

CodePath 2024-28 Strategic Plan + Appendices (V1 | 04.23.24)

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Executive Summary

Imagine that you are a computer science (CS) student enrolled in a typical public university. You've worked hard and now that you're a junior, you apply to summer internships at tech companies. But you don't get any offers because you can't pass the technical interviews and don't have the practical skills companies are looking for – no one taught them to you. During senior year, you apply again to tech firms but don't get hired because they are recruiting from the ranks of their summer interns. You settle for another kind of job, making half of what you would as an entry-level software engineer.

This is the reality for tens of thousands of CS students each year.¹ While the often affluent students at elite colleges learn industry-relevant skills and how to prepare for technical interviews, the largely low-income, first-generation, Black, Latino/a, and Indigenous (BLI/LI) students attending lower-resourced schools don't get the same support, rarely make the leap to industry, and are denied the life-changing opportunities that come with a software engineering career. As a result, these historically disadvantaged groups are once again left behind, missing out on trillions of dollars of wealth creation.

The nation faces a related problem as it moves toward “majority minority” status. The failure of colleges to prepare their BLI/LI students for the tech economy means fewer innovators and entrepreneurs tomorrow. If nothing is done and this growing portion of the population remains largely on the sidelines, economists estimate that the nation will lose out on more than \$1 trillion of economic output per year in the coming decades.² The status quo isn't just hindering the rise of historically marginalized communities; it is a harbinger of a less secure and prosperous future for everyone.

CodePath solves these two related problems by providing college students at lower-resourced schools – who are often Black, Latino/a, Indigenous, and low-income – with the skills and support they need to gain access to and thrive in the tech economy, benefiting them as individuals while improving how CS education and hiring works for everyone. Partnering with colleges and employers, CodePath teaches skills that companies need, provides personalized learning support, connects students to tech internships, and helps them find full-time software engineering jobs.

Critically, CodePath is growing its presence on campuses as a skeptical public is putting increasing pressure on colleges to justify their high cost. Acknowledging that their CS programs are not doing enough to help students get jobs, schools are increasingly looking to CodePath to help them improve their employment outcomes.

CodePath's results. Since launching seven years ago, CodePath has changed the lives of tens of thousands of BLI/LI young people and begun to transform colleges. Today, only 15-20% of BLI CS graduates land a tech job within one year of graduation compared to ~40% of White and Asian students. Serving 26,000 students over the past seven years, CodePath has not only completely closed this attainment gap for students in its program, it is increasing the job success rate for students from all backgrounds. **CodePath students, including BLI/LI students, land tech internships and jobs at the rate of 71%.** With CodePath graduate software engineer salaries averaging \$92,000, CodePath is already driving ~\$400M in new earnings each year.

CodePath's plan. Over the next five years, CodePath will scale to reach 100,000 students per year while maintaining a 60%+ internship/job placement rate – generating over \$5 billion in new earnings each year. Each CodePath student will have access to the personalized education, mentorship, and career support

¹ Hora, Matthew T. et al, “National Survey of College Internships (NSCI) 2021 Report: Insights into the prevalence, quality, and equitable access to internships in higher education,” Center for Research on College-Workforce Transitions, University of Wisconsin-Madison. <https://tinyurl.com/nhh4sznk>

² Peterson, Dana M. and Catherine L. Mann, “Closing the Racial Inequality Gaps: The Economic Cost of Black Inequality in the U.S.,” *Citi GPS: Global Perspectives & Solutions*, September 2020. <https://tinyurl.com/mryyme5c>

they need to launch a career in tech. Working with CodePath, colleges and employers will begin to shift their practices to remove barriers that disproportionately impact BLI/LI students and the nation will begin to harness the drive and creativity of *all* of its young people. CodePath will achieve these results through a three-part strategy:

1. **Scale nationally in breadth, and regionally in depth.** In the next five years, CodePath will scale 14X from 7,316 students in 2023 to 100,000 students in 2028 while maintaining outcomes. In addition to enrolling students directly (55,000 students per year by 2028), CodePath will expand its collaboration with colleges to embed its courses in college curriculum and foster a culture of engineering excellence in CS departments (45,000 students per year by 2028), with a focus on eight regions where CodePath will also engage employers, policymakers, and funders.
2. **Improve effectiveness while reducing costs.** CodePath's technology platform, train-the-trainer model, and culture of engineering excellence enables it to consistently serve and succeed with nearly 10,000 students today. Looking ahead, CodePath will meet the challenge of 14X scale by building new AI-powered tools that better support students at a lower cost, bolstering its train-the-trainer model with more student leaders and improved training, and further codifying and evangelizing its culture of engineering excellence.
3. **Develop sustainable sources of revenue.** CodePath needs a diversified balance of earned and philanthropic revenue to support scaling to 100,000 students and beyond. Given the recent rapid growth of philanthropic support (from \$3.7M in 2020 to \$28.1M in 2023), the priority for the next five years is growing earned revenue from its base of \$2.7M in 2023 to \$30.9M in 2028 by selling products and services that help companies access the best-prepared early-career tech talent and help colleges improve student employment outcomes.

Delivering on these goals will require CodePath to deepen its measurement, evaluation, and learning capacity. To this end, CodePath will build better data collection and analysis infrastructure, conduct experiments to drive continuous improvement, perform long-cycle evaluations to understand and improve program efficacy, and methodically track intermediate markers of student success to trigger personalized interventions as needed and keep more students on track for software engineering jobs.

CodePath's culture is a unique blend of mission-driven nonprofit organization and high-performing tech startup environment. The organization sets ambitious goals, works at a fast pace, and encourages first-principles thinking to advance its quest to make CS education more effective and equitable. Over the next five years, CodePath will maintain this culture of excellence while growing from 42 to ~160 employees and from 1,637 to more than 16,000 student leaders and volunteers.

During this time period, CodePath's expenses will increase by less than 4X – from \$16.2M in 2023 to \$59.9M in 2028 – even as students served increases by 14X. To do this, it will reduce cost per student served (from \$2,215 in 2023 to \$599 in 2028) by making strategic use of technology as well as leveraging a decentralized model that enlists student leaders and volunteers to recruit, teach, and support CodePath students. CodePath will raise \$261M in total revenues over the next five years to fund this plan, from \$31.2M in 2023 to \$76.1M in 2028, a growth of 2.4X. Philanthropy, rising from \$28M in 2023 to \$44M in 2028, will provide 71% of this total. Earned revenue, rising from \$2.6M in 2023 to \$30.9M in 2028, will provide 28%, while investment income provides the final 1%.

The full participation of BLI/LI talent in the U.S. tech economy is a moral and economic imperative. CodePath has a proven, scalable approach to facilitating economic mobility to these historically marginalized groups while strengthening the education and workforce systems that support them. With \$185M in philanthropic investment combined with \$72M in earned revenue, CodePath will launch the tech careers of two million BLI/LI students over the next 25 years, generating over \$2 trillion in cumulative new earnings and setting the stage for the nation's continued prosperity.

Problem

More than ever before, the quest for equal opportunity for all Americans is bound together with the nation's economic future. Today, Black, Latino/a, Indigenous, low-income and first-generation (BLI/LI) young people face long odds when it comes to getting into software engineering. For example, more than three quarters of Black students who start a computer science (CS) course of study drop out,³ and of those who complete a college CS degree, only 15% make the leap to industry.⁴ As a result, these historically marginalized groups are missing out on trillions of dollars of wealth creation and the U.S. is missing out on the capacity of a vast swath of its population to drive innovation and progress.

As bad as the situation is now, it's likely to get worse. Artificial intelligence (AI) will impact many low- and middle-skill jobs in the next five to ten years – even as it opens the door to breakthrough innovations in fields ranging from materials science to medical care.⁵ People who have the skills to help *create* this future are going to enjoy a rising standard of living while those who don't are going to fall further behind. Unless something is done to reverse the trend, income inequality – already high in the U.S. – is poised to skyrocket.

Software engineers are the architects of the current age of innovation. They develop the technology that is remaking society and reap vast economic benefits as a consequence. The most powerful way to reverse the historical disadvantages faced by BLI/LI Americans is to remove the barriers preventing them from becoming the creators of the future. Because the software engineering pathway typically requires a four-year CS degree, the most important barrier to address is the low rate at which BLI/LI young people graduate from college CS programs with the skills required by industry.

Largely unchanged since the 1980s, college CS programs are too theoretical and disconnected from industry needs – as well as insufficiently supportive – to launch most of their students into software engineering careers.⁶ BLI/LI students, who are more likely to arrive at college with significant gaps in their preparation, often can't get the support necessary to remediate those gaps and keep up with their advantaged peers. Together with other disadvantages – BLI/LI students are more likely to be juggling work with school and taking care of relatives⁷ – colleges' failure to provide differentiation results in a 5-year completion rate of only ~20% for BLI/LI CS students.⁸

To land and succeed in an engineering job, students need a strong foundation in CS, industry-relevant skills, and the ability to pass a technical interview. While students at high-resource schools have ample access to skilled professors, internship opportunities, and student clubs that help them practice for technical interviews, students at lower-resourced schools have much less access to experienced professors, internship preparation, alumni mentors, and extracurricular resources.

³ Chen, Xianglei and Matthew Soldner, "STEM Attrition: College Students' Paths Into and Out of STEM Fields," *National Center for Education Statistics*, Institute of Education Sciences, U.S. Department of Education, November 2013. <https://nces.ed.gov/pubs2014/2014001rev.pdf>

⁴ Bui, Quoc Trung and Claire Cain Miller, "Why Tech Degrees Are Not Putting More Blacks and Hispanics Into Tech Jobs," *New York Times*, February 25, 2016. <https://tinyurl.com/mwwk2enu>

⁵ Workers who earn less than \$38,200 a year will be as much as 14 times more likely to need to switch jobs than higher earners by the end of the decade, according to Kweilin Ellingrud et al, "Generative AI and the future of work in America," *McKinsey Global Institute*, July 2023, p 9.

⁶ Draus, Peter et al., "Exposing the IT Skills Gap: Surveying Employers' Requirements in Four Key Domains," *Information Systems Education Journal*, April 2022. <https://files.eric.ed.gov/fulltext/EJ1342022.pdf>; Scott, Allison et al., "The Leaky Tech Pipeline: A Comprehensive Framework for Understanding and Addressing the Lack of Diversity across the Tech Ecosystem," *Kapor Center for Social Impact*. <https://tinyurl.com/2xfpecnm>

⁷ Scott et al.

⁸ A 2015 study found 5-year graduation rates from four-year STEM bachelors degree programs as follows: Native American students (18.8%), Black students (22.1%), and Latino students (18.4%). <https://tinyurl.com/mwzjhpr6>

As a result, students at lower-resourced colleges rarely get considered by leading tech companies. Most employers hire their entry-level engineers through internship programs. Lacking a better signal of where to find the best talent, they recruit mostly at prestigious, high-resource schools. When BLI/LI students at lower-resourced schools do manage to get considered, they struggle to pass technical interviews. As a result, while 40% of Asian CS students make the transition to a software engineering job within one year of graduation, only about 16% of Black students do so.⁹

These gaps in making the transition between college and industry represent an existential crisis for the nation. As the U.S. continues to shift toward “majority-minority” status, the failure of the higher education system to prepare BLI/LI students for the tech economy means the majority of the population is set up for failure. On its current trajectory, the nation can anticipate fewer scientists and entrepreneurs to drive innovation, further declines in social mobility, increasing income inequality, and more extreme political polarization. If nothing is done, economists estimate that the nation is on track to lose out on \$50 trillion of economic output over the next 30 years.¹⁰ In other words, the status quo isn’t just hindering the rise of historically marginalized groups; it is robbing us all of a more secure, innovative, and prosperous future.

Solution

A national nonprofit organization, CodePath is solving these problems by transforming college CS education so that it works for everybody, especially BLI/LI young people. First, CodePath provides high-quality, industry-aligned courses that teach modern software development skills and enable students to pass technical interviews. Second, CodePath personalizes its instruction to enable a wider range of students to master the CS curriculum. Third, CodePath connects students to software engineering internships and jobs. Finally, CodePath influences colleges to change their practices to better support the success of BLI/LI students.

Together, these four elements of CodePath’s solution enable students to acquire an *elite level of technical readiness* and get tech jobs. CodePath graduates are among the most highly-sought-after software engineering prospects. Further, by focusing its efforts on BLI/LI students, CodePath prepares these historically marginalized groups to contribute to and benefit from the greatest wealth creation engine in the country’s history: the modern tech economy.

Critically, CodePath is embraced by colleges because it complements existing college programs rather than competing against them. CodePath is growing its presence on campuses as a skeptical public is putting pressure on colleges to justify their high cost. Acknowledging that their CS programs are not doing enough to help students pass technical interviews and get jobs, schools are looking to CodePath as a way to improve employment outcomes for their graduates.

Finally, CodePath’s programs are effective at scale because they leverage practicing software engineer volunteers (1,330 as of early 2024) and student leaders (307 as of early 2024) to inspire and support the next generation to embrace a culture of engineering excellence. In addition to technical skills, software engineers need collaboration and communication skills as well as a desire and capacity to continually learn. CodePath operates like a modern-day, technology-enabled guild, welcoming new entrants into the software engineering craft and supporting them to develop the full range of skills and habits of mind required for success.

Elite, industry-aligned curriculum

Engineering involves a wide range of skills, including data structures and algorithms, software design patterns, technology stack-specific knowledge, and development workflows. In addition to these technical

⁹ Quoctrung and Miller.

¹⁰ Peterson and Mann.

skills, software engineers must know how to ask for help, build relationships with peers, make good use of feedback, and communicate technical choices.

College CS programs, however, focus on the mathematical foundations of CS and for the most part do not even attempt to teach the practical skills of modern professional software engineering or the skills required to land a software engineering job. Once again, this gap impacts BLI/LI students the most.

Developed in collaboration with senior engineers at top tech companies, the CodePath curriculum teaches students this full range of skills – enabling them to achieve an elite level of industry readiness – through intense hands-on practice and feedback. For example, CodePath’s anchor course, Technical Interview Preparation, challenges students with a cascading sequence of ~200 algorithmic challenges that are both foundational to the practice of CS and essential for passing technical interviews. Other classes, such as web development, Android, and iOS Development, teach skills required for modern software development while also building technology-stack-specific knowledge.

The CodePath curriculum is more practical, engaging, and collaborative than traditional CS curriculum. Students use collaborative software development tools used in industry and regularly launch applications that demonstrate their growing skills. Students in Technical Interview Preparation work together to wrestle with what can feel like impossible algorithmic challenges. Throughout the curriculum, CodePath teaches skills and mindsets that enable young software engineers to become self-driven learners. See Appendix A for the story of how the CodePath model was developed.

Personalized learning support

Students in lower-resourced institutions – the vast majority of BLI/LI CS students – typically arrive at college with significant gaps in their preparation and varying abilities to keep up with the pace of CS classes. They need their education to be *personalized* by teachers who understand potential gaps, provide instruction to remediate those gaps, offer multiple ways to learn new and difficult concepts, and provide ample opportunity for practice at the right level of challenge.

Historically, 1:1 or small group tutoring has been an effective way to personalize learning and teach mastery of a particular domain. In this approach, the tutor pays careful attention to what the student knows and offers step-by-step instruction to enable them to overcome gaps and master learning goals. Research has shown that students who learn with this personalized approach advance more rapidly than students who learn in a typical group classroom environment.¹¹

CodePath works to replicate the efficacy of 1:1 mastery-focused tutoring by weaving together a high-tech and high-touch support system. The CodePath platform, the technology that underpins Codepath’s courses, personalizes learning by: 1) grouping students into learning groups based on their abilities and interests, 2) enabling instructors to provide students with problems that offer the right level of challenge, and 3) providing first-line technical support to students looking for help with homework.

At the same time, the high-touch part of CodePath provides students with feedback, validation, and accountability that propels their learning journey. For example, even beginner CodePath students are asked to explain concepts they have learned to students who are earlier in their learning journey. In this process, the “student” gets the benefit of personal attention from the “teacher,” and the “teacher” consolidates their knowledge as they explain what they know. In addition, teachers and Tech Fellows regularly take a break from technical content to build relationships with and among students.

¹¹ Nickow, Andre, Philip Oreopoulos, and Vincent Quan, “The Impressive Effects of Tutoring on PreK-12 Learning: A Systematic Review and Meta-Analysis of the Experimental Evidence,” *National Bureau of Economic Research*, Working Paper 27476, July 2020. <http://www.nber.org/papers/w27476>

Connections to companies

Most entry-level software engineers are hired through internship programs. For example, 80% of Meta and 78% of Google engineers have had a prior technical internship.¹² Students at lower-resourced colleges rarely get hired by leading tech companies because they rarely get internships. CodePath solves this problem by: 1) building relationships with companies that hire interns, 2) equipping students to succeed in the technical interviews that are the gateway to internship offers, 3) preparing students to an elite level of technical readiness so they can succeed as interns, and 4) connecting students with employers that may be a good fit for full-time jobs after graduation.

Over time, CodePath's goal is to develop a more data-informed trust system to guide employers. Today, employers rely heavily on college prestige when deciding who to hire; students at elite colleges are assumed to be the best candidates. However, it would be more accurate and equitable for both employers and students if companies could hire based on demonstrated skills. Employers would get the students who are best prepared to be productive in their new roles and students could commit themselves to their studies with the confidence that demonstrated skills – not pedigree – is what matters for getting a job. With its knowledge of students' capabilities and strong relationships with employers, CodePath is well-positioned to drive this fundamental shift in the CS labor marketplace.

Integration into colleges

CodePath typically first appears on a college campus because a student enrolls in a free, online course. After that student has a good experience and lands an internship, they're likely to tell professors and friends about their experience, leading more students to enroll and discover the value of CodePath, generating more positive testimonials and referrals.

This positive feedback cycle creates opportunities for CodePath to integrate more fully into colleges and serve more students. Today, 116 colleges partner with CodePath by providing instructors or Tech Fellows and 22 are offering credit for CodePath courses. CodePath is also working with four colleges to integrate CodePath into their CS degree program.

Ultimately, CodePath is committed not only to growing the numbers of underrepresented students who can access careers in tech, but also to changing the CS higher education system so that it works better for all learners. Given the pressure they face to demonstrate a return on investment, colleges increasingly recognize CodePath's value proposition: courses that teach industry-relevant skills, preparation for technical interviews, and connections to employers. Over time, as CodePath continues to demonstrate results, colleges will be inspired to incorporate more of these kinds of features into their own CS and STEM programming – to the particular benefit of their BLI/LI students.

