2018

Moving Towards an Equitable Future

ASSOCIATION OF COLLEGIATE
SCHOOLS OF ARCHITECTURE

Moving Towards an Equitable Future

ACSA 2017-18 Education Committee

Committee Chair: Derek Ham
ACSA Director of Research & Information: Kendall Nicholson
Committee Members: Bethany Lundell Garver, Francis Lyn, Rashida Ng, Carmina Sanchez, Elizabeth Seidel, Charles Setterfield

Introduction
The Education Committee leads ACSA's efforts to improve the effectiveness of architectural education through best practices. The committee oversees and recommends, as necessary, actions to cultivate and disseminate these best practices.

Areas of focus for the committee include:

- Teaching
- Access to higher education (including demographic diversity)
- Student success
- Educational assessment
- Relationship of architectural education to higher education
- Education-to-practice transition
- Curriculum development
- Pre-professional or non-accredited architectural education

There are many challenges facing architectural higher education today. Among them achieving socioeconomic equity for current and prospective architecture students seems to be most pressing, and at the same time most elusive. During the 2017-18 academic year, the Education Committee has focused on this issue. Equity is what some might call a "wicked problem" that is difficult to solve because of incomplete, contradictory, or changing requirements that are often hard to recognize. The discussion of equity and inclusion in architectural education requires that we start by defining the context of targeted diversity. This year, the Education Committee has elected to focus on diversity of socioeconomic status (SES) among prospective and current architecture students. The American Psychological Association characterizes socioeconomic status as a "combination of education, income and occupation" which is distinct from race or gender in that it is challenging for faculty to detect, particularly given that students might "strive to appear middle-class in order to self-normalize" (Yale Center for Teaching and Learning).

The importance of understanding equity in architectural education is illustrated by the disparate outcome of students with varied SES backgrounds. For many reasons, some individuals and student groups disproportionately drop out along their pathway to architectural education, while other students graduate faced with a sense of ill-preparedness for the professional world. The Education Committee's primary objective is to identify systemic barriers to these forms of diversity in architectural education through an exploration of publications and surveys distributed within ACSA, as well as outside ACSA.

2016-2017 Qualitative Data Collection
Five initial themes emerged during the committee's exploration: 1) program climate, 2) K-12 pipeline, 3) life and career skills, 4) curriculum development, and 5) paths through community colleges. These five themes were presented to administrators of professional architecture programs in 2016 and served as a framework for addressing the range of factors related to the committee's focus. The first round of qualitative data collection was captured through hands-on

activities and group discussions where participants identified actionable activities and long-range strategies to support diverse students in varied architectural education programs. The success of this approach was the committee's ability to foster open conversations among participants while leveraging a diverse body of individuals (both faculty and students) to share and reflect upon their personal experiences.

A resource guide was created in response to the qualitative data collected from conference participants in 2016. The resource guide was accompanied by a list of "Things YOU Can Do to Increase Diversity and Equity in Architecture." The list provided over 60 action items for architecture programs to implement in order to improve access to architectural education among diverse audiences. Each action item included a time frame (immediate, next semester, longer term) as well as specific prompts related to 1) program climate, 2) K-12 pipeline, 3) life and career skills, 4) curriculum development, and 5) paths through community colleges. Program climate action items involved making safe zones of inclusion, supporting transfer students, listening and stretching open dialogue with greater intention. K-12 pipeline suggestions addressed student groups and working with schools and school districts. Prompts related to life and career skills involved partnering with professional practices, career preparedness, and engaging student life and recent alumni. Curriculum development action items addressed course content, group work, studio reviews, pedagogical growth, and program criteria and accountability. Paths through community colleges illustrated ways to share resources, partner initiatives, and understand common objectives.

While the committee was careful not to propose these prompts as an "all inclusive cure" the goal was to disseminate to a wider audience the conversations and sentiments brought forward from the first round of discussions. The "Things YOU Can Do to Increase Diversity and Equity in Architecture" list was a primary deliverable; although, the Committee agreed that more work was needed to develop outputs that would support longer term and more holistic program efforts to increase diversity and support success of diverse students. As a way of furthering this, the 2017-18 Education Committee utilized the list to publish "ACSA Cards for Equity" highlighting these action items in a limited edition deck of 68 cards that can be purchased and used by architecture faculty, students, and administrators (see Appendix Figure 1).

The Education Committee aims to continue the work developed from this qualitative approach with a quantitative data set to guide schools in understanding how common practices carried out among architecture programs may inadvertently thwart diversity and equity initiatives. Additionally, the committee hopes this complementary quantitative approach can provide insight into instances where progress is being made in architecture schools. By highlighting these positive cases, the committee can help schools learn from one another and expand upon existing strategies for increasing diversity and equity for prospective and current architecture students.

Socioeconomic Equity

Finding a clear path toward the achievement of equity is a demanding task for any organization. The mere diagnosis of systemic causes of inequity thwarting the existence of diversity is equally challenging. As a result, the 2017-18 Education Committee chose to narrow the scope to one equity-related issue in architectural education with the goal of achieving depth over breadth of findings. Through this process, socioeconomic diversity emerged as the cornerstone topic of choice.

Socioeconomic equity is best described as an approach to equity that addresses disparities of social status, wealth, income, and political power. Socioeconomic inequality can be further understood as something linked to environmental degradation and the systematic blocking of pathways to sustainability. These “blockages” manifest themselves in both intentional and unintentional practices often propagated by those unaffected by the socioeconomic divide.

Are barriers for low-SES students serving as a primary cause of poor diversity and lack of representation of among certain populations in NAAB-accredited architecture programs? If so, in order to achieve equity, the committee is curious about how socioeconomic issues can be addressed to make progress towards diversity and inclusion in architecture schools and the broader profession. This is the Education Committee’s driving research question.

2017-2018 Qualitative Data Collection

While in search of quantitative data to buttress findings from prior qualitative approaches of the committee, it was decided that a secondary qualitative study would benefit from the narrowed exploration into socioeconomic equity. This second round of qualitative research would help structure subsequent survey questions and serve as mechanisms for the collection of desired quantitative data related to equity and diversity in architectural education.

The Education Committee developed the idea to record the narrative of students’ educational journeys through K-12 schools into professional architecture programs. This evolved into the concept of a “journey map” that would visually represent and articulate various stories of student experiences. During the 2017 ACSA Administrators Conference, participants (students, faculty, and administrators) were given blank “journey map” templates to use as tools to help them reflect on both their stories and the stories of their students (see Appendix Figure 2).

In the example attached, administrators were asked to consider the journey of their applicants, students, and alumni within five categories:

- Career Exploration
- Application Process
- Educational Experiences
- Academic Enrichment
- Career Preparedness

During the session, faculty, students, and administrators gathered in small groups and began to share visual and written stories on the distributed tangible “journey map” templates (see Appendix Fig. 2). Administrators were prompted to think critically about the metaphorical barriers, potholes, bridges, and ladders along the way of this journey that either helped or thwarted the journey. Additionally, each breakout table was seeded with students from the local AIAS chapter who served as willing participants helping to drive conversations forward with their personal and current narratives.

After the session, completed journey maps were collected and later consolidated by the Education Committee in an effort to see what themes emerged. One notable downside of this qualitative data collection activity was the tendency of discussed topics to migrate away from the targeted issue of socioeconomic equity. While the Education Committee did present socioeconomic equity as a central theme to the participants, the committee also chose to ensure that conversations were free to be generated without any constraint.

Another challenge with this approach was what was lost in translation. The journey map activity included both visual and discussion based prompts. Because we did not include any recording equipment the only things that were collected were the words placed on the journey maps and the notation of table scribes. This did not yield a full transcription of what was discussed, but it did provide ample themes and concerns related to the educational pipeline from K-12 to architecture programs. In the journey map exercise in collaboration with the AIAS Council of Presidents two main themes were noted: a widespread ignorance among the general public about the education required to become an architect, the various paths available, and the many costs associated to studying architecture and transitioning into an internship and professional practice.

