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JUNE 2026



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# OVERVIEW

Employers increasingly emphasize the importance of professional skills—such as communication, collaboration, problem-solving, adaptability, and time management—for success in the workforce. Yet these skills are often taught separately from technical courses in high school career pathways. In response, YouthForce NOLA, an organization that partners with public schools, employers, and training providers in New Orleans, developed a model that embeds soft skills directly into classroom instruction within career and technical education (CTE) pathways, particularly in high-demand fields such as engineering and computer science.

This report presents the findings from an MDRC study that examines how the YouthForce NOLA model was implemented by training providers and schools and whether participation in courses that include soft skills is associated with improved academic outcomes for students.

The evaluation focuses on the implementation of the model in 21 New Orleans public high schools over three school years (2021-2022 through 2023-2024), in partnership with two training providers: Operation Spark and the New Orleans Career Center. YouthForce NOLA provided training, coaching, and practical tools that are designed to help instructors integrate soft skills into classroom instruction and student assessment.

Overall, the findings suggest that embedding soft skills into technical courses is feasible and may promote students' academic engagement and progress without detracting from technical learning. The findings also underscore that effective integration requires thoughtful design, sustained support from educators to students, and alignment with classroom practice. Although the study focuses on short-term academic outcomes, it points to the potential for integrated approaches to improve students' readiness for postsecondary education and careers. Future research should examine the model's impact on credential attainment, postsecondary transitions, and longer-term career outcomes, as well as continuing to refine approaches to measuring the development of soft skills in CTE settings.



# CONTENTS

<b>OVERVIEW</b>	iii
<b>LIST OF EXHIBITS</b>	vii
<b>ACKNOWLEDGMENTS</b>	ix
<b>CHAPTER</b>	
<b>1 Introduction</b>	1
YouthForce NOLA and the Soft Skills Curriculum	2
Overview of the YouthForce NOLA Soft Skills Computer Science and Engineering Intervention	6
Overview of the Evaluation	8
Organization of the Report	11
<b>2 Implementation Study</b>	13
Introduction	13
Description of the Intended Model	14
Implementation of the Soft Skills Model	16
Implementation Findings	16
<b>3 Impact Study</b>	21
Introduction	21
Impact Findings	25
Exploratory Outcomes	26
<b>4 Conclusion</b>	29
Small Positive Effects on Academic Engagement and Performance	29
Effective Integration of Soft Skills Requires Thoughtful Design	29
<b>APPENDIX</b>	
<b>A</b> Technical Appendix	31
<b>B</b> Fidelity Findings	43
<b>REFERENCES</b>	51



# LIST OF EXHIBITS

## TABLE

3.1	Comparison of Baseline Characteristics	23
3.2	Estimated Impacts on Confirmatory and Exploratory Outcomes	25
A.1	Matched Analytic Sample, by Research Group, Grade, and School Year	34
B.1	Fidelity Matrix	48

## FIGURE

1.1	MHA Labs Building Blocks and Power Skills Hand Out	4
1.2	YouthForce NOLA Soft Skills Intervention Theory of Action	7
A.1	Baseline Balance Pre- and Post-Matching	38

## BOX

1.1	New Orleans Choice Context	3
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The Authors



# 1

## Introduction

Employers consistently emphasize that success in entry-level roles depends not only on technical knowledge, but also on a set of core professional skills, often referred to as “soft skills.” These skills are essential for applying technical learning in real-world settings and for navigating both college and the workplace. However, employers continue to report that many high school graduates are still lacking soft skills, particularly in the areas of communication, collaboration, critical thinking, adaptability, and professionalism.<sup>1</sup>

Despite growing recognition of the need to prepare high school graduates in these areas, most high school career pathways still treat technical and professional skill development as separate domains. Career and technical education (CTE) programs often focus on helping students gain industry-aligned technical competencies and credentials, while soft skills development is addressed inconsistently or outside of technical or core courses. As a result, students may complete technically rigorous programs without fully developing the applied interpersonal and workplace skills that employers value the most. This disconnect represents a critical challenge for education and workforce systems nationally as they grapple with how to better integrate technical and professional skill development in ways that align with real labor market opportunities.

This challenge is particularly salient in New Orleans, where the public school system serves a large population of students who are economically disadvantaged. Many students in New Orleans public schools also encounter structural barriers – such as transportation challenges, limited exposure to employers, and fewer connections to high-wage industries – that can make transitions into postsecondary education and careers more difficult.<sup>2</sup> At the same time, the regional economy shows strong and growing demand for graduates in the science, technology, engineering, and math (STEM) fields – particularly in sectors such as healthcare and information technology – with projections of sustained job growth and higher wages compared with non-STEM fields.<sup>3</sup>

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1. Deming (2017); U.S. Chamber of Commerce and College Board (2025).

2. Cowen Institute (2023).

3. National Science Board (2022); Louisiana Workforce Commission (n.d.).

YouthForce NOLA, a citywide intermediary that partners with public schools, employers, and training providers to align career pathways with regional workforce demand, is responding to the growing need to integrate technical and soft skills. The organization has developed a model that strengthens both technical preparation and soft skills development within high school CTE pathways.

This MDRC study examined YouthForce NOLA's soft skills intervention across 21 New Orleans public schools during three implementation years: the 2021-2022, 2022-2023, and 2023-2024 school years. The study focused on the computer science and engineering pathways. YouthForce NOLA made these pathways a priority because of strong and growing employer demand in the region, opportunities for students to earn industry-recognized credentials, and clear postsecondary and career pathways. These pathways also lend themselves to project-based and team-based learning environments, where students can develop and apply soft skills.

In this model, YouthForce NOLA works directly with training providers — organizations that deliver technical courses to high school students — to embed a set of targeted soft skills directly into their curricula and instructional practices. In this study, the primary training providers include Operation Spark (referred to as OpSpark throughout this report) and the New Orleans Career Center, which deliver computer science and engineering courses, respectively. YouthForce NOLA supports these providers (including heads of programming, instructors, and support staff members) through training sessions, ongoing coaching, and practical tools, while instructors integrate soft skills into lesson plans, classroom activities, and student evaluations as part of day-to-day practice.

Despite growing interest in both CTE and soft skills development, there is limited rigorous evidence on how these approaches can be effectively integrated — particularly within credit-bearing STEM courses — and whether this integration is associated with improved student outcomes. Less is known about what high-quality implementation looks like in practice across schools and partners. The current study examines how the YouthForce NOLA model embeds soft skills within technical courses in these pathways and the effects of this approach on students' academic outcomes.

## **YOUTHFORCE NOLA AND THE SOFT SKILLS CURRICULUM**

Founded in 2015, YouthForce NOLA works with public schools, employers, training providers, and community organizations to expand career-connected learning opportunities for New Orleans students. Created after Hurricane Katrina, in the context of a decentralized school system and longstanding inequities in access to opportunity, YouthForce NOLA aims to support students in exploring and preparing for pathways connected to high-wage, high-demand industries. See Box 1 for more details.

## BOX 1.1

### New Orleans Choice Context

Under Louisiana Department of Education policy, all students complete an individualized graduation plan in eighth grade that outlines their academic courses in high school and their college or career goals.\* Along with this requirement, the state’s Course Choice program allows students to enroll in courses offered outside their school to support these goals. In New Orleans’ all-charter system, this means students can take classes across the city that align with their graduation plans. Students pursuing career-focused pathways, for example, may enroll in skills-based courses at sites such as the New Orleans Career Center, New Orleans Video Access Center, or Operation Spark. With few prerequisites, these courses are broadly accessible. YouthForce NOLA serves as an intermediary, coordinating schedules across schools and training providers to ensure students can access these opportunities.

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NOTE: \*For more information, see <https://www.nolapublicschools.com/CAPS/Policies/ID-15.htm> and <https://doe.louisiana.gov/school-system-leaders/ccr/course-choice-program>.

The YouthForce NOLA model has three pillars: technical training, work-based learning, and soft skills development. This study focuses specifically on the soft skills pillar and how YouthForce NOLA supports the integration of these skills into technical courses and career-connected learning experiences. YouthForce NOLA provides training and resources to help educators embed these skills into classroom instruction. Central to this effort is the use of MHA Labs’ soft skills framework, which focuses on a set of “social, emotional, and cognitive skills deemed critical for college, career, and life success.”<sup>4</sup> The framework includes six core domains – Personal Mindset, Planning for Success, Social Awareness, Communication, Collaboration, and Problem Solving – and a set of specific “power skills,” such as working independently before seeking help, breaking down goals into actionable steps, and asking questions to clarify understanding. These skills are reinforced through both classroom instruction and broader career-connected learning experiences. For the full list of building blocks and power skills, see Figure 1.1.

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4. For more information, see <https://mhalabs.org/skill-building-blocks/>.

Figure 1.1. MHA Labs Building Blocks and Power Skills Hand Out

**SKILLS REVIEW**

## EXPLORE THE MHA LABS BUILDING BLOCKS

The MHA Labs 21st Century Skill Building Blocks were specifically designed to be inclusive of a broad range of core skills but still practical for everyday use in the classroom. There are 35 foundational skills organized into 6 building blocks or categories. You will find in your practice that each building block of skills supports success in the others. We encourage you to only focus on the skills that are most critical to success in your curriculum. This focused list is called your Skills Mastery Profile or “Power Profile”. Before we get to the “Power Profile” section, let’s first take a moment to familiarize yourself with these skills.

### PERSONAL MINDSET

- » Needs minimal supervision to complete tasks.
- » Attempts to complete tasks independently before asking for help.
- » Follows rules/directions as required by the task/situation.
- » Maintains focus on tasks despite internal (e.g., emotional) and/or external distractions.
- » Avoids actions that have produced undesirable consequences or results in the past.
- » Strives to overcome barriers/set-backs, seeking assistance when needed.
- » Adapts approach in response to new conditions or others' actions.

### PLANNING FOR SUCCESS

- » Sets and prioritizes goals that reflect a self-awareness of one's capabilities, interests, emotions, and/or needs.
- » Breaks goals into actionable steps.
- » Accurately estimates level of effort and establishes realistic timelines.
- » Manages time to complete tasks on schedule.
- » Applies existing/newly acquired knowledge, skills, and/or strategies that one determines to be useful for achieving goals.
- » Monitors progress and own performance, adjusting approach as necessary.
- » Demonstrates a belief that one's own actions are associated with goal attainment.

### SOCIAL AWARENESS

- » Recognizes the consequences of one's actions.
- » Balances own needs with the needs of others.
- » Takes into consideration others' situations/feelings.
- » Develops and implements strategies for navigating in different contexts (i.e., manages different patterns of behavior, rules, and norms).

2

(continued)

Figure 1.1 (continued)

## BUILDING BLOCKS cont'd

### COMMUNICATION

- » Organizes information that serves the purpose of the message, context, and audience.
- » Uses and adjusts communication strategies as needed based on the purpose of the message, context, and audience.
- » Signals listening according to the rules/norms of the context and audience.
- » Seeks input to gauge others' understanding of the message.
- » Asks questions to deepen and/or clarify one's understanding when listening to others.

