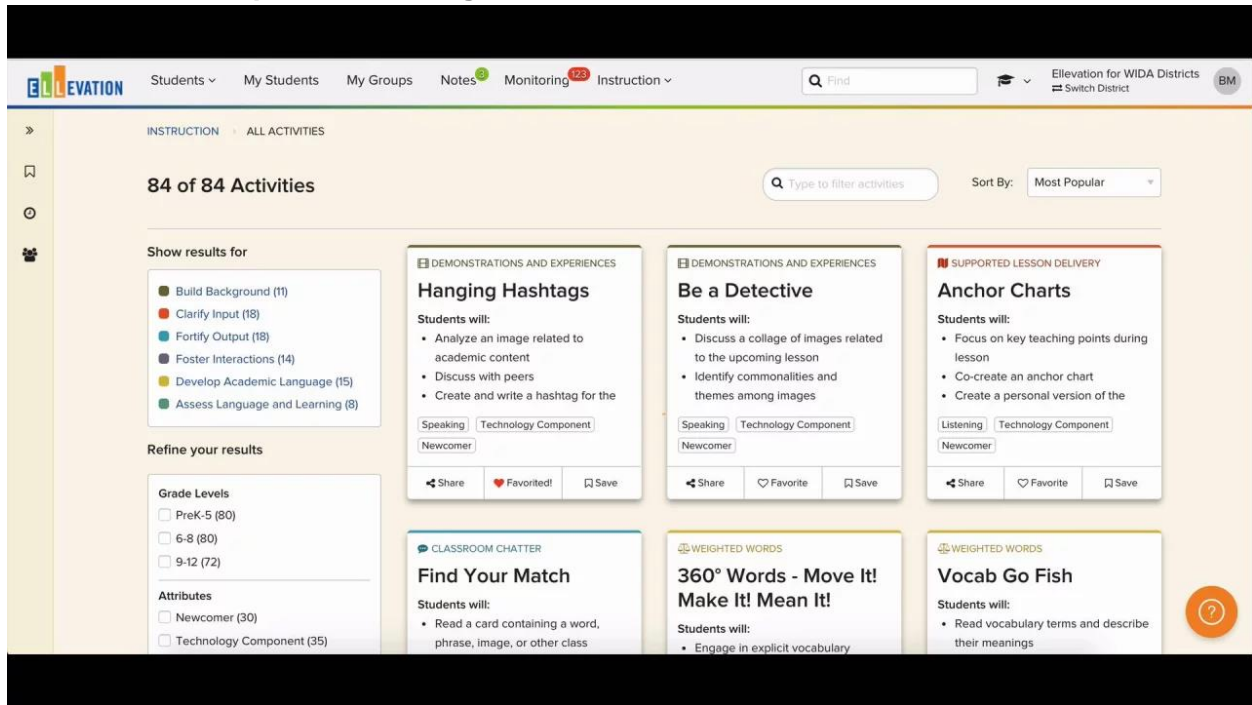
- Data Analysis
- Record Keeping
- Reporting
- Standards Aligned Instructional Planning



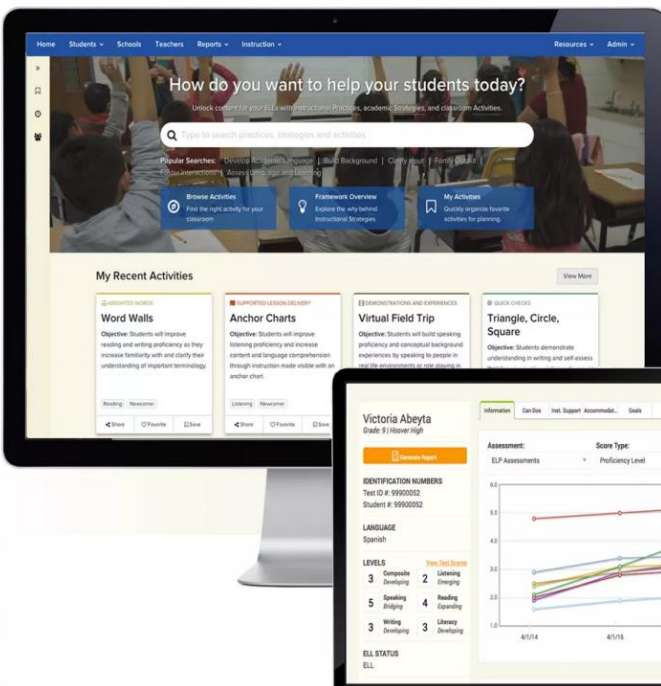
(2) **Strategies.** Escuela launched Strategies in 2016 to help teachers differentiate instruction for ELLs and design instructional plans to meet students' individual needs. Strategies serves two specific teacher needs: (i) Lesson Planning; and (ii) Professional Development. By serving these twin needs, Escuela can effectively *increase teacher capacity*, a major problem area in the EL segment given the massive EL teacher shortages described above. With Strategies, classroom teachers can choose from a digital toolkit of activities to incorporate language instruction into existing content lessons. Each activity is written by an expert English as a Second Language (ESL) teacher or coach, and integrates the latest research and best practices on effective instruction for ELLs, *all while remaining easily accessible even to those without formal ESL training*. Teachers can choose from over 700 pre-written goals that are aligned with English Language Development (ELD) standards. They can then assign those goals to individual students or to a group of students and easily monitor and report on students' progress. Teachers can also write their own goals and create their own goal banks. Amongst a group of 1,200 buyers and decision makers surveyed by Tyton Partners in a market study commissioned by Lumos, Strategies had solid awareness (32%) and usage (11%) among a fragmented, diverse landscape of ELL-specific professional development providers. As a newer offering, Strategies remains a large cross-sell opportunity.

In 2020, Escuela announced a new Strategies product offering that is specifically targeted for **dual language programs**, a fast-growing segment of the K-12 market (see Appendix B). Approximately 23% of preschoolers are dual language learners. Dual language programs are ones in which students are taught literacy and content in two languages. In the US, those two languages are typically English and Spanish, the languages covered by Escuela's new product offering. This product enables the Company to serve both ELLs and English only students who are enrolled in these programs, opening up additional market opportunities.

Snapshot of Strategies Dashboard:



Use Cases:



For Classroom Teachers

Collaboration Tools & Instructional Support

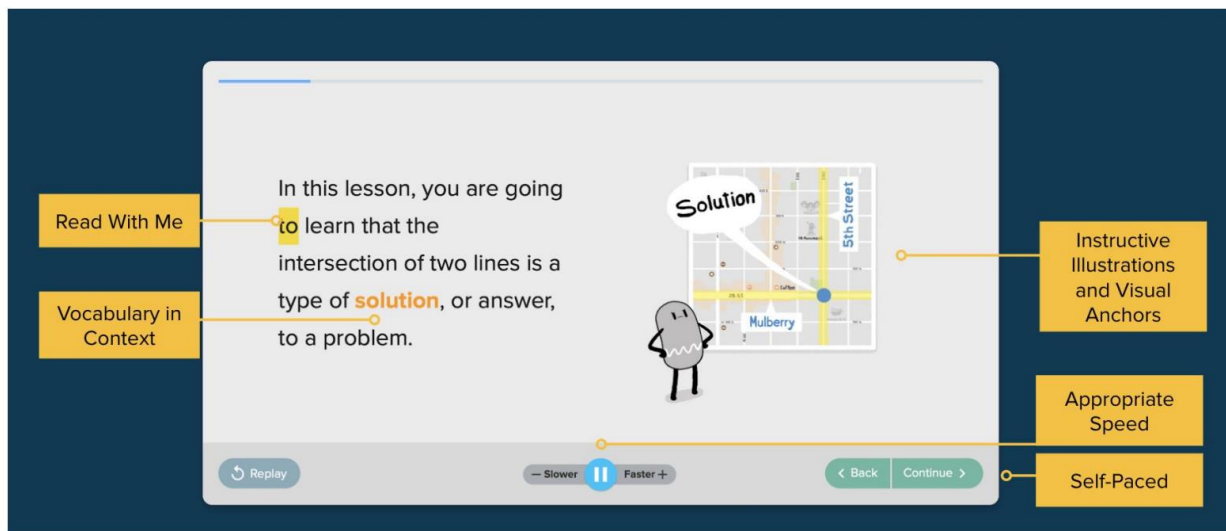
- Digital Student Monitoring
- Document Storage
- Effective Strategies
- Classroom Activities

(3) **Math.** Later this year the Company will launch its first direct-to-student product, Escuela Math, in an effort to create more impactful ELL intervention through cross-curriculum academic language interventions. In the Company's evolution to increasingly deliver direct solutions to support ELLs, they are focused on the well-

understood challenges presented by “academic language” (the language needed by students to perform classroom tasks, from understanding basic content vocabulary and directions to navigating advanced concepts). ELLs often struggle to progress in various subject areas as a result of a gap in academic language. Academic language is indirectly addressed by a number of curriculum products, but directly addressed by very few, especially at the middle school / secondary level. More than 75% of respondents in the Tyton market study view teaching academic language as an **extremely necessary** measure across all subjects, noting that its importance only rises as students get older. In 2019, the Company acquired a small Boston-based company called Positive Learning that serves as the foundation for its Math product. The Positive Learning system is an online, academic language program for helping ELLs learn the academic language and access the curriculum they need to succeed.

Escuela Math represents the Company’s first foray into the curriculum market, with a distinct, ELL-centric product that builds on its market reputation as the leader in the ELL sector.

Snapshot of the Escuela Math Product:



B. **Customers.** The Company’s Platform product has a strong presence in nearly all states with a major ELL population (45 out of 50 states). The Company sells primarily into school districts with district-wide contracts, and today has **850+ district customers, representing ~1.6M ELLs**. The Company’s second product, Strategies, launched in 2016, and is cross sold to ~ 25% of the Company’s Platform base and used in 200+ districts. The Company targets any district with 200+ ELLs, which encompasses ~3,000

districts and ~90% of ELLs. Today the Company serves ~27% of all ELLs in the US, and has significant room to grow to reach the rest of this population. The Company has a diversified customer base; for 2019, the top 20 customers constituted less than 35% of total ARR. Their top districts by ARR in 2019 were:

Name	ARR	% Total 2019 ARR
District 1	\$1,100,001	6.12%
District 2	\$766,380	4.26%
District 3	\$574,450	3.20%
District 4	\$432,000	2.40%
District 5	\$415,688	2.31%
District 6	\$345,000	1.92%
District 7	\$261,678	1.46%
District 8	\$215,779	1.20%
District 9	\$200,000	1.11%
District 10	\$156,000	0.87%
District 11	\$148,920	0.83%
District 12	\$147,488	0.82%
District 13	\$146,970	0.82%
District 14	\$140,000	0.78%
District 15	\$128,520	0.71%
District 16	\$120,872	0.67%
District 17	\$120,000	0.67%
District 18	\$104,158	0.58%
District 19	\$92,987	0.52%
District 20	\$78,460	0.44%

The Company has a strong ongoing NPS of ~55 from Administrators and Specialists who are their primary buyers (often called “EL administrator” or “EL specialist”); these individuals are in charge of allocating Title III funds and often responsible for multiple schools within a district; they also typically lead implementation for the product. This NPS score is significantly higher than all other providers across all K12 software vendors. For an average district, these admins have few, if any, management tools to collect data on ELLs efficiently or automate reporting and other compliance related documentation. The Tyton survey validated that Escuela’s customer satisfaction against critical features significantly greatly exceeds satisfaction among decision-makers for competitors’ offerings.

The Company started to measure NPS among school Principals for the first time in Q4 2019, reporting an NPS of 50 for this group. The team will also begin tracking NPS among teachers, particularly with the launch of the Escuela Math product.

Testimonials from Customers:

"Ellevation and the tools within provide us with an excellent meeting place to address instructional needs, student progress over time, interventions, instructional strategies and any view we would like to have on an individual student or groups of students. It informs our practice and allows us to be collaborative when making decisions which impact the outcomes for our English Learners."



Karen Broadnax
ESL/Multilingual Services Director
Little Rock School District

"Teachers that don't understand second language acquisition don't know how to meet the needs of English Learners. Ellevation's tools provide the resources and support that teachers need."



Vicky Saldala
Director of Bilingual/ESOL
Department Broward
County Schools

"I truly believe Ellevation has a critical focus on English Language Learner achievement while also ensuring ease of use for teachers and administrators. We will be providing licenses to all administrators with training and support on how to access dashboard data to better understand the instructional needs of their students."



Laura Grisso
Title III Administrator
Tulsa Public Schools, OK

"Ellevation's tools for classroom teachers are a game-changer. They allow our ESL specialists and general education teachers to work together as a team to support our English learners."



Karen Hill
ESL Specialist
Alabaster City Schools

C. Company History. The product that evolved into Platform today was initially conceived in 2006 by an ELL coordinator in North Carolina named Carrie Hill. The inspiration for creating the product grew out of the frustration that she experienced, including overwhelming administrative burdens and communication obstacles that diverted attention away from student instruction. Carrie and her father Hal, a software engineer, created a simple tool that would help save time managing student data and reporting. Meanwhile, Jordan Meranus and Teddy Rice, in their respective investing careers at NewSchools Venture Fund and Ironwood Capital, began thinking about the lack of

solutions for educators of ELL students and saw a clear need in this area. They envisioned a solution that would help educators and school districts address their unique challenges. Around that time they were introduced to Carrie by a mutual friend in the Boston area. Jordan and Teddy ultimately acquired the initial software tool Carrie built and she joined their team, which culminated in Escuela's founding in 2011. Jordan and Teddy have since rebuilt that initial tool from the ground up and expanded into new use cases for ELLs. Since then, Escuela has grown steadily over the last 9 years, building the preeminent brand in the ELL sector, and Carrie remains with the Company today.

D. Business Model. Escuela sells to school districts and individual schools with >200 ELL students. The Company typically enters into annual (or some multi-year) product license subscriptions with customers. Their contracts are priced either on a per ELL or per school basis, depending on the customer. Contracts are sold by product or in a bundle (Platform and Strategies) depending on the customer's needs. Per ELL costs for Platform and Strategies individually range from ~\$12-13 per student or ~\$3,000 per school site for Strategies. At a fully penetrated district, where both Platform and Strategies are deployed, the Company will price at ~\$25 per student. Preliminary pricing for Escuela Math is expected to be up to \$65 per student or \$8,000 per school site, reflecting the experience of Positive Learning, which successfully sold the product to several partners at that level. Some customers also pay Escuela for a one-time Services fee which is largely for implementation and training. There are instances where the Company will provide the services for free or at a discount, particularly for a strategic district or school. Similarly, the Company may offer discounted subscription pricing for large strategic districts. Our initial feedback from Tyton's market study is that ~20% of those surveyed who were interested in an academic language solution would be willing to pay \$65/ student. We will be discussing pricing strategies with the Company in more detail but currently believe a lower price point will aid in adoption and allow for penetration that will open avenues for additional subjects (analogous to the strategy employed by Stemsopes/Accelerate Learning).

E. Sales and Retention. The Company has an overall sales and marketing team of 34 people. The team is divided into 8 "prospectors" in marketing, 11 "hunters," and 11 "farmers," in addition to three senior managers and Teddy Rice leading the overall revenue function. The prospectors ("Partner Development Associates") set up initial conversations and demos through their marketing function to introduce the product. Screened prospects are passed on through the CRM to the hunters ("Partner Development Managers"), who are tasked with winning new logos and closing on a contract. Finally, farmers ("Account Executives") focus on renewals and expansions. The Company's pace of adding 150-200 new districts per year is among the best in the industry when benchmarked against others with similar business models in the sector. The roll-out of Strategies drove high net retention in 2017-2018, though both net and gross retention fell in '19 (mostly in smaller districts — to be addressed with a targeted customer success effort).

Despite operating in a market with traditionally long sales cycles and unpredictable

budgets, the Company has maintained strong productivity and unit economics that are better than comparable sized software company benchmarks; see *Section II (F)* below.

The Company’s net retention rate for 2019 was ~109% with ~91% logo retention rate (representing 4% of ARR). The majority of churned customers are small districts or schools. While each customer situation is distinct, there are a few common reasons why a customer typically does not renew: 1) they are a small district and lack capacity — this is not surprising as for smaller customers, finding time to fully implement and engage the product takes commitment to migrate over a large amount of data that was previously being tracked with independent spreadsheets; 2) change in leadership — there have been a number of instances where the key buyers at a district have left and the new administrator had not previously worked with Escuela. Downsellings have been primarily due to the flux in the number of ELLs in the district.

	2016	2017	2018	2019	2020E
Net Retention	119%	114%	113%	109%	109%
Gross Retention	71%	81%	88%	86%	89%

Key levers to reach the Company’s 2020E ARR targets include increasing gross retention from 86% to 89% and a projected \$1M coming from Escuela Math. In order to improve gross retention, the Company is consolidating the touchpoints for any given customer. In addition, the Company is focused on developing two core sales areas in 2020: 1) their capacity to sell to schools, in addition to districts and 2) their capacity to sell instructional products, specifically Math / academic language.

As the Company has added new products and served larger districts, total contract value has grown each year, per the chart below.