Qualitative Data Collection - Journey Maps

The journey map exercise was facilitated in three separate scenarios. It is important to note that each event was facilitated by a different moderator, and as such the tone of the exercise may have fluctuated based on verbal instructions and audience. Through the three-phase process, instructions were intentionally modified to better gather information the committee was targeting with the same base tool. Some of the major themes are expressed and compared below. The committee has since formalized an approach to using the tool in detailed instructions. This is done in the hope programs will use it to identify socioeconomic, and other, pinch points within their own educational process.

One of the differences we observed between the response of ACSA faculty and administrators and the AIAS student representatives filling out the first versions of the journey map was that the students were more focused into identifying obstacles, while ACSA participants were more into describing solutions. For example, for ACSA participants the interest was on listing activities that were easy to achieve, and didn’t require additional funds, while students were keen in naming the areas where costs were high. This approach was again observed when the AIAS Council of Presidents worked on the 2nd versions of the journey map. Typically, the responses

received were about the obstacles they or their peers had confronted. It is important to note that because the students participating in the AIAS Forum journey map query event were the leaders of chapters, they are representatives of those that have been able to maintain themselves along the path from education to internship to career.

On December 29, 2017, the exercise was facilitated at the AIAS Annual FORUM conference. In the maps completed by chapter leaders an overwhelming majority pointed to the overall lack of information about studying architecture, what is required to become an architect, and about architecture in general. Many pointed out that parents, counselors, teachers were not informed, and that there were none or few costly programs to learn about architecture pre-secondary education. Ignorance affected the journey of some from K-12 in choosing a professional program. This includes students that had completed pre-professional degrees in community colleges. Many noted the negative reactions of their parents towards their decision to study architecture. Others mentioned architects were not accessible as mentors. Another main theme aside from the high cost of architectural education, was all the hidden and unexpected costs that must be satisfied from the start when choosing programs to the end when looking for an internship. Furthermore, the importance of a social network to move through the journey was often mentioned, not only in the transition from academia to internship, but also early on when making decisions about where to study architecture. Finally, the lack of preparation and support from the programs for transitioning into the profession was a common statement between graduating to internship, and licensure.

Overwhelmingly, the major theme unrelated to lack of information or socioeconomic standing that emerged from the exercise facilitated with AIAS chapter leaders was a deep concern for the mental health of peers through the educational process and the deterioration of confidence in chosen paths due to initial ignorance of educational requirements to pursue licensure.

On February 26, 2018, a diverse group of students completed journey maps during a college visit event at Miami University in Oxford, Ohio. The groups included high school students, community college students, undergraduate students in Miami's BA in Architecture program, and graduate students in Miami's MAarch program. The event was fluid, so not all students received the same instructions regarding completing the journey maps. Two new aspects were added to the journey map forms for this session, including a place for students to identify their current academic status (high school student, community college student, university undergrad student, or graduate student). In addition, students were asked to draw a red line across their path indicating where they are currently, allowing the Committee to analyze historical comments versus future plans or speculation.

In this session the level of detail was significantly less than that shared during previous exercises, with many simply tracing their path without providing the socio-economic feedback components. All students indicated their current status, and most drew the requested red line indicating their current location on the path. The addition of current community college students allowed us the insight that almost eighty percent (11/14) of them intended to pursue licensure.

It is important to know the Journey Maps were completed following a presentation by NCARB's Director of Experience detailing the various pathways to licensure. Due to this, participants were fully informed regarding education, AXP, and ARE expectations and requirements prior to completing the exercise.

2017-2018 Quantitative Data Collection

In Fall 2017, the Education Committee created and distributed a survey to all schools of architecture in the United States with hopes of collecting quantitative data on the high-school-to-college architecture program pipeline (See Attachment). The goal was to collect fixed feedback on issues surrounding equity and diversity in architectural education. While previous work of the committee had relied on qualitative data, the committee's goal was to gain quantitative data to further illustrate current programs and practices in architecture schools.

Some of the questions asked in the survey included a look into programs' application requirements. Was a portfolio required? Was a student interview required? How were school programs tied to student financial support? Did respondents have access to Pell-Grant eligibility data?

Initial Quantitative Data Collection Results

Year-to-date, survey participation has gathered feedback from 56 ACSA school respondents and 31 Coalition of Community College Architecture Programs (CCCAP) school respondents. Community college programs were included in this data collection as they serve an integral role in the pipeline to professional programs. The first area of inquiry was on the topic of pre-college summer architecture programs. While approximately 56% of respondents offer a summer architecture program, the majority of programs were hosted by 4-year schools. Almost all of the schools who offered programs admitted 11-12 graders in the program (92%) and to the contrary only 14% of the schools had programs for elementary age students. Summer programs ranged in price with the most popular price range being between $1-$500 (31%). Programs at community colleges lasted anywhere from 1 to 6 or more weeks and varied in tuition from Free up to $2,000. ACSA member schools programs lasted 1 to 6 or more week, with one and two week programs being the most popular length. The cost to students ranged from Free to over $3,500. Programs offered by both school types included some residential programs. In addition to the architecture summer programs, schools across the nation offered STEM and engineering camps in conjunction with these programs and some schools offered dual enrollment courses, other design discovery workshops and other programs geared to underrepresented minority groups.

Questions about student admissions requirements revealed that undergraduate college admission into an architecture school is most likely to require a completed application, transcripts, SAT or ACT scores, FAFSA and a letter of intent. To the contrary, it is less likely to require a resume or an interview (in-person or phone). Schools who required a portfolio were twice as likely to accept a digital portfolio than they were a printed version. Additionally,

placement tests were popular among the responding community colleges. Over half of the schools actively reached prospective students via recruitment fairs (on and off campus), by visiting public high schools and outreach to guidance counselors. Social media also proved to be a useful tool for schools to reach prospective students. When asked about preparation of students prior to attending college, respondents noted that very few students apply to programs with relevant work experience, or dual enrollment/AP coursework in art or architecture. A slightly higher percentage of students apply to programs with some high school coursework relevant to architecture such as Art II, Technical Drawing , Architectural Drafting and Design...etc.

While just under half of the ACSA schools reported having articulation agreements with community colleges, more than three-fourths of the community colleges reported having an articulation agreement with a college or university. Most schools also reported having some additional admissions requirements from students who transfer from community colleges, most often noted were a portfolio review or a more formal assessment of college courses completed and a number of schools reported offering little to no support or were unaware of the support offered for transfer students.

Interestingly, most schools did not require students to buy a specific type of computer, but of those who did the average price of the required computer was approximately $1,730. It is also worth noting that many of the schools reported having additional cost for specialty supplies? (i.e. drafting boards, cameras, scanners...etc.) and well as printing, lab, and/or woodshop fees. Very few of the participating schools required travel for program completion but it is worth noting that there was a trend of students incurring approximately half of the fees previously mentioned. It was much less common that schools were charging all of the fees or none of the fees to students.

Lastly, in effort to hone-in on the socio-economic status of various architecture students we compared the data for four metrics related to student aid. When asked what percent of accepted students receive financial aid in the form of loans, grants and scholarships from the college/university, four-year schools and community colleges averaged similar reported number at 67% and 61% respectively. A similar phenomena was found when asked the percent of accepted students who receive need-based awards four-year schools and community colleges averaged 47% and 44% respectively. However, numbers reported about the percent of accepted students who were Pell-grant eligible showed great dissonance. Community colleges boast approximately 58% while 4 year colleges and universities averaged 33%. Where they lacked in Pell-grant eligibility, universities made up for in the percent of accepted students receiving merit-based awards averaging 33%, nearly three times that of their community college counterparts.

While the data here is fresh, and there are sure to be more schools to complete the survey, there are a few things these initial results suggest. Community colleges are serving a much larger group of students from lower socioeconomic communities than their 4-year college

counterparts (nearly twice as much). The ACSA Education Committee will continue to highlight more themes that surface from this data through a collaborative workshop at the 2018 ACSA Annual Meeting in Denver Colorado. Here the committee will present a session titled “Moving towards an Equitable Future” in which they will present these preliminary findings with a broader audience of architecture faculty. In the session the committee will present the findings to compare and contrast the collected data to help highlight where community colleges are successful and how ACSA schools might engage. In the end the presentation of data will help solicit more input from the audience to further use this study to identify trends to help tackle the complexity of these issues surrounding equity.