### COLLABORATION

- » Completes tasks as they have been assigned or agreed upon by the group.
- » Helps team members complete tasks, as needed.
- » Encourages the ideas, opinions, and contributions of others, leveraging individual strengths.
- » Provides feedback in a manner that is sensitive to others' situation/feelings.
- » Clarifies areas of disagreement/conflict that need to be addressed to achieve a common goal.
- » Seeks to obtain resolution of disagreements/conflicts to achieve a common goal.

### PROBLEM SOLVING

- » Defines problems by considering all potential parts and related causes.
- » Gathers and organizes relevant information about a problem from multiple sources.
- » Generates potential solutions to a problem, seeking and leveraging diverse perspectives.
- » Identifies alternative ideas/processes that are more effective than the ones previously used/suggested.
- » Evaluates the advantages and disadvantages associated with each potential solution identified for a problem.
- » Selects and implements best solution based on evaluation of advantages and disadvantages of each potential solution.

**How were the Building Blocks developed?** MHA Labs believes that teachers, youth developers, colleges and employers need a unified skills framework to empower youth success. To achieve this goal, MHA Labs first built a 4000-item competency database from existing education and employment research. Then MHA Labs engaged over 100 subject matter experts, teachers, counselors, youth developers, assessment specialists, youth and parents to isolate 6 core skill domains and 35 core skills. Before finalizing the framework, a cultural anthropologist and linguist analyzed and debated each skill proposed for the framework to ensure that MHA Labs skills were actually skills, not cultural norms masquerading as skills. Read more at <http://mhalabs.org/skill-building-blocks/>

3

SOURCE: MHA Labs.

NOTE: This figure is a resource available from MHA Labs. See <https://mhalabs.org/skill-resources/>.

# OVERVIEW OF THE YOUTHFORCE NOLA SOFT SKILLS COMPUTER SCIENCE AND ENGINEERING INTERVENTION

The following sections describe the study's intervention model and context. The Theory of Action section explains how integrating soft skills into technical courses was expected to improve student engagement and college and career readiness. The Business-as-Usual Condition and Service Contrast section describes the broader soft skills landscape in New Orleans during the study period and how other YouthForce NOLA initiatives may have shaped differences between the program and comparison groups.

## Theory of Action

The study's theory of action (Figure 1.2) posits that integrating soft skills into technical courses can increase student engagement and improve students' readiness for postsecondary education and careers. By embedding skills such as communication, time management, and self-monitoring into daily instruction, the approach aims to enhance outcomes compared with models that do not integrate soft skills. As these skills help students manage their workload, persist through challenges, and stay on track, they may also contribute to longer-term outcomes, including credential attainment and postsecondary enrollment. Noted in the theory of action are two different types of intervention components — core and secondary components. Core components are defined as the activities that are led by YouthForce NOLA, and secondary components are activities that are led by training providers.

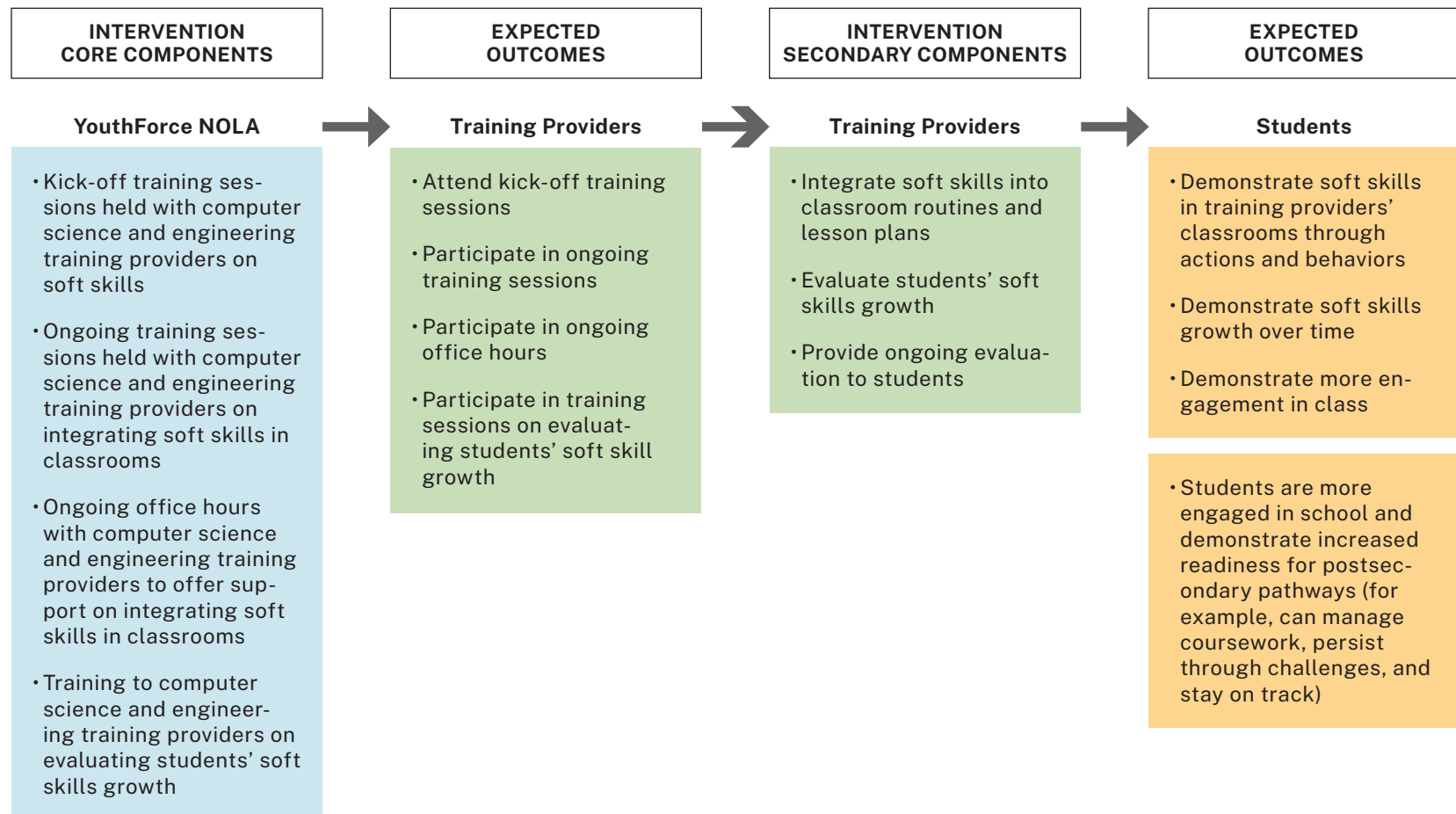
## The Business-As-Usual Condition and Service Contrast

In the absence of the YouthForce NOLA soft skills intervention, some students would have had opportunities to develop soft skills through career exploration courses and work-based learning experiences. In addition, given YouthForce NOLA's strong intermediary role in the local education and workforce system, students would also have been likely to encounter soft skills through YouthForce NOLA's broader, citywide efforts to support teacher training and classroom integration beyond the scope of this study.

Most notably, YouthForce NOLA led several soft skills efforts during the study period. Some offerings were available to teachers across high schools in New Orleans and may have increased students' exposure to soft skills instruction beyond the courses examined in this study. These efforts included the following:

- **Soft Skills Teacher Fellowship (SSTF).** This districtwide initiative, which predates this study, allows teachers to apply annually to participate in soft skills training sessions that are led by YouthForce NOLA. The program includes a kickoff training session; monthly checkins focused on topics such as lesson planning, assessment, and use of data; and one-on-one support as needed. Students exposed to soft skills through this initiative were those who were taught by participating teachers across the district.

**Figure 1.2. YouthForce NOLA Soft Skills Intervention Theory of Action**



- **Soft Skills 360.** Launched in the 2023-2024 school year as a pilot program in two schools, this initiative supports soft skills integration at the department level within schools. Participating teachers receive ongoing, individualized support from YouthForce NOLA staff members throughout the school year, including classroom observations, lesson-planning assistance, and regular checkins. Students receiving soft skills instruction through this initiative are those enrolled in courses within participating departments.
- **Operation Spark Train-the-Trainer Soft Skills Model.** Beginning in the 2022-2023 school year, this model embedded soft skills into OpSpark’s computer science summer intensive program, which is a condensed training course that is open to New Orleans public school teachers. During this program, OpSpark mostly focused on training teachers in computer science and OpSpark’s curriculum, so that these teachers can bring OpSpark’s computer science course to their own schools. Following the intensive program, OpSpark introduced soft skills concepts and provided resources for instructors to be able to integrate soft skills into the computer science course once they were back at their schools. After the intensive program, OpSpark continued to offer integration support to teachers, however, uptake of soft skills integration was limited and often depended on individual instructors. Students reached through this model were those taught by teachers who participated in the OpSpark intensive program.

As YouthForce NOLA expanded its soft skills offerings across New Orleans, some teachers serving students in the comparison group (that is, students not enrolled in the study’s focal courses) were also exposed to YouthForce NOLA-led training and support to integrate soft skills through other initiatives. As a result, the distinction between study conditions narrowed over time, with some instructors outside the focal courses receiving support that was comparable to — or more intensive than — that provided to the program group. For example, both SSTF participants and training providers in the study engaged in regular contact with YouthForce NOLA through activities such as monthly training sessions and office hours focused on integrating soft skills into instruction. In addition, the Soft Skills 360 initiative — launched in Year 3 — provided more intensive, ongoing support, including biweekly meetings, lesson development, and classroom observation.

Despite these similarities in access to training and support, key differences in implementation remained. In particular, one of the program group’s training providers introduced a dedicated coordination role in the second year of the study to support soft skills integration. This staff member helped ensure that YouthForce NOLA resources and guidance were consistently embedded within the curriculum, rather than relying on individual instructors to incorporate them independently. This structural support appeared to facilitate deeper and more consistent integration of soft skills into daily instruction than was typical in other settings.

## OVERVIEW OF THE EVALUATION

The evaluation includes both an implementation study and an impact study. The implementation study examines how the intervention was delivered across sites and over time, including

the factors that supported or challenged implementation and the ways in which the model evolved over the study period. The impact study examines whether students enrolled in soft skills–embedded computer science and engineering courses experienced different academic outcomes than their peers who were enrolled in other credential-aligned pathways.

## Research Questions

The evaluation was guided by a set of research questions focused on both program implementation and student outcomes.

### Implementation Study Research Questions

The implementation study addresses the following questions:

- Were the core and secondary components of the intervention implemented with fidelity?
- What factors facilitated implementation?
- What barriers to implementation emerged?
- What adaptations were made over the course of implementation?
- How did staffing structures relate to implementation and outcomes?

