

The Step Up Scholars Program: Perspectives on Its History and Impact

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About Education Northwest

Founded as a nonprofit corporation in 1966, Education Northwest builds capacity in schools, families, and communities through applied research and development. The authors gratefully acknowledge the hard work and support of the GEAR UP Hawai'i staff. In particular, this report would not have been possible without the collaboration of Sena Pierce, Evaluation Specialist at Hawai'i P-20 Partnerships, who organized our visit to Hawai'i to learn more about Step Up and provided a large amount of resources that we used to write this report.

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Introduction

One approach to improve the college and career readiness of American students is to increase the rigor of the high school diploma requirements so that they align with the knowledge and skills required of college and careers.¹ This is the approach of the Step Up Scholars program in Hawai‘i, a statewide campaign and program that encourages students to pledge to earn a more rigorous college and career readiness high school diploma. The program was designed and implemented by GEAR UP Hawai‘i, a federally funded educational program intended to improve the postsecondary access and success of low-income students. GEAR UP is a major program of Hawai‘i P-20 Partnerships, which leads several initiatives and programs to improve Hawai‘i student outcomes from cradle to career.

As part of a longitudinal impact study of the Step Up Scholars program, between February and April 2014, we reviewed the Step Up Scholars program and policy documents and conducted interviews in order to gain a better understanding of the program and obtain perspectives from key stakeholders on the program’s history and impact. We interviewed four current GEAR UP staff members and two former GEAR UP staff members, (two of whom were involved in GEAR UP and the Step Up Scholars program from its very beginning); two high school administrators and six counselors, whose schools had large numbers of Step Up Scholars; and three former Step Up Scholars, who are currently community college students. We also drew on survey data from 308 Step Up Scholar respondents. Even though the survey had a low response rate, it provides some idea of student experiences with the program.

In this brief, we begin with a history and description of the Step Up Scholars program and then share perspectives from key stakeholders—GEAR UP staff members, high school counselors and administrators, and students—about the program’s impact. We found stakeholders consistently emphasized the program’s broad influence on statewide educational policy and practice, yet were unsure of its impact on individual participants, called Step Up Scholars. The last two sections provide a brief overview of an upcoming impact study to identify the causal effect of Step Up, and some guiding questions for education leaders and policymakers that can inform discussions of how to improve students’ college readiness and success.

¹ Achieve. (2013). *Closing the Expectations Gap: 2013 Annual Report on the Alignment of State K-12 Policies and Practices with the Demands of College and Careers*. Retrieved from <http://www.achieve.org/files/2013ClosingtheExpectationsGapReport.pdf>

History of Step Up Scholars Program

The Step Up Scholars program encompasses a three-prong approach to improving the college and career readiness of all students in the state of Hawai‘i. Step Up can be described as a:

- Catalyst for statewide policy changes to increase the rigor of the public high school diploma requirements in Hawai‘i
- Statewide campaign and incentives to encourage students to pledge to earn the more rigorous diploma
- Provider of college-prep information and activities for those students who pledge to earn a more rigorous high school diploma

The genesis of the Step Up Scholars program began with the first efforts by GEAR UP to encourage students at GEAR UP schools (that is, schools where at least half of students receive free or reduced-price lunch) to earn a more rigorous college and career-ready diploma. Hawai‘i is one of 35 states in the nationwide American Diploma Project Network, which supports statewide efforts to increase the rigor of the high school diploma for all students.

GEAR UP created the GEAR UP Scholars program in 2001 to encourage students to study hard and earn the Board of Education Recognition Diploma (BOERD), which at the time was awarded to students who maintained a 3.0 GPA. (The BOERD requirements for each graduating class beginning in 2005 are outlined in appendix A.) Beginning in 2001, GEAR UP staff members signed up around 7,500 eighth-grade students—enrolled in the graduating classes of 2006, 2007, 2008 and 2009—to be GEAR UP Scholars. Scholars received information about college preparation throughout their high school career, and, perhaps most importantly, GEAR UP incentivized scholars to earn the BOERD by offering a substantial college scholarship through the Hawai‘i Community Foundation. GEAR UP students were eligible for the scholarship if they earned the BOERD, applied to college, and were Pell Grant eligible. The GEAR UP Scholars program had promising results; compared to similar students who were not scholars, GEAR UP scholars earned the BOERD and enrolled and persisted in college at higher rates.²

As a result of the success of the GEAR UP Scholars program, GEAR UP sought to create a similar program statewide—the Step Up Scholars Program—that would encourage all students to earn the BOERD. By this time, BOERD requirements had changed over the years, and, to earn the BOERD, students had to complete a more rigorous curriculum than the standard diploma. The purpose of the new program was to influence the Board of Education (BOE) to adopt a more rigorous college and career-ready diploma statewide and to encourage *all* students across the entire state—not just those at GEAR UP schools—to earn the more rigorous optional diploma.