F. Unit Economics and Capital Efficiency. The Company has operated efficiently over the course of its lifetime. Gross margin has increased as revenue has grown more rapidly than

cost of revenue over the last two years. In the early years of operations, the higher proportion of services stemming from implementation resulted in lower gross margins. Over time, as the recurring base of customers grew and the proportion of software revenue increased relative to services revenue, gross margins have expanded rapidly. In 2018-19 revenue grew 34% YoY while COR + OpEx grew only 14% YoY. In addition, headcount has remained consistent over the past 12 months as ARR has grown 32%. The Company currently has an LTV/ CAC ratio of >3. Escuela is expected to become cash EBITDA positive by 2022 with levers to moderate spending in the interim.

\$M	2018	2019	2020E
Net ARR added	4.1	4.4	5.4
Customer logo retention rate	93%	91%	90%
Customer gross dollar retention rate	88%	86%	89%
Customer net dollar retention rate	113%	109%	109%
Est. gross margin	50%	60%	63%
S&M cost	5.4	6.0	7.4
Mgmt LTV / CAC	5.1	4.7	4.6
Lumos LTV / CAC	3.2	3.1	4.2

The Company's metrics are consistent with similar sized SaaS companies that do not face the same school/district sales cycles.

	Escuela		KBCM 2019 SaaS Survey	
	2019	2020	\$10-20M	\$20-50M
SaaS Benchmarking				
ARR / FTE (\$000's)	\$142	\$147	\$130	\$150
ARR growth	32%	20%	26%	44%
Gross churn	14%		13%	13%
Net retention	109%		103%	103%
Logo churn	9%		15%	15%
Total gross margin	60%	65%	73%	74%
S&M / Revenue	34%	33%	45%	39%
R&D / Revenue	39%	47%	29%	27%
G&A / Revenue	21%	20%	22%	18%
GAAP EBITDA Margin	(33)%	(35)%	(31)%	(15)%

Cash EBITDA Margin	(13)%	(16)%		
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Note: The Key Banc Capital Markets (KBCM) SaaS Survey includes responses from ~424 private SaaS companies from June-July of 2019.

G. **Growth.** Since 2017, the Company has experienced consistent 30-40% YoY topline growth (54% revenue CAGR since 2014) and emerged as the dominant player of scale with a national footprint in the ELL market while still gaining share every year. At current growth rates, the Platform product will reach 50%+ of the market in the next 5 years. The ELL market exhibits a **“winner take most” market dynamic** in the US. Escuela is uniquely poised for continued growth and long term market leadership, with a leading product, a strong market position with few competitors, and highly referenceable customers. In addition, the core demographic they serve is federally earmarked for funding and continues to grow. The value of this business is driven by (1) the Company’s ability to “own” this market nationally and grow from 27% market share to 50%+ of the ELL market as the leading provider of ELL SaaS solutions, and (2) upselling products to other stakeholders (teachers, students, parents) in the ELL ecosystem given their position as the central nervous system of the EL program. The cross-sell value proposition is significant given decision-maker and funding stream overlap for compliance and data management systems (Platform) and targeted professional development (Strategies).

In addition to further penetrating the market through Platform, cross-selling Strategies and growing the Math product, we believe there are three specific areas where Escuela can experience outsized growth:

International. The Company has no real presence outside the US today. A number of its products, including Strategies and Math, have high potential in overseas markets. Lumos can play an active role in assisting the Company in exploring new markets. International schools specifically may be an initial entry point given the bi-lingual populations and the heavy English-speaking curriculum. Premium price points may also be available in this category.

M&A. The Company has the potential to utilize its category leadership and distinctive installed base in the ELL market to consolidate companies in adjacent or related categories such as Language Assessment and Special Education. Revenue- and cost-synergy potential should be high due to cross-sell and duplicative spend for M&A targets.

Academic Language. With Math adoption, Escuela has the opportunity to expand quickly into other areas such as Science or Social Studies where academic language remains a pain point for ELLs.

The Tyton survey covered the key categories relevant to Escuela: 1) compliance data systems, 2) professional development, and 3) curricular and Instructional materials (see Appendix A for full respondent demographic breakdown). Customer analysis showed that

adoption of ELL-specific data systems and ELL-specific curriculum will grow at above average market rates through 2023 — 6% and 3% CAGR, respectively.

H. Management Team.

- a. *CEO.* The Company is led by CEO Jordan Meranus. Jordan is a seasoned education and government tech entrepreneur and business leader. Prior to founding Escuela, Jordan was a Partner at NewSchools Venture Fund, a firm that helps entrepreneurs develop innovative organizations that help address some of the most intractable challenges in public education. At NewSchools Jordan worked extensively with technology organizations, and helped incubate new education organizations on a number of occasions. Prior to NewSchools, Jordan was a Managing Director at Imagitas, where he launched an e-government business to help federal agencies provide better services to citizens. Jordan is also a co-founder of Jumpstart, a national nonprofit organization that provides intensive early literacy services to low-income children in Head Start in dozens of cities across the country. Jordan is a graduate of Duke University and received a master's degree in both Education and Public Administration from Harvard.
- b. *President.* President and Co-Founder Edward “Teddy” Rice leads the marketing, revenue and finance functions of the Company, and works alongside Jordan to guide strategy and overall direction. They are equal partners in the business. Prior to Escuela, Teddy spent 6 years as a Director at Ironwood Equity Fund, a venture capital firm focused on education, healthcare, and the environment. While there, Teddy led Ironwood’s investments in the education field, where he had the privilege of investing in companies like Cornerstone on Demand, Acelero Learning, and American Reading Company. His background in education was established first as an Associate at The Parthenon Group, a leading strategic advisory firm, and then at Houghton Mifflin Harcourt, where he helped manage supply chain operations and sales strategy. Teddy is a graduate of Dartmouth College and received his MBA from the Wharton School at the University of Pennsylvania.
- c. *Chief Financial Officer.* The Company’s CFO is Dennis Morgan, a software and technology executive with over 20 years of experience in finance and corporate/business development. He joined Escuela after leading SHYFT Analytics through a tripling of its revenue and sale to Medidata Solutions (NASDAQ: MDSO). He is a seasoned CFO, formerly of companies such as Acquia and Buddy Media, where he led the company through its sale to Salesforce.com for \$745M. Prior to his CFO roles, Dennis was VP of Corporate Finance at Yahoo! From 2002-2007. Dennis received his MBA from the University of Virginia Darden School of Business and BA from Dartmouth College.

III. Investment Thesis & Key Attractions

- A. **Category Leadership:** Escuela is the category leader in ELL data and compliance software in the US, serving more than 25% of ELLs in the country. The Company counts four of the eight largest school districts in the US within their top 20 customers. Escuela was an early pioneer in creating the software-driven approach to managing ELLs, and does not face meaningful direct competition from other software providers in its core offerings, Platform and Strategies. The Company has designed a strong product built around the needs of its users (ELL specialists / teachers, administrators, principals) and records NPS scores above 50 from these stakeholders. Given that the K-12 education software is a market where buyers are heavily reliant on references from other schools or districts, Escuela has been able to build on its strong customer support over time to solidify its category leadership.
- B. **Strong Macro Growth Tailwinds:** The need for better tools and curriculum to serve the needs of ELLs is projected to grow consistently in the coming decade, driven by strong underlying market trends. Migration and birth trends have led to a new “minority majority” trend in student demographics. According to the US Census, there are now more “minority” children under the age of 5 than Caucasian children. ELLs are the fastest-growing segment of the student population group in K-12, and now constitutes over 10% of all public school students and over 16% of kindergarten students. Since 1960, the number of immigrants living in the US has grown from 9.7 million or 5.4% of the US population to 44.4 million or 13.6% of the US population in 2017. Pew Research Center expects this number to grow to 78.2 million by 2065. Over 50% of US immigrants above the age of five are not proficient in English, hampering their ability to learn and overall academic outcomes. Today there are over 400 languages spoken as a first language at home by ELLs in US public schools.
- C. **Addresses Systemic Equity Issues and Creates Better Outcomes for ELLs:** ELL students are not being served adequately today, and educating ELLs — both in English and all other subjects — is one of the biggest challenges in U.S. public education today. For example, the achievement gap with non-ELL students is roughly 40 percentage points in both 4th grade reading and 8th grade math. Only 63% of ELLs graduate from high school, compared with the overall national rate of 82%. Systemic barriers driven by policy and teacher shortages have created a poor learning environment for ELL students. For example, California, where 38% of students enter the public school system as English learners, passed a measure in 1998 that championed English-only education, ending many research-backed, ELL-focused intervention programs that supported ELLs. While such measures were overturned in 2016, school systems across the state say they do not have enough qualified bilingual educators to serve their students. California is just one example - thirty other states and the district of Columbia report shortages of teachers in the areas of bilingual instruction and ESL. Additionally, some of the fastest-growing numbers of school-aged ELs are occurring in states and schools

districts with little prior experience serving EL students such as Mississippi, South Carolina, and Kentucky. Escuela was founded with a commitment to serving underserved children; the Company addresses the equity gap by allowing school systems to more effectively manage and instruct ELLs in the classroom, leveling the playing field for these students and allowing them to reach their potential. We believe the Company has room to grow to close the achievement gap for students as it mostly serves administrators and teachers today. Given its reach with administrators and teachers of ELL students, the Company has tremendous potential to deliver high quality solutions for students through the ecosystem of stakeholders involved as well as its ability to create research backed interventions that help students achieve literacy, faster.

- D. Regulatory & Compliance-Driven Market Demand:** The market need for Escuela's products is driven by compliance requirements and therefore less subject to discretionary budget shortfall risks. Federal regulation ESSA, signed into law in 2015, required for the first time that schools be held accountable for their ELL students' progress in achieving English language proficiency, as well as their performance in academic content areas. Escuela's products allow schools and administrators to comply with the requirements of this law and other regulations surrounding ELLs. The Company has an incredible moat with its ability to take the number of complicated regulatory / compliance-driven ELL requirements for tracking and supporting ELLs under ESSA that state governments and school districts must follow and turn it into easy to use software that interprets various pieces of data and generates the compliance reports necessary. Our regulatory work with Whiteboard Advisors has confirmed a favorable regulatory and funding environment at state and federal levels based on their access to legislators on both sides of the aisle.
- E. Multiple Growth Levers:** The Company's success to date has put it in position to pursue multiple growth channels. (1) Product expansion: With a little over 25% market share with its core product, Escuela has room to grow its core offering in the US. Escuela has leveraged its customer relationships and reputation via the Platform product to market a teacher module (Strategies) to help ESL teachers differentiate instruction, and is now launching an Academic Language product (Math) that will be student-facing. This product can expand across subjects and grades. Other product expansion areas include the assessment and consumer markets; (2) M&A: Escuela is well-positioned to be a platform for consolidation in the ELL/ESL category, especially in its curriculum products; (3) Global expansion: Today Escuela almost exclusively serves the US domestic market, but its products are well suited for a variety of international markets (e.g. Canada, UK, Australia). In addition, its Academic Language product can serve the growing Bilingual curriculum schools in Latam or Asia, which is a large and growing segment of schools.

- F. **Strong Management with Track Record of Execution:** Lumos has a longstanding relationship with a co-founder of the Company and is confident in management's leadership, impact orientation, and overall execution capabilities. Informal reference checks with existing investors, service providers and others in the ecosystem have consistently validated these attributes. In terms of execution, management has shown consistency in hitting their budgets, meeting 99% of plan in 2018 and over 100% of plan in 2019; the Company also maintains a 4.9 stars out of 5 rating on Glassdoor based on their own employees' reviews. Lumos has trusted relationships across the major education investors who have been backers of Escuela over the years (e.g. Emerson, Rethink, CZI, Omidyar, Reach, etc).

IV. Concerns & Mitigants

- A. **TAM:** While ELLs represent the fastest growing segment of the US K-12 student population, it remains an underserved niche sector, with approximately 5 million students (out of 50.7 million public K-12 students). Conservatively, the Company's two core products (Platform and Strategies) represent at least a ~\$125M market (5 million x ~\$25 per ELL) in the US alone (Tyton estimates serviceable and total addressable markets between ~\$650M and \$1.5B), with embedded market growth due to product need. Without expanding overseas, the Company will also have to capture digital curriculum market share for ELLs (its third product module) in order to materially expand its TAM (e.g. curriculum products market at ~\$65/student is at least a \$325 million market alone; Tyton estimates TAM across Escuela's offerings at ~\$1.5 billion). To note, the pool of funds dedicated for spending specifically on ELLs, Title III funding, is \$800 million and districts can also tap into other ancillary budgets (e.g. Title I, school-level budgets, or curriculum budgets) to increase their spend on ELLs. Aside from the above, Escuela sees opportunity from expanding to international markets beyond the US and introducing products to monetize parents who are increasingly involved in their ELL child's progress.
- B. **Churn / Margins:** While the Company's net revenue retention of 109% and logo churn of 9% are better than the benchmarks for SaaS companies in their size range (103% and 15% per KBCM 2019 SaaS Survey), gross churn of 14.2% is nonetheless higher and increased from 12% in 2018 (though improved relative to 2017). Gross margins in 2019 at 60% were also lower than typical mature SaaS companies, though gross margins are expected to improve to 65% in 2020 (in line with benchmarks) with a path towards >70%, and have grown consistently over the last four years by >500 bps a year. The gross margin is affected by the services-heavy approach to implementation (data and integration that can take 2-3 months for full onboarding). Stable retention and future growth substantiate overall improvement as the revenue mix shifts to software which has >80% GM and improvements in the data architecture reduce manual services. In 2019, the Company's LTV:CAC was >3x. Management anticipates improvement in churn given customer success initiatives to more frequently engage with smaller districts (which was previously infrequent) and consolidate the number of touchpoints for

larger districts who had cited having various contacts as a frustration. Retention by product and customer type will be closely monitored during our hold period to ensure progress is made accordingly.

- C. **Cross-sell / Customer Penetration of Strategies and Math Products:** Escuela added Strategies to their product offering in the 2016 school year and since then, penetration of the product has grown steadily to ~30% of ARR today. Successful adoption of teacher-centric products such as Strategies and potential future subject-oriented products such as Math will depend largely on usage by teachers which has yet to be closely monitored (ie targeted NPS surveys, etc). The Company's 2020 budget shows they are increasing sales capacity for growth and anticipates a 50% increase in quota-carrying reps in hopes of better capitalizing on the cross-sell opportunity. Per the Tyton market study, the most important reason respondents surveyed adopt ELL-specific instructional materials is to support academic language attainment. Of the respondents who do not have a solution to support academic language today, >80% would consider purchasing one and highlight price/ cost to be the most important issue in their purchase consideration. A key upside driver is that there is a sizable market opportunity for student-facing curricular resources beyond Escuela's initial math offering.
- D. **Early Exit:** The co-founders first incubated the business in 2011 and began marketing in earnest to schools and districts a few years later; they have thus been building Escuela for over 8 years. As such and given an acquirer-rich environment (PE and PE-backed strategics), there is a risk of an early exit that would generate MOIC returns lower than our base case. After discussions with management and the core investors/board members, we believe we have alignment in the time required to build the business to a successful exit to achieve our base case returns. Lumos has also secured a board seat (+observer). As alternatives to an early exit, there also are conversations on some small secondary offering(s) over time after the closing of this transaction in order to provide some small partial liquidity while keeping incentives aligned to the ultimate exit.
- E. **COVID19 Impact to Macro Environment.** The coronavirus pandemic has emerged as the "black swan" event of 2020. The economic impact has been unprecedented and unexpected. Public markets globally have seen a sharp decline despite central bank efforts around the globe to ease the effects of this global health crisis. For the US K-12 and higher education sector, federal public health recommendations encouraging social distancing as a mechanism to limit the spread of the virus have resulted in mass school closures and moves to distance learning. The abrupt disruption in public education has created a 12 month window in which the impact on district purchasing decisions is not yet fully known. With most K-12 schools implementing distance learning for the first time ever, many are scrambling to make infrastructure and content work within the compliance demands of operating a classroom in person. Since large scale school closures across major school districts in the US, the Company's management

team has been actively scenario planning for various financial situations in the coming 12 months and we believe will appropriately manage cash and spend in a disciplined fashion. The primary proceeds of this round were intended to bridge to cash profitability in 2022 and even with any delays in sales momentum the Company will still work towards that goal.

One additional mitigant is that 70%+ of the Company's bookings occur in 2H of the year, as K-12 education buying cycles skew heavily towards July/August ahead of the school year starting. Additionally, federal funding allocations for Title III are dependent on classifications and "counts" of student demographics (aka Average Daily Attendance) that typically occur in Q4 of the year. This gives the Company runway for the macro environment to settle down before they enter the selling / buying cycle. In the interim, management has discussed with the Lumos team their levers to control and limit expenses during this time frame and focus on managing cash flow (i.e. staggered hiring with realized growth). Lastly, given the recency of the Tyton market study and additional stakeholder conversations, we are not expecting any decline in the need for Escuela's products (most have indicated their ELL needs are as important now and need to be addressed). The K-12 market even through the Great Recession grew overall even when state budgets were pressured. Federal stimulus, then and now, allowed public schools to manage through such periods.