Impact and Evidence To Date

CodePath's primary goal is to provide college students at lower-resourced schools – who are often BLI/LI – with the skills and support they need to gain access to and thrive in the tech economy. Therefore, to assess its impact, CodePath asks and answers two primary questions: 1) Is CodePath serving the student population that it aims to serve? and 2) at what rate are CodePath graduates securing internships and full-time jobs in tech? The answers to these questions, provided below, show that CodePath's solution is working and that job outcomes are remarkably consistent across race, income, and gender.

¹² Selingo, Jeffrey, "Are Internships the Only Way for Recent College Grads to Grab Entry-Level Jobs?" *The Washington Post*, April, 29, 2019. <https://tinyurl.com/2rr3uskr>

Who is CodePath serving?

From 2017 through 2023, CodePath served 20,344 unique students¹³, distributed across the following categories in CodePath's target market (for example, 20% of all CodePath students are Black while 9% of graduates from CS programs are Black).

Student group	CodePath students	All CS graduates ¹⁴
Black	20%	9%
Latino/a	18%	12%
Indigenous	0.5%	<1%
Low-income	36%	Unknown
First generation	44%	Unknown

What are the employment outcomes of graduates?

Seventy-one percent (71%) of CodePath students who graduated from 2017-2022 have achieved full-time employment in tech, dramatically higher than the estimated average of 35% for CS graduates in recent years.¹⁵ This result breaks down as follows:

Student group	CodePath students ¹⁶	All CS graduates ¹⁷
Black	67%	16%
Latino/a	65%	12%
Low-income	66%	Unknown
First generation	68%	Unknown

The employment success of CodePath students who are classified as low-income is only slightly less than those who are not (66% vs 70%). Similarly, the employment success of Black and Latino/a CodePath students (67% and 65% respectively) is only marginally lower than the employment success of White and Asian CodePath students (75%). Notably, the employment success of female students (75%) is higher than male students (71%).

These results indicate that CodePath's high-tech plus high-touch support system enables CodePath students to achieve an elite level of technical readiness, regardless of race, income, or gender. CodePath's teaching principles for effective education will continue to drive curriculum and student experience design for the foreseeable future. See Appendix B, CodePath Founding Principles for more detail.

¹³ The number of unique students served is smaller than the total number of students served from 2017-22 because some students take more than one course.

¹⁴ National Center for Education Statistics for the academic year 2021-22; <https://tinyurl.com/5ahrnhcf>

¹⁵ Quoc Trung and Miller.

¹⁶ Data for CodePath students comes from analysis based on data from CodePath and LinkedIn. CodePath has developed software that regularly scrapes the LinkedIn profiles of its alumni and classifies the internships and jobs of each alumnus. Launched in the second quarter of 2024 and based on GPT-4 Turbo, this software has been validated by human reviewers.

¹⁷ Quoc Trung and Miller.

Introduction to the 2024-28 Plan

Over the next five years, CodePath will scale to 100,000 students while maintaining a 60%+ internship/job placement rate, generating \$5 billion in added earnings for CodePath graduates annually by 2028. Each CodePath student will have access to the personalized education, mentorship, career support, and work experience they need to launch a career in tech. Working with CodePath, colleges and employers will begin to shift their practices to remove barriers that disproportionately impact BLI/LI students.

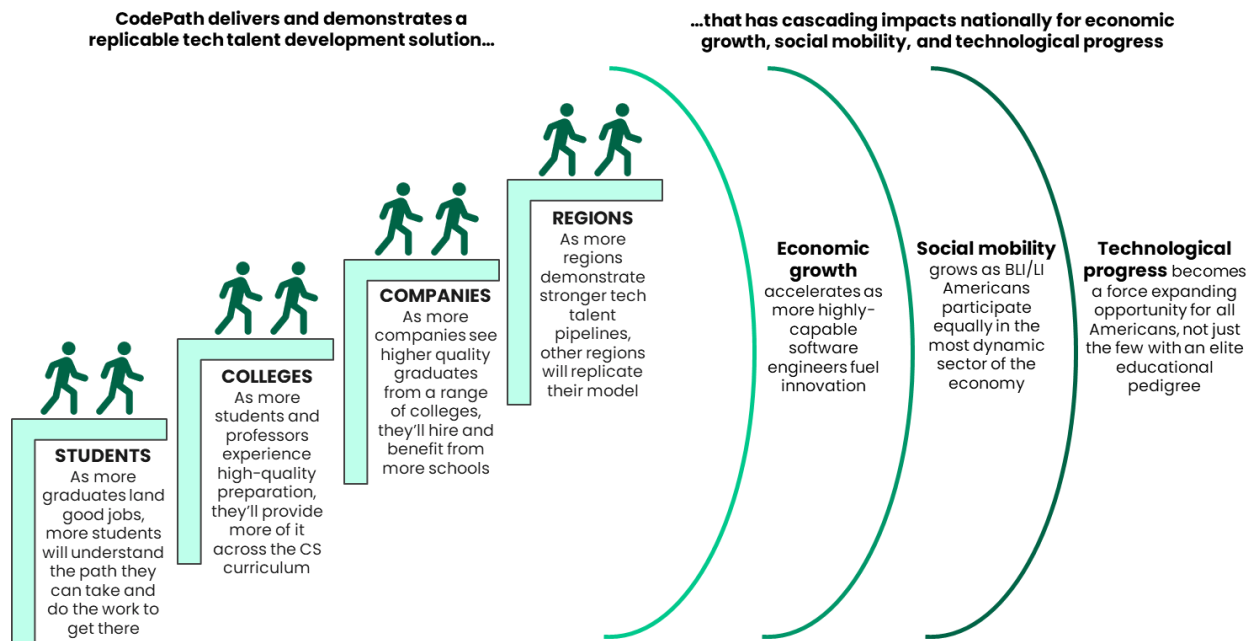
CodePath will achieve these results through a three-part strategy:

2024-2028 strategic plan pillars

1. **Pillar 1: Scale nationally in breadth, and regionally in depth.** In the next five years, CodePath will scale 14X from 7,316 students in 2023 to 100,000 students in 2028 while maintaining outcomes. In addition to enrolling students directly (55,000 students per year by 2028), CodePath will expand its collaboration with colleges to embed its courses in college curriculum and foster a culture of engineering excellence (45,000 students per year by 2028), with a focus on eight regions where CodePath will also engage employers, policymakers, and philanthropists.
2. **Pillar 2: Improve effectiveness while reducing costs.** CodePath's technology platform, train-the-trainer model, and culture of engineering excellence enables it to consistently serve and succeed with nearly 10,000 students today. Looking ahead, CodePath will meet the challenge of 14X scale by building new AI-powered tools that better support students at a lower cost, bolstering its train-the-trainer model with more student leaders and improved training, and further codifying and evangelizing its culture of engineering excellence.
3. **Pillar 3: Develop sustainable sources of revenue.** CodePath needs a diversified balance of earned and philanthropic revenue to support scaling to 100,000 students and beyond. Given the recent rapid growth of philanthropic support (from \$3.7M in 2020 to \$28.1M in 2023), the priority for the next five years is growing earned revenue from its base of \$2.7M in 2023 to \$30.9M in 2028 by selling products and services that help companies access the best-prepared early-career tech talent and help colleges improve student employment outcomes.

A series of cascading impacts will follow as CodePath reaches more students while maintaining strong job outcomes, supported by sustainable revenue streams: 1) growing numbers of BLI/LI CodePath graduates will inspire even more BLI/LI young people to pursue software engineering; 2) influenced by CodePath, college CS programs will become more industry-aligned, hands-on, and community-oriented; 3) companies will increasingly hire based on demonstrated skill rather than educational pedigree; 4) economic growth will accelerate as more highly-capable software engineers fuel innovation; 5) social mobility will grow as BLI/LI Americans participate equally in the most dynamic sector of the economy; and 6) technological progress will be thought of as a force that is expanding opportunity for all Americans rather than one that benefits only those few with elite educational pedigrees.

This short- and long-term impact is represented in the graphic below. In addition, see Appendix C for a visual depiction of CodePath's theory of change.



Pillar 1: Scale Nationally in Breadth, and Regionally in Depth

CodePath is targeting 100,000 students in 2028 because this is an ambitious yet achievable target that, if met, would have a major impact on the problem. 100,000 students represents about 17% of the 600,000+ students projected to be in CS programs in 2028. The primary driver of enrollment growth will continue to be the direct-to-student model, where individual students opt-in to virtual CodePath courses (*CP Direct*). To grow reach and to effect systems change, CodePath is launching a new model, *CP Partnered*, a collaboration with colleges to prepare students for technical interviews and job success. CodePath will focus implementation of *CP Partnered* in metropolitan areas with high numbers of BLI/LI CS students where it will also collaborate with companies, philanthropists, and policymakers to build a robust software engineering talent development ecosystem.

CodePath Direct

CodePath's obsession with providing high-quality courses has generated positive trust and brand recognition among students and faculty at hundreds of colleges. Developed and refined over the past seven years, the CodePath growth playbook leverages this trust and brand recognition to draw more students into courses in an increasingly efficient manner. The steps are as follows:

1. **Plant initial seeds.** Drive initial student awareness and enrollment via digital channels (social media, search, email), peer-to-peer referrals, or events; enroll the first student at a college.
2. **Engage college channels.** Inform CS faculty and career center staff that one of their students has enrolled; explain the value of CodePath and encourage the school to promote it.
3. **Provide highly effective courses.** CodePath provides courses that students and faculty love and trust – and then helps students get jobs; students with positive experiences refer others.
4. **Activate student leaders.** Recruit top students to serve as Tech Fellows, ambassadors, or TAs at that college; encourage and support these students to evangelize CodePath programs.
5. **Reap the rewards of success.** Spend less time and money growing enrollment as graduates land jobs and share their success with their peers, fueling further enrollment.

Since CodePath's founding in 2017, over 26,000 students at 600 colleges and universities have enrolled

via this playbook, with a greater than 10% market penetration at 17 colleges. Looking ahead, CodePath aims to grow *CP Direct* enrollment from 7,316 students in 2023 to 55,000 students in 2028 by deploying an enhanced version of this playbook with a focus on outreach to four types of colleges and universities:¹⁸

- **Public 4-year universities** where the bulk of BLI/LI CS students are studying, such as CUNY, California State University, and the University of Texas. (Target growth from 4,000 students across 105 institutions in 2024 to 35,000 students across 140 institutions in 2028)
- **HBCUs and HSIs** with a high percentage of students in CodePath's target market, such as Howard University (HBCU) and Florida Atlantic University (HSI). (Target growth from 2,650 students across 63 institutions in 2024 to 16,000 students across 98 institutions in 2028)
- **Community colleges** with CS departments that are feeder schools to large, public, 4-year institutions such as Miami Dade College and Perimeter College. (Target growth from 150 students across 10 institutions in 2024 to 5,000 students across 24 institutions in 2028)
- **Online schools** with large BLI/LI populations such as Western Governors University and the University of Maryland Global Campus. (Target growth from 145 students across 2 institutions in 2024 to 3,900 students across 4 institutions in 2028)

CP Partnered

As the number of students grows at a particular college, administrators may begin to wonder: What is CodePath providing our students that we're not? As they discover the answer to that question – *CodePath is helping students build industry-ready skills and get jobs* – they may want to explore how they can bring this value to more of their students

To answer this call while advancing its goal of enrolling more target market students, CodePath is developing *CP Partnered* – a fee-based program that enables colleges to integrate CodePath courses into their CS program. *CP Partnered* features two elements of the CodePath program that are particularly important for students seeking jobs and that colleges are unlikely to provide themselves.

- **Technical Interview Preparation.** Today, most colleges do little to prepare their students for technical interviews. *CP Partnered* helps colleges solve this problem by providing its highly effective Technical Interview Preparation courses for credit, dramatically increasing the chances that students will be able to pass interviews and get software engineering jobs.
- **Career Services.** Colleges rarely offer high-quality job search support to students seeking employment as software engineers. CodePath helps colleges solve this problem by providing them with a package of career services specifically designed for aspiring software engineers, featuring its proprietary *CareerConnect* talent matching system.

With little outbound marketing, about a dozen colleges have expressed serious interest in *CP Partnered* services. CodePath aims to enroll an additional 45,000 students per year by signing up 63 colleges for *CP Partnered* by 2028, with the goal of capturing 40-90% of students at each partner college while maintaining outcomes of 60%+ of students securing software engineering internships or jobs.

Notably, CodePath's first partnerships with colleges have gone beyond technical interview preparation and career services to provide a larger portfolio of services, including: 1) integrating CodePath courses into the required curriculum; 2) co-teaching courses, with CodePath supplying adjunct faculty from partner corporations; and 3) providing mentors, hackathons, and other community-building programs. These deeper versions of *CP Partnered* are currently being piloted at four schools: Florida International University, Miami Dade College, Georgia State University, and Perimeter College.

¹⁸ The numbers in the categories do not add up exactly to 55,000 because some colleges fall into multiple categories.

Regional expansion model

With few exceptions, education and hiring markets are regional in nature, with 80% of early-career talent working within 100 miles of their hometown. The implication is clear: CodePath is likely to maximize its impact when it leverages the collective interests of local stakeholders in a regional talent production and consumption ecosystem.

Therefore, looking ahead, CodePath will take a regional approach to developing college partnerships. Taking a cue from other large-scale talent development efforts, such as Amazon's AWS Educate, CodePath will position itself at the nexus of a regional software talent development ecosystem, enlisting employers, colleges, philanthropies, government, and CodePath alumni to ensure that a high percentage of BLI/LI talent is cultivated, employed, and innovating within these regions. Metropolitan areas with large numbers of BLI/LI CS students are the top priority, including South Florida, Atlanta, the New York City tri-state area, Charlotte, Dallas, Houston, Los Angeles, and the Washington DC tri-state area. One or two regions will be launched each year, with the expectation that it will take three years for regions to reach 15-20% CS students within that region. See Appendix H for details on the CodePath regional expansion model.

Whether the distribution channel is direct or via colleges, course and program quality has been and will continue to be the primary driver of CodePath's expansion. While developing these marketing channels, the organization will continue to focus first and foremost in earning the trust and endorsement of students and faculty – primarily by delivering outstanding job outcomes.

Pillar 2: Improve Effectiveness While Reducing Costs

The Solution section outlined how three critical supports – industry-aligned curriculum, personalized learning support, and connections to companies – are the most important levers for improving job outcomes for computing students. This section discusses how CodePath consistently delivers these supports to 7,000+ students annually and how it will scale this delivery by 14X while maintaining or improving outcomes.

CodePath's technology – known as the CodePath Platform (*CP Platform*) – allows the organization to scale while maintaining programmatic fidelity. Developed iteratively over the past seven years, the *CP Platform* enables CodePath to:

- **Reduce costs by automating processes.** Almost all of the processes required to run a course are automated by the *CP Platform*, including: 1) admissions and pre-work assessment workflows, 2) signing students up for tools they'll need to use in the class, 3) communicating with students about class agendas and deadlines, 4) grading portions of student work and enabling human graders to provide feedback efficiently, and 5) providing students with feedback on their resume and providing advice about communicating with prospective employers (AI-powered bot). This automation dramatically reduces the need for human intervention.
- **Personalize the learning experience for students.** The *CP Platform* grades pre-work assessments and then groups students into classes based on their ability. Within classes, it groups students into six-person learning pods that include students with a range of abilities so that each student experiences helping and being helped by other students. The platform also allows instructors to assign problems at the right level of challenge.
- **Facilitate connections between students and employers.** The *CP Platform CareerConnect* feature uses information about individual students and alumni to match them with full-time roles and internships for which they are well qualified. This capability provides students and alumni continual access to best fit opportunities, increasing their likelihood of moving through the interview process and dramatically reducing their time spent job searching.

Beyond the *CP Platform*, several other program elements have contributed to CodePath's success to date and position it to be able to scale with fidelity:

- **Train-the-trainer model.** CodePath courses are managed by a 2-tier team. Instructors, who are experienced practicing software engineers, deliver the lectures. Tech Fellows, who are advanced students who previously completed the course with honors, facilitate learning pods and provide technical and emotional support to students. This system facilitates scale as instructors are able to leverage their talents with large groups of students and the more students that succeed in CodePath courses, the more Tech Fellows there are to support future students.
- **Culture of engineering excellence.** CodePath has developed a distinctive and holistic point of view about the skills early-stage software engineers need to grow in their abilities, including: how to ask for help; collaborating with others; teaching and mentoring others; communicating clearly, including in writing; synthesizing information effectively; and transferring skills to new contexts. Embedded into all CodePath courses, these skills and mindsets enable young software engineers to become self-driven learners, the key to their long-term success.

The *CP Platform*, train-the-trainer model, and culture of engineering excellence work together to enable CodePath to serve thousands of students while keeping the learning experience personalized and grounded in human relationships. Looking ahead, scaling this system by more than 10X will require CodePath to manage through a series of challenges, including 1) maintaining consistently high instructor and teaching fellow quality; 2) supporting students with an increasingly wide range of incoming skills, mindsets, and life constraints; and 3) ensuring that there are enough employers who want to hire CodePath graduates. CodePath will meet these challenges, while also reducing cost-per-student served, with a four-part response:

1. Build out the *CP Platform* to support even better outcomes while reducing costs

- **Enable even better personalization of student learning.** Today, the learning platform allows instructors to choose content modules appropriate for their students. In the future, the platform will conditionally adapt, showing different content and adjusting pacing based on granular data about student performance. This will enable students to spend more time in the “zone of proximal development,” where the level of challenge is just right to promote maximum learning.
- **Improve technical support and feedback on assignments.** Today, students get limited feedback on assignments; if they do something wrong, they may not get the guidance they need to know how to do it better next time. Looking ahead, the *CP Platform* will leverage AI to provide more specific feedback that enables students to progress faster. In addition, AI chatbots will provide first-line technical support when students have questions.
- **Monitor instructor and Tech Fellow performance more closely.** Today, the *CP Platform* does not collect instructor or Tech Fellow performance in a centralized database. In the future, the platform will monitor dozens of data points related to student progress and satisfaction to provide insight into instructor and Tech Fellow performance, allowing earlier and more effective interventions when necessary.
- **Facilitate even more connections between students and employers.** Today, the *CP Platform* facilitates thousands of interview matches between students and employers during CodePath events such as the Emerging Engineers Summit. In the future, the platform will serve students and companies year round, matching students, alumni, and companies based on detailed information about company goals and student capabilities.

