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Pathways to success: Leveraging LinkedIn data to map university alumni outcomes

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Abstract---*The era of big data, accelerated by the pandemic, has led to vast amounts of data generated through social media, which can be monetized and used to gain valuable insights for marketers, employers, job seekers, and organizations. Higher education institutions are also leveraging this data to understand their prospective students, current students, and alumni and to build engagement. This paper explores how universities can use social media data, particularly LinkedIn, to analyze alumni career trends, internships, and operational data needs. It examines how students align their academic and professional studies with career interests and how universities can support their vocational goals. Using publicly available LinkedIn data from three different universities, the paper offers insights into internship and career options, graduate school, and alumni networking, emphasizing the importance of stronger connections between universities, employers, and alumni. The paper also highlights the positive relationship between internship duration and alumni career progression, underscoring the value of internships and experiential learning. As alumni increasingly move nationwide, especially with the rise of remote work, universities may need to adjust their recruiting and partnership strategies and should consider using LinkedIn as a tool for assessing outcomes.*
Keywords---*career outcomes, higher education, LinkedIn, social media, university alumni.*

Introduction

In 2024, LinkedIn has solidified its position as a cornerstone platform for professional networking and career advancement. Increasingly, professionals across industries leverage LinkedIn to showcase skills traditionally found in resumes and engage in thought leadership, career exploration, and professional development. LinkedIn has become an essential tool for many digitally savvy individuals, especially those open to exploring new roles or industries. Additionally, universities and career centers now integrate LinkedIn profile creation and optimization as a standard component of career preparation courses, marking a generational shift in reliance on the platform for job searching, networking, and building professional identities.

This study examines the career trajectories of alumni from three different universities: Creighton University, Saint Peter's University, and the University of Florida. Using data gathered in June 2019, the analysis captures a comprehensive snapshot of career milestones, including educational attainment, internships, and transitions between roles, to evaluate career progressions and mobility trends. The dataset spans undergraduate graduation years from 1954 through 2018, reflecting a significant range of career trajectories, with individuals holding between one and fifteen full-time roles. These insights aim to provide actionable data for university career centers, alumni offices, and institutional research departments as they respond to increased accountability demands in higher education. Measuring graduate success, institutional reach, and geographic mobility has become central to evaluating the long-term impact of university programs (Herrmann et al., 2015).

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Why LinkedIn?

LinkedIn continues to dominate as the world's largest professional networking platform with over 950 million members and 65 million registered companies in 2024. With members spread across more than 200 countries, LinkedIn maintains a robust global presence, and its adoption rate exceeds two new users per second. More than 60% of LinkedIn users engage actively with the platform, whether by sharing insights through articles, applying to over 25 million posted job opportunities, or networking with their professional communities. The platform has impacted how recruiters—both corporate and academic—identify and communicate with candidates, often bypassing traditional application tracking systems entirely.

In December 2016, Microsoft finalized its $26 billion acquisition of LinkedIn, integrating its operations into Microsoft's Product Revenue and Service and Other Revenue segment. LinkedIn's growth has since exceeded expectations in user engagement and career relevance. Smith (2014), reported that 40% of users visited LinkedIn daily to read among the more than 130,000 articles created weekly by its community, which included 61 million senior-level influencers. Per LinkedIn's own published statistics, the platform continues to grow at a rapid pace, surpassing earlier trends from 2009–2016.

For this study, the demographics and LinkedIn activity of alumni from the targeted universities were analyzed. For instance, the University of Florida (U.F.) demonstrates a strong presence, with approximately 400,000 followers on its main LinkedIn profile in 2019, alongside additional followers of the Warrington College of Business profile. Comparing LinkedIn engagement across these institutions provides critical insights into alumni success, institutional influence, and the efficacy of university-led career preparation programs.

