



# SAILING TO GRADUATION

Improving Completion  
Rates for Community  
College Students in  
Lorain County, Ohio

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**ANALYSIS BY Anna Fogel, Jake Edwards, and Travis Britain**

## **ACKNOWLEDGEMENTS**

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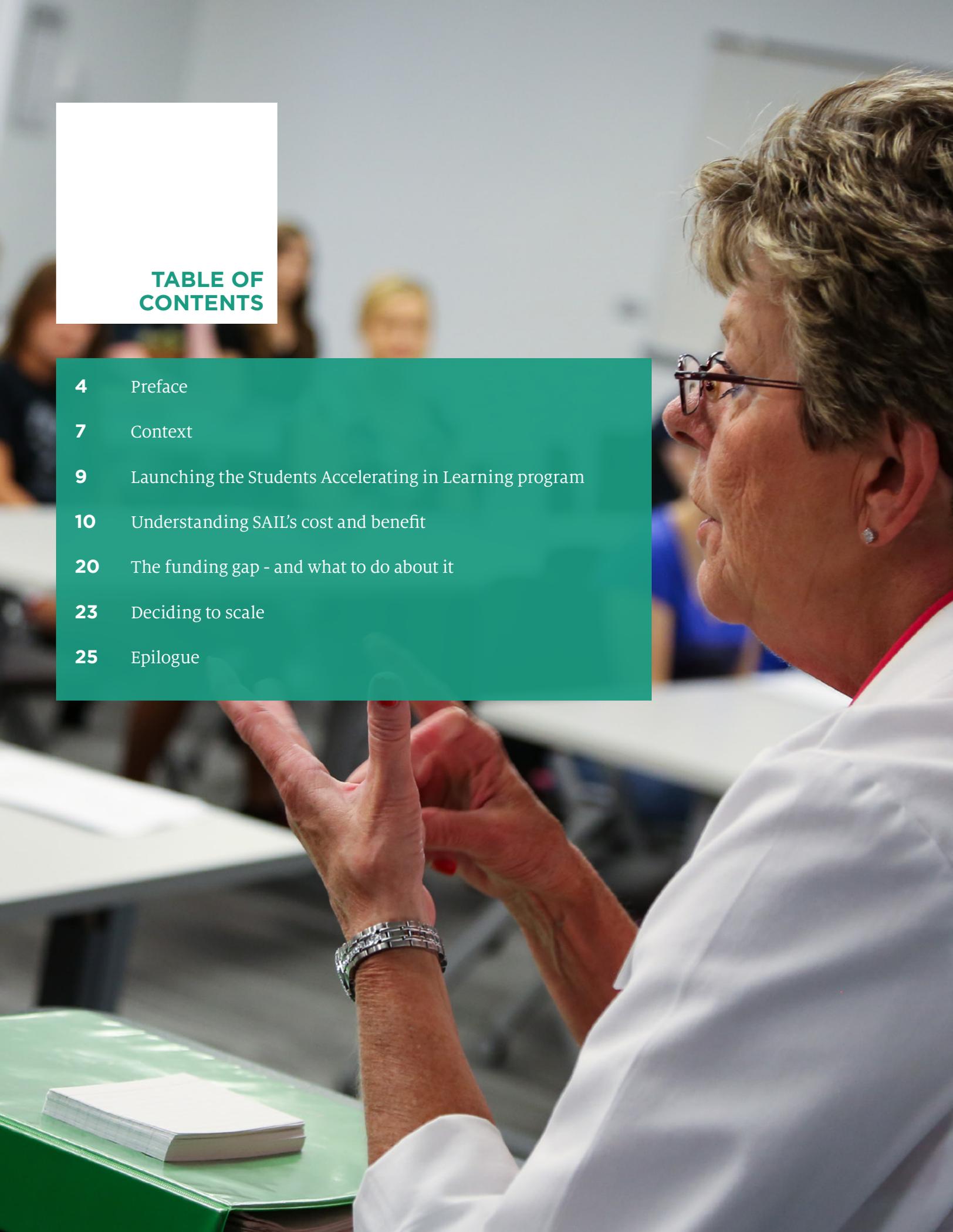
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## **ABOUT SOCIAL FINANCE**

Social Finance is a nonprofit organization dedicated to mobilizing capital to drive social progress. Social Finance has pioneered Pay for Success, a set of innovative financing strategies that directly and measurably improve the lives of those in need. To date, Social Finance has mobilized over \$100 million for social progress. Our projects address a wide range of social issues including criminal justice, education, health, homelessness, sustainability, and workforce development.

## **PHOTOGRAPHY CREDITS**

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## PREFACE

*In 2018, six million students enrolled in community colleges.<sup>1</sup> Less than 16% will graduate in three years. Only one third will graduate in six years.<sup>2</sup>* Community colleges offer a pathway to economic mobility for low-income students but only for the few who complete a degree.

Concerned about these disappointing facts, policymakers have tried to link state higher education funding to improved student outcomes. More than 30 states have introduced outcomes-based funding for higher education institutions, using metrics such as credit accumulation, transfer rates, and graduation rates.<sup>3</sup> This is a significant shift from how most state dollars are allocated, based on enrollment.

Ohio is a national leader in its approach to outcomes-based funding. Since 2014, Ohio has allocated 100% of its community college funding based on institutional performance.

It targets outcomes that are meaningful for students' academic achievement—completion of development education courses, credit accumulation, and graduation and transfer rates—and provides incentives for serving higher-need students, including students of color, low income students, or older students.

The case study that follows describes a powerful example of what can happen when a high-performing, committed institution—Lorain County Community College in Ohio—is supported by effective policies to expand a successful program to improve student outcomes. In 2014, Ohio rolled out its outcomes-based funding formula, called State Share of Instruction. At the same time, Lorain County Community College (LCCC) began piloting a student support services program, with the goal of improving graduation rates and closing the achievement gap for under-resourced learners. This program was closely modeled after the City University of New York's (CUNY) Accelerated Study in

Associate Programs (ASAP), which had nearly doubled students' three-year graduation rates, according to an external evaluation by MDRC.<sup>4</sup> LCCC's leaders were impressed by their own program's early impact on course completion, credit accumulation, and three-year graduation. By 2017, they were considering scaling it to serve more students.

Social Finance, in partnership with CUNY ASAP and MDRC, and funded by the Bill and Melinda Gates Foundation, worked with LCCC over six months to help inform their decision on scaling the program. Critical questions included: What was LCCC's return on investment per dollar invested? Was the program a cost-effective way to help students succeed and graduate? What were sustainable funding options for scaling the program?



- 1 Community College Research Center, Teachers College, Columbia University, "Community College FAQs".
- 2 Hulbert, Ann. "How to Escape the Community-College Trap". The Atlantic. January/February 2014 issue.
- 3 Dougherty, Kevin et al. "Looking Inside the Black Box of Performance Funding for Higher Education". The Russell Sage Foundation Journal of the Social Sciences. April 2016.
- 4 Scrivener, Susan et al. "Doubling Graduation Rates: Three-Year Effects of CUNY's Accelerated Study in Associate Programs (ASAP) for Developmental Education Students". MDRC. February 2015.

## INTRODUCING THE PARTNERS

For over a decade, the *City University of New York's (CUNY) Accelerated Study in Associate Programs (ASAP)* has advanced the economic mobility of low-income New Yorkers by radically improving associate degree attainment rates. Through the provision of comprehensive support services and financial resources that remove barriers to full-time study, build student resilience, and support timely degree completion, ASAP students graduate at more than double the rates of non-ASAP students. To date, across eight cohorts, ASAP has an average graduation rate of 53% versus 25% of matched comparison group students. This effect has held across all cohorts and subgroups of students. Created in 2007 as a partnership between CUNY and the Mayor's Office for Economic Opportunity, ASAP has grown from 1,132 students to a current annual enrollment of 25,000 students across nine CUNY colleges. In addition to its New York City experience, CUNY ASAP provides technical assistance to colleges across the country that are interested in replicating the ASAP model. From 2014 to 2016, through a partnership with the Ohio Department of Higher Education, Great Lakes Higher Education Corporation, and MDRC, CUNY ASAP provided technical assistance to three Ohio community colleges that implemented programs based on the ASAP model.