### Impact Study Research Questions

The impact study is organized around one confirmatory and three exploratory questions.

- Confirmatory question:
  - What is the difference in academic performance (as measured by grade point average, or GPA, at the end of the program year) for students who enroll for the first time in soft skills–embedded computer science or engineering courses during the 2022-2023 or 2023-2024 school years, compared with matched peers enrolled in other credential-aligned pathways in the same schools and years?
- Exploratory questions:
  - What is the difference in the proportion of students achieving a GPA of 2.0 or higher?
  - What is the difference in the proportion of students achieving a GPA of 3.0 or higher?
  - What is the difference in student absence rates?

## Data Collection, Methods, and Analysis

### Implementation Study

The implementation study was conducted to document program delivery, assess the extent to which the intervention was implemented as intended (that is, implementation fidelity), and examine how implementation varied across sites and over time. Qualitative and quantitative data were collected across the three study years.

Data collection methods included semistructured interviews with YouthForce NOLA staff members and training provider instructors, classroom observations, artifact review (for example, training materials and sample evaluation spreadsheets), and analyses of YouthForce NOLA-administered teacher and student surveys and assessments. Implementation fidelity was assessed annually by comparing reported and observed practices against a predefined set of implementation benchmarks and expectations.

Classroom observations were conducted on site and virtually. Observations were selected to complement the instructor interviews, thus painting a fuller picture of how soft skills were being embedded in the classroom. Observations and artifacts were used to confirm and contextualize interview findings and document how soft skills were embedded in instructional practice.

During each study year, researchers also collected fall and spring student surveys that were administered by YouthForce NOLA and that focused on soft skills development, feedback, and reflection. However, the use of surveys in this study was limited due to low response rates.

Qualitative data from interviews and site visits were transcribed, coded, and analyzed using a deductive approach aligned with the research questions and fidelity framework. Themes were first analyzed by participant type within each study year and then compared across years to identify patterns in implementation, adaptation, and program evolution.

### Impact Study

Because students could not be randomly assigned to participate, the study compared students enrolled in soft skills–embedded computer science and engineering courses with similar students in the same schools who enrolled in other credential-aligned pathways: architecture and construction, information technology, and health sciences. The impact study focused on students enrolled in these computer science and engineering courses during the 2022-2023 and 2023-2024 school years, while the 2021-2022 school year was used to establish students' characteristics and academic baseline.

The analysis used student enrollment, transcript, demographic, and credential records from YouthForce NOLA, the Louisiana Department of Education, and NOLA Public Schools. Researchers matched students based on characteristics such as previous academic perfor-

mance, credits earned, and demographics to create a comparison group that was as similar as possible to the students participating in the intervention.

The final analytic sample included 140 program group students and 995 comparison group students, for a total of 1,135 students.

## Limitations

Several limitations should be considered when interpreting these findings. First, the impact analysis was constrained by incomplete longitudinal data. The original outcome — GPA at the end of students' highest observed grade — could not be consistently measured due to missing twelfth grade records, and available GPA data covered only two to three years rather than full high school trajectories. In addition, some program group students could not be linked to administrative data, which may affect how representative the findings are.

Second, as a quasi-experimental study, the results may be influenced by unobserved differences between program and comparison group students (such as motivation), despite rigorous matching. Findings should therefore be interpreted with caution.

Finally, the implementation study has additional constraints. Survey measures changed over time and there were low response rates, limiting comparability and representativeness. Interviews included instructors with some exposure to YouthForce NOLA support services but did not capture perspectives from those with no exposure, limiting researchers' ability to fully characterize the broader comparison context.

## ORGANIZATION OF THE REPORT

The remainder of this report describes how the YouthForce NOLA model was implemented, including variation in delivery over time (Chapter 2), followed by findings from the impact analysis on student outcomes (Chapter 3). The report concludes with a synthesis of findings and implications for practice and future research (Chapter 4).



# 2

## Implementation Study

### INTRODUCTION

This chapter presents findings from the implementation study of YouthForce NOLA’s soft skills intervention. Operation Spark (OpSpark) and the New Orleans Career Center, two training providers, implemented the program in engineering and computer science courses during the 2021-2022, 2022-2023, and 2023-2024 school years. OpSpark took part in all three study years, while the New Orleans Career Center only took part in the third study year. The chapter begins with an overview of the intended model, including its core and secondary components, followed by a description of the context in which the implementation study occurred. The chapter presents key implementation findings, in addition to discussing barriers and facilitators to implementing the model.

As mentioned in Chapter 1, the study team conducted interviews with YouthForce NOLA staff members, participating training providers, and instructors involved in other YouthForce NOLA soft skills initiatives. The team interviewed 5 people in Year 1, 9 people in Year 2, and 11 in Year 3. The goal of the interviews was to better understand the implementation of YouthForce NOLA’s soft skills intervention. YouthForce NOLA supplied a list of participating educators, and the study team interviewed all training provider staff members who supported the embedding of or taught the soft skills curriculum, as well as a representative sample of staff members and educators who were considered part of the business-as-usual condition. This group consisted of individuals who did not receive the study’s specific intervention, but engaged in other YouthForce NOLA soft skills initiatives.

### Overview of the YouthForce NOLA Intervention

YouthForce NOLA used MHA Labs’ “building blocks” and “power skills” framework to guide its approach to soft skills integration.<sup>1</sup> This study examines how these building blocks and

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1. In the MHA Labs framework, “building blocks” refer to broad domains of social-emotional skill development (such as self-management, collaboration, and communication), while “power skills” refer to the specific, observable skills within those domains (such as time management, teamwork, and active listening) that can be explicitly taught and reinforced in classroom instruction.

power skills were integrated into computer science and engineering courses delivered by OpSpark and the New Orleans Career Center.

Over the course of the implementation study, YouthForce NOLA partnered with these training providers to embed soft skills into technical instruction. At the start of each school year, YouthForce NOLA introduced key concepts and worked with each training provider to identify a set of power skills to focus on for the school year. YouthForce NOLA supported implementation of the intervention through resources such as evaluation rubrics, examples of soft skill use in classroom activities, and ongoing technical assistance through general training sessions and ad hoc correspondence with training providers when needed, with support evolving over time to better align with classroom needs.

## DESCRIPTION OF THE INTENDED MODEL

The intervention is made up of both core and secondary components. The core components of the intervention are those that YouthForce NOLA implements with the training providers. The secondary components of the intervention are those that the training providers, inclusive of instructors and other training provider staff members, implement in classrooms and with students.

As part of the intended model, the core components included the following activities led by YouthForce NOLA: kickoff training sessions for computer science and engineering training providers on soft skills; ongoing training and support to computer science and engineering training providers on integrating soft skills in classrooms; and training sessions for computer science and engineering training providers on how to evaluate students' soft skill growth.

The secondary components included the following training provider-led activities: integrating soft skills into lesson plans, evaluating students' soft skills growth, and providing ongoing feedback to students on their soft skills growth. Each activity included expectations regarding the frequency of YouthForce NOLA's engagement and the anticipated outcomes.

### Intended Model: Core Components

Following are descriptions of the core components of the intended YouthForce NOLA intervention.

- **Annual kickoff training sessions.** The annual kickoff training session, intended to be held before the start of the school year, aimed to teach or refamiliarize the training providers with MHA Lab's soft skills framework and provide an overview of the goals and expectations for the year. By the end of the training session, each training provider should have selected two to three soft skills to integrate into their classrooms during the upcoming school year.
- **General training sessions.** YouthForce NOLA intended to hold one to three ongoing training sessions per semester. The ongoing training sessions were intended to introduce or refresh

training providers on MHA Lab's REFRAME method and provide continued exposure to soft skills.<sup>2</sup> Here, YouthForce NOLA intended to give examples of soft skills in action to training providers and provide resources to help integrate soft skills into courses via lesson plans and activities.

- **Office hours.** YouthForce NOLA intended to hold one to three office hour sessions per semester to provide regular time slots for training providers to work on how they were integrating soft skills into their classes and to troubleshoot any issues.
- **Training sessions focused on evaluation.** These YouthForce NOLA training sessions specifically focused on evaluating students' soft skills and were intended to be held once a semester (or at least twice per school year). These sessions aimed to establish an evaluation practice for training providers, ultimately leading to feedback opportunities between training providers and students. YouthForce NOLA was expected to give the training providers a spreadsheet or tool to log and evaluate student growth, providing a systematic and uniform way to assess students' soft skills proficiency. YouthForce NOLA also intended to collaborate with training providers to help determine "look fors" (that is, actions or behaviors) to measure students' levels of soft skills proficiency in their classes.

## Intended Model: Secondary Components

Following are descriptions of the secondary components of the intended YouthForce NOLA intervention.

- **Training providers' soft skills integration and evaluation.** According to the theory of action, training providers were expected to integrate soft skills into their lesson plans, regularly assess students' development of the targeted soft skills, and provide ongoing feedback to support students' soft skills growth. YouthForce NOLA did not outline specific requirements to meet these expectations. Instead, providers were encouraged to use the REFRAME method and to draw on YouthForce NOLA resources to make soft skills explicit in classroom activities and to guide students on practicing and demonstrating these skills.

For example, ahead of an independent coding activity, the instructor would call out the power skill being worked on (such as, "Attempts to complete the task independently before asking for help").<sup>3</sup> The instructor would then describe how students might act out those skills (for example, "We want you to learn what you use to attempt to write some code. Failure is a part of learning, and we want you to know that when you get stuck...ask

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2. YouthForce NOLA adopted MHA Lab's "REFRAME" method, which broke integration and evaluation into discrete steps: Reveal targeted skills, Establish performance expectations, Focus activity design, Reinforce expectations, Assess using effective feedback strategies, Magnify recognition of student growth and development of targeted skills, and Explore meaning making (transferability of targeted skills). For more information, see <https://mhalabs.org/skill-building-practices/>.
  3. Instructors mentioned here and the remainder of the chapter are defined as instructional staff members who work at OpSpark and the New Orleans Career Center.

for help”). Similarly, providers were encouraged to use YouthForce NOLA tools to track student progress and then use that data to inform evaluation conversations with students at least twice a year.

## IMPLEMENTATION OF THE SOFT SKILLS MODEL

Students across New Orleans on a career pathway track have the opportunity to enroll in technical skills training courses offered at locations outside of their school’s campus. Courses are offered at the New Orleans Career Center, New Orleans Video Access Center, and OpSpark. This study focuses on soft skills integration for students who opted into the New Orleans Career Center’s engineering courses (including Introduction to Engineering Design, Civil Engineering and Architecture, Computer Integrated Manufacturing, and Engineering Design and Development), and OpSpark’s Fundamentals of Java and Advanced Java courses.