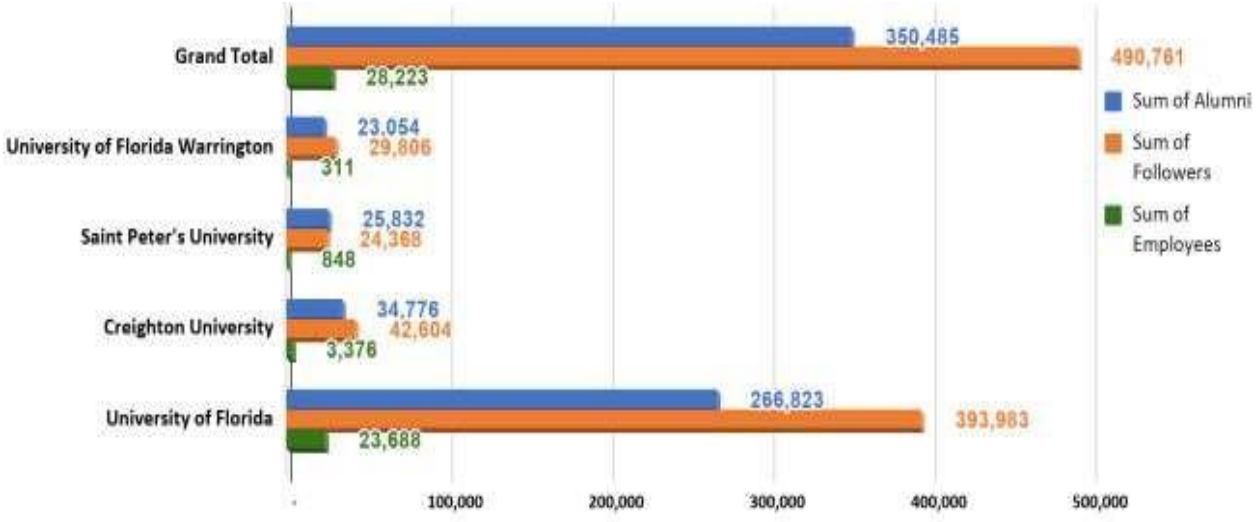


Figure 1: Alumni Engagement for Study's Universities in 2019

An interesting result of the analysis from the three targeted universities (and the separate U.F. college of business) also shows that the universities have a range of alumni that currently live in the United States, with Saint Peter's having the lowest at 79.8%.

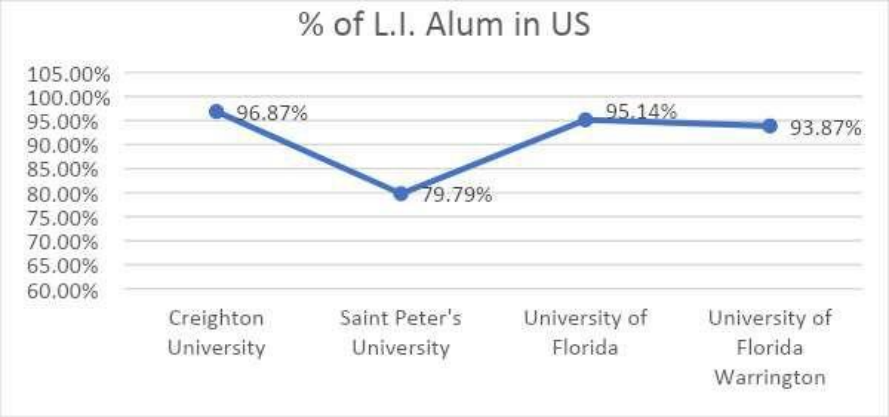


Figure 2: Percent of Study's University Alumni in U.S.

Another interesting insight from the university level LinkedIn data is that university was also the highest employer or 'where they work' for all three universities, of those with LinkedIn profiles. If those numbers of the highest employer from each university were compared against the total number of employees at the university in LinkedIn, an interesting result is that Saint Peter's university has the highest relative rate of employing its own LinkedIn alumni at 40.6%.

