

# President Paugh Reports to Convention

## State of the Association

WE ARE GATHERED HERE in Columbus, Ohio, for Tau Beta Pi's 114<sup>th</sup> Convention — and nearly 135 years since our founding. We are proud to have sustained the organization for so long. But, we are still growing. I am confident our tomorrows will be even brighter than our yesterdays.

I want to take the opportunity to thank our District 7 hosts: Ohio Gamma, Ohio Delta, and Ohio Iota. Hosting a Convention is a great opportunity — but it comes with a lot of work and responsibility. So, thank you!

Although this is my first time in Columbus, it is not my first time in the great state of Ohio. When I served in the United States Patent and Trademark Office, each year I attended the National Inventors Hall of Fame gala in Akron to induct new members.

Which got me thinking—back in 2003, I traveled to Kitty Hawk, North Carolina, to mark the Centennial celebration of Orville and Wilbur Wright's first flight and Hall of Fame inventors themselves. It's been over 115 years since that world-shaking Kitty Hawk success. North Carolina — known for years as 'First in Flight.'

Ohio has always been the birthplace of aviation. The Wright Brothers were born in Dayton, Ohio. Columbus has the John Glenn airport — the first American to orbit the Earth. And, this year we mark 50 years since we traveled to the moon. Neil Armstrong was born in Wapakoneta, Ohio, about 60 miles north of Dayton.

Think about it. From 1903 to 1969, just over six and a half decades from first flight to lunar landing. It still boggles the mind. In one life, an American could have started with a horse and carriage and ended as a witness to a moon walk.

A 1969 article in *The Bent* featured 14 Tau Bates who worked on the historic Apollo 11 mission. These were the brilliant engineers who Neil Armstrong often marveled at when contemplating their contributions. I knew Neil Armstrong. He spent a lifetime deflecting what he thought was underserved praise and attempting to credit the work of others. These were the engineers who made it possible to make history — and to return safely to Earth. These were your colleagues.

Since our founding at Lehigh University in 1885, we have come a long way. Over 602,000 members; 248 active collegiate chapters; 45 active alumni chapters; nearly 20 members having served in the U.S. Congress; over 20 Nobel Prize recipients; and over 60 members in the National Inventors Hall of Fame. It's why I remain proud to have had the opportunity to serve this Association.

As president, my role has been to relentlessly pursue our mission, engage in strategic planning, bolster financial resources, strengthen our programs and services, help

recruit members to serve the organization, enhance our public image, and empower and motivate the Executive Council to set goals and pursue them. With nine talented and dedicated members on the Council, each has taken a leadership role through our committee structure. For 362 days each year, we are the governing board. We also serve as community ambassadors for Tau Beta Pi.

For me, in some ways it is hard to comprehend a lawyer leading the most prestigious engineering honor society on the face of the planet. But, my engineering roots remained in the forefront of my mind throughout my service on the Executive Council. That being said, I did find sometimes that being a lawyer helped to conduct business on the Council!

## Business of the Association

Let me touch on a few things that occurred during the course of the year and help fulfill my obligations under the Bylaws.

There were no new collegiate chapters installed during the year; however, the 113<sup>th</sup> Convention in Denver, Colorado, reactivated Colorado Gamma at the University of Denver. This is a short drive from where I live in District 12. I have had the opportunity to stay in touch with Professor Matthew Gordon and offer my assistance — and perhaps serve as a guest speaker for an upcoming initiation. Tau Beta Pi is flourishing again on campus!

One alumni chapter was reactivated: right here in Columbus, in plenty of time for the Convention.

Additionally, the Executive Council visited the University of Texas at Dallas and the University of Arkansas at Little Rock. Petitions for each school will be considered by the 2019 Convention.

Also, one petition for a new chapter was received and an inspection team will visit the local engineering society at the Georgia Southern University.

Overall, chapters initiated 8,613 new members in last fiscal year, which included 39 alumni and 36 eminent engineers. Of note, this number was down nearly 8 percent from last year so there is work to do.

Despite the decrease, I am pleased to report that we remain the largest engineering honor society in the world. As of July 31, 2019, the Association has initiated 602,043 members.

During the year, three members resigned from the Association. No one was expelled and no member was disciplined. Colorado Beta did contact the Council, however, to raise an issue regarding expulsion of a member. Over the last year, the Executive Council has been working on re-writing our Association discipline policy and procedure. This policy was formally adopted in June 2019.

