

Texas A&M Engineering Academies: Impacts of Effective Marketing

Jon Carter Buchanan, Texas A&M University

Mr. Buchanan has always had a passion for working with students. After spending many years in full-time ministry, he began working for Texas A&M University in 2009 as an Admissions Counselor. He served as lead transfer advisor for the Aggieland Prospective Student Center and was also the liaison for the Program for System Admission. From 2016-2018, he was Associate Director of Engineering Academies, spending the majority of his time on recruiting students for the program. He currently serves as the Director of Recruiting for the College of Engineering and is responsible for recruitment and diversity efforts at both the undergraduate and graduate levels.

Ms. Amy Suzan Klinkovsky, Texas A&M Engineering

Amy Klinkovsky has nearly 25 years experience in communications, 17 of those in higher education. Her career with Texas A&M Engineering began in 2016 after having spent eight years in Los Angeles, California, where she earned a master's degree and worked in the entertainment and non-profit industries. She has a passion for creating opportunities for students with diverse voices to share their stories.

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Mr. Jon Buchanan, Director of Recruiting
Ms. Amy Klinkovsky, Communications Specialist II

Introduction

There exists a variety of articulation agreements among institutions of higher education across America. At a minimum, these agreements ensure transferability of coursework from 2-year institutions to 4-year institutions. Additionally, some also provide guaranteed admission to students who meet specific coursework and grade point average requirements. The College of Engineering at Texas A&M University does not actively participate in any such articulation agreements. Instead, it has created and developed the Texas A&M Engineering Academies, which is the first engineering transition program of its kind in the United States. This innovative program provides a pathway to students interested in pursuing an engineering degree at Texas A&M University. Students admitted to an Engineering Academy are Texas A&M engineering students co-enrolled at Texas A&M University in the College of Engineering and at a participating 2-year institution. They enroll in math, science and core curriculum courses through the 2-year and have the unique opportunity to enroll in Texas A&M engineering courses taught by Texas A&M faculty on the 2-year campus. Students can spend a minimum of one year up to a maximum of two years co-enrolled before transitioning full time to College Station to finish their bachelor's degree. Unlike traditional articulation or transfer programs, students earn Texas A&M engineering course credit from day one, thus making measurable academic progress toward both their associate and bachelor's degrees.

With seven partnerships across the state of Texas, an effective marketing scheme is critical to the success of the program. Further, while the admission and enrollment process is standard, nuances exist with each partner institution that often require unique marketing approaches. Data presented will help to properly analyze past marketing efforts. In addition, this paper will also highlight the multiple communication and marketing methods currently utilized, while exploring necessary variations to promote future success in recruitment and retention. According to the U.S. Census Bureau, 2018 population estimates for Texas were 42 percent white, 39 percent Hispanic/Latino, 13 percent black or African American, 5 percent Asian and 1 percent other [1]. We believe tailored marketing strategies will help achieve the ultimate goal of an enrollment reflecting the demographics of Texas.

History of the Partnerships

In 2013, a version of what would become the Engineering Academies was piloted under the name Blinn TEAM-E and housed under the Transition Academic Programs department at Texas A&M University. This initial partnership was established with Blinn College, a 2-year institution located approximately 5 miles from the Texas A&M University campus. In 2014, the program rebranded to become the Engineering Academies and oversight moved under the College of Engineering. The first remote Engineering Academies with Blinn College-Brenham and Houston Community College opened in 2015. Since then, we have established and launched Engineering Academies with four more 2-year institutions: El Centro College in Dallas (2016), Austin Community College (2017), Texas Southmost College in Brownsville (2017) and Alamo Colleges District in San Antonio (2018). We're also pleased to announce a new academy will open in 2019 with Midland College. These remote academies allow students to begin a

Texas A&M engineering degree in a local market. They stay at or close to home, experience smaller class sizes and enjoy substantial cost-saving benefits.