Conclusion

The 2018 ACSA Annual Meeting in Denver, CO allowed the education committee to disseminate preliminary findings of the data collected from our surveys. The session titled, “moving Towards an Equitable Future” gave participants an opportunity to respond to our research approach and findings as a way to further the dialogue surrounding these important issues.

The findings were presented in a “compare and contrast” format or to help highlight where community colleges are successful and how ACSA schools may engage.Towards the end of a formal presentation on the data, presentation of data room was left for participants to understand the muddy complexities of equitable issues. Several key topics surfaced in this lively discussion.

One theme that continued to surface in the discussion was focused on the approach schools of architecture often take for outreach and engagement with students from lower socioeconomic backgrounds. When we survey existing approaches we observe that they generally fall under two broad categories. Architecture programs will either develop programs in which students come to their university or professional program, or the architecture program will send out students, faculty, and staff as agents into the targeted community.

There are definite benefits to each approach. Bringing students to your campus will allow students to see a world that they might not be familiar with (i.e. design studios, computer labs, fabrication equipment, etc.). On the other hand getting into such a program might have it’s own set of barriers. While going into the community removes several barriers that might exist for the students, it also allows the university to meet directly with the student on their level. This can be difficult for the architecture program. Many of these types of opportunities require relationships with several stakeholders, and can often take time to build up trust.

As pointed out by the Michaele Pride *(AIA, NOMA and Professor of Architecture at the University of New Mexico*), we should not be discussing these approaches as an “either-or” , but

looking at these options as a “both-and.” The preliminary conclusion to this committee’s work is that colleges and schools of architecture should be doing everything in their power to reach out to students from marginalized communities. We should be creative in finding new ways to support students who come from underperforming schools. Reach students as early as we can (even at the elementary level) while not overlooking students of all ages even those from community colleges that might bring their life experiences.

The charge of this committee’s work is to continue the efforts in sharing this knowledge to build a community of educators that see diversity as a “design challenge” within itself. This is not something that will be solved with one solution, nor will it be solved in one swooping moment. Dealing with diversity requires a commitment to continued efforts to help change the culture on both individual and corporate levels.

References

American Psychological Association. Education and Socioeconomic Status. http://www.apa.org/pi/ses/resources/publications/education.aspx

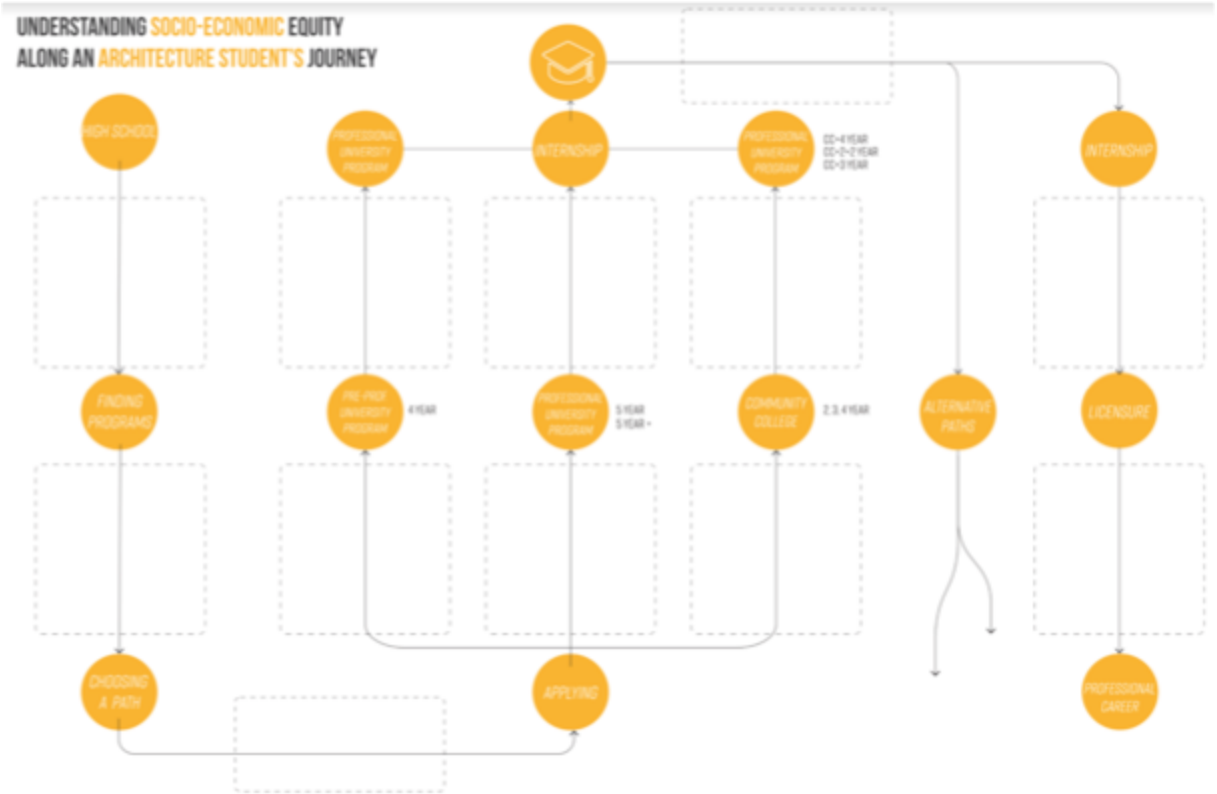
Rogers D.S. (2014) Socioeconomic Equity and Sustainability. In: Freedman B. (eds) Global Environmental Change. Handbook of Global Environmental Pollution, vol 1. Springer, Dordrecht

Yale Center for Teaching and Learning. Awareness of Socioeconomic Diversity. https://ctl.yale.edu/SocioeconomicDiversityAwareness

Appendix

Figure 1: ACSA Cards for Equity available for purchase ($20-25)

Figure 2: Journey map used in qualitative data collection



THE JOURNEY MAP EXERCISE:
Understanding Socio-economic Equity Along and Architecture Student's Journey

Objective

The objective of this exercise is to record your journey as you consider or complete an education in architecture, framed in the context of socio-economic equity.

Please document the advantages and barriers you encountered as you considered an architectural education. You will be recording *your* experiences and documenting *your* progress. To ensure a rich collection of findings, youare encouraged to document yourjourney regardless of your current status, even if you are no longer considering architectural education.

Instructions

I. At the top of the sheet check a box indicating your current status (high school student, community college student, undergraduate student, or graduate student). If "other" please explain briefly.

II. Identify where you are on your journey by placing a line across the path. Everything before the line is your history. Everything after the line is your plan for the future. Please predict your future path as completely as possible, even if you indicate you are undecided.

III. In the dashed, boxes record your experiences along your path. Experiences may be positive or negative. Please indicate these characteristics by using (+) or (-) adjacent to your experience.