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**MDRC**, a nonprofit, nonpartisan education and social policy research organization, conducted a random assignment evaluation of ASAP at three CUNY community colleges to evaluate the impacts of ASAP on students' academic outcomes over a three-year study period. MDRC is also leading the ASAP Demonstration in three Ohio community colleges. MDRC is evaluating the Ohio programs through a random assignment design, and is conducting academic impact, program implementation, and cost analyses of the programs.

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**Lorain County Community College (LCCC)** has been a cornerstone of Lorain County in Northeast Ohio since 1963. Serving approximately 12,000 students every year, LCCC is committed to driving student completion for academic and career success and in 2018 was named the top community college in the country for "Excellence in Student Success" by the American Association of Community Colleges. In 2014, they launched the Students Accelerating in Learning (SAIL) program, as one of three community colleges participating in a demonstration project to replicate ASAP in Ohio.

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**Social Finance** is a national nonprofit dedicated to mobilizing capital to drive social progress. It has pioneered Pay for Success, a set of innovative financing strategies that directly and measurably improve the lives of those in need. Social Finance was funded by the Bill and Melinda Gates Foundation to assess the feasibility of using Pay for Success financing to scale SAIL at LCCC.



## THE CITY UNIVERSITY OF NEW YORK'S ACCELERATED STUDIES IN ASSOCIATE PROGRAMS

*The City University of New York's Accelerated Study in Associate Programs (ASAP)* was developed to remove barriers to student success and dramatically improve graduation rates. When the program was launched in 2007, it aimed to graduate at least 50% of students within three years, more than double the graduation rate at that time.

ASAP provides comprehensive, integrated academic and financial supports to students for up to three years as they work towards their associate degree. The program requires certain commitments from students: they must take any required developmental courses immediately and continuously and attend college full time, which is notable given that only 40% of community college students nationwide attend full time.<sup>4</sup> In return, students receive financial support to cover any gap between financial aid and college tuition and fees, costs of textbooks, and transportation; enhanced advising, academic and career services, with dedicated advisors and tutors for students in the program; and a structured degree pathway with blocked courses, dedicated spaces for ASAP participants to take classes together, an initial ASAP seminar, and the ability to register for courses early.

ASAP was originally offered in six colleges within the CUNY system, with the support of New York City, and over the last decade has grown to serve 25,000 students per year across the City. The program's impact was evaluated by MDRC and was found to *nearly double the three-year graduation rate of its students* (from 21.8% in the control group to 40.1% in the treatment group), *boost rates of enrollment, increase the number of credits earned, and increase transfer rates to four-year colleges*.<sup>6</sup> CUNY's ongoing internal analysis, which uses a quasi-experimental constructed comparison group design, confirms that ASAP students graduate at more than double the rates of non-ASAP students.<sup>7</sup> In addition, the program is being evaluated as it is adapted to three community colleges in Ohio. Early results indicate the impact on graduation is in line with the initial MDRC study.<sup>8</sup>

ASAP's impact—including an increase in graduation rates by 18 percentage points—is huge; as MDRC notes, these effects are the largest they have seen in any of their evaluations of community college reforms in more than a decade of research.<sup>9</sup>

5 Community College Research Center

6 Scrivener, 2015

7 Key findings from CUNY's evaluation can be found here: [http://www1.cuny.edu/sites/asap/wp-content/uploads/sites/8/2018/12/ASAP\\_program\\_overview\\_web\\_11\\_1\\_18.pdf](http://www1.cuny.edu/sites/asap/wp-content/uploads/sites/8/2018/12/ASAP_program_overview_web_11_1_18.pdf)

8 Sommo, Colleen et al. "Doubling Graduation Rates in a New State: Two-Year Findings from the ASAP Ohio Demonstration". MDRC. December 2018.

9 Scrivener, 2015

## CONTEXT

*Lorain County Community College has been a cornerstone of Northeast Ohio since 1963.* Serving 12,000 students each year, it prides itself on being the community's college, deeply committed to helping all students succeed, supporting the local economy, and acting as a resource for the entire community. Dr. Marcia Ballinger took over as president in 2016, bringing 25 years of community college leadership experience and a bold commitment to equity and to supporting students to achieve their dreams. LCCC was recognized in 2017 and 2018 as the top community college in Ohio in terms of student success and was named the top community college in the country for student success in 2018.<sup>10</sup>

But this success was not what the school was experiencing just a few years earlier. In 2015, LCCC's three-year graduation rate was 15%.<sup>11</sup> Completion rates for low-income students and students of color were even lower. When MDRC approached LCCC in fall 2014 to participate in the study of a program that aimed to double graduation rates for students, they jumped at the opportunity. Along with Cincinnati State Technical and Community College and Cuyahoga Community College, LCCC would receive funding from regional and national funders and technical assistance from CUNY to implement programs based on CUNY ASAP. MDRC would conduct a random assignment evaluation of all 1,500 students participating in the program across the three Ohio schools, focused on enrollment, persistence, and graduation rates.

LCCC had a powerful incentive to improve student success: remember that in 2014, Ohio committed 100% of state funding for community colleges according to students' credit accumulation, graduation rates, and transfer rates. Ohio's State Share of Instruction (SSI) allocates \$450 million annually for community colleges based on student success and outcomes, comprising a third of colleges' budgets.



**“ASAP’s effects are the largest we have seen in any evaluations of community college reforms in more than a decade of research.”**

MDRC

<sup>10</sup> Lorain County Community College. “LCCC Recognized as Top Community College in the Nation for Excellence in Student Success by American Association of Community Colleges”. Press Release. May 1, 2018.

<sup>11</sup> Lorain County Community College. “Students Accelerating In Learning (SAIL): Lessons from the Ohio ASAP replication project”. Presentation. 2019.



## OHIO'S STATE SHARE OF INSTRUCTION

Ohio is a national leader in outcomes-based funding for higher education. An early adopter, Ohio began incorporating performance-based payments for higher education in the 1990s, providing bonus payments for improved performance in enrollment and graduation rates.<sup>12</sup> In 2009, Ohio piloted a more robust approach, tying a small percentage of higher education institutions' base funding to their performance. The state piloted this policy for a few years, incorporating various perspectives and gaining buy-in from the leadership of the higher education institutions. In fact, Dr. Ballinger, in the years before she joined LCCC, played an important role in shaping Ohio's approach to outcomes-based funding.

This pilot led to the State Share of Instruction (SSI) formula. Implemented in 2014, this formula ties 100% of the state's funding for community colleges to performance metrics. This is significant in terms of the total amount of appropriations (\$456 million for community colleges in FY 2018) as well as the percentage of colleges' budgets represented by state funding (on average, one third of the budget of Ohio community colleges). Ohio funds 24 community colleges serving 171,000 students.<sup>13</sup>

Ohio's higher education funding pool is capped each year by the legislature and distributed to colleges based upon their relative performance over the three preceding years. SSI at community colleges is distributed according to four metrics:

- 1 **Course completions**, measured by the number of credits earned across each course offering in a given academic year (50% of each college's SSI)
- 2 **Success points** for the number of students who earn 12, 24, or 36 credits, or who complete developmental education courses in math and English and enroll in a credit-bearing course (25% of each college's SSI)
- 3 **Graduation and transfer rates** for each student who graduates with an associate degree or with a recognized credential, or who transfers to a four-year institution (25% of each college's SSI)
- 4 **Access weighting**, applied to students in course completion and graduation and transfer rates, provides additional incentives to serve students who are 1) 25 or older when they began at the college; 2) Pell-eligible at any time during their enrollment; 3) reported as African American, American Indian or Hispanic; or 4) enrolled for the first time in a community college in fall 2013 or after and reported as underprepared for mathematics.

Ohio's approach stands out nationally for the percentage of funding it ties to performance and for the selection of meaningful student success outcomes.

<sup>12</sup> Dougherty, 2016

<sup>13</sup> Ohio Department of Higher Education, all data reported for FY 2016

## LAUNCHING THE STUDENTS ACCELERATING IN LEARNING PROGRAM

*LCCC fully committed to developing and launching the SAIL program, serving 427 students in the first three years of the program. These students were at the greatest risk of not graduating: all had high financial need (defined as being eligible for Federal Pell Grants), 45% were minority students, 31% were first-generation college students, and almost 40% were non-traditional students.*

The SAIL program adhered closely to the CUNY ASAP model, with slight adaptations to fit the Ohio context and student preferences. Similar to ASAP, the program required significant commitments from students: they had to enroll full time, take all developmental education

courses immediately and in conjunction with tutoring, meet with their SAIL advisor and career development specialist regularly, and attend a financial aid literacy workshop. For students who enrolled, there were significant benefits: they received tuition waivers, textbook vouchers and monthly grocery and gas cards, as well as access to high-touch academic advising, personalized career advising, and priority class registration.