It's important to note the academies with all institutions except Blinn College include a third, corporate partner. For the academies in Houston, Dallas, Austin, Brownsville and San Antonio the partner is the Chevron Corporation. For the new academy in Midland, the partner is Concho Resources Inc. They provide sponsorship and funding for programmatic expenses including recruitment, campus engagement events and marketing and communication. Campus engagement events are opportunities during the academic year for academy students to travel to College Station to gain familiarity with the university and experience Aggie culture. These events are part of the curriculum and are required components of the program. They complement the academic experience and help create a smoother transition from the 2-year institutions to Texas A&M.

Target audience

The academies were originally established to increase the access and affordability of Texas A&M engineering degrees. The state of Texas has a current need for engineers and there is an expected shortage of 50,000 engineers by 2024 unless action is taken [2]. Texas A&M is leading the way in efforts to contribute to the technically trained workforce in Texas and beyond. The academies team has also been intentional when selecting 2-year partner institutions with which to work. These strategic partnerships have allowed us to leverage the existing diversity of our partners in an effort to increase the diversity in the Texas A&M College of Engineering.

Marketing goals

The Engineering Academies increases the access and affordability of an Aggie Engineering degree with the goal of enrolling 700 new students each year across our seven remote academies. Initial marketing and communication efforts consisted only of press events, press releases and unpaid media efforts. We discovered these efforts alone are not sufficient in reaching our target audience. Thus, the Engineering Academies program began investing in digital and traditional advertising in 2017 to increase the visibility of the program in the geographical regions where our 2-year partner institutions are located. Each advertising platform included a unique URL to help the team determine the return on investment and set a baseline for future marketing efforts. These are intended to complement the various relational recruitment events.

Marketing challenges

There are several challenges when marketing the Engineering Academies to prospective students:

1. Since opening in 1876, to be a student at Texas A&M meant living in College Station. Branch campuses opened at Galveston (1962) and Qatar (2003) but those campuses remain small compared to the main campus in College Station. Additionally, introducing the idea of beginning an Aggie engineering degree in a local market has been challenging. As a tradition-rich



institution built on generations of families, reframing this commonly (and not completely inaccurate) held belief is no easy task.

2. Explaining the differences (all of which are positive) between the co-enrollment model versus traditional articulation agreements is critical. Clear and concise communication is rarely possible via social media and other advertising platforms.
3. Abolishing the concern that students enrolled in an Engineering Academy receive a lower-quality education than their peers in College Station requires careful and unique verbiage.
4. The Texas A&M University System includes 10 universities which are completely independent of Texas A&M University yet use “Texas A&M” in their titles (e.g., Texas A&M International University, West Texas A&M University, Texas A&M University-Corpus Christi, etc.). Those familiar with the Texas A&M System nomenclature could easily presume the academies are part of the system rather than Texas A&M University. Furthermore, many believe that all Texas A&M System schools are Texas A&M University, and therefore assume students in the Engineering Academies can transition to any system school.
5. Marketing budgets are limited. We are fortunate the majority of our Engineering Academies are sponsored by Chevron and Concho and funds are available for marketing purposes. As we share each of the marketing platforms used to promote the Engineering Academies, we will include the budget for each so you have a greater understanding of scalability depending on the available budget.
6. Across social media platforms, most organizations do not pay for marketing to anyone under 18 years of age in order to ensure compliance with the Federal Trade Commission’s Children’s Online Privacy Protection Act [3].

What we’ve done

The marketing and recruitment efforts for the Texas A&M Engineering Academies fall into three different categories: relational, traditional advertising, and social media, described below.

Relational

Currently, the Engineering Academies program has two full-time employees whose primary responsibilities include recruitment of students. As such, these employees travel across the state of Texas to attend college fairs, make school visits, and collaborate with regional Texas A&M entities like the Prospective Student Centers, Association of Former Students clubs and Aggie Mom’s clubs. They also work with the 2-year institutions to develop information sessions on their local campuses and identify other potential recruitment methods.

College fairs (TACRAO, individual school visits, etc.)