Consider sharing the obstacles or advantages you encountered along your journey, such as:

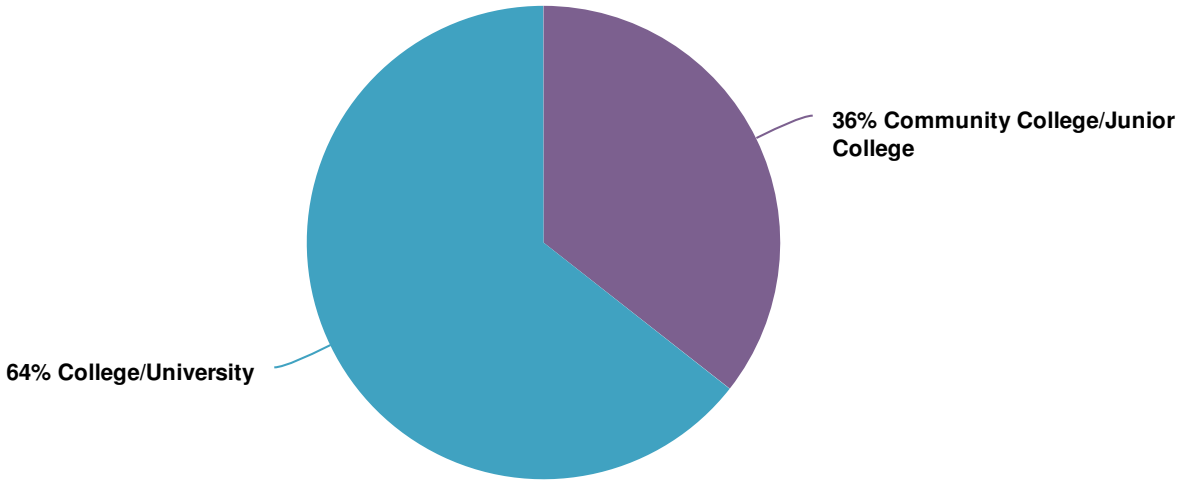
- What experience(s) helped you make decisions?
- Who assisted or advised you along the path?
- What factors did you consider as you made decisions?
- What support was lacking, or most critical to advancing?

IV. Other? If you have advice you would like to share with others who may be considering a similar path, please clearly indicate it is advice, not your personal experience.

Figures 3-17: Survey Results from schools of architecture surveyed on the subject of the high-school-to-college architecture program pipeline (see next page).

ACSA Architecture Pipeline Survey Highlights

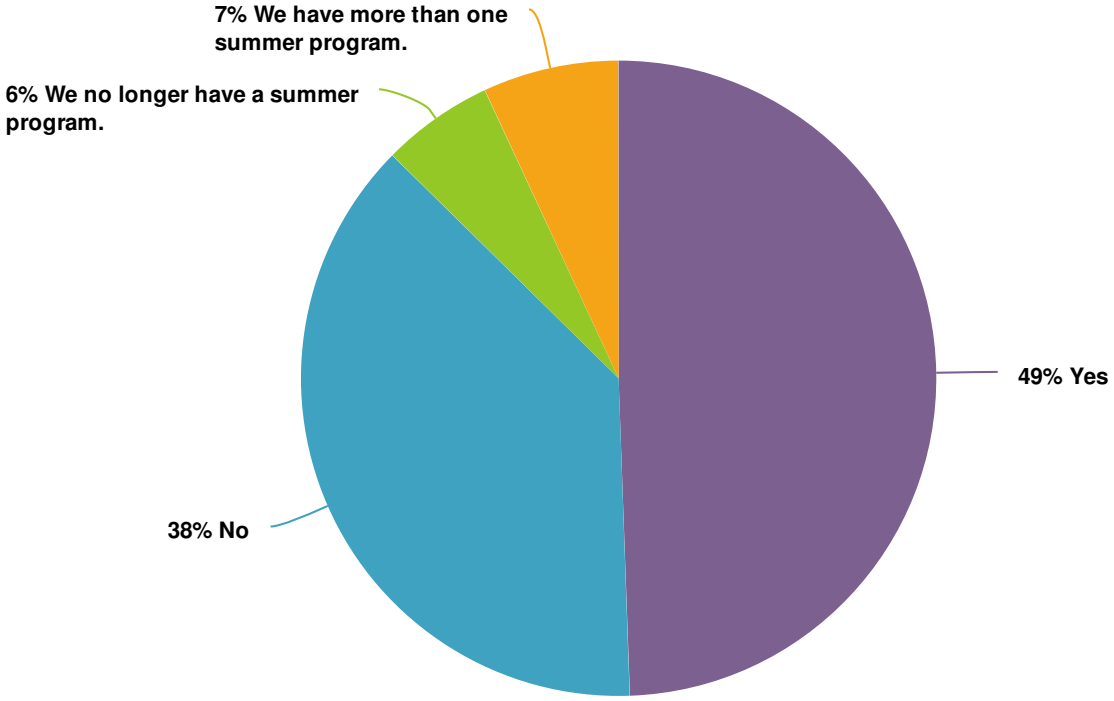
My institution is a:



Value	Percent	Responses
Community College/Junior College	35.6%	31
College/University	64.4%	56

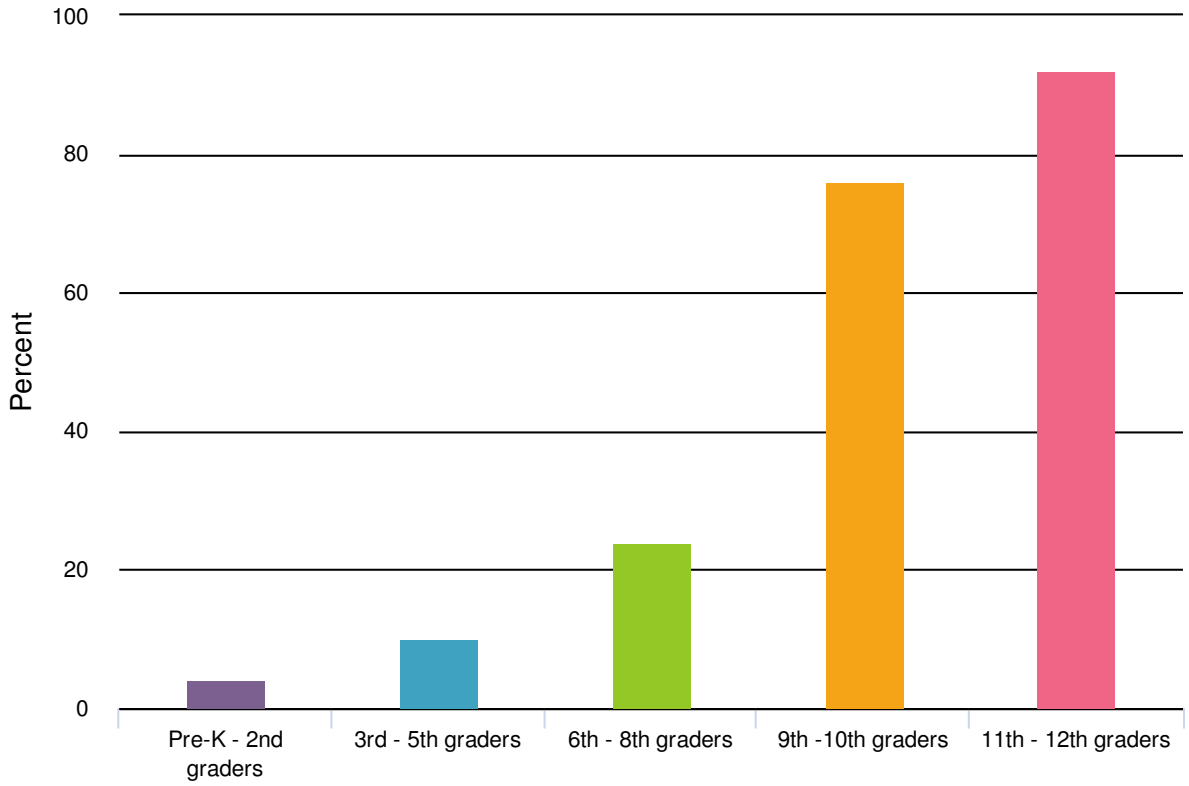
Totals: 87

Does your institution offer an architecture summer program?