All of these additional platform capabilities will require little to no human intervention, enabling CodePath to reduce cost per student served.

2. Bolster the train-the-trainer model with more Tech Fellows and better training

- **Decrease the ratio of students to Tech Fellows.** Today, Tech Fellows serve 30 students, which can lead to gaps in support for students and learning pods. In the future, Tech Fellows will be responsible for only 15 students, enabling more proactive monitoring and guidance of students and pods.
- **Add a new Tech Fellow leadership tier.** Today, Tech Fellows are managed by CodePath employees. In the future, with many more Tech Fellows, CodePath will add a new student leadership position: Tech Fellow Leads. Recruited from among the most effective Tech Fellows, Tech Fellow Leads will help recruit, train, and monitor Tech Fellows.
- **Improve instructor training.** Today, new instructors and Tech Fellows take a six-week course prior to beginning their assignment and participate in a community of practice during their course. In the future, CodePath will build a comprehensive training program that includes shadowing, observation, and coaching circles, anchored by rubrics that define performance standards.

3. Double down on culture building

- **Evangelize the CodePath culture of engineering excellence.** Today, CodePath embeds the teaching of engineering excellence into its curriculum. In the future, it will increasingly define its brand around this distinctive set of skills and mindsets and then evangelize them through alumni, articles, blog posts, videos, and speaking engagements. This will help all stakeholders – students, instructors, Tech Fellows, companies, and funders – support and advance the CodePath mission.
- **Foster student and alumni leadership.** Today, Tech Fellows develop leadership skills as they teach and encourage their fellow students. In the future, CodePath will recognize Tech Fellows who develop and demonstrate technical and leadership skills with badges, awards, and interview opportunities, providing further motivation to more students to develop the mindsets and skills that undergird software engineering excellence. In addition, CodePath will further activate its alumni as mentors and evangelists for the CodePath culture of engineering excellence.

4. Pursue a regional as well as national approach to building relationships with companies

- **Deploy regional representatives.** Today, CodePath builds relationships with dozens of large national tech companies. In the future, as the organization pursues a regionally-focused expansion strategy, it will reach out and build relationships with hundreds of companies, recruiting instructors and mentors as well as fostering demand for CodePath graduates.
- **Engage regional employer associations.** Today, CodePath reaches out to individual companies. In the future, it will also engage associations of businesses, such as chambers of commerce, in an effort to broaden awareness and engagement with CodePath programs.

In addition to these four strategies, two other initiatives will enable CodePath to meet the challenge of scaling. Building capacity for real-time data collection and analysis, critical for scaling with fidelity, is discussed in the Measurement, Evaluation, and Learning section, and the strategy for reducing cost-per-student-served while maintaining program quality is discussed in the Finance section.

Pillar 3: Develop Sustainable Sources of Revenue

In each of the past several years, more than three-quarters of CodePath's revenues have been provided by fewer than 10 foundations and high-net-worth individuals. While this support has been critical to CodePath's success to date, the organization recognizes that it is more likely to thrive and achieve systemic impact with a more diversified balance of earned and philanthropic revenue.

Working toward this end, CodePath has been earning revenue from corporations seeking high-quality early-career software engineering talent for years, and has recently started earning revenue from colleges

looking to improve student employment outcomes. At the same time, as described below, the organization is diversifying its philanthropic support to reduce risk and enhance long-term sustainability.

Earned revenue

CodePath's earned revenue opportunity arises from what might be called the software engineer training "last mile" problem. College CS departments focus on the theoretical and mathematical underpinnings of CS, including data structures, algorithms, and computer architecture. This foundational knowledge is helpful but far from sufficient to enable a student to succeed in a software engineering job.

To be productive in industry, entry-level software engineers need to know how to use modern software development tools for purposes such as source control and debugging. Even more important, they need to be able to solve problems on their own by looking up information, evaluating the relevance of different sources of information, and iterating toward a solution through experimentation. This is what CodePath teaches, and what companies have shown that they are willing to pay for. This revenue stream has ample room to grow, as companies reap hundreds of millions in benefits from a superior tech talent pipeline.

CodePath is also beginning to earn revenue from colleges who benefit from solving this "last mile" problem. In the face of increasing cost pressures and declining trust, colleges are eager to show that their graduates can get and succeed at good jobs. A popular and well-compensated career track, CS is a natural place for colleges to invest more to ensure their graduates are getting a good return on their investment.

Revenue from companies

U.S. companies hire tens of thousands of entry-level software engineers per year, spending tens of thousands per hire that adds up to hundreds of millions of dollars per year in investment in entry-level talent. In addition, firms typically spend over a thousand dollars on training per year per software engineer.¹⁹ While CodePath has thus far garnered only a small fraction of this market (\$2.6M in 2023), it is well positioned to grow its market share thanks to its large pool of graduates who have demonstrated an elite level of technical readiness.

Engineering leaders in dozens of companies have come to recognize that CodePath graduates have the skills and mindsets they need. "CodePath's student community embodies tech excellence and has enabled us to hire emerging leaders in engineering, information security, and customer success and services," says Jamie Lewis, Director, Early in Careers Program, Alteryx. "These next-generation leaders are transforming our workforce diversity, bringing new perspectives, and driving innovation."

CodePath is still in the early stages of monetizing this competitive advantage. Thus far, in its first four years of selling talent solutions to corporations, the organization has earned nearly \$10M from employers. CodePath achieved its highest annual corporate revenue to date in 2022 (\$3.8M), before seeing a decline in 2023 (\$2.6M) as major tech employers laid off employees and cut budgets. Entering 2024, CodePath has partnerships with dozens of companies (60+ attended the Fall 2023 Emerging Engineers Summit), longstanding contracts with noteworthy tech leaders (Meta, Salesforce), and high Net Promoter Scores of 70+ with corporate partners.

Today, CodePath sells three kinds of solutions to companies:

¹⁹ A report by the tech staffing company DevSkiller ("True cost of recruiting a developer," December 20, 2016, <https://tinyurl.com/snrbsybd>) estimated that companies spend \$50,000 recruiting software engineers, a figure that includes lost productivity from the open position. Meanwhile, U.S. companies spend an average of \$1,207 per year per employee on training ("2022 Training Industry Report," *Training*, November 16, 2022, <https://tinyurl.com/2ym2meen>).

- **Off-the-shelf talent discovery and recruiting services.** These buyers are seeking a high-quality, entry-level talent pipeline aligned to their priorities (e.g., geography, diversity, school, or role type). CodePath serves these buyers with modestly-priced packaged solutions such as participation in a job fair or access to resume books filled with highly qualified prospects.
- **Customized talent discovery and recruiting services.** These buyers are seeking help with a specific challenge, such as finding more diverse highly qualified entry-level software engineer prospects within a particular region. CodePath serves them with custom solutions, often including course sponsorships, that build a relationship between companies and students.
- **Talent training and upskilling services.** These buyers aim to increase the productivity of new recruits and early-stage software engineers. CodePath serves them by delivering immersive training programs that leverage its student sourcing, curriculum, and instructional capabilities to prepare students to tackle challenges they will encounter on the job.

Looking ahead, CodePath aims to grow its corporate revenue from 30 employer clients and \$2.6M in revenue in 2023 to over 275 employer clients and \$25.8M in revenue in 2028, a nearly 10x increase.

To better serve **off-the shelf talent discovery and recruiting buyers**, where the targeted revenue increase is from \$400K in 2024 to \$5M in 2028, CodePath will upgrade its tech-enabled talent matching solution called *CareerConnect* to enable even higher quality matches between students and recruiters as CodePath improves its data about student capabilities and company needs.

To fuel the growth of **customized talent discovery and recruiting services** from \$2M in 2024 to \$15M in 2028, CodePath will focus on serving companies in sectors such as defense, retail, and finance that are highly dependent on software for innovation, but are not as high-profile as “big tech” companies like as Apple and Google, and therefore have more difficulty recruiting top talent. These companies have a great deal to gain from improving their flow of high-quality early-career software engineering talent.

Finally, with **talent training and upskilling buyers**, where the targeted revenue increase is from \$1.3M in 2024 to \$5.8M in 2028, CodePath will leverage its demonstrated ability to help early-stage software engineers achieve an elite level of technical readiness. Based on market demand, CodePath will deliver programs focused at different points in the student/engineer life cycle (e.g., internship programs after freshman year, onboarding programs for new hires, or upskilling early-career engineers).

See Appendix D for additional details on CodePath’s corporate offerings and sales strategy.

Revenue from colleges

While CodePath is in the early stages of selling to colleges and recognizes the cost pressures faced by higher education institutions, two recent developments offer reasons for optimism. First, CodePath is already successfully transitioning several of its college relationships to paid partnerships, including with Florida Memorial University and Miami Dade College. Second, in recent interviews with 30 CS professors and administrators, more than 75% indicated that CodePath’s Technical Interview Prep course would be a valuable addition to their program and none indicated that they were already helping students prepare for technical interviews.

CodePath is responding to this opportunity by launching *CP Partnered*, a collaboration in which colleges support student recruitment and provide local faculty members while CodePath provides content, remote instructors, grading, and Tech Fellows (see Pillar 1 above). Initial sales development activities have revealed that two kinds of colleges are most interested in *CP Partnered*: 1) medium and large public universities that are under growing pressure to demonstrate successful labor market outcomes and 2) HBCUs and HSIs who are short on faculty to run their CS programs.

Building partnerships with these institutions and others, CodePath aims to grow higher education earned revenue from \$1,500 in 2023 and \$500K in 2025 to \$5.1M by 2028, an amount representing 64 college customers enrolling over 46K CodePath students and paying an average of ~\$110 per student. See Appendix E for additional details on CodePath's college offerings and sales strategy.

Philanthropic revenue

Since its launch, CodePath has developed and scaled philanthropic revenue to a much greater extent than earned revenue. Increasing by 50%-100% per year in each of the last three years, philanthropy totaled \$28.1M in 2023, far higher than anticipated several years ago.

Philanthropic revenue has grown rapidly because funders recognize CodePath offers a compelling value proposition. There are very few other organizations that can make such a strong case that they are simultaneously accelerating economic mobility, fostering a more racially just society, and laying the foundation for a more innovative and prosperous future. Moreover, CodePath's approach is scalable, with the potential to benefit hundreds of thousands of students and generate trillions of dollars of economic benefit to individuals and the country.

Looking ahead, the challenge for CodePath is to diversify philanthropic revenue so that it becomes more predictable and sustainable over the long term. Whereas 80% of 2023 philanthropic revenue was provided by fewer than five donors, in 2028, CodePath aims to have more than 200 donors, with no one donor accounting for more than 20% of total philanthropic revenue. This will be accomplished by building out four philanthropic revenue streams:

- **National corporate foundations** and corporate giving programs invest in diversifying the tech talent pipeline and prefer programs with strong impact metrics that are aligned with their corporate social responsibility and employee engagement strategies. CodePath will build on its existing strength within this category by strengthening its evidence that it enables a diverse range of students to achieve an elite level of technical readiness. (2023 actual: \$10.0M; 2028 goal: \$17.2M)
- **National private foundations** make investments that support their theory of change and catalyze additional giving. The combination of CodePath's direct-service programs and potential to drive higher education systems change positions it favorably with national foundations. CodePath will bolster its case with national foundations as it strengthens its evidence base and demonstrates that it can influence colleges to shift practices in ways that support historically underrepresented students. (2023 actual: \$1.5M; 2028 goal: \$8.0M)
- **Regional foundations**, including corporate and private funders, make place-based investments that benefit the local community, leverage national philanthropy, and foster regional collaboration. CodePath is well-positioned to grow regional philanthropy as it integrates into local social sector ecosystems to improve economic mobility for historically underrepresented groups and accelerate economic growth. (2023 actual: \$500K; 2028 goal: \$9.4M)
- **Individual donors** support causes that advance their values and often want a personal connection to organizations. CodePath will grow revenue from high-net-worth individuals (five- to seven-figure gifts) by building a strong and influential network of high-net-worth tech leaders, entrepreneurs, and philanthropists. Alumni and other individual donors will provide smaller (two- to four-figure gifts) that will build shared ownership of the CodePath mission as well as a pipeline of future major donor prospects. (2023 actual: \$1.1M, excluding \$15M gift from Mackenzie Scott; 2028 goal: \$9.4M)

To support the growth of all four of these philanthropic revenue streams, CodePath will expand fundraising staff, strengthen prospect research, and build systems to track relationships and pipelines. By pursuing these approaches, CodePath aims to raise a total of \$185M in philanthropic revenue over five

years (2024-2028), with \$32M already committed. Forty-one percent is projected to come from national corporate foundations, 19% from national private foundations; 21% from regional foundations; and 19% from individual givers. See Appendix F for additional details on CodePath's philanthropic revenue strategy.

Measurement, Evaluation, and Learning

CodePath's success in preparing and connecting CS students to careers hinges on its ability to understand its impact, iterate its programs to deepen impact, and ultimately demonstrate a strong return on investment – the work of measurement, evaluation, and learning (MEL). Today, CodePath divides its MEL work into three complementary work streams:

- **Building MEL capacity and infrastructure.** Hiring the talent, building the partnerships, and developing the infrastructure necessary to access, analyze, and act on data.
- **Monitoring data and conducting experiments to drive continuous improvement.** Pursuing quick and flexible approaches to gaining insights that will improve outcomes, such as course completion, as well as acquisition of internships and jobs.
- **Performing long-cycle experiments to measure and improve program efficacy.** Working with evaluation partners to answer the ultimate impact question: *What is the causal impact of CodePath on the software engineering employment of college graduates in computing majors?*

Looking ahead, CodePath will continue to pursue these three work streams as well as a fourth one:

- **Tracking student progress to enable more effective personalization.** CodePath's vision is to leverage its large and growing data repository to understand the degree to which each student is on track to get hired as a professional software engineer – and then to use this *Technical Readiness Index* to provide each student exactly what they need to get and stay on track.

All of these activities are designed to help CodePath meet the goals in this plan: to scale with fidelity, reduce costs per student served, and sustainably grow revenue.

Building MEL capacity and infrastructure

CodePath's objective – students get technical internships and jobs – is realized at the end of a process that includes application, enrollment, course completion, and interviews. CodePath's MEL infrastructure collects and analyzes hundreds of data points about each student at each stage of this process:

- **Demographics and application.** Age, gender, race, income status, first generation college student status, school attended, major, expected graduation date, work experience, and performance on pre-work assessments.
- **Class engagement and performance.** Attendance, assignment submission, time spent on assignment (self-report), assignment performance, student rating of the assignment, student participation in discussion boards, student use of help resources, and course evaluations.
- **Progress toward tech employment.** Aggregate course completion, course engagement and performance, resume, LinkedIn profile, GitHub profile, skills assessment, industry sector preferences, and geographic location preferences.
- **Outcomes.** Information about jobs and salaries gathered from alumni surveys, information about job attainment and career trajectory provided by scraping LinkedIn profiles, and notes about students from recruiters using the *CareerConnect* talent matching platform.

This system generates automatic messages to students and instructors when students cross engagement and performance thresholds to prompt intervention when students are performing poorly or recognition

when students are excelling. Dashboards also allow instructors and staff to monitor student performance and dig deeper to investigate problems.

These resources have enabled team members to gain valuable insights that have accelerated progress to date. However, the organization needs additional staff and better technology to create the sophisticated MEL infrastructure required to drive rich, unified data collection and visualization of classrooms and students, actionable analysis and insights powered by AI, and automated alerts and notifications that ensure quality at scale.

Today, many people across CodePath are involved in designing data infrastructure and analysis tools. In the future, the organization needs a senior staff member supported by a small team of data scientists to own MEL strategy and operations, including instrumentation, data collection, analysis, reporting, and verification. This leadership and staff will ensure that the different parts of the MEL infrastructure and program work together coherently to meet the needs of MEL stakeholders.

At the same time, new technology infrastructure is needed to: 1) enable team members, including those with less technical expertise, to more easily gather and analyze information; 2) facilitate the collection and analysis of longitudinal data necessary to support long-cycle evaluation; and 3) enable the development of the *Technical Readiness Index*. To support these needs, the CodePath engineering team will develop three new tools beginning in 2024:

- A generative AI tool, based on the Salesforce Einstein GPT LLM, that enables team members to use natural language to ask a wide range of questions about data and produce sophisticated data visualizations
- A next-generation student database that tracks and connects more details about students' CodePath experience (including a timeline of all CodePath-related activities) along with long-term outcomes (including jobs, side projects, and companies founded)
- A dynamic segmentation system that uses data in the next-generation student database, including components of the *Technical Readiness Index*, to classify and group students in order to provide personalized instruction and support

This new staff and upgraded infrastructure will provide CodePath with the leadership and tools it needs to drive continuous improvement throughout the organization.

Monitoring data and conducting experiments to inform continuous improvement

This extensive and continuously-improving MEL infrastructure enables CodePath staff to spot problems and conduct experiments that point the way toward improved outcomes. For example, in 2021, the Career Center team noted that internship and job attainment rates for BLI students were significantly lower than for other populations. They hypothesized that this gap was substantially caused by BLI students' weaker networks, limited knowledge of the job search process, and higher rates of imposter syndrome.

To test this hypothesis, they designed a pilot version of what is now called the Internship Connection Program (ICP), a 10-week series of virtual workshops for BLI students designed to strengthen job-seeking skills, including resume writing, LinkedIn profile development, technical interviewing, behavioral interviewing, and networking. Program coaches foster students' sense of belonging in the software engineering community while also holding them accountable for engaging in job-seeking behavior. The results have been strong, with an internship acquisition rate of 72% across all three cohorts, higher than CodePath's ~60% average. Based on these results, CodePath has expanded ICP from 20 students in 2021 to 250 students in 2024.

Robust experimentation to improve student outcomes continues in 2024. This summer, for example, CodePath will launch a Technical Interview Preparation course that adjusts to the level and pace of the

learner, the latest in a sequence of experiments aimed at increasing the success of learners with lower levels of preparation. At the same time, the marketing team will be experimenting with AI to see if a chatbot advisor can improve student application funnel conversion rates. Looking ahead, leaders in Delivery, Marketing, and Platform will use increasingly sophisticated dashboards and tools to monitor trends and trigger actions, including intervening with individual students, fixing implementation issues with college partners, and making modifications to course content.