The Texas Association of Collegiate Registrars and Admissions Officers (TACRAO) hosts numerous recruitment events throughout the year at various locations across Texas. The Engineering Academies team selects which events to attend based on educational opportunities offered (i.e., advanced math/science courses, STEM programs, etc.), demographic data for targeted students (i.e., ethnicity, socioeconomic status, etc.), proximity to 2-year partner institution campuses and established relationship with Texas A&M. These events also allow the Engineering Academies team to connect with high school teachers, counselors, and administrators in an effort to schedule individualized school/classroom visits aimed at a more targeted audience.

Information Sessions

The Engineering Academies team works in conjunction with the partner institutions to develop information sessions held on or near the 2-year campuses. They are advertised and administered jointly by staff and faculty from both institutions, usually during evening hours. The primary target audience is current college students but many high school students and families also attend. One way in which these are advertised is by visiting sections of math courses taught by our partner institutions.

Traditional Advertising

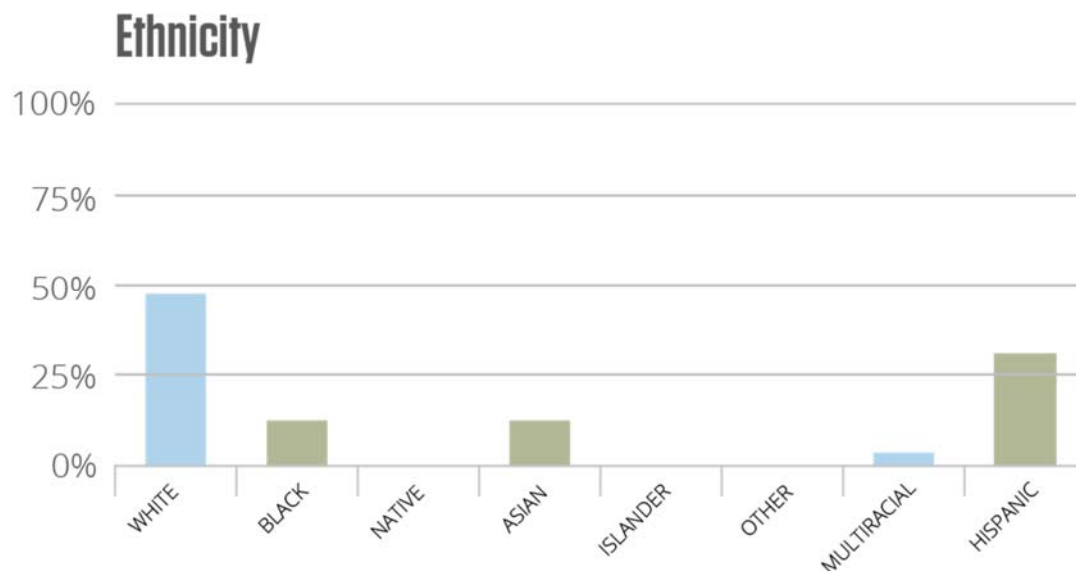
In addition to the two full-time administrative employees, the Engineering Academies program shares a communication specialist with three other programs. The communication specialist works closely with the administrative staff to develop content and art for traditional marketing methods. For the purpose of this paper, traditional marketing includes any advertising or communication efforts not directly tied to a social media platform.