Consistent with the Eligibility Code adopted by the 1926 Convention, “[d]istinguished scholarship, while the primary requisite for admission, must not be considered the sole criterion.” To be sure, “[a]fter the scholastic requirements have been fulfilled, the selection shall be based on integrity, breadth of interest both inside and outside of engineering, adaptability and unselfish activity.” Included under integrity are high standards of truth and justice and personal character beyond reproach. The formalized policy remains true to these directives while also adhering to fundamental fairness and due process requirements.

During the calendar year, the Executive Council met in person three times in an effort to balance costs with doing the good work of the Association. We also brought back monthly meetings this year. Overall, the Executive Council met each month of the year, by WebEx or in person, to ensure we were able to tackle the business of the Association in a timely manner.

### Programs and Celebrations

Turning to programs and celebrations, the 50<sup>th</sup> Anniversary of the lunar landing is not the only 50-year mark worthy of mention. Also, this is the 50<sup>th</sup> Anniversary for initiating women into Tau Beta Pi. Back in 1969, we initiated 155 women into our Association. And, we are thrilled that over 20 of them have joined us for the 2019 Convention!

A number of chapters are recognizing 50 years as well.

- Puerto Rico Alpha – University of Puerto Rico
- Mississippi Beta – University of Mississippi
- Texas Eta – University of Texas at Arlington
- Texas Theta – University of Texas at El Paso
- California Lambda – University of California, Davis

Another important milestone this year is the 30<sup>th</sup> Anniversary of the Engineering Futures Program. In recent years, this program has achieved more impact in the engineering community, expanded its subject matter, and greatly increased its cost effectiveness. We are reaching more students with less expense to the Association. Engineering Futures remains the crown jewel of our professional development efforts.

Specifically, a total of 149 training sessions reached nearly 3,500 individuals. A total of 37 Engineering Futures Facilitators presented these sessions to help improve the leadership skills of students and prepare them for their careers.

In the renowned MindSet Program, there were almost 30 chapters that hosted hands-on activity sessions at local schools. We have reached nearly 10,000 K through 12 students.

**Scholarships.** 289 scholarships were awarded, an increase over last year. In fact, this is our high mark in the history of Tau Beta Pi. Over the last decade, we are generally trending up each year. There was also an increase in the number of chapters receiving scholarships for the first

time. Now, we have Tau Bates who have received scholarships in all but three of our chapters. On a personal note, 4 of the top 6 chapters receiving scholarships reside within my home district — District 12. Coincidence?

**Fellowships.** The 86<sup>th</sup> Fellowship group included a whopping 36 students and each award totaled \$10,000.

**113<sup>th</sup> Convention.** A follow up from last year’s Convention. The Council has addressed all the directives, including some items that have carried over to 2019. To name a few, an *ad hoc* Website Committee has been chartered for this Convention. Follow up changes and proposals were pursued with our Trust Advisory Committee. Also, the Council worked hard on developing a new logo and seal for the Association.

### Strategic Plan

When I served on Capitol Hill almost 20 years ago, starting as a Congressional Science and Engineering Fellow, I used to spend time in the House Science Committee hearing room. There are two prominent quotes on the wall of the hearing room. One was from the Proverbs, Chapter 29, Verse 18: “Where there is no vision, the People Perish!”

I often paused and pondered the messages when I entered the spacious room. I have also pondered this statement in my service to Tau Beta Pi. If we cannot articulate a vision paired with a plan of action to inspire and achieve, then our organization cannot maximize its potential as an organization. This is the foundation for our Strategic Plan, which continues to feature five broad goals.

- Optimize the organizational structure and develop operational processes
- Enhance the image, visibility, and branding of TBPi
- Improve chapter support and operations
- Provide leadership and professional development training to members
- Strengthen the finances and fundraising of TBPi

The Strategic Plan has remained the road map the Council has used to prioritize our time and funds in achieving the goals of the Association. We are simultaneously serving as stewards of the Association and as entrepreneurs, constantly seeking new ways to achieve more.

In that vein, the Council also recognizes the Strategic Plan is just that: a plan. As heavyweight champion boxer Mike Tyson observed, “Everyone has a plan until they get hit in the face.” So, we have remained flexible and adaptable to emerging issues.