V. Market & Competition

A. **Regulatory.** The market for specific ELL support by K-12 schools is underpinned by legislation and well-established case law requiring school districts to make particular accommodations for ELLs as a matter of civil rights. Over the past decade, federal laws have ensured dedicated funding streams for ELLs, in addition to state and local budgets that are the primary sources of K-12 school funding.

a. ***The Every Student Succeeds Act (ESSA)***. While ESSA was signed into law in 2015, it was a reauthorization of the Elementary and Secondary Education Act of 1965 (ESEA) that focused federal attention on equal access to quality education. Under this act, state education agencies (SEAs) are required to develop and submit state education plans to the U.S. Department of Education (ED) in order to receive federal funds. These state plans provide the federal government and the public a blueprint for how states intend to serve students attending schools that receive Title I and III funding. ESSA strengthened accountability for English Learners (ELs) by incorporating their progress in achieving English language proficiency (ELP) and their academic achievement into the minimum parameters that states must apply to school accountability systems. ESSA requires that EL accountability be woven into the state education plans, which in turn must be submitted to and approved by the U.S. Department

of Education (ED) to receive federal education funds.

- i. The Elementary and Secondary Education Act (ESEA) defines an “English learner” in ESEA Section 8101(20). An EL is an individual who is aged 3 through 21; enrolled or preparing to enroll in an elementary school or secondary school; was not born in the United States or whose native language is a language other than English; who is a Native American or Alaska Native, or a native resident of the outlying areas; and who comes from an environment where a language other than English has had a significant impact on the individual's level of English language proficiency; or who is migratory, whose native language is a language other than English, and who comes from an environment where a language other than English is dominant; and whose difficulties in speaking, reading, writing, or understanding the English language may be sufficient to deny the individual the ability to meet the challenging State academic standards; the ability to successfully achieve in classrooms where the language of instruction is English; or the opportunity to participate fully in society.²

- b. ***Title I and Title III - federal funding programs under ESSA that specifically allocate federal funding to low-income and English Language Learner student populations respectively.*** Since the passage of No Child Left Behind (NCLB) in 2001, states have been required to include ELP for ELs in accountability systems. Under NCLB, ELs were monitored for ELP progress and proficiency through Annual Measurable Achievement Objectives (AMAOs), and their academic performance was monitored through the “Adequate Yearly Progress” (AYP). However, because these provisions were housed under Title III, the section of the law dedicated to Language Instruction for English Learners and Immigrant Students, they did not apply to all schools and districts, and the federal government had limited enforcement authority. ESSA moved these provisions to Title I, the section of the law directly linked to the funding states receive from the federal government. In shifting these provisions to Title I, ESSA replaced AMAO one (ELP progress) and two (ELP achievement) with a single, state-defined ELP indicator. ESSA also addressed many aspects of policies related to English language acquisition, including the following:

² See Non-Regulatory Guidance: English Learners and Title III of the Elementary and Secondary Education Act (ESEA), as amended by the Every Student Succeeds Act (ESSA) (U.S. Department of Education: September 23, 20-16). [LINK](#).

- ▶ States must establish and implement standardized statewide entrance and exit procedures for ELs, including an assurance to the federal government that all students who may be ELs are assessed within 30 days of being enrolled in a school.¹²
- ▶ States must adopt an annual assessment of ELP that will be taken by all ELs in schools served by the SEA.¹³
- ▶ States must include an indicator in their statewide accountability system that will measure ELs' annual progress in achieving ELP using the statewide annual ELP assessment.¹⁴
- ▶ States must define what it means to reach proficiency in English, as measured by the statewide annual ELP assessment and within a state-determined timeline.¹⁵
- ▶ States must establish ambitious LTGs and measurements of interim progress for increasing the percentage of ELs making progress in achieving ELP.¹⁶

BOX 3
What Is a Timeline to Proficiency?

A state-determined timeline to proficiency refers to the maximum number of years by which an EL is expected to reach proficiency. Previous research has indicated that it should take an EL four to seven years to reach academic English proficiency.

Source: Kenji Hakuta, Yuko Goto Butler, and Daria Witt, *How Long Does It Take English Learners to Attain Proficiency?* (Stanford, CA: University of California Linguistic Minority Research Institute, 2000).

The compliance requirements related to ELLs has increased significantly since ESEA with an increased focus on identification, intervention, assessment, monitoring and reporting of ELLs.

- c. **Dedicated Funding.** Federal funding allocated for Title III is ~\$800M and an additional ~\$200M annually from Title I is aligned to the Company's solutions. On the local district level, dedicated funding varies depending on the state policies. California for instance abides by the Local Control Funding Formula (LCFF) to calculate additional local revenues dedicated to ELLs.

- Title III is an \$800MM program that can *only* be spent on ELs; another ~\$200MM from Title I supplements = \$1B annual federal funding is aligned to solutions from Ellevation.
- State and local revenue sources are an even larger funding source for districts, and increasingly an option for Districts looking to purchase our instructional products.



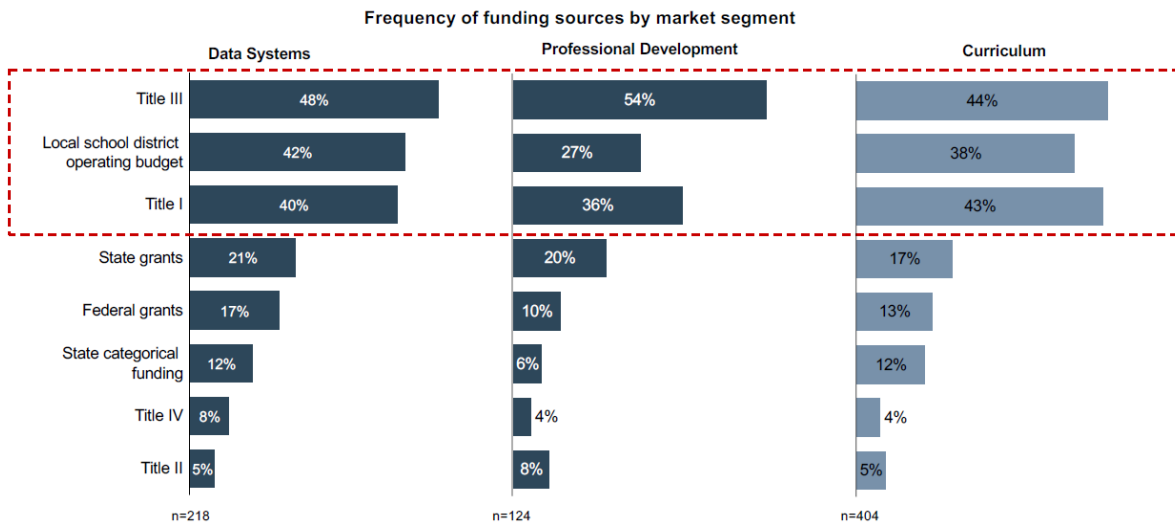
Ellevation can and will increase its share of a dependable federal budget stream, while broadening the number of funding sources with a growing product suite.

Lumos commissioned Whiteboard Advisors to conduct analysis on the federal funding trends and policies that would affect the market for EL products and services. Title III is the source of the majority of dedicated funding however with Title I and IV also impacting ELLs.

ESSA Title	Funding Trend	Outlook
<p>Title I, Part A. This formula grant provides supplemental funds that serve high concentrations of students in poverty. Title I should be used to improve a student's academic achievement as well as overall student success. This means that the funds support a wide range of factors that contribute to a successful educational program. Schools use the funds through one of two models: (1) a targeted assistance (TA) model or a (2) schoolwide (SW) model. Schools that operate a "schoolwide" Title I funding model may consolidate federal, state, and local funds, as described in the required Schoolwide Plan.</p>	<p>Marginal increases. An increase from \$15.8B in FY 2019 to \$16.3B in FY20. The funding goes out by formula, so the allocation to LEAs will vary.⁴ No expectation of significant changes for FY21.</p>	<p>Factors supporting stability include 1) S.Ct. decision not to include citizenship on the Census which could have reduced allocated funding based on census data; 2) increasing emphasis on number of schools using Title I in the Schoolwide model; and; 3) bipartisan support for the account.</p>
<p>Title III, Part A. Districts that receive subgrants must provide effective language instruction programs to improve the education of ELs and immigrant youth by helping them to learn English and meet the same challenging college- and career-ready academic standards as other students. Districts use the funds to (1) carry out professional development to improve English Learner language instruction, (2) provide a language instruction educational program (LIEP), and (3) to facilitate parent, family and community engagement (FACE) activities. The third requirement, FACE engagement, is new under ESSA.</p>	<p>Marginal increases. A small increase from \$737M in FY19 to \$787M in FY20. No expectation of significant changes for FY21.</p>	<p>Factors supporting stability include 1) The supplemental account is small by design, to ensure state investment in equitable educational opportunity. 2) School level accountability for ELs shifted to Title I from Title III in ESSA, bringing more attention to the adequate LIEP.</p>
<p>Title IV, Part A. A new grant to support three broad types of activities: (1) well rounded (WR); (2) ensuring a safe and healthy learning environment (SH); and (3) the effective use of technology (ET) by students and staff. Up to 25% of the ET amount may be for purchasing technology infrastructure. Districts receiving more than \$30K in a year must conduct a needs analysis describing how they will use not less than 20 percent for WR programs, not less than 20 percent for SH and up to 60 percent for the ET. Districts that receive less than \$30,000 may choose to invest in just one of the three categories.</p>	<p>Marginal increases. A small increase from \$1.17B in FY2019 to \$1.2B in 2020. No expectation of significant changes for FY21.</p>	<p>Factors supporting stability include 1) IVA used to support school safety in a post-Parkland (FL) ; 2) According to the 2019 National Survey of IV-A, school use the funds to support high needs students, including ELs; 3) Account advocacy is becoming stronger with the help of AASA and Title IVA coalition.</p>

MARKET FUNDING

Title III is the most frequently used funding source in all three market segments, followed by Title I and local school district operating budgets

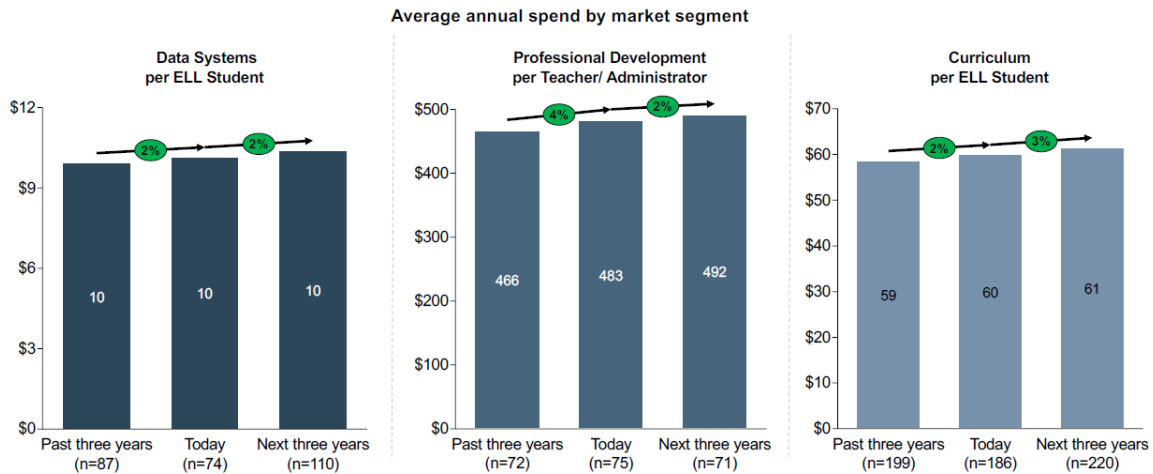


Sources: Tyton Partners K-12 English Language Learning Survey 2020, Tyton Partners analysis

- d. **Historical Spend.** While dedicated funding exists for schools and districts, it is up to them to spend their allocations. Historically there has been slow and steady increases in ELL-specific spend at both the per student and per teacher/administrator levels within schools and districts across Escuela’s key product categories.

MARKET GROWTH

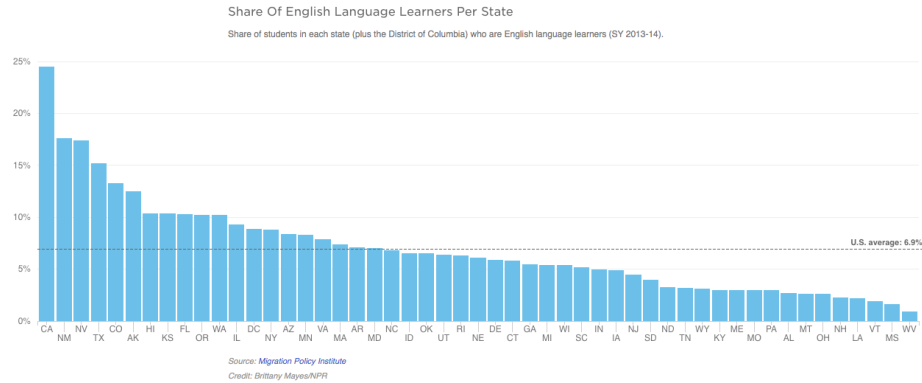
Slow and steady anticipated spending increases (2-3%) across each of Escuela’s addressable segments will also aid overall market growth



Note: Growth rates calculated based on estimates provided by survey respondents (“How do you anticipate the average annual spend will change in the next three years?”; “How has average annual spend changed in the past three years?”)
Sources: Tyton Partners K-12 English Language Learning Survey 2020, Tyton Partners analysis

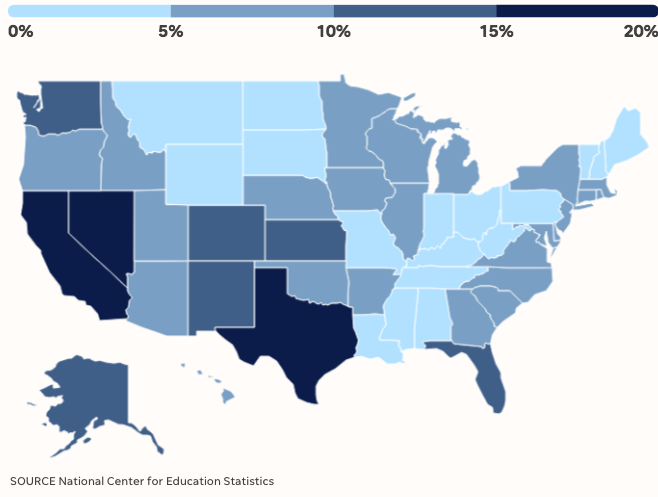
B. Market Size. There are ~5M ELLs in US public schools (based on the latest count from fall 2016), up from year 2000, when there were ~3.8M. The percentage of ELLs in US public schools grew from 8% to 10% over the same time period. They are the fastest growing and the lowest-performing (as measured by achievement tests and graduation rates) subgroup within the K-12 student base.

- a. **Primary Language.** Roughly 3.8M students in US schools are native Spanish-speakers who are not proficient in English. They make up the bulk (~80%) of the approximately 5M students nationwide identified as ELLs. Other languages are prevalent in certain parts of the country including Arabic (~3%), Chinese - Cantonese and Mandarin (~2%), and Vietnamese (~2%); overall, some 400 languages are spoken at home by ELLs. Most ELLs are born in the US; according to Migration Policy Institute data, for ELLs in Pre-K to 5th grade, ~85% are US born and for those in 6-12th grade, ~62% are US born.
- b. **By State.** The state with the most ELLs is California—which has 29% of all ELLs nationwide. Texas has 18%, followed by Florida with 5% and New York with 4% and longer tail beyond these core markets.



How many English learners are out there?

There are about 5 million English learners in U.S. public schools, as of the most recent count in fall 2016, according to NCES. That's about 10% of US students. In 2000, only about 8% of U.S. public school kids were English learners.



c. **Emerging Trends.** Some of the fastest growing numbers of school-aged ELs are occurring in states and school districts with little to no prior experience serving ELL students. From 2000 to 2014, the growth of the ELL population was greatest in Arkansas, Kentucky, Tennessee, North Carolina and South Carolina. Mississippi, South Carolina, Kentucky, Kansas and Maryland have seen the number of English learners more than double from 2005 to 2015, according to federal data. Whiteboard Advisors is conducting a survey of school districts about their views on Title III funding and how to improve services to EL students. Overall, there is concern about scarce resources relative to the growing need. It was also clear that EL students are not typical. There is also meaningful demand for academic programming that meets the unique needs of ELs. Sample responses include:

i. **Huntsville, AL:** “We have seen a huge influx of English Learner students. These students need additional support and the schools

- are not equipped to provide them. We need additional funding and reasonable guidance and resources.”
- ii. **OK:** “Our EL population is exploding and we must do more to support these students and their families.”
 - iii. **Dobson, NC:** “I have 9 EL Specialists serving 860 students, not counting the Monitored former ELs in Years 1-4 who need to be monitored closely. The funding formula needs to increase as our Second Language population increases. We also need to understand that culture is embedded within languages. We cannot treat all Spanish speakers alike. Those students arriving from countries in Central America may have a very different cultural and educational experience than students arriving from Mexico or South American countries. We have students from Guatemala and Spanish is their 2nd language. Engaging and assimilating students who are acquiring English need more specialized time than just English Language Development.”
- d. **Grade levels.** Most ELLs are in lower grade levels. In 2015, ~67% of students were in either kindergarten or grades 1-5. The other 33% were in 6-12 grades. This is not surprising given the focus on reclassification once an ELL is identified.
- e. **Achievement Gap.** Regardless of where they are located, most ELLs struggle academically because they have little or no access to quality instruction tailored to their needs. Although an estimated 90% of ELLs are enrolled in designated ELP programs, studies have shown that the quality of these programs is subpar. Only 67% of students with limited English skills graduated high school after four years in 2016, compared with 84% of all students, according to federal data. According to the National Education Association, achievement gaps between ELLs and non-ELL students are deeply rooted, pervasive, complex, and challenging. As a group, ELLs face some of the most pronounced achievement gaps of any student groups. The 2013 NAEP test scores document large ELL achievement gaps that have remained relatively unchanged over the preceding 10 years. In 2013, ELL students demonstrated proficiency levels that were 23-30% percentage points below their English speaking peers, with only 3-4% of ELL eighth graders demonstrating proficiency in math or reading. Almost half of ELL fourth graders scored below *basic* in math (41%) and more than two-thirds scored below basic in reading (69%). According to data released by ED’s National Center for Education Statistics in March 2015, ELL students graduate from high school “at the lowest rate of all student subgroups.”