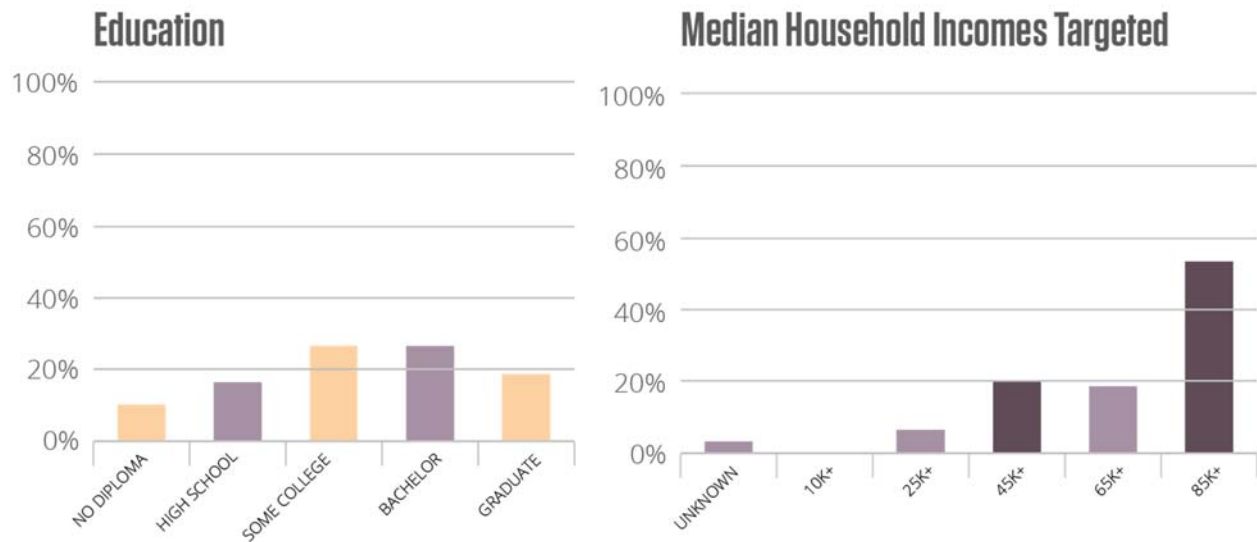
30-Second Commercial

In 2018, the Engineering Academies invested in producing a commercial that was shared via Over-the-Top (OTT) advertising platforms. OTT platforms are those which only need an internet service to be seen (e.g., Hulu, YouTube, Pandora). The 30-second commercial contained a unique URL (tx.ag/path) and aired during May and June 2018. We also made the commercial available to our partner institutions for promotion across their social media platforms.

The commercial had 233,306 impressions with a 96 percent video completion rate (VCR)—meaning 223,213 viewers allowed the commercial to play through entirely. We can attribute 133 visitors to the Engineering Academies website through the OTT campaign. The total number of visitors to the Engineering Academies website using the unique URL in the commercial is 248—our data shows that in addition to the 133 from the OTT advertising campaign, 111 visited the site from Twitter, three from Facebook and one from LinkedIn.

OTT analytics also offers a glimpse of the demographics reached by the commercial:





From the charts above, the OTT advertising was successful in reaching an audience whose ethnic diversity is closely aligned with the diversity of Texas. We are hopeful those who have already earned bachelor's or graduate degrees will share the Engineering Academy option with their children or friends who are exploring unique options in earning a bachelor's degree.

Digital Billboard

The Engineering Academies invested in a digital billboard near Northeast Lakeview College in San Antonio, Texas—where the math, science, and engineering courses are offered. The billboard had a unique URL to help measure advertising effectiveness. The total cost for the billboard was \$947.60 and the ad ran from May 10 – June 26, 2018. The billboard resulted in only five click-throughs to the Engineering Academies web site.

Display Advertising in the Texas Homeschool Coalition Magazine

In October 2018, the Engineering Academies placed a centerfold advertisement in Home Educator Quarterly, a magazine published by the Texas Homeschool Coalition. We've discovered that homeschooled graduates are pursuing the Engineering Academies—especially those who are younger than the typical college student—because they find comfort in being able to live at home a bit longer. Since 2014, 29 home school students have enrolled in one of the Engineering Academies. More than 80 percent enrolled from 2017 forward and we expect more growth in this area now that we actively target these students.

The two-page, centerfold advertisement in the magazine was \$5,000 with a distribution of 64,000. To date, 106 visitors reached our website with the unique URL included in the advertisement. Additionally, Engineering Academy liaisons at our 2-year partner institutions confirmed the receipt of phone calls from those who saw the magazine advertisement.

Letters sent by the Office of Admissions

Each year, Texas A&M University receives traditional freshman applications from thousands of competitive students for which there isn't enough room on the College Station campus. Many of these

students are offered alternative options and the Engineering Academies team works in conjunction with the Office of Admissions to ensure the academies option is presented. In 2016 and 2017, the Academies team obtained student contact information from the Office of Admissions, created a recruitment letter and sent it via hard copy to prospective students and their families. In 2018, the Office of Admissions agreed to incorporate verbiage about the remote academies in their official communication so there was not a need to send an additional hard copy letter directly from the Engineering Academies team.

