

**The Experts Weigh in:
High-Achieving, Low-Income
Students Reflect on Their
Experience in and Impact of
a College Access Program**



PRINCETON UNIVERSITY PREPARATORY PROGRAM (PUPP)



ETS Research Report Series

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RESEARCH REPORT

The Experts Weigh in: High-Achieving, Low-Income Students Reflect on Their Experience in and the Impact of a College Access Program

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An evaluation of the Princeton University Preparatory Program (PUPP), a college access program for low-income, high-achieving public high school students, yielded favorable findings regarding the perceptions of program participants. Survey results, which include responses from all 71 participants in the 2015–2016 program, indicated that the participants perceived the program as positively impacting their academic and social–emotional skills, increasing their knowledge of the college application process, broadening their pool of target colleges, and exposing them to new arts and cultural experiences, as the program is intended to do. Scholars' responses also highlight the strength of the PUPP community and social network and confirm that PUPP is helping some scholars to address personal and financial challenges that could prevent them from participating in educational experiences such as PUPP. Findings also highlight the PUPP academic enrichment program as a possible area for growth.

Keywords College access programs; minority students; access to education; high school graduates; selective colleges; college preparation; low-income students; cost of college; college financial aid; college students; college bound; survey; cultural capital; social and emotional learning

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In summer 2015, Princeton University contracted with Educational Testing Service (ETS) to conduct an evaluation of the Princeton University Preparatory Program (PUPP), a college access program developed by Princeton University faculty and staff. Since 2001, PUPP has been providing college preparation support for low-income, high-achieving students from six public high schools in the communities surrounding the university. PUPP was designed to prepare its high school student participants, known as PUPP scholars, to apply to and succeed at selective colleges and universities. It aims to prepare PUPP scholars through a high-touch, intensive 3-year, year-round program focused holistically on developing skills across multiple domains—academic and social–emotional skills and cultural knowledge and familiarity—while also providing social support and mentoring and solutions for the challenges PUPP scholars' families face as a result of living in poverty.

PUPP activities are provided during the summer and academic year. Summer activities include an overnight experiential leadership development retreat, a 6-week summer institute, college visits, college fairs, arts and cultural experiences, mentoring, and family supports. School-year activities include weekly academic enrichment sessions, academic advising, cultural experiences, multiday college tours for juniors and seniors, college fairs, mentoring, and family supports. Senior PUPP scholars are also provided with personalized guidance on their college admissions and financial aid applications. Furthermore, PUPP alumni are supported through the transition from high school to college through summer bridge and other college orientation activities and throughout their college years through informal check-ins. PUPP strives to implement many college access program practices with demonstrated effectiveness, including providing mentoring and personalized support and offering academically rigorous activities and advising for participants.

In March 2016, the 71 current PUPP scholars completed the PUPP Scholar Survey¹ as part of the PUPP evaluation. Designed to collect their feedback on program experiences, the PUPP Scholar Survey comprised 27 questions on PUPP scholars' perspectives, as the program recipients, on what is working well and not working well about PUPP, how the PUPP experience is affecting them, and what suggestions they have for future directions for PUPP. The PUPP

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The PUPP Experience

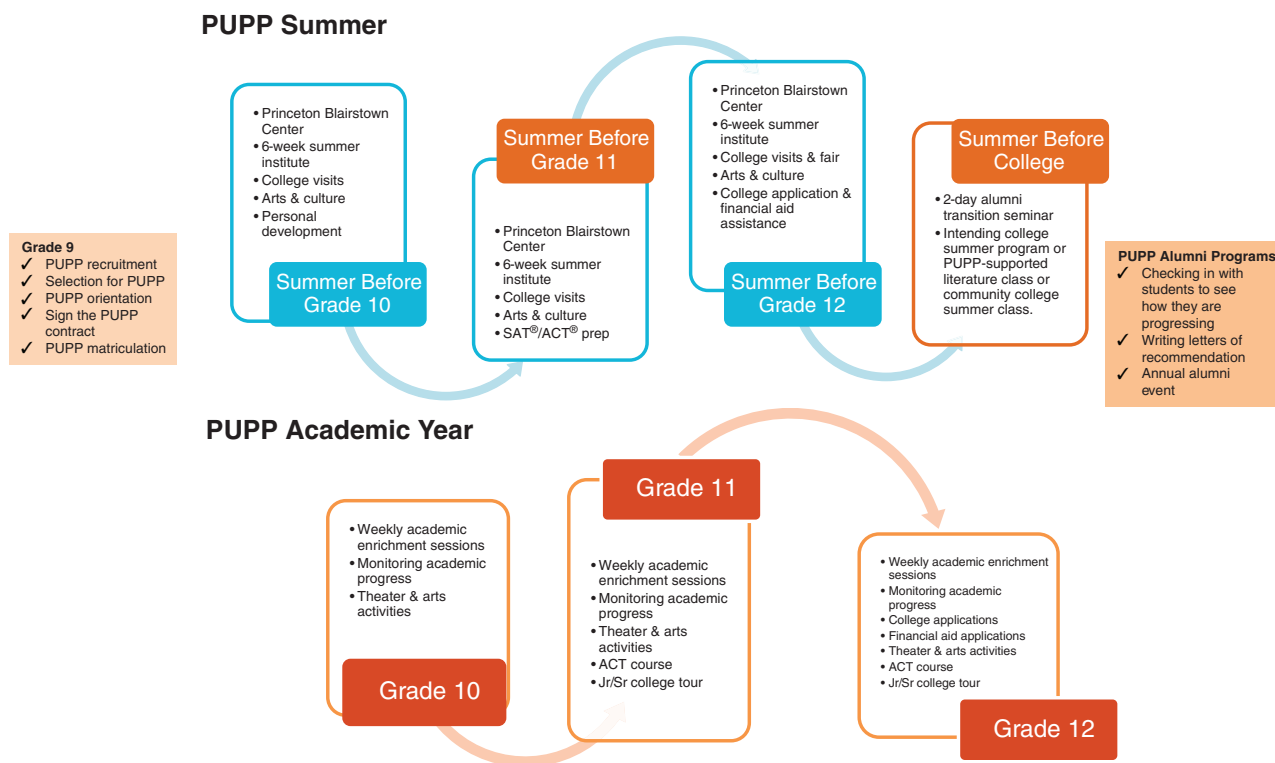


Figure 1 Princeton University Preparatory Program academic year and summer activities by program year.

Scholar Survey is central to the ETS evaluation of PUPP as a vehicle for communicating the perspectives of the complete population of current PUPP scholars. The findings of this survey are also summarized in the final PUPP evaluation report, which covers the findings from all of the PUPP evaluation activities conducted by ETS (Millett & Kevelson, 2018).

In this summary report, we present the survey methodology, a demographic profile of the current PUPP scholars, and results from the PUPP Scholar Survey.

Survey Methodology

Between summer 2015 and spring 2016, ETS researchers benefited from multiple opportunities to observe PUPP activities and speak with PUPP team members, including faculty, teaching fellows, and teaching assistants, during data collection activities. These activities informed our understanding of the many experiences PUPP provides for its scholars (see Figure 1). This understanding, in turn, informed our development of the PUPP Scholar Survey (see Appendix A for the full survey).

We developed the PUPP Scholar Survey to address the ETS evaluation questions on PUPP scholar experiences and perceptions of impacts (see Appendix B) as well as on the strengths and weaknesses of programming. We also aimed to address several of the topics outlined in the PUPP evaluation scope of work, including social – emotional skill development, mastery of the PUPP priority skills, the value added to PUPP to scholars and their families, and the experiences of PUPP scholars through the years and in specific program activities. We also invited PUPP staff to share their suggestions for additional topics to be covered by the survey that could inform their programming plans. We then identified several key questions to address all of these topics, to guide our development of the survey. These included the following:

1. What were PUPP scholars’ expectations at the outset of their enrollment in PUPP, and to what extent have their PUPP experiences met these expectations?

2. What have been the PUPP scholars' experiences with the various components of PUPP, such as the summer institute, the academic year programming, and the cultural excursions? How different are PUPP scholars' experiences in PUPP academic sessions and their academic experiences at their high schools?
3. What have been the PUPP scholars' experiences with the college planning, preparation, and application processes? To what extent have these experiences increased their own and their parents' knowledge of these processes?
4. What are PUPP scholars' college plans, and who has shaped them? To what extent have the PUPP college exposure activities influenced PUPP scholars' college plans?
5. To what extent have the PUPP scholars' noncognitive skills changed since they applied to PUPP?
6. To what extent do PUPP scholars report PUPP has influenced their skills in the areas of knowledge acquisition, critical thinking, communication, and their internal and external attitudes and behaviors (the PUPP priority skills)?
7. How has PUPP helped the PUPP scholars address personal and financial challenges (their own and their families')?
8. What are the PUPP scholars' reflections on the PUPP experience? What changes or enhancement do they suggest?

We developed the survey instrument in January and February 2016 through an iterative and collaborative process in which the PUPP leadership team was invited to review drafts as they were produced. After several rounds of reviews and discussions, the refined survey instrument was piloted in February with four PUPP scholars (two seniors and two sophomores) during an academic enrichment session at one PUPP partner high school. PUPP scholars were asked for their feedback on the clarity of the questions and the extent to which they were understood to mean what they were intended to mean. PUPP scholars in this pilot group provided helpful feedback and even suggested additional questions to capture their reflections on the PUPP scholar experience.

Upon invitation, nine ETS research staff (including research scientists and associates) attended a survey feedback session on the ETS campus. During the feedback session, survey language and administration processes were reviewed to ensure the validity of the instrument. The survey was then finalized and transferred to the Survey Gizmo online survey platform. ETS staff tested the online survey and reviewed data produced by the test administration to ensure functionality of all survey questions and back-end data retrieval processes.

The PUPP Scholar Survey has 27 questions (see Appendix A). Nineteen of the questions used a forced-choice format, including the response option "prefer not to respond." Six of these 19 forced-choice questions were followed by open-ended short-answer questions. Eight additional open-ended survey questions gave PUPP scholars an opportunity to provide their insights on their PUPP experiences. Students were also given the opportunity not to respond to each of the 14 total open-ended questions.

PUPP scholars were asked to complete the survey online during the academic enrichment sessions held on March 14–16, 2016, using computers provided by the PUPP partner high schools. PUPP scholars who were not present at these sessions were asked to use the survey Web link to complete the online survey on their own time. PUPP scholars were not offered incentives to respond but rather were encouraged to complete the survey as a way of participating in the evaluation of PUPP. After multiple rounds of reminder e-mails, we achieved a survey response rate of 100%.

Prior to presenting the survey findings, we present a demographic profile (high school, gender, and race/ethnicity) of the 2016–2017 PUPP scholars based on the demographic data that PUPP program staff provided to ETS. PUPP staff typically collect these data on the PUPP application at the end of ninth grade. We tabulated item response frequencies for all closed-ended (i.e., Likert scale, yes–no, and check all that apply) survey items and developed tables and figures to present results. We used a structured coding process to assign numerical codes to responses to all open-ended (essay-type) survey questions, after our qualitative coding team identified the overarching themes and subthemes of these responses. We also tabulated frequencies of these numerical codes.