C. Stakeholder Map. Multiple stakeholders are involved in serving ELLs spanning the student to administrators managing federal funding.

MARKET OVERVIEW

U.S. K-12 Institutional ELL market is composed of a wide-ranging set of product and service solutions designed to meet key stakeholder need

ELL Category	Market Segment	Description	Admin.	Teacher	Student	Parent
Program Management	Data systems	Technology systems supporting the management of ELL student data and program information	✓	✓		
	Program evaluation and technical assistance	Services used to evaluate ESL programs and build program capacity	✓	✓		
Professional Development	Tools and resources	Materials (print or online) that provide strategies or content designed to help instruct ELLs		✓		
	In-service training	Sessions (online or in person) that build knowledge and skills of teachers and administrators (ESL and general)	✓	✓		
	Network and professional organizations	Professional organizations helping ESL teachers stay up-to-date in the profession with networks and conferences	✓	✓		
Instruction	Core curriculum	Program that fully addressing foundational skills and meeting applicable state standards; intended for use as the primary source of instruction		✓	✓	
	Supplemental curriculum	Additional materials intended to extend and support for students in targeted skill areas; not fully scoped or sequenced		✓	✓	
Assessment	Placement and identification	English proficiency tests used to assess an ELL student's language level		✓	✓	
	Formative assessment	Instruments used to monitor an ELL student's progress throughout the year		✓	✓	
	Interim and summative assessment	Instruments that are used to evaluate an ELL student's progress, academic trajectory, and/or status		✓	✓	
Family & Student Support	Communication tools	Applications or platforms that facilitate communications between families and schools	✓	✓	✓	✓

Notes: Shaded categories indicate coverage by Escuela

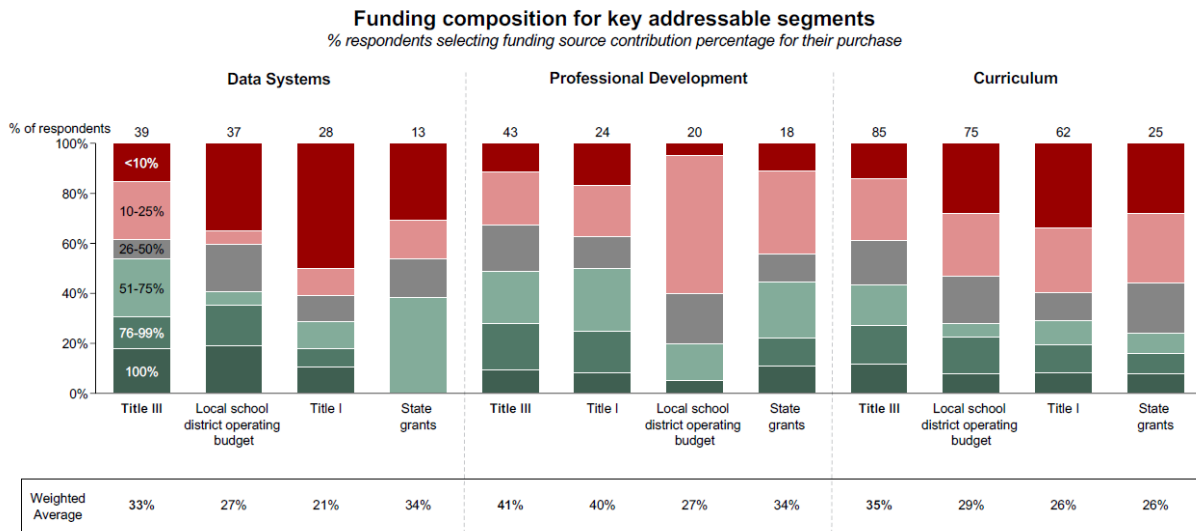
TYTON PARTNERS 11

D. Competition.

a. Funding Allocation. The ~\$800M of Title III funding available is largely used for three buckets of spend among districts: 1) *Curriculum and Content* (~25%): this relates to direct to student classroom content and intervention for literacy acquisition, 2) *Human Resources* (~40-45%): this includes professional development or supplemental instructors or tutors (these funds can not be used for to pay for an ESL teacher), and 3) *Parent Engagement* (~20%): this includes costs associated with implementing other effective activities and strategies that enhance or supplement ELD programs (e.g. parent, family, and community engagement activities). While Escuela has limited direct competition, it does compete with other vendors in other categories for the available Title III funding. There is a high degree of variability around how districts actually allocate their budgets. Tyton's respondents showed a range of key areas of spend:

MARKET FUNDING

Respondents show a high degree of variability across districts in how budgets are allocated



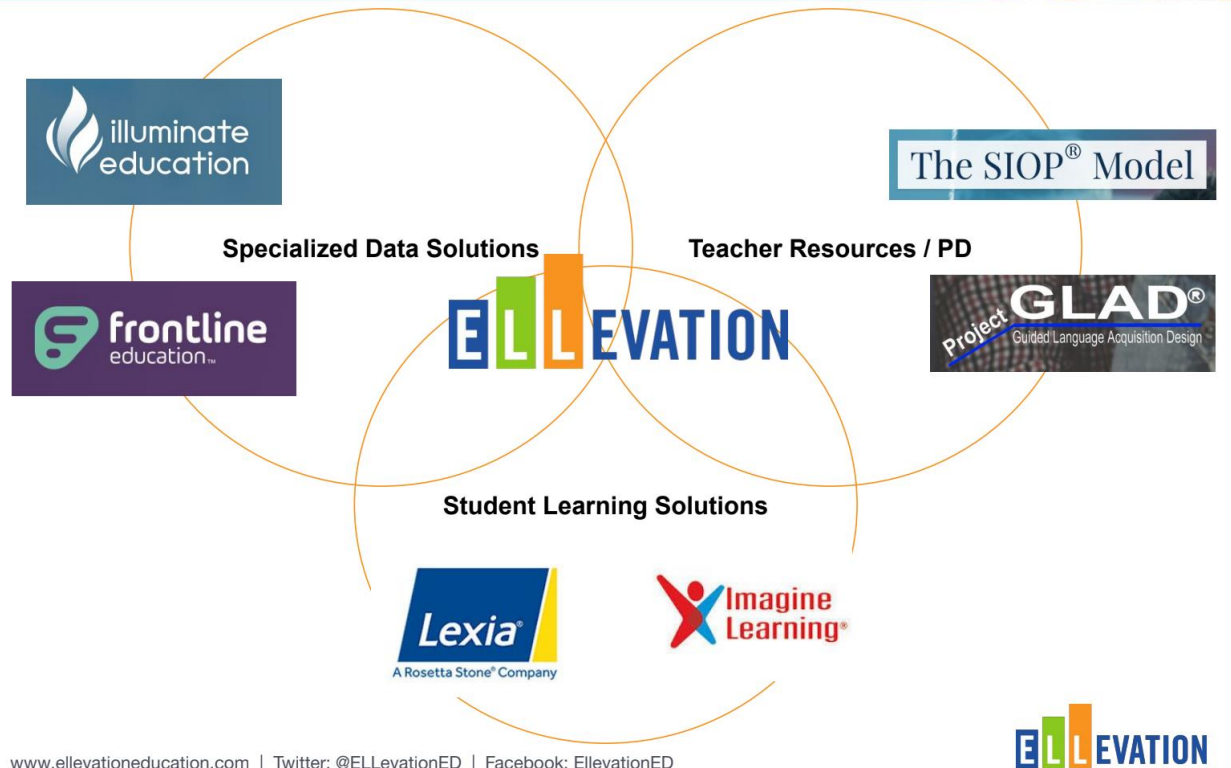
Notes: Data shown for top four funding sources used for each segment; weighted average will not equal 100% based on way question was asked – respondents selected % range for funding source contribution to their purchase
Sources: Tyton Partners K-12 English Language Learning Survey 2020, Tyton Partners analysis

b. Similar Products. Escuela is the only player in the ELL space with nationwide scale, though one regional player exists in Texas. Project Education, also known as Project ELL, focuses on ELL compliance and student achievement tracking built on Texas compliance standards. The software is customizable to fit any district’s processes within Texas. Despite this Company being localized for Texas school districts, Escuela has continued to grow successfully into Texas, recently winning a large contract with the Dallas school district. Project ELL is a potential M&A target.

c. Competitive Landscape. The market for K-12 software is incredibly fragmented. Specialized data solutions, teacher resources, and student learning solutions are scattered throughout the US, though some large data platforms such as Renaissance Learning, Illuminate Education, and Frontline Education have been consolidating various direct to student products and assessment tools to deploy across their distribution network of school districts. **Escuela has emerged as the only software solution serving the needs of all ELL stakeholders from admin to students.** Similar to the special education (SPED) market, where only a couple of products exist to serve a specialized demographic and have gained share as the leading vertical SaaS provider, the ELL market is being led by Escuela. Tyton’s survey respondents also showed Escuela as the

dominant specific ELL provider however PowerSchool had greater usage and Frontline had more awareness (both likely acquirers).

Competitive Differentiation



E. M&A Rich Environment. As the US K-12 market has experienced incredible consolidation powered by private equity firms such as Thoma Bravo, Insight Venture Partners, Vista Equity, Francisco Partners and others, large scale players with tremendous distribution and scale have emerged. This has created an acquisition rich environment for vertical players within the K-12 sector that these platforms can acquire and sell across its platform. Given Escuela’s position as the central node for all ELL related needs, the Company is the unique platform that can sell other tangential ELL-specific products.

- a. *Potential Acquirers.* In the past, Escuela has been approached by PE/strategics for a potential acquisition. Looking at the M&A track record of many of the scaled players in the SIS, Data Solutions, Digital Curriculum and Student Learning Solutions space such as Powerschool, Illuminate Education, Renaissance Learning, Weld North, Curriculum Associates, Amplify, and Frontline Education (all >\$100M businesses owned by private equity/family offices), these companies have demonstrated interest in adding on additional services and products that they can sell through their existing systems.

- b. *Potential Targets.* As the scaled platform player in the ELL space, Escuela is often approached by companies that have a compelling product solution but are unable to gain sales and marketing traction and are looking for a “home.” We have already begun curating a list of potential M&A targets that could strengthen and/or accelerate their current product offerings, or allow them to expand into new markets. In 2019, the Company acquired Positive Learning for <\$3M (upfront consideration). This ultimately became the foundation for the direct to student product which opened up a product line for them. Incumbent investors are specifically looking to Lumos to drive M&A given our team’s experience.

VI. Impact Assessment. Our assessment of Escuela’s social impact begins with a mapping of the factors that prevent ELLs from achieving the same level of human capitalization rates (i.e. equitable outcomes) as others and the structural barriers that are perpetuating them. This intersectional analysis allows us to see the whole Learner and understand their challenges from the lens of quality, access, and equity.

A. **Quality: Escuela is Enabling Higher Quality Instruction.** Today, the Company is enabling higher quality instruction for ELLs via (i) solutions which centralize tracking, reporting and monitoring of ELLs and (ii) teacher support solutions to differentiate instruction in the classroom. Going forward, Escuela’s Math product will even more directly impact the quality of instruction for ELLs. Although we are confident these solutions should translate to an improvement in the quality of outcomes, it is too early to have demonstrable quantitative evidence ahead of the product’s launch.

- 1. **ELL Outcomes are Lagging.** Today, a high school diploma is the bare minimum educational requirement for virtually any kind of stable employment. However, data shows that Latino students who have not fully mastered English by high school have only ~40% chance of graduating. Data from LAUSD in 2007 showed that only 27% of ELLs students who began the ninth grade graduated 4 years later from the district, suggesting that in large urban centers the dropout rate may be considerably higher. ELLs struggle in school more than any other group of students except those who have been identified for special education (given lack of resources, ELLs are sometimes put into special education classes). ELLs begin to fall behind other children in kindergarten and continue to lag in all academic measures at every level thereafter. The risk of not developing solutions that accelerate an ELL student’s mastery of the English language and providing the necessary tools for them to be successful in the K-12 education system is a social justice issue — the achievement and equity gaps highlighted in this memo will continue to perpetuate. Escuela’s position as a scaled platform that is becoming the central nervous system for all things ELL-related has created an opportunity to deliver higher quality education for ELLs through their teachers and schools in an unprecedented manner.

2. **Escuela is Putting ELLs at the Center.** The Company is moving towards creating a full product suite that addresses the needs of the entire ELL ecosystem from administrators to students and parents. While currently they are addressing the largest pain points for their most important customers (EL administrators), our interactions with the Company management team and particularly Jordan and Teddy have given us confidence that they are focused on quality issues in this space. With Jordan's background working in childcare and education in marginalized communities and the fact that many former teachers work at the Company, they have direct experience serving this population in a different capacity, providing an added lens to the lived experience of ELLs.

B. Access: The Company is Helping the System Build Capacity to Serve All ELLs. ELLs have historically been underserved by the US educational system. Part of the reason is a lack of capacity, both in terms of trained ESL teacher capacity as well as over system-level infrastructure to support ELLs.

1. **ELLs, an Underserved Population.** Although English learners are increasingly dispersed across the nation, they are not equally distributed across schools. Many ELLs are concentrated in the nation's large school districts. Large districts can report over 80+ languages across their schools and these schools also tend to be in urban areas with high concentrations of minority and economically disadvantaged students. The greater the number of languages, the greater the challenges in teaching English and addressing the many other factors that can interfere with learning and teaching ELLs. Additionally, ELLs are likely to be highly segregated from English-speaking students, either attending schools with very high percentages of students like themselves, where the opportunity to hear good models of English and interact with peers who are native speakers are minimal, or assigned to less qualified teachers. More than 30 states reported critical shortages in ESL teachers and world language experts. For ELLs in rural environments (~4%) and the growing number in states that have not traditionally had a lot of experience with ELL students, they are also disenfranchised by a lack of existing institutional support for their unique needs.

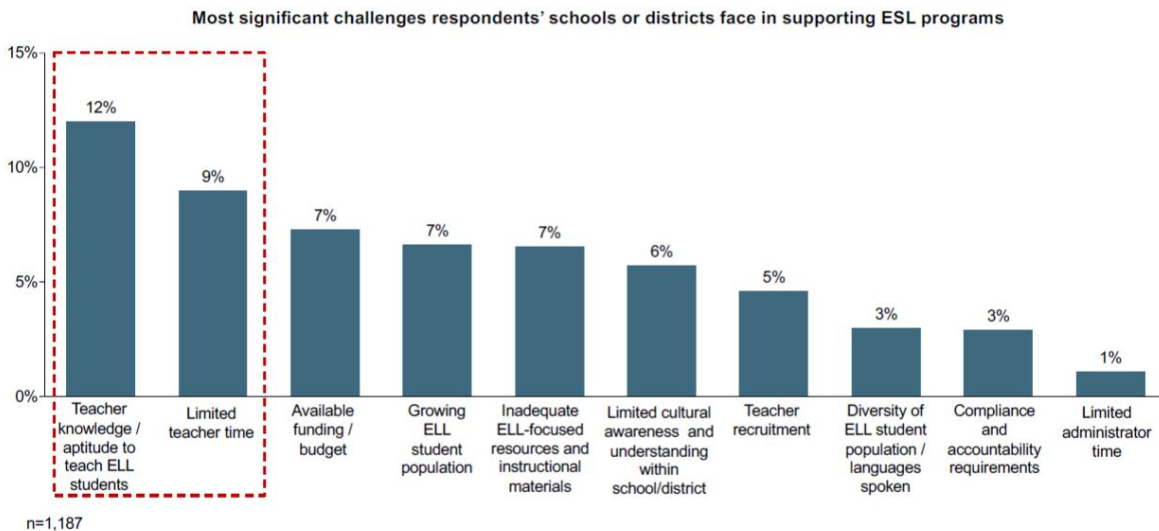
2. **System-Wide Capacity Building.** Escuela's success with ELLs has put a spotlight on ELL students as an important demographic that has traditionally been underserved. The Company does this in multiple ways beyond selling products and services. They contribute to capacity building for the ELL space through their podcast *Highest Aspirations* which produces original content to educate educators and the general public around ELL specific topics, to highlight thought leaders or showcase interesting research in their sector. They are also in partnership and work with large scale educational research programs such as WIDA (World-

class Instructional Design and Assessment) which organizes a coalition of 40 states and territories to support ELL instruction and has pioneered a standard English assessment program. Their expertise in the compliance territory with Platform has allowed them to become leading experts that schools and districts who are otherwise ill equipped to set up ELD programs can rely on.