² Hawai‘i P-20 Partnership for Education. (2010). *Finishing School, Staying in College: Results of the GEAR UP Scholars Program, 2006-2009*

Under the leadership of Hawai‘i P-20 Partnerships, stakeholders from University of Hawai‘i, the Business Roundtable, and the superintendent of the public schools formed a coalition to design a more rigorous diploma and convince the Board of Education that all students should be required to earn it. The “Step Up” or new BOERD diploma, which was first available to the class of 2013, is a more rigorous diploma than the previous BOERD course requirements because it requires four credits of math; passing the Algebra II end-of-course exam; taking more advanced science coursework; taking an advanced English course, such as Expository Writing; and completing a senior project (see requirements for classes of 2013 to 2015 compared to classes of 2010 to 2012 in appendix A). The coalition then set out to advocate for the adoption of a college and career-ready diploma that would be required of all public high school students. Advocacy work involved giving testimony to the BOE about the value of a more rigorous diploma and presenting data on the impact of increasing high school course rigor from national research and the GEAR UP Scholars program.

At the same time that the advocacy work moved forward, the Step Up Scholars program reached out to all eighth- and ninth-grade students in the state from fall 2009 through spring 2011. These students represent the graduating classes of 2013, 2014, and 2015. Because the program included students at GEAR UP and non-GEAR UP schools, it was funded jointly by GEAR UP and the Hawai‘i Department of Education (HI DOE), but was entirely administered by Hawai‘i P-20 Partnerships in Education. Hawai‘i P-20 staff members used GEAR UP funding to campaign for the program in all Title I schools and HI DOE funding to campaign in non-Title I schools. Table 1 describes the theory of change tied to each component of the Step Up campaign and program, and below the table we provide details on each component.

Table 1. Step Up Scholars Program Theory of Change, Prepared by Gear Up Staff

Strategy	Description	Theory of Change	Expected Outcomes
Strategy 1	Provide incentives to encourage students to “Step Up” and pledge to get the BOERD	More rigorous coursework will prepare students to successfully enter and complete postsecondary education	Students will successfully enter and complete postsecondary education
Strategy 2	Provide information about course-taking and BOERD requirements	Well-informed students are more likely to take the required coursework for the BOERD on-time to earn the BOERD at graduation.	Step Up Scholars will graduate with the BOERD
Strategy 3	Provide events and information about college and career readiness preparation	Well-informed students are more likely to apply for financial aid and to postsecondary	Students will apply for financial aid and apply to postsecondary
Strategy 4	Offer incentives to students who graduate with the BOERD	Awards for receiving the BOERD will help keep students motivated to stay on track to earn the BOERD at graduation	Step Up Scholars will graduate with the BOERD

Encouragement to pledge. The campaign used multiple venues and methods to build awareness of the Step Up Scholars program and encourage students to pledge to be scholars. These included spreading the word about the program and the value of the more rigorous diploma through newspapers, magazines, and radio stations; appearing on television morning shows to talk about the program; sending postcards to all public school eighth- and ninth-grade students, encouraging them to pledge; and presenting on the Step Up Scholars program to students and their families at community events and middle and high schools.

An important part of the campaign also included incentives to schools that signed up 50 percent or more of their classes. These schools received a free bus to a college or career preparation activity and/or free PSAT or ACT's PLAN for the entire class. The school incentives were an effective strategy, but two respondents suggested they may have overshadowed the overall purpose of the Step Up program. For example, one counselor felt that "[Step Up] turned into a drive to get signatures so that we could get PSAT paid for."

GEAR UP staff faced other challenges during the campaign as described by one staff member:

Pushing for more rigorous requirements for high school graduation was a tough sell at that time, particularly for those Title I schools. School administrators and teachers were feeling overwhelmed already to get their students to graduate from high school with a basic high school diploma, let alone new requirements. Some school administrators simply told us they were not equipped to take this new level of rigor.