Performing long-cycle experiments to measure and improve program efficacy

While short-cycle experiments are ideal for driving continuous improvement using intermediate measures, long-cycle experiments are essential for establishing the degree to which CodePath is meeting its ultimate objective: helping students in computing majors obtain and succeed in software engineering roles. It's relatively easy to measure the rate at which CodePath graduates are getting internships and full-time roles, but it's harder to establish causality: to what degree can results be attributed to CodePath?

To investigate this question, CodePath is partnering with Professor Angela Boatman at the Lynch School of Education and Human Development at Boston College. An experienced evaluator in the higher education space, Professor Boatman and her team have designed a quasi-experimental study to answer two questions: *Does access to a for-credit, in-person CodePath course result in higher rates of technical internship placement and/or degree completion as compared to similar students with no access to a CodePath course? Do these results differ by different student sub-groups such as gender and race?*

The study is designed as a difference-in-differences analysis, exploiting the variation in the timing of adoption of CodePath courses within and across campuses. City University of New York, which offers for-credit CodePath courses at six of its campuses, is the first research partner. Data sharing protocols have been developed and IRB approval secured. Study design will be finalized during the second quarter of 2024 and results are expected in 2026.

With strong research collaborations in place, CodePath will have the evidence it needs to: 1) confidently evolve its programs to achieve greater impact; 2) demonstrate to funders that CodePath is a powerful driver of economic mobility; and 3) influence higher education and workforce development leaders to pursue more effective ways of reducing income inequality and accelerating technological innovation.

Tracking student progress to enable more effective personalization

CodePath's vision is to accelerate its impact by weaving an increasingly powerful MEL system together with an increasingly personalized content and delivery system. To facilitate this process, CodePath will explore and validate the intermediate factors – mindsets and experiences as well as technical skills – that influence whether students get software engineering jobs and succeed in them. These factors will then be aggregated into a new *Technical Readiness Index* that drives personalization in CodePath programs.

The development of the *Technical Readiness Index* will be an iterative process informed by the organization's hypotheses about the factors that matter most, including:

- **Mindset.** Does the student feel like they belong in CS? Do they believe that hard work will enable them to complete their major and succeed as a software engineer?
- **Learning process.** Does the student know how to ask for help when they get stuck? What is the student's capacity to give and receive feedback?
- **Algorithmic analytical skills.** To what degree does the student understand and know how to apply common algorithms? How have they used these skills to write functioning software?
- **Industry-specific skills.** What industry-specific skills (e.g., iOS development) has the student developed? Have they used their skills to develop something of practical value for others?

- **Internship and job search process.** Does the student understand the different kinds of jobs available to software engineers? Has the student developed a high-quality LinkedIn profile?

CodePath's data warehouse already holds some of the data needed to develop the *Technical Readiness Index*. For example, it's already possible to explore patterns between student performance in Technical Interview Preparation courses and employment outcomes. Developing measures of other components, such as student mindset and learning process, will require research and development using univariate and multivariate analysis techniques.

As more components are validated, the *Technical Readiness Index* will be an increasingly valuable tool for driving student-level personalization and gathering intermediate evidence about program efficacy. Ultimately, the goal is to demonstrate that the *Technical Readiness Index* accurately predicts an individual student's chances of getting hired as a software engineer. If successful, the index will be an important innovation that helps education and workforce development organizations accelerate their impact by rigorously defining and tracking intermediate markers of success.

Finance

Over the next five years, CodePath will increase its student reach by 14X while maintaining 60%+ job success, generating over \$5B in new student earnings each year by 2028. Over this same period, CodePath expenses will increase by less than 4X, from \$16.2M in 2023 to \$59.9M in 2028. The reduction in cost per student served – from \$2,215 in 2023 to \$599 in 2028 – will be driven by technology-enabled productivity gains coupled with a decentralized program model that enlists on-campus leaders to recruit, teach, and support succeeding generations of CodePath students.

CodePath will exit this five-year plan with a diversified, sustainable mix of revenue sources (see Appendix I, Chart A) and sufficient cash to cover at least six months of operating expenses. Earned revenue will grow from \$2.6M (16% of expenses) in 2023 to \$30.9M (52% of expenses) in 2028. While CodePath is confident in its ability to generate these revenues, in the event that revenues fall short, the organization will reduce expenses along with student reach, always prioritizing student experience and job outcomes.

Expenses

The total plan expenses of \$217M over five years will be spent primarily to scale and deliver program services (80%) and secondarily to build a healthy and stable organization (20%).

Program-related expenses include:

- **Pillar 1 (Scaling): \$36.5M.** The activities that drive student enrollment growth and market expansion, including attracting students and schools, developing CodePath regions, and building the CodePath brand.
- **Pillar 2 (Delivery): \$75.8M.** The activities that directly contribute to students' achieving industry readiness and landing jobs, including the provision and training of CodePath instructors and Tech Fellows, curriculum development, student support, and career counseling.
- **Pillar 3: (Revenue): \$21.2M.** The activities that enable CodePath to build a sustainable revenue model, including selling products and services to companies and colleges. (Two-thirds of this expense is considered program related.)
- **Platform: \$40.5M.** Developing and maintaining the *CP Platform*, the technology that enables CodePath to achieve its mission in a cost-effective manner.

Fundraising and administrative expenses include:

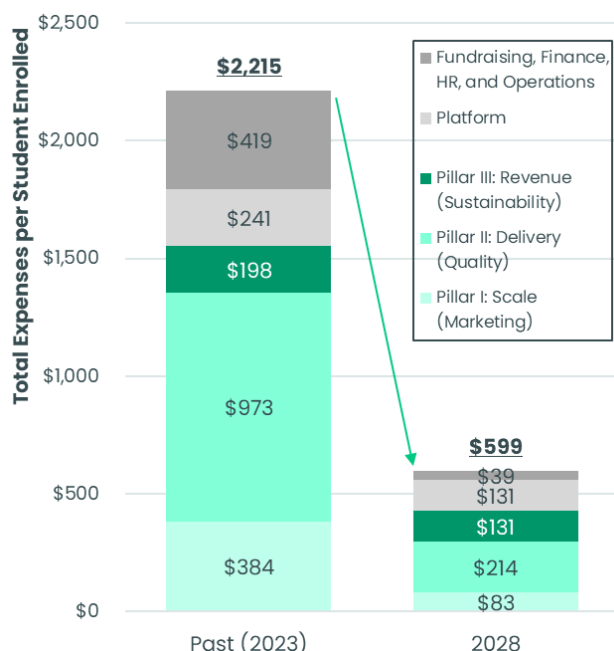
- **Fundraising and one-third of earned revenue expenses: \$25.8M.** Activities associated with fundraising from national corporate foundations, national private foundations, regional

foundations, and individuals, along with the remaining one-third of revenue generation-related expenses that are not considered program-related.

- **Finance, HR, and operations: \$17.3M.** Activities associated with financial management, staffing, and operations that undergird CodePath’s ability to deliver on its mission.

Decrease in per-student expense

The graph shows CodePath’s decrease in per student expenses across program-related, fundraising, and administrative expense categories from \$2,215 in 2023 to \$599 in 2028. CodePath expects those expenses to decrease as follows:



- **Pillar 1 (Scaling) decreases from \$384 to \$83 per student.** Marketing expenses per student will decline by 78% due to two primary factors: 1) *CP Direct* student acquisition costs decline as the number of students increases at a school because student and faculty evangelists increasingly drive enrollment, reducing the need for additional CodePath personnel; and 2) with *CP Partnered*, student acquisition is driven through school partners who integrate CodePath courses into the curriculum, dramatically reducing per-student marketing costs.

- **Pillar 2 (Delivery) decreases from \$973 to \$214 per student.** Delivery expenses per student also decline by 78% due to two primary factors: 1) Investments in and enhancements to the *CP Platform* will further personalize and automate course and program offerings, reducing the need to add staff as the program scales; 2) a program model that relies on local student and

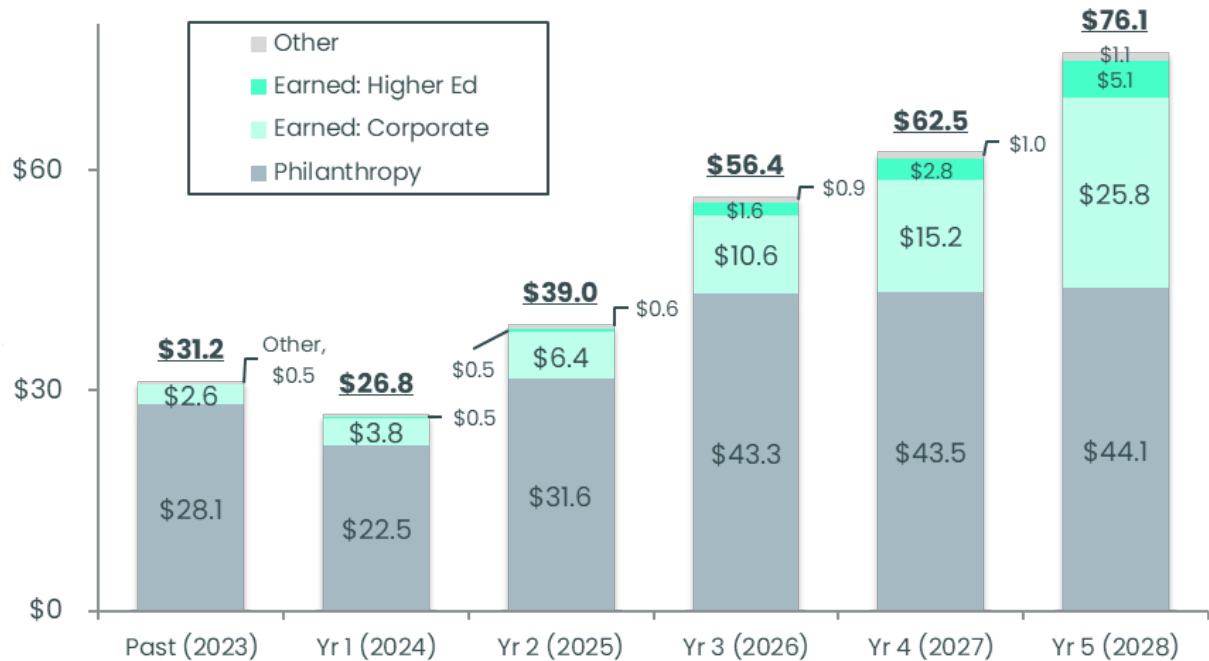
faculty leaders who act as evangelists and support systems for CodePath students, further reducing the need for additional staff as the program scales. This reduction will be achieved even as the ratio of Tech Fellows to students is increased from 1:30 to 1:15. (See Pillar 2 section for additional detail.)

- **Pillar 3 (Revenue) decreases from \$198 to \$131 per student.** Revenue expenses per student will decline at a slower rate due to personnel investments needed to fuel earned and philanthropic revenue growth.
- **Platform – from \$241 to \$131 per student.** Similarly, platform expenses per student will decline more slowly than other departments in order to fund the team of engineers, product managers, and data scientists who will build the technical and MEL infrastructure needed to support lower per-student delivery costs while maintaining outcomes.
- **Finance, HR, and operations – from \$419 to \$39 per student.** CodePath has already invested heavily in infrastructure to enhance finance, HR, and operations. Modest additional investment is needed to support the growth in this plan.

Revenues

CodePath will raise \$261M in total revenues over the next five years to fund this plan, from \$31.2M in 2023 to \$76.1M in 2028, a growth of 2.4X over five years. Philanthropy, rising from \$28.1M in 2023 to \$44.1M in 2028, will provide 71% of this total. Earned revenue, rising from \$2.6M in 2023 to \$30.9M in 2028 will provide 28%, while investment income will provide the final 1%. Notably, earned revenue will

grow from 8% of revenues in 2023 to 41% in 2028. Revenue from corporations, totaling \$61.8M over five years, accounts for 86% of earned revenue, while revenue from colleges, totaling \$10.0M over five years, accounts for the remaining 14%. Revenue across these four categories will grow between 2023 and 2028 as follows:



Revenue vs cost equation

CodePath will progress through and exit this plan in a healthy financial position. On the revenue side, CodePath enters 2024 with earned revenue covering 16% of expenses. Earned revenue will steadily increase through the five years to the point where it covers over half of expenses in 2028. This increased earned revenue accompanied by a reduced cost per student served means that philanthropic investment needed per student will decline nearly 90% from \$3,846 in 2023 to \$441 in 2028. (See Appendix I, Chart B.)

CodePath will manage its resources so that it exits 2028 with nearly \$67M of cash on hand, covering more than 13 months of operating expenses, a similar position to where the organization stands in 2024. Throughout plan implementation, CodePath will maintain at least six months of unrestricted or lightly-restricted cash on hand.

Lean model

CodePath revenues have grown 50-100% year-over-year from 2021-2023, and the team enters 2024 buoyed by strong growth prospects and a healthy cash balance. However, if revenue signals trend lower than expected, CodePath will adjust by slowing hiring and managing toward lower growth while still maintaining strong employment outcomes. That said, CodePath believes that now is the time to invest boldly and strategically and therefore expects to make minimal adjustments to its growth expectations and investments through at least early 2025.

CodePath has a robust set of financial management tools and processes that provide visibility into current and future revenue and expenses. Management will continue to conduct regular financial reviews to spot problems and make appropriate adjustments. For example, CodePath is growing its revenue team in 2024-2025 with the assumption that additional sales personnel will fuel earned revenue growth from

corporate and college customers. Given that it takes time for sales personnel to ramp up, coupled with the six- to nine-month lead time required to close six-figure enterprise deals, this investment will continue through 2025. If revenue materializes as expected or higher, the investment will continue; if revenue is lower than expected, management will reduce expenses and explore alternative revenue pathways.

While CodePath is confident it will achieve the revenue growth outlined in its “base case” financial scenario (Appendix I, Chart A), it has prepared a “lean” model to demonstrate how it could adapt in case projected revenues do not grow as expected. Described in Charts C-D of Appendix I, the lean model is based on revenue 28% below the base case and student reach of 56,000 instead of 100,000 in 2028. In all scenarios, CodePath will prioritize student experience and outcomes over rapid growth.

Organization

As CodePath continues to grow rapidly in the next five years, its success in delivering the ambitious goals outlined in this plan will require excellence across leadership, staff, contractors and volunteers, systems, operating model, and governance.

- **Leadership.** CodePath’s seven-member senior leadership team includes its three co-founders, Michael Ellison (CEO), Nathan Esquinazi (CTO), and Tim Lee (Chief Learning Officer), as well as four other senior leaders (COO, VP Marketing, VP Finance & HR, VP Development). Looking ahead, CodePath will make key leadership hires in delivery, MEL, engineering, and earned revenue, as well as develop succession plans for future leadership transitions.
- **Staff.** The CodePath team will grow from 42 at the end of 2023 to ~162 in 2028, with headcount growth distributed as follows: Marketing (drives Pillar 1, Scale) from 8 to 25; Delivery (drives Pillar 2, Delivery) from 18 to 51; Revenue (drives Pillar 3, Revenue) from 4 to 45; Platform (the technology that drives efficiency, innovation, and program consistency at scale) from 2 to 25; and finance and administrative staff will grow from 10 to 16.
- **Contractors and volunteers.** As discussed in Solution and Pillar 2, CodePath’s programs are effective at scale in part because they leverage industry volunteers and student leaders to inspire and guide the next generation of software engineers to embrace a culture of engineering excellence. This leverage will grow dramatically between 2023 and 2028 as CodePath grows the number of industry volunteers from 1,330 in 2024 to 10,000 in 2028 and the number of student leaders (Tech Fellows) from ~300 at the beginning of 2024 to over 6,000 in 2028.
- **Systems.** CodePath will invest heavily in its technology platform that includes a learning management system, course delivery portal, and *CareerConnect* functions. Particular emphasis will be placed on systems that support MEL, including systems that will facilitate the development of the *Technical Readiness Index* and enable team members to more easily analyze and garner insights from CodePath’s large store of data about students and instructors.
- **Operating model.** To maximize leadership, team, volunteer, and system effectiveness, CodePath will formalize and continually improve an operating model that includes well-defined and clear reporting structure, lines of accountability, management decision-making processes, and performance metrics. As the organization grows, it will enhance data visibility through dashboards that integrate operational data to track progress, trigger course corrections, and guide decisions.
- **Governance.** CodePath has grown its governing board to seven members, comprised of nationally recognized leaders in technology, education, and social impact, with quarterly committee (executive, finance, audit) and full board meetings. CodePath will evolve its board role, membership, and protocols over time to maximize the board’s contribution to CodePath’s mission, fiduciary responsibility, and advancement.

Priority functional areas for development

While all parts of the CodePath organization will be upgraded in various ways – additional capacity, better data, improved tools – over the next five years, three parts will receive the most attention:

- **Platform.** CodePath's plan to grow reach by 14X while maintaining outcomes and reducing per-student costs rests on bolstering the capacity of the *CP Platform* to enable greater program personalization and automate more functions currently performed by humans. Thus far, the *CP Platform* has been developed and maintained by a lean team of 2-3 engineers with the support of contractors. To build and maintain the platform needed for the future, CodePath will grow its engineering and product team from four at the end of 2023 to 25 by 2028, while maintaining the high engineering standards that have enabled success to date.
- **Measurement, Evaluation, and Learning (MEL).** The CodePath MEL function will undergo a major upgrade starting in 2024 with the addition of new positions: director of data and analytics, senior data engineer, data analyst, and data scientist. Working with the engineering team, the MEL team will architect and implement a robust data collection and analysis infrastructure that will enable staff to understand and amplify CodePath's impact. The MEL team will also continue to engage third-party research partners for long-cycle studies to shed light on CodePath's causal impact.
- **Revenue generation.** CodePath has recently strengthened its fundraising leadership by adding a VP of Development and will further build out its development function this year with new staff focused on institutional and individual fundraising as well as development operations. To grow earned revenue, over the next few years the organization will: 1) add a head of sales and more than a dozen account executives, account managers, and sales development representatives focused on corporate and higher education sales; and 2) deploy CRM software to facilitate disciplined and collaborative account management. CodePath will also invest in thought leadership and brand building activities to support the success of both philanthropic and earned revenue generation efforts.

Culture and talent

CodePath's culture is a unique blend of mission-driven non-profit organization and high-performing tech startup environment. The organization sets ambitious goals, works at a fast pace, and encourages first-principles thinking to advance its quest to make CS education more effective and equitable. See Appendix B for discussion of CodePath's founding principles.