While we have made progress on all the overarching goals, I want to take this opportunity to highlight a few items to the Convention. You will also have the chance to hear reports from the Executive Director and other officers.

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# President's Report

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## Finances

Overall, the financial status of Tau Beta Pi remains strong. There are, however, opportunities to strengthen our finances by staying connected and resonating with members after they have graduated.

Total alumni contributions increased by \$60,000 over the fiscal year. Specifically, unrestricted alumni giving totaled \$1,020,000 from 8,816 donors. Compared with last year, this is about the same dollar value but a significant decrease in the number of donors who contributed.

There remains a call to action for newer members to transition to alumni chapters for involvement. Lifelong membership does not necessarily equal involvement. But, we want to make sure it does.

Over 30 years ago, in 1987, we had over 319,000 members. Of those, 19,695 donated to Tau Beta Pi, representing nearly 6 percent of our membership at the time. In terms of giving, any school or non-profit would be grateful to achieve this contributor level.

In 2018, we had nearly 600,000 members. Of those, less than 9,000 donated to Tau Beta Pi, representing about 1.5 percent of membership — about twice the number of members but less than half the number of donors. Over the last 30 years, the decrease in number and percentage of members has been steady. If we were to apply the percentage from 1987, we should hope for over 35,000 donors.

To combat this alarming trend, we first want to achieve 100 percent giving from current officers and volunteers. The amount is not critical but the act of donating is. When the number of donors rise, the number of giving dollars is sure to see an impact and it is an important message to communicate to potential donors.

Additionally, in 1998, Tau Beta Pi had 21 percent of donations originate from members 11-20 years removed from graduation and only 13 percent from those 50 years or more from graduation. In 2017, we received over 15 percent of our donations from the 11-20 years removed category and a whopping 32 percent from those in the 50-year category.

Moreover, in 1998, over 15 percent of donations originated from members 0-10 years from graduation but in 2017, that number decreased to 5 percent.

Overall, the number of donors is steadily decreasing. Additionally, donors are getting older and we are not replenishing those donors with younger members.

In recognition of this trend, one of the Development Committee recommendations was to hire an Annual Giving Officer. The Executive Council quickly approved that recommendation. Such a hire is underway. An Annual Giving Officer will focus exclusive attention on member



giving, with an emphasis on re-connecting with alumni, in particular our millennial members.

Our Major Gifts Officer, Sherry Jennings-King, has continued to raise significant funds for our Chapter Endowment Initiative (CEI). This is great news for the long-term prospects of our Association.

## Image, Visibility, and Branding

Enhancing our image, visibility, and branding remains a primary goal. Although we are approaching 135 years of Tau Beta Pi, as an organization we need to do a better job of broadcasting who we are

to prospective members, the engineering community, and to the general public.

In 2016-19, the number of eligible members for initiation steadily increased: 46,000, 48,000, 51,000, and 57,800, respectively. But, a steady 66 percent of those eligible did not join Tau Beta Pi based specifically on a lack of interest in the organization. Two-thirds of those we offered initiation to declined. We must improve and effective branding can help.

We are seeking more ways to earn recognition, raise our profile, and reach a wider audience. This can be done through issuing more press releases. The goal is to make our name more widely known and to attract more interest from those who have earned an invite to join our Association.

One of the areas that we are exploring are the chapters with the highest acceptance rates, which could provide an insight to developing best practices at the chapter level.

Effective branding can generate more members, which can lead to more involvement, more lifelong learning experiences through Tau Beta Pi, and ultimately more support for our honor society.

In April 2019, I traveled to Washington, DC, to participate in the National Academy of Engineering — Convocation of Professional Engineering Societies. Part of my participation was to find mutual areas of interest with other professional engineering societies and to have a chance to increase our academic and industry profile.

One discussion focus noted that despite efforts to increase STEM education, the statistics still show that less than 5 percent of incoming college freshmen choose science, technology, engineering, or math as majors.

Educators resist tying educational pursuits to job prospects; therefore, all paths of study are given equal billing. Many believe, however, that STEM careers should be highlighted so students are motivated to choose the greater challenge and invest in themselves for greater rewards. Engineering is hard, but it is worth the intellectual investment.



### Convention

There is a lot of important work to be accomplished in the committees and we rely on your dedication to the tasks at hand.

Also, similar to recent years, we have an excellent lineup of Professional Development Sessions to attend.