However, a high school administrator provided a positive perspective on the campaign:

There was a push in ninth grade. The district got behind it. The counselors did presentations and passed out a pledge form. Initially, with the push to pledge, kids were made aware of what they needed to do to go for the BOERD. Our students also developed a commercial. It was aired on TV all over the state.

The campaign was very successful: 14,280 students pledged to be Step Up Scholars, representing 32, 36, and 41 percent of the students in the classes of 2013, 2014, and 2015, respectively, in the state.

Information to scholars. Students who pledged to be Step Up Scholars receive college-prep information throughout their high school career. They receive a welcome packet, graduation packet, and regular communication through newsletters and postcards sent to their home address, as well as information through emails, the Step Up website, and Facebook page. These resources provide a broad range of college and career preparatory information on 1) the value of the BOERD, high school math, and college; 2) the requirements of the BOERD and tips on how to meet the requirements; 3) advice on how to develop academic and non-academic skills (e.g., note-taking) that are necessary to succeed in college and career; 4) guidance on the college application process; 5) information on the cost of college, tips on paying and saving for college,

and financial aid terms and resources; and 6) average salaries of careers in the state and connections between college and career. Scholars also receive postcards with notices about summer opportunities, including internships, jobs, courses, and volunteer opportunities, intended to help students prepare for college.

Events for scholars. Scholars regularly receive notices about college and career preparation events (e.g., see table 2 below). GEAR UP partners with the University of Hawai‘i and community-based organizations to organize and hold events across the state that include college visits to the University of Hawai‘i and events and fairs to learn how to earn the BOERD, explore colleges and careers, apply to college, and sign up for the Free Application for Federal Student Aid (FAFSA).

Table 2. Sample postcard received by scholars about a Step Up event

Hey Step Up Scholar!

You're invited to attend a special session just for Step Up Scholars at **The Mānoa Experience!**

“Step Up For Your Future” at The Mānoa Experience – Saturday, February 23, 2013, 10:30am-12:00pm Art Auditorium, University of Hawai‘i at Mānoa Campus

You'll hear from current college students and learn about dorm life, activities, and preparing for college. There will also be a Human Resource professional at the session to provide you with job interviewing and resume writing tips!

The “Step Up For Your Future” session is just one of the many activities for Step Up Scholars and their families during The Mānoa Experience. You must register in order to attend! To register for the event go to: <http://manoaexperience.eventbrite.com/#>

Note: Tickets are only required for students. After registering, you will also be able to download a free parking pass.

IMPORTANT: After registering for The Mānoa Experience, please email Cherry Torres (Step Up Scholars Program Manager) at cherryt@hawaii.edu to register for the “Step Up For Your Future” session with your:

- 1) Name
- 2) Number of people that will be attending the “Step Up For Your Future” session
- 3) Preliminary questions to ask our panel of college students (optional)

If you're unable to email with the information above, please call us at 956-3879. The Mānoa Experience will be held at the McCarthy Mall from 9:00am - 12:00pm and we will have signs leading you to the Art Auditorium for the “Step Up For Your Future” session.

We hope to see you there!

Incentives to earn the BOERD. GEAR UP worked with university and private sector partners to set up incentives to encourage scholars to earn the BOERD. These include priority college admissions, college scholarships, and career advancement through internships and local

employers waiving a required math exam. A relatively small number of students who earned the BOERD in the class of 2013 received these incentives (see table 3).

Table 3. Incentives awarded to Step Up Scholars in class of 2013

Type of Incentive	Number of students	Description of incentive
Priority college admissions	74	<ul style="list-style-type: none"> • <i>UH-Hilo, UH-West O'ahu, and UH-Manoa prioritized acceptance to students who earned the BOERD.</i>
College scholarships	4	<ul style="list-style-type: none"> • <i>The "Fukunaga Scholarship" through the Servco Foundation awarded \$16,000 over four years to recipients.</i>
Internships	4	<ul style="list-style-type: none"> • <i>Hawai'i Electric Company and Maui Electric Company awarded two internships each.</i>

Perspectives on Impact

Step Up employed a multi-prong approach to affecting change, and, as a result, may have a number of different impacts. It seems to have fulfilled its role as a catalyst for policy change. According to most school staff we interviewed, the campaign increased statewide awareness of the importance of earning a more rigorous high school diploma, and behind the scenes, the coalition successfully worked to convince key shakers and movers that all students in the state of Hawai'i should be expected to earn this diploma. Their efforts led to a new college and career-ready diploma that became the minimum requirement for all students in the state of Hawai'i, beginning with the class of 2016. It is similar to the optional "Step Up" diploma, but does not require the senior project, includes only three credits of math, and does not require passing the Algebra II end-of-course exam (see exact requirements in appendix A).