LCCC dedicated a core team of four full-time staff to run the SAIL program. They recruited and advised students, and tracked program data. Beyond these positions, the college demonstrated its commitment to the program with support from the president and deans across departments.

By spring 2018, LCCC was impressed by the program's initial results. Based on their own internal assessment, the first SAIL cohort, which had enrolled in spring 2015, had a graduation rate of 42%, nearly double their counterparts' 23% graduation rate. While this cohort was small, the level of impact was exciting, and the fact that the results mirrored those in the CUNY ASAP program was encouraging. The school's leadership wanted to figure out what came next, beyond their initial commitment to serve a few hundred students.

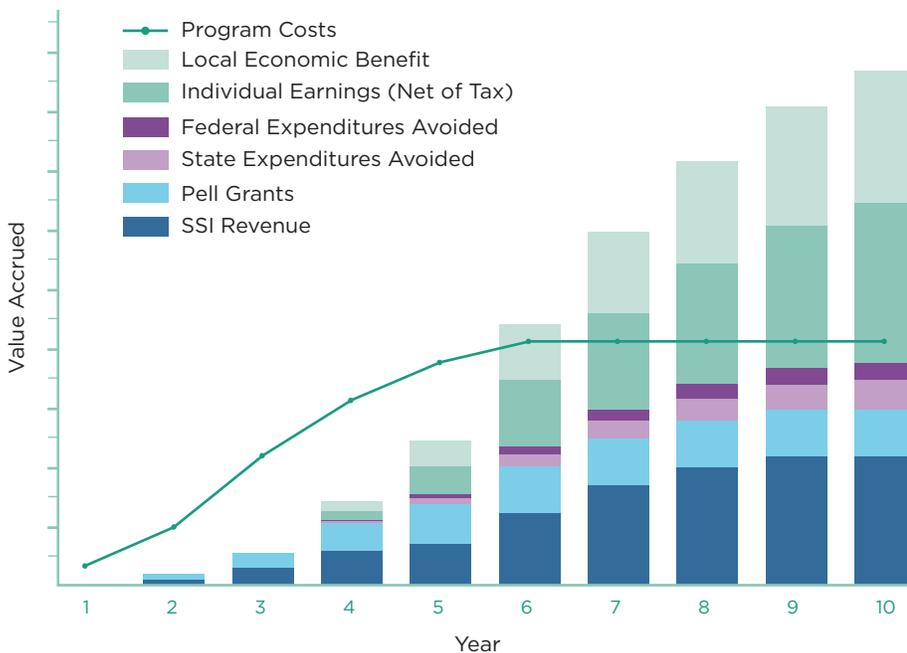


**The first SAIL  
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## UNDERSTANDING SAIL'S COST AND BENEFIT

LCCC's leadership believed that investing in SAIL would drive better results—for its students, for the school, and for the community. But they had to answer critical questions about the program's costs, likely benefits, and sustainability. What financial commitment was needed, up front and over time? What revenue would the program generate given the state's incentives for improved student outcomes?

▼ **FIGURE 1** Overview of the cost-benefit analysis of SAIL<sup>14</sup>



### CBA Methodology & Sequence

1. The **value to LCCC** through increased SSI allocation and additional Pell Grants
2. The **value to State and Federal government** through decreased healthcare, criminal justice, and welfare utilization and increased tax revenue
3. The **value to students and the community** through increased earnings and local economic activity.

### Key assumptions in modeling program growth

LCCC served just over 140 students per year in SAIL's first three cohorts. But the leadership's vision was much bigger, to provide SAIL to all eligible students. LCCC was prepared to make a long-term commitment to SAIL and wanted to understand the costs to ramp up services and maintain them, as well as the benefits for the college, their students, and their community. Social Finance studied program operations over ten years, projecting out the expected costs and benefits.

LCCC estimated that of its 12,000 students, approximately 800 entering each year would meet the SAIL eligibility requirements as full-time, Pell-eligible students. Directly

<sup>14</sup> This graphic created by Social Finance reflects a comprehensive perspective of the value created by the SAIL program for different levels of government, LCCC, students, and their community. While value for one entity may represent costs to another – such as Pell Grants, which generate revenue for LCCC but are a cost to the Federal government – we have included all of the value generated by SAIL across entities to reflect a holistic view of the program and its benefits.

informed by CUNY’s experience with scaling ASAP, LCCC decided that they could reasonably plan to serve 60% of eligible students, or 500 students per year.

That projected scale for the program would nearly quadruple its existing numbers, and require planning to ramp up over several years. LCCC planned to gradually increase the number of students enrolling in SAIL over three years, by enrolling 125 new students in year one and then enrolling 500 new students annually by year three. Each student enrolled in SAIL could receive three years of services, which would allow the program to eventually reach a steady state of 1,476 students per year.

**TABLE 1** *SAIL scaling assumptions*

Total number of full-time students at LCCC	3,400
Total full-time, Pell-eligible students	830
Percent eligible population enrolled in SAIL	60%
<b>Max annual SAIL enrollment</b>	<b>500</b>
Students enrolled in SAIL year 1	125
Students enrolled in SAIL year 2	250
Students enrolled in SAIL year 3	500
<b>Max cumulative number of students served annually</b>	<b>1,476</b>
Annual retention rate in SAIL	80%

## Costs

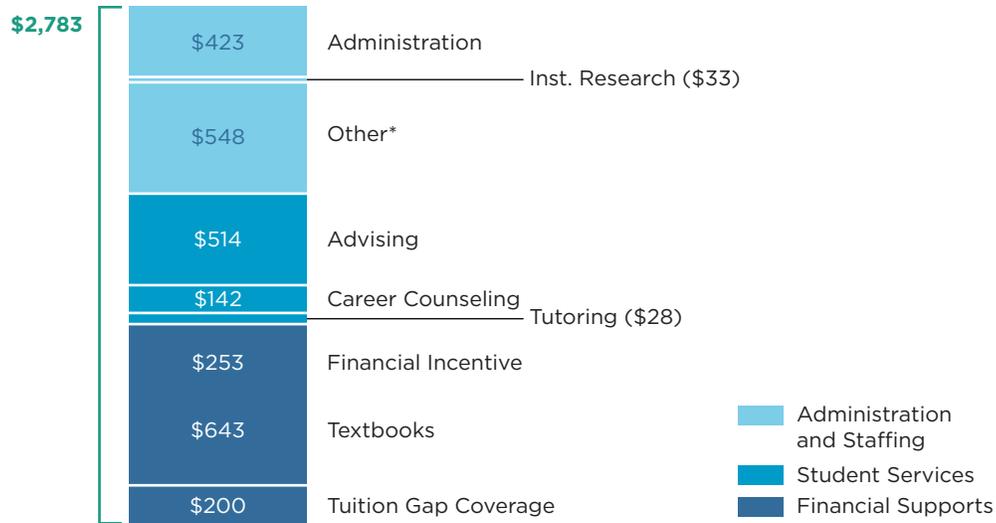
SAIL has an intimidating price tag: in 2016, LCCC calculated that for each student who received SAIL’s services, the college was spending \$2,780 annually on top of the usual costs—or \$8,340 for three years of SAIL. LCCC’s average cost per credit for non-SAIL students was \$514, or \$20,663 over three years. The additional SAIL costs included student services, financial supports, and administrative costs for running the program. The financial supports—in particular, textbooks, monthly cash for gas and groceries, and coverage for any tuition not covered by Pell Grants or state aid—were the largest percentage of program costs. Costs for student services were primarily driven by advising staff, with some additional costs for tutoring and career counseling.<sup>15</sup>

One opportunity to limit costs was to leverage existing, underused infrastructure at the college; at its peak size, LCCC had a student population that was close to 15,000 students, including 8,000 full-time students, and it had the footprint and infrastructure to support all of them. SAIL offered a chance to provide additional services and to better utilize unused space on campus—for tutoring, advising, and meetings, while avoiding additional infrastructure expenses.