Building the CodePath team with the highest caliber talent and having the right people in the right roles is essential for achieving the ambitious goals outlined in this plan. In 2023, CodePath launched a multi-year process to strengthen its people and talent function, starting with hiring a lead recruiter who implemented a more proactive approach to sourcing top talent, established a rigorous hiring process designed to identify and attract top performers, and deployed systems to support hiring managers.

In 2024 and beyond, CodePath will continue investing in people development and organizational effectiveness. The organization will hire a senior people leader who will own the end-to-end employee experience and talent development strategy, fostering leadership and organizational skills that will accelerate CodePath's performance and impact. While CodePath has established foundational talent management practices, including defined competencies, performance reviews, professional development opportunities, and coaching for leaders, the goal is to level up the people function to ensure an engaged, thriving, and high performing team.

Financial management

Similarly, CodePath has already developed robust financial management infrastructure with a finance staff of four (including a controller), financial software to enable real-time reporting as well as

sophisticated budgeting and planning, strong internal controls, and board finance and audit committees. Over the next several years, CodePath will make additional investments in the following areas:

- **Budgeting** processes and reporting tools that allow managers to analyze expenses by functional area, geographic area, and to understand expenses associated with providing services to a particular partner.
- **Cash management**, with special attention to ensuring adequate unrestricted cash balance to fuel growth and mitigate against downturns.
- **Internal controls**, with more robust tools and processes to ensure appropriate use of restricted capital as the number of philanthropic donors grows from a few dozen to more than 200 per year.

Conclusion

Now is the time to invite and support *all* Americans to participate in inventing the future. Over the next five years, with \$185M in philanthropic investment, CodePath will scale to provide 100,000 students per year with the personalized education, mentorship, career support, and work experience they need to launch a tech career, positioning CodePath to launch the careers of two million software engineers, generating at least \$2 trillion in new earnings for BLI/LI young people by 2050. Influenced by CodePath, colleges and employers will begin to shift their practices to remove barriers that disproportionately impact BLI/LI students. Social mobility and economic growth will accelerate as BLI/LI Americans participate equally in the most dynamic sector of the economy and more highly capable software engineers fuel innovation. The nation's spirit of innovation and future prosperity will be in the hands of a new generation: the most diverse and capable software engineers in history.

Appendices

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Appendix A: Leadership and Origin Story

CodePath founders and leadership

CodePath is led by **CEO and Co-founder Michael Ellison**, who has founded three tech startups and three nonprofits, including ClassMetric, an edtech company that later became Segment, a Y Combinator-backed tech startup that was acquired by Twilio for \$3.2B. He has been quoted widely in the press, including CNBC, The Atlantic, Bloomberg, Forbes, NBC News, TechCrunch, and Yahoo! Finance. He is also a founding board member of Women Who Code, one of the world's largest organizations supporting professional female engineers.

Co-founder and Chief Learning Officer Tim Lee is an accomplished teacher of software engineers who, prior to CodePath, was a co-founder and CTO of Miso, a social-based television tech company funded by Google Ventures and Khosla Ventures, which was later acquired by Dijit Media.

Co-founder and Chief Technology Officer Nathan Esquenazi is an experienced software engineer and prolific open source developer who, at age 14, founded a tech company that partnered with Apple, and has been working in early-stage startups building software products for the past 20 years.

Chief Operating Officer, Dana Ledyard brings more than fifteen years of experience leading operations and sales in education, technology, and workforce development organizations. She previously led the nonprofit Girls Who Code, growing its reach from 20 to over 10,000 girls over three years.

CodePath's leadership team is rounded out by Mindee Barham (VP of Development), Emily Chong (VP of Marketing), Zack Parker (VP of Engineering), and Veleta Savannah (VP of Finance and HR).

CodePath's Board of Directors includes Jules Walter (Product, Google Gemini), Gabriel Aul (VP, Meta Reality Labs Product + Engineering), Vlad Fedorov (Co-founder, UserClouds, Former SVP, Privacy Engineering and Product, Meta), Kristen Titus (Former Executive Director, Cognizant Foundation, founding Executive Director, Girls Who Code), Doug Borchard (Managing Director and COO, New Profit), Dalila Wilson-Scott (EVP, Chief Diversity Officer & President, Comcast NBCUniversal Foundation at Comcast), and Michael Ellison (CodePath CEO).

CodePath's Engineering Brain Trust includes Mike Curtis (Board Member, Zendesk and Former VP of Engineering, Airbnb), Steve Newman (CTO and Founder, Scalyr and Founder of Writely which later became Google Docs), Sona Venkat (VP of Engineering and Head of Cloud Product, Comcast NBCUniversal), Dwana Franklin-Davis (CEO of Reboot Representation), and Vivek Vaidya (Co-founder, General Partner, and CTO of super{set} and the former CTO of Salesforce Marketing Cloud).

CodePath origin story

CodePath's origin story begins long before the organization was founded in 2017, in the early life experiences of the co-founders, Michael Ellison, Nathan Esquenazi, and Tim Lee.

Growing up in a low-income household in rural Maine, Michael, who today serves as CEO, didn't know anyone in tech and didn't have access to computer science (CS) classes in school. After his father was incarcerated and his parents split when he was five, Michael and his siblings were in and out of homelessness, moving twelve times in the following five years.

When Michael got to college, he chose to study things that scared him, including CS. He eventually dropped out of CS due to a lack of support and role models, but he continued to be engaged with technology and entrepreneurship. Returning to college after a break, he was relentless in seeking opportunities to build and grow companies, and while still a student, even had one of his professors ask

him for a job. By the time he graduated, Michael had become co-founder of a multi-million dollar tech startup with a Fortune 500 executive.

Born in East Los Angeles to Cuban immigrant parents, Nathan, who today serves as Chief Technology Officer, grew up with little exposure to the tech world, didn't know anyone in the field, and was unable to afford a computer. Despite attending a low-performing public school system in California, Nathan dove into his interest areas, joining the "Pirates of Silicon Valley " club in middle school, where he worked on technology-related projects together with other curious middle schoolers. At age 14, Nathan co-founded a software company that was acquired by the time he was 16.

Like Michael, Nathan went on to study CS in college, where he was struck by the lack of focus on practical skills required for software engineering. He wrote a proposal to the dean of the CS department describing how UC Irvine could change its program to better teach students the skills required to actually practice software engineering. After the school declined to change, Nathan began running informal workshops for peers. While he came close to dropping out, he found peers and mentors who inspired him, and even started a company with a professor.

CodePath's third co-founder, Tim Lee, who today serves as Chief Learning Officer, also grew up in a low-income immigrant family. After earning a bachelor's degree in Computer Engineering from the University of Texas at Austin, as well as a master's degree in Electrical Engineering from Stanford University, Tim worked as an embedded systems engineer at various Silicon Valley startups. In contrast to Nathan, Tim had great teachers and a lot of support in public schools in Texas, at the University of Texas, and at Stanford University. His vision of CS education excellence was formed in part by the high-quality teaching he received throughout his own educational journey.

In 2010, Nathan and Tim met as coworkers at a Google Ventures start-up called Miso. Bonding over their shared views about how software engineering should be taught, they decided to form a new venture to bring their ideas to life. After being introduced to Michael by the CEO of Women Who Code, the three entrepreneurs teamed up to launch CodePath.com to teach senior engineers how to master cutting-edge software engineering techniques and technologies. Within a few years, they were training thousands of software engineers at leading tech companies, including Facebook, Airbnb, Netflix, Google, and Intuit.

Over time, Michael, Nathan, and Tim decided to bring the new model of education they were developing to help young people from underrepresented backgrounds – Black, Latino/a, low-income, and first-generation – gain access to the software engineering profession they loved. Painfully aware that tech companies employed few people with their backgrounds, they set out to change the institutions that serve as the primary pipeline into the industry: college CS programs. Leveraging their CodePath.com experience, they launched CodePath.org (known as CodePath) in 2017 to provide high-quality, industry-aligned software engineering education to college students.

While building CodePath, the co-founders have never forgotten their own experiences of overcoming the barriers that Black, Latino/a, and low-income young people face on the road to earning a CS degree, getting hired, and thriving as software engineers. They understand that talent is everywhere, but opportunity is not. The CodePath program reflects their collective understanding of how "high-tech" and "high-touch" approaches can be woven together to enable a far more diverse range of young people to gain access to the extraordinary opportunities that come with a career in tech.

CodePath is successful in part because the founders bring complementary skills to the work. Serving as chief spokesperson as well as CEO, Michael is the primary architect of CodePath's vision and ambition, evangelizing the CodePath mission and attracting exceptional partners and employees. A prolific open-source developer whose software has been used by millions of engineers worldwide, Nathan is the

architect and product visionary behind CodePath's learning platform, the technology that makes it possible for the organization to deliver a standard of personalized and adaptive learning at a scale never before seen in college classrooms. As the consummate master teacher, learning innovator, and craftsman for learning innovations, Tim has reimaged the classroom and the role of educators to unlock the extraordinary outcomes that CodePath has achieved at scale.

CodePath timeline

2014: CodePath.com begins training engineers inside tech companies starting with Yahoo and Facebook.

2015: CodePath.com redesigns Facebook and Walmart's engineer onboarding programs; Co-founder Tim Lee runs a student-led course at Stanford as an experiment.

2016: CodePath.com launches courses on college campuses, including its first for-credit course at Purdue University; Facebook hires CodePath.com to redesign and run Facebook University, an internship program for students from underrepresented backgrounds. CodePath's courses attract elite engineers in the thousands with students that include venture capitalists, venture-backed tech founders, well-known software engineers, and even the CEO of Reddit.

2017: CodePath.org incorporates and receives 501(c)(3) status; Partnering with Alex Stamos, Facebook's former chief security officer, CodePath designs and rolls out a cybersecurity course for college students. CodePath.com has trained over 3,000 senior engineers since inception.

2018: Facebook (now Meta) invests \$500k+ per year in CodePath to transform college CS education with a goal to scale 10x in the next four years. CodePath launches Technical Interview Prep pilot.

2019: Microsoft, Walmart, and Cognizant invest \$3 million in CodePath to scale its programs; Andreessen Horowitz invests in CodePath as part of its Cultural Leadership Fund.

2020: CodePath serves over 2,600 CS students across 150 colleges and universities; CodePath hosts first major Virtual Career Fair with 500 students and 40 tech employers, including Amazon, Bloomberg, Riot Games, and SAP; CodePath forms partnership with Y Combinator to host office hours with students about entrepreneurship and building start-ups.

2021: Blue Meridian Partners invests \$5M in CodePath; Workday and Course Hero partner with CodePath to launch technical internship program for underrepresented sophomore CS students.

2022: CodePath deepens expansion in Miami and Atlanta with support from the Knight Foundation and Google; CodePath partners with Salesforce to launch a third technical internship program, Futureforce Tech Launchpad, for underrepresented CS students. Ballmer Group and Iconiq Capital make multi-year investments in CodePath to support its continued growth and impact.

2023: CodePath serves over 7,300 CS students across 600 colleges and universities, of which 80% are Black, Latino/a, Indigenous, or low-income; MacKenzie Scott provides \$15M grant; 4,000 CS students and 65 companies attend CodePath's Emerging Engineers Summit. Comcast invests \$5M.

2024: *Fast Company* recognizes CodePath as one of the World's Most Innovative Companies in Education. Since its founding seven years ago, CodePath has averaged 50-100% year-over-year growth in students served with 60-70% of graduates landing internships or jobs, generating over \$1 billion in new earnings for BLI/LI CS graduates.

Appendix B: CodePath Founding Principles

CodePath's work is guided by a set of founding principles that inform its decision-making and ensure fidelity to its vision. This document outlines the principles that define the essence of CodePath, serving as a compass to help the organization navigate decisions and challenges.

The Five Principles

These five practical guidelines form the overarching principles that drive CodePath's long-term strategy:

1. **Engineering Excellence:** CodePath offers courses and experiences for students that optimize for engineering excellence.
2. **Transform Computer Science (CS) Education:** CodePath's programs create lasting changes in the way CS and software engineering is taught and learned by students across higher education.
3. **Innovate through Technology:** CodePath develops cutting-edge software systems to enhance and revolutionize the educational experience for emerging engineers.
4. **Student Agency and Leadership:** CodePath empowers students by nurturing their personal agency, fostering leadership skills, and guiding them toward success in their chosen goals.
5. **Tailored Learning, Uncompromised Rigor:** CodePath delivers challenging, customized learning experiences that cater to the unique needs of each student.

1. Engineering Excellence

CodePath offers courses and experiences for students that optimize for software engineering excellence, consulting with top CS students and industry-leading engineers to ensure that content is relevant and engaging.

This principle highlights CodePath's dedication to providing high-quality, cutting-edge educational content tailored for software engineers. By prioritizing Engineering Excellence, the organization maintains relevance, attracts talented emerging engineers, and enhances its reputation as a top-tier educational provider trusted by tech companies.

2. Transform CS Education

CodePath's programs create lasting changes in the way CS and software engineering are taught and learned by students across higher education. The organization focuses on enabling systemic change benefitting all CS students while centering Black, Latino/a, Indigenous, or low-income (BLI/LI) students.

This principle demonstrates CodePath's commitment to creating systemic nationwide change in CS education by addressing the root causes of educational inequity. The goal is to reshape CS education to the benefit of all CS students, with an emphasis on BLI/LI populations.

3. Innovate through Technology

CodePath develops cutting-edge software systems to enhance and revolutionize the educational experience for emerging engineers. The organization prioritizes technology and product development work that uniquely differentiates CodePath and ensures long-term sustainability.

This principle provides a competitive advantage by enabling customization, flexibility, rapid innovation, program consistency, sustainability, and differentiation. By building its own technology, CodePath is able to address the unique needs of its students, stay agile, and achieve ambitious levels of scale.

4. Student Agency and Leadership

CodePath empowers students by cultivating their sense of personal agency and developing their leadership skills, guiding them toward success in achieving their goals.

This principle is about CodePath's dedication to empowering students by helping them uncover and develop their innate abilities, passions, and aspirations. Student Agency and Leadership conveys the organization's commitment to fostering personal agency, nurturing leadership skills, and offering the guidance, support, and opportunities necessary for students to excel in tech as emerging leaders.

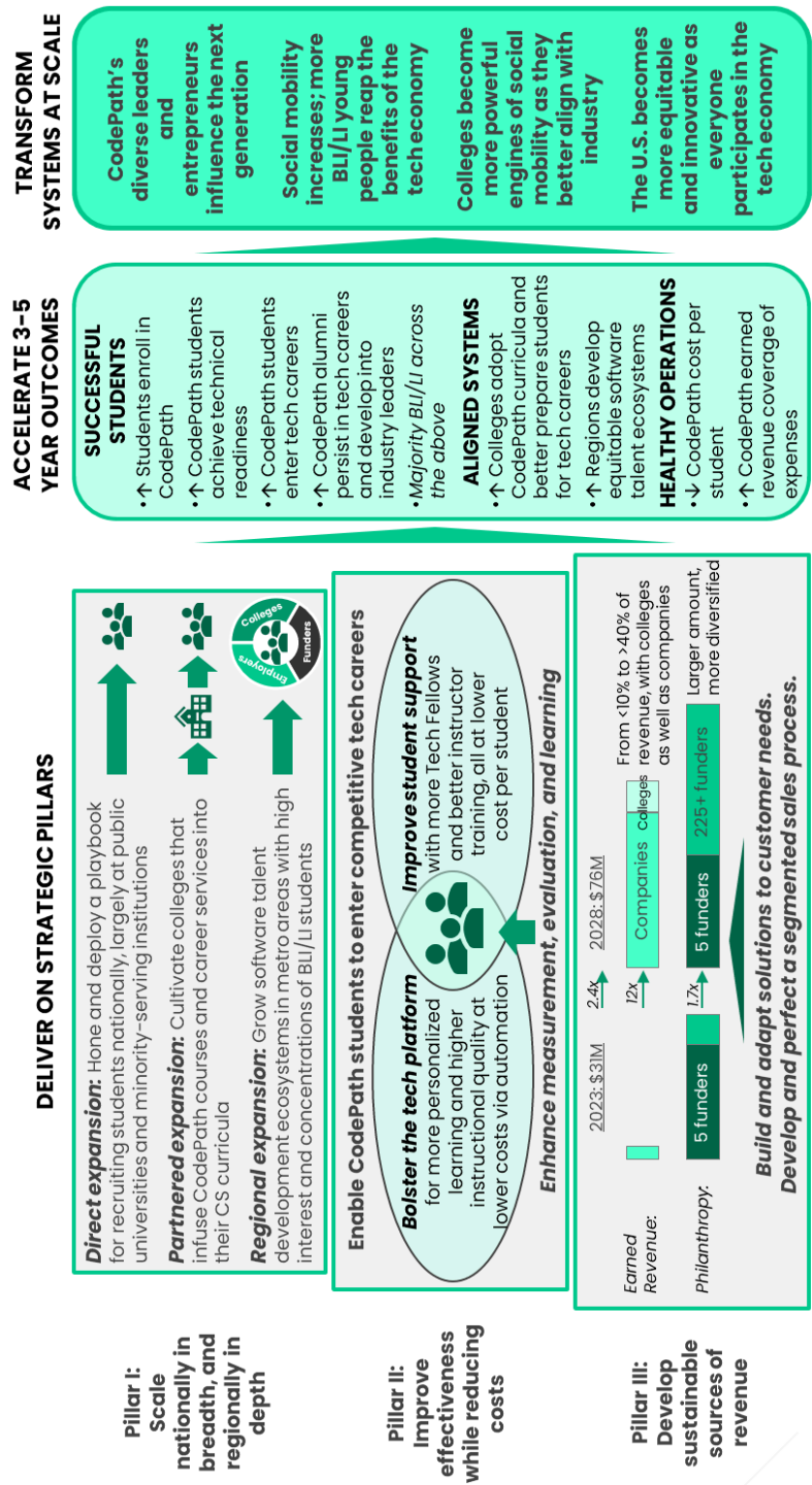
The goal is to offer a foundational roadmap for tech industry success while ensuring students always have a wide range of choices and opportunities to lead and support others in alignment with their personal interests and aspirations. Empowering students and promoting personal agency establishes a self-sustaining ecosystem that grows stronger and more impactful as it scales.