Although we were fortunate to gather data from the complete population of current PUPP scholars, enabling us to generalize the findings to all current scholars, several limitations to survey research must still be considered. The self-report nature of the survey is one limitation, in that there are no behavioral or observational data available for corroboration. Another limitation is the social desirability bias inherent in asking program participants about a program that is providing important supports that may facilitate their access to college and nurture their future career success. Respondents to any survey may be more likely to report experiences or give responses that are more socially acceptable than others or that make a positive impression (Paulhus, 1991). Furthermore, the PUPP Scholar Survey only provides a snapshot of the specific point in time at which it was administered—spring 2016.

Table 1 Princeton University Preparatory Program 2015–2016 Partner High Schools and School Districts

High school	School district
Ewing	Ewing Township
Lawrence	Lawrence Township
Nottingham	Hamilton Township
Princeton	Princeton
Trenton Central	Trenton
Trenton West	Trenton

Table 2 Princeton University Preparatory Program (PUPP) Scholar Population and Survey Respondent Profile

	High school						Total	%
	Ewing	Lawrence	Nottingham	Princeton	Trenton Central	Trenton West		
PUPP cohort								
2016 (seniors)	2	2	6	2	7	4	23	32
2017 (juniors)	6	2	5		8	3	24	34
2018 (sophomores)	2	6	4	3	5	4	24	34
Gender								
Female	5	4	8	4	12	6	39	55
Male	5	6	7	1	8	5	32	45
Race/ethnicity								
Asian		1	1				2	3
Black/African American	3	2	7	1	4	5	22	31
Hispanic/Latino	2	5	6	3	14	3	33	46
Multiracial	1			1	1	3	6	8
Other			1				1	1
Pacific Islander/Native Hawaiian	1						1	1
White	3	2			1		6	8

Note. $N = 71$.

Profile of the Princeton University Preparatory Program Scholars

Seventy-one PUPP scholars were participating in PUPP in academic year 2015–2016. These scholars attended six public high schools in five school districts in New Jersey (see Table 1).

The PUPP cohorts (or classes) are approximately the same size (see Table 2). The 2016–2017 program served 23 high school seniors, 24 juniors, and 24 sophomore students. Fewer males ($N = 32$, or 45%) participated in PUPP than females ($N = 39$, or 55%). Across the high schools, the numbers of male PUPP scholars ranged from a high of six (60%) in Lawrence High School to a low of one (20%) in Princeton High School. Hispanic scholars represented 46% of all PUPP scholars, and African American scholars represented 31% of all PUPP scholars. Slightly more than two fifths ($N = 14$, or 42%) of the Hispanic scholars attended Trenton Central High School, while 7 (32%) PUPP scholars from Nottingham composed the largest group of Black/African American scholars in a PUPP high school.

Princeton University Preparatory Program Scholar Survey Findings

The PUPP Scholar Survey has eight thematic sections addressing the key topics and questions outlined earlier. In the following sections, we present the findings from each survey section—(a) high school experiences and educational plans, (b) PUPP expectations, (c) PUPP experiences, (d) PUPP academic experience, (e) PUPP college exposure, (f) PUPP support of scholars and families, (g) scholars' social–emotional skills, and (h) reflections on the PUPP experience—and outline the scholars' suggestions for moving forward.

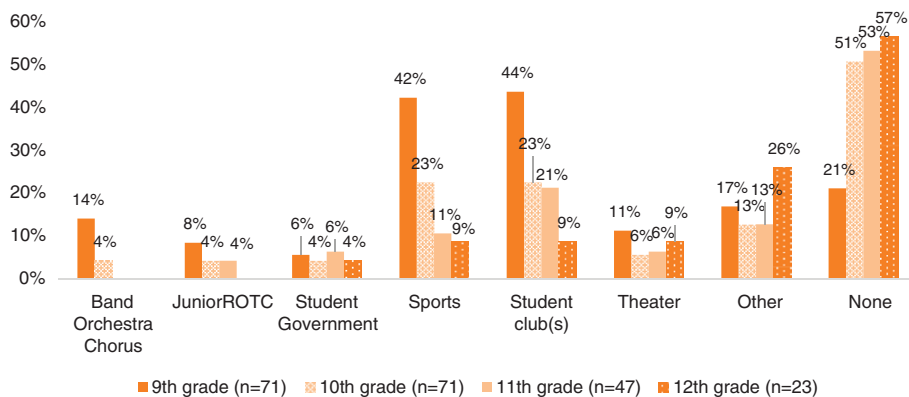


Figure 2 Scholar participation in extracurricular activities, Grades 9–12. Princeton University Preparatory Program (PUPP) scholars may have participated in more than one activity. Four percent of PUPP scholars preferred not to answer the question about 9th-grade activities, and 9% preferred not to answer the question about 12th-grade activities.

High School Experiences and Educational Plans

Survey questions in the educational plans and high school experiences section addressed PUPP scholars’ participation in high school extracurricular activities to provide an understanding of the extent to which students are balancing these activities with PUPP and schoolwork. We also investigated PUPP scholars’ perceptions of who has influenced their plans for life after high school to understand the extent to which parents, teachers, or PUPP staff may have influenced these plans.

We asked PUPP scholars about their participation in extracurricular activities (e.g., clubs and sports) over their 4 years of high school (see Figure 2), during Grade 9 (pre-PUPP), and while they were enrolled in PUPP during Grades 10–12. PUPP scholars participate in a variety of sports, including basketball, cheerleading, track, soccer, softball, and tennis. Similarly, PUPP scholars participate in a range of different clubs, such as Key Club (a student-led community service club affiliated with the Kiwanis International organization), Italian Club, Minority Student Achievement Club, and Volunteer Club. One pattern of participation that seems to be consistent across the different cohorts is that participation in sports and extracurricular activities declines as PUPP scholars advance through the grade levels. For example, 57% of senior PUPP scholars reported not participating in high school extracurricular activities, compared to 21% of PUPP scholars from the three cohorts reporting not participating in extracurricular activities in Grade 9.² This finding could be related to the increased time PUPP scholars may spend on advanced course work or on meeting PUPP demands in terms of college admissions and preparation for the SAT[®] and AP[®] tests.

In response to our question on when they knew they wanted to go to college, 65% of PUPP scholars indicated that they always knew they wanted to go to college (see Figure 3). Another 18% came to this important realization during middle school.

We asked PUPP scholars who has had the most influence on their plans for after high school (see Figure 4). Forty-one percent of PUPP scholars reported that they themselves had the most influence on their plans. PUPP scholars also reported that their parents (24%) or another family member (15%) had an influence on their plans. Another 11% of PUPP scholars reported that PUPP staff or teachers have influenced their plans for after high school.

Princeton University Preparatory Program Expectations

In an open-ended question, we asked PUPP scholars to think back to when they started PUPP and to reflect on what their expectations were for the program. Many PUPP scholars’ comments indicated that they expected to participate in college preparation activities, including academically rigorous courses and college entrance exam preparation. Many PUPP scholars also expected PUPP to help them select colleges to apply to and to help them get into these colleges; some of these PUPP scholars commented that they expected PUPP to help them get into more selective colleges than they might otherwise have attended. Some PUPP scholars commented that they expected PUPP to help them grow as people.

The following scholar quotations exemplify how PUPP scholars described their expectations for their experiences in PUPP:

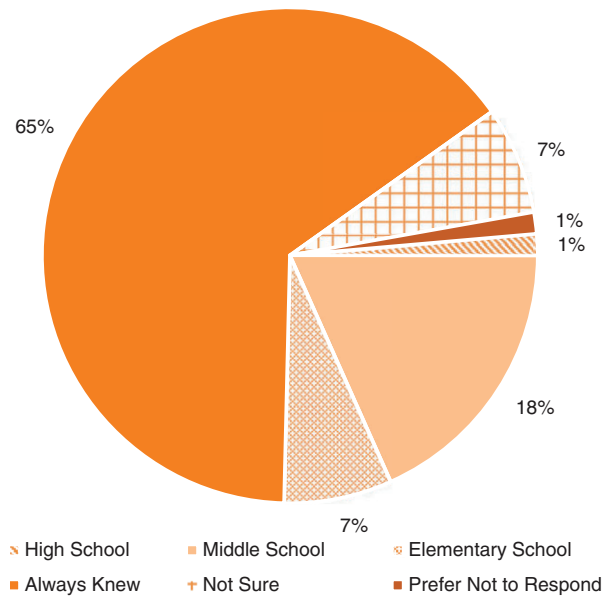


Figure 3 Approximate grade Princeton University Preparatory Program scholars were in when they decided to go to college (N = 71).

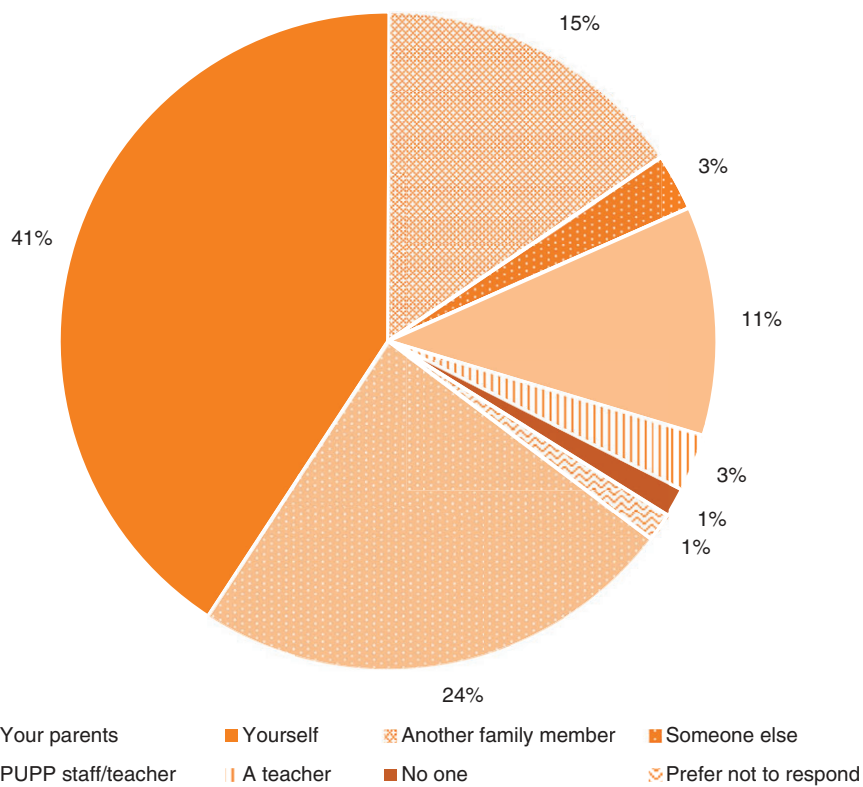


Figure 4 Persons with the most influence on Princeton University Preparatory Program scholars' plans for after high school (N = 71).

PUPP would make college a realistic goal. The program would guide me through the college application process. I expected to gain learning experience in a rigorous environment, obtain resources which school could not provide for me, such as fee waivers for the ACT or other tests, and to meet new PUPP scholars my age whom I can associate with.

I knew they would help with test prep and college admissions, as well as covering costs that would be considered a hardship to my family.