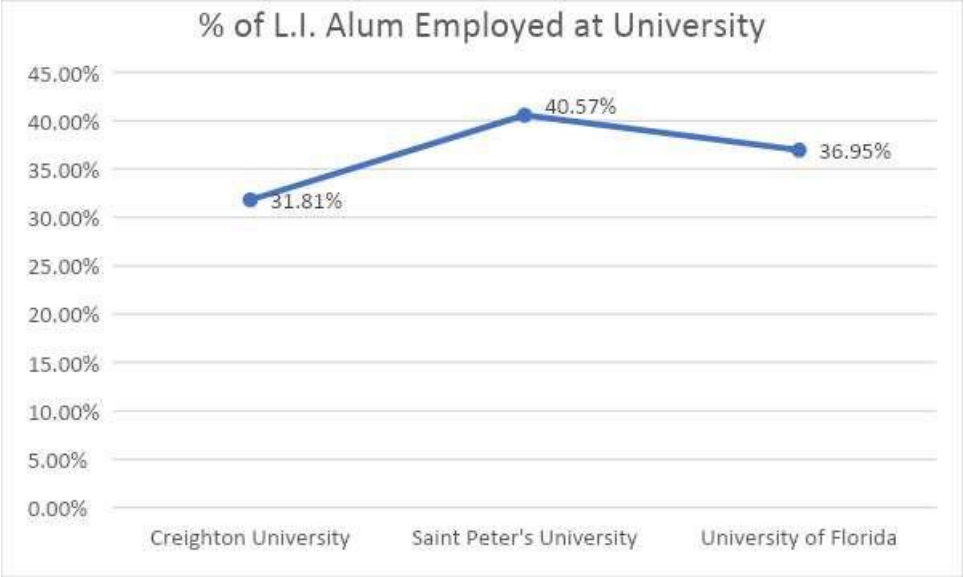


Figure 3: Percent of Study's Alumni on LinkedIn Employed at the University

Relevant Current and Legacy Literature

In assessing the body of research in this area of scholarly inquiry, studies from the early 2000s to the present examine themes ranging from the impact of social media on the learning process, academic performance, communication, collaboration, and student engagement. More recently, as social media platforms like LinkedIn evolve with advanced tools for data analysis and direct career and job search functionalities, organizations and institutions leverage these networks for connecting with students and alumni, tracking career outcomes, and talent acquisition. Companies are increasingly recognizing the value of user-generated data, and higher education institutions are no exception (Pena et al., 2022).

Several articles discuss incorporating social media into academic courses and programs. For instance, one exploratory study (Cooper & Naatus, 2014) examined engaging students in creating LinkedIn profiles strategically aligned with business and marketing curricula, facilitating professional profile development. Similarly, Steele & Cleland (2014), reported that LinkedIn alumni groups were more effective than traditional methods for tracking

outcomes and maintaining alumni engagement. Earlier, Lowe (2012), recommended best practices for alumni engagement through social media, emphasizing the balance of communication to avoid overwhelming professionals. However, this study did not explore career-specific outcomes.

Other notable research includes Case et al. (2016), which analyzed LinkedIn data to track career roles and progression among Information Systems alumni, demonstrating its utility for assessing career outcomes. The insights included graduates' career trajectories and engagement with faculty and industry. More recently, Johnson & Li (2022), underlined LinkedIn's increasing relevance in tracking early-career outcomes across diverse disciplines, providing actionable insights for universities to tailor career support services.

Variables such as age, prior work experience, gender, and internships significantly influence career outcomes. Woodfield (2011), found older, non-traditional students often outperformed traditional counterparts in career markets, attributed to stronger networks and work experience. More recent research, such as Chen et al. (2021), extends this analysis, identifying how experiential learning—through internships or apprenticeships—impacts employability. Similarly, Brooks & Youngson (2014), reported that students undertaking work placements experienced better career outcomes, including higher salaries and satisfaction levels. This aligns with newer findings (Garcia & Patel, 2023), which highlight the interplay of career expectations, motivation, and chosen majors in determining career success.

The Need for This Exploration

University administrators, including career services, academic advisors, and alumni foundations, have vested interests in student and alumni success. Questions such as how to improve programs and services for various career stages are critical. Increasingly, higher education institutions face ROI scrutiny from students and families (Choudaha, 2015). Career outcomes play a central role in college selection, and colleges must meet higher standards for reporting outcomes (e.g., NACE's standards). Recent studies, such as Andrews & Carmichael (2023), emphasize data-driven approaches to reporting and improving career services.

This study demonstrates how LinkedIn data can answer critical questions quickly and effectively. Insights include internship metrics, career acceleration rates, alumni job roles, and graduate school outcomes. For example, LinkedIn's utility for assessing alumni longevity at firms and identifying boomerang employees has practical applications for institutional research and donor engagement. The gaps identified in the literature indicate the need for deeper analysis, such as comparing universities of varying characteristics—size, resources, geography, and funding—to derive actionable insights (Davis et al., 2020).