As noted above, under the intended training model, YouthForce NOLA worked with OpSpark and New Orleans Career Center to identify soft skills to focus on and integrate into their courses during the subsequent school year. Training providers were first asked to select two to three MHA Lab building blocks that aligned with their course content or that they viewed as beneficial for students’ postsecondary pathways. Then, they selected specific power skills for students to work on and strengthen over the course’s duration. The initial skill selection took place during the kickoff training session at the start of each study year. Examples of power skills and associated building blocks that were selected include: encouraging the ideas, opinions, and contributions of others, leveraging my peers, and individual strengths (Collaboration building block); breaking down goals into actionable steps (Planning for Success building block); and attempts to complete tasks independently before asking for help (Personal Mindset building block).

## IMPLEMENTATION FINDINGS

The findings below reflect training provider participation in YouthForce NOLA’s soft skills training intervention over the 2021-2022, 2022-2023, and 2023-2024 school years. Over these three years, the consistency and quality of the initiative evolved.

- **Year 1: Introduction and uneven integration.** Soft skills were introduced to training providers and reinforced via training sessions and office hours, but integration varied. Expectations for what training provider integration would look like were still taking shape. Since YouthForce NOLA had not yet created curricula with tailored soft skills language, implementation depended heavily on individual instructors within the training provider organizations. Similarly, the adoption of evaluation tools and practices was also dependent on instructors. Evaluation practices were characterized as informal feedback and semistructured conversations with students. For example, one instructor used course projects as an opportunity to engage in feedback and guidance conversations with students, doing so at least two times per course.

- **Year 2: Clearer expectations and stronger coordination.** Training sessions and office hours occurred as planned. Training sessions became more structured, while ongoing coaching (via office hours) was less structured and more responsive to the needs of instructors. Training provider staffing structures changed, making the coordination of soft skills implementation clearer and more deliberate, such that soft skills were increasingly integrated into the curriculum. However, adoption in day-to-day lessons was still dependent on instructors, and implementation varied. Although YouthForce NOLA streamlined its evaluation tools (creating a user-friendly spreadsheet to rate students) and established clearer expectations for training providers to assess student growth, the extent to which these tools were used still depended on instructor uptake. As a result, classroom-level consistency remained uneven. For example, the curriculum coordinator of one training provider would hold ongoing formative assessments with students, and some instructors began incorporating more structured practices (such as formal assessments twice a year), while other instructors did not establish such practices.
- **Year 3: More consistent and embedded practice.** Training sessions and office hours continued to serve as an opportunity for training providers to work through problems of practice. However, these touchpoints with YouthForce NOLA decreased in Year 3, suggesting that training providers were gaining fluency in integrating soft skills in their courses and they needed to rely less on YouthForce NOLA for integration support. Training providers were more routinely building soft skills into lesson plans and classroom activities. For example, lesson plan slides were created by one training provider to have the power skill that was being worked on at the top of each slide — encouraging explicit discussion of soft skills between students and instructors. Throughout the school year, training providers used regular evaluation and feedback practices (such as exit tickets and one-on-one soft skills reflection sessions), eventually moving toward more systematic approaches, reflecting a shift toward sustained and embedded implementation.<sup>4</sup> The increased opportunities to reflect and consistency in doing so likely created increased familiarity with the soft skills framework, as indicated by anecdotes from instructors, who noted that students were providing peer feedback and naming soft skills on their own.<sup>5</sup>

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4. YouthForce NOLA administered climate surveys to students enrolled in soft skills–embedded computer science courses in both the fall and spring semesters of each study year. See Chapter 1 for climate survey limitations and low response rates. In the spring of 2024, 56 students responded to the soft skills climate survey (out of 140 program students), the highest response rate of the study. Because the survey was administered only to program group students and relied on self-reporting, the findings of the survey should not be interpreted as causal evidence, rather, they offer additional descriptive context for understanding different types of student experiences.

5. Of the five items on the 2023-2024 climate survey about students’ perceptions of how the class impacted their soft skills growth, students reported that they most strongly agreed with items related to the recognition of one’s own skills and the transferability of skills beyond the classroom. Items related to confidence, commitment to educational goals, and ability to communicate strengths to others were rated slightly lower (reflecting an average rating of “agree,” compared with “strongly agree”). These average “strongly agree” to “agree” responses for all five items suggest that at least the program group students who took the survey in the spring of 2024 were aware of soft skills integration in their classes.

## Facilitators and Barriers to Implementation

This section describes which aspects of the model made implementation easier or more complicated in practice.

### Facilitators

#### **YouthForce NOLA's accessibility was an important factor in supporting training providers.**

Over the course of the school year, YouthForce NOLA staff members made themselves available to training providers between the kickoff training session and general training sessions, as training providers integrated soft skills into their courses. In interviews during the 2023-2024 school year with the study team, training providers cited the ease of their collaboration and communication with YouthForce NOLA and commented that they “enjoy[ed]” the partnership. One training provider shared in an interview that YouthForce NOLA was attentive and provided communication and services on a regular basis and on time.

#### **Training providers' ability to choose power skills for their courses facilitated implementation.**

Training providers were given autonomy to select the power skills they felt would best align with their courses and that would most benefit students in their courses and in their day-to-day lives. Doing so created more natural opportunities for integration into the courses. For example, one training provider noted switching a selected power skill during the first study year to better align with the nature of the students' coursework, highlighting the training providers' autonomy and judgement to select relevant skills for the participating classrooms.

#### **Dedicated coordination strengthened integration.**

Dedicated staff members who were tasked with supporting soft skills integration were facilitators to implementation, as affirmed by YouthForce NOLA staff members for core components and by training providers for secondary components.

- **YouthForce NOLA designated a staff member to work with training providers over the course of the study.** YouthForce NOLA established this role to serve as a trainer, adviser, and supportive resource for training providers as they navigated the integration of soft skills in their classrooms. Training providers consistently highlighted the fundamental role of this staff member in integrating soft skills, specifically noting the staff member's availability to address all questions about soft skills integration.
- **The addition of a curriculum coordinator role increased soft skills touchpoints for students, established more consistency in integration across classrooms, and built regular reflection practices for instructors.** One training provider established a dedicated curriculum coordinator role in Year 2. The creation of this role helped to reduce the burden on instructors to develop their own approach to soft skills integration. The curriculum coordinator helped instructors create lesson plans, as well as developing checklists and plug-and-play activi-

ties, and embedding soft skills language into slide decks and curriculum resources. The curriculum coordinator also visited classrooms regularly to teach explicit lessons on soft skills. With the creation of this role, there was more time for the curriculum coordinator and instructors to collaborate on plans for integrating soft skills into existing lessons. The curriculum coordinator also met regularly with the instructors to discuss students' soft skills progress, which helped establish a more regular practice of evaluating student growth. As exemplified by the addition of this role, the integration resources and support for instructors were bolstered over time. Support evolved from broad guidance and resources on how to integrate skills into existing curricula to the development of more prescribed and off-the-shelf embedded lessons.

**YouthForce NOLA also strengthened implementation through its responsiveness to the training providers and ability to adapt the model over time to better reflect training providers' evolving needs.**

The study team observed shifts from the first to final study year in various components of the model, such as the types of support for training providers, the integration of soft skills, and classroom evaluation methods.

- **Kickoff training sessions became clearer and more targeted over time.** Over time, training providers noted that kickoff training sessions were more clearly focused on power skill selection, clarified how implementation and integration of soft skills would occur, and were more explicit about evaluation practices. For example, by Year 3, training providers were given purposeful guidance on measuring soft skills and the expected cadence of evaluations.
- **YouthForce NOLA adopted a more iterative and responsive support model.** Over time, YouthForce NOLA shifted from a more structured training arc and syllabus to a more flexible, responsive approach. General training sessions became less about delivering predetermined content and more about responding to instructors' needs and problems of practice. These general training sessions – following the format of YouthForce NOLA's ongoing office hours – evolved into collaborative discussions or touchpoints between YouthForce NOLA and training providers. YouthForce NOLA tailored conversations to the needs of instructors and focused on real-time classroom challenges and emerging data trends. Climate survey debriefs, reflection sessions, and tailored action-planning conversations became more routine between YouthForce NOLA and training providers. Together, these changes suggest a shift toward a more continual improvement approach. Support became more iterative and grounded in real-time problem-solving and reflection, rather than relying on prescriptive training sessions.
- **Evaluation data collection and analysis practices became more routine.** After initial pushback from a training provider on the use of evaluation tools and assessment practices (who reported limited use of these resources and, in some cases, misalignment with instructional models), YouthForce NOLA took steps to make the assessment process more accessible by simplifying the evaluation tool and changing the format to make it more user-friendly. YouthForce NOLA also engaged in more structured conversations with training providers

about which behaviors and actions to look for when measuring different levels of soft skills proficiency for students, and how to use the data collection tools to analyze data in order to engage in meaningful conversations with students. By the final year, training providers were collecting data more regularly and conducting more formal evaluation practices, such that they were participating in more consistent analysis of student data with YouthForce NOLA.

## **Barriers**

### **The structure and context of the courses did not provide organic opportunities for integration.**

Training providers noted that the instructional approach and varied modalities of their classroom routine and coursework did not naturally align with the resources and lesson plan examples provided by YouthForce NOLA. The materials were often designed for more traditional or didactic classroom settings, while many training provider classrooms operated as hands-on working sessions where students practiced their skills in real time. As a result, training providers wanted resources that were more closely aligned with their classroom contexts, as these differences made it more challenging to integrate soft skills into lessons and assess student growth.

### **Time constraints and competing priorities limited the depth of integration.**

Across all years of the study, training providers cited limited planning time and competing instructional demands as barriers to deeper integration. More specifically, in Years 1 and 3, training providers noted that they found it difficult at times to embed soft skills into their courses while working against competing demands like teaching the training curriculum or addressing student attendance and scheduling issues. Early in the study, training providers also described insufficient shared planning time, which limited opportunities to collaboratively design strategies to integrate soft skills across the curriculum.

### **Buy-in grew over time but varied by role.**

As mentioned above, some training providers were unsure about how to integrate soft skills, especially when it felt like an added responsibility rather than part of their regular instruction. These barriers led to low initial buy-in from training providers. However, over the course of the study, with continued exposure to soft skills via YouthForce NOLA training sessions and office hours, and the addition of a dedicated curriculum coordinator role, familiarity with soft skills and discussion of embedding into lessons became more routine and commonplace – leading to more buy-in from training providers. For example, instructors demonstrated increasing familiarity with soft skills terminology. Early discussions often referenced general power skills without naming specific competencies or naming building blocks instead of the selected power skills. However, by Year 3, more instructors consistently named and described specific skills. This gradual deepening suggests growing internalization of the soft skills concepts.

# 3

## Impact Study

### INTRODUCTION

This chapter presents findings from the impact study of YouthForce NOLA’s soft skills intervention by training providers in engineering and computer science courses from the 2022-2023 and 2023-2024 school years. The overarching goal of the impact study is to estimate whether participation in computer science and engineering courses that embed soft skills instruction is associated with improved academic outcomes among high school students, above and beyond what would be expected from participation in other credential-aligned career pathways.