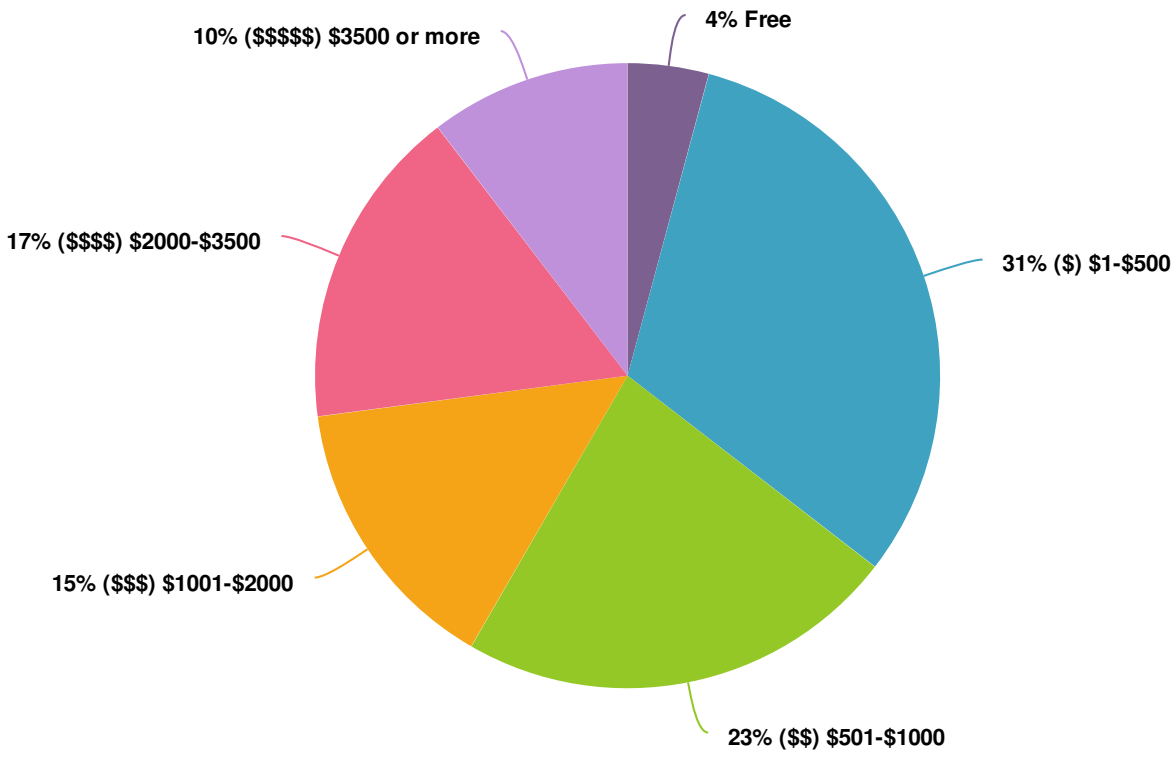
Value	Percent
Yes	49.4%
No	37.9%
We no longer have a summer program.	5.7%
We have more than one summer program.	6.9%

What age range(s) does your summer program(s) engage? (check all that apply)



Value	Percent	Responses
Pre-K - 2nd graders	4.0%	2
3rd - 5th graders	10.0%	5
6th - 8th graders	24.0%	12
9th -10th graders	76.0%	38
11th - 12th graders	92.0%	46

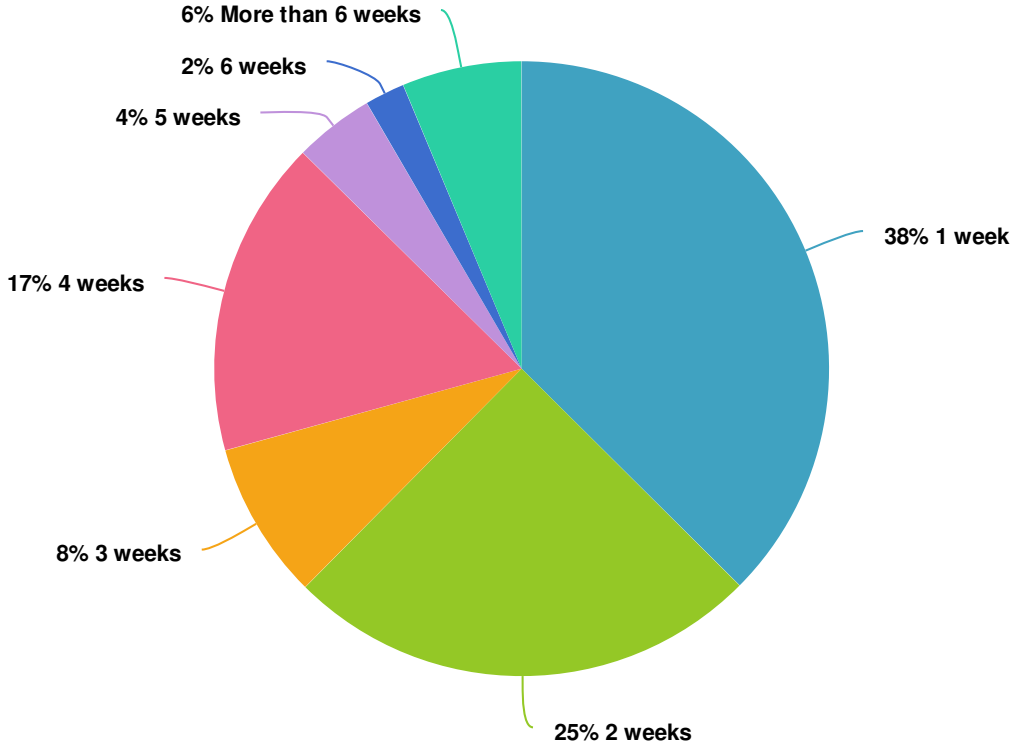
What is the average student cost of the summer program(s)?



Value	Percent	Responses
Free	4.2%	2
($) $1-$500	31.3%	15
($$) $501-$1000	22.9%	11
($$$) $1001-$2000	14.6%	7
($$$$) $2000-$3500	16.7%	8
($$$$$) $3500 or more	10.4%	5

Totals: 48

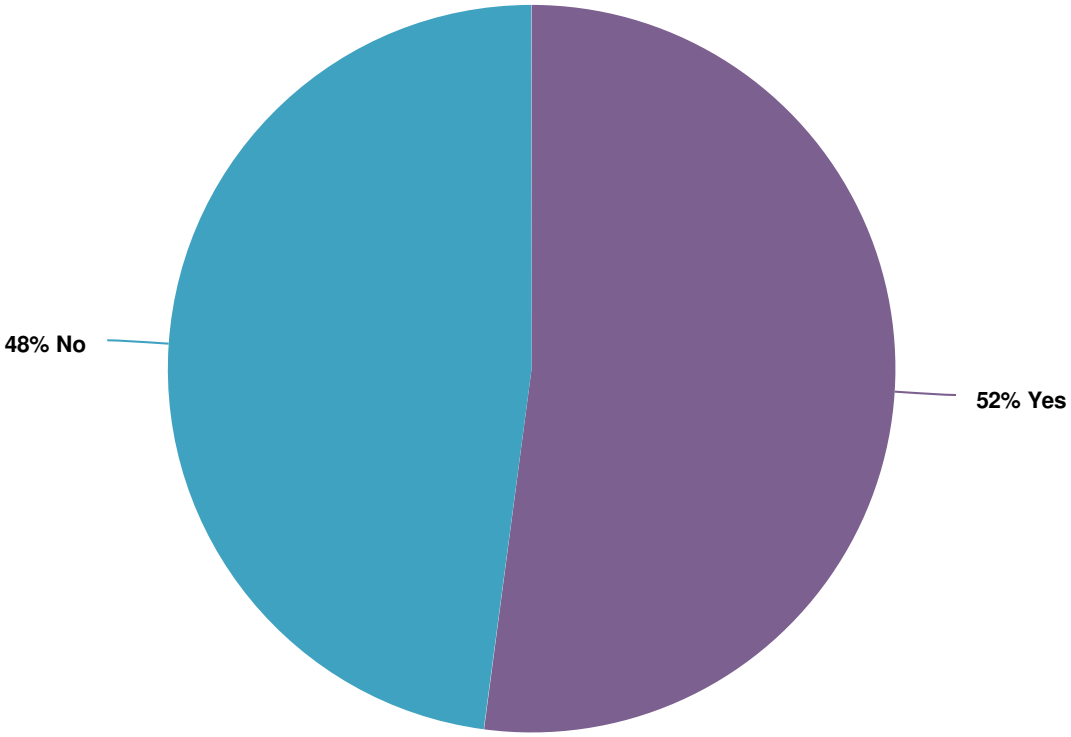
How long does the summer program last?