- 3. Increase Teacher Capacity.** Maximizing ELL educator capacity is the objective of Strategies. The Company recognizes that the teacher is primarily responsible for creating the right environment and providing the interventions necessary to bridge the ELL achievement gaps. Moving the needle in terms of outcomes requires finding all the catalytic pressure points in the ELL ecosystem and increasing leverage for all stakeholders. This mentality has led the team to now approach launching a direct to student product as they find areas where the largest gaps exist (e.g. lack of academic language interventions tailored to ELLs) and create solutions to address them and help support even in districts where trained teachers are not available. Above all constraints, teacher capacity is the highest barrier for delivering high quality instruction.

P D

Strategies addresses teacher aptitude, the most important ESL program challenge schools and districts face; however, school/districts struggle with limited teacher time



Sources: Tyton Partners K-12 English Language Learning Survey 2020, Tyton Partners analysis

C. Intersectional Effects. While language acquisition represents foundational “table stakes” in being successful within the US K-12 educational system, it is important to also consider all the other barriers to learning and teaching experienced by ELLs. For example, many additional interventional concerns arise when students’ families are migrant workers, living in poverty, undocumented, homeless, or face

racism and other obstacles. These circumstances can easily lead to learning, behavioral and emotional problems on top of communication challenges. Studies have shown that many immigrant students report feeling their teachers view them in unfavorable ways, and experience isolation from their English speaking peers. This often extends to parents of ELLs, who bring varying levels of understanding and attitudes about the school institution and how to interact with school staff. As a result, home involvement and engagement varies markedly.

1. **Equity-Centered Business.** Structural barriers that ELLs face range from large scale institutional discrimination from poverty to racism to social disenfranchisement, to discrete inequalities such as an educator's lack of tools to manage and deliver tailored strategies to ELL students compared to their peers. Escuela's mission to help ELLs achieve their highest aspirations strikes at the heart of inequities of the current K-12 education system.
 2. **Harm Reduction.** Escuela contributes to undoing the damage of language barrier disenfranchisement. For example, schools have often been out of compliance with the legal requirements to provide school communications in an ELL's native language given the logistical challenges and expense of doing so. Using Escuela, schools are able to easily produce parent letters and other content in a student's home language. This enables higher parent engagement which is a large factor in student outcomes.
 3. **Diversity and Inclusion.** The team is ~50% female and during our discussion with the VP of People, openly acknowledged they could and actively want to improve their racial diversity among the employees and management level. This is an area Lumos is well positioned to support them (also with board diversity).
- D. Case Studies.** The Company has worked with select customers to create case studies highlighting the improvement in ELL services and outcomes at schools and districts. We have attached a few of them in Appendix C.

VII. Financial Plan

- A. **Historical and Management Projections:** Over the past three years, the business has grown bookings more than 30% year over year. Management has increased gross margin from 36% to 60% through that same period on the back of increasing the base of recurring software revenue, successfully launching their second product, Strategies, and better management of costs. Of note, management has historically tracked in-line to their budget, having hit 99% and 100% of budget in 2018 and 2019 respectively (conversations with early investors suggest the Company has met or beat budget since inception). In their projections, management forecasts conservative growth in 2020 and more robust growth

through 2022, ultimately reaching ~\$47 million in bookings primarily as a result of expected success in their new math academic language offering. In terms of gross margin, the Company expects continued improvements, reaching near 75% gross margins by 2022 (note: the Company's run-rate gross margin at the end of 2019 was 65%, on track toward their 2022 target). Through the projection period, management expects modest increases in G&A, and larger increases in R&D but still below growth in bookings; hence, the Company expects to be cash EBITDA positive in 2022 with a cash EBITDA margin of slightly over 10%.

Escuela Management Plan

Income Statement						
FYE December 31,	Historical			Projected		
	2017A	2018A	2019A	2020E	2021E	2022E
Bookings	\$ 11,100	\$ 15,926	\$ 20,795	\$ 25,975	\$ 34,240	\$ 46,848
% YoY Growth		43.5%	30.6%	24.9%	31.8%	36.8%
Revenue	\$ 9,323	\$ 13,150	\$ 17,521	\$ 22,339	\$ 29,618	\$ 40,055
% Conversion	84.0%	82.6%	84.3%	86.0%	86.5%	85.5%
% YoY Growth		41.0%	33.2%	27.5%	32.6%	35.2%
Costs of Goods Sold	\$ 5,916	\$ 7,055	\$ 6,989	\$ 8,006	\$ 9,534	\$ 10,739
% of Revenue	63.5%	53.7%	39.9%	35.8%	32.2%	26.8%
% YoY Growth		19.2%	-0.9%	14.6%	19.1%	12.6%
Gross Profit	\$ 3,406	\$ 6,095	\$ 10,532	\$ 14,332	\$ 20,084	\$ 29,316
% of Revenue	36.5%	46.3%	60.1%	64.2%	67.8%	73.2%
% YoY Growth		78.9%	72.8%	36.1%	40.1%	46.0%
Research and Development	\$ 3,926	\$ 4,600	\$ 6,789	\$ 10,536	\$ 12,816	\$ 14,430
% of Revenue	42.1%	35.0%	38.7%	47.2%	43.3%	36.0%
% YoY Growth		17.2%	47.6%	55.2%	21.6%	12.6%
Sales and Marketing	\$ 3,422	\$ 5,427	\$ 6,068	\$ 7,362	\$ 8,907	\$ 10,970
% of Revenue	36.7%	41.3%	34.6%	33.0%	30.1%	27.4%
% YoY Growth		58.6%	11.8%	21.3%	21.0%	23.2%
General and Administrative	\$ 2,739	\$ 6,403	\$ 3,667	\$ 4,277	\$ 4,721	\$ 5,291
% of Revenue	29.4%	48.7%	20.9%	19.1%	15.9%	13.2%
% YoY Growth		133.8%	-42.7%	16.6%	10.4%	12.1%
Operating Expenses	\$ 10,087	\$ 16,430	\$ 16,525	\$ 22,175	\$ 26,445	\$ 30,691
% of Revenue	108.2%	124.9%	94.3%	99.3%	89.3%	76.6%
% YoY Growth		62.9%	0.6%	34.2%	19.3%	16.1%
Cash EBITDA	\$(4,904)	\$(7,559)	\$(2,718)	\$(4,206)	\$(1,738)	\$ 5,418
% of Bookings	-44.2%	-47.5%	-13.1%	-16.2%	-5.1%	11.6%
% YoY Growth		54.2%	-64.0%	54.7%	-58.7%	-411.7%

- B. Covid19 impact on management case.** In mid-March, the Company began a scenario planning process with its Board as school districts in major cities across the US began to shut down in-person operations and migrate to distance learning in an effort to combat the spread of Covid19. The Company formulated "Covid19 impact" moderate and severe cases which present downside outlooks on their initial 2020E management case. The Company projects a 6% and 10% decline in 2020 revenue respectively in these cases which corresponds to reductions in headcount by 10 and 17 people respectively. Management shared in a separate call with Lumos on March 19 their plans for managing the potential implications the

pandemic might bring on the business, demonstrating a proactive view on cash management, expense control, and overall P&L impacts that might carry into 2020. The actual implications of the pandemic won't be known for at least several months; however, the large majority of the Company's orders come in the second half of the year, which provides significant time allowance for school districts to restore normal operations ahead of the fall.

- C. **Lumos Base Case Projections:** Relative to management, our base case projects less growth through 2022, particularly in 2020 where we anticipate **lower bookings growth relative to management's original forecast given the advent of COVID-19 and the impact it could have on sales cycles**. Over the 5-year investment period, **with the inclusion of select strategic M&A as outlined in our model review**, forecasted top line bookings reach ~\$100 million, revenue just under \$85 million, gross margin 77%, and cash EBITDA \$28 million or 28% of bookings. Our base case assumes slower growth in each of Escuela's businesses: Platform, Strategies, and Math but we anticipate making a number of bolt-on acquisitions with a similar cost and growth curve as the Company's Positive Learning acquisition to enter new growth markets such as new subjects/grades, international markets, or new end-users (e.g. parents). Regarding costs, we expect slightly higher growth in costs relative to management in all major cost categories. This case does not assume more transformational M&A that would more dramatically impact revenue/EBITDA during the projection period.

Income Statement										
FYE December 31,	Historical				Projected					'20-'25 CAGR
	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	
Bookings	\$ 11,100	\$ 15,926	\$ 20,795	\$ 24,353	\$ 31,345	\$ 40,950	\$ 55,465	\$ 75,422	\$ 100,713	32.8 %
% YoY Growth		43.5%	30.6%	17.1%	28.7%	30.6%	35.4%	36.0%	33.5%	
Revenue	\$ 9,323	\$ 13,150	\$ 17,521	\$ 20,519	\$ 26,409	\$ 34,502	\$ 46,732	\$ 63,547	\$ 84,856	32.8 %
% Conversion	84.0%	82.6%	84.3%	84.3%	84.3%	84.3%	84.3%	84.3%	84.3%	
% YoY Growth		41.0%	33.2%	17.1%	28.7%	30.6%	35.4%	36.0%	33.5%	
Costs of Goods Sold	\$ 5,916	\$ 7,055	\$ 6,989	\$ 7,824	\$ 9,251	\$ 10,642	\$ 13,349	\$ 16,119	\$ 19,657	20.2 %
% of Revenue	63.5%	53.7%	39.9%	38.1%	35.0%	30.8%	28.6%	25.4%	23.2%	
% YoY Growth		19.2%	-0.9%	12.0%	18.2%	15.0%	25.4%	20.7%	22.0%	
Gross Profit	\$ 3,406	\$ 6,095	\$ 10,532	\$ 12,695	\$ 17,159	\$ 23,861	\$ 33,383	\$ 47,428	\$ 65,199	38.7 %
% of Revenue	36.5%	46.3%	60.1%	61.9%	65.0%	69.2%	71.4%	74.6%	76.8%	
% YoY Growth		78.9%	72.8%	20.5%	35.2%	39.1%	39.9%	42.1%	37.5%	
Research and Development	\$ 3,926	\$ 4,600	\$ 6,789	\$ 9,952	\$ 11,779	\$ 14,077	\$ 17,317	\$ 21,352	\$ 26,220	
% of Revenue	42.1%	35.0%	38.7%	48.5%	44.6%	40.8%	37.1%	33.6%	30.9%	
% YoY Growth		17.2%	47.6%	46.6%	18.4%	19.5%	23.0%	23.3%	22.8%	
Sales and Marketing	\$ 3,422	\$ 5,427	\$ 6,068	\$ 7,192	\$ 8,451	\$ 10,213	\$ 12,711	\$ 15,760	\$ 19,008	
% of Revenue	36.7%	41.3%	34.6%	35.1%	32.0%	29.6%	27.2%	24.8%	22.4%	
% YoY Growth		58.6%	11.8%	18.5%	17.5%	20.8%	24.5%	24.0%	20.6%	
General and Administrative	\$ 2,739	\$ 6,403	\$ 3,667	\$ 4,373	\$ 4,868	\$ 5,427	\$ 6,028	\$ 6,667	\$ 7,340	
% of Revenue	29.4%	48.7%	20.9%	21.3%	18.4%	15.7%	12.9%	10.5%	8.7%	
% YoY Growth		133.8%	-42.7%	19.2%	11.3%	11.5%	11.1%	10.6%	10.1%	
Operating Expenses	\$ 10,087	\$ 16,430	\$ 16,525	\$ 21,517	\$ 25,097	\$ 29,717	\$ 36,056	\$ 43,779	\$ 52,568	19.6 %
% of Revenue	108.2%	124.9%	94.3%	104.9%	95.0%	86.1%	77.2%	68.9%	62.0%	
% YoY Growth		62.9%	0.6%	30.2%	16.6%	18.4%	21.3%	21.4%	20.1%	
Cash EBITDA	\$(4,904)	\$(7,559)	\$(2,718)	\$(4,988)	\$(3,003)	\$ 591	\$ 6,060	\$ 15,525	\$ 28,488	(241.7)%
% of Bookings	-44.2%	-47.5%	-13.1%	-20.5%	-9.6%	1.4%	10.9%	20.6%	28.3%	
% YoY Growth		54.2%	-64.0%	83.5%	-39.8%	-119.7%	924.7%	156.2%	83.5%	

- D. **Returns Analysis:** Our base case return is 3x MOIC representing 24.3% IRR. This assumes an exit multiple of bookings below our entry multiple and below comparables (discussed later in the memo). Should bolt-on acquisitions fail to

materialize or overall growth slow, our revised base case return profile reflects a 2.4x multiple of invested capital or a 18.9% IRR.

Returns Analysis	
Entry Pre-Money (\$000's)	99,000
Multiple of Billings	4.1x
LCG Inv. Primary (\$000's)	10,000
LCG Inv. Secondary (\$000's)	-
LCG Entry Ownership	8.76%

Lumos Capital Group Returns (incl. Acq)	Projected					
	2020E	2021E	2022E	2023E	2024E	2025E
Exit Year Billings						\$ 100,713
Multiple of Billings						3.5x
Implied Multiple of Cash EBITDA						12.4x
Implied Multiple of ARR						4.0x
Enterprise Value						\$ 352,496
Less: Net Debt						\$ 3,471
Total Equity Value						\$ 349,025
LCG Ownership	8.8 %	8.8 %	8.5 %	8.5 %	8.5 %	8.5 %
LCG Equity Value						\$ 29,671
Total Proceeds to LCG	\$(10,000)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 29,671

IRR	24.3%
MOIC	3.0x

IRR						MOIC							
Exit Multiple		Billings at Exit (\$mm)					Exit Multiple		Billings at Exit				
		\$ 90.7	\$ 95.7	\$ 100.7	\$ 105.7	\$ 110.7			\$ 90.7	\$ 95.7	\$ 100.7	\$ 105.7	\$ 110.7
		2.5 x	13.7%	14.9%	16.1%	17.3%			18.4%	2.5 x	1.9x	2.0x	2.1x
3.0 x	18.0%	19.2%	20.5%	21.7%	22.8%	3.0 x	2.3x	2.4x	2.5x	2.7x	2.8x		
3.5 x	21.7%	23.0%	24.3%	25.5%	26.7%	3.5 x	2.7x	2.8x	3.0x	3.1x	3.3x		
4.0 x	25.0%	26.4%	27.7%	28.9%	30.1%	4.0 x	3.1x	3.2x	3.4x	3.6x	3.7x		
4.5 x	28.0%	29.4%	30.7%	32.0%	33.3%	4.5 x	3.4x	3.6x	3.8x	4.0x	4.2x		

Lumos Capital Group Returns (excl. Acq)	Projected					
	2020E	2021E	2022E	2023E	2024E	2025E
Exit Year Billings						\$ 78,698
Multiple of Billings						3.5x
Implied Multiple of Cash EBITDA						12.4x
Implied Multiple of ARR						4.0x
Enterprise Value						\$ 275,444
Less: Net Debt						\$ 3,471
Total Equity Value						\$ 271,973
LCG Ownership	8.8 %	8.8 %	8.8 %	8.8 %	8.8 %	8.8 %
LCG Equity Value						\$ 23,815
Total Proceeds to LCG	\$(10,000)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 23,815

IRR	18.9%
MOIC	2.4x

VIII. Valuation

- A. **Public Trading Comparables.** Education technology companies that serve students and schools via a B2B SaaS model provide a benchmark for public market valuations of similar companies. Escuela's comparable public company set in the education vertical trade at **~7.5x 2020E revenue**, a premium to our entry

valuation of 4.4x 2020E revenue on a pre-money basis, despite lower 2021E sales growth (~13% compared to ~28% in Lumos base case). Additionally, vertical SaaS companies trade at an even higher premium to the market (~14-15x 2020E revenue) (pre-COVID-19).

Company	TEV	TEV / Revenue		Growth	Margin*
		2020E	2021E	2021E Sales	2021E EBITDA
Education (as of 1/28/2020)					
Tyler Technologies	\$ 12,900	11.7x	9.9x	8%	29%
Chegg	5,394	10.4x	8.6x	21%	33%
Blackbaud	4,478	4.8x	4.5x	6%	19%
Arco	2,576	10.2x	8.5x	19%	36%
Instructure	1,777	5.8x	5.0x	16%	NM
Learning Technologies Group	1,378	7.6x	7.0x	7%	37%
Rosetta Stone	407	2.1x	NA	NM	NM
Mean		7.5x	7.3x	13%	31%
Median		7.6x	7.8x	12%	33%
Vertical SaaS (as of 2/14/2020)					
Veeva Systems	\$ 24,006	17.6x	14.7x	19%	37%
Constellation Software	23,951	5.9x	5.1x	17%	27%
RingCentral	23,732	21.0x	17.0x	24%	13%
Guidewire	10,329	12.7x	11.1x	13%	17%
AppFolio	5,070	15.6x	12.8x	22%	16%
Mean		14.3x	12.0x	18%	24%
Median		15.2x	12.9x	18%	22%
Mean		10.5x	9.5x	16%	26%
Median		10.3x	8.6x	17%	28%

* Vertical SaaS EBITDA margins are 2020E

B. Transaction Comparables: Precedent transactions Escuela's relevant comp set which includes both education-focused administrative software players as well as curriculum players have traded at a **median billings multiple of 5.6x** and a **median multiple of cash EBITDA of 17.2x**. Our entry multiple is south of that range at 3.8x and our underwriting case assumes a 3.5x billings multiple or 12.4x cash EBITDA multiple at exit.