As a reminder, the impact study is structured to address one confirmatory research question along with several exploratory questions.

*What is the difference in academic performance (as measured by grade point average (GPA) at the end of the program year) for students who enroll for the first time in soft skills–embedded computer science or engineering courses during the 2022-2023 or 2023-2024 school years, compared with matched peers enrolled in other credential-aligned pathways in the same schools and years?*

GPA was selected as the primary outcome because it reflects a student’s academic engagement and performance and is closely linked to the program’s theory of action — specifically, the hypothesis that soft skills such as planning, time management, and self-regulation would generalize beyond the program course itself and support broader academic achievement.<sup>1</sup>

In addition to the primary confirmatory question, the study examined three exploratory outcomes:<sup>2</sup>

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1. The original study design intended to measure GPA at the end of the student’s highest available grade (eleventh or twelfth grade). Incomplete longitudinal data resulted in a modification to this approach. The confirmatory analysis instead uses GPA at the end of the academic year in which the student participated in the intervention course.
  2. These exploratory analyses were not preregistered as confirmatory tests and should be interpreted with appropriate caution. However, they offer valuable directional evidence about patterns of academic engagement and course persistence among program participants.

- What is the difference in the proportion of students achieving a GPA of 2.0 or higher?
- What is the difference in the proportion of students achieving a GPA of 3.0 or higher?
- What is the difference in student absence rates?

Because students were not randomly assigned to take computer science and engineering courses that embed soft skills, the study uses a quasi-experimental approach to make fair comparisons between participating students and similar peers who did not enroll in the soft skills–embedded courses. To do this, the study team used propensity score matching to create a comparison group that closely resembles program participants based on characteristics measured before the course began. For each student, the method estimates the likelihood that the student would enroll in a soft skills–embedded course given the student’s academic background and demographic characteristics. Students with similar likelihoods were then matched and compared.

The analysis further limits comparisons to students in the same school, grade, and year, which helps to account for differences related to school context. After students are carefully matched on observable characteristics — such as GPA, previously earned credits, attendance, gender, race/ethnicity, special education status, English learner status, and income eligibility — any remaining differences in outcomes are more likely to reflect participation in the program rather than preexisting differences among students.

## Program Group Definition

The program group consists of eleventh- and twelfth-grade students who enrolled in a soft skills–embedded computer science or engineering pathway course delivered directly by Operation Spark or the New Orleans Career Center during the 2022-2023 or 2023-2024 school years.<sup>3</sup>

## Comparison Group Definition

The comparison group consists of eleventh- and twelfth-grade students enrolled in the same schools and years who were participating in alternative credential-aligned pathway courses that did not include soft skills instruction, such as architecture and construction, health sciences, or information technology.

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3. Students enrolled through the train-the-trainer model—in which Operation Spark-trained instructors, rather than Operation Spark staff members, delivered instruction to students—were excluded from the program group. This exclusion reflects the qualitatively different nature of the support model in those classrooms, which did not include direct YouthForce NOLA coaching or training as part of the intervention.

## Matched Sample Composition

Across the 2022-2023 and 2023-2024 school years, a total of 203 students from open enrollment high schools across New Orleans enrolled in soft skills–embedded computer science or engineering courses delivered directly by the training providers: 106 students in 2022-2023 and 97 students in 2023-2024. After applying eligibility criteria and linking to administrative data, the final analytic program group consisted of 140 students. The discrepancy between enrolled counts and the final analytic sample is attributable to a limited number of students whose complete administrative records – including school enrollment and transcript information – were not available from school districts. Propensity score matching, a statistical technique that estimates the likelihood of program participation based on observed characteristics and uses those estimates to pair similar students across groups, matched up to 10 comparison students to each program student, yielding a final comparison group of 995 students drawn from the same schools, grade levels, and cohorts as the 140 program students across 18 New Orleans high schools. The final analytic sample therefore comprises 1,135 students in total. See Appendix A for a breakdown of the analytic sample by grade and school year.

## Baseline Equivalence

Before the start of the intervention (baseline), data is collected on students’ demographic, academic, and socioeconomic status. Table 3.1 presents these baseline characteristics for the program and comparison groups following the matching procedure.

**Table 3.1. Comparison of Baseline Characteristics**

Characteristics	Program Group	Control Group	Estimated Difference
Male (%)	70.7	70.6	0.1
Race/ethnicity (%)			
Black, non-Hispanic	85.0	81.5	3.5
White, non-Hispanic	0.7	0.9	-0.2
Hispanic	10.0	15.0	-5.0
Other	4.3	2.6	1.7
Special education (%)	10.0	6.4	3.6
Absence rate (% of days absent)	7.5	8.2	-0.8
Free or reduced-price lunch (%)	91.4	90.8	0.6
English language learners (%)	5.7	10.9	-5.2 **
GPA	2.66	2.54	0.12
Sample size (total = 1,135)	140	995	

(continued)

### Table 3.1 (continued)

SOURCE: MDRC calculations using student records data obtained from the Louisiana State Department of Education and NOLA Public Schools.

NOTES: All characteristics displayed in this table, as well as credits attempted and credits earned, were included as matching variables. Credits are not displayed here as they are not a primary focus of this report; post-matching balance on these variables was achieved (see Appendix Table A.1).

A likelihood ratio test using all matching variables, including credits, was used to determine whether there is a systematic difference between the two groups. The p-value for this test is not statistically significant (p-value = 0.161).

Estimated differences are regression-adjusted with school-by-grade-by-cohort block fixed effects in the matched sample. Values for the program group are simple means. The value for the control group equals the program group mean minus the estimated difference. Rounding may cause slight discrepancies in calculating differences.

Two-tailed t-tests were used to assess differences between the program and control groups. Statistical significance levels are indicated as \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

Grade point average (GPA) is measured on a 1.0 to 4.0 scale and is an unweighted cumulative measure based on official transcript records for the full school year.

As shown in the table, the groups were nearly identical on gender composition (70.7 percent male in the program group versus 70.6 percent male in the control group). Racial/ethnic distributions were comparable across all categories. Indicators of academic need, such as participation in special education programs, previous year's absence rates, and eligibility for free or reduced-price lunch, were also similarly distributed. One baseline difference reached statistical significance, which is not unexpected given the number of covariates examined: The comparison group had a higher proportion of English language learners (10.9 percent versus 5.7 percent;  $p = 0.014$ ).<sup>4</sup>

Because evaluating balance through multiple individual tests increases the likelihood of a false positive by chance alone, a likelihood ratio test was conducted to jointly assess the significance of all baseline covariates in predicting program group membership after matching. This joint test provides a more reliable overall assessment of balance than relying on individual p-values across many covariates. The test was nonsignificant ( $p=0.161$ ), indicating that the matched groups are broadly similar across baseline demographic, academic, and socioeconomic characteristics.<sup>5</sup>

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4. A p-value indicates the probability of finding the estimated effect (or larger) if a program or intervention was truly ineffective.

5. Although a balance test indicated that baseline covariates jointly did not differ significantly between the matched program and comparison groups, all baseline demographic, academic, and socioeconomic characteristics are still included as covariates in the impact estimation model to improve the precision of estimates (see Appendix A).

## IMPACT FINDINGS

This section presents estimated impacts across the confirmatory and exploratory academic outcomes.<sup>6</sup> Table 3.2 summarizes all impact estimates.

**Table 3.2. Estimated Impacts on Confirmatory and Exploratory Outcomes**

Outcomes	Program Group	Control Group	Estimated Impact	Effect Size
<b>Confirmatory Outcome</b>				
GPA	2.73	2.68	0.04 ***	0.06
<b>Exploratory Outcomes</b>				
Students with GPA $\geq$ 2.0 (%)	84.3	85.3	-1.0	-0.03
Students with GPA $\geq$ 3.0 (%)	37.9	34.5	3.4 *	0.07
Absence rate (% of days absent)	6.6	7.9	-1.3 *	-0.11
Sample size (total = 1,135)	140	995		

SOURCE: MDRC calculations using student records data obtained from the Louisiana State Department of Education and NOLA Public Schools.

NOTES: Estimated impacts are regression-adjusted with school-by-grade-by-school year block fixed effects in the matched sample. Values for the program group are simple means. The value for the control group equals the program group mean minus the estimated impact. Rounding may cause slight discrepancies in calculating impacts.

Two-tailed t-tests were used to assess differences between the program and control groups. Statistical significance levels are indicated as \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

Grade point average (GPA) is measured on a 1.0 to 4.0 scale and is an unweighted cumulative measure based on official transcript records for the full school year.

### Confirmatory Outcome: GPA

**Small gains in students' academic performance.** Students in the program group had a slightly higher GPA than matched control group students at the end of the program year — 2.73 GPA compared with 2.68 GPA. The estimated impact of 0.04 grade points is statistically significant and corresponds to an effect size of 0.06 standard deviation (SD) units.

6. Propensity score matching controls for observed differences between groups but cannot account for unobserved factors—such as motivation, persistence, or family encouragement—that may also predict program enrollment. Impact estimates should therefore be interpreted as approximations of the program's causal effect rather than definitive causal claims (see Appendix A).

While modest, this effect is consistent with findings from similar high school pathway and social-emotional learning (SEL) interventions, which typically produce small short-term gains on broad outcomes like GPA.<sup>7</sup> For example, Linked Learning, which integrates college-prep academics with technical training and real-world experiences, has shown small but positive effects on GPA and credits earned.<sup>8</sup> Research on SEL interventions also finds modest improvements in academic performance: A meta-analysis of 213 school-based SEL programs found an average effect equivalent to an 11 percentage point gain in academic achievement compared with the control groups.<sup>9</sup> More broadly, studies of career and technical education pathways, which provide structured sequences of career-focused courses, tend to show meaningful impacts on persistence and completion — for example, a 7 percentage point to 10 percentage point increase in on-time high school graduation — alongside smaller or less consistent effects on GPA specifically.<sup>10</sup> Together, this body of evidence suggests that modest GPA improvements are typical for programs that aim to build both academic and nonacademic skills.

All in all, this pattern aligns with how the soft skills intervention was designed: By embedding skills such as planning, self-regulation, and goal setting into technical courses, students may strengthen academic habits that support performance across their full course load — not just within the soft skills–embedded courses.

## EXPLORATORY OUTCOMES

Beyond the primary outcomes, the study examined two exploratory measures — GPA benchmarks and student attendance — to provide a fuller picture of program group students' academic experiences. These findings suggest that the program may support broader student engagement and academic performance.