Last year, we received feedback that Convention attendees were interested in having more corporations at the Career Fair. We listened. This year, we worked hard to recruit companies and to grow participation in the event. We have 22 companies and 56 total recruiters — our biggest Career Fair yet. Please take advantage of this impressive list.

Finally, I want to mention the photo opportunity on Friday. This was a popular activity last year and we received very favorable feedback from the Convention in Denver; again we listened.

### Candidates

For most of the year, the Executive Council governs the operations of Tau Beta Pi. Having capable, professional, and dedicated Councillors is critical to pursuing our mission and managing the organization. On Saturday, the Convention will vote on three members to join the Council.

Please take the opportunity to meet with each of the candidates running for election. I cannot overemphasize the need for good people on the Council.

### Closing

In closing, I want to thank Executive Director Curt Gomulinski for his dedication and tireless efforts on behalf of our Association; our Headquarters staff for all the little things that always matter most; our Association Officials and volunteers, who collectively believe in something bigger than themselves; and our donors who have generously supported Tau Beta Pi and helped to pass the torch to a new generation of engineering leaders.

I want to mention one particular Tau Bate who joined our Chapter Eternal this year. Lido ‘Lee’ Iacocca, PA A ’45, at Lehigh University, passed away on July 2, 2019. Former Chairman of Chrysler, Mr. Iacocca spoke at Convention in 1985 when we celebrated 100 years of Tau Beta Pi.

Iacocca always applied the “Nine Cs” of leadership to his executive career and I thought it appropriate to share a couple of them with you as you embark on your careers. I’ve applied them to my own career.

A leader has to be able to communicate effectively. A leader has to have charisma to inspire others and cultivate trust. And a leader has to be a person of character to have the guts to do the right thing in the face of adversity.

WE are the ones who will continue to solve the world’s most daunting challenges and change life in profound ways.

WE are the ones who will be responsible for advancing the standard of living and developing things thought impossible.

As Orville Wright stated, “If we all worked on the assumption that what is accepted as true is really true, there would be little hope of advance.”

So, let’s relentlessly question the status quo. After nearly 20 years as a lawyer, that’s why I remain committed to my engineering roots.

It has been a privilege serving as president of Tau Beta Pi this year, but I have most enjoyed simply serving as a volunteer and helping to advance the goals of our Association.

I look forward to meeting many of you these next few days.

Neil Armstrong once said “I believe every human has a finite number of heartbeats. I don’t intend to waste any of mine.” Don’t waste any of yours.

Thank you and have a great Convention.

**Wayne B. Paugh, LL.M., JD, Florida Gamma ’93**, has served as an Executive Councillor since 2017, Vice President for 2018, and President for 2019. He has served as a TBEI Engineering Futures Facilitator for 6 years. Wayne earned a B.S. (mechanical engineering) and B.A. (communications) from the University of South Florida. He was an applications engineer until earning a graduate degree in the management of technology. He then pursued a career change by attending law school in Washington, DC, and specialized in intellectual property. He spent 13 years in DC and worked primarily in the federal government in executive and managerial roles. During this time, Wayne served on Capitol Hill and was the Chief of Staff of the U.S. Patent and Trademark Office. He was also appointed U.S. coordinator for international intellectual property enforcement by President George W. Bush. He now serves as special assistant U.S. attorney in the major crimes division.

### BRAIN TICKLERS

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starting at 14,713. For larger primes up to 1 billion, find how many such sequences exist and list the first prime in each sequence.

—Adapted from *The Last Recreations* by Martin Gardner

Postal mail your answers to any or all of the Brain Ticklers to **Dylan Lane, Tau Beta Pi, P.O. Box 2697, Knoxville, TN 37901-2697** or email to [BrainTicklers@tbp.org](mailto:BrainTicklers@tbp.org) as plain text only. The cutoff date for entries to the Winter column is the appearance of the Spring *Bent* which typically arrives in late March (the digital distribution is several days earlier). The method of solution is not necessary. We welcome any interesting problems that might be suitable for the column. The Computer Bonus is not graded. Dylan will forward your entries to the judges who are **H.G. McIlvried III, PA Γ ’53; F.J. Tydeman, CA Δ ’73; J.C. Rasbold, OH A ’83**; and the columnist for this issue.

—**J.R. Stribling, CA A ’92**