Precedent Transactions									
Date	Target	Acquirer	TEV	TEV / LTM		Metric (\$MM)		Growth	Margin
				Billings	Cash EBITDA	Billings	Cash EBITDA	LTM Billings	Cash EBITDA
20-Feb-2020	Instructure	Thoma Bravo	\$ 1,800	7.0x		\$ 257		23%	
06-Mar-2019	turnitin	Advance	1,735	11.6x	19.4x	150	89		60%
14-Oct-2018	Cambium Learning	Veritas Capital	900		17.0x	-	53	-	-
03-May-2018	Renaissance	Francisco	1,650	6.0x	12.9x	275	128	6%	47%
18-Apr-2018	PowerSchool	Onex / Vista	2,825	7.8x	21.0x	362	135	10%	37%
15-Mar-2018	Wall Street English	Baring Private Equity	300		13.9x		22		
18-Feb-2018	myON	Renaissance	180	5.8x	38.3x	31	5	23%	15%
18-Jan-2018	Discovery Ed	Francisco	130	0.9x	11.2x	144	12	9%	8%
18-Jan-2018	Weld North	Silver Lake	950	4.0x	17.2x	238	55	8%	23%
17-Sep-2017	CA	Berkshire	350	1.9x	19.4x	184	18	25%	10%
17-Sep-2017	Frontline	Thoma Bravo	1,300	7.1x	18.8x	183	69	25%	38%
17-Feb-2017	myON	Francisco	85	3.3x	NM	26	1	6%	4%
17-Feb-2017	SunGard	Vista	850	4.4x	14.0x	193	61	4%	31%
15-Jun-2015	PowerSchool	Vista	350	3.6x	12.3x	97	28	-	29%
14-Jun-2014	turnitin	Insight / GIC	725	10.0x	18.9x	73	38	26%	53%
14-Apr-2014	Imagine Learning	Weld North (KKR)	115	2.6x	18.0x	44	6	20%	14%
14-Mar-2014	Renaissance	H&F	1,100	5.6x	11.8x	196	93	22%	47%
Mean				5.4x	17.6x			15.9%	29.8%
Median				5.6x	17.2x			20.0%	30.3%

C. **Private Financings:** Similarly, recent private financings in this space have valued growth companies at a median ARR multiple of 8.6x, well above our entry multiple for Escuela.

Private Financings						
Company	Series	Date	Amount	Pre-Valuation	ARR	EV / ARR
Nearpod	Series B3	28-Jun-2018	\$ 18	\$ 197	\$ 25	7.9x
Epic!	Series D	01-Mar-2018	38	157	18	8.7x
Newsela	Series B2	28-Feb-2017	21	85	15	5.7x
Nearpod	Series B1	23-Dec-2016	28	112	13	8.6x
Mean			\$29	\$118	\$15	7.7x
Median			\$28	\$112	\$15	8.6x

Note: Data based on market intelligence

IX. Due Diligence

A. Timeline of Select Diligence Calls with Management, Third Parties, etc

Date	Mgmt / 3rd Party	Area of Focus
2020-01-30	Escuela (Jordan, Teddy, Dennis)	Business review
2020-02-05	Escuela (Jordan, Teddy, Dennis)	Business review
2020-02-09	Anju Gulati, High school ELL math teacher	Market interview
2020-02-11	Whiteboard Advisors	Regulatory landscape
2020-02-11	Aprio	Financial DD
2020-02-12	Topline	Strategy
2020-02-12	Tyton Partners	Market expertise
2020-02-12	Escuela (Teddy)	Deal situation
2020-02-12	Oliver Wyman	Market expertise
2020-02-13	Escuela (Jordan, Teddy, Dennis)	Business overview
2020-02-14	Ellyn Magana, ELL Student Support Specialist for Cornerstone Academy	Customer interview
2020-02-19	Kevin McAliley, former CEO Imagine Math	Market expertise
2020-02-21	Geoffrey Ndirangu, Title III Education Programs Consultant	Market expertise
2020-02-21	Escuela (Jordan, Teddy)	Key questions review

2020-02-24	Parthenon Consulting	Market expertise
2020-02-25	Justin Kulla, former Weld North	Market expertise
2020-02-26	Escuela (Dennis)	Finance DD
2020-02-27	Escuela (Dennis), Aprio, Lumos	Finance DD
2020-02-27	Escuela (Teddy, Jordan), Tyton Partners	Market research
2020-02-28	Kramer Levin	Legal DD
2020-03-02	Escuela (Teddy), Cyligent	Product demo
2020-03-02	Escuela (Teddy)	Deal situation
2020-03-02	ELL Director	Customer interview
2020-03-04	Whiteboard Advisors	Regulatory research check in
2020-03-05	Escuela (Full management team) <ul style="list-style-type: none"> ● Marion Amos, VP Sales ● Timna Molberger, VP Customer Support ● Seija Surr, Chief Academic Officer ● Orion Smith, VP Education ● Chris Strausser, VP Marketing ● Lauren Melton, VP People ● Nathan Papazian, VP Product ● Sanjeev Banerji, VP Product ● Including 2 hr Dennis (CFO), Aprio deep dive 	Meet key management team and review business functions
2020-03-06	Escuela (Sanjeev), Cyligent	Technology DD
2020-03-06	Aprio	Finance DD prelim findings
2020-03-09	Escuela (Teddy, Jordan)	Deal situation
2020-03-12	Whiteboard Advisors	Regulatory findings
2020-03-13	ELL Services Administrator	Market interview
2020-03-13	Escuela (Teddy, Jordan)	Deal situation
2020-03-13	Tyton Partners	Market study findings
2020-03-13	ELL Services Administrator	Market interview
2020-03-16	ESL Teacher	Market interview
2020-03-16	Aprio	Finance DD findings

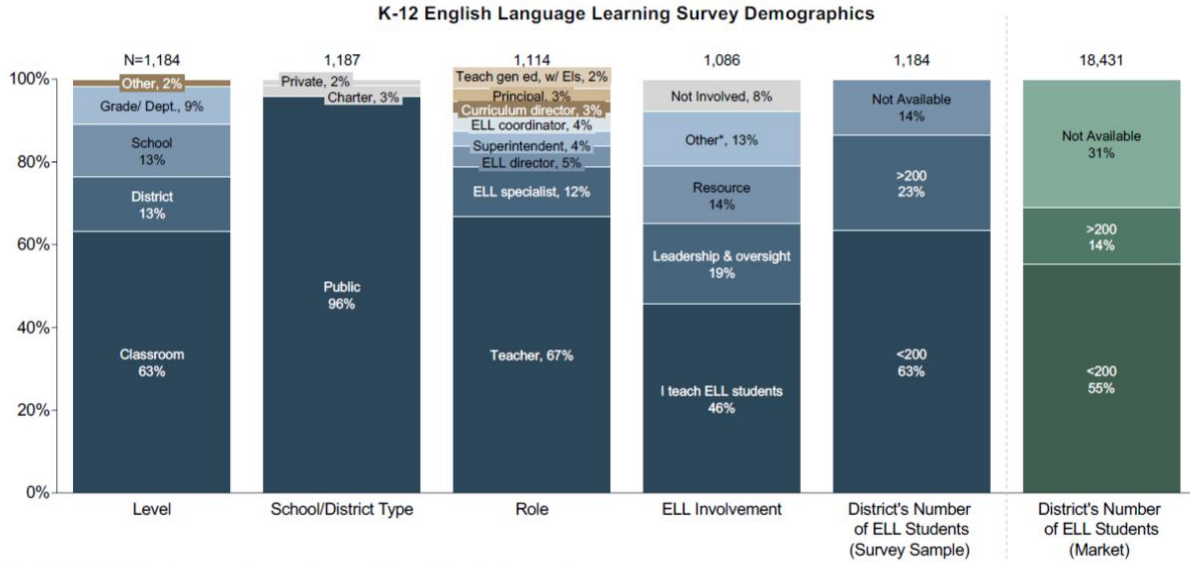
2020-03-17	ELL Specialist	Customer interview
2020-03-17	ELL Director	Customer interview
2020-03-17	Cyligent	Technology DD findings
2020-03-17	Rethink Education (Matt Greenfield)	Investor call
2020-03-18	ELL Specialist	Customer interview
2020-03-18	Emerson Collective (Brad Powell)	Board member call
2020-03-19	Escuela (Teddy, Jordan, Dennis)	Scenario planning for Covid19 impact

B. Due Diligence Workstreams Update

Workstream	Description / Key Findings	Status
Financial / Accounting (Lumos / Aprio)	<ul style="list-style-type: none"> Financial (ie QofE) and tax diligence Review of finance function, team, systems and processes 	Completed
Commercial (Lumos)	<ul style="list-style-type: none"> Full dataroom review, historical analysis, forecast periods Numerous calls/meetings with CEO, President and CFO In person onsite March 5 to meet with full management team 	Completed
Market / Customer (Lumos / Tyton)	<ul style="list-style-type: none"> Scope of industry and competitive dynamics Market survey (1200+ respondents) 	Completed
Regulatory (Lumos / Whiteboard)	<ul style="list-style-type: none"> Federal and state funding sources Regulatory environment review 	Completed
Tech(Lumos / Cyligent)	<ul style="list-style-type: none"> Tech architecture, team, systems review 	Completed
Legal (Kramer Levin)	<ul style="list-style-type: none"> Legal review Definitive deal documentation 	In process through closing

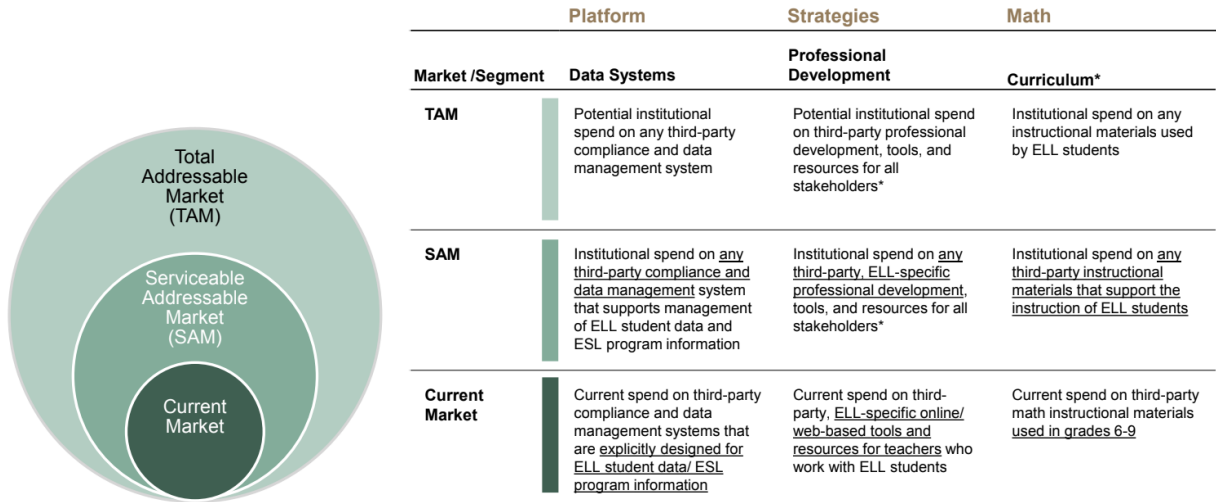
X. Appendix A — Tyton Market Study (Excerpt)

Survey respondent demographic overview



Note: **Other* includes bilingual program teachers, coordinators, specialists, and other miscellaneous roles
 Sources: Tyton Partners K-12 English Language Learning Survey 2020, NCES, Tyton Partners analysis

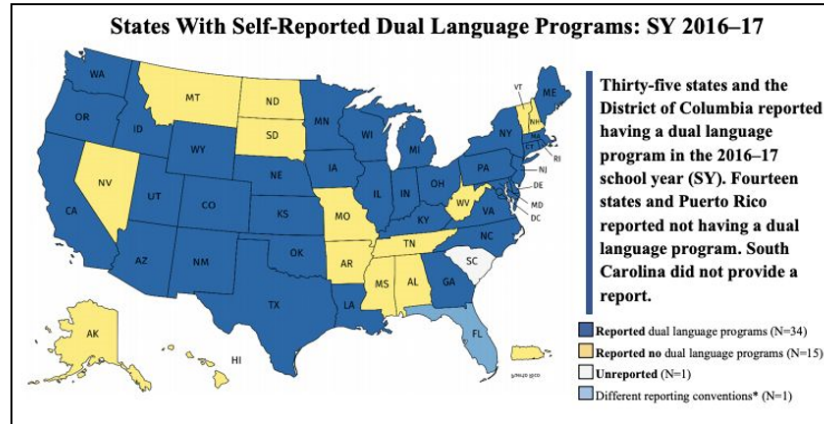
Defining Escuela's addressable market



Note: *Curriculum market size is a proxy to get at competing dollars for an ELL-specific academic language product, all of which are likely not addressable for an ELL-specific player; **For the purposes of this sizing, stakeholders include ESL teachers, ESL coordinators, ESL specialists, school principals (including assistants), superintendents (including assistants), and general classroom teachers
 Sources: Tyton Partners K-12 English Language Learning Survey 2020, Tyton Partners analysis

XI. Appendix B — Whiteboard Advisors Report (Excerpt)

There is rising interest in Dual Language programming. An increasing number of students are not immigrants but come from diverse language homes or where English is not the primary language. In response, more districts are offering dual language programs. According to the U.S. Department of Education’s latest report (December 2019), 35 states and the District of Columbia reported having a dual language program in the



2016–17 school year. Fourteen states and Puerto Rico reported not having a dual language program. South Carolina did not provide a report. Spanish was most commonly used as a partner language in dual language programs.¹⁸

Yet, are there enough teachers and resources to meet the growing needs of dual language learners? The data suggests that there are not. According to New America, “the dearth of bilingual educators has hobbled state and district efforts to expand and create high-quality bilingual programs (e.g., dual language immersion, two-way immersion) to serve English

¹⁸ Dual Language Learning Programs and English Learners (U.S. Department of Education, Office of English Language Acquisition: December 2019), [LINK](#).

learners. Currently, many localities hire teachers from abroad to work in bilingual programs, but this only expends resources on teachers who will leave the system.”¹⁹

About 23 percent of preschoolers are dual language learners. According to NIEER data, about 23 percent of state preschoolers are dual language learners (DLLs). This number may under-represent the population since access to preschool is lower for Hispanic children, and more so for Hispanic DLL children, than for their white peers. Research on preschool programs has found that young DLLs benefit strongly from participating in high-quality preschool programs, which makes both access to, and improving the quality of, preschool critical.²⁰

In the last two legislative sessions, 35 bills in 10 states (including DC) addressed the Dual Language programming. The bills include a wide range of improvements for bilingual education programs, including the creation of bilingual programs to better funding and incentives for them, such as TX’s HB3.²¹ Under HB 3, for example, students participating in a dual language immersion (DLI) program (one-way or two-way) receive additional BEA funds. The State has allocated an additional weight of 0.05 (for a total 0.15 weight) to the basic allotment for EL/LEP students participating in a DLI one-way or two-way program.²²

State	Session	Introduced or prefiled	Progress			Enacted	Grand Total
			Passed committee in first chamber	Passed committee in second chamber	Passed both chambers		
District of Columbia	2019	1					1
Florida	2020	3					3
Maryland	2020	1					1
New Jersey	2020-2021	2					2
New Mexico	2020		1				1
Rhode Island	2020	1					1
Texas	2019					1	1
Utah	2019					3	3
	2020			5	3		8
Virginia	2020-2021	5	1	1	5		13
West Virginia	2020					1	1
Grand Total		13	2	6	10	4	35

¹⁹ Grow Your Own Programs for Bilingual Educators (New America: March 2019), [LINK](#). See also, Cory Mitchell, "Bilingual Teachers Are in Short Supply. How Can Schools Cultivate Their Own?" Education Week, March 19, 2019, outing his collection of EL resources on Scribd at https://www.scribd.com/user/118260415/corey-c-mitchell#from_embed

²⁰ Milagros Nores, Ph.D., Allison Friedman Krauss, Ph.D., and Ellen Frede, Ph.D., "Opportunities & Policies for Young Dual Language Learners," NIEER: July 20, 2018. [LINK](#).