### GPA Benchmarks

The study looked at whether the program helped students meet key GPA benchmarks. There was no meaningful difference between program and comparison group students in maintaining a GPA of 2.0 or higher: about 85 percent of students in both groups met this benchmark. However, a modestly higher share of program group students reached a higher GPA of 3.0. About 38 percent of program group students earned a GPA at or above 3.0, compared with 35 percent of similar nonparticipants, corresponding to an estimated increase of 3.4 percentage points and a small effect size of 0.07 SD. This pattern suggests that any GPA impacts

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7. SEL programs explicitly teach skills such as self-management, goal setting, and relationship-building.
  8. Guha et al. (2014).
  9. Durlak et al. (2011).
  10. Dougherty (2018).

may be more evident at higher levels of academic performance, though the study does not directly test differential effects by students' starting GPA.

## Student Attendance

**More consistent attendance among program group students.** Program group students missed fewer days of school than their counterparts in the comparison group. On average, they were absent 6.6 percent of school days, compared with 7.9 percent for comparison group students – a difference of 1.3 percentage points, or roughly two to three fewer days missed over a typical 180-day school year.

Attendance is widely recognized as an indicator of student engagement and is strongly associated with longer-term outcomes such as credit accumulation and high school graduation. Research shows that students who are chronically absent are less likely to stay on track academically and complete high school. In this context, the lower absence rates observed among program group students are consistent with the possibility that embedding soft skills into courses may support greater student engagement and connection to school.<sup>11</sup>

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11. Allensworth and Easton (2007); Balfanz and Byrnes (2012).



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## Conclusion

This study examined the implementation and impact effects of embedding soft skills into computer science and engineering courses in New Orleans public high schools. The implementation study spans three school years (2021-2022 through 2023-2024), while the impact analysis focuses on two cohorts of students participating in the later years of the intervention (2022-2023 and 2023-2024), when implementation had become more structured and consistent.

### **SMALL POSITIVE EFFECTS ON ACADEMIC ENGAGEMENT AND PERFORMANCE**

Overall, the findings suggest that participation in soft skills–embedded computer science and engineering courses is associated with small but consistently positive short-term academic outcomes. Program group students modestly outperformed their peers on several indicators, including grade point average (GPA), attainment of a higher GPA benchmark, and attendance. These effects are indicators of academic engagement rather than overall academic performance.

Findings from the implementation study provide important context. Over time, approaches to integrating soft skills evolved, with training providers adopting more explicit and structured ways of embedding skills into instruction and creating opportunities for discussion and reflection. Together, the implementation and impact findings suggest that repeated exposure, explicit instruction, and opportunities to practice and reflect on soft skills helped students apply them beyond program courses.

### **EFFECTIVE INTEGRATION OF SOFT SKILLS REQUIRES THOUGHTFUL DESIGN**

Several implications have emerged from the study findings. First, the integration of soft skills into career and technical education courses, while important, does not happen naturally and requires deliberate planning and coordination. For programs with established instructional models, this may involve aligning targeted skills with courses and building consistent op-

portunities for integration and reflection. Second, embedding soft skills within rigorous, credential-aligned pathways can support academic progress without detracting from technical learning. Third, instructors may find that integration becomes more routine over time as they develop approaches that fit their classroom contexts.

This study does not directly measure soft skills, and findings should be interpreted as evidence of short-term academic and engagement outcomes. However, the observed improvements in GPA, credit accumulation, and engagement are meaningful early indicators of postsecondary success. To the extent that soft skills strengthen students' ability to manage their courses, persist through challenges, and stay on track, this approach may support longer-term outcomes such as credential attainment and postsecondary enrollment.

Future research should focus on a few key areas to strengthen what researchers have learned. These areas include following students over a longer period to understand impacts on credentials, college enrollment, and early careers; developing clearer and more consistent ways to measure soft skills; examining whether impacts differ across groups of students; better documenting how programs are implemented; and exploring how the integration of soft skills works in different types of training programs and settings.

APPENDIX

A

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Technical Appendix



This appendix presents technical documentation supporting the impact study described in Chapter 3 of this report. It details the analytic sample construction, the propensity score matching procedure and its underlying model specification, the impact analysis model, and the covariate balance diagnostics used to assess the validity of the quasi-experimental design. These materials allow readers to evaluate the methodological rigor of the YouthForce NOLA evaluation and to interpret the estimated program effects with appropriate context.

## **ANALYTIC SAMPLE CONSTRUCTION**

This section describes how the analytic sample was constructed, including the criteria used to define both the program and comparison groups and the process by which students were selected for analysis. It first outlines the eligibility requirements that determined which students were included in each group, then summarizes the resulting sample sizes and how the final analytic sample was assembled.

### **Eligibility Criteria**

The impact study focuses on eleventh- and twelfth-grade students who enrolled for the first time in a computer science or engineering course with integrated soft skills instruction that was delivered directly by one of two external training providers, Operation Spark (OpSpark) or the New Orleans Career Center, during the 2022-2023 or 2023-2024 school years. These courses were embedded within sequenced career pathways offering opportunities to earn industry-based credentials. Students enrolled through the train-the-trainer model — in which OpSpark-trained school-based instructors, rather than OpSpark staff members, delivered instruction to students — were excluded from the program group, as this model did not include the same direct YouthForce NOLA coaching and training components that were central to the intervention.

The comparison pool was restricted to eleventh- and twelfth-grade students enrolled in other credential-aligned career pathway courses at the same schools during the same academic years. To ensure a credible counterfactual, comparison students were required to participate in pathways that offered advanced credentialing opportunities comparable to those available under the program condition. Pathway fields represented in the comparison pool included architecture and construction, health sciences, and information technology. Students enrolled in pathways without advanced credentialing opportunities were excluded from the comparison pool.

### **Analytic Sample**

Across the two study cohorts, a total of 203 students enrolled in soft skills–embedded program courses delivered directly by the training providers: 106 students during the 2022-2023 school year and 97 students during the 2023-2024 school year. After applying eligibility criteria and linking students to administrative and transcript records obtained from the

school districts, the final analytic program group comprises 140 students. The difference between the total enrolled count and the final analytic sample is attributable to a small number of students whose complete administrative records — including school enrollment and transcript information — were unavailable from the districts at the time of data collection. Each program student was then matched to up to 10 comparison students within the same school–grade–cohort cell (see the Propensity Score Matching Procedure section below), yielding a comparison group of 995 students. The final analytic sample therefore comprises 1,135 students in total. Appendix Table A.1 presents the distribution of the analytic sample by research group, grade, and school year.

**Appendix Table A.1. Matched Analytic Sample, by Research Group, Grade, and School Year**

Research Group	Grade	School Year	Number of Students
Program Group (N = 140)	11th	2022-2023	57
		2023-2024	60
	12th	2022-2023	16
		2023-2024	7
Comparison Group (N = 995)	11th	2022-2023	454
		2023-2024	364
	12th	2022-2023	150
		2023-2024	27

SOURCE: MDRC calculations using student records obtained from the Louisiana State Department of Education and NOLA Public Schools.

NOTES: Program group counts reflect students with administrative and transcript records who enrolled in computer science and engineering courses with embedded soft skills instruction. Comparison group students were matched within the same school-grade-cohort cell as program students. The discrepancy between total program enrollment (n = 203) and the analytic program group (n = 140) reflects students whose administrative and transcript records were unavailable at the time of data collection.

## PROPENSITY SCORE MATCHING PROCEDURE

Because the random assignment of students to the program and comparison groups was not feasible in this setting, the study used propensity score matching to construct a comparison group that closely resembles the program group on key observed characteristics measured before program participation. Propensity score matching works by estimating, for each student, the predicted probability of enrolling in a soft skills–embedded course given each student’s baseline characteristics. This predicted probability, also known as the propensity score, serves as a single summary index of the multidimensional set of observed factors that distinguish program group students from the broader pool of eligible comparison group students. Matching on this index helps ensure that observed differences in outcomes can

more plausibly be attributed to program participation rather than to preexisting differences between students.

## Within-Cell Design

Propensity scores were estimated and matching was conducted separately within each school–grade–cohort cell, that is, within each unique combination of school, grade level (eleventh or twelfth grade), and study cohort (2022-2023 or 2023-2024). This within-cell design serves two purposes. First, it controls for time-stable school-level factors (such as school culture, resource availability, and student composition) that could confound comparisons between program group and comparison group students attending different schools or enrolled in different years. Second, it ensures that each program group student is compared only to students who were exposed to the same school context and had the same opportunity to enroll in a soft skills–embedded course.

## Propensity Score Model

$$\text{logit}(P_i = 1) = \alpha + \beta_1 X_i + \varepsilon_i$$

where:

- $P_i$  is the predicted probability of program enrollment for student  $P$  (that is, the propensity score),
- $\alpha$  is the intercept,
- $\beta_1$  is a vector of estimated coefficients on the baseline covariates, and
- $\varepsilon_i$  is the error term.

The baseline covariates included in the matching model were selected to capture the key dimensions along which program and comparison group students may differ before program participation. These covariates are:

- Cumulative grade point average (GPA) over the previous year
- Credits attempted over the previous year
- Credits earned over the previous year
- Gender
- Race/ethnicity

- Special education status
- English language learner (ELL) status
- Free or reduced-price lunch eligibility
- Absence rate over the previous year (percentage of school days absent)

## Nearest-Neighbor Caliper Matching

Fitted values from the logistic regression model — each student’s predicted probability of program enrollment — constitute the propensity score. Program group students were then matched to comparison group students using nearest-neighbor caliper matching with a 1:10 matching ratio within each school–grade–cohort cell. Each program group student was matched to up to 10 comparison group students with the closest propensity score, subject to the caliper constraint.

The caliper was set to 0.2 standard deviations of the logit of the propensity score — the conventional threshold recommended in the matching literature to minimize bias without excessive loss of matched sample cases. Matches falling outside this caliper were excluded, ensuring that only sufficiently similar students are compared. Program group students for whom no comparison group student could be found within the caliper were also excluded from the analysis.

The 1:10 matching ratio was chosen to maximize statistical power given the relatively small program group size ( $n = 140$ ). Using more than one matched comparison student per program student increases the effective sample size and reduces the variance of the estimated impact, at a modest cost in potential bias relative to 1:1 matching. This trade-off is appropriate here given the availability of a large pool of eligible comparison group students relative to the program group.

## MATCHED RESULTS AND BASELINE EQUIVALENCE

This section presents two complementary assessments of the quality of the matching procedure: (1) a covariate balance analysis using standardized mean differences (SMDs) before and after matching, and (2) a likelihood ratio test of joint baseline equivalence across all covariates.

### Covariate Balance

Covariate balance was assessed using the absolute SMD for each baseline covariate, which expresses the difference in group means as a proportion of the pooled standard deviation. The absolute SMD provides a scale-free measure of imbalance that facilitates comparison

across covariates with different units of measurement. An absolute SMD below 0.25 is used as the threshold for acceptable balance under What Works Clearinghouse (WWC) standards; covariates at or above this threshold are considered to exhibit meaningful pre-existing imbalance. Covariates with absolute SMDs between 0.05 and 0.25 are acceptable under WWC standards if included as covariates in the impact estimation model.