While many stakeholders felt that Step Up has had an influence on education policy, most were unsure of the precise effect the program has had on individual scholars. Almost all counselors and administrators interviewed viewed Step Up as a promising program with value because it is an additional source of information about college preparation for Step Up Scholars and emphasizes positive messages about postsecondary readiness and success that are important for students to hear as much as possible from many different sources. According to one counselor,

How Step Up has impacted me is that when Step Up mails things to students, they come to me to talk about it and I can get students to do things I have been telling them over and over to do but they never do. It is helpful for them to hear it from an outside source. It is better that they get the information right at home.

However, all school staff perspectives tended to reflect the opinion of one counselor who said that "the campaign should have continued after the pledge." School staff described an enormous amount of information and energy around getting students to pledge to be Step Up Scholars and learn about the "Step Up" diploma, which ended as soon as the campaign was over. A few school staff members thought that their high schools should have continued that momentum by tracking students' progress towards the BOERD and providing incentives for students for reaching certain milestones. A number of school staff members were not even aware that the program has continued after the campaign. In other words, they did not know that Step Up Scholars receive resources in the mail, are invited to events, and are eligible for incentives.

Student perspectives from a survey of Step Up Scholars also paint a mixed picture of the potential impact of Step Up. Only about half of scholars said they received help from school staff to complete the BOERD diploma requirements. This suggests that for some scholars, school participation or involvement in Step Up is minimal. Yet, respondents still seem to find the program useful. Around 80 percent of Step Up Scholars surveyed reported that the welcome packet, monthly emails, and newsletters by mail from GEAR UP are "somewhat" or "very helpful," and two-thirds reported they were on track to complete all required courses to earn the BOERD.

Impact Study

Currently, initial descriptive results from the class of 2013 find that 27 percent of Step Up Scholars statewide, versus 7 percent of non-Step Up Scholars, earned the BOERD. This is promising, yet does not account for differences in these two groups of students. For example, compared to non-Step Up Scholars, the Step Up Scholars may be more motivated or different in other ways, which explain their higher rates of BOERD completion, not their Step Up participation.

The external evaluation of GEAR UP includes an impact study of the Step Up Scholars program to identify if Step Up Scholars are more likely to take more rigorous coursework in high school, earn the BOERD, enroll in college, and persist in college compared to a matched group of similar students who did not pledge to be Step Up Scholars. To conduct the impact study, we are using longitudinal data from the HI DOE. The treatment group includes Title I Step Up Scholars in graduating classes of 2013, 2014, and 2015. The comparison group is selected from students who did not participate in the Step Up Scholars Program in the same Title I schools in the same graduating classes, but who are nearly identical across observable characteristics to the Step Up Scholars. See appendix B for more details on the impact study design and methodology.

The impact study is in its initial phases, but currently we have preliminary findings on the relationship between Step Up participation and performance on the 10th grade Hawai'i state assessment (HSA) in reading and math for the classes of 2013, 2014, and 2015. Performance on the state assessment is not a primary outcome in this study, but may be a potential mediator that explains other postsecondary outcomes. The impact study found that Step Up Scholars performed better on the HSA than similar non-Step Up Scholars. Participation in Step Up was associated with an increase of three percentile points on the reading HSA and six percentile points on the math HSA. All effects for the classes of 2013, 2014, and 2015 are statistically significant, except for the effect on 10th grade HSA reading score for the class of 2015.

While these initial findings are promising, we hesitate to make any broad conclusions about Step Up's impact on individual scholars until we assess its impact on the primary outcomes of high school course-taking, earning the BOERD, and postsecondary enrollment and persistence. Qualitative data suggest that identifying the impact of Step Up on these outcomes may be a challenge for two major reasons.