Methodology and Data

Data collection involved manual harvesting from official LinkedIn alumni pages for three targeted universities. Profiles with complete data ensured accuracy, while gaps in employment histories were retained to distinguish patterns in career progression. The dataset spans undergraduate and graduate institutions beyond the targeted universities, providing a broader analytical base.

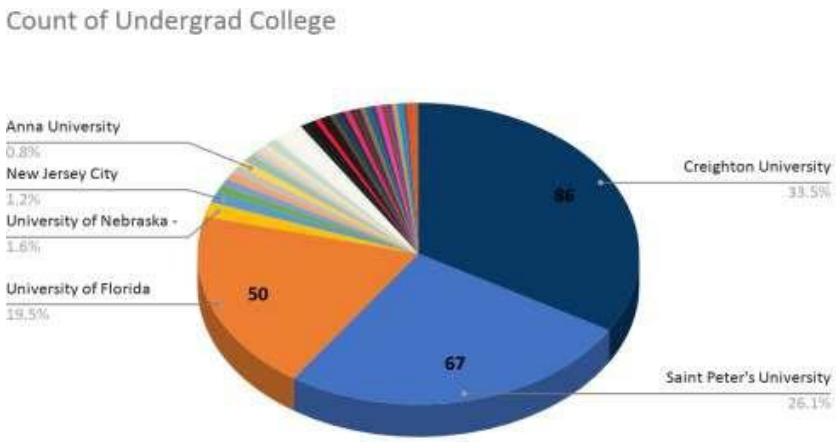
The dataset includes variations in undergraduate programs, internship durations, and full-time employment metrics. Such data is invaluable for career center professionals seeking to improve internship-to-hire conversion rates and optimize career outcomes. Newer tools like LinkedIn's Alumni Insights further enable granular analysis, as highlighted in Smith et al. (2023). These findings suggest practical implications for institutional strategy and student success initiatives.

Table 1
Institutional strategy and student success initiatives

University						
University of Iowa	2	7	2	35	523	11
Kean University	2	72	2	34	506	10
Berkeley College	2	4	1	21	316	16
Bellevue University	2	0	0	43	641	18
Anna University	2	13	2	11	167	8
Williams College	1	0	0	13	196	9
West Bengal University of Technology	1	9	2	5	75	4
University of West Florida	1	0	0	9	128	5
University of St. Thomas	1	13	1	23	341	7
University of South Florida	1	2	1	7	111	7
University of Notre Dame	1	0	0	29	439	3
University of Mumbai	1	0	0	4	56	3
University of Kansas	1	0	0	17	248	9
University of Delaware	1	0	0	21	308	7
University of Central Florida	1	0	0	19	281	7
Thomas Edison State College	1	0	0	25	372	3
Stonehill College	1	17	2	9	133	5
South Carolina State University	1	0	0	13	193	6
Saint Joseph's University	1	4	1	7	110	7
Rutgers University	1	68	3	6	86	3
Rider University	1	0	0	19	284	7
Pune Institute of Computer Technology	1	28	4	3	46	3
Penn State University	1	0	0	4	61	4
Pace University	1	0	0	19	292	9
New York University	1	0	0	22	334	11
Montclair State University	1	0	0	9	129	3
Millersville University of Pennsylvania	1	0	0	36	540	2
Loyola Marymount University	1	0	0	15	219	5
Kunming University of Science and Technology	1	16	3	7	102	3
Drew University	1	3	1	12	174	9
College of Saint Elizabeth	1	3	1	12	184	7
Colgate University	1	3	1	4	63	6
Clarion University	1	0	0	18	274	7
Chandigarh Engineering College	1	10	3	4	54	4
Cathedral College	1	0	0	65	968	4
Case Western Reserve University	1	0	0	36	540	6
Buena Vista University	1	0	0	16	236	11
Bucknell University	1	0	0	17	260	4
Belmont University	1	26	2	6	91	6
Baldwin-Wallace College	1	0	0	11	158	5
Babson College	1	9	3	3	44	3
Ateneo de Manila University	1	0	0	22	324	5
Grand Total	**257**	**1,546**	**158**	**4,323**	**65,185**	**1,433**

The spread amongst the three targeted undergraduate universities is nearly even, especially when the graduate school distribution is taken into effect as well.