<sup>15</sup> This breakdown of costs was similar across the three Ohio colleges, though was higher than the average of \$2,331 calculated by MDRC. Sommo, Colleen et al, 2018.

To project the cost of SAIL in future years, LCCC considered potential trends—including operational efficiencies that would drive down administrative costs, or, counterbalancing this, inflation for staff salaries and the marginal cost of using additional infrastructure. In the end, LCCC decided these effects would likely balance each other out and decided to keep a steady cost of \$2,780 throughout the ten years of services. At a steady state, each year the program will enroll 500 new students and serve a total of 1,476 students, at a cost of \$4.1 million.

▼ **FIGURE 2** SAIL average cost per student (as calculated by LCCC, 2016)



\* Includes Fringe Benefits (\$370), Other Staff (\$47), Travel (\$2), Indirect Costs (\$125), and Other (\$5)

▼ **FIGURE 3** SAIL program costs over ten years



## Program benefits

Based on the results of LCCC's first SAIL cohort and the study of CUNY's experience with the program, the team identified a set of key outcomes and SAIL's expected impact. These outcomes are critical to student success and line up directly with the metrics that determine each college's state funding in the SSI: course completions, credit accumulation, and graduation and transfer rates.

- ◇ **Enrollment and retention** indicate progress towards credits earned and graduation. Based on the first year of the Ohio cohort, students in the treatment group were more likely to enroll and much more likely to enroll full time. This has an important connection to the SSI, which allocates funding according to the number of students that enroll in a credit-bearing course after completing developmental courses in math or English.
- ◇ **Credits earned per student** was an important metric to LCCC given its direct connection to students' likelihood of graduating. It was also an important driver of state revenue; 50% of each college's SSI is allocated based on the number of credits earned across each course offering. In the first year of the Ohio pilot, the cohort saw an **increase of 1.4 credits earned per student** in the treatment group versus those in the control group.
- ◇ **Improving the graduation rate and transfer rate** was the primary driver of LCCC's interest in SAIL. One of the fundamental goals of the Ohio study was to replicate CUNY ASAP's success in doubling graduation rates for its students. In addition, increasing graduation rates and transfer rates to a four-year institution determines 25% of each college's SSI. With only one year of findings in the Ohio study, we looked to CUNY ASAP's impact on graduation rates—**nearly doubling the three-year graduation rate**, from 21.8% in the control group to 40.1% in the treatment group, an **increase of 18.3 percentage points**. CUNY also found that students were significantly more likely to transfer to four-year institutions; only 17.3% in the control group transferred while 25.1% in the treatment group transferred.



**TABLE 2** Key outcomes and expected impact for estimating SAIL benefits

	SAIL Effect Size <sup>16</sup>	Control	Treatment
<b>Credits Earned per Student<sup>17</sup></b>	1.4 credits or 28% increase	8.2 credits	10.5 credits
<b>Graduation Rate (3 years)<sup>18</sup></b>	18.3 percentage point (pp) increase	21.8%	40.1%
<b>Transfer Rate (3 years)<sup>19</sup></b>	7.8 pp increase	17.3%	25.1%
<b>Retention Rate<sup>20</sup></b>	10 pp increase	70%	80%

### The value to LCCC

These impressive program impacts would have a significant impact on students, improving their academic trajectory at LCCC and beyond. They would also impact LCCC’s revenue. LCCC dedicated a cross-cutting team to the analysis: SAIL program staff, members of the budget and finance department and internal research and planning division, and college leadership responsible for student enrollment management, student success, and strategic and institutional development.

The first source of revenue for LCCC is federal Pell Grants covering SAIL students’ tuition. Based on their first year of SAIL, LCCC expected to receive \$520 more in Pell Grants per year for SAIL students compared to their counterparts; as more students enrolled, took more credits, and stayed enrolled semester over semester, LCCC would see additional Pell Grant revenue.

The second source of increased revenue for LCCC is through the SSI. SAIL students were expected to perform better on the very same outcomes which determined the SSI allocation. These improved outcomes were even more valuable for SAIL students given that the SSI formula includes access weighting for the majority of students in the SAIL program.



**LCCC could expect to cover more than 70% of the program’s cost through increased revenue from Pell Grants and SSI alone.**

<sup>16</sup> In MDRC’s evaluation of CUNY ASAP, they found that the six-year impact on associate degree completion was 10 percentage points, down from 18 percentage points at the three-year mark. We use the three-year impact in our projections, rather than the six-year effect size, given that SSI allocates funding based on colleges’ three-year historical performance making the three-year impact most relevant for projecting LCCC’s revenue from SAIL.

<sup>17</sup> Sommo, Colleen and Alyssa Ratledge. “Bringing CUNY Accelerated Study in Associate Programs (ASAP) to Ohio”. MDRC. September 2016.

<sup>18</sup> Scrivener, 2015

<sup>19</sup> Scrivener, 2015

<sup>20</sup> Social Finance estimate

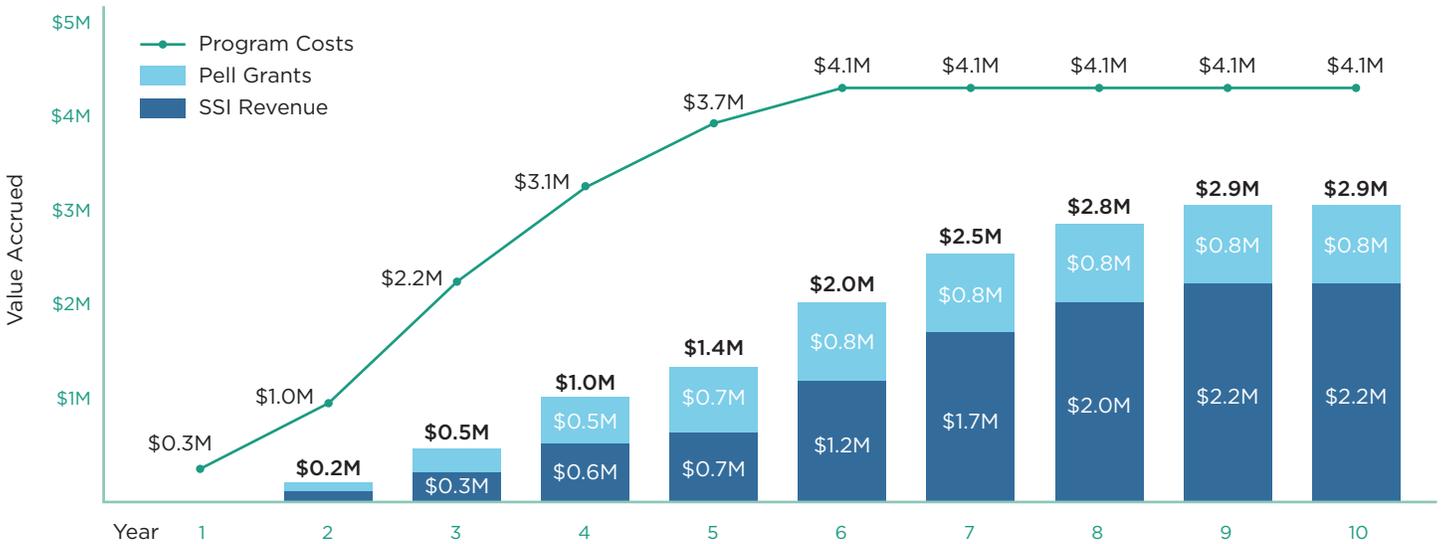
At the steady state of 1,476 SAIL students per year, LCCC could expect to cover more than 70% of the program's cost through increased revenue from Pell Grants and SSI alone.