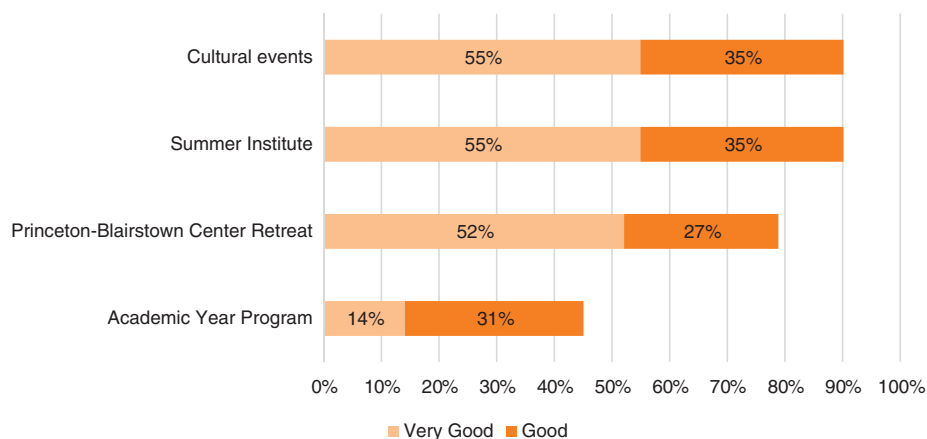


Figure 5 Princeton University Preparatory Program (PUPP) scholars report on their overall experience of PUPP activities (N = 71).

My expectations were that PUPP would help me grow as a person and would help me stay on the right path. When I was accepted into the program, I knew everything would be okay and that I had one of the best support systems behind me.

After PUPP scholars were asked about their expectations for PUPP, they were then asked how well PUPP is meeting these expectations. The majority of PUPP scholars reported that PUPP is meeting their expectations (52%) or has even exceeded their expectations (34%), while a minority (10%) indicated that PUPP has not met their expectations. Another 3% elected not to respond to the question.

The two core PUPP activities, the summer institute and the school-year academic enrichment sessions, were generally rated positively by PUPP scholars. The 6-week summer institute, which 85% of PUPP scholars rated good or very good, may be viewed more positively than the academic year program, which slightly less than half of PUPP scholars (45%) rated as good or very good. The 2-day Princeton – Blairstown Center leadership development retreat that launches the summer institute each year was rated as good or very good by 79% of PUPP scholars.

PUPP scholars reported on their experiences of specific PUPP activities (see Figure 5). PUPP scholars generally have positive views of the cultural events: 90% of PUPP scholars reported that the events are good or very good. Cultural events since July 2015 have included a mural arts tour in Philadelphia, a visit to the Museum of Modern Art in New York City, a performance of *La Traviata* by Opera Philadelphia, a performance of *The Curious Incident of the Dog in the Nighttime* on Broadway in New York City, and a performance of *The Piano Lesson* at McCarter Theater in Princeton.

Many of the PUPP college preparation activities are only offered to PUPP scholars in their junior and senior years of high school (see Figure 6). Of these, the college tours were highly rated by all tour participants; 100% of juniors and seniors rated them as good or very good. Eighty-five percent of junior and senior PUPP scholars reported that the test prep courses were good or very good. Financial aid guidance was rated good or very good by 59% of junior and senior PUPP scholars.³ Only the seniors were asked to rate the college application guidance; a majority (87%) of seniors described it as good or very good.

Princeton University Preparatory Program Experiences

The PUPP Scholar Survey includes several questions designed to gather data on PUPP scholars’ experiences of the summer institute, which PUPP scholars participate in for three summers, and the academic enrichment sessions, which PUPP scholars attend after school during their sophomore and junior years of high school, while seniors are working independently or with the PUPP counselor on college application – related activities.

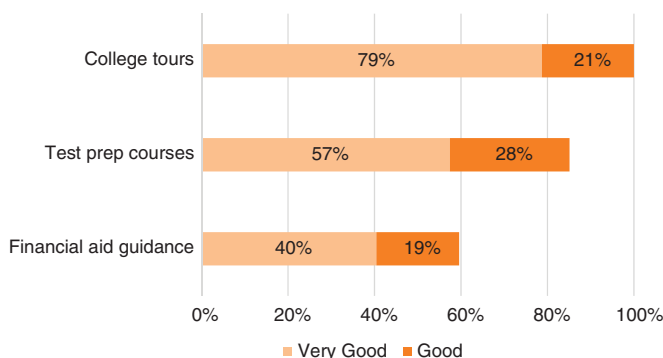


Figure 6 Cohort 2016 and 2015 Princeton University Preparatory Program (PUPP) scholars report on their experiences with PUPP college preparation activities ($N = 47$).

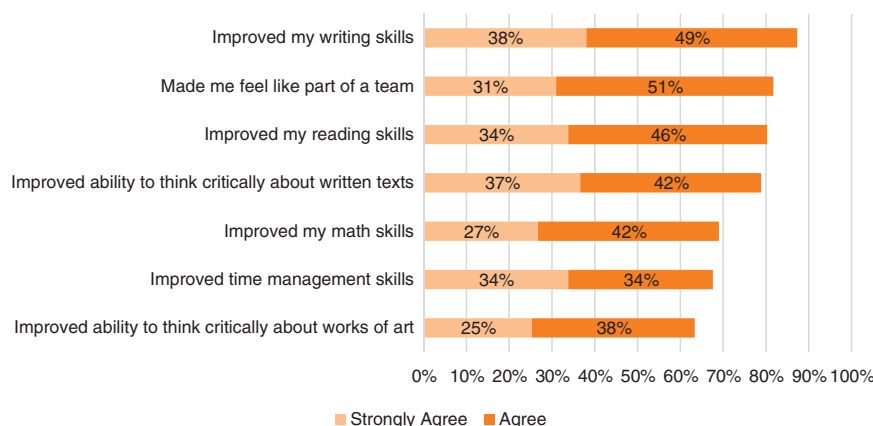


Figure 7 Princeton University Preparatory Program (PUPP) scholars report on skills developed and experiences provided by the PUPP summer institute ($N = 71$).

Summer Institute

Held on the Princeton University campus, the 6-week summer institute aims to help PUPP scholars build multiple academic skills to ensure their preparation for college (see Figure 7). On the PUPP Scholar Survey, PUPP scholars were asked about their level of agreement on the extent to which the summer institute influenced specific skills or provided specific experiences. PUPP scholars agreed or strongly agreed that participation in the PUPP summer institute helped to build their writing skills (87%) and reading skills (80%), among other skills. The majority of PUPP scholars (82%) also agreed or strongly agreed that the PUPP summer institute gave them the experience of being part of a team.

PUPP scholars were also asked if the academic activities of the PUPP summer institute challenged them. Seventy-seven percent of the respondents said yes, 1% said no, and 21% elected not to respond. Four themes emerged from their responses. Many students reported that the summer institute course work (mathematics, reading/literature, writing, and science) was challenging, others reported that the summer institute workload was demanding, some felt that the summer institute challenged their critical thinking skills, and a few felt prodded to move out of their comfort zone during the summer institute. The following quotations from PUPP scholars, provided as comments on the PUPP Scholar Survey, exemplify how PUPP scholars felt challenged by the summer institute and their perceptions of how the experiences impacted their skills:

Writing [during the summer institute] helped me to think on a deeper level than I was before. I was able to analyze graphs and draw comparisons/conclusions in sociology class.

The things that we do in our classes are more difficult than we would normally do in high school. For example, PUPP courses require more critical thinking and realistic approaches.

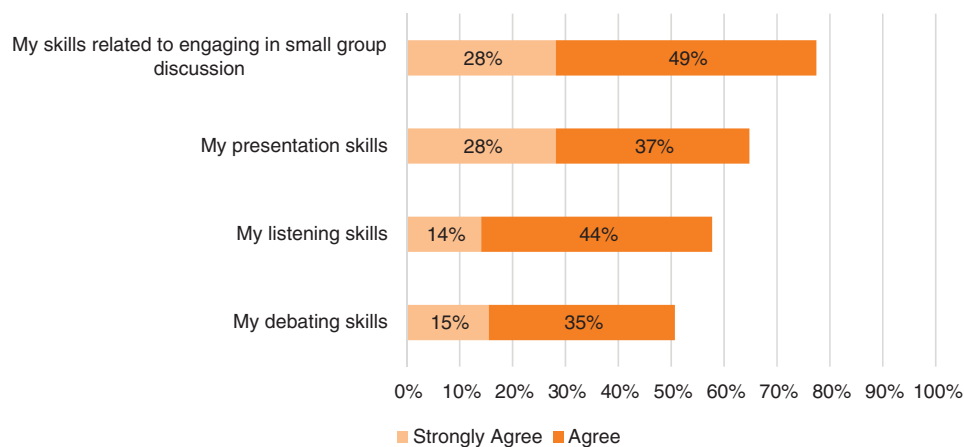


Figure 8 Princeton University Preparatory Program (PUPP) scholars report on skills developed by PUPP after-school enrichment sessions ($N = 71$).

The academic activities, as well as the teachers, often pushed me to think outside of my comfort zone and reach my full potential as a student.

The workload during the PUPP summer institute really pushed me to begin to develop time management skills. I struggle with procrastination and PUPP challenged me to produce my best work on time.

After-School Academic Enrichment Sessions

During the school year, PUPP conducts weekly after-school academic enrichment sessions with sophomores and juniors at the six partner high schools. As with the summer institute, the PUPP staff intends for the academic enrichment sessions to focus on the development of academic and social-emotional skills. On the PUPP Scholar Survey, PUPP scholars were asked how much they agreed or disagreed with statements about how their participation in the after-school enrichment sessions has aided their development of these skills (see Figure 8). Seventy-seven percent of PUPP scholars agreed or strongly agreed that their skills related to engaging in small-group discussions are being developed at these sessions. Sixty-five percent of PUPP scholars agreed that the academic enrichment sessions have helped them to develop their presentation skills.

PUPP scholars were also asked if the academic enrichment sessions challenged them. Seventy-five percent of the respondents said yes, 8% said no, and 17% elected not to respond. Among those who responded that the sessions were challenging, some reported that the academic enrichment session course work challenged their communication skills, their reading skills, and their writing skills. Some PUPP scholars also described how the academic enrichment sessions challenged their critical thinking skills and indicated that they found the workload challenging. The few students who felt that the academic enrichment sessions were not challenging suggested that the sessions should cover more interesting and personally relevant topics. The following quotations exemplify PUPP scholars' survey responses regarding how they were challenged by the academic enrichment session activities:

During the academic enrichment sessions, I am challenged to be a leader among my peers.

Often in the academic enrichment sessions, we have debates. These debates do not only challenge me to find a way to get my point across clearly and in a way comprehensible to others but also it pushes you to be opened minded.

The work added to my regular workload, which made me develop more time management skills.