Figure 4 a-d:



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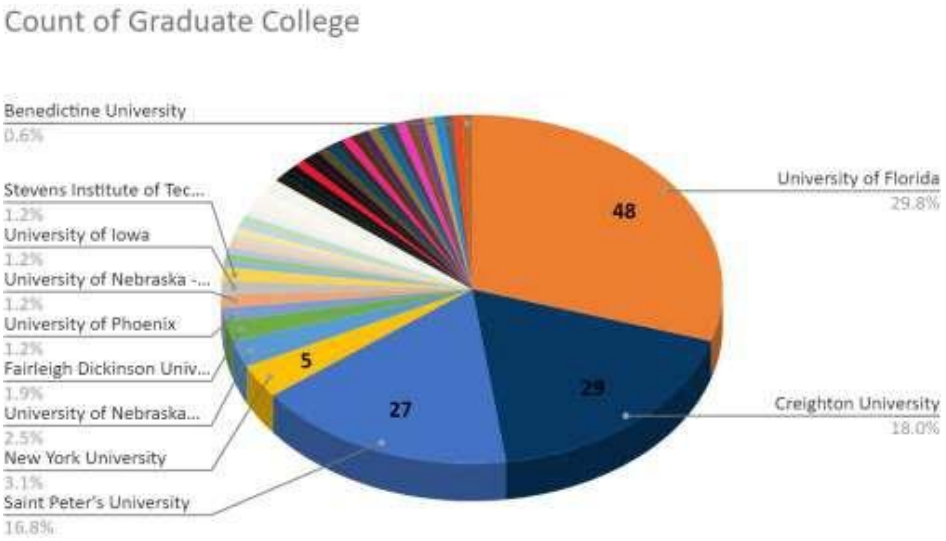

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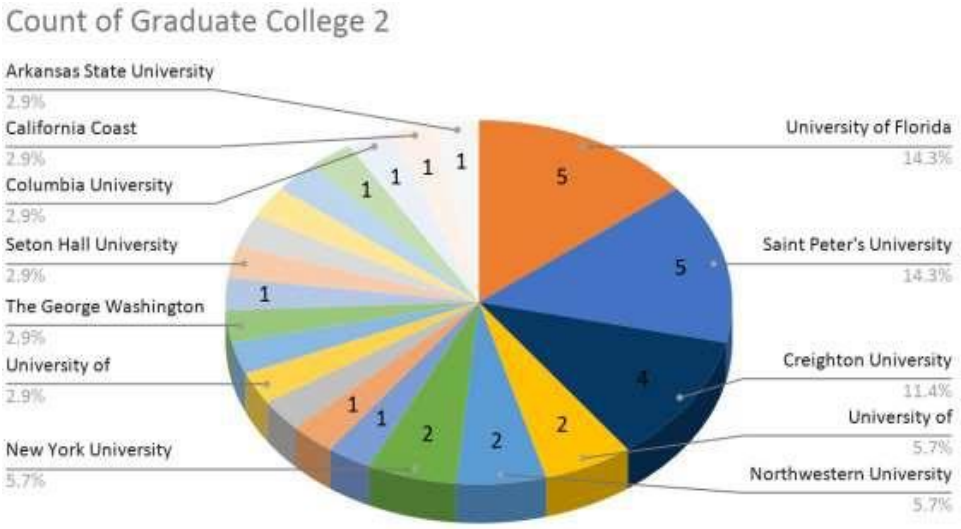