▼ **FIGURE 4** LCCC would increase their share of SSI funding with each additional year of SAIL access

	Course Completions	Success Points	Graduations & Transfers
<b>Impact Estimate</b>	28% impact on courses completed for SAIL students*	1.4 credit increase for students with more than 12 credits 20% credit increase for students with less than 12 credits	83% increase in 3-year AA completions for SAIL students <sup>†</sup> 45% increase in transfers to 4-year institutions for SAIL students <sup>†</sup>
<b>Year 2</b>	Course completion <sup>‡</sup> = \$72,250	Success Points = \$33,000	AA completion <sup>‡</sup> = \$0 Transfers <sup>‡</sup> = \$6,700
<b>Total LCCC SSI Increase = \$112,000</b>			
<b>Year 3</b>	Course completion = \$200,000	Success Points = \$91,000	AA completion <sup>‡</sup> = \$0 Transfers = \$18,452
<b>Total LCCC SSI Increase = \$309,000</b>			
<b>Year 4</b>	Course completion = \$331,000	Success Points = \$151,000	AA completion <sup>‡</sup> = \$72,000 Transfers = \$30,500
<b>Total LCCC SSI Increase = \$584,000</b>			
<b>Year 5</b>	Course completion = \$331,000	Success Points = \$151,000	AA completion <sup>‡</sup> = \$198,000 Transfers = \$30,500
<b>Total LCCC SSI Increase = \$710,500</b>			

\*Colleen Sommo and Alyssa Ratelidge, "Bringing CUNY ASAP to Ohio: Early Finding from a Demonstration in Three Community Colleges" MDRC, September 2016  
<sup>†</sup>Susan Scrivener et al, "Doubling Graduation Rates," MDRC, February 2015  
<sup>‡</sup>Includes Access and Non-Access SSI allocations

▼ **FIGURE 5** LCCC revenue attributable to SAIL over 10 years



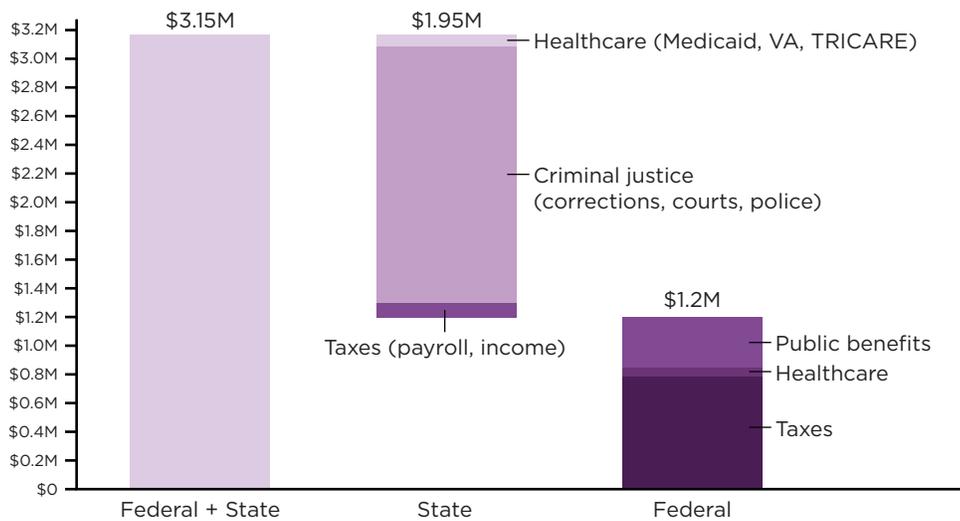
### The lifetime value for government

Individuals with college degrees have better lifetime outcomes than those with only a high school diploma, including higher lifetime earnings and improved economic mobility, better health outcomes, and reduced interaction with the criminal justice

system. Over their lifetimes, individuals with higher degrees cost the government less and generate more revenue. Compared to individuals with only a high school degree, they pay more taxes and use less government support for public health, criminal justice, and public benefits.<sup>21</sup>

In our analysis, we calculated the likely impact for Ohio in terms of reduced criminal justice-related expenditures and increased income taxes; as well as the likely impact for the federal government in terms of reduced public benefits expenditures, reduced healthcare expenditures, and increased payroll and income taxes.

▼ **FIGURE 6** Breakdown of value to state and federal government attributable to SAIL over 10 years



The combination of revenue generated for LCCC and value generated for the state and federal government covers more than 90% of the program's cost.

▼ **FIGURE 7** LCCC revenue and value to state and federal government attributable to SAIL over 10 years

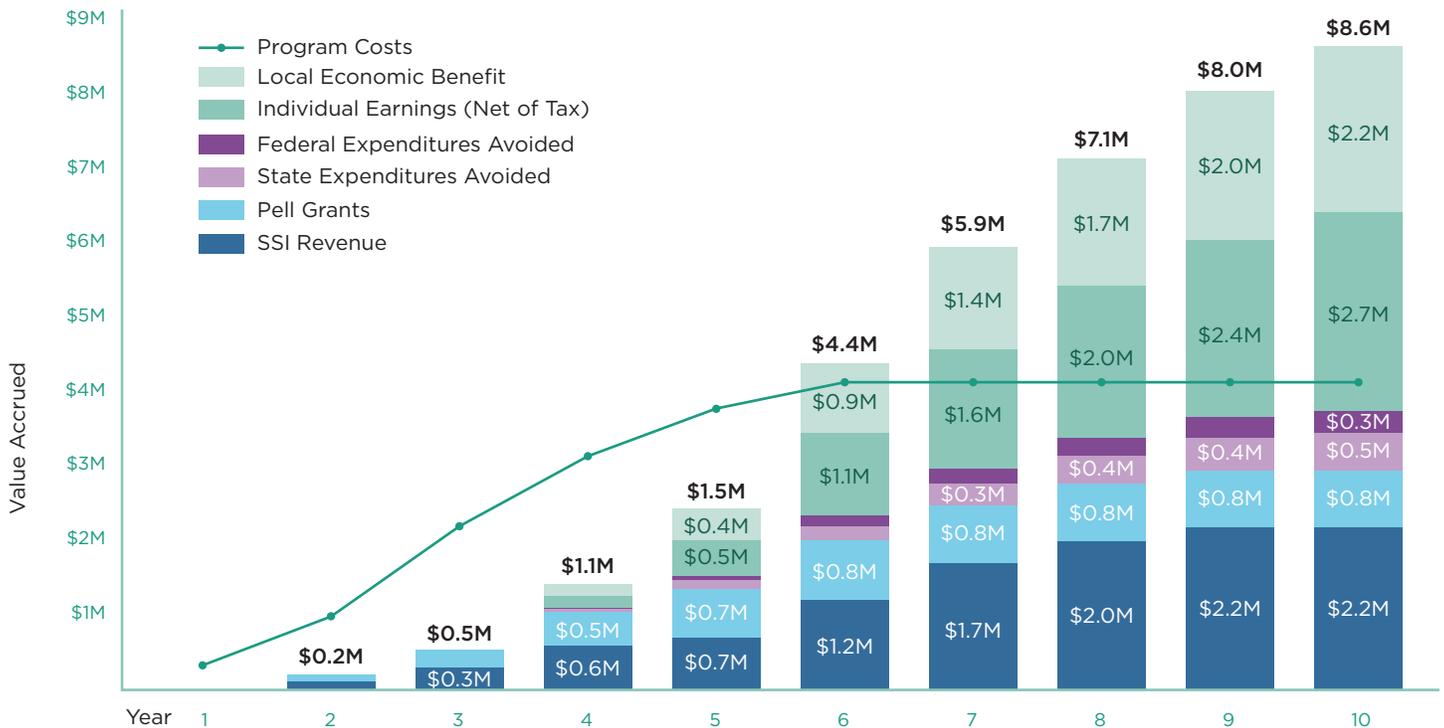


<sup>21</sup> Levin, Henry and Emma García. "Accelerating Community College Graduation Rates: A Benefit–Cost Analysis". The Journal of Higher Education, Volume 89, 2018.

## The value to the local economy

Finally, the last type of value for the cost-benefit analysis relates to the students themselves and to their local economy. Individuals with associate degrees can expect to earn \$2,200 more annually than those with only some college, and individuals with bachelor's degrees can expect to earn \$14,500 more annually than those with an associate degree.<sup>22</sup> Netting out the taxes students would pay, we layered on the expected increase in earnings for every incremental graduate due to the SAIL program. We then considered the impact these students would have on their local economy by using a multiplier effect of 50% and expected increased capital productivity of 30%, based on analysis conducted by Emsi.<sup>23</sup> This is particularly relevant for a community college<sup>24</sup>; the majority of LCCC graduates stay in Northeast Ohio, contributing to their local communities and the regional economy. These benefits—for the students and their local economy—will continue to grow every year as more students graduate.