## Matching Diagnostics

Appendix Figure A.1 presents pre- and post-match absolute SMD values for all covariates included in the matching model. Before matching, several covariates showed substantial imbalance, most notably the propensity score itself, which exhibited a pre-match absolute SMD of approximately 1.85. Additional imbalance was observed on GPA and percentage of days absent. Following matching, all covariates fall below the 0.25 absolute SMD threshold (indicated by the dashed vertical line in Appendix Figure A.1), and most are at or near zero. The propensity score absolute SMD is reduced to approximately 0.05 post-match, indicating that the matching procedure successfully balanced the two groups on their overall predicted probability of program participation. Taken together, these diagnostics support the conclusion that the matched comparison group provides a valid counterfactual for the program group.

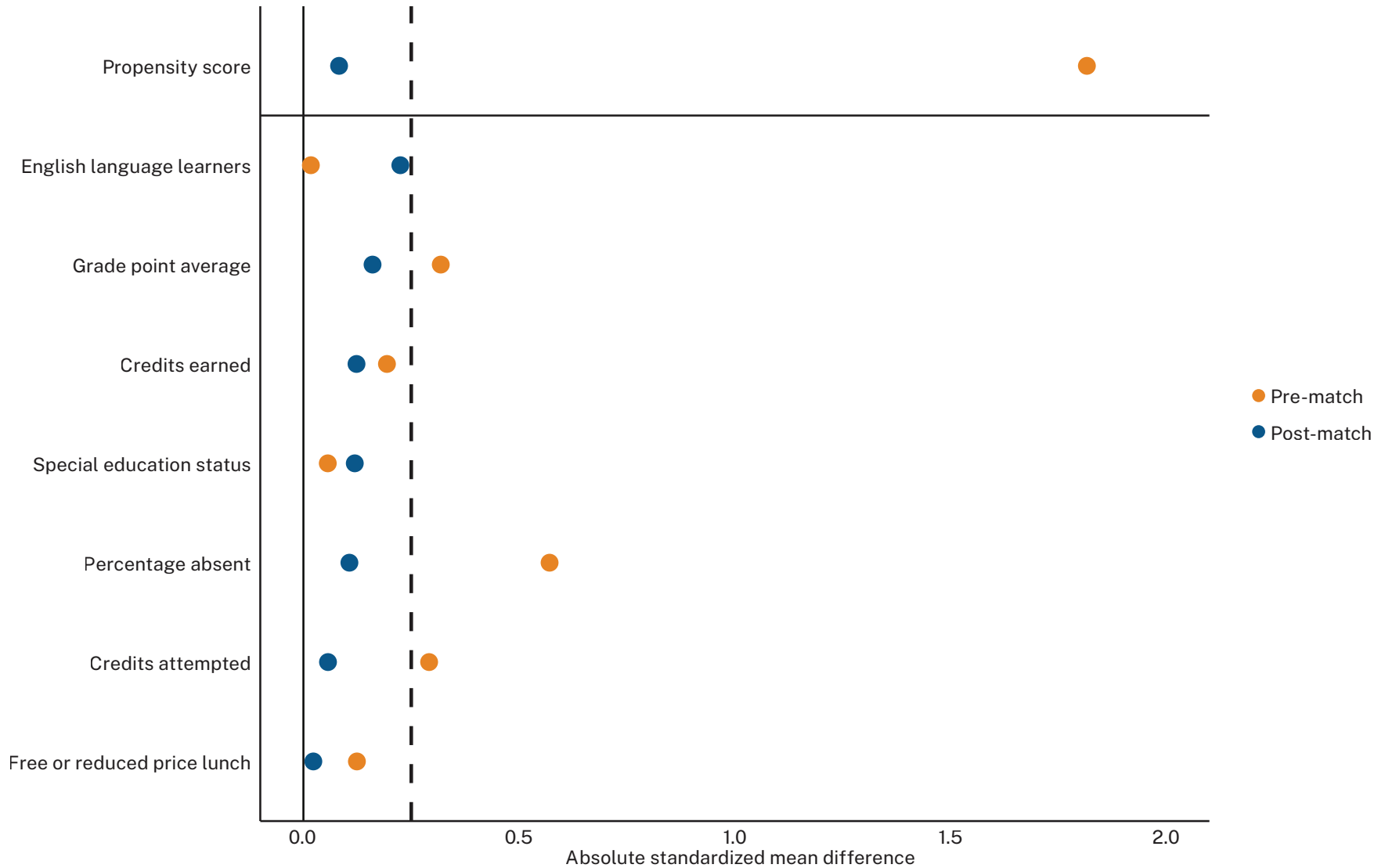
## Limitations of the Matching Approach

Although the matching procedure achieves strong balance on observed baseline characteristics, PSM rests on the assumption of conditional independence — that is, conditional on the observed covariates, program enrollment is independent of potential outcomes. This assumption cannot be empirically verified and is unlikely to hold perfectly in practice. Students who enrolled in YouthForce NOLA’s computer science or engineering courses may differ from comparison group students in ways that administrative records do not capture, such as academic motivation, persistence, interest in technology careers, or encouragement from parents or teachers. To the extent that these unobserved factors are positively associated with both program enrollment and the outcomes of interest, impact estimates may reflect some degree of upward selection bias.

The 1:10 matching ratio and caliper constraint mitigate concerns about poor overlap and improve the precision of impact estimates, but they do not resolve the fundamental limitation of selection on unobservable factors. The exclusion of program group students who could not be matched within the caliper further strengthens internal comparability, though it also means that results may not generalize to the full population of enrolled students.

In summary, these considerations suggest that the impact estimates presented in this report are best interpreted as approximations of the program’s causal effect rather than definitive causal claims. Readers should weigh the findings alongside the strong covariate balance achieved through matching and the consistency of results across specifications.

**Appendix Figure A.1. Baseline Balance Pre- and Post- Matching**



SOURCE: MDRC calculations using student records data obtained from the Louisiana State Department of Education and NOLA Public Schools.

NOTES: Orange dots represent pre-match absolute standardized mean differences (SMDs); blue dots represent post-match absolute SMDs. The dashed vertical line indicates the What Works Clearinghouse equivalence threshold of 0.25. All post-match values fall below this threshold.

## Baseline Equivalence

One individual covariate — ELL status — showed statistically significant differences between the program and comparison groups after matching. The comparison group had a higher proportion of ELL students (10.9 percent versus 5.7 percent;  $p = 0.014$ ).

A likelihood ratio test was conducted to evaluate whether the full set of baseline covariates jointly predicts program group membership after matching. The test compares a “null” model — which regresses the group membership indicator only on cell fixed effects — to a “full” model that adds all baseline covariates. The chi-square test was non-significant ( $p = 0.161$ ), indicating that despite the one flagged covariate, the matched groups do not differ systematically on observable characteristics overall. All covariates are included as regressors in the impact estimation model (see Impact Analysis Model Specification), which adjusts for any residual imbalance and reduces the potential for this difference to bias the estimated program effects.

## IMPACT ANALYSIS MODEL SPECIFICATION

Impacts are estimated using weighted ordinary least squares (OLS) regression models that account for the matched design. Weighting adjusts for the unequal representation of comparison group students across program group students and preserves the estimation of the average treatment effect on the treated (ATT). The estimating equation takes the following form:

$$Y_{is} = \alpha + \delta T_{is} + \gamma X_{is} + \mu_s + \varepsilon_{is}$$

where:

- $Y_{is}$  is the outcome for student  $i$  in school-grade-cohort cell  $s$  (GPA, absence rate, credits earned, or GPA threshold indicators),
- $T_{is}$  is an indicator equal to 1 for program group students and 0 for matched comparison students,
- $\delta$  is the estimated impact of program participation,
- $X_{is}$  is a vector of baseline covariates,
- $\mu_s$  represents school-grade-cohort fixed effects, and
- $\varepsilon_{is}$  is the error term.

## Sampling Weights

Sampling weights reflect the 1:10 matching ratio, giving each matched comparison group student a weight inversely proportional to the number of comparison group students matched to each program group student. Each program group student receives a weight of 1.0. A comparison group student matched to a given program group student receives a weight of  $1/(\text{number of matched comparison group students for that program group student})$ . This weighting scheme ensures that each matched set contributes equally to the impact estimate regardless of the number of comparison group students available within a given cell, and that the estimated coefficient  $\delta$  represents the ATT — the average impact for students who participated in the program.

## Standard Error Estimation

Standard errors are clustered at the school level to account for the correlation of outcomes among students attending the same school. Both program and comparison group students are drawn from the same school environments, and unobserved school-level factors, such as school culture, instructional quality, and peer effects, may induce within-school outcome correlation that, if unaddressed, would cause standard errors to be understated. Clustering at the school level produces standard errors that are robust to this within-school correlation. Statistical significance is assessed at the 5 percent level ( $p < 0.05$ ) using two-tailed tests throughout.

## Effect Size Calculation

Effect sizes are expressed in standard deviation (SD) units and calculated by dividing the estimated impact ( $\delta$ ) by the control group standard deviation of the outcome variable — that is, the standard deviation computed using outcome values after the program among comparison group students only. Because the control group's outcome distribution is not influenced by program participation, this approach ensures that the standardizing unit reflects an unaffected benchmark, providing a more interpretively clean estimate of effect magnitude. Effect sizes in the range of 0.10-0.20 SD are generally considered small in educational research but can be practically meaningful for a targeted, single-year intervention of this nature.

# SENSITIVITY ANALYSES AND ROBUSTNESS CHECKS

## Confirmatory and Exploratory Outcomes

The impact study is structured around one confirmatory research question and four exploratory outcomes. The confirmatory outcome — end-of-year GPA — was prespecified as the primary test of the program's theory of action and is evaluated at the 5 percent significance level. The four exploratory outcomes (GPA thresholds and absence rate) were not preregistered

as confirmatory tests and should be interpreted as directional evidence rather than definitive findings. The consistency of effects across all exploratory outcomes — all of which favor the program group — nonetheless strengthens confidence in the overall pattern of results.

## Deviation from Prespecified Analysis

The prespecified confirmatory analysis intended to measure GPA at the end of the student's highest available grade (eleventh or twelfth). Incomplete longitudinal data — specifically, the absence of twelfth-grade records for most eleventh-grade students who had not yet completed high school at the time of data collection — made it impossible to observe GPA at the originally specified endpoint for most students. As a result, the confirmatory analysis was modified to use GPA measured at the end of the academic year in which the student participated in the program course. This deviation from the prespecified plan should be considered when evaluating the strength of the confirmatory evidence.

## Common Support and Caliper Sensitivity

The caliper constraint (0.2 SD of the logit of the propensity score) ensures that comparisons are restricted to regions of common support — that is, to program group students for whom a sufficiently similar comparison group student exists. Program group students who fall outside the region of common support are excluded from the analysis, which may affect the generalizability of the ATT estimate to the full enrolled population. The choice of a 0.2 SD caliper follows standard practice in the matching literature.<sup>1</sup> Results are expected to be robust to modest changes in the caliper width, as all post-match SMDs fall well below the 0.25 threshold under the chosen caliper.