Arts and Cultural Experiences

A signature component of PUPP is the exposure to and engagement with various arts events and cultural institutions (e.g., theater and museum trips) each year. Over the course of their participation in PUPP, scholars may see as many as 20 theater productions and visit up to 10 museums. We developed the PUPP Scholar Survey to gather data on PUPP scholars' experiences of the cultural events (see Figure 9). We learned that for the vast majority of PUPP scholars

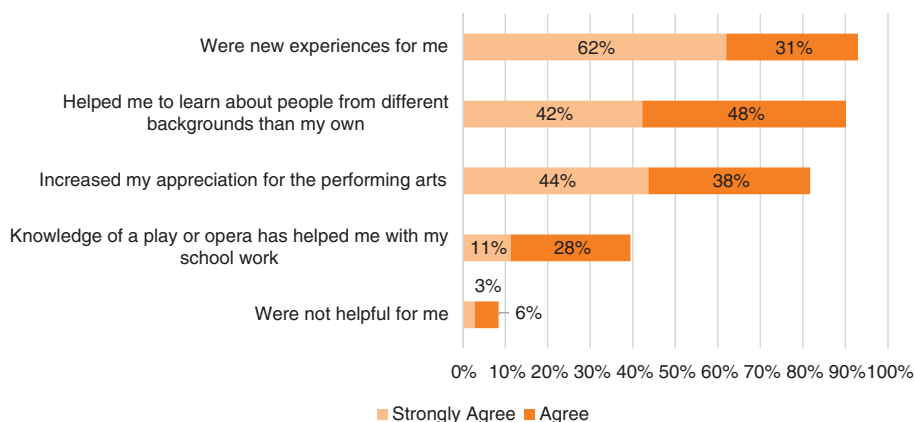


Figure 9 Princeton University Preparatory Program (PUPP) scholars’ experiences and perceptions of impacts of PUPP cultural events (N = 71).

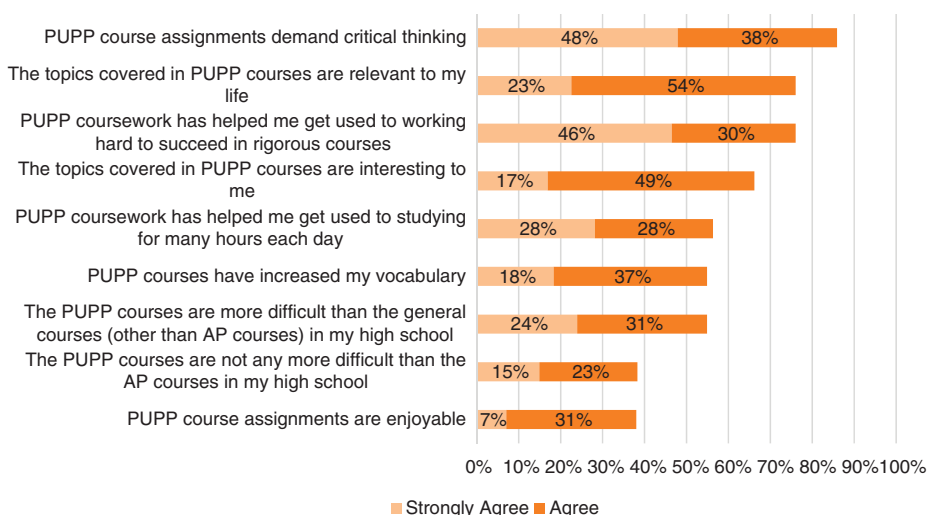


Figure 10 Princeton University Preparatory Program (PUPP) scholars report on their experiences of the PUPP curriculum and content (N = 71).

(93%), attending cultural events was a new experience. Perceived impacts of these experiences were generally positive. Ninety percent of PUPP scholars agreed or strongly agreed that attending these cultural events helped them to learn about people from different backgrounds than their own, and 82% agreed or strongly agreed that participation in the cultural events increased their appreciation of the performing arts. Thirty-nine percent agreed or strongly agreed that knowledge of a play or opera helped them with their schoolwork. This finding was particularly unexpected, as the PUPP staff do not necessarily select the performances or exhibits they attend with the high school curriculum in mind. Only a small minority of PUPP scholars (9%) agreed or strongly agreed that the cultural events were not helpful for them.

Princeton University Preparatory Program Academic Experiences

PUPP scholars were asked the extent to which they agreed or disagreed with a series of statements about the PUPP curriculum and content, to obtain data on their academic experiences in PUPP (see Figure 10). PUPP scholars tended to report that PUPP academic experiences were rigorous, as they are intended to be. Eighty-six percent of PUPP scholars agreed or strongly agreed with the statement that PUPP course assignments demand critical thinking, whereas 76% agreed or strongly agreed that PUPP course work has helped them get used to working hard to succeed in rigorous courses and that the topics covered in PUPP courses are relevant to their lives.

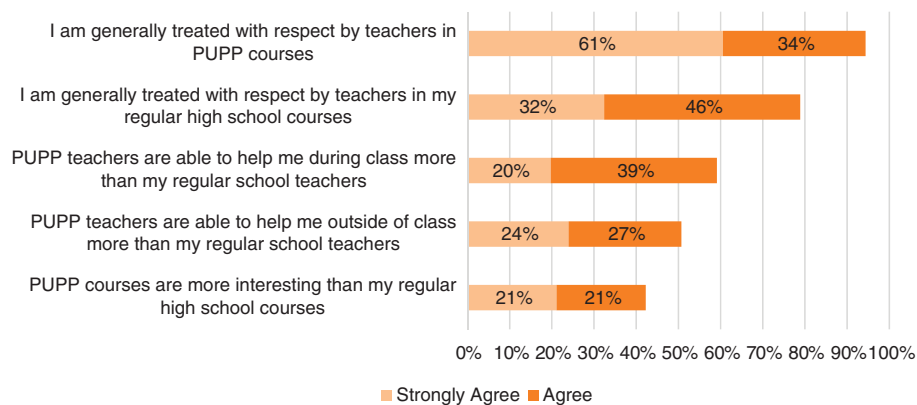


Figure 11 Princeton University Preparatory Program (PUPP) scholars report on how PUPP courses compare to their courses in high school ($N = 71$).

PUPP also strives to provide more rigorous academic experiences for PUPP scholars than those they may encounter in many of their high school courses. Confirming that PUPP is successful in this regard, 55% of PUPP scholars agreed or strongly agreed with the statement that PUPP course work is more difficult than the general courses (i.e., non-AP courses) at their high schools. Junior and senior PUPP scholars were asked if PUPP courses are more difficult than the AP courses they attend in high school, which are designed to be quite challenging; 38% of them agreed or strongly agreed that PUPP course are indeed more difficult than the AP courses in their high schools.

The PUPP staff and leadership team reported in interviews that they strive to provide high-quality, personalized teaching and learning experiences for the PUPP scholars. PUPP scholars answered a series of questions about their perceptions of the PUPP teaching and learning experiences, including additional questions about how they compared to courses in their high schools (see Figure 11). Almost all PUPP scholars (94%) agreed or strongly agreed that the PUPP teachers treated them with respect, whereas 79% of PUPP scholars agreed or strongly agreed that their high school teachers treated them with respect. More than half of the PUPP scholars agreed or strongly agreed that PUPP teachers had a greater ability than their regular schoolteachers to help them either during class (59% agreed or strongly agreed) or outside of class (51% agreed or strongly agreed). For these questions, the ETS research team attempted to look for high school-level differences in scholar responses; however, the small sample size and response variability yielded unreliable results.

To gather additional data on how PUPP courses are perceived compared to high school courses, we also asked PUPP scholars the extent to which they agreed that these experiences are different. Fifty-five percent of PUPP scholars agreed or strongly agreed that these experiences are different, 10% did not find the experiences to be different, and 35% preferred not to respond.

PUPP scholars also had the opportunity to provide more insight into how they view the PUPP academic experiences as distinct from their high school academic experiences in open-ended comments. The small number of students who reported no difference between PUPP and high school courses described the level of rigor as the same in both PUPP and high school courses.

Several students commented on the differences in the teaching and learning styles and credited PUPP with encouraging deeper, more detailed discussions of course topics and placing less emphasis on grades. PUPP scholars also credited PUPP with providing more social support and a stronger sense of community than their high school courses. The following quotations provide examples of how PUPP scholars view differences between PUPP course work and their high school course work:

I look at my PUPP experience as more on a college level and it makes you really think about the decisions you make in life.

The experiences are different because PUPP is more individualized and gives more one-on-one attention. In school, some of my teachers are not familiar with me. PUPP is more supportive and more like family than school. I feel more encouraged by PUPP.

With PUPP the intellectual atmosphere is powerful and very open for questions to be asked with no fear.

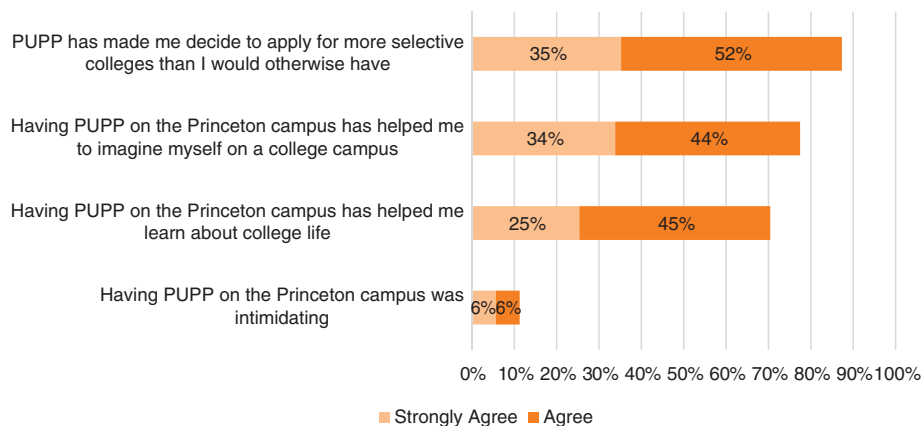


Figure 12 Princeton University Preparatory Program (PUPP) scholars report on PUPP activities related to college planning and preparation (N = 71).

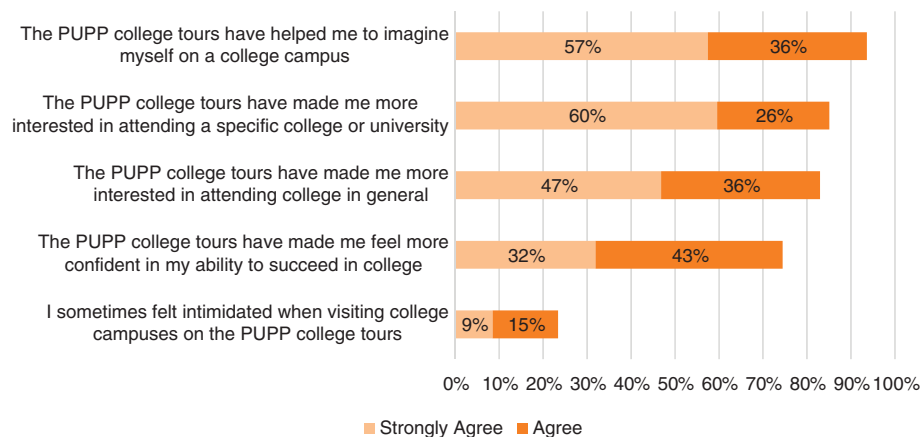


Figure 13 Junior and senior Princeton University Preparatory Program (PUPP) scholars report on PUPP college tours (N = 47).

Princeton University Preparatory Program College Exposure

Princeton University is one of the most highly ranked universities both in the United States and in the world. PUPP scholars were asked if being on Princeton’s campus and being in PUPP influenced their college plans and their perceptions of college as well as their own college options and experiences (see Figure 12). Eighty-seven percent of students agreed or strongly agreed that PUPP helped them decide to apply to more selective colleges or universities than they otherwise would have. Being on the Princeton University campus also seems to have benefits for PUPP scholars — 78% agreed or strongly agreed that having PUPP on the Princeton campus helped them imagine being on a college campus, and 70% agreed or strongly agreed that being on the Princeton campus helped them learn about college life. Only 12% agreed or strongly agreed that having PUPP on the Princeton campus was intimidating.