First, the dosage of services received by Step Up Scholars varies significantly depending on participating schools and individual students. For example, some schools seem to have tracked or supported student progress towards the BOERD more than others. Most importantly, students who are more motivated, read the mail they receive, and/or check their email are more likely to be informed of and benefit from various college-prep resources, opportunities, and events.

Second, the behind-the-scenes work to affect systemic change in the state of Hawai‘i may result in a broad impact on Hawai‘i students, not just Step Up Scholars, and Step Up resources seem to have reached more students than just the Step Up Scholars. All college counselors we spoke with said they collect the newsletters and information GEAR UP delivers to Step Up Scholars, make copies of the documents, and distribute them to every student in the school. At all counselor offices that we visited, Step Up newsletters and other documents (for example, a document on tracking progress towards the BOERD) were hanging on the walls outside or inside the counselor’s office. Counselors found the information very useful and appreciated that the entire state was receiving the same information about graduation requirements, financial aid, college preparation, and career exploration. The broad reach of Step Up may dampen the impact of Step Up on scholars and/or make it difficult to identify its impact on individual scholars.

With these challenges in mind, we will continue to investigate the impact of Step Up on individual scholars as they progress through high school and into postsecondary education. Interview data suggest that it will be important to look at variation in Step Up impact’s across Title I schools because of possible variation in tracking and encouraging progress toward the BOERD. Findings will provide key information to education stakeholders in Hawai‘i and across the country regarding the impact of encouraging students to take more rigorous coursework in high school.

Guiding Questions

These six sets of guiding questions are intended to help readers use this brief to inform their own work. For example, the brief may be used by HI DOE leadership to help inform their plans for developing and promoting a college and career readiness culture in schools statewide.

1. Reflecting on the table in appendix A, how have the Hawai'i high school diploma requirements changed over the years?
 - a. How have they become more or less rigorous?
 - b. What additional changes, if any, would improve the alignment of secondary-postsecondary standards and curriculum?
2. What features of the Step Up Scholars program do you think are most important for students' college readiness and success?
 - a. Incentives (e.g., free PSAT and buses to college preparation events) to schools to encourage students to take more rigorous coursework
 - b. Incentives (e.g., priority college admissions, college scholarships, and internships) to students to take more rigorous coursework
 - c. Materials mailed to students' home about college preparation and the college/financial aid application process
 - d. Online resources for students about college preparation and the college/financial aid application process
 - e. Events for students about college preparation and the college/financial aid application process
3. Now that all students must earn the same type of diploma beginning with the Class of 2016, what features of the Step Up Scholars program are important to continue, invest in, and sustain?
4. The Step Up statewide campaign used TV commercials, the radio, an online presence, and other media venues to build awareness regarding the importance of earning the BOERD and preparing for college and career. What do you think were the most effective elements of the Step Up campaign?
 - a. How can they be sustained so that the state continues to promote a college and career readiness culture?
 - b. What are additional strategies for maintaining a statewide college and career readiness culture?

5. Step Up focuses on encouraging students to take more rigorous coursework in high school. What are some challenges related to increasing the number of students who take more rigorous coursework?
 - a. What challenges do schools face in offering a larger variety or more sections of advanced courses? What challenges do schools face in offering advanced courses to a wider range of students within the school?
 - b. What challenges do students face in accessing or taking advanced courses? What challenges do students face in successfully completing advanced courses?
 - c. What strategies may help alleviate these challenges?