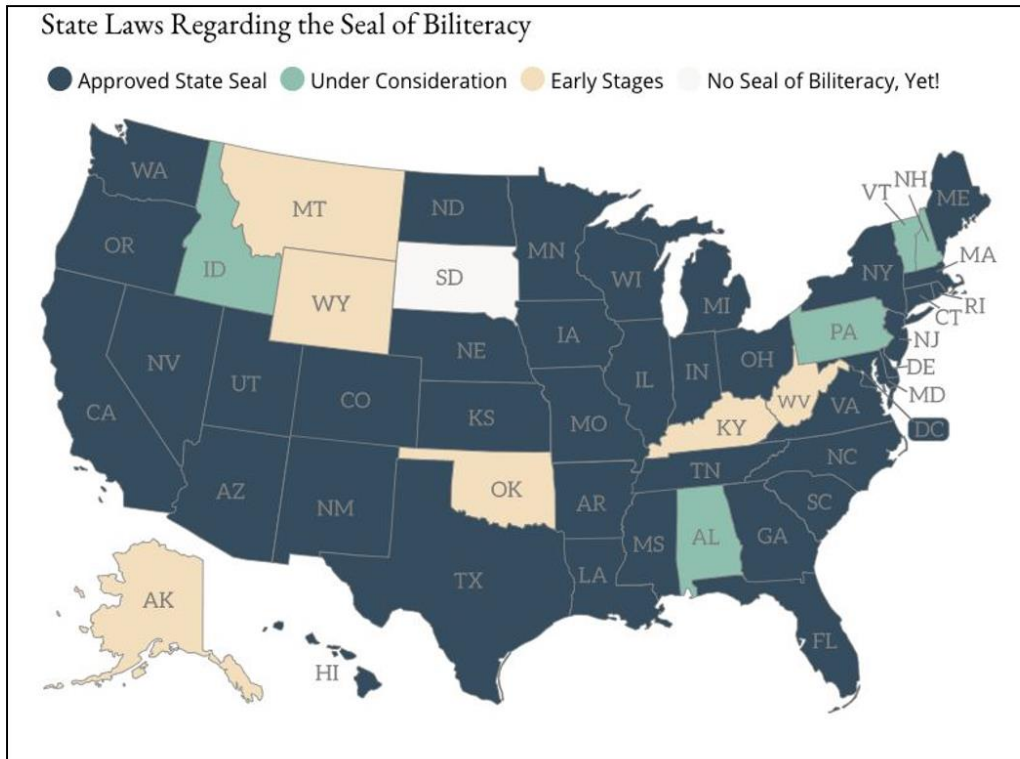
²¹ See See Whiteboard Advisors, "Dual Language Bills 2019-2021," [LINK](#).

²² Texas Education Agency, "House Bill 3 (HB 3) Implementation: Update on Changes to the Bilingual Education Allotment," [LINK](#).

How many states fund DL programs? State funding for DL and biliteracy comes from state grants and formula funding.

- **States that have offered grants.** At least 10 states have offered dual language start-up grants: Delaware, North Carolina, Washington, Georgia, Indiana, New Jersey, Kentucky, Oregon, California, and Utah.
- **States with formula funding.** At least six offer support through the state funding formula: Texas, Connecticut, Michigan, Massachusetts, and New Mexico.

39 states (including DC) have passed legislation recognizing the seal of biliteracy as of March 2020. The Seal of Biliteracy is an award given by a school, school district, or state in recognition of students who have studied and attained proficiency in two or more languages by high school graduation. The program does not include funding, so the seal is largely aspirational, but a notable signal nonetheless.²³



²³ "State Laws Regarding the Seal of Biliteracy," Seal of Biliteracy, [LINK](#), visited

XII. Appendix C - Customer Call Summary and Testimonials

Funding

- Typically the ELL Director is the one who ultimately decides on spending but they take significant input from ESL teachers.
- Various sources of funding (Title I, III, school budgets, etc.); Title III is the most dedicated to ELLs and in the \$120-\$150/student range but typically directors are not thinking about it on a per ELL basis instead thought of more in the aggregate.
 - *"\$50k-\$60k for 400 students", "\$60k for 500 students", "She doesn't think of it on a per-student amount"*
- Where the money is spent depends on year to year priorities and could include software, hardware, materials, instructional coaches, etc but it is very clear that it needs to be supplemental to existing spend and not supplant it.
 - *"Allocate funds based on needs assessment which includes feedback from the principal.", "Last year we spent on materials, this year we're spending on an instructional coach"*

Platform

- Consistently teachers and administrators proactively share how much they love Escuela. On two occasions, the customer shouted "I love Escuela!". They seem to have strong brand recognition.
 - *"I had Escuela in another district. Everyone knows Escuela."*
- The base case of doing this work manually is clearly time consuming and onerous.
 - *"They were doing it manually before – it was bad! They were essentially out of compliance.", "I'm a small district and even in mine it's a lot of paperwork to do this without Escuela", "For example, with paper you have to get all the signatures, with Escuela you can get digital signatures"*
- No real competitive alternatives exist; however, customers would see benefit from having to use fewer systems giving one potential edge to consolidated platforms like Frontline / Powerschool.
 - *"Don't know anything like this whatsoever", "We have five different things so would prefer having to upload to fewer things. We're using Frontline only for special ed. I didn't know Frontline had ELL tracking until a bilingual conference but they ended up being way too expensive."*

Strategies

- The product itself seems to be great and really unmatched by the competition, particularly with how tactical it gets on how to implement activities in your class.
 - *"I think it's a really great tool.", "You click and watch a video with a real class doing it. It's like an instructional coach on the computer. I love it.", "Things like Quizlet, ColorinColorado have great resources but as a teacher you have to search and search to find the right one. None of them can tell you: you have 18 students, these are intermediate, these are beginner and showing you exactly what they can do like Strategies"*

- The issue, if any, appears to be with mainstream teacher bandwidth and training. Escuela should consider adopting a similar strategy to Curriculum Associates and make extensive PD/training mandatory with every purchase and track usage heavily in order to drop back in and retrain to ensure adoption.
 - *"As a district we should have PD around using Escuela for all teachers.", "District only called up the ESL teachers. We were weary because it will just be one more thing teachers have to manage. If the administration could make it a mandatory thing to make sure teachers use it, it would have more buy-in. They know they need help with this."*
- SIOP, a PD alternative mentioned when talking about Strategies is implemented as early as graduate Ed programs, another potential approach Strategies can try more intentionally.
 - *"SIOP was basically created for mainstream classes that have ELLs in the class. It's a protocol for the mainstream teacher to know how to introduce concepts for ELLs (i.e. bring in visuals). It's like a lesson plan checklist.", "SIOP was introduced in the Tesol (Master's program)."*
- As a category users seem to think of this more as an instructional resources or lesson planning tool than professional development.
 - *"It would be more of a lesson planning tool but it does require professional development. It's definitely a lesson planning tool.", "It's instructional resources.", "It's an instructional coach online."*

Academic Language

- ELLs are clearly struggling in grade-level content due to academic language.
 - *"We always have to pre-teach vocabulary for all of these content areas. Our science, math, and social studies ELL teachers will put up a bunch of vocabulary words up front before we can get into it."*
- On balance, most think there really aren't any ELL-specific curricula out there to support ELLs and there is a critical need;
 - *"Math academic language is hard. Hard to know what everything means. e.g. reciprocal. If there was a curriculum for learning math vocabulary that would be helpful.", "There really isn't any curriculum for newcomers in high school ELLs", "I'm sitting here making my own flash cards and kahoots. Even things like the word divide, quotient", "There are no appropriate materials out there for ELLs. Our math teachers, history teachers, science teachers have to make up their own stuff."*
- Few felt the traditional players had adequate resources for ELLs
 - *"We already have resources for math. I receive a catalog per week with resources specifically for ELLs.", "We have some very good science curriculum which has a lot of hands-on which is good for students."*

COVID19

- Current priorities are on basic needs (e.g. food for all those relying on free or reduced lunch), and getting things set up for online learning.
 - *"100% of our students require free lunch. We opened brunch 9:30am - 11:30am curbside of the elementary school.", "Everybody is in panic mode now. We are attending basic needs right now (e.g. food)."*
- Unanimously don't see budgets or spending for ELL getting cut, though do see a heightened importance on remote access for ELLs since they're often the ones with limited access to devices or WiFi.
 - *"Met with our director yesterday to release online resources. Did not get any impression things were going to change for next year.", "A week and a half ago we were already counting the number of students for next year and setting aside budget to serving them next year with materials.", "For funds, I know our district is keeping all the same ELL and SPED teachers even if there may be cuts elsewhere. If anything they're putting more since they know there is a big achievement gap.", " I don't see why the coronavirus will affect my EL director spends on tools, etc. I can't see them stop funding things. Our ELs are growing ever year. We don't get enough funding already.", "Oh gosh no; don't think there will be any cuts to spending or budgets for ELLs."*
- Educational community more afraid with performance drops as it relates to ELLs given an extended period of online learning and hoping for either school through summer and/or greater resources to limit the performance drops.
 - *"It will have an impact on outcomes because we are losing about a month of instruction.", "Before coronavirus we were even debating extending through the summer since we have summer losses. We expect to have some more funds to do that from the gov't."*

Company Testimonials:

[Garland ISD](#) (Website link)

[Moreno Valley](#)

[Hillsborough ISD](#)

XIII. Appendix D - Public Market Comparables

Public Applications Software Company Metrics (Cont'd)

Application Software

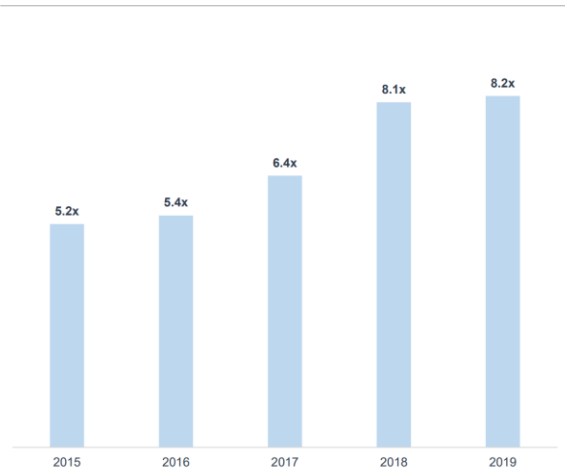
(\$ in millions, except per share data)

Company Name	Market Data						Revenue ⁽¹⁾			EBITDA ⁽¹⁾			Valuation Metrics					
	Stock Price 2/14/2020	LTM Perf.	Equity Value ⁽²⁾	Enterprise Value ⁽²⁾	Total Debt	Cash & Equiv.	2020E	2021E	Growth 20E - 21E	2020E	2021E	Margin 2020E	EV / Revenue		EV / EBITDA		Equity Value / FCF	
													2020E	2021E	2020E	2021E	2020E	2021E
Vertical / Industry-Focused																		
ZU (TWOU)	\$25.13	(62%)	\$1,639	\$1,770	\$321	\$190	\$736	\$849	15%	\$1	\$27	0%	2.4x	2.1x	NM	NM	NM	NM
Aglysys (AGYS)	36.40	83%	888	860	14	42	178	201	13%	15	19	8%	4.8x	4.3x	NM	45.0x	NM	NM
Appfolio (APFF)	139.99	113%	5,038	5,070	72	40	325	397	22%	54	75	16%	15.6x	12.8x	NM	NM	NM	NM
Bandwidth (BAND)	75.33	59%	1,878	1,685	--	192	268	320	19%	(1)	9	(0%)	6.3x	5.3x	NM	NM	NM	NM
Blackbaud (BLKB)	81.34	5%	4,038	4,024	563	577	943	995	6%	188	206	20%	4.3x	4.0x	21.3x	19.5x	37.3x	33.4x
CDK (CDK)	52.10	(9%)	8,416	9,023	2,829	222	2,085	2,189	5%	807	842	39%	4.3x	4.1x	11.2x	10.7x	NM	NM
Constellation Software (CSU-CA)	1,111.25	31%	23,550	23,951	728	326	4,090	4,727	16%	1,109	1,309	27%	5.9x	5.1x	21.6x	18.3x	27.0x	21.4x
Guidewire (GWRE)	122.42	32%	10,908	10,329	432	1,011	811	932	15%	140	185	17%	12.7x	11.1x	NM	NM	NM	NM
K12 (LRN)	17.16	(46%)	744	581	49	212	1,080	--	NA	136	--	13%	0.5x	NM	4.3x	NM	8.2x	NM
Model N (MODN)	34.64	105%	1,254	1,249	51	56	159	176	10%	15	20	10%	7.9x	7.1x	NM	NM	NM	NM
NIC (EGOV)	21.07	21%	1,445	1,242	11	214	386	421	9%	91	103	23%	3.2x	3.0x	13.7x	12.1x	NM	NM
Pluralsight (PS)	18.66	(46%)	3,536	3,600	467	423	396	502	27%	(54)	(35)	(14%)	9.1x	7.2x	NM	NM	NM	NM
Q2 (Q2WO)	87.98	32%	4,539	4,757	457	639	415	512	23%	20	44	5%	11.5x	9.3x	NM	NM	NM	NM
RealPage (RPI)	61.35	4%	6,410	6,715	735	429	1,148	1,265	10%	312	354	27%	5.8x	5.3x	21.5x	19.0x	25.6x	22.8x
RIB Software (RIB-DE)	31.45	119%	1,567	1,442	18	142	314	352	12%	66	84	21%	4.6x	4.1x	21.8x	17.2x	NM	41.4x
Ring Central (RNG)	242.39	133%	23,661	23,732	415	344	1,130	1,399	24%	148	177	13%	21.0x	17.0x	NM	NM	NM	NM
Rosetta Stone (RST)	19.98	23%	517	488	8	36	197	--	NA	10	--	5%	2.5x	NM	48.1x	NM	NM	NM
Sabre (SABR)	22.04	0%	8,203	9,160	3,431	473	4,103	4,265	4%	1,023	1,096	25%	2.2x	2.1x	9.0x	8.4x	12.4x	10.2x
Shutterstock (SKOP)	531.22	201%	64,763	62,499	152	2,455	2,160	2,867	33%	38	128	2%	28.9x	21.8x	NM	NM	NM	NM
TrueCar (TRUE)	3.74	(63%)	423	295	45	172	369	387	5%	19	25	5%	0.8x	0.8x	15.6x	11.8x	NM	NM
Veeva (VEEV)	158.87	32%	25,473	24,006	27	1,495	1,361	1,631	20%	503	614	37%	17.6x	14.7x	47.8x	39.1x	NM	45.8x
Zillow (ZG)	51.68	44%	13,006	13,057	2,449	2,399	4,372	6,330	45%	(48)	26	(1%)	3.0x	2.1x	NM	NM	NM	NM
Median		31%					\$773	\$891	15%	\$60	\$93	13%	5.3x	5.2x	21.3x	17.7x	25.6x	28.1x
Application Software Median		32%					\$641	\$752	15%	\$92	\$133	16%	7.3x	7.1x	24.8x	20.7x	31.7x	28.8x

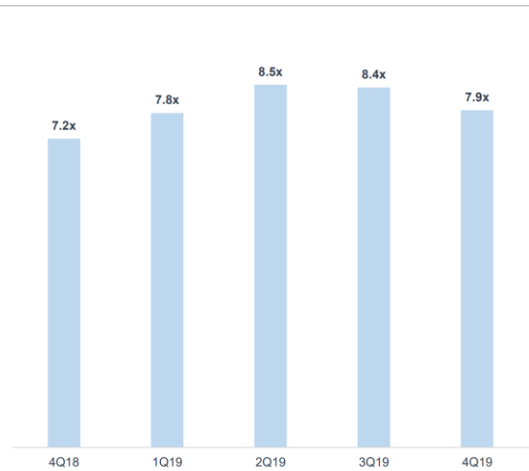
SEG SaaS Index: Public Market Multiples

Revenue multiples reached near-record levels in 2019 as the SaaS Index posted a median EV/Revenue multiple of 8.2x during the year.

EV/Revenue Multiple – Annual



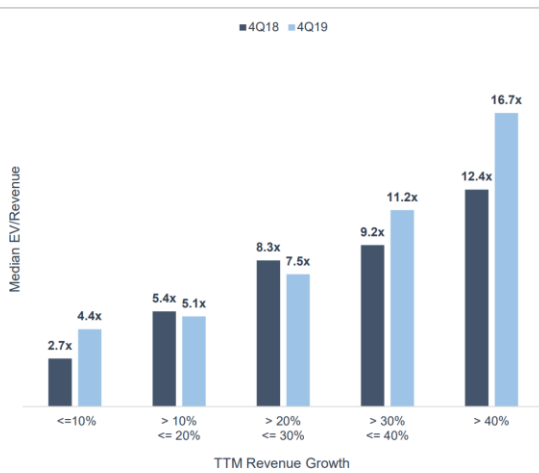
EV/Revenue Multiple - Quarterly



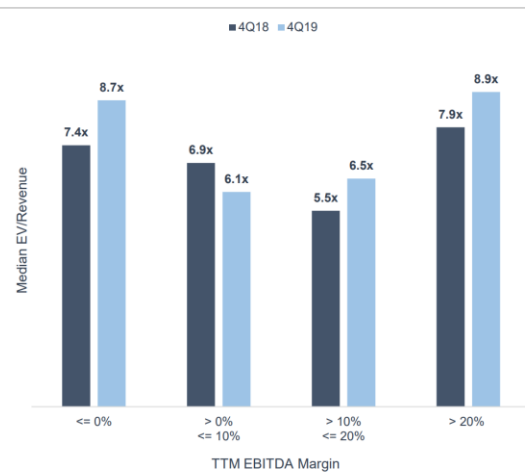
SEG SaaS Index: Public Market Multiples

The fastest growing SaaS companies (>40% revenue growth) posted a median EV/Revenue multiple of 16.7x in 4Q19 as the market clearly continues to favor the highest growth companies, which include CrowdStrike, Twilio, and Alteryx.