Value	Percent	Responses
1 week	37.5%	18
2 weeks	25.0%	12
3 weeks	8.3%	4
4 weeks	16.7%	8
5 weeks	4.2%	2
6 weeks	2.1%	1
More than 6 weeks	6.3%	3

Totals: 48

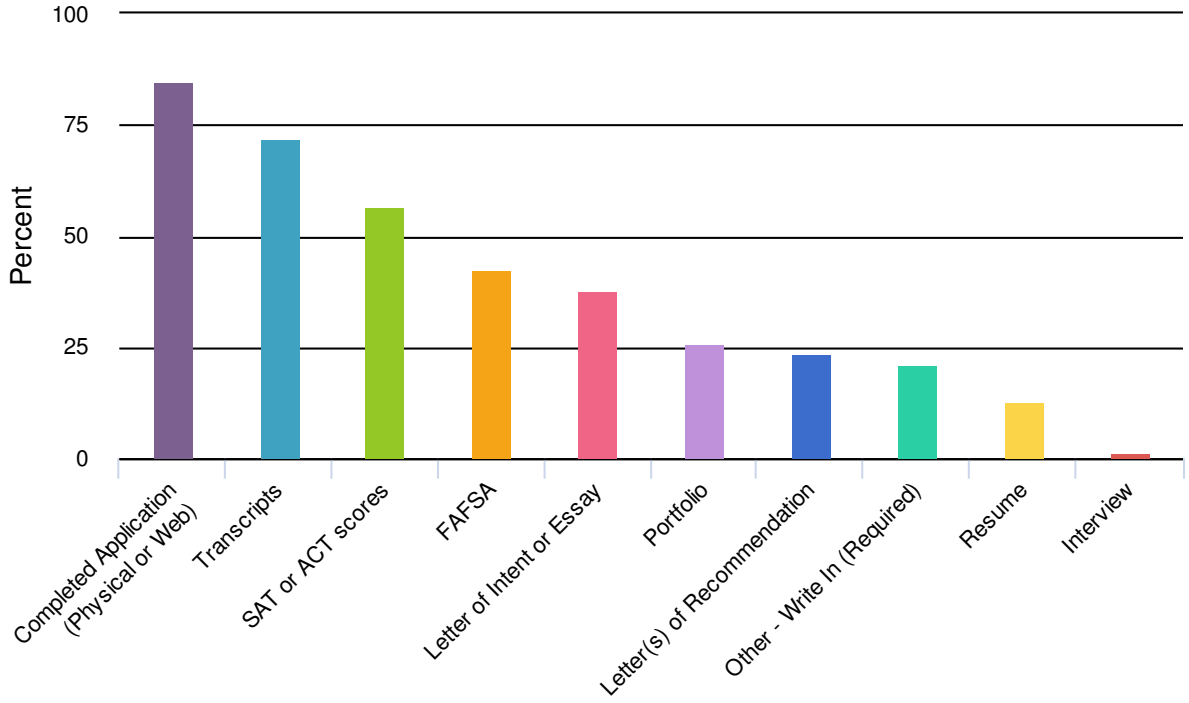
Does the previously selected price include lodging, meals...etc.?



Value	Percent	Responses
Yes	52.1%	25
No	47.9%	23

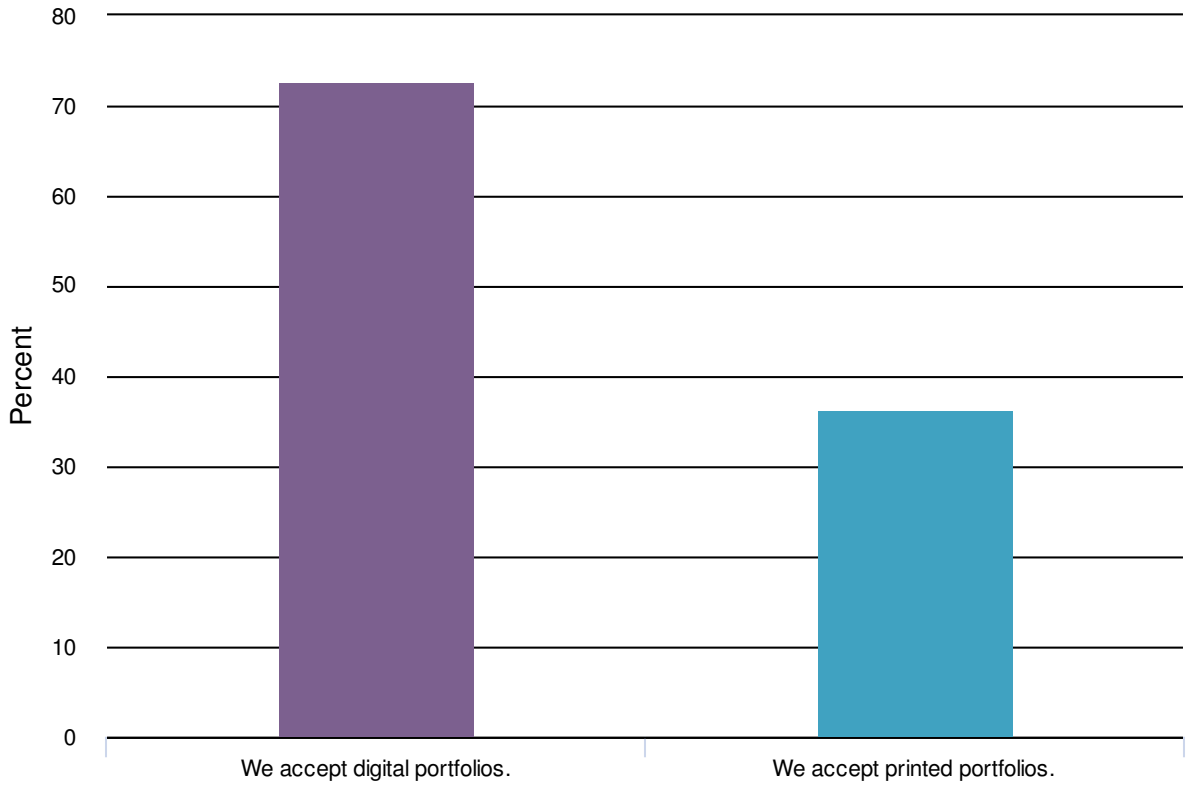
Totals: 48

Which of the following are required as a part of your undergraduate application process? (check all that apply)