▼ FIGURE 8 LCCC revenue, value to state and federal government, and economic value attributable to SAIL over 10 years



22 Earnings data from US Census Bureau, 2017

23 Emsi. Non-labor (capital) productivity and economic multiplier effects are based on Emsi's SAM model and multiplier matrix, which controls for the occupational distribution of community college graduates in the US. Graduates can be expected to 1) increase capital productivity (30%), and 2) recycle their increased earnings in the local economy (multiplier effect, 50%). For more details, see "Where Value Meets Values: The Economic Impact of Community Colleges," Emsi, 2014.

24 Assumes regional graduate retention of 85% [Minneapolis Fed, citydata.com, University of Toledo].

## *The cost-benefit of the SAIL program*

By year six, the benefits of the SAIL program are expected to surpass its annual cost. By year ten, the benefits generated by the program are expected to be more than double its costs.

This impressive cost-benefit ratio is driven by a few important factors: 1) SAIL and ASAP have the highest level of impact of any program in the country working to improve higher education completion<sup>25</sup>; 2) Ohio's outcomes-based funding policy directly rewards LCCC for the outcomes targeted by SAIL; and 3) the program serves under-resourced students, which is also rewarded by SSI.

However, as with most programs, the value generated by SAIL is spread across multiple stakeholders—the individual students, LCCC, the local economy, the state government, and the federal government. This value is also accrued over years; SAIL is delivered for up to three years and its long-term impact extends to college graduation and beyond to lifetime earnings.

And as with all cost-benefit analyses, the analysis and conclusions are only as meaningful as the assumptions driving them. In particular, SSI drives much of the benefit that LCCC expects to accrue from SAIL—and, for several reasons, it is difficult to project the likely SSI revenue over ten years. First, SSI is a zero-sum game—there is a fixed pool of funding and it is distributed based on relative performance of all community colleges in the system. We had to make assumptions not only about LCCC's performance in future years, but also about the likely performance of other schools in the system, so that we could project LCCC's performance relative to the other community colleges. Secondly, SSI allocations are based on colleges' previous three years of performance, so we had to consider how accurate historical performance would be in predicting future performance. This was also relevant in projecting the SAIL program's performance—LCCC had only one year of experience with the program, with a small number of students, while the most rigorous evidence of longer-term program impact was for a different community (New York City). Finally, SSI funding is appropriated bi-annually and there is little insight into future years of appropriations. Over the previous three years, appropriations had increased between 2% and 4% annually, but we knew that a new administration would be taking over in January 2019, adding more uncertainty to future appropriations or even adjustments to the SSI formula.

In the end, we made what we felt were reasonable assumptions: that LCCC and the rest of the system would continue to perform the way they had in the previous three years; that the SAIL program would continue to have the same impact it had during the pilot



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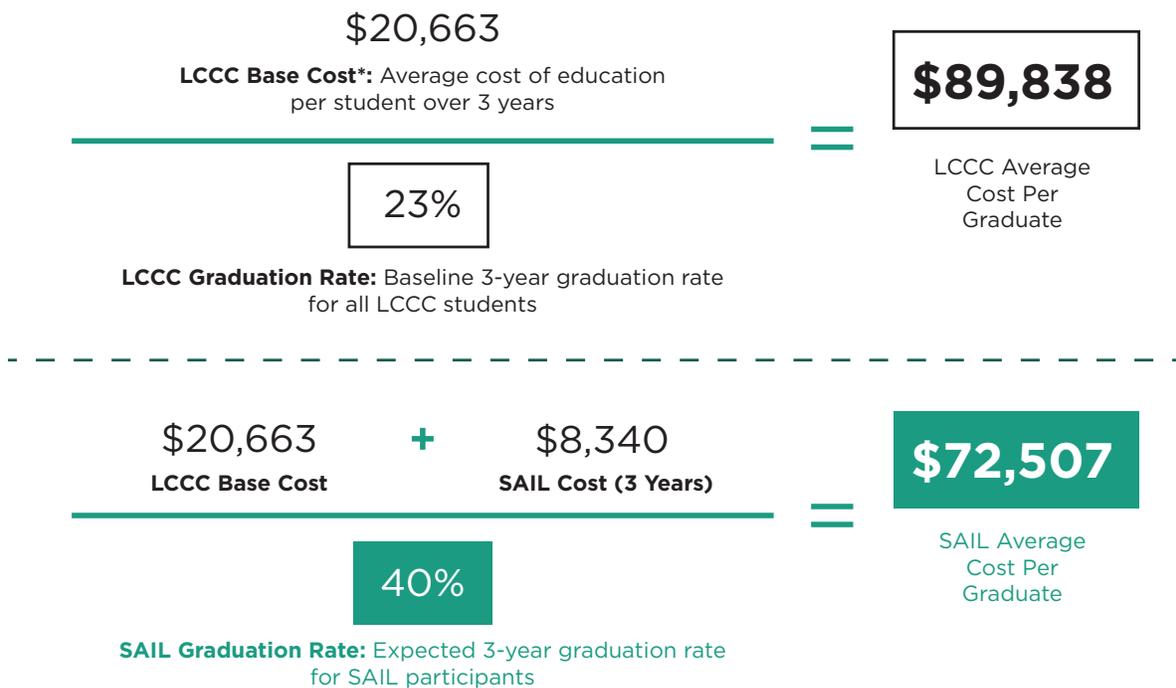
25 Scrivener, 2015

year in Ohio and that ASAP had at CUNY; and that appropriations levels and the SSI formula would stay steady. But if any of these critical assumptions is incorrect, it could significantly change the result of the cost-benefit analysis.

## The cost-effectiveness of SAIL

Another important lens for understanding the impact on LCCC is the cost-per-graduate for SAIL students. While the cost to LCCC for each SAIL student is higher than for its other students, the higher graduation rates for SAIL students makes this a cost-effective program in terms of cost-per-graduate. In fact, the cost-per-SAIL graduate (\$72,507) is 20% lower than LCCC's general cost-per-graduate (\$89,838)—even more meaningful and impressive given that the typical SAIL student is more vulnerable than the general student population.<sup>26</sup>

▼ **FIGURE 9** Calculation of cost effectiveness for SAIL graduates



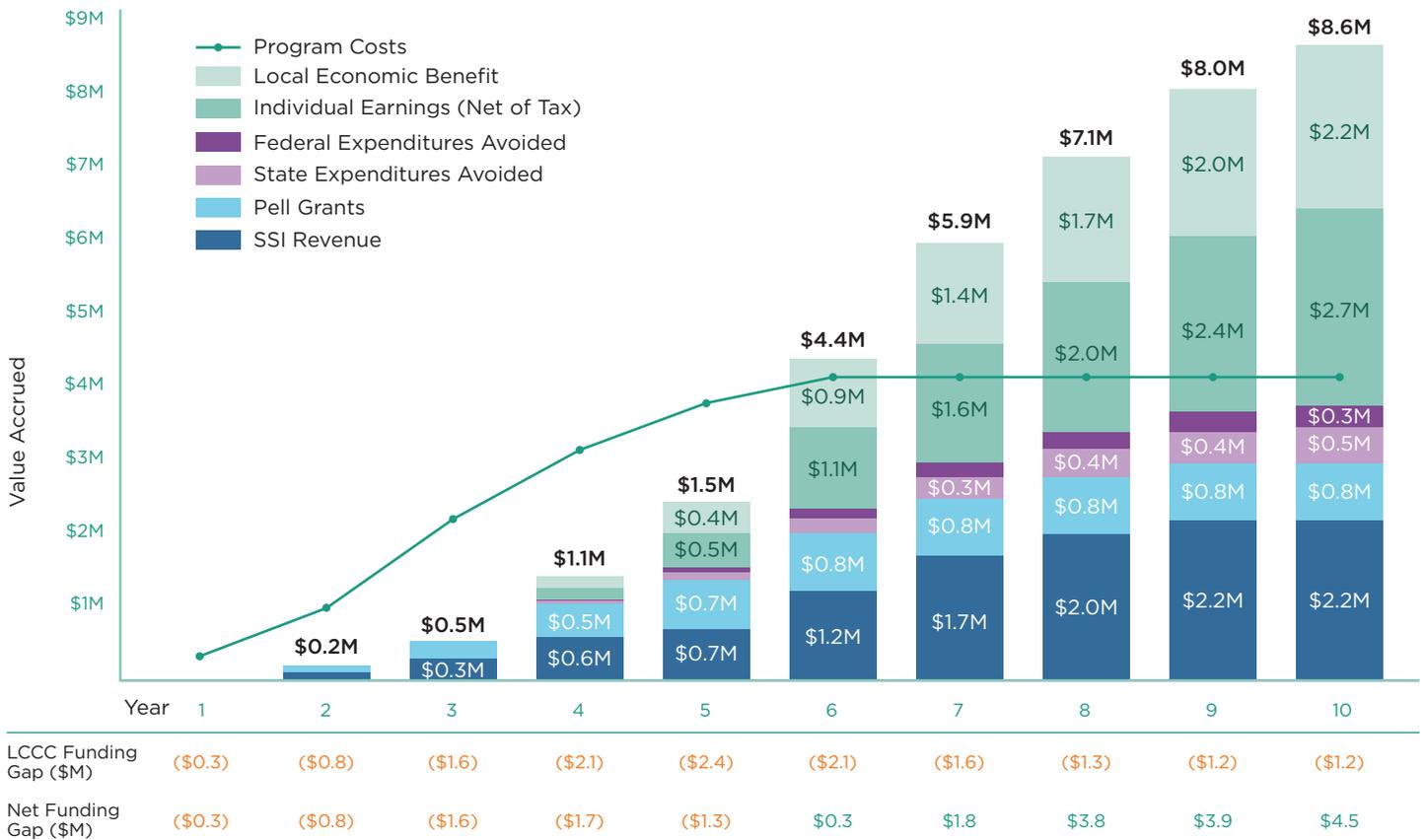
\*For FY14: Base cost is the product of cost per credit (\$514) and the average number of credits attempted per LCCC student over three years (40.2); cost per credit is determined by dividing total annual LCCC expenses and deductions (\$110.6M) by total instructional activity (215,399).