EV/Revenue vs. Revenue Growth (TTM)

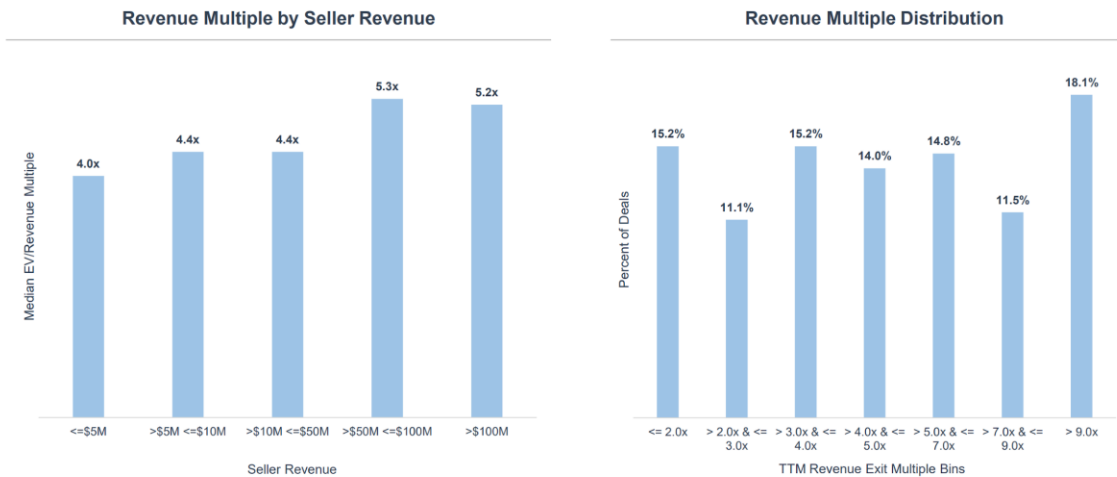


EV/Revenue vs. EBITDA Margin (TTM)



Revenue Multiples – Last 3 Years⁽¹⁾

Companies of scale are generally rewarded with higher revenue multiples. In addition, over half of SaaS sellers posted an EV/Revenue multiple of 5.0x EV/Revenue or less, while nearly a third of companies posted a multiple greater than 7.0x.



(1) Last 3 years as of December 2019.

XIV. Appendix E — Aprio Quality of Earnings Report (Excerpt)

Executive summary | Overview and points of interest

Financial overview

\$'000	FY18	FY19
Revenue, reported	13,150	17,519
Revenue, normalized	13,167	17,484
<i>Growth rate</i>		32.8%
Gross profit	6,095	10,531
<i>Gross margin</i>	46.3%	60.1%
Operating expenses	16,638	16,717
<i>% of net sales</i>	126.5%	95.4%
EBITDA, as reported	(10,389)	(6,017)
Total adjustments	3,264	373
EBITDA, normalized	(7,124)	(5,644)
<i>EBITDA % normalized</i>	-54.1%	-32.3%
	Dec-18	Dec-19
Current assets	7,464	7,664
Current liabilities	11,067	15,025
NWC, reported	(3,604)	(7,360)

Source: Monthly internal financial statements

Business overview

Founded in 2011 and headquartered in Boston, Massachusetts, the Company develops, licenses, and supports software used by English Language Learners and the educators that serve them throughout the US.

The Company employs 144 individuals of which 96 are based in the Boston office and 48 work on a remote basis. Of the 144 individuals, 134 are full-time, 6 are part-time, 3 are interns, and 1 is a contractor.

Basis of presentation and quality of information

The Company utilizes QuickBooks for accounting and financial reporting based on a December 31 calendar year-end. QuickBooks is paired with the use of manual spreadsheets prepared by Management for the recognition of revenue. Refer to the *Billings and revenue recognition Schedule 2* for details of additional systems utilized for the billing and recognition of revenue. The Company pairs QuickBooks with Adaptive Insights for financial reporting and analysis.

- Dennis Morgan, CFO, is responsible for all accounting and financial reporting functions with the assistance of a controller, Daniel Hoffman, and a staff accountant, Zu Jun (Joe) Chen.

Commencing January 1, 2018, the Company changed its policy for the recognition of training revenue. Historically, the Company recognized training revenue over the subscription period. As of January 1, 2018, the Company began recognizing training revenue in full at the time the training is delivered. Refer to the *Billings and revenue recognition Schedule 2* for additional details.

- In addition, the Company is in the process of finalizing its adoption of ASC 606. Refer to the ASC 606 section on the subsequent *Overview and points of interest* slide for details.

The Company's financial statement close process is completed by Daniel Hoffman on a monthly basis. The closing process primarily consists of the reconciliation of account balances, review and recording of revenue based on billings information generated from Salesforce CPQ, recording of accruals for payroll, and recording of accruals for invoices received subsequent to month-end, as necessary.

The Company utilizes Namely as its payroll provider. Payroll is paid every other week for the current period.

- Bonuses, for those employees that are eligible, are paid based on Company performance (tied to bookings). Note that in 2020, the bonus will be tied to ARR. The Company accrues bonuses throughout the year, and the bonuses are paid in January of the subsequent year.
- Commissions are accrued for as bookings occur, including new ARR, renewal ARR, and services, and are paid in the subsequent pay period after being earned.

The MFA Companies was engaged by the Company to perform an audit of the Company's 2017 and 2018 financial statements. We accessed the Company's 2017 and 2018 audit working papers as part of our financial due diligence procedures noting all auditor identified adjustments were recorded. Refer to the *Reconciliation to audited FS* in *Schedule 6* for details.

- In addition, The MFA Companies has historically been engaged for federal and state tax return services.

Executive summary | Overview and points of interest (2)

Billing and revenue recognition

- The Company generates revenue primarily through three revenue streams:
- Subscriptions – Recognized as revenue daily over the life of the contract, usually 12 months.
 - Data & implementation – Recognized as revenue daily over the life of the subscription, usually 12 months. Refer to the ASC 606 section below for details of expected changes in recognition.
 - Training – Recognized based on the date the training is delivered or upon expiration. Refer to the ASC 606 section below for details of expected changes in recognition.

Refer to the *Billing and revenue recognition Schedule 2* for additional details regarding the recognition of each revenue stream.

ASC 606 adoption

Management indicated the Company, in connection with the FY19 audit, is currently analyzing the impact of the adoption of ASC 606. Management indicated the expected impact to the three primary revenue streams is as follows:

- Subscriptions – No impact expected.
- Data & implementation – As detailed in the *Billing and revenue recognition Schedule 2*, revenue is currently recognized daily over the life of the subscription. Management indicated revenue under ASC 606 is expected to be recognized as the data & implementation services occur, generally over a 60 to 90 day period. As a result of the adoption, billings for data & implementation services that have been completed but which have not fully been recognized as revenue and as such have a deferred revenue balance will now be recognized in fully in a calendar year. Note that total data & implementation deferred revenue as of December 31, 2018 and December 31, 2018 were approximately \$247,000 and \$229,000, respectively. Refer to the *Quality of earnings* analysis for the estimated impact to Revenue and EBITDA.
- Training – Training revenue will continue to be recognized as delivered. The key change expected relates to contracts whereby a fee for training is not explicitly stated. Historically, the full subscription revenue would be recognized over the subscription term. Under ASC 606, the implicit value of training delivered would be deducted from subscription revenue and recognized upon delivery of the training (not over the subscription term).

ASC 606 adoption (continued)

Note that the impact of adoption is expected by Management to be treated on a modified retrospective basis; therefore, FY19 revenue will be adjusted and any impact to FY18 will be included as a retained earnings adjustment.

Positive Learning

The Company acquired the assets of Positive Learning in September 2019. Based on the Asset Purchase Agreements, terms included a purchase price of \$2,600,000 with \$1,700,000 paid at closing (including escrow) and \$900,000 in the form of an unsecured promissory note due one year subsequent to closing. Note that the Company has accrued \$900,500 for FY20 payment as this payment includes accrued interest.

Employee turnover

	Quantity	
	FY18	FY19
Beginning	101	120
Plus: Hires	53	47
Less: Terminations	(34)	(32)
Ending	120	135

Source: Monthly internal financial statements

Note that the Company has had 66 terminations, whether voluntary or involuntary, over the two year period of FY18 and FY19. Further, note that the Company has hired 15 individuals and terminated 6 individuals during FY20 extending the total current headcount to 144 as stated on the previous slide. Management indicated high turnover is driven by multiple reasons, including:

- Below market compensation – Management indicated the Company’s employees often leverage their experience at the Company to leave for more favorable compensation at larger technology companies.
- VP of Engineering – The Company hired a new VP of Engineering in December of 2018. Since the date of higher, 19 individuals have left the Company. Management indicated there has been a push to increase the qualification requirements of the Company’s engineers, leading to a short-term increase in turnover.
- Interns and part time – 16 of the 66 terminations were either interns, part time, or another form of temporary hire.

Executive summary | Quality of earnings

Quality of earnings

\$'000	FY18	FY19
Revenue, reported	13,150	17,519
ASC 606, estimate	A	NQ (18)
Out-of-period revenue	B	17 (17)
Revenue, normalized	13,167	17,484
EBITDA, reported	(10,389)	(6,017)
<i>EBITDA margin, as reported</i>	-79.0%	-34.3%
Normalizing adjustments:		
Stock-based compensation	C	213 195
Severance	D	28 112
Hosting transition, estimate	E	- 100
ASC 606, estimate	A	NQ (18)
Out-of-period revenue	B	17 (17)
Share repurchase	F	3,007 -
Total normalizing adjustments	3,264	373
EBITDA, normalized	(7,124)	(5,644)
<i>EBITDA margin, normalized</i>	-54.1%	-32.3%

Source: Monthly internal financial statements; discussions with Management

Overview

The *Quality of earnings* schedule summarizes reported revenue, reported, and EBITDA, reported, with adjustments for certain non-recurring, non-operating, or non-cash items for your consideration. Because there is no authoritative literature or common standard with respect to the calculation of normalized EBITDA, there is no basis to state whether all appropriate and comparable adjustments have been made. In addition, while the identified adjustments may indeed be unusual or infrequently occurring, it is possible that there may have been other items not included in the calculation, and it is possible that future periods may also include such items, although they would be different from the historical items.

Revenue, normalized

The following adjustments to revenue were identified during due diligence.

- A. **ASC 606, estimate** – As referenced in the *Overview and points of interest*, the Company is currently analyzing the impact of the January 1, 2019 modified retrospective adoption of ASC 606. To estimate the potential impact, we have made the assumption that data & implementation revenue would be recognized in the month in which it was invoiced. As a result, all data & implementation revenue invoiced in FY18 but recognized in FY19 would be recognized as a negative adjustment to FY19 revenue and EBITDA. Offsetting this, all data & implementation invoiced in FY19 and included as part of deferred revenue as of December 31, 2019 (i.e. not yet recognized) would be recognized as a positive adjustment to FY19 revenue and EBITDA. Note that Management indicated implementation services generally take 60 to 90 days, therefore the actual adjustments will likely differ. Refer to the table below for additional details.

ASC 606, data and implementation estimate

\$'000	Dec-18	Dec-19	FY19
Deferred revenue, SaasOptics	240	10	(229)
Deferred revenue, CPQ	7	219	212
Revenue adjustment	247	229	(18)

Source: Subscription rev rec workpapers

- B. **Out-of-period revenue** – Instances exist whereby the Company recognizes revenue in a month(s) subsequent or prior to the month in which the subscription commences. Refer to the *Billing and revenue recognition Schedule 2* for details. Management indicated instances occurred subsequent to the close of the FY18 financial statements whereby contracts executed during FY19 had subscription commencement dates during FY18. As a result, the Company recognized the FY18 subscription revenue during January 2019. We have presented an adjustment to shift the revenue from FY19 to FY18 as the revenue (and related EBITDA) is out-of-period in nature.

EBITDA, as reported

EBITDA, as reported, is computed as net income plus interest expense, net, income taxes, and depreciation and amortization. See calculation at Schedule 1 in the Appendix.

Executive summary | Quality of earnings (2)

Quality of earnings

\$'000		FY18	FY19
Revenue, reported		13,150	17,519
ASC 606, estimate	A	NQ	(18)
Out-of-period revenue	B	17	(17)
Revenue, normalized		13,167	17,484
EBITDA, reported		(10,389)	(6,017)
<i>EBITDA margin, as reported</i>		-79.0%	-34.3%
Normalizing adjustments:			
Stock-based compensation	C	213	195
Severance	D	28	112
Hosting transition, estimate	E	-	100
ASC 606, estimate	A	NQ	(18)
Out-of-period revenue	B	17	(17)
Share repurchase	F	3,007	-
Total normalizing adjustments		3,264	373
EBITDA, normalized		(7,124)	(5,644)
<i>EBITDA margin, normalized</i>		-54.1%	-32.3%

Source: Monthly internal financial statements; discussions with Management

Normalizing adjustments

The following adjustments reflect non-operating, non-recurring or out-of-period in nature items identified during due diligence. Unless noted, values were obtained from the Company's monthly trial balances and supporting schedules.

- C. Stock-based compensation** – We have presented an adjustment to add-back stock-based compensation incurred as the balances are non-cash in nature and pertain specifically to the capital structure of the business.
- D. Severance** – Management indicated severance was paid to 14 terminated individuals across FY18 and FY19 (of the 66 total terminated) totaling approximately \$27,827 and \$112,210, respectively. We have presented an adjustment to EBITDA, reported for severance paid as the amounts are non-recurring in nature.
- E. Hosting transition, estimate** – The Company transitioned its hosting platform from Rackspace to Amazon Web Services during FY19. As part of the transition, Management indicated duplicate instances were run on each platform for a period of time between June 2019 and September 2019. We have estimated the duplicate costs incurred by taking an average of hosting costs during FY19 (excluding June through September) and adding back the excess of the cost during July through September when compared to the average cost.
- F. Share repurchase** – As part of the Series B equity round in December 2017, the Company raised \$15,830,993. Of the capital raised, \$5,825,994 was utilized to repurchase Preferred A and Common shares in February 2018. As part of the repurchase, the Company paid a repurchase price of \$7.53 for the common shares as compared to the fair value of those shares as determined for IRS Section 409A purposes of \$2.79. The difference of \$4.74 was classified as cash compensation expense. We have presented an adjustment for the share repurchase recorded as cash compensation expense as the repurchase is related to the capital structure of the business.

XV. Appendix F — Cyligent Tech Report (Excerpt)

Key Observations (SWOT)

Strengths

- [Process] The data ingestion process for district SIS data is refined, flexible, and does not have frequent issues.
- [Tech] The system allows math content to differ across states (e.g. common core vs. Texas-specific financial literacy).
- [Process] Fake district data available for testing, which maintains security posture and avoids exposing real data to engineers.
- [Process] Opportunistic removal of technical debt with a move to a modern microservices-oriented architecture helps team efficiency, product scale, and overall quality moving forward.
- [Tech] Code quality (limited sample) appears high and suitable for future innovation.
- [Process] Reasonable definition of “done” helps keep quality high.

Weaknesses

- [Tech] Most data ingestion is done via file and sFTP instead of the more reliable API; this is out of Escuela’s control, however, as they must adhere to specific export functionality of the SIS.
- [Tech] Software architecture consists of many different technologies (some legacy) which impacts overall maintenance.
- [Tech] The APIs are publicly accessible but not documented; external access could impact security and reliability.
- [Tech] Infrastructure is largely based on AWS EC2 instances, which can be costly; team is moving away from this approach.
- [Tech] Legacy authentication methods are being replaced with more modern variants (JWT) but currently a mixed model, which may introduce security issues.

Opportunities

- [Tech] The software architecture can be manually scaled but auto-scaling is not currently enabled; auto-scaling would help with performance and cost efficiencies for periodic user load spikes.
- [Tech] Each district having its own monolithic database can increase complexities in maintenance, monitoring, and upgrades; consider a future multi-tenant architecture.
- [People] As the architecture moves towards more cloud-native services additional expertise and wisdom in this area is needed to augment the current engineers.
- [Tech] Debugging microservice applications is simplified by using a distributed tracing framework rather than simple log parsing which is the approach in use by the Escuela team today.

Threats (Risks)

1. [Tech] Difficult content update and creation process in the Math ecosystem via MCP-97 (acquired proprietary CMS) that slows down time to market for other content updates.
2. [Tech] Use of open source software (OSS) is ad-hoc without strong policies in place; leads to license and security risk.
3. [Tech] The team does not fully understand the Math platform and surrounding systems; may be more tech debt lurking.
4. [People] Only one developer from the Math acquisition to help with the Math transition creates a key-person risk.
5. [Tech] Bug debt is reasonably high (277 bugs) although we have no insight into the types and severity of bugs; team indicates the number is trending down.