5. Tailored Learning, Uncompromised Rigor

CodePath delivers challenging, customized learning experiences that cater to the unique needs of each student and class. The organization's courses challenge students while providing the right level of support for a tailored educational experience.

This principle sets CodePath apart by providing personalized learning at scale while maintaining high academic standards and promoting inclusive education. Personalized learning experiences cater to individual needs and the adaptive curriculum stays relevant and engaging. Data-driven instruction optimizes outcomes, fostering a diverse and skilled tech workforce. The organization's commitment to demanding courses and technical readiness is how it maintains trust with employers and enables its students to truly excel in the tech industry.

Appendix C: CodePath Theory of Change



Appendix D: Corporate Revenue

CodePath's corporate earned revenue opportunity arises out of the growing skills gap between higher education computing graduates and professional software developers. As the software engineering field changes rapidly, fueled in part by the rise of AI, employers are struggling to find and retain technically-ready computer science (CS) college graduates with the range of skills required to quickly grow into the position and make an impact.²⁰ CodePath's roots as an industry-focused training solution for senior engineers gives it unique credibility and expertise to help employers solve the engineering talent gap at scale.

U.S. companies spent [\\$101.8B on corporate training](#) in 2023, well up from \$82.5B in 2020. The cost of hiring junior software developers typically amounts to [15%-25% of an employee's first year's salary](#), or an estimated [\\$13K-\\$19K per new hire](#). CodePath's ability to provide top talent at scale and thereby reduce recruiting and training costs has high economic value in a market willing to spend. CodePath expands talent pools with quality, quantity, and diversity, augmenting in-house recruiting team capabilities and differentiating itself as a leader in the early-talent space (compared with the majority of technical recruiters focused on more senior hires). Other potential competitors – staffing agencies, retained recruiters, and recruitment process outsourcing firms – simply do not deliver the quality and curation that CodePath offers.

Looking ahead, CodePath will leverage several strengths to grow corporate revenue by helping companies find and develop high-quality software engineering talent:

- **Industry alignment:** CodePath identifies high-potential students and provides them with the technical and professional skills required to quickly grow into a contributing member of a software engineering team. In addition, CodePath's strong connections to industry enable it to continuously update its curriculum and career programming.
- **Pipeline to better talent:** Many companies currently limit their recruiting to "top" colleges, but high-potential talent is everywhere. By identifying capable students at hundreds of colleges and accelerating their path to engineering excellence, CodePath enables companies to access better and more diverse talent. Currently reaching ~1% of the nation's undergraduate CS population, CodePath's reach will grow to ~15-20% in the next five years, enabling it to meet employer needs at scale.
- **Track record:** CodePath has years of proven experience delivering talent solutions for the tech industry's most discerning employers. With existing customers like Meta, Amazon, Salesforce, and Capital One validating the quality of its product, CodePath has "top tech" credibility that will open doors across many different industries that employ software engineers.

Building on these strengths, CodePath is poised to engage with companies who are rebounding from the tech downturn of 2022-23 and grow a more predictable corporate revenue stream. Over the next five years, CodePath will grow its corporate revenue from its 2023 starting point of 30 paying clients and \$2.7M in revenue to over 275 paid employer clients and \$26M in revenue in 2028, a nearly 10x revenue increase. As described in the corporate revenue section in Pillar 3 of the strategic plan, this will be accomplished by offering products and services in three categories: 1) off-the-shelf talent discovery and recruiting services, 2) customized talent discovery and recruiting services, and 3) talent training and upskilling services.

²⁰ For example, a report by the Semiconductor Industry Association (Martin, Dan and Dan Rosso, "Chipping Away: Assessing and Addressing the Labor Market Gap Facing the U.S. Semiconductor Industry," July 2023. <https://tinyurl.com/ybpvhkyf>) found that 13,400 computer science jobs could go unfilled in the sector by 2030 due to lack of skilled workers. The report estimates that only 80 percent of computer science jobs will be filled during that time in the broader workforce.

- **With buyers of off-the-shelf talent discovery and recruiting services**, where CodePath’s targeted revenue increase is from \$400K in 2024 to \$5M in 2028, CodePath will clearly define and customize solutions that offer recruiters the ability to engage with CodePath easily and at a competitive price point, proving CodePath’s ability to deliver high-quality, diverse, early-career talent at scale. To facilitate the transition to a higher-value matching service, CodePath will upgrade its tech-enabled talent matching solution, *CareerConnect*, enabling it to provide even higher-quality matches between students and recruiters year round.
 - CodePath assumes that employers will continue to expand early-career tech hiring and that CodePath can capture growing recruiting budgets by proving our efficacy vs other solutions (e.g., university career fairs) – which will require CodePath to improve its employer-specific data collection in tandem with its improved student data collection (*Technical Readiness Index*). CodePath also assumes that it can navigate privacy-related issues as it seeks to improve its matching service by leveraging deeper information about students and employers.
- **With buyers of customized talent discovery and recruiting services**, where the targeted revenue increase is \$2M in 2024 to \$15M in 2028, CodePath will invest in its brand alignment with engineering excellence and product marketing assets (e.g., case studies, collateral, thought leadership) to demonstrate CodePath’s capabilities to deliver brand and recruiting benefits for employer partners. CodePath will prioritize building relationships with companies in sectors such as defense, retail, and financial services that are highly dependent on software for innovation, but are not as high-profile as “big tech” companies such as Apple and Google.
 - CodePath assumes that its investments in leveraging alumni relationships as employee advocates coupled with its high-caliber engineering curriculum will continue to differentiate it from other talent brand activation providers. Further, CodePath assumes that its course and event sponsorship value will increase as its student and alumni base grows.
- **With buyers of talent training and upskilling services**, where the targeted revenue increase is from \$1.3M in 2024 to \$5.8M in 2028: CodePath will build on its strong track record working with engineering and talent leadership teams to create and deliver customized training, iterating on program and curriculum to keep pace with evolutions in industry expectations (i.e., proficiency in generative AI). Based on market demand, CodePath will deliver additional types of curriculum at different points in the student/engineer life cycle (e.g., pre-freshman year bridge programs, alumni offerings for engineers in the workforce looking to upskill).
 - CodePath assumes that it can build its enterprise sales and account management capabilities to predictably source, close, and upsell 6-figure employer deals for customized training programs.

Year by year, CodePath’s targets by segment are shown below. Corporate revenue will remain stable in 2024 as CodePath invests in building its sales and account management team, before growing 40-70% year over year in 2025-2028.

Need	2024	2025	2026	2027	2028	<u>Total: 2024-28</u>
“Off-the-shelf” talent solutions	\$410,007	\$1,906,507	\$3,194,135	\$4,336,501	\$4,979,269	\$14,826,419
Customized talent solutions	\$2,088,348	\$4,010,765	\$6,173,665	\$8,597,593	\$15,003,487	\$35,873,858

Need	2024	2025	2026	2027	2028	<u>Total: 2024-28</u>
Training and upskilling	\$1,268,334	\$437,751	\$1,279,316	\$2,282,487	\$5,843,819	\$11,111,708
	\$3,766,689	\$6,355,024	\$10,647,116	\$15,216,582	\$25,826,575	\$61,811,985

To achieve this revenue growth, CodePath will make strategic internal investments including the following:

- **Sales process:** Generate new leads through hiring sales development reps, defining target accounts, and leveraging a combination of outbound lead generation, marketing investments, and CodePath's network to build a robust top of funnel for attracting prospects
- **Staffing:** Hire and ramp modern sales professionals that can perform in the top 10% of their peers by developing a path to 5x their On-Target Earnings compensation in deals closed for new business
- **Protocols and systems:** Develop a playbook for renewing 85% of CodePath's client base annually and driving net revenue retention in the 115-125% range through strong account management practices
- **Performance management:** Implement revenue operations best practices for tracking team activities (leading indicators) and forecasting revenue pipelines as well as client activity to provide ongoing insights into revenue drivers to aid daily decision-making
- **Marketing and communications:** Define the CodePath value proposition for target buyers, distill performance data into assets demonstrating ROI for prospective buyers, and support the sales team with packaging, positioning, and insights to that facilitates cultivation, closing, and upselling

Across all sales roles, CodePath will develop a strong internal muscle for experimentation, innovation, and hypothesis testing so that market feedback informs the product roadmap and go-to-market strategy.

CodePath's investments to secure this level of earned revenue will be sufficient to provide a quality of service that enables the organization to secure large contracts, cultivate new customers, and mitigate against revenue downturns like the one experienced in 2023. Reflecting the significant internal investments articulated above, the cost of corporate sales per \$1 of earned revenue is expected to approach \$0.70 in 2026 but drop to just over \$0.40 by 2028 (i.e., marginal revenue is ~2.5x marginal cost) as more customers come on board and CodePath hones its sales process.

CodePath is confident it can steadily grow corporate customers to achieve over \$25M in earned revenue by 2028. That said, key risks may limit CodePath's ability to meet this target, including:

- Internal risks: CodePath may face growth pains in scaling up its sales team and processes. Fractional sales team leadership may spread efforts too thin to optimally cultivate high value customers, and the small internal team size increases the downside risk if an employee departs. CodePath is confident it can mitigate such risks by: 1) codifying and refining its sales process guidelines, standards of excellence, and pipeline insights, enhanced by a robust CRM system; 2) allowing for budget flexibility to rapidly change the size of the sales team, including deploying contracted sales supports for specific expertise or managing through uncertain sales signals; and 3) carefully defining the right candidate profiles, executing a rigorous recruiting and hiring process, and delivering internal training to prepare talent for roles.
- External risks: Market and economic factors could decrease employers' demand for new hires and reduce their willingness to pay for early-career talent solutions. Additionally, employers may not be responsive to CodePath's product offerings at the level needed for CodePath to achieve its

growth projections, either due to a mismatch with their needs, their favoring competitors' offerings, or their preference for in-house solutions. CodePath is confident it can mitigate such risks by: 1) mobilizing its growing alumni base as advocates and customers for CodePath products; 2) cultivating relationships at multiple levels within each employer, with a focus on finding technical sponsors as well as HR champions; 3) offering multiple points of entry (including low price points) for a CodePath relationship; 4) further customizing its solutions for its top customers to provide additional differentiation; and 5) strengthening its use of data to make a compelling ROI case to customers.

As earned revenue grows and CodePath achieves efficiencies in program delivery, CodePath anticipates that marginal earned revenue per student will exceed marginal cost by year five, enhancing long-term sustainability and increasing the impact of each philanthropic dollar.

Appendix E: Higher Education Revenue

Americans' confidence in the value of higher education stands at [an all time low](#), contributing to [college enrollment declines and even closures](#). In this environment, colleges are increasingly facing pressure to track, report, and improve the employment success rates of their graduates in order to restore trust and confidence in their brand.

As they embark on this work, universities have a strong case for starting with their computing and engineering majors, with CodePath as their partner. Graduates with computer science (CS) and engineering degrees [earn the most](#) and [software developers represent the highest growth profession that pays >\\$40K](#). CodePath's model produces large immediate benefits for students while simultaneously pointing the way toward longer-term changes universities can make to strengthen their value proposition and market position.

While CodePath began with and continues to offer direct-to-student offerings, it has evolved to form deeper relationships with colleges in recent years. As the software engineering field changes rapidly, fueled in part by the rise of AI, college CS leaders are recognizing that there is a [growing gap](#) between the skills students are acquiring in their programs and the skills they need to get hired and succeed in industry. In addition, leaders at less selective colleges often struggle to fill CS faculty positions. The number of CS faculty [grew by just 43%](#) between 2011 and 2020 even as the number of CS students roughly tripled over the same period.

CodePath is uniquely positioned to fill this gap for colleges by enabling them to serve more students with higher quality programming and with better post-graduation outcomes. While historically CodePath's offerings for students and schools have been free (and will remain so for students), CodePath sees potential in evolving its revenue model to include higher ed customers, for three reasons.

First, there is nascent momentum to build on. CodePath is in the process of transitioning several of its college relationships to paid partnerships, including Florida International University (multi-year deal growing to \$140,000+ annual contract value) and Florida Memorial University (finalizing a plan to offer CodePath courses for credit and train professors, \$300,000 contract). Altogether, CodePath is in various stages of paid partnership exploration with nine colleges.

Second, since September 2023, CodePath has interviewed nearly 30 professors (most of whom have used CodePath curriculum in their courses), heads of CS departments, and university leaders on their needs and related opportunities for CodePath. In approximately 70% of the conversations, stakeholders affirmed that CodePath's Technical Interview Prep (TIP) curriculum would be a valuable addition to their institution's curriculum, and none of these institutions were already offering a course designed to help students prepare for technical interviews. Additionally, professors and deans shared that most of their CS instructors have never worked in the industry, suggesting that they may lack the experience necessary to help students understand or develop the full set of skills required by practicing software engineers.

Third, broader market signals show promise. While career services has traditionally been "[sort of a stepchild on campuses](#)," the attention paid to this department is growing. More universities are [moving career services directly under Presidents' offices](#), [public funding is increasingly tied to students' career success](#), higher-paid graduates become [more reliable alumni donors](#) in a time of financial pressure, and the share of universities that have appointed a vice president of workforce development to lead their career centers has [doubled to 2.4% since 2020](#). While the 287 career centers that the National Association of Colleges and Employers (NACE) surveyed in 2023 reported a [median budget of \\$418K](#), that amount was well up from \$330K in 2020. Even though universities' career services budgets may be limited, they are growing, and, given career services' greater importance, CodePath has potential to

capture a share of spending from career services and the broader [\\$700B+ that U.S. postsecondary institutions spend a year](#).

CodePath's experience to date suggests that it can best serve the higher education market with two variations of the same basic partnership model:

- **CodePath Partnered** provides colleges with TIP courses and remote career services support. Colleges agree to provide elective credit for TIP, support student recruitment, and provide local faculty members, while CodePath provides remote instructors, content, grading, and Tech Fellows. *CodePath Partnered* represents an opportunity to engage a larger number of higher ed partners at lower cost per student.
- **CodePath Partnered+**, based on the emerging Florida International University and Georgia State University partnerships, deepens *CodePath Partnered* with a broader range of for-credit courses, higher-touch community support, on-campus events, and campus-based career services. This enhanced offering represents an opportunity to engage a smaller number of higher ed partners at higher cost per student.

In pursuing revenue-generating higher ed partnerships, CodePath's ideal customer profile is a public university (including R1 research institutions) with (a) large, mainly 4-year enrollments, (b) high Black, Latino/a, or Indigenous (BLI) population, (c) growth in computing degree programs, and (d) leadership that have expressed a desire to innovate. 313 universities that collectively educate 73% of America's 4-year undergraduate computing students and 80% of BLI/LI undergraduate computing students emerge from these criteria. CodePath will pursue partnerships with these institutions primarily in its priority regions²¹ where it is also engaging employers most deeply.

CodePath will move forward in 2024 with an outbound sales operation focused on these 313 target universities, with the aim of building relationships and exploring the potential for *CodePath Partnered* and *CodePath Partnered+*. Initially, CodePath's approach will be more about deepening its learning, making improvements to product-market fit, and informing how it sells to universities – rather than trying to maximize revenue. Over time, CodePath aims to build up higher ed earned revenue from \$1,500 in 2023 and \$500K in 2025 to \$5.1M by 2028, an amount representing 64 college customers enrolling over 46,000 CodePath students and paying ~\$110 per CodePath student on average.

- **For CodePath Partnered, where the targeted revenue increase is to \$2.6M across 58 higher ed customers by 2028, the organization will** build up a growing customer base starting in 2025 by (a) solidifying a positive impact and ROI narrative with flagship partnerships, with leaders from those universities sharing their positive experiences with prospective CodePath customers; (b) asking subsequent higher ed customers to refer CodePath to other colleges in their region; and (c) leveraging supportive students, faculty, and administration on campuses to drive growth and sustainability. CodePath will test pricing CodePath Partnered at \$75 per student per year, refining that price based on uptake. The average deal size per school is projected to grow from \$25.8K in 2025 to \$44.5K in 2028.
 - CodePath assumes that the flagship Miami and Atlanta partnerships will generate a positive impact narrative, ROI case, and university champions necessary for building excitement and momentum; CodePath can leverage network benefits within regions and across university systems to accelerate sales; and campuses will be willing to pay for CodePath services even amidst budgetary pressures.

²¹ Miami, Atlanta, NYC Tri-State, Charlotte, Dallas, Houston, DMV (Greater DC metro + Baltimore metro), and Los Angeles

- For CodePath Partnered+, where the targeted revenue increase is to \$2.5M across six higher ed customers by 2028**, CodePath will build up a growing customer base starting in 2024 by (a) closing three large contracts this year with the Miami, Atlanta, and Charlotte area schools, who are already piloting high-touch CodePath programming; (b) adding one such large partnership each year starting in 2025, with customers motivated by the emerging successes in Miami and Atlanta and the ROI for their campuses; and (c) sustaining existing partnerships with the support of student, faculty, and administrator advocates as well as strong outcomes and some cost savings. CodePath plans to price CodePath Partnered+ at ~\$200 per student per year, well less than the \$500+ per student per year that universities budget for student success, and will adjust pricing to market signals. The average deal size per school is projected to grow from \$14K (due to a small number of students participating on each campus initially) in 2024 to more than \$400,000 in 2028.
 - CodePath assumes that: it will convert three large customers to pay for CodePath Partnered+ in 2024; it can rapidly demonstrate the proof needed to cultivate additional large customers; and a handful of campuses will be willing to pay for comprehensive CodePath services amidst budgetary pressures, perhaps leveraging government grants or philanthropy to do so.

Year by year, CodePath's product revenue target – with additional projections on university customers and students served – are shown below.

Product	Measure	2024	2025	2026	2027	2028	Total 2024-28
CodePath Partnered	# higher ed customers	0	10	24	38	58	58
	# CP students enrolled	0	3,444	9,926	18,821	34,375	66,566
	Cost per student	–	\$75	\$75	\$75	\$75	\$75
	Total revenue	\$0	\$258,318	\$744,444	\$1,411,596	\$2,578,095	\$4,992,453
CodePath Partnered+	# higher ed customers	3	4	5	5	6	6
	# CP students enrolled	203	1,085	4,068	6,780	12,204	24,340
	Cost per student	\$206	\$206	\$206	\$206	\$206	\$206
	Total revenue	\$41,951	\$223,740	\$839,025	\$1,398,375	\$2,517,075	\$5,020,166
TOTAL	# higher ed customers	3	14	29	43	64	64
	# CP students enrolled	203	4,529	13,994	25,601	46,579	90,906
	Average cost per student	\$206	\$106	\$113	\$110	\$109	\$110
	Total revenue	\$41,951	\$482,058	\$1,583,469	\$2,809,971	\$5,095,170	\$10,012,619

To achieve this growth, CodePath will grow its higher ed account team from 1 FTE today to 7 FTEs by 2028, hiring business development specialists to sell to higher ed customers and account management specialists to support partners' success. In tandem, it will bolster its higher ed account management systems with better data collection, analysis, and customer relationship management tracking. At first, the cost of higher ed sales per \$1 of earned revenue is expected to exceed \$4 in 2024, as CodePath emphasizes signing pilot customers rather than maximizing revenues. The cost ratio is expected to drop to \$1 in 2025 as more paying customers come on board and steadily decline to an efficient \$0.16 by 2028.