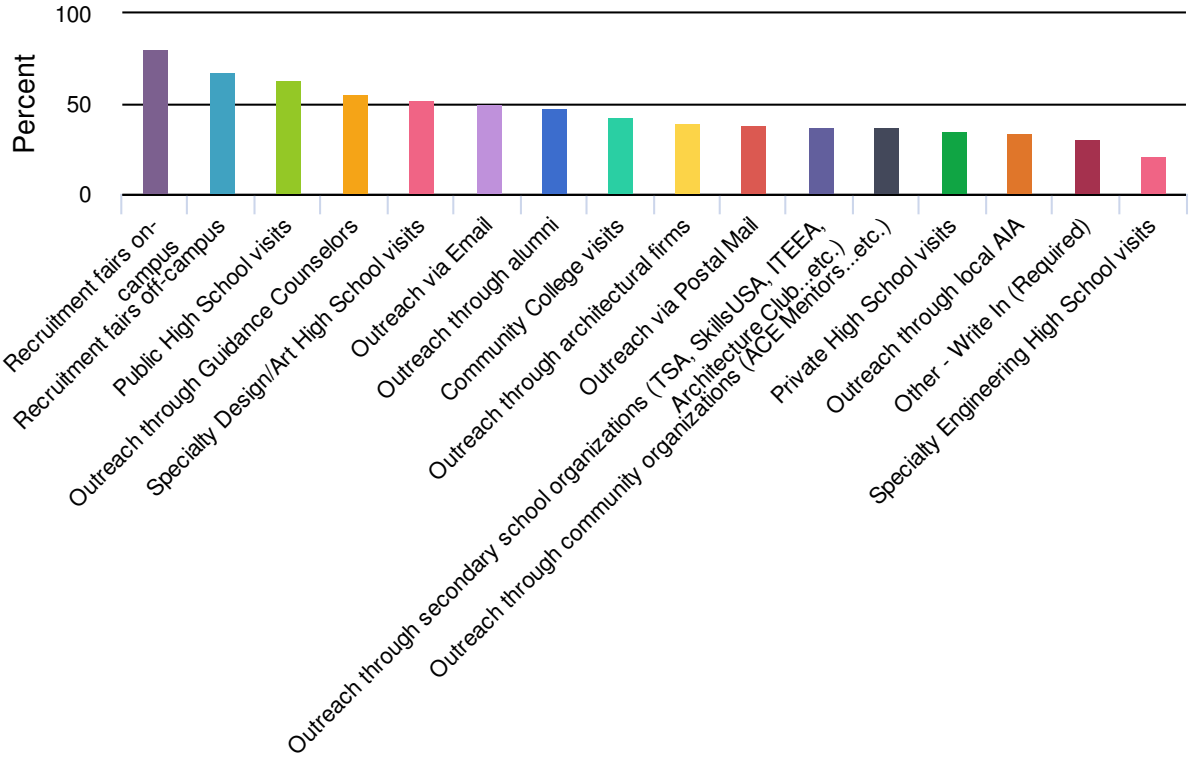
Value	Percent
Completed Application (Physical or Web)	84.7%
Transcripts	71.8%
SAT or ACT scores	56.5%
FAFSA	42.4%
Letter of Intent or Essay	37.6%
Portfolio	25.9%
Letter(s) of Recommendation	23.5%
Other - Write In (Required)	21.2%
Resume	12.9%
Interview	1.2%

Does the portfolio need to be printed or can it be digital? (check all that apply)



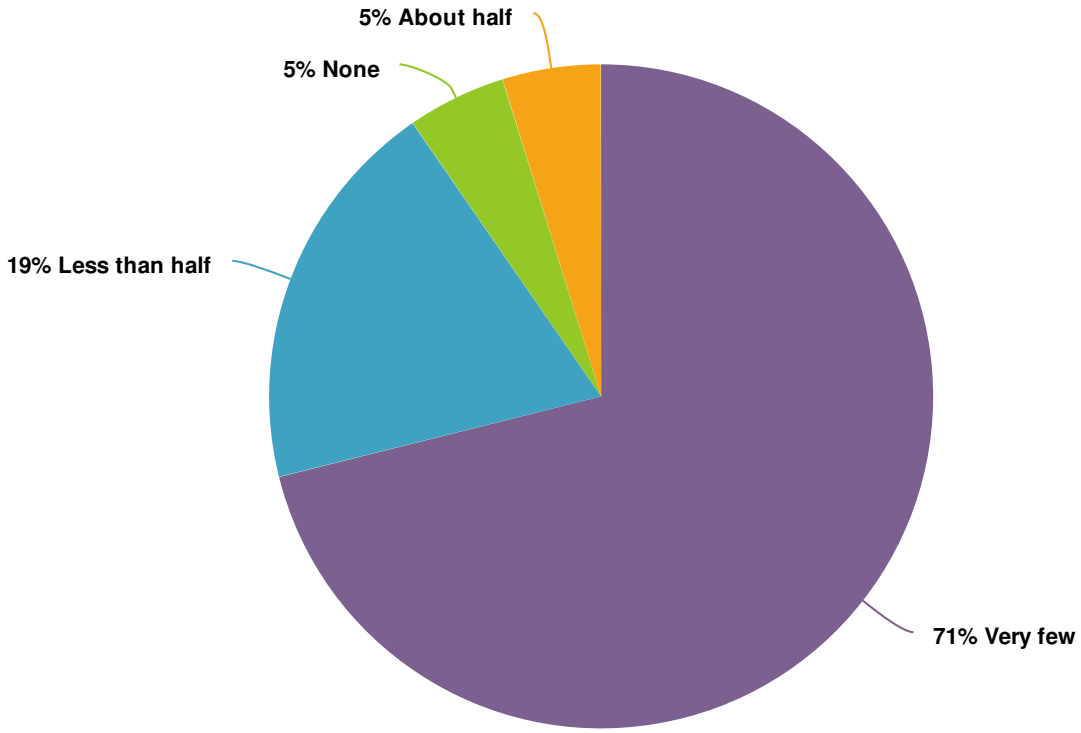
Value	Percent	Responses
We accept digital portfolios.	72.7%	16
We accept printed portfolios.	36.4%	8

In what ways does the architecture program actively reach out to prospective students? (check all that apply)



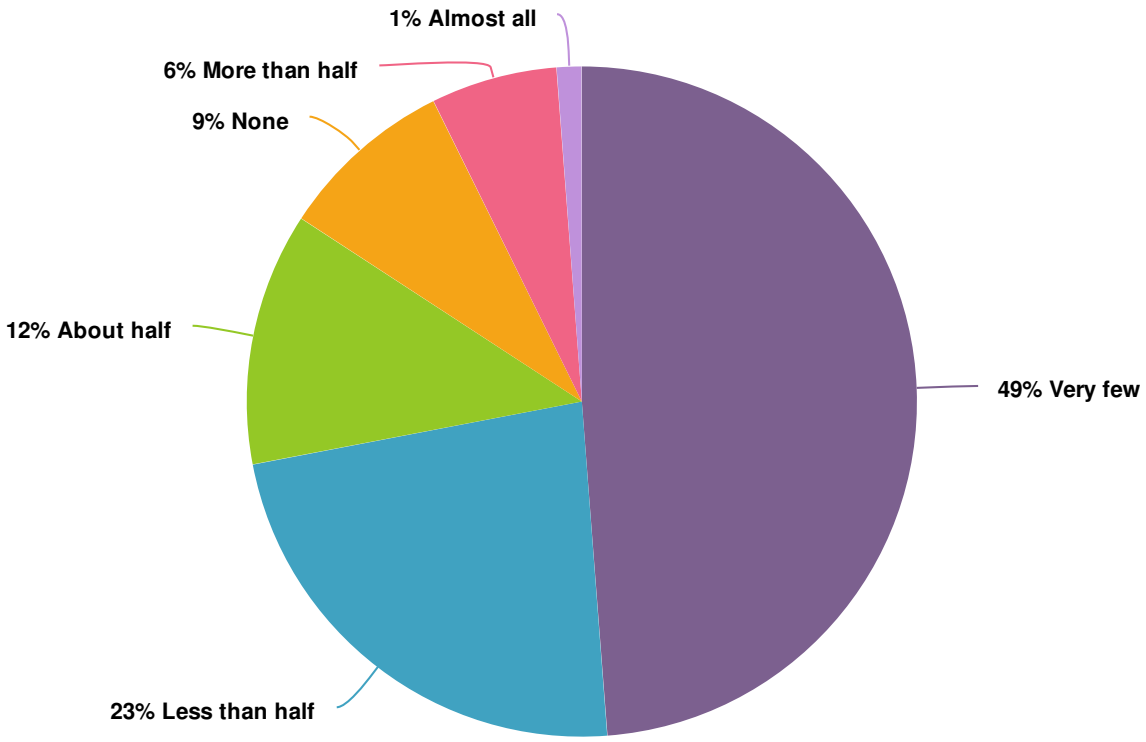
Value	Percent
Recruitment fairs on-campus	80.2%
Recruitment fairs off-campus	68.6%
Public High School visits	64.0%
Outreach through Guidance Counselors	55.8%
Specialty Design/Art High School visits	52.3%
Outreach via Email	50.0%
Outreach through alumni	47.7%
Community College visits	43.0%
Outreach through architectural firms	39.5%
Outreach via Postal Mail	38.4%
Outreach through secondary school organizations (TSA, SkillsUSA, ITEEA, Architecture Club...etc.)	37.2%
Outreach through community organizations (ACE Mentors...etc.)	37.2%
Private High School visits	34.9%
Outreach through local AIA	33.7%
Other - Write In (Required)	30.2%
Specialty Engineering High School visits	22.1%

What percentage of students apply to your program(s) with relevant work experience?