Junior and senior PUPP scholars were asked questions about the PUPP college tours (see Figure 13).⁴ The multiday regional trips to college campuses are viewed by PUPP staff and leaders as important program components, as they are intended to be helpful for PUPP scholars striving to understand their college options. These college trips focus on colleges and universities on the East Coast with an alternating focus on the mid-Atlantic area and North Carolina or New England and New York. PUPP scholars’ survey responses highlight several positive outcomes of these trips. Almost all junior and senior PUPP scholars (93%) agreed or strongly agreed that the PUPP college tours helped them imagine themselves on a college campus. Another 86% of junior and senior PUPP scholars agreed or strongly agreed that PUPP college tours made them more interested in attending a specific college or university. One scholar shared these thoughts about the college tours:

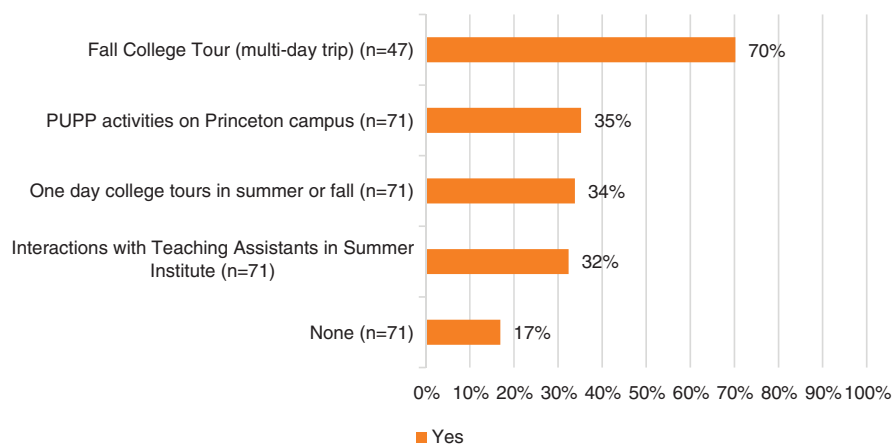


Figure 14 Princeton University Preparatory Program (PUPP) scholars report on PUPP activities that changed their image of what college would be like ($N = 71$; junior and senior PUPP scholars, $N = 47$). An additional 3% of respondents elected not to respond to this survey item.

When we went to a college tour to [this particular college] the vibe there was great, being on the campus I knew that was where I wanted to go. Exploring and learning about the campus gave me a better understanding than looking it up on the Internet.

PUPP scholars were also asked to indicate which college exposure activities, if any, influenced their image of what college will be like (see Figure 14). Seventy percent of juniors and seniors reported that the multiday fall college tour changed their image of college. All PUPP scholars, at all grade levels, were given the option to indicate if other PUPP college exposure activities influenced their image of what college will be like. One-third or more of PUPP scholars indicated their image of college was influenced by the PUPP activities on campus (35%), the 1-day college tours (34%), and their interactions with teaching assistants, who are typically college students, during the summer institute (32%).

PUPP scholars were asked to comment on how the PUPP college exposure activities change their image of what college would be like. Some comments indicated that PUPP faculty or staff helped PUPP scholars see themselves attending certain colleges, and others indicated that the college tours gave PUPP scholars a better understanding of the colleges and their offerings. A few PUPP scholars commented that PUPP alumni helped them imagine themselves attending certain colleges. A small minority also noted that the college exposure activities did not change their image of what college would be like.

The following quotations exemplify PUPP scholars' survey responses regarding how college exposure activities changed their thinking on what college will be like:

Visiting the colleges and talking to alumni allowed me to get a glimpse of the college experience.

Teaching assistants talked about their firsthand experiences with college work and dealing with college life in general.

Being on Princeton's campus changed my image of college. I always had a sort of distorted view of college because I did not have a lot of information.

It has made me see which colleges are diverse, and [helped me understand] the size I would feel comfortable with attending.

The PUPP college exposure and college guidance activities are intended to help PUPP scholars select colleges that are a good fit for them. We asked PUPP scholars to indicate which college exposure activities had changed their thinking on their college options (see Figure 15). Almost all junior and senior PUPP scholars (98%) reported that the multiday fall college tour changed their thinking about the colleges that they could attend. PUPP seniors indicated that the weekly college admissions counseling sessions (30%), the summer institute College Admission 101 course (30%), and the PUPP College Fair on the Princeton University campus (39%) changed their thinking on which colleges they might attend. PUPP scholars from all cohorts indicated that the 1-day college tours offered in summer and spring changed their thinking about their college options (63% selected yes).

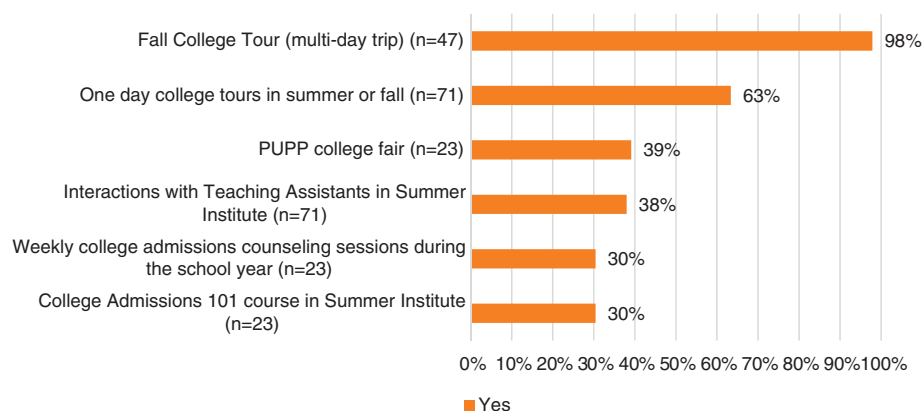


Figure 15 Princeton University Preparatory Program (PUPP) scholars report on PUPP activities that may have changed their thinking about which colleges they could potentially attend ($N = 71$; junior and senior PUPP scholars, $N = 47$; senior PUPP scholars, $N = 23$). Another 10% of respondents reported that none of the activities changed their thinking, and 3% elected not to respond.

PUPP scholars were also asked to explain how the various college exposure activities changed their thinking on their college options. Some indicated that visiting colleges led them to see the colleges as places to which they might apply. Many made comments highlighting how the college tours helped them understand the offerings of the various schools they visited. A few commented that PUPP faculty and staff had led them to consider certain colleges.

The following quotations provide an example of PUPP scholars' comments on how the PUPP college exposure activities changed their thinking on their college options:

[Prior to the tours] I had a general idea of which colleges to attend, but nothing specific yet. After the tours, college fairs, and admissions courses and sessions, I learned which colleges could work better for me.

Teaching assistants gave me tips and advice on which colleges they thought would suit me and helped me narrow down my college list.

I realized I had [access to a variety of colleges], and I had the power to choose and work [to get into] that college. Even talking to people on campuses changed my perspective, I was very unmotivated and the sort of person to settle for less at first, but now I feel I can go to a highly selective school.

I received so much information on the college life.

The next set of questions asked PUPP seniors to reflect on the PUPP activities related to college planning and preparation (see Figure 16).⁵ One of the most notable findings for this question, given that it demonstrates how PUPP has unintended impacts on non-PUPP students, is that all PUPP seniors (100%) reported that they agreed or strongly agreed with the statement that "I have shared my knowledge of the college application process with students who are not in PUPP." Also notable is that 92% of seniors reported that they agreed or strongly agreed with the statement "I have shared my knowledge of college financial aid with students that are not in PUPP." Perhaps even more importantly, Scholar Survey data indicate that PUPP seniors credit PUPP with helping them to understand more about the college application process (100%), possible ways to finance a college education (91%), and which colleges are best for them to attend (91%). They also credited PUPP with helping their families understand more about the college application process and ways to finance a college education (74%) and which colleges are best for them to attend (56%; see Figure 17).

Princeton University Preparatory Program Support for Scholars and Families

Part of the work of the PUPP team entails supporting PUPP scholars and their families when personal and financial challenges arise. PUPP does not limit its sphere of involvement to classes, grades, and test scores but rather helps PUPP scholars address personal challenges so that they are better able to focus on their schoolwork and PUPP. In collaboration with the PUPP team, we developed two survey questions to ask students about the help they may have received from PUPP when they faced personal challenges, both financial and nonfinancial.

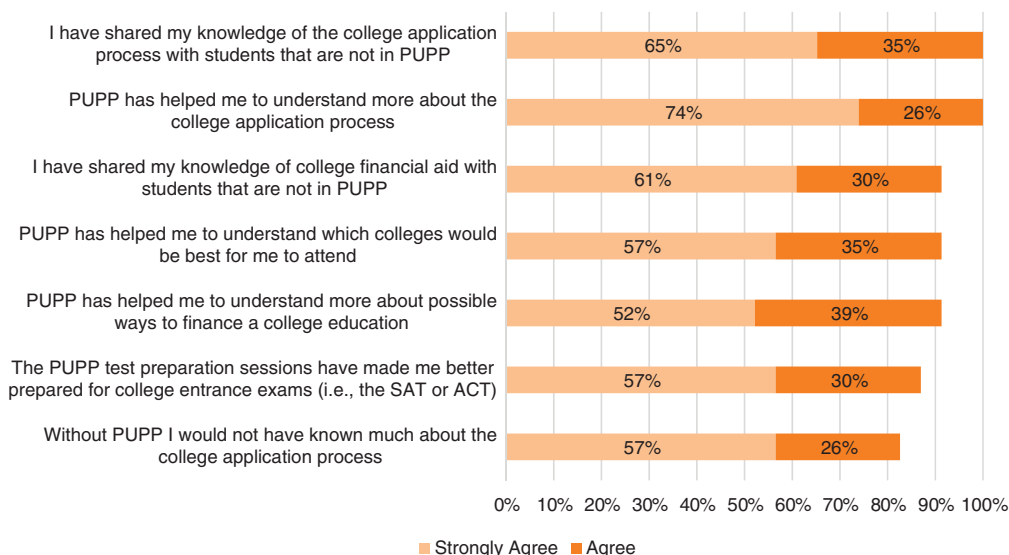


Figure 16 Senior Princeton University Preparatory Program (PUPP) scholars report on PUPP activities related to college planning and preparation (N = 23).