26 This is consistent with Levin and Garcia who estimated that despite higher upfront costs, the average cost per three-year ASAP graduate is \$6,500 lower than for comparison group students. (Levin and Garcia, 2018). It is also consistent with MDRC's findings that the average cost per three-year ASAP graduate is 11% lower than the average cost for students receiving usual college services. (Scrivener et al, 2015). In addition, while this analysis is based on LCCC's analysis for their first cohort, MDRC is releasing a 3-year impact study of the Ohio cohort at the end of 2019 which will include their cost-effectiveness estimate.

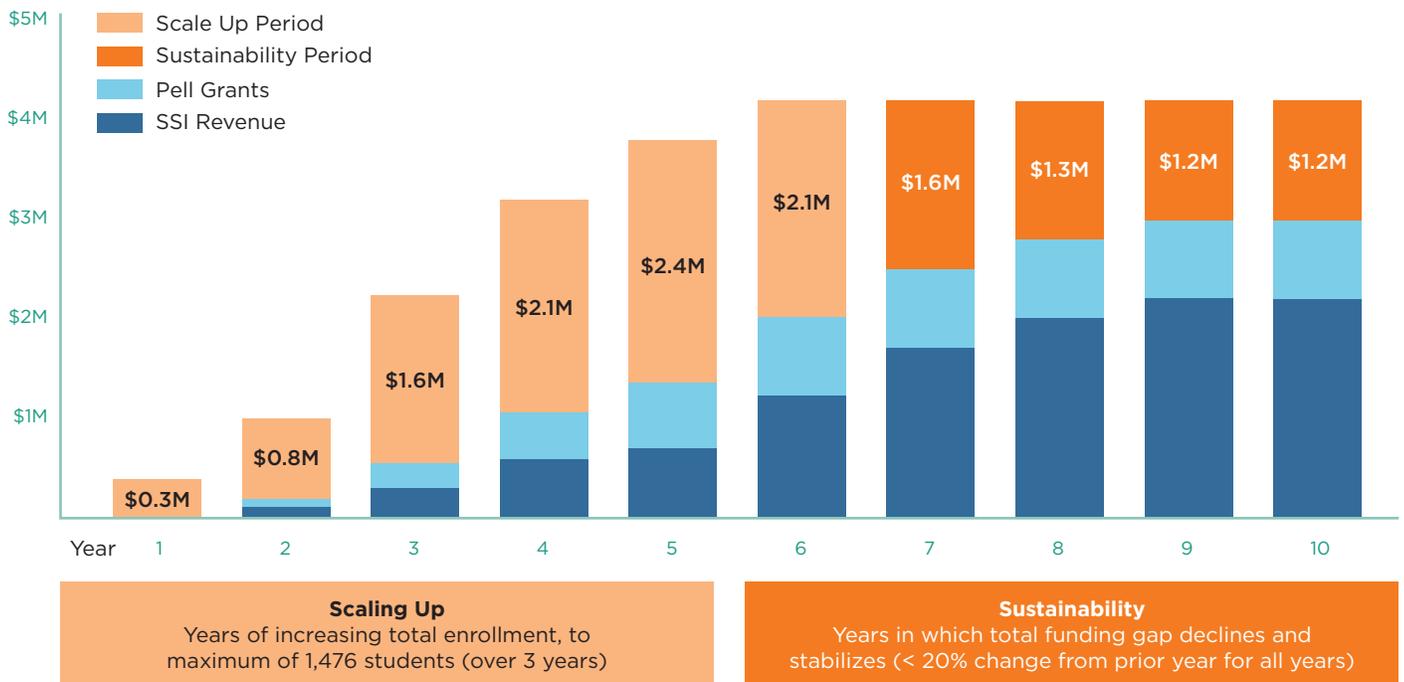
# THE FUNDING GAP— AND WHAT TO DO ABOUT IT

Despite the compelling arguments to fund SAIL—its cost-effectiveness-per-graduate, extraordinary impact on students, and impressive cost-benefit—there was still a funding gap that LCCC had to address. This gap—between the expected revenue for LCCC and the cost of the program—changes over time, from a larger gap during the scale-up period to a smaller but persistent gap once the program reaches a steady size. In addition, there is a mismatch in timing—LCCC would have to invest the program cost upfront, and it would be at least a year before they would start to see increased revenue.

▼ **FIGURE 10** Cost-benefit analysis for SAIL, and funding gap for LCCC



▼ **FIGURE 11** The funding gap for SAIL during the scale-up period and during the steady-state period



LCCC considered different approaches for the scaling years and the steady-state years, given the substantial funding gap and the mismatch in timing of potential future revenue:

- ◇ **LCCC as the sole funder:** LCCC could pay for the program costs entirely, during the initial scaling period as well as long term. The total program cost would grow to \$4.1 million per year as they served 1,476 students, but they could expect to recoup 70% of their program costs in future years through increased Pell Grants and SSI revenue.
- ◇ **Philanthropic funding for scale:** Building on the philanthropic commitment to pilot and launch SAIL at LCCC, they could look for other philanthropic commitment to continue scaling the program. This external funding could cover the initial scaling years, when there is a larger gap between program costs and expected increased revenue. LCCC could then fund the program over the long term once it reached a steady state.
- ◇ **Improving the cost-benefit equation by reducing program costs:** LCCC could look for strategies to reduce the overall program cost, by reducing the number of students served, finding operational and budget efficiencies, or identifying other external sources to cover parts of the program costs. One particularly promising option was to leverage local economic development funding, such as the SNAP Education & Training Program (E&T). In the FY 2018/2019 budget, Ohio included a committee to establish a SNAP E&T program that would allow community colleges to be reimbursed for select supportive services. Other states have used SNAP E&T to reimburse certain local costs that provide employment and education opportunities for SNAP participants, such as job training, child care, vocational education, transportation and books. As the committee considered potential options,

LCCC advocated for guidance that would allow further investment in high-quality programs such as SAIL.

- ◇ **Improving the cost-benefit equation by improving benefits:** Another approach would be to find a way to further increase the impact of the program. While LCCC was impressed by the initial effect on graduation rates, they were interested in expanding the program beyond the current target population of full-time, Pell-eligible students. The majority of their student body was part time and they were interested in increasing the applicability of SAIL. As originally developed by CUNY, ASAP had only been provided to full-time students and there was no research on the program's impact on a different target population.