6. What additional programs and policies are key to preparing students for college and career?

Appendix A: Hawai'i High School Diploma Requirements

Table A1. Hawai'i High School Diploma Requirements

Subject	Requirements apply to graduating classes of...					
	2005 to 2009	2010 to 2012		2013 to 2015		2016 onward
	HS Diploma ^a	HS Diploma	BOERD	HS Diploma	BOERD ("Step Up" Diploma)	HS Diploma ^c
English	4 credits	4 credits *must include ELA 1, ELA 2	4 credits *must include ELA 1, ELA 2	4 credits *must include ELA 1, ELA 2	4 credits *must include ELA 1, ELA 2, and Expository Writing ^b	4 credits *must include ELA 1, ELA 2, and Expository Writing
Math	3 credits	3 credits	3 credits	3 credits	4 credits *must include Algebra 1, Geometry, and Algebra II	3 credits *must include Algebra 1, Geometry, or 2-year Common Core sequence ^d
Science	3 credits	3 credits	3 credits	3 credits	3 credits *must include Biology, Chemistry, and/or Physics	3 credits *must include Biology and Laboratory Sciences
Social Studies	4 credits	4 credits	4 credits	4 credits	4 credits	4 credits
World Language, Fine Arts, & CTE	0 credits	2 credits	2 credits	2 credits	2 credits	2 credits
Physical Education	1 credit	1 credit	1 credit	1 credit	1 credit	1 credit
Health	0.5 credit	0.5 credit	0.5 credit	0.5 credit	0.5 credit	0.5 credit
Personal Transition Plan	0.5 credit	0.5 credit	0.5 credit	0.5 credit	0.5 credit	0.5 credit
Electives	6 credits	6 credits	6 credits	6 credits	5 credits	6 credits
Other			<ul style="list-style-type: none"> Senior Project (1 credit) 		<ul style="list-style-type: none"> Senior Project (1 credit) Pass the Algebra II End of Course exam 	<ul style="list-style-type: none"> Senior Project optional- counts as 1 elective credit
Total	22 credit	24 credits	25 credits	24 credits	25 credits	24 credits

Notes: Graduation requirements retrieved from HI BOE site: <http://www.hawaiiboe.net/policies/4500series/Pages/4540.aspx>

^aStudents earn BOERD by achieving a 3.0 cumulative GPA or higher.

^bExpository Writing requirement may be met by completing an Advanced Placement or International Baccalaureate English course.

^cCredits may also be earned with newly-developed Common Core State Standards (CCSS) proficiency-based equivalents.

^dMath requirements may be fulfilled by a series of courses that satisfy the minimum learning expectations of the CCSS for Mathematics.

Appendix B: Impact Study Details

The impact study is led by Malkeet Singh, a Senior Researcher at Education Northwest and external evaluator of HI GEAR UP.

The impact study will focus on the student population at Title I schools with Step Up Scholars and non-Step Up Scholars in graduating classes of 2013, 2014, and 2015. The impact study will address the following key questions:

1. What is the impact of the Step Up Scholars program on participants' academic preparedness, academic tenacity, and college knowledge, as measured by rigorous high school course-taking and earning the BOERD?
2. What is the impact of the Step Up Scholars program on participants' college outcomes, as measured by post-secondary enrollment, enrollment in credit-bearing coursework, persistence, and cumulative GPA?

In year 1 of the GEAR UP evaluation, we focus on the outcome of performance on the Hawai'i state assessment (HSA) because we do not have data on students' high school course-taking or postsecondary outcomes yet. We use two outcome variables for the current impact study: HSA reading and math scaled scores on the tenth grade assessment; scale scores on the HSA range from 100 to 500 and 300 is used as a cut-score for proficiency.

Method

The most reliable estimate of an impact is obtained through a randomized trial. Because the Step Up program cannot deny services to students who met the requirements to enroll in the program, random assignment to a treatment was neither feasible nor practical. We used a quasi-experimental approach to evaluate the program effects. The treatment group includes Title I Step Up Scholars in graduating classes of 2013, 2014, and 2015. The comparison group is selected from students who did not participate in the Step Up Scholars program in the same Title I schools in the same graduating classes. We use propensity scores to identify a group of non-Step Up Scholars who are nearly identical across observable characteristics to the Step Up Scholars.

In the context of this study, a propensity score can be understood as a statistical estimate of a student's likelihood of participating in the Step Up Scholars program based on a set of specified characteristics. To estimate propensity scores, we estimate a logistic regression where the dichotomous outcome variable is the treatment condition in the study that indicates the student pledged to be a scholar in 8th grade or 9th grade or did not pledge to be a scholar. Independent variables include all observed confounders, or observable characteristics of the treatment and comparison groups that predict both the treatment (i.e., pledging to be a scholar and thus receiving Step Up services) and outcomes. These include indicators of socioeconomic status based on student's free or reduced price lunch status, English Language Learner status, Special education status, gender, and race/ethnicity. In addition, independent variables include students' 3rd grade, 5th

grade, and 8th grade HSA reading and math scores. (However, when the outcome is 10th grade HSA scores, we do not use 3rd grade, 5th grade, and 8th grade reading and math scores to predict the propensity scores to prevent introducing collinearity between the propensity scores and the HSA scores.) We assess the comparability of the treatment and comparison groups based on the balance (i.e., similarity) of the confounding covariates. The propensity score is the estimated probability of a student pledging to be a Step Up scholar given these observed covariates. Essentially, individuals are matched according to their similar propensity scores to receive the treatment.