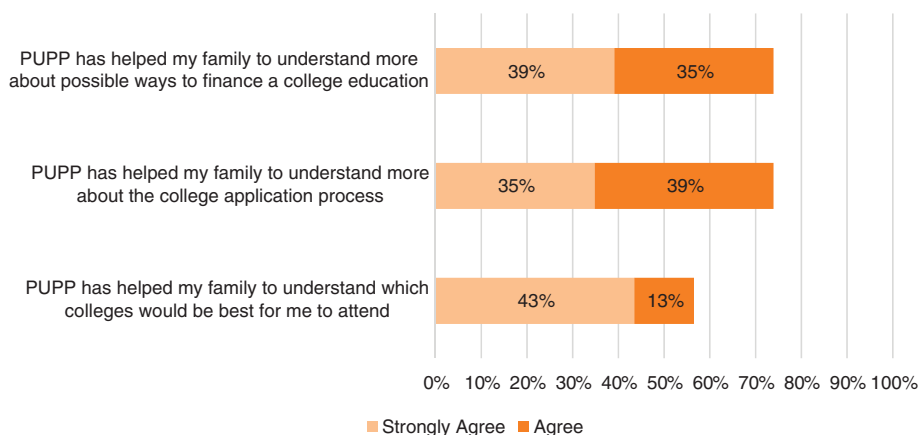


Figure 17 Senior Princeton University Preparatory Program (PUPP) scholars report on PUPP activities related to helping their families with college planning and preparation (N = 23).

The first question in this section asked if there were times when the scholar or his or her family encountered a financial challenge and PUPP helped the scholar or his or her family. Twenty-five percent of the respondents said yes, 61% said no, and 14% elected not to respond. Some PUPP scholars shared that PUPP provided financial support to help cover the costs of basic needs (e.g., rent, utilities, or glasses) or academic fees (e.g., AP exams or college applications). One PUPP scholar commented,

In the beginning of the school year, my family was going to get evicted from our apartment. We were left with no heat, no electricity, barely any food. Thankfully, we eventually reached out to PUPP — and their assistance helped us tremendously.

A second survey question on this topic asked if there were times when the PUPP scholars or their families encountered a personal, nonfinancial challenge with which PUPP assisted them or their families. Twenty-four percent of the respondents said yes, 61% said no, and 15% elected not to respond. Some PUPP scholars disclosed that they received either social support, academic support (e.g., tutoring), or conflict-resolution support from PUPP. One PUPP scholar commented,



Figure 18 Princeton University Preparatory Program scholars’ agreement with statements about how they are in general, on an average day (*N* = 71). The complete text for the response marked with an asterisk is “In dealing with difficult problems, it is very important to evaluate as many pieces of information as possible.”

When I was dealing with anxiety and felt overwhelmed, the PUPP administrators helped me greatly. I received great advice from them and they also assisted me in gaining the courage to find professional help.

Princeton University Preparatory Program Scholars’ Social–Emotional Skills

We also asked PUPP scholars to rate their agreement with a variety of statements from the PUPP application that assess social–emotional skills (see Figure 18). Most PUPP scholars agreed that they do things important for academic success, such as working hard to complete assignments (92%), checking over their work (80%), and doing more than what is expected of them (78%); in contrast, only 31% agreed that they leave tasks to the last minute. In terms of relational skills, all PUPP scholars (100%) agreed that they respect others, and most PUPP scholars agreed that they are inclined to forgive others (74%) and that they make friends easily (60%), while some PUPP scholars acknowledged they do not like it when their opinions are challenged by others (19%). Items on external attitudes and behaviors revealed that PUPP scholars report that they are interested in learning about other cultures (96%), they take responsibility for what happens (93%), and they like to know the news of the world (66%).

To gather data on PUPP scholars’ perceptions of PUPP’s impacts on their social–emotional skills, particularly those captured by the PUPP priority skills, the Scholar Survey asked PUPP scholars to rate the extent to which PUPP contributed to their skill development in specific areas. The PUPP priority skills encompass five skill areas theorized to be important for college and career readiness: knowledge acquisition, critical thinking, communication, external attitudes and behaviors, and internal attitudes and behaviors. As noted, the majority of PUPP scholars agreed or strongly agreed that PUPP had contributed to the knowledge acquisition skill of time management.

A majority of PUPP scholars reported that PUPP contributed quite a bit or very much to their critical thinking skills (see Figure 19). These included the specific critical thinking skills of assessing the value of information (56%), breaking down information into its basic elements (52%), and solving numerical problems (50%).

Approximately 70% of PUPP scholars indicated that PUPP had contributed quite a bit to their communication skills related to presenting to a group (72%), speaking clearly (70%), and writing clearly (69%; see Figure 20).

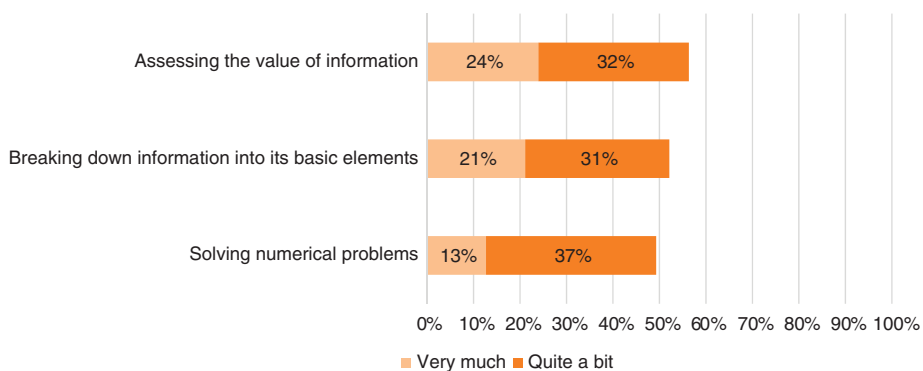


Figure 19 Princeton University Preparatory Program (PUPP) scholars rate how much their PUPP experiences have contributed to their PUPP priority skills in the area of critical thinking ($N = 71$).

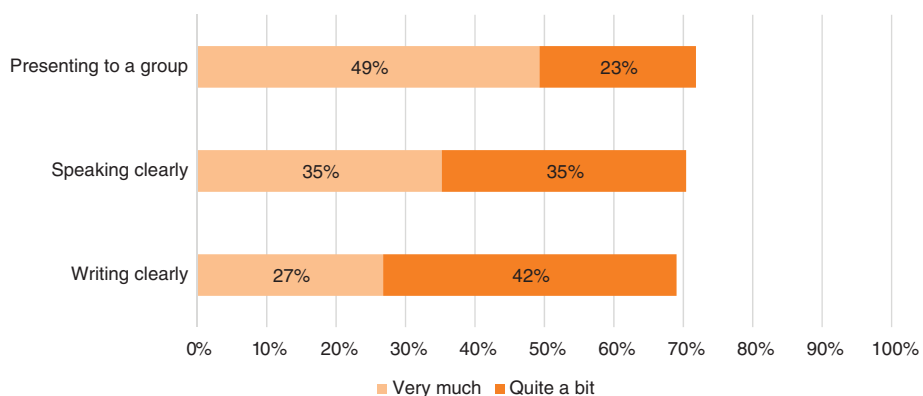


Figure 20 Princeton University Preparatory Program (PUPP) scholars rate how much their PUPP experiences have contributed to their PUPP priority skills in the area of communication ($N = 71$).

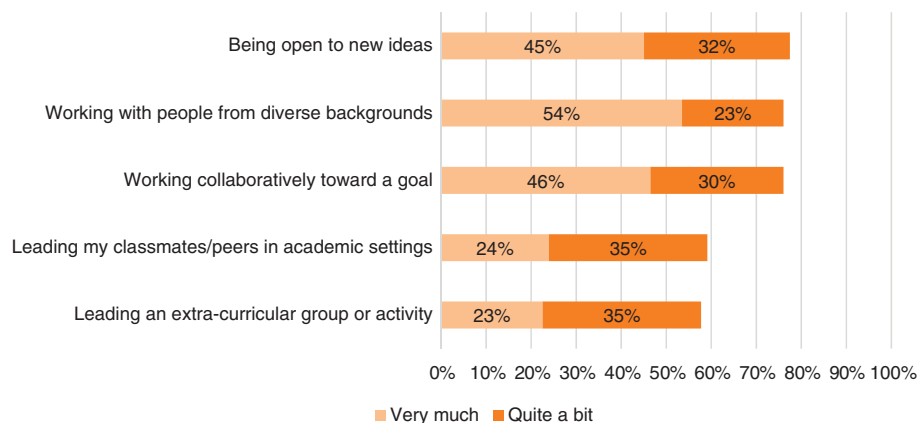


Figure 21 Princeton University Preparatory Program (PUPP) scholars' ratings of how much their PUPP experiences have contributed to their PUPP priority skills in the area of external attitudes and behaviors ($N = 71$).

The majority of PUPP scholars indicated that PUPP had contributed to their skills related to the PUPP priority skills of external attitudes and behaviors quite a bit or very much (see Figure 21). These skills include leadership, collaboration, working with people from diverse backgrounds, and openness to new ideas. PUPP scholars' responses indicate that PUPP may be particularly strong in leadership skill development: 24% of PUPP scholars indicated that PUPP impacted development of their skills related to leading classmates in academic settings very much, whereas another 35% of PUPP scholars felt it impacted these skills quite a bit.



Figure 22 Princeton University Preparatory Program (PUPP) scholars’ ratings of how much their PUPP experiences have contributed to their PUPP priority skills in the area of internal attitudes and behaviors (N = 71).

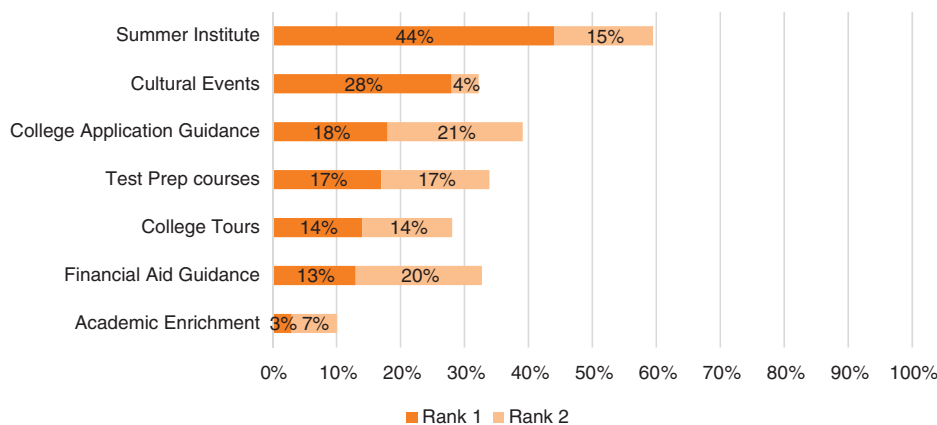


Figure 23 Princeton University Preparatory Program (PUPP) scholars rank the most crucial and second most crucial aspects of PUPP (N = 71). The figure does not include the 14% of respondents who reported “other” for the top-ranked crucial aspect of PUPP and the 1% of respondents who elected not to respond to the rank 2 option.

The majority of PUPP scholars also indicated that PUPP had helped them develop skills related to the PUPP priority skills labeled internal attitudes and behaviors (see Figure 22). They indicated that PUPP had contributed quite a bit or very much to their ability to produce high-quality work (83%), to persevere to the end of a difficult goal (71%), and to learn effectively on their own (70%).

Reflections on the Princeton University Preparatory Program Experience

The Scholar Survey included items designed to gather PUPP scholars’ reflections on their overall experience in PUPP and on the program as a whole. PUPP scholars were asked to rank the top two most crucial aspects of PUPP (see Figure 23). Forty-four percent ranked the summer institute as the most crucial program component. Other program components ranked as the most crucial aspect were the cultural events (28%), college application guidance (18%), test prep courses (17%), college tours (14%), and financial aid guidance (13%). Program components ranked as the second most crucial aspect of PUPP included college application guidance (21%), financial aid guidance (20%), and test prep courses (17%).