Press Events, Press Releases and Unpaid Media Coverage

It is standard practice for the College of Engineering to host a press event each time a new academy partnership opens. Statewide events were held in 2015 with the announcement of the partnerships in Houston, Dallas, Brownsville, and San Antonio. These multi-city, same-day press events in 2015 resulted in 124 media hits nationwide. In 2016, the success of the program continued to garner media attention—receiving 58 more media mentions with 12 of those being the result of a press event announcing a new Engineering Academy partnership with Austin Community College. In 2017, the Engineering Academy program appeared in 16 more media outlets.

In 2018, we held a second press event announcing that the Engineering Academy in San Antonio would begin enrolling students in fall 2018. The second event focused on local media only since the partnership with San Antonio was part of the inaugural announcement in 2015. Current and prospective students as well as local high school teachers and counselors were also invited. Over 100 individuals attended the press event and it was covered by the Texas Standard for National Public Radio, the local AM news station in San Antonio, and the local FOX television affiliate.

Campus-specific Marketing Budget

Each of the 2-year partner institutions has been given a budget of \$15,000 to develop Engineering Academy visibility for their particular campuses. Houston Community College at Spring Branch is located at the intersection of Interstate 10 and Beltway 8—two of the busiest highways in Houston. They used the entire \$15,000 allocation to develop a highway facing sign for the academy and light pole banners for their parking lot. While there is not an effective way to capture data regarding how many people learned about the program from seeing the sign and banners, one student indicated through additional remarks on a marketing survey that the sign and banners were the reason they searched for the program online. The Engineering Academies team now includes unique URLs on all marketing so impact can be measured and evaluated. Conversations are ongoing with other partner institutions about how to best invest these marketing dollars with ideas ranging from painting campus water towers to advertising in public transportation.

Bilingual Marketing Material

All Chevron Engineering Academy partnerships are with Hispanic Serving Institutions (HSIs) and it is a priority to reach Hispanic students during the recruitment process. We provide Spanish translations of all our printed promotional material. Traditionally, Hispanic student decisions about where to go to school and what careers to pursue are greatly influenced by parents and grandparents [4]. As such, we want to pro-actively provide resources for those family members for whom Spanish is their primary language. These materials highlight the cost savings associated with the high-quality education, the smaller class sizes in the first two years that provide more family-like support for students, and the step-by-step process for applying to the program.

Social Media

Paid Social Media Advertising

According to SproutSocial [5], there are “more than two billion monthly active users on Facebook”—with over one billion of those logging into the social media site daily. A State of Mobile report by Flurry Analytics [6] notes the average United States consumer spends five hours a day on a mobile device. Anecdotally, it appears most high school and college students in our communities are actively using their mobile devices.

In 2017, the Engineering Academies invested \$12,000 in a Facebook social media campaign. The national average click-through rate (CTR) for Facebook across all industries is 0.90 percent and education is just 0.73 percent [7]. The table below shows we achieved a CTR of 1.5 percent—besting the national average by more than 60 percent. Because the social media campaign’s primary goal was to identify prospective students, the CTR and the 261 leads generated were the most important metrics. In 2018, we invested \$40,500 in an expanded social media campaign that included Facebook (\$19,500), Instagram (\$15,000) and Twitter (\$6,000). The table below provides the metrics for each year’s campaign.

2017							
Social Media	Reach	Impressions	Ad Click	Leads	CTR	Actions	Page Likes
Facebook	163,524	532,837	7,889	261	1.5%	4,158	531
2018							
Social Media	Reach	Impressions	Ad Click	Leads	CTR	Actions	Page Likes
Facebook	306,999	974,793	13,617	498	1.4%	7,285	844
Instagram	219,023	580,561	3,083	150	0.5%	5,528	n/a
Twitter	n/a	461,496	2,190	29	0.5%	5,606	165
2018 Total	465,456	2,016,850	18,890	677	0.9%	18,419	1009