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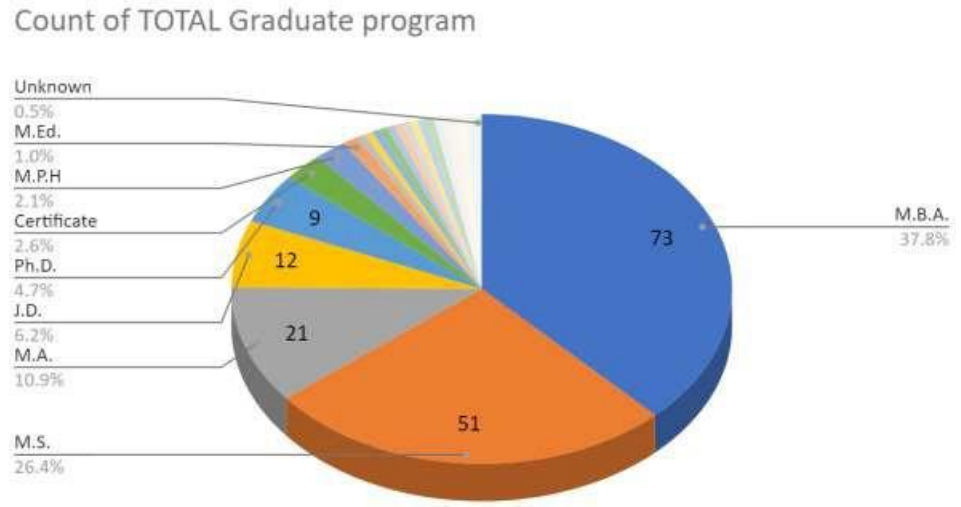


d

Since we are using a bachelor's degree as the base for collecting data (minimum requirement), none of the persons in the sample have less than that education level, but many have more, (about 45%) with the most prevalent graduate degree being the M.B.A at 38%. Breaking the highest education level out by target university also shows the difference in the alumni from the universities, for example, Creighton has the highest amount of bachelor's as the highest degree in the population (N=49) with the University of Florida (UF) at the lowest (N=12) but has the highest masters as highest degree (N=35).

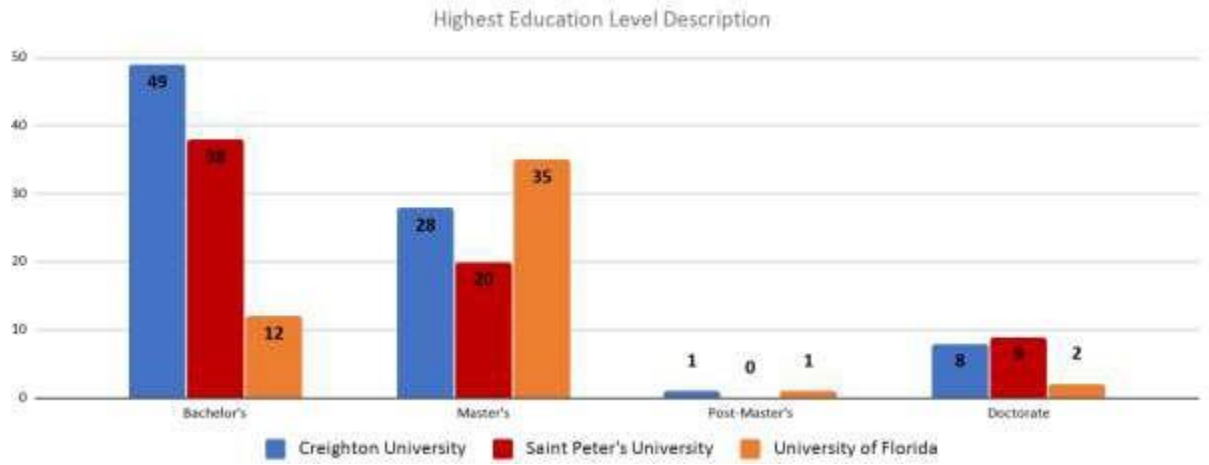


Figure 5: Highest Education Level

The categorical data was then turned into a numerical base with bachelor's degree set as 0 since it is the minimum requirement to be included in our sample. The table below shows the numerical categories that transformed the categorical data. This conversion allowed an averaging of highest education ranking which then showed the UF had the highest population in the sample with higher than a bachelors education level at 1.57 compared to Creighton at .96 or roughly 39% lower, even though St. Peter's had the highest amount of doctoral (level 3) graduates at 9.

Table 2
Graduate School Ranking

Graduate School Ranking Table		
Program	Level	Rank
BS/BA	Bachelors	0
Certificate	Certificate	1