In an open-ended follow-up question, PUPP scholars had an opportunity to comment on why these were the two most crucial elements of PUPP. Comments on the importance of the summer institute noted that it develops a sense of PUPP community, is the most time-intensive PUPP activity, and prepares PUPP scholars for college. Comments on reasons for ranking test prep courses as crucial touched on the fact that such courses would otherwise be too expensive and that test

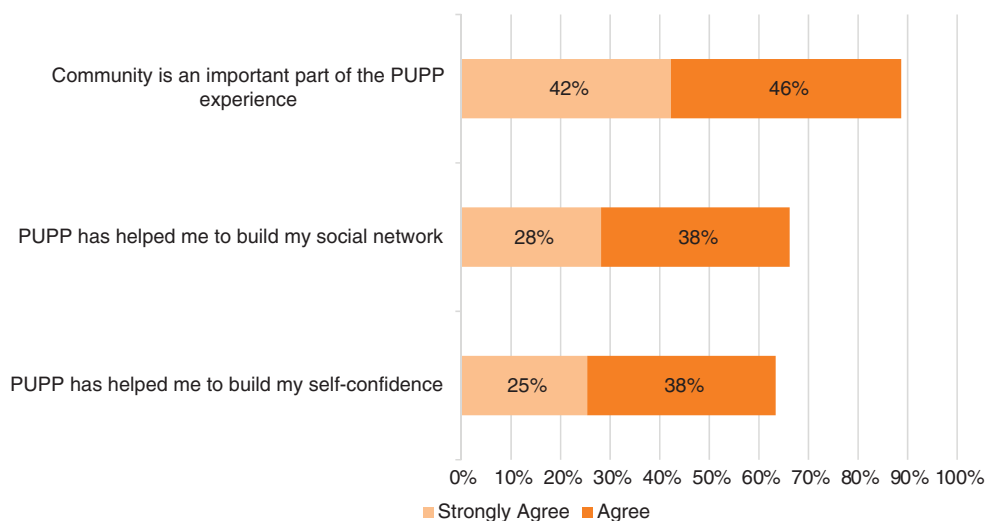


Figure 24 Princeton University Preparatory Program (PUPP) scholars indicate their level of agreement with statements about PUPP ($N = 71$).

prep courses are effective preparation for required college entrance exams. College and financial aid application supports were ranked as crucial because both processes can be challenging and confusing. PUPP scholars' comments included the following:

Test prep courses can help with SATs and ACTs, which is a huge factor in what colleges you will be accepted into.

The 6 weeks teach us leadership, persistence, and develop a sense of determination.

The college application process is also another requirement and must for college/university hopefuls. The process can be very confusing since it requires a lot from the student. Information, wording, and planning is not always clear for those without guidance.

I believe guidance on financial aid for college is one of the most crucial elements of PUPP because it reaches out to high-achieving, low-income students.

We also included three survey questions designed to get PUPP scholars to reflect more generally on the overall experiences and benefits of PUPP (see Figure 24). For 88% of PUPP scholars, the community experience is an important part of PUPP. PUPP scholars credit PUPP with helping to build their social networks (66%) and their self-confidence (63%).

PUPP Scholars' Suggestions for Moving Forward

Given that PUPP scholars are the direct recipients of PUPP services, it was helpful to gather their suggestions for improvements to the program. The comments of those who took us up on the opportunity clustered around three themes: (a) suggestions on ways to expand programming, (b) suggestions on ways to improve programming, and (c) suggestions on ways to improve the organizational practices of PUPP.

Examples of suggestions for expanding programming included adding curricula and increasing the number of college tours, trips, and cultural excursions. The few suggestions focused on reducing programming included requests to reduce the overall workload and reductions in the frequency of the academic enrichment sessions. Suggestions related to organizational practices included more encouragement for scholar bonding, being more understanding when PUPP scholars have important outside commitments that preclude their attendance at PUPP events, and giving PUPP scholars' opinions more weight when making planning decisions. For example, PUPP scholars made suggestions such as the following:

I think we should have as many cultural events as PUPP can provide. They have helped me grow in many ways.

PUPP is already an excellent program. I would say that PUPP should try to come up with different ways to allow students to get more connected with each other.

The very last question of the survey provided a final opportunity for PUPP scholars to share anything else about their experiences with PUPP. Nearly half of the students took the opportunity to add more positive comments about their experiences — some of their comments highlighted how appreciative they were of the opportunities and experiences PUPP provided. Others comments emphasized how helpful they found the supportive social network and mentoring provided by PUPP faculty and staff. Only one scholar shared a negative comment about the experience in PUPP.

One PUPP scholar's comment summed up the sentiments shared by many other PUPP scholars in response to this final survey question:

I am so grateful for the resources and help PUPP has provided to me for the past 3 years. If I could repeat the process again, I would. I wish every motivated, low-income, high-achieving student had the opportunity to form part of a program like PUPP.

Conclusion

The PUPP Scholar Survey is central to the ETS evaluation of PUPP as a vehicle for communicating the perspectives of the complete population of current PUPP scholars. The findings of this survey are also summarized in the final PUPP evaluation report, which covers the findings from all of the PUPP evaluation activities ETS conducted (Millett & Kevelson, 2018).

Although the PUPP Scholar Survey response rate was 100%, we need to acknowledge the limitations of relying on self-report survey data. These data are vulnerable to the social desirability bias inherent in self-reporting (Paulhus, 1991). PUPP scholars may exaggerate or diminish their experiences to align their responses with what is considered more socially acceptable or preferred.

The PUPP Scholar Survey provides valuable insights from the 2016–2017 cohort of PUPP scholars on PUPP experiences and their perceptions of the program's impacts on them and their families. The findings summarized in this report highlight current PUPP scholars' perceptions of PUPP's strengths and weaknesses as well as potential areas for growth.

Several conclusions can be drawn from the findings from the PUPP Scholar Survey. The data, which include responses from all current PUPP scholars, indicate that scholars' perceptions of the program components align with PUPP staff's intentions for them. These intentions include a focus on rigorous, college preparatory academic experiences; social–emotional skill development; exposure to arts and culture; and support for the college exploration, application, and financing processes. The summer institute and the academic enrichment sessions were described as rigorous by a majority of PUPP scholars. Many PUPP scholars reported that PUPP is positively impacting their academic and social–emotional skills, increasing their knowledge of the college application process, broadening their pool of target colleges, and exposing them to new arts and cultural experiences, as the program is intended to do. Most program components were rated as good or very good by a majority of PUPP scholars. Scholars' responses also highlighted the strength of the PUPP community and social network and confirmed that PUPP is helping some PUPP scholars address personal and financial challenges that may influence their participation in educational experiences such as PUPP. The extension of PUPP services to the provision of financial and nonfinancial support to PUPP scholars and their families was described as helpful.

The PUPP Scholar Survey data also highlight some areas for improvement. The academic enrichment sessions are perceived positively by fewer than half of PUPP scholars, and only a small minority rated them as a crucial aspect of PUPP. Together, these findings, as well as suggestions gathered in open-ended comments on PUPP, highlight the academic enrichment program as a possible area for growth. Many suggestions from PUPP scholars emphasized ways to enhance or expand programming, while a few suggestions emphasized opportunities for more communication among PUPP scholars and between PUPP scholars and PUPP leaders and staff.

Acknowledgments

The contents of this report were developed under a grant from Princeton University to Educational Testing Service. However, those contents do not necessarily represent the policy or opinions of Princeton University, and the reader should not assume endorsement by Princeton University. We would first and foremost like to thank the PUPP student participants.

The participants, known as PUPP scholars, are the resident experts on PUPP. Thank you to all the PUPP scholars for completing the PUPP Scholar Survey. We are grateful that you shared your experiences and insights about PUPP with us. Many colleagues at PUPP and ETS, along with a few PUPP scholars, worked with us to develop and pilot the survey. Thank you. Your contributions were invaluable to the development of the survey. We also want to thank Dele Kuku and Craig Stief of ETS for working with us to make an online survey administration possible. The PUPP team (Jason Klugman, Torey Wilson, QuinnShauna Felder-Snipes, Adela Ramirez, and Jacqueline Swain) and the teaching fellows who lead the academic year enrichment sessions were instrumental in our work administering the survey to the PUPP scholars. Thank you for navigating logistical issues with us and for providing the time for the PUPP scholars to complete the survey. The ETS PUPP evaluation support staff were also exceedingly helpful. Daniel Fishtein worked with us on a number of activities, from instrument development to pilot testing to survey administration, and assisted us with coding open-ended survey responses. Nimmi Devasia prepared the data files and ran the analyses. Stephanie Saunders provided her editorial skills for the final drafts of the report.

Notes

- 1 See Appendix A: Princeton University Preparatory (PUPP) Scholar Survey.
- 2 Note that all of the 71 PUPP scholars were able to report on their Grade 9 and 10 activities, while 24 scholars were able to report on activities through Grade 11 (up to 47 can report on Grade 11), and up to 23 scholars were able to report on Grade 12 activities.
- 3 This finding may be biased downward because PUPP juniors have not yet had direct experiences with the financial aid application process.
- 4 Sophomores were not asked these questions owing to their limited exposure to the PUPP college tours at this point in their PUPP experience.
- 5 We should note that the survey was administered at a time when seniors had applied to colleges and some students had been accepted through early admissions, while others were waiting to hear from admissions offices.

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Appendix A: Princeton University Preparatory Program (PUPP) Scholar Survey

Student ID: _____

The PUPP Scholar Survey

We are pleased that you are participating in the Princeton University Preparatory Program (PUPP) Scholar Survey. This survey explores the experiences of PUPP scholars with the goal of informing the further development of PUPP. This survey is designed to help us learn about your experiences in PUPP and the preparation you received by participating in PUPP activities.

The PUPP Scholar Survey will take approximately 30-45 minutes to complete, depending on your experiences and comments. Participation in the PUPP Scholar Survey is completely voluntary. You may choose not to answer any questions by selecting “Prefer not to respond” or leaving open-ended questions blank. If you do choose to respond to open-ended items, please try to use complete sentences.

All responses to this survey are strictly confidential. The PUPP Scholar Survey is part of the external evaluation of PUPP, which is being conducted by Educational Testing Service (ETS). The results of this evaluation will only be reported in the aggregate, which means across all students that complete the survey. For example, the report will use language such as: “75% of students said that they are satisfied with the activities.” Your individual responses will not be used in any way that would allow others to identify you personally. By completing this survey, you voluntarily assent to participate and provide your feedback.

Thank you for contributing to this research. If you have any questions or concerns, please contact the lead researcher, Senior Research Scientist Catherine M. Millett, Ph.D., at pupp@ets.org.

1. What grade are you currently in? Please check one.

10th
11th
12th

2. Which high school extracurricular activities, if any, have you participated in during your time as a PUPP scholar? Please check all that apply.

	Sports	Student government	Student clubs	Theater	Band/ Orchestra/ Chorus	Jr ROTC	None	Other?	Prefer not to respond
10th grade									
11th grade									
12th grade									

Which sports did you participate in and in which years?

Which student club(s) did you participate in and in which years?

3. Which high school extracurricular activities, if any, did you participate in before becoming a PUPP scholar? Please check all that apply.