Table definitions - **Reach**: Number of unique individuals who saw the advertisement; **Impressions**: Number of times the advertisement appeared in a feed; **Ad clicks**: Number of times the advertisement was clicked; **Leads**: Number of individuals who completed the online form associated with the advertisement; **CTR**: Click-through rate (ad clicks ÷ impressions); **Action**: Any particular action a person made as a result of the advertisement (e.g. liking the Facebook page, filling out a lead generation form, sharing the advertisement, commenting on the advertisement, etc.); **Page likes**: the number of unique individuals who liked the Texas A&M Engineering Facebook page as a result of the advertisement

In 2017 and 2018, our Facebook CTR exceeded the educational national average; however, our return on investment is not measured simply by CTR, increased awareness or any of the other analytics measured by the social media channels but in how many students applied, were accepted, and then ultimately enrolled in the Engineering Academies.

To begin measuring the return on investment, the Engineering Academies team conducted a survey in December 2018. The survey was distributed to 374 students, all of whom enrolled in an Engineering Academy in fall 2017 or later. Of the 76 who responded, 51.3 percent were first introduced to the Engineering Academies by a Texas A&M or 2-year institution staff or faculty member. This includes campus visits to Texas A&M or a partner 2-year institution, college and career fairs across Texas, and individual high school visits.

Additional responses show 14.5 percent of respondents heard about the Engineering Academies from friends and classmates and 10.5 percent from the Texas A&M website. However, only 1.3 percent said they first learned of the Engineering Academies through a social media platform.

The data we collected is challenging our assumptions about Generation Z's preference for digital communication, given that over 50 percent credit one-on-one interaction with enrollment. In fact, a 2017 online article about communicating with Generation Z noted that 39 percent believe in-person communication to be the most effective [8].

What We've Learned & Moving Forward

Market Research and Enrollment Services

While our advertising has resulted in increased awareness, with a click-through rate surpassing national averages, we are still struggling in converting interest to applications and enrollment. Some of this may be related to our staff consisting of only 2.5-3.5 full-time employees during this time. We are currently in conversation with organizations who specialize in marketing and enrollment services to help us conduct full-scale market research and then assist in ensuring the marketing plan in place leads to qualified applicants who are ultimately admitted and enrolled.

Increasing Visibility at 2-Year Institutions

Video Monitors at 2-Year Institution Partners

Beginning in 2019, the Engineering Academies will integrate the Houston Community College campus into the Texas A&M Engineering Four Winds International video monitor system. This system will push digital messages promoting student success and upcoming events to a monitor installed in the corridor outside of the Engineering Academy classroom at Houston Community College at Spring Branch. If the integration is successful, similar systems will be installed at all Engineering Academy 2-year partner institutions.

Marketing Budget for 2-Year Institutions

As mentioned previously, each 2-year partner institution has been given a \$15,000 budget to increase awareness of the Engineering Academy on their local campuses or in their communities. To date, Houston Community College is the only campus to take advantage of these funds; however, there are on-going conversations on how to best invest these funds at all other 2-year partner institutions.

Conclusion

Combined enrollment in the Engineering Academies for fall 2017 and fall 2018 is 43 percent white, 39 percent Hispanic/Latino, 7 percent Asian, 3 percent black and 8 percent other. These figures are promising as we aim to reach our goal of ultimately matching the state's demographics. As university administrators, investors and former students continue to champion the Engineering Academies and the students enrolled in them, we will continue to actively engage and evaluate the best ways to reach students most in need of this program

We have learned that this unique program requires multiple strategies to effectively attract new students. Because it is different than the typical 4-year experience, marketing methods must be carefully tailored toward prospective students. The data suggest that the best method moving forward

is to continue our face-to-face outreach while also ensuring all social media advertising methods incorporate timely, one-on-one communication whenever possible. The reach, impressions and click-through rates indicate a successful social media advertising campaign, but to date, the cost per enrolled student has been extraordinary. Using the data collected in the December 2018 marketing survey, the \$52,500 investment in social media advertising resulted in five enrolled students—that's \$10,500 each. Still, the campaign could have positively influenced younger decision-makers, not yet eligible to apply, to consider the Engineering Academies. What is certain, is that a blended approach to recruiting is required.

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