Throughout its pursuit of these revenue targets, CodePath will adjust expectations and approaches based on higher ed market signals on needs and willingness to pay. Because higher education revenue never represents more than 7% of total revenue over the course of this plan, Codepath will remain in a strong position to achieve its overall growth and impact goals even if higher education never develops into a viable revenue stream. However, if CodePath does in fact develop a viable higher education business model, the reward will be more than the funds garnered: with skin in the game, university partners will be demonstrating their commitment to systems change that will benefit their students and institutions for years to come.

CodePath is cautiously optimistic it can steadily cultivate paid higher ed partnerships to achieve \$5.1M in earned revenue by 2028. That said, key risks may limit CodePath's ability to meet the target including:

- Internal risks: CodePath is new to generating revenue from higher ed institutions, and thus has a learning curve to manage that may limit its ability to drive target revenue growth. Collecting and solidifying the data-driven case for integration may also pose challenges. CodePath is confident it can mitigate such risks by prioritizing experienced hires (and not over-hiring too soon), investing in flagship university partnerships to ensure programmatic success in early years, and bolstering its data systems.
- External risks: Higher education institutions are increasingly budget constrained. The selling process to higher ed can take extended time given bureaucracy and budget cycles, and programs' staying power on campuses often relies on influential champions who may leave or lose credibility. To mitigate such risks, CodePath will aim to embed its programming into university curricula, making it hard to cut without affecting student learning or a department's reputation. CodePath will address funding constraints by leveraging governmental or philanthropic grants, building and maintaining relationships at multiple levels within an institution, and continually refining its pricing model.

Appendix F: Philanthropic Revenue

Philanthropy has fueled CodePath's growth to date, increasing by 50%-100% per year in each of the last three years. In 2023, CodePath's \$28.1M in philanthropic revenue represented 90% of total organizational revenues. Looking ahead, philanthropy will remain crucial for CodePath's continuing growth, especially given that it will take time to develop substantial earned revenue streams aligned with the organization's mission.

Sustaining and growing philanthropic support will require CodePath to be attentive to the various needs and priorities of funders. While each donor is unique, some patterns are apparent. [Corporate foundations](#) often provide grants to organizations working in fields related to their business activities, while [private foundations](#) often bring a performance lens aligned to theories of change in their priority areas. [High-net-worth-individual \(HNWI\)](#) donors often value opportunities to contribute their expertise, while [younger, lower-dollar givers](#) are more likely to seek affiliation with a cause, often through volunteerism or events.

[Recent Bridgespan research](#) points to five characteristics donors look for in organizations they fund: 1) focusing on an important problem, 2) employing a credible solution with a track record of results, 3) demonstrating strong leadership and organizational capabilities, 4) demonstrating a clear funding model where philanthropy leverages other kinds of support, and 5) anchoring the work in equity. CodePath offers a strong value proposition to philanthropic investors in each area:

- **Focusing on an important problem:** CodePath's relentless pursuit to build the best technical education in the world in order to accelerate economic mobility for BLI/LI computing students has resonated deeply with funders. CodePath can build on this momentum by focusing more on systemic impact by: 1) partnering with college computing departments to align curriculum with industry needs and improve student's technical and career readiness, leading to improved employment outcomes; and 2) working with employers to build more productive and equitable approaches to recruiting and talent development.
- **Employing a credible solution with a track record of results:** Since its 2017 inception, CodePath has provided 26,000 computing students with access to high-quality training and support, leading to more than 60% landing full-time tech jobs after graduation at an average salary of \$92,000. Sustaining and growing philanthropy will require CodePath to articulate, and then demonstrate, how it will equal or surpass this success as it serves 14X more students annually by 2028.
- **Demonstrating strong leadership and organizational capabilities:** CodePath's leadership and team stand out for their technology industry credibility and expertise. The three co-founders' extensive pre-CodePath experience included training 3,000+ senior engineers inside leading tech firms. The broader team brings product management, business development, and engineering acumen that's often in short supply in nonprofits. CodePath will continue investing in its product development team, as well as in measurement, evaluation, and learning (MEL), to further bolster its organization capabilities.
- **Demonstrating a clear funding model where philanthropy leverages other kinds of support:** Philanthropic investors recognize that CodePath is providing substantial value to companies and colleges as well as to society. While the monetization potential from colleges is more nascent, corporations have paid \$10M for CodePath services to date and have indicated a willingness to pay for access to the best software engineering talent. CodePath will invest deeply in the sales, marketing, data, and delivery capabilities necessary to grow earned revenue and further enhance its value proposition to philanthropy.
- **Anchoring the work in equity:** From inception, CodePath has anchored its work in equity. Nearly 80% of its participants have been Black, Latino/a, Indigenous or low-income (BLI/LI) college students who, as a group, are underrepresented in software engineering, especially in

senior positions. CodePath will continue to disproportionately serve BLI/LI students, engage colleges and employers to address barriers they face, and demonstrate success rates that point to equitable solutions that can be a model for others.

Practically, to achieve its philanthropic revenue goals, CodePath needs to continue building traction with four philanthropic investor segments that are crucial for its growth, impact, and sustainability: 1) national corporate foundations, 2) national private foundations, 3) regional funders, and 4) individual donors.

- **National corporate foundations:** Contributing over 40% of CodePath's 2021-23 philanthropic revenues, and representing 16 CodePath funders in 2023, national corporate funders seek to prepare the tech leaders of tomorrow, support programs with strong impact metrics and compelling stories, and advance their corporate responsibility and employee engagement strategies. CodePath's high-caliber tech talent development program in a field that is so vital to the success of companies *distinctively* positions it to grow its corporate philanthropy base. CodePath's focus on preparing racially and economically diverse talent at scale further cements its attractiveness to corporate philanthropy. As a testament to its strong positioning with corporate philanthropy, CodePath more than doubled Comcast's and Google's \$2M+ contributions from 2022 to the \$5M+ level in 2023 and confirmed renewals from six other corporate funders.
- **National private foundations:** Contributing nearly 30% of CodePath's 2021-23 philanthropic revenues, and representing three CodePath funders in 2023, national private foundations seek to make mission-aligned investments that reflect their values and theory of change, have demonstrated impact models and outcomes, and that can catalyze greater giving and impact from government, corporate, and other stakeholders. The combination of CodePath's proven direct-service programming with its focus on shifting practices inside universities positions it favorably for growth with national philanthropies. Recent \$1M+ grants from five funders including Blue Meridian Partners, Ballmer Group, and New Profit indicates strength to build on.
- **Regional funders:** An emerging donor segment for CodePath, regional funders, including corporate and private foundations, often seek to make mission-aligned investments that create a vibrant regional economy or social sector, foster local collaboration and problem-solving, and help local residents succeed now and into the future. With programming that advances local economic and workforce goals, CodePath has the potential to integrate more deeply into local social sector ecosystems, as demonstrated by the Knight Foundation's recent \$2.5M grant to support CodePath's work in Miami. CodePath's national funders and college partners are well-positioned to help CodePath open doors and build momentum with regional funders.
- **Individual donors:** Contributing the remaining 30% of CodePath's 2021-23 philanthropic revenues and representing 63 CodePath donors in 2023, individual givers seek to support causes in alignment with their interests and values, and often seek personal affiliation with organizations they fund. Individual givers come in two categories: HNWI who make five-figure to seven-figure gifts; and contributors who make gifts ranging from tens to thousands of dollars. In 2023, HNWI gifts were led by MacKenzie Scott (\$15M) and two other individuals who committed \$1M each to CodePath. While most of the money comes from HNWI giving, over 70% of CodePath's individual donations have been below \$1,000. CodePath's growing alumni base and alignment with HNWI tech entrepreneurs and leaders puts it in a strong position to grow individual gifts. Both HNWI and lower-contribution individual givers are valuable to CodePath's growth and staying power nationally and in regional markets.

CodePath will grow its philanthropy while diversifying its funder base from its starting point of 82 philanthropic investors financing \$28.1M in 2023 to over 230 philanthropic investors financing \$44.1M in 2028, a 70% increase in funding. To do so, CodePath will execute on the following, with key assumptions noted:

- **With national corporate foundations:** strengthen CodePath's alignment with corporate responsibility strategies for companies focused on technology education, digital equity, and workforce development.
 - CodePath assumes that enhancing its ROI data, customized to regional markets where possible, will enable it to effectively double its corporate base while renewing existing funders.
- **With national private foundations:** build a pipeline of national philanthropic donors attracted to CodePath's demonstrated economic mobility outcomes, potential impact on nation's future security and prosperity, systemic impact in improving college and employer practices, and innovative approaches to service delivery.
 - CodePath assumes that it can scale its data infrastructure and metrics to produce increasingly rigorous evidence of outcomes and that it can leverage its relationships with leading investors like Blue Meridian Partners and Ballmer Group to open doors with other national funders.
- **With regional funders:** aggressively source, cultivate, and secure lead funders in the eight regional markets CodePath is focusing on through 2028, while simultaneously attracting lower-dollar regional funders attracted to CodePath's fit in the local social sector ecosystem.
 - CodePath assumes that its national foundation partners (both corporate and private) will help unlock regional funder support and that it can activate regional market teams to cultivate lead regional funders.
- **With individual donors:** For HNWIs, create regional advisory boards that foster engagement while building a network of supporters, connect donors to students (e.g., annual "entrepreneur days"), and build a relationship with at least one leading venture capital firm in each region. For lower dollar value contributors, set up volunteer and mentorship opportunities, run alumni and employee giving campaigns, and hold events that build connection and affiliation.
 - CodePath assumes that increasing staff capacity to manage relationships and setting up events, engagement opportunities, and giving appeals that connect HNWIs and residents in a given geography to CodePath will generate greater giving.

CodePath's year-by-year philanthropic segment targets are shown below. Total philanthropic revenue grows 30-40% annually through 2026 before leveling off as earned revenue sources accelerate:

Segment	2024	2025	2026	2027	2028	<u>Total 2024-28</u>
Corporate philanthropy	\$10,196,000	\$13,514,100	\$18,401,500	\$17,087,500	\$17,240,000	\$76,439,100
National philanthropy	\$4,240,000	\$5,838,500	\$8,462,000	\$7,772,500	\$7,968,000	\$34,281,000
Regional philanthropy	\$4,934,000	\$6,603,400	\$8,796,500	\$9,315,000	\$9,437,000	\$39,085,900
Individual philanthropy	\$3,130,000	\$5,614,000	\$7,610,000	\$9,275,000	\$9,415,000	\$35,044,000
TOTAL	\$22,500,000	\$31,570,000	\$43,270,000	\$43,450,000	\$44,060,000	\$184,850,000

Philanthropy will increasingly become a diversified, sustainable revenue source alongside earned revenue. CodePath's experience securing renewed commitments, sometimes at >2x initial funding levels, give it confidence in garnering repeated and increasing philanthropic revenue. In 2023, even with

MacKenzie Scott's \$15M one-time-only contribution, over 40% of CodePath's philanthropic revenue came from prior-year philanthropic investors. CodePath intends to grow renewed or upgraded philanthropy to represent 60% of all philanthropic revenue by 2028.

To achieve this growth with new funders while renewing or upgrading existing funders, CodePath will make a series of investments:

- Cultivating investors at the \$1M+ revenue level – a mix of corporate, national, and regional funders – will often require: 1) narratives customized to the funders' interests blending the human impact of CodePath with its measurable ROI; 2) "white glove" service in cultivating, developing a proposal, and stewarding; and 3) offering meaningful engagement, experiences, or recognition, sometimes with other funders or at events. CodePath will enhance its internal data systems and processes to support continuing excellence in service as it scales fundraising and donor relations operations.
- Cultivating regional and HNWI investors, especially at the \$100K+ level, will often require 1) locally customized narratives blending the human impact with the ROI or impact case; and 2) on-ramps for local engagement, including events, mentorship of CodePath students, collaborative projects, recognition, and/or direct interaction with other funders (e.g., local roundtables). CodePath will develop and execute a localizable "playbook" for regional and HNWI funder cultivation and engagement.
- Cultivating individual contributors will often require: 1) a compelling CodePath pitch that provides donors a sense that they're building something that matters to them, helps people, and creates affiliation in their region and among their network; 2) an efficient and effective mass outreach mechanism; and 3) on-ramps for engagement inclusive of volunteerism, mentorship, and opportunities for alumni to engage with each other and the CodePath community.

CodePath will need to make significant investments in staff, contractors, and supporting systems to secure this level of philanthropic revenue. In 2023, CodePath spent \$0.05 internally per \$1.00 of philanthropy secured. The revenue ramp-up from 2024-26 will require internal enhancements that CodePath anticipates will cost approximately \$0.08 per \$1.00 secured in 2025 and 2026. By 2028, CodePath will reduce such cost to \$0.06 per \$1.00 secured, [below Charity Navigator's \\$0.10 benchmark](#) for highly efficient organizations.

CodePath is confident it has the existing proof of concept, the team, and the right approach to grow philanthropy from \$28.1M in 2023 to at least \$44.1M by 2028. That said, key risks may limit CodePath's ability to meet this target including:

- Internal risks: Much of CodePath's fundraising to date has been CEO-driven. As CodePath engages many more funders, including in multiple geographic regions, more fundraising work will need to be done by others, who may not be as effective. CodePath believes it can mitigate this risk by building out a robust development team, starting with its new Vice President of Development, and by investing in data systems, building storytelling skills, and customized fundraising approaches. While CEO engagement will always be critical for fundraising, an organizational approach will enable more money to be raised from more sources.
- External risks: From 2021-23, 84% of CodePath's revenues derived from 15 \$1M+ gifts. The philanthropic target at its peak, in 2026, calls for 12 such \$1M+ gifts representing 75% of CodePath's revenue that year. Such dependency on large contributions poses a risk if multiple such gifts do not materialize, for example due to an economic downturn. To mitigate this risk, CodePath will: 1) manage costs, monitor its operating reserve, and maintain flexibility in its growth so that it still maintains its promises to students, avoids substantial downsizing, and scales meaningfully even if multiple such large contributions do not materialize; and 2) continually diversify its revenue base, as planned, to reduce reliance on single sources.

Appendix G: University, Corporate, and Philanthropic Partners

2023-24 University Partners

Alabama A&M University
Arizona State University
Bloomfield College
Bryn Mawr College
California State Polytechnic University - Pomona
California State University - Dominguez Hills
California State University - East Bay
California State University - Monterey Bay
California State University - Northridge
California State University - Sacramento
California State University - San Bernardino
Central State University
City College of New York
College of Southern Nevada
Columbia University
CUNY - Baruch College
CUNY - College of Staten Island
CUNY - Hunter College
CUNY - Queens College
Dartmouth College
Delaware State University
Earlham College
Emporia State University
Faulkner University
Florida A&M University
Florida Atlantic University
Florida International University
Florida Memorial University
Florida State University
Fordham University
Georgia State University
Howard University
Illinois Institute of Technology
Indiana University - Bloomington
Irvine Valley College
Jackson State University
John Jay College Of Criminal Justice
Langston University
Macalester College
Merritt College
Miami Dade College
Michigan State University
Mississippi State University
Morgan State University
Mount Holyoke College
New Jersey Institute of Technology

New York University
North Carolina A&T State University
Northern Michigan University
Oregon State University
Pennsylvania State University
Purdue University
San Diego State University
San Jose State University
Southern Illinois University - Edwardsville
Southern University and A&M College
St. Ambrose University
Stony Brook University
SUNY - University at Buffalo
SUNY Plattsburgh
Texas A&M University - College Station
Texas A&M University - San Antonio
Texas Christian University
Texas State University
Texas Tech University
University of California - Berkeley
University of California - Irvine
University of California - Merced
University of California - San Diego
University of California - Santa Barbara
University of Florida - Gainesville
University of Houston
University of Illinois - Chicago
University of Illinois - Urbana Champaign
University of Maryland - College Park
University of Maryland - Eastern Shore
University of Nevada - Las Vegas
University of Pennsylvania
University of Puerto Rico - Mayaguez
University of Puerto Rico - Rio Piedras
University of San Francisco
University of South Florida
University of Southern Mississippi
University of Texas - Arlington
University of Texas - Austin
University of Texas - Dallas
University of Texas - El Paso
University of Texas - Rio Grande Valley
University of Texas - San Antonio
University of the District of Columbia
University of Washington
Vassar College
Virginia State University
Western Michigan University
Winston Salem State University

2023-24 Corporate Partners

Alteryx
Amazon
Asurion
Base10
Bentley Systems
Bill.com
Bloomberg
Boeing
Brooks Running
Course Hero
Dick's Sporting Goods
DocuSign
Facebook
Fastly
Lyft
Meta
Microsoft
Mutual of Omaha Insurance Company
New Relic
Nutanix
Roku
Salesforce
SAP
Scale AI
ServiceNow
SRI
Stryker
Tandem Diabetes
UKG
UMG Tech
Verisk Analytics
Workday
Y Combinator

2023-24 Philanthropic Partners

Andreessen Horowitz
Anonymous
Ascendium
Ballmer Group
Bloomberg Foundation
Blue Meridian Partners
Capital One Foundation
Catalyst Family Foundation
Chavez Family Foundation
Citadel
Cognizant
Comcast Corporation
Comic Relief
Etsy

Ford Motor Company
GitLab Foundation
Google
Greenbridge Family Foundation
Iconiq Capital
JP Morgan Chase Foundation
Kapor Center
Knight Foundation
Lockheed Martin Foundation
MacKenzie Scott
McGovern Foundation
Microsoft Philanthropies
Mike Curtis
New Profit
Okta
Panasonic Foundation
Pluralsight
Project Leapfrog
Reboot Representation
Salesforce
Schultz Family Foundation
Steve Newman
U.S. Economic Development Administration

Appendix H: Regional Expansion

Over the next five years, CodePath will pursue a regional expansion strategy in eight targeted metropolitan areas to maximize the supply of and demand for CodePath-trained software engineers, while also gaining operational efficiencies. With few exceptions, education and hiring markets are regional in nature – 80% of early career talent works within [100 miles of their hometown](#) – and CodePath’s efforts will activate multiple stakeholders to ensure that a high percentage of Black, Latino/a, Indigenous, or low-income (BLI/LI) talent is cultivated, employed, and innovating within these regions.