	Sports	Student government	Student clubs	Theater	Band/ Orchestra/ Chorus	Jr ROTC	None	Other?	Prefer not to respond
9th grade									

Which sports did you participate in and in which years?

Which student club(s) did you participate in and in which years?

4. Who, if anyone, has had the most influence on your plans for after you graduate from high school? Please check one.

- A counselor
- A teacher
- Your parents
- Another family member
- Yourself
- A PUPP staff member or PUPP teacher
- Someone else: _____
- No one
- I don't have any plans for after I graduate from high school
- Prefer not to respond

5. What were your expectations for how PUPP would help you when you were accepted into the program?

a. How well has PUPP met these expectations?

6. Please choose the response that best describes your overall experience with the PUPP activities listed below.

	Very poor	Poor	Fair	Good	Very good	Not sure/ not applicable	Prefer not to respond
a. Six-and-a-half week summer institute							
b. Weekly academic enrichment during the school year							
c. Cultural events							
d. College tours							
e. Test prep courses							
f. Guidance on financial aid for college							
g. Guidance on college applications							
h. Princeton-Blairstown Center Retreat							

Note: Questions d through f were asked of juniors and seniors
Question g was asked only of seniors

7. Below are some statements about the PUPP curriculum and content. Please indicate your level of agreement or disagreement.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Prefer not to respond
a. PUPP coursework has helped me get used to studying for many hours each day.						
b. PUPP coursework has helped me get used to working hard to succeed in rigorous courses.						
c. The PUPP courses are more difficult than the AP courses in my high school.						
d. The PUPP courses are more difficult than the general courses (other than AP courses) in my high school.						
e. The topics covered in PUPP courses are interesting to me.						
f. The topics covered in PUPP courses are relevant to my life.						
g. PUPP course assignments are enjoyable.						
h. PUPP course assignments demand critical thinking.						
i. PUPP courses have increased my vocabulary.						

Note: Question c was asked only of juniors and seniors

8. Below are some statements about how the PUPP courses compare to courses in your high school. Please indicate your level of agreement or disagreement.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Prefer not to respond
a. PUPP teachers are able to help me during class more than my regular school teachers.						
b. PUPP teachers are able to help me outside of class more than my regular school teachers.						
c. PUPP courses are more interesting than my regular high school courses.						
d. I am generally treated with respect by teachers in PUPP courses.						
e. I am generally treated with respect by teachers in my regular high school courses.						

9. Below are some statements about the PUPP summer institute. Please indicate your level of agreement or disagreement.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Prefer not to respond
a. The summer institute courses helped me to build my math skills.						
b. The summer institute courses helped me to build my writing skills.						
c. The summer institute courses helped me to build my reading skills.						
d. The summer institute activities improved my ability to think critically about written texts.						
e. The summer institute activities improved my ability to think critically about works of art.						
f. The summer institute schedule helped me to build time management skills.						
g. The summer institute activities made PUPP scholars feel like a team.						

10. Have you been challenged by the academic activities offered during the PUPP summer institute?

- Yes No Prefer not to respond

a. If yes, how were you challenged? If no, how could the activities have been more challenging? Please provide examples.

11. Below are some statements about the PUPP after-school enrichment sessions. Please indicate your level of agreement or disagreement.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Prefer not to respond
a. After-school enrichment sessions have helped me develop my skills related to engaging in small group discussion.						
b. After-school enrichment sessions have helped me develop my presentation skills.						
c. After-school enrichment sessions have helped me develop my debating skills.						
d. After-school enrichment sessions have helped me develop my listening skills.						

12. Have you been challenged by the academic activities offered during the PUPP academic enrichment sessions?

- Yes No Prefer not to respond

a. If yes, how? If no, how could the activities have been more challenging? Please provide examples.

13. Would you say that PUPP academic experiences are different from your academic experiences in high school?

- Yes No Prefer not to respond

a. If yes, how are the two experiences different? If no, how are these experiences similar? Please provide examples.

14. Below are some statements about the PUPP cultural events (e.g., theater and museum trips). Please indicate your level of agreement or disagreement.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Prefer not to respond
a. The cultural events have increased my appreciation for the performing arts.						
b. The cultural events have helped me to learn about people from different backgrounds than my own.						
c. The cultural events were not helpful for me.						
d. The cultural events were new experiences for me.						
e. Knowledge of a play or opera has helped me with my school work.						

The following questions ask about college planning and preparation.

15. Approximately what grade were you in when you decided to go to college? Please check one.

Grade 12
 Grade 11
 Grade 10
 Grade 9
 Middle school (Grades 7–8)
 Elementary school (Grades 1–6)
 I just always knew I wanted to go to college.
 I am not sure when I decided I want to go to college.
 I am not sure if I want to go to college.
 Prefer not to respond

Note. The response “Grade 12” was offered only to seniors.

The response “Grade 11” was offered only to juniors and seniors.

16. Below are some statements about PUPP activities related to college planning and preparation. Please indicate your level of agreement or disagreement.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Prefer not to respond
a. Without PUPP I would not have known much about the college application process.						
c. The PUPP test preparation sessions have made me better prepared for college entrance exams (i.e., the SAT or ACT).						
d. PUPP has helped me to understand more about the college application process.						
e. PUPP has helped my family to understand more about the college application process.						
f. PUPP has helped me to understand more about possible ways to finance a college education.						
g. PUPP has helped my family to understand more about possible ways to finance a college education.						
h. PUPP has helped me to understand which colleges would be best for me to attend.						
i. PUPP has helped my family to understand which colleges would be best for me to attend.						
j. I have shared my knowledge of the college application process with students that are not in PUPP.						
k. I have shared my knowledge of college financial aid with students that are not in PUPP.						

Note. Question 16 was asked only of seniors.

17. Below are some statements about PUPP activities related to college campus experiences. Please indicate your level of agreement or disagreement.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Prefer not to respond
a. Having PUPP on the Princeton campus has helped me learn about college life.						
b. Having PUPP on the Princeton campus has helped me to imagine myself on a college campus.						
c. Having PUPP on the Princeton campus was intimidating.						
d. PUPP has made me decide to apply for more selective colleges than I would otherwise have.						
e. The PUPP college tours have made me feel more confident in my ability to succeed in college.						
f. The PUPP college tours have helped me to imagine myself on a college campus.						
g. The PUPP college tours have made me more interested in attending college in general.						
h. I sometimes felt intimidated when visiting college campuses on the PUPP college tours.						
i. The PUPP college tours have made me more interested in attending a specific college or university.						

Note: Questions e to i were asked only of juniors and seniors

a. If you agreed or strongly agreed with Question i, please indicate which college(s) or university(ies) the tours made you more interested in attending.

18. Which PUPP activities, if any, changed your thinking on which colleges you could potentially attend? Check all that apply.

- a. One-day college tours in summer or fall
- b. Fall college tour (multi-day trip)
- c. PUPP college fair
- d. College Admissions 101 course in summer institute
- e. Weekly college admissions counseling sessions during the school year
- f. Interactions with teaching assistants in summer institute
- g. None
- h. Prefer not to respond

Note. Response b was offered only to juniors and seniors. Responses c, d, and e were offered only to seniors.

a. In what ways did these activities change your thinking on which colleges you could potentially attend?

19. Which PUPP activities, if any, changed your image of what college will be like? Check all that apply.

-
- a. One-day college tours in summer or fall
 - b. Fall college tour (multi-day trip)
 - c. PUPP activities on Princeton campus
 - d. Interactions with teaching assistants in summer institute
 - e. None
 - f. Prefer not to respond
-

Note. Response b was offered only to juniors and seniors.

- a. In what ways did these activities change your image of what college will be like?

20. Please indicate to what extent you agree with the following statements about how you are in general, on an average day.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Prefer not to respond
a. I do more than what is expected of me.						
b. In dealing with difficult problems, it is very important to evaluate as many pieces of information as possible.						
c. I leave tasks until the last minute.						
d. I do not like when people challenge my opinions.						
e. I like to know the news of the world.						
f. I am inclined to forgive others.						
g. I joke around a lot.						
h. I say what I think.						
i. I make friends easily.						
j. I work hard to complete assignments.						
k. I respect others.						
l. I am a very organized person.						
m. I take responsibility for what happens.						
n. I am interested in learning about different cultures.						
o. I check over my work.						

21. Please indicate your level of agreement or disagreement with the following statements about PUPP.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Prefer not to respond
a. PUPP has helped me to build my self-confidence.						
b. PUPP has helped me to build my social network.						
c. Community is an important part of the PUPP experience.						

22. To what extent, if at all, has your experience at PUPP contributed to your skills in the following areas? Note that the items refer to skills that could be used both in and outside of PUPP.

	Not at all	Very little	Some	Quite a bit	Very much	Not sure	Prefer not to respond
a. Leading my classmates/peers in academic settings							
b. Leading an extra-curricular group or activity							
c. Working collaboratively toward a goal							
d. Working with people from diverse backgrounds							
e. Being open to new ideas							
f. Learning effectively on my own							
g. Persevering to the end of a difficult assignment							
h. Producing high-quality work							
i. Writing clearly							
j. Speaking clearly							
k. Presenting to a group							
l. Solving numerical problems							
m. Breaking down information into its basic elements							
n. Assessing the value of information							

23. Please indicate, in rank order, which of the following you would name as the two most crucial aspects of PUPP.

- Six-and-a-half week summer institute
- Weekly academic enrichment during the school year
- College tours
- Test prep courses
- Guidance on financial aid for college
- Guidance on college applications
- Cultural events
- Other (please specify) _____
- Prefer not to respond

a. Why are these the two most crucial elements of PUPP?

The next two questions are about how PUPP may have helped you personally or financially, outside of regular program activities.

24. Was there a time when you or your family encountered a financial challenge and PUPP helped you or your family out?

- Yes No Prefer not to respond

a. If so, please tell us about it.

25. Was there at time when you encountered a personal, nonfinancial challenge and PUPP helped you or your family out?

- Yes No Prefer not to respond

a. If so, please tell us about it.

The final two questions are intended to gather any additional feedback you have on PUPP, including ways to improve it.

26. What suggestions do you have for ways to improve PUPP?

27. If there is anything else you would like to share about your experience as a PUPP scholar, please share it here.

Thank you for sharing your experiences with PUPP!

Appendix B: Princeton University Preparatory Program Evaluation Questions

ETS collaborated with Princeton University staff and PUPP leaders to identify a set of questions to guide the evaluation of PUPP.

1. What are the essential components of the PUPP model? What essential components of PUPP are seen as valuable by major stakeholders?
2. How do current and alumni PUPP scholars experience the program? What are their perceptions of PUPP's impacts on their skills and outcomes and on their families?
3. What are the benefits of PUPP participation for partner high schools?
4. What is the role within and contribution of PUPP to Princeton University?
5. How is PUPP viewed on its own as well as in relation to peer programs on college and university campuses where PUPP students enroll and graduate?
6. How could current data management and analysis procedures be improved?
7. What are the strengths and weaknesses of current organizational practices and operations? Areas of interest include communications, recruitment, student selection, college preparation activities, and PUPP scholar retention.
8. To what extent do PUPP results align with the stated goals/objectives that PUPP as well as Princeton University have for the program?
9. What are the PUPP features that can serve as exemplars for peer college access programs?

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