After we select a matched comparison group, we evaluate the average treatment effect on the treated (ATT) and the average treatment effect (ATE). We statistically control for all confounders that were originally used to estimate the propensity scores. The ATT answers whether the Step Up students benefited from the program, and ATE answers what would be the effect if all students (including non-Step Up scholars) were Step Up scholars. Therefore, the ATE provides information on the usefulness of extending the program to all students. To assess the treatment effect, we control for all confounders that we controlled for to estimate the propensity scores.

Preliminary Results

A positive effect was detected for Step Up scholars on HSA reading and math performance that is significant for all cohorts except the 2015 cohort in reading. The average effect size is 0.07 in reading and 0.15 in math. According to Cohen’s guidelines, the magnitude of the impact on assessment performance is “small” for math and “very small” for reading.³ Converting the effect sizes to scale scores means that the Step Up scholarship raised students’ scores by approximately three percentile points on the reading HSA and six percentile points on the math HSA.

Table B1. Step Up ATT impact on 10th grade HSA reading and math performance

	Coefficient on Step Up participation (standard error)	95% Confidence Interval		Effect Size, Cohen’s d (standard error)	P-value
<i>Cohort 2013</i>					
HSA 10th Read	1.42 (0.41)	0.61	2.22	0.09 (0.025)	0.001
HSA 10th Math	2.88 (0.50)	1.91	3.86	0.14 (0.025)	0.000
<i>Cohort 2014</i>					
HSA 10th Read	1.02 (0.38)	0.27	1.77	0.07 (0.025)	0.008
HSA 10th Math	2.42 (0.48)	1.47	3.36	0.12 (0.026)	0.000
<i>Cohort 2015</i>					
HSA 10th Read	0.71 (0.40)	-0.07	1.49	0.04 (0.025)	0.076
HSA 10th Math	3.70 (0.50)	2.72	4.67	0.18 (0.025)	0.000

2013 cohort sample sizes: Step Up $n = 2906$ and non-Step Up $n = 3748$

2014 cohort sample sizes: Step Up $n = 3212$ and non-Step Up $n = 3436$

2015 cohort sample sizes: Step Up $n = 3320$ and non-Step Up $n = 3190$

³ Cohen, J. (1988). *Statistical power analysis for the behavioral sciences (2nd ed.)*. New Jersey: Lawrence Erlbaum.

ATE findings also indicate a positive effect of the Step Up program on HSA performance. The average ATE effect size was 0.07 in reading and 0.16 in math. The magnitude of this impact would be considered “small” for math and “very small” for reading. Converting the effect sizes to scale scores means that the Step Up scholarship raised students’ scores by approximately three percentile points on the reading HSA and seven percentile points on the math HSA.

Table B2. Step Up ATE impact on 10th grade HSA reading and math performance

	Coefficient on Step Up participation (standard error)	95% Confidence Interval		Effect Size, Cohen's d (standard error)	P-value
<i>Cohort 2013</i>					
HSA 10th Read	1.45 (0.41)	0.64	2.26	0.09 (0.024)	0.004
HSA 10th Math	3.07 (0.48)	2.14	4.01	0.16 (0.024)	0.000
<i>Cohort 2014</i>					
HSA 10th Read	1.23 (0.38)	0.48	1.99	0.08 (0.024)	0.001
HSA 10th Math	2.62 (0.47)	1.70	3.55	0.13 (0.024)	0.000
<i>Cohort 2015</i>					
HSA 10th Read	0.71 (0.39)	-0.05	1.47	0.04(0.024)	0.068
HSA 10th Math	3.81 (0.48)	2.86	4.75	0.19 (0.024)	0.000

2013 cohort sample sizes: Step Up $n = 2647$ and non-Step Up $n = 4528$

2014 cohort sample sizes: Step Up $n = 2863$ and non-Step Up $n = 4310$

2015 cohort sample sizes: Step Up $n = 3007$ and non-Step Up $n = 3986$