How does the regional strategy work?

CodePath’s regional strategy enriches the *CodePath Partnered* strategy by capitalizing on the array of local interests that care about workforce development and social mobility within a particular region. Local policymakers and philanthropies focus their efforts on supporting regional or national nonprofit organizations that strengthen career pathways in their own regions. Colleges [disproportionately educate in-state residents](#) (27 out of 50 states have greater than 75% enrollment from in-state residents and all but three are over 50%) and funnel their graduates into the local economy.

By leveraging the collective interests of a range of stakeholders in the local talent ecosystem, CodePath aims to create a “flywheel” of cascading impacts. The process will typically start with outreach to potential funders, including regionally-focused corporate and private foundations. CodePath and one or two potential funders together can then approach political leaders, who are often willing to leverage their convening power to advance high-quality workforce development initiatives. CodePath will motivate tech companies to join the effort to improve the pipeline of high-quality early-career software engineering talent. With companies on board, colleges will be more likely to embed CodePath within their computer science (CS) curriculum. As they see companies and colleges collaborating, more funders will step up to participate. The more students that CodePath graduates, the more alumni there will be to inspire and support the next generation.

Successful regional flywheel models exist, offering lessons for CodePath

While the regional flywheel approach is new to CodePath, it is not unproven. For example, Amazon Web Services’ (AWS) Educate created statewide and regional “Cloud Degree” programs, beginning with individual community colleges at the center of the flywheel and extending to the statewide community college system, public four year colleges, private minority serving institutions, and early college programs in high schools. Within the first year and a half post-program launch in 2019, well over 100 institutions committed to creating Cloud Degree programs, including statewide systems in [Texas](#), [Virginia](#), [Louisiana](#), and [Utah](#), and regional offerings in [Los Angeles](#), [San Francisco](#), and [Maricopa County](#).

Operationalizing the regional strategy

CodePath has identified eight regions that contain a high number of CS college students, a high concentration of BLI/LI students, a footprint of students already taking CodePath courses, and local political will to support CodePath. While CodePath ultimately hopes to have regions compete with each other to garner a CodePath local launch, the following metro regions are under consideration and could potentially launch in the indicated time frames:

- South Florida: In progress
- Atlanta: In progress
- New York City (NYC): Spring 2025
- DC-Maryland-Virginia metro (DMV): Spring 2025
- Los Angeles / So-Cal (LA): Fall 2025
- Dallas / Fort Worth (DFW): Fall 2025
- Houston: Spring or Fall 2026
- Charlotte / Raleigh (NC): Spring or Fall 2026

CodePath will employ regional business development directors (RBDDs) and regional program managers (RPMs) to staff regions. RPMs will report to RBDDs, who will report to CodePath's senior director of programs and community engagement. One RBDD will be assigned to a region up to nine months before a region is operational, with a 50% time commitment to that region from six months prior to launch until six months post-launch. The RBDD will be skilled in relationship building, with extensive networks, and will work with regional stakeholders to ensure the startup and long-term success of the region, engaging local and national funders committed to that region, politicians (e.g., governors, mayors, secretaries of labor), colleges and higher education systems, national and local employers, and local media.

One RPM within the region will be hired up to six months before a region is launched and will be fully committed to the region from three months prior to launch until approximately two years post-launch. Prior to the region launch, the RPM will support the RBDD and help with local networking. Once the region has launched, the RPM's tasks will include supporting local colleges and supporting the sales team's efforts to upsell local colleges on *CodePath Partnered* programs, recruiting and supporting employers, ensuring students maximize internship and career opportunities, organizing local events and career fairs, maintaining support from local political actors, ensuring a strong flow of data about employment outcomes back to stakeholders, and activating CodePath alumni as mentors and instructors.

Step-by-step approach to operationalizing regions

While the following steps are more intertwined than sequential, CodePath will follow a general order:

- **Step 1: Cultivate local philanthropic partnerships and investment, especially the lead funder, and activate the local CodePath alumni and developer community.** The first step is to find local philanthropic leaders who understand the vital role that young, diverse tech talent can play in strengthening the local economy and community. For example, the Knight Foundation's support is enabling CodePath to activate the Miami metro area, while Google and Comcast are providing support to activate Atlanta. Simultaneously, CodePath will engage local alumni, the developer community, and STEM/tech-oriented nonprofits.
- **Step 2: Approach local government and workforce boards.** The government owner of workforce development within a state is usually the lieutenant governor, secretary of labor, or secretary of state. Cities will often have workforce initiatives, with the mayor being a vital constituent, but it is also important to approach the governor's office to maximize the opportunity and funding availability, as well as pave the path for future expansion. The government should help convene the major stakeholders (educational systems, workforce boards and employers, and local philanthropy), identify and allocate workforce development funds, and promote the initiative through press events.
- **Step 3: Close CodePath Partnered deals and set the path to system-wide adoption or "sharing."** Initially, CodePath will seek a "beachhead" partnership with a school that operates within a larger system (e.g. state higher education system, community college system), with the goal of expanding the partnership to other schools within and beyond that system after demonstrating initial success. For instance, in Atlanta, CodePath aims to make Georgia State University (GSU) its beachhead within a system of 12 Atlanta-area public institutions and private HBCUs,²² Instead of CodePath programming only benefiting GSU students, other students within that Atlanta network could take CodePath's credit-bearing courses in-person at GSU or online. Individual schools within the consortium could potentially do lighter implementations (e.g.,

²² Public 4-year: Georgia State University, Georgia Institute of Technology, Clayton State University; Public 2-year: Atlanta Metropolitan State College, Atlanta Technical College, Gwinnett Technical College, Georgia Piedmont Technical College, Chattahoochee Technical College, Atlanta Metropolitan State College; Private HBCUs Morehouse College, Spelman College, Clark Atlanta University, Morris Brown College

Technical Interview Prep) locally and/or take on specializations (e.g., AI, mobile, or entrepreneurship) that align to their area of focus. Instead of having to deal with lengthy timelines for course approval across each institution and the high costs associated with implementing and marketing new courses, both CodePath and the schools would benefit from operational efficiency, and in addition to serving just 32K GSU students, CodePath could reach up to 103K students across the region.

- **Step 4: Develop partnerships with local corporate consortia and anchor tech employers.** CodePath will leverage existing relationships with national employers who are interested in hiring in a particular region while simultaneously building relationships with local employer consortia (chambers of commerce, workforce development boards, tech consortia) to create a pipeline to internships and full-time jobs within a region. To foster deeper engagement, CodePath will also create regional advisory boards, with each company contributing to regional outcomes through internships, hiring, and funding commitments.
- **Step 5: Catalyze PR to build awareness and support.** Politicians, employers, higher education leaders, and other stakeholders are often heavily motivated by garnering positive press, and that press can also produce great benefits to CodePath. Earned, or “free,” media can drive students to programs, draw new colleges into the fold, attract new employer partners, and help spin the regional flywheel into other communities. As CodePath’s initiatives and impact crosses political lines, all of the stakeholders are likely to support PR activities, with state and local government leaders playing the lead role and CodePath at their side.

Appendix I: Finance charts

Chart A: Base case

	Past (2020)	Past (2023)	Yr 1 (2024)	Yr 2 (2025)	Yr 3 (2026)	Yr 4 (2027)	Yr 5 (2028)	TOTAL (2024-28)	% of TOTAL (2024-28)
Revenues	\$4,178,907	\$31,234,544	\$26,767,020	\$39,041,688	\$56,390,844	\$62,451,201	\$76,125,221	\$260,775,974	100%
Philanthropy	\$3,726,802	\$28,138,202	\$22,500,000	\$31,570,000	\$43,270,000	\$43,450,000	\$44,060,000	\$184,850,000	71%
Earned: Corporate	\$452,105	\$2,643,712	\$3,766,689	\$6,355,024	\$10,647,116	\$15,216,582	\$25,826,575	\$61,811,985	24%
Earned: Higher Ed	\$0	\$1,500	\$41,951	\$482,058	\$1,583,469	\$2,809,971	\$5,095,170	\$10,012,619	4%
Other		\$451,130	\$458,380	\$634,606	\$890,259	\$974,648	\$1,143,476	\$4,101,369	2%
Expenses	2,845,483	\$16,201,516	\$23,373,388	\$36,044,800	\$45,403,990	\$52,392,253	\$59,860,968	\$217,075,399	100%
Pillar I: Scale (Marketing)		\$2,807,228	\$4,083,453	\$6,101,810	\$8,583,262	\$9,447,885	\$8,296,918	\$36,513,328	17%
Pillar II: Quality (Delivery)		\$7,120,344	\$8,787,737	\$12,483,325	\$14,856,284	\$18,204,625	\$21,447,731	\$75,779,702	35%
Pillar III: Sustainability (Revenue)		\$1,445,564	\$4,654,458	\$8,072,990	\$9,892,203	\$11,215,817	\$13,131,886	\$46,967,354	22%
Platform		\$1,763,986	\$2,967,941	\$6,028,583	\$8,550,592	\$9,826,561	\$13,098,191	\$40,471,868	19%
Finance, HR, and Operations		\$3,064,394	\$2,879,799	\$3,358,093	\$3,521,649	\$3,697,364	\$3,886,243	\$17,343,148	8%
Change in Net Assets (Revenues Less Expenses)	\$1,333,424	\$15,033,028	\$3,393,632	\$2,996,888	\$10,986,854	\$10,058,948	\$16,264,252	\$43,700,574	
End of Year Months of Cash on Hand (Estimate)		14.0	10.7	8.7	9.9	10.8	13.4		
Key Financial Metrics									
% of Expenses that are Programmatic (Non-Overhead)	--	73%	75%	78%	80%	81%	82%		
Ratio of Earned Revenue to Expenses	16%	16%	16%	19%	27%	35%	52%		
Year-over-Year Revenue % Change	--	--	-14%	46%	45%	11%	22%		
Year-over-Year Expense % Change	--	--	44%	54%	26%	15%	14%		

Chart B: Students enrolled vs expenses per student enrolled

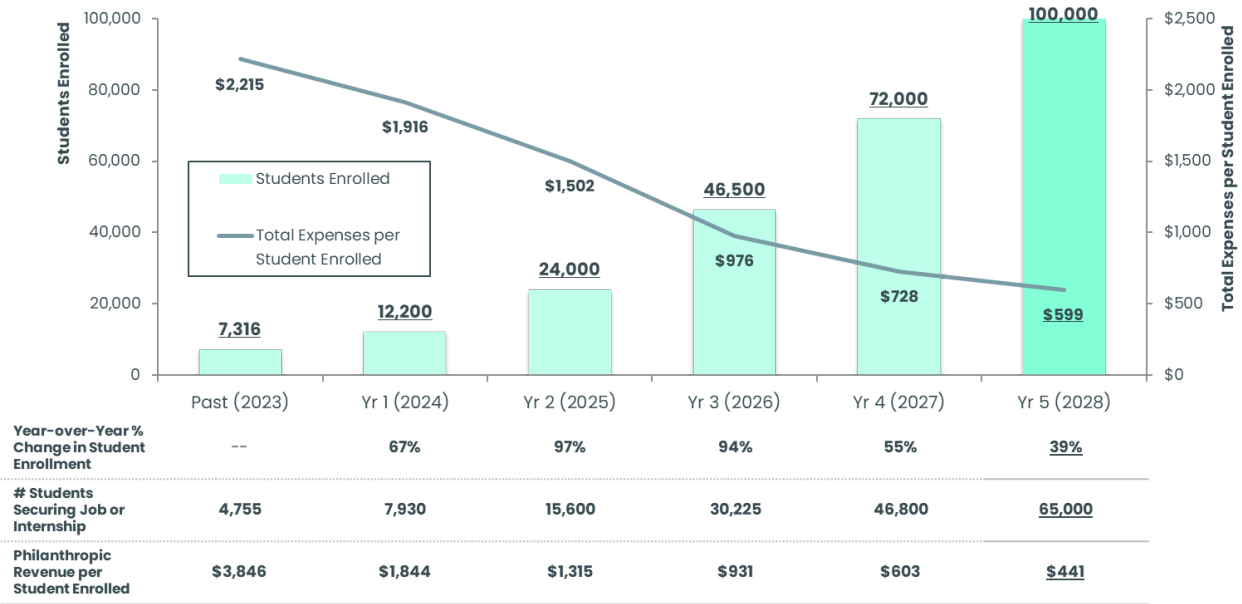


Chart C: Lean model full financial summary

	Past (2020)	Past (2023)	Yr 1 (2024)	Yr 2 (2025)	Yr 3 (2026)	Yr 4 (2027)	Yr 5 (2028)	TOTAL (2024-28)	% of TOTAL (2024-28)
Revenues	\$4,178,907	\$31,234,544	\$23,935,165	\$29,854,960	\$39,768,078	\$42,525,956	\$51,055,139	\$187,139,298	100%
Philanthropy	\$3,726,802	\$28,138,202	\$20,345,800	\$24,721,190	\$31,477,050	\$31,357,500	\$32,268,350	\$140,169,890	75%
Earned: Corporate	\$452,105	\$2,643,712	\$3,201,686	\$4,448,517	\$6,920,625	\$9,129,949	\$15,495,945	\$39,196,722	21%
Earned: Higher Ed	\$0	\$1,500	\$20,976	\$241,029	\$791,735	\$1,404,986	\$2,547,585	\$5,006,310	3%
Other		\$451,130	\$366,704	\$444,224	\$578,557	\$633,521	\$743,260	\$2,766,377	1%
Expenses	2,845,483	\$16,201,516	\$23,009,460	\$30,393,831	\$34,528,212	\$38,390,717	\$43,577,646	\$169,899,866	100%
Pillar I: Scale (Marketing)		\$2,807,228	\$4,083,453	\$4,928,021	\$6,226,367	\$6,760,761	\$6,609,295	\$28,607,896	17%
Pillar II: Quality (Delivery)		\$7,120,344	\$8,787,737	\$11,518,701	\$12,553,252	\$14,398,618	\$15,475,777	\$62,734,086	37%
Pillar III: Sustainability (Revenue)		\$1,445,564	\$4,654,458	\$7,103,487	\$7,184,898	\$7,379,631	\$8,910,721	\$35,233,194	21%
Platform		\$1,763,986	\$2,967,941	\$3,907,389	\$5,472,124	\$6,682,346	\$9,330,220	\$28,360,021	17%
Finance, HR, and Operations		\$3,064,394	\$2,515,870	\$2,936,232	\$3,091,572	\$3,169,361	\$3,251,633	\$14,964,668	9%
Change in Net Assets (RevenuesLess Expenses)	\$1,333,424	\$15,033,028	\$925,706	-\$538,871	\$5,239,866	\$4,135,239	\$7,477,493	\$17,239,433	
End of Year Months of Cash on Hand (Estimate)		14.0	8.9	6.1	6.8	7.0	8.2	CodePath will manage its financials to always have at least 6 months of cash on hand	
Key Financial Metrics (shared where trend is meaningfully different from base case)									
Ratio of Earned Revenue to Expenses	16%	16%	14%	15%	22%	27%	41%	vs. 52% in 2028 base case	
Year-over-Year Revenue % Change	--	--	-23%	25%	33%	7%	20%	Meaningful internal growth in expenses in 2024-25 before slowing	
Year-over-Year Expense % Change	--	--	42%	32%	14%	11%	14%		
% Change in Revenues from Base Case	--	--	-11%	-24%	-29%	-32%	-33%	Existing cash buffer permits slower decrease in expenses than revenues	
% Change in Expenses from Base Case	--	--	-2%	-16%	-24%	-27%	-27%		

Chart D: Base case vs lean model revenue projections

Revenue Segment	2023 Revenue	Base Case: 2023-28 Growth	Lean Model: 2023-28 Growth	Key Lean Model Adjustments to Revenue Growth (from Base Case)
Philanthropy	\$28.1M	+57% (+\$15.9M)	+15% (+\$4.1M)	<ul style="list-style-type: none"> Small (10%) decrease in 2024 given progress already and line of sight to funding Small (15%) decrease thereafter in <u>corporate and national institutional philanthropy</u> from base case given capabilities (reinforced with new hires) and strong track record with segments Meaningful (30%-45%) decrease thereafter in <u>regional philanthropy</u> given risks in entering new markets and cultivating regionally focused funders (though MIA and ATL momentum suggests promise) Large (50%) decrease thereafter in <u>individual philanthropy</u> given new capabilities needed to cultivate HNW and everyday givers (highest risk to not materialize)
Earned: Corporate	\$2.6M	+877% (+\$23.2M)	+486% (+\$12.9M)	<ul style="list-style-type: none"> Small (15%) decrease in 2024 given line of sight on paid talent discovery and recruiting contracts and corporate sponsorships Meaningful and growing (30%-40%) reductions in successive years to account for (1) <u>limited employers' budgets</u> (e.g., due to fiscal squeezes) to pay for talent products & services and/or (2) <u>decreased CodePath ability to deliver on the full value proposition</u> articulated in the base case to gain market share
Earned: Higher Ed	\$0.002M	+339,578% (+\$5.1M)	+169,739% (+\$2.5M)	<ul style="list-style-type: none"> Large (50%) decreases every year to account for key risks that (1) <u>colleges may face financial pressures that make them less able to pay</u> for technical interview prep and career services support and/or (2) <u>colleges are willing to pay for CodePath services but may do so at a substantially lower rate than CodePath's projected price point</u> (~\$75 per student for its most ubiquitous offering)
Other	\$0.5M	+153% (+\$0.7M)	+65% (+\$0.3M)	Largely investment income, tied to overall revenue growth and cash in bank
TOTAL	\$31.2M	+144% (+\$44.9M, to \$76.1M)	+63% (+\$19.8M, to \$51.1M)	Overall, philanthropy decreases 24%, corporate 37%, and higher ed 50% from the base case, reflecting their relative levels of maturity and risk for CodePath