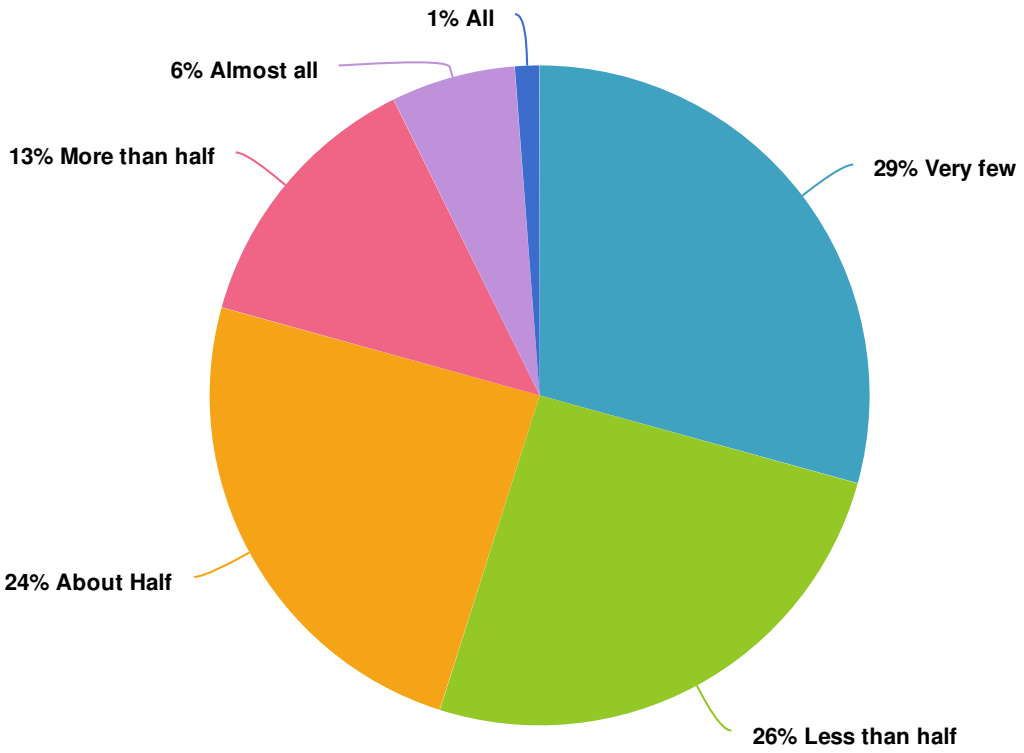
Value	Percent
Very few	71.1%
Less than half	19.3%
None	4.8%
About half	4.8%

What percentage of students apply to your program(s) with AP and dual enrollment art and design coursework? (e.g. AP Studio Art, AP Art History, ARC 101: Introduction to Architecture...etc)



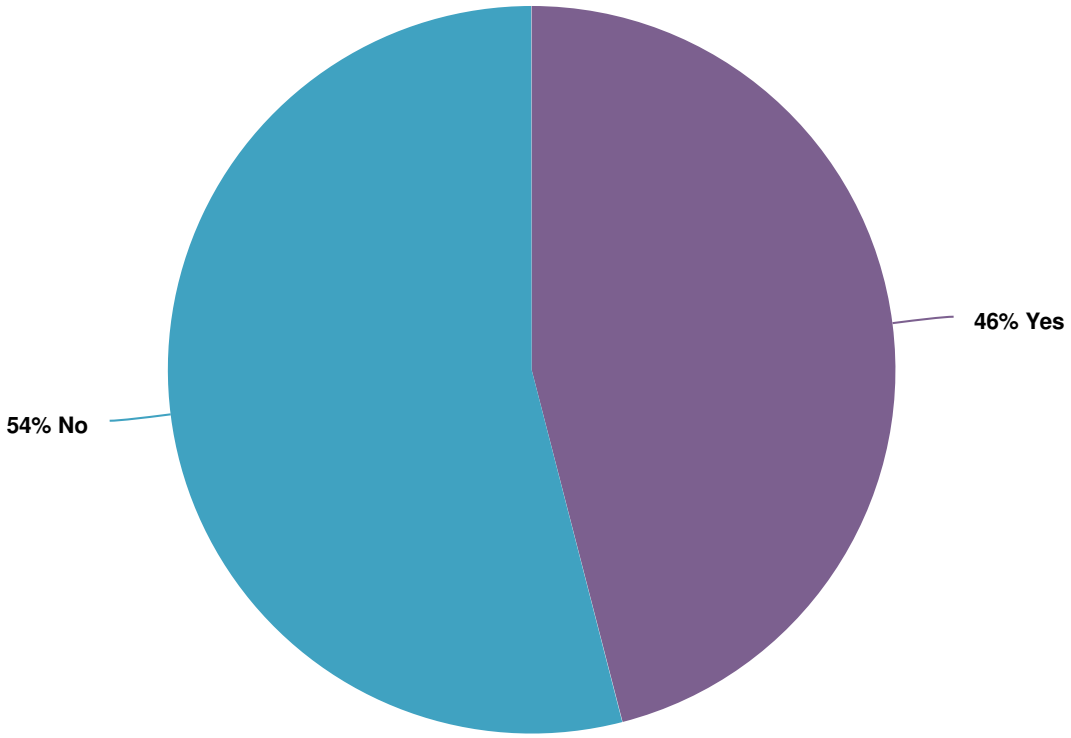
Value	Percent
Very few	48.8%
Less than half	23.2%
About half	12.2%
None	8.5%
More than half	6.1%
Almost all	1.2%

What percentage of students apply to your program(s) with high school art and design coursework? (e.g. Art II, Technical Drawing, Architectural Drafting and Design...etc.)



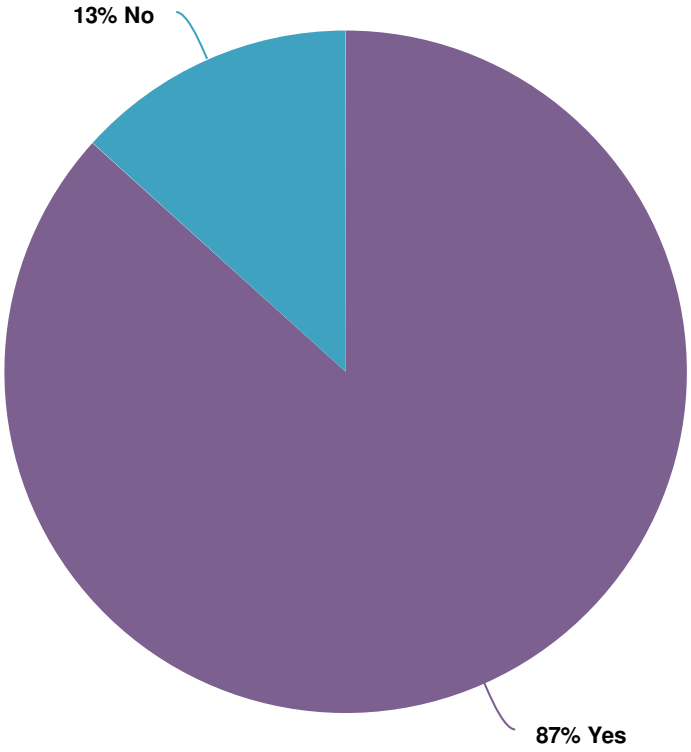
Value	Percent
Very few	29.3%
Less than half	25.6%
About Half	24.4%
More than half	13.4%
Almost all	6.1%
All	1.2%

(4-Year Colleges/Universities ONLY) Does your program have articulation agreements with community colleges?



Value	Percent
Yes	46.0%
No	54.0%

(Community Colleges ONLY) Does your program have an articulation agreement with any colleges or universities?



Value	Percent
Yes	86.7%
No	13.3%