LCCC was also interested in using their experience with SAIL to inform statewide policy decisions on SSI. If the state allocated more funding to community colleges, SAIL would continue to generate a larger share of revenue for LCCC, likely beyond the 70% of program costs at the current level of state appropriations. In addition, state policymakers are increasingly interested in supporting Pay for Success structures, which could expand state resources for SAIL and similar programs.



## DECIDING TO SCALE

*After considering their funding options, Dr. Ballinger and her leadership team committed to growing the program through direct funding from the college's general operating budget. LCCC had always approached the SAIL pilot as an opportunity that could lead to something much larger for the school, rather than an isolated study. Dr. Ballinger and her leadership team had seen enough after one year to commit to grow and sustain the program. SAIL helps to advance their vision for the school—one that promotes equity, closes achievement gaps, and truly helps students achieve their goals, regardless of their starting position. LCCC decided to expand by 15% year over year, aiming to reach a steady state that served 1,000 students. This funding decision was made as part of LCCC's broader strategic planning process for the next five years, or Vision 2025.*

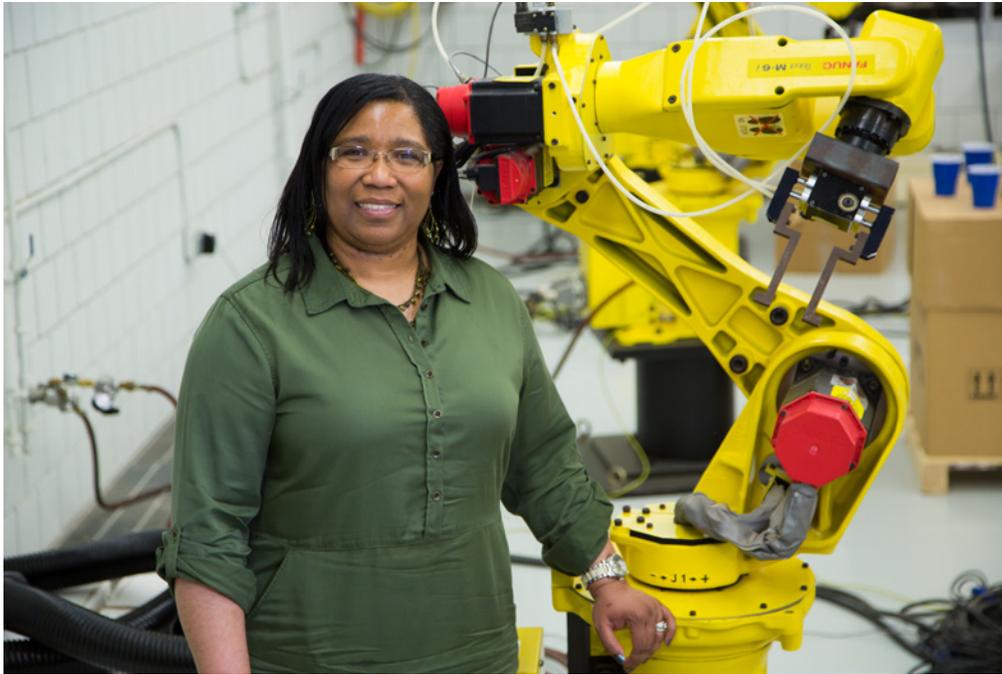
Ohio's SSI was a powerful factor in the cost-benefit analysis of the SAIL program. Given the close alignment between SAIL's impact and the SSI metrics, there was an especially strong case for the program's return on investment, projecting direct increases in state funding for LCCC. As intended, this policy was effectively enabling and compensating schools to invest in programs that increase credit accumulation, improve graduation and transfer rates, and target under-resourced students.

But LCCC's decision to scale SAIL was not an easy one, as evidenced by the decisions of the two other Ohio schools that participated in the study. The program was on track to double graduation rates across the Ohio cohort. Despite being impressed by these results, the other schools did not commit to funding the program beyond the study period.

It was difficult to make the case for a program serving just a few hundred students at campuses with tens of thousands of students. Degree in Three, as the program was known at Cuyahoga Community College (or Tri-C), was just one of many programs available across the school's four campuses, where 16,000 to 18,000 students enrolled per semester. There were also operational challenges to rolling out such an intensive program, which Tri-C experienced first-hand during the pilot—from recruiting students who were skeptical of a program they didn't know (and that "sounded too good to be true") to maintaining student motivation year-over-year. In addition, it was difficult to predict the level of additional revenue from SSI; and the analysis needed would require dedicated time from the finance team. Instead, Tri-C decided to learn from the pilot and



**SAIL helps to advance LCCC's vision—one that promotes equity, closes achievement gaps, and truly helps students achieve their goals.**



Degree in Three experience, incorporating intrusive advising and other best practices into their school-wide offerings for all students.

It was also difficult to confidently project the impact of the program on future SSI revenue. Cincinnati State's program, CState Accelerate, was also impressive in terms of impact on students served. But budgets across school programs were tight, and the college had to make difficult spending decisions. While leadership agreed about the impact of the program on the students, it was challenging to project the impact on SSI revenue. SSI revenue projections require making complex assumptions, and there were aspects that were impossible to project—actions of future state administrations, levels of appropriations by future state legislature, and the college's relative performance compared to other schools. This complexity limited Cincinnati State's ability to make a long-term commitment to the program, and limits SSI's ability to incentivize schools to invest in ASAP-like programs.

LCCC's decision to scale their SAIL program was driven by a number of factors: commitment by LCCC's leadership; the context of a robust outcomes-based funding formula for community colleges, with metrics that directly match SAIL's metrics; and a rigorous, randomized study on SAIL which could directly inform their analysis of the program's cost-benefit and projected impact on revenue. LCCC's experience adds to the conversation on the efficacy of outcomes-based funding for higher education and the potential for community colleges to invest in programs that work to improve student success, highlighting a compelling example of success under the right conditions.

## EPILOGUE

*Since we completed our analysis in spring 2018, a lot has happened: LCCC has continued to grow their program by 15% annually, as they planned. Their original SAIL program team has remained in place as they've grown, led by the same core four-person team that launched the pilot in 2014. While the Associate Provost who oversaw the first years of the project retired in 2018, her replacement has continued to provide strong administrative support for SAIL and its expansion.*

LCCC has even bigger plans for the program. They are exploring options to adapt the program to serve their part-time students. This could include adjusting program requirements to allow for more remote participation by students who are working full time, and tweaking financial incentives to reflect students' schedules and priorities. Though adaptations to serve part-time students have not been evaluated for SAIL or other similar programs, this effort could be an exciting development given the potential to serve many more community college students. Out of the six million students enrolled in community colleges in 2018, more than 60% were part-time students.

There are also statewide policies under consideration that would have an impact on the program and its sustainability. Ohio is considering how SNAP E&T can support programs like SAIL, such as by reimbursing LCCC for certain program costs. The state wants to better leverage SNAP dollars for college students by allowing community college attendance to fulfill work requirements. Last year, nearly half of college students in the United States reported food insecurity, and many of those who were eligible did not receive SNAP benefits. SAIL could be increasingly prioritized and relevant given these statewide policy discussions.

The results of the Ohio pilot continue to be impressive. At the time of the original analysis, LCCC had only seen year one results; but by December 2018, year two results had also been released. At the end of two years, students in the program group had earned



**SAIL's year two results continue to impress. Two year graduation rates more than doubled—19% of the program group earned a degree or credential, in contrast to 8% of students in the control group.**

an average of eight more credits than those in the control group, a 37% increase. Two-year graduation rates more than doubled: 19% of the program group earned a degree or credential, in contrast to 8% of students in the control group. These levels of impact are similar to those CUNY ASAP saw in New York City. Enrollment in the Ohio pilot at all three schools is complete, with the final cohort of students finishing their classes this summer, and final evaluation results expected in December 2019.

Beyond Ohio and Lorain County Community College's experience, this case study and underlying analysis can inform community colleges and state policy makers focused on funding and scaling student support services. There are highly effective programs, like ASAP, that improve academic outcomes, even for some of the most under-resourced students. These programs generate significant value; they are easily cost-beneficial when accounting for the value generated to students, schools, local communities, states, and the federal government. State outcomes-based funding policies can play an important role in supporting and motivating colleges that want to implement these programs. But outcomes-based funding is not enough; colleges also need committed institutional leadership, investment of human capital, and additional funding sources to implement these programs well and to grow them over time.





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