## Incomplete Program Group Representation

The analytic program group (140 students) does not include all students who enrolled in soft skills-embedded program courses during the study period. Approximately 63 students, representing the difference between total enrollment counts (203 students) and the analytic sample (140 students), could not be matched to administrative records and were therefore excluded. If these excluded students differ systematically from those successfully linked to records, for instance, if they were more likely to be chronically absent or to have transferred schools, the analytic sample may not be fully representative of the broader program population. This could introduce bias in either direction and may result in estimates that are more conservative or less generalizable than those for the full enrolled group.

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1. Austin (2011) provides a widely cited recommendation for using a caliper width of 0.2 SD of the logit of the propensity score in propensity score matching applications.



APPENDIX

**B**

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Fidelity Findings



This appendix presents the fidelity findings that support the implementation study described in Chapter 2 of this report.<sup>1</sup> This appendix also provides the fidelity matrix tool used to assess the fidelity of the core components of the study.<sup>2</sup> The information that follows includes a description of the intended core components for each year of the study, along with the overall fidelity trend for each core component and implementation trend for each secondary component. These materials allow readers to understand the methodological approach of the implementation team, and the fidelity story for the intervention. Data on the fidelity of core components was collected via YouthForce NOLA training records and interviews with two YouthForce NOLA staff members. Data on the fidelity of secondary components was collected via interviews with two training providers (inclusive of three support staff members and three instructors), and via direct inquiry with training providers.

## IMPLEMENTATION FIDELITY OF CORE COMPONENTS

The findings in this section illustrate whether the intended model's core components were implemented as planned. Each year, YouthForce NOLA implemented the model's core components with fidelity, scoring a three or more across all indicators (that is, core components). While the level of implementation fidelity for each component of the study varied each year, the overall implementation fidelity score for each year suggests that, on the whole, the training providers consistently received a suite of resources and support from YouthForce NOLA.

- **YouthForce NOLA provided kickoff training sessions.**

Fidelity of kickoff training sessions was defined as YouthForce NOLA offering a kickoff training session at the start of each school year. YouthForce NOLA met the fidelity threshold for this component in all three study years, and consistently delivered kickoff training sessions. These sessions took place at the start of the school year and were used to introduce soft skills and support training providers in selecting power skills for the year.

- **YouthForce NOLA provided general training sessions to training providers throughout the school year. However, the number of sessions declined over the years.**

Fidelity of general training sessions was defined as YouthForce NOLA offering one to three sessions per semester. YouthForce NOLA met the component's fidelity threshold in Years 1 and 2 of the study, and did not meet the component's fidelity threshold in Year 3. During Year 1, there were three training sessions in the fall semester and four in the spring semester. This

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1. Fidelity findings are defined as findings reporting on the extent to which the intervention was implemented as intended, comparing reported and observed practices against a predefined set of implementation benchmarks and expectations.
  2. The fidelity matrix tool is the rubric that lays out the predefined set of implementation expectations for the intervention, assigning scores to different benchmarks. This tool is used to measure fidelity to each component of the study, in addition to the overall fidelity to the intervention each year of the study. See Appendix Table B.1 for an example of said matrix tool.

dropped to two documented training sessions in the fall and one in the spring during Year 2. There was just one documented training session during Year 3. The decreased frequency of training sessions year over year could indicate a growing level of familiarity and confidence of the training providers with the soft skills materials, such that they required less formal training from YouthForce NOLA.

- **YouthForce NOLA provided ongoing coaching (such as office hours) to training providers.**

Fidelity of coaching was defined as YouthForce NOLA offering one to three office hours per semester. YouthForce NOLA met the fidelity threshold for this component each year. During Year 1, YouthForce NOLA held three office hours in the fall and three office hours in the spring. The number of sessions increased slightly in Year 2, with YouthForce NOLA holding five office hours in the fall and three office hours in the spring. In Year 3, YouthForce NOLA held three office hours in the fall and three office hours in the spring. The sustained office hour offerings year over year suggests that training providers continued to seek ongoing support from YouthForce NOLA in integrating soft skills in their classrooms, despite requiring less formal training over time (as noted in the analysis of the other core components' implementation fidelity).

- **YouthForce NOLA provided training sessions on how to evaluate students' soft skills. However, the number of training sessions on evaluation declined in Year 3.**

Fidelity of training sessions on how to evaluate students' soft skills was defined as YouthForce NOLA holding a training session once a semester or twice a year. YouthForce NOLA met the component's fidelity threshold for Years 1 and 2 of the study, but not Year 3. In Years 1 and 2, YouthForce NOLA held training sessions in the fall and spring of each school year. In Year 3, YouthForce NOLA held only one training session during the fall semester. As suggested with the other training components, while this component was not met with fidelity in Year 3, this may suggest that training providers were more comfortable with evaluating students' soft skills, possibly reflecting a reduced need for this type of support from YouthForce NOLA.

## **IMPLEMENTATION TRENDS FOR SECONDARY COMPONENTS**

- **Training providers reported varied levels of integration of soft skills into their lessons. However, there was a steady increase in integration reported year over year.**

As mentioned in the intended model, there was no expected percentage of integration of soft skills into lessons for training providers. However, the study team collected data from training providers (inclusive of support staff and instructors at the organizations) via interviews and follow-up correspondence to understand the extent of integration over the course of

the study.<sup>3</sup> In Year 1, the participating training provider reported 30 percent to 50 percent of lessons integrated soft skills. In Year 2, the participating training provider reported 20 percent to 75 percent of lessons had integrated soft skills. In Year 3, both training providers reported that they were integrating soft skills into 50 percent to 75 percent of their lessons. The steady increase in the lower and upper bounds of the reported integration suggest that training providers began to integrate with more regularity year over year.

- **While there was reported variation in student evaluation and feedback practices, these practices appeared to be more commonplace over time.**

There were no formal fidelity metrics for tracking training providers' evaluation of students' soft skills, however, this measure was observed and reported on by YouthForce NOLA staff members over the course of the study. Over time, YouthForce NOLA reported that evaluation and feedback practices became more regular. In Year 1, there were no formal student evaluations on soft skills reported; however, starting in Year 2, feedback was reportedly given once a semester to students. By Year 3, student feedback and evaluations were more formalized and occurred at least once a semester, though they varied in cadence depending on the classroom (for example, one training provider gave feedback daily).

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3. Measures of integration were self-reported by training providers across all years of the study. The study team originally planned to collect data on this secondary component via YouthForce NOLA and their observations and teacher logs. However, observations did not take place as intended, and thus, self-reporting was used to collect integration data in the absence of the observation and teacher log data. The percentages noted in this section reflect the lower-most and upper-most bounds of the integration percentages that were self-reported.

**Appendix Table B.1. Fidelity Matrix**

<b>Indicators</b>	<b>Definition</b>	<b>Unit of</b>	<b>Data Source(s)</b>	<b>Data Collection</b>	<b>Score for Levels of Implementation</b>	<b>Threshold for Adequate Implementation<sup>a</sup></b>	<b>Expected Sample for Fidelity Measure</b>
<b>Indicator 1</b>	YouthForce NOLA trains training providers how to integrate soft skills into instruction	YouthForce NOLA staff members	YouthForce NOLA training records	MDRC to collect from YouthForce NOLA at the end of each semester	YouthForce NOLA held the kickoff training for providers at the start of each school year  0 = YouthForce NOLA did not hold training session 1 = YouthForce NOLA did hold training session	Adequate = score of 1	All training providers
<b>Indicator 2</b>	YouthForce NOLA trains training providers how to integrate soft skills into instruction	YouthForce NOLA staff members	YouthForce NOLA training records	MDRC to collect from YouthForce NOLA at the end of each semester	Number of general training sessions YouthForce NOLA held for providers per semester  0 = 0 sessions offered per semester 1 = 1-3 sessions offered per semester 2 = 4 or more sessions offered per semester	Adequate = score of 1	All training providers
<b>Indicator 3</b>	YouthForce NOLA coaches training providers throughout the school year on soft skills integration	YouthForce NOLA staff members	YouthForce NOLA training records	MDRC to collect from YouthForce NOLA at the end of each semester	Number of check-ins YouthForce NOLA made available (including office hours and tailored check-ins)  0 = 0 check-ins offered per semester 1 = 1-3 check-ins offered per semester 2 = 4 or more check-ins offered per semester	Adequate = score of 1	All training providers

(continued)

**Appendix Table B.1**

<b>Indicators</b>	<b>Definition</b>	<b>Unit of</b>	<b>Data Source(s)</b>	<b>Data Collection</b>	<b>Score for Levels of Implementation</b>	<b>Threshold for Adequate Implementation<sup>a</sup></b>	<b>Expected Sample for Fidelity Measure</b>
<b>Indicator 4</b>	YouthForce NOLA trains training providers how to evaluate students' soft skills development	YouthForce NOLA staff member	YouthForce NOLA training records	MDRC to collect from YouthForce NOLA at the end of each semester	YouthForce NOLA held training sessions for training providers on how to evaluate students (once a semester/twice a year)  0 = YouthForce NOLA did not hold training sessions 1 = YouthForce NOLA did hold training sessions	Adequate = score of 1	All training providers
<b>All indicators</b>					Sum of adequate scores	Met with fidelity = Score of 3 (the sum of scores across at least three indicators)	All training providers

NOTE: <sup>a</sup>This column assigns a score that indicates “meeting the implementation threshold” based on the predefined set of implementation expectations for the intervention.



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# ABOUT MDRC

MDRC, a nonprofit, nonpartisan social and education policy research organization, is committed to finding solutions to some of the most difficult problems facing the nation. We aim to reduce poverty and bolster economic mobility; improve early child development, public education, and pathways from high school to college completion and careers; and reduce inequities in the criminal justice system. Our partners include public agencies and school systems, nonprofit and community-based organizations, private philanthropies, and others who are creating opportunity for individuals, families, and communities.

Founded in 1974, MDRC builds and applies evidence about changes in policy and practice that can improve the well-being of people who are economically disadvantaged. In service of this goal, we work alongside our programmatic partners and the people they serve to identify and design more effective and equitable approaches. We work with them to strengthen the impact of those approaches. And we work with them to evaluate policies or practices using the highest research standards. Our staff members have an unusual combination of research and organizational experience, with expertise in the latest qualitative and quantitative research methods, data science, behavioral science, culturally responsive practices, and collaborative design and program improvement processes. To disseminate what we learn, we actively engage with policymakers, practitioners, public and private funders, and others to apply the best evidence available to the decisions they are making.

MDRC works in almost every state and all the nation's largest cities, with offices in New York City; Oakland, California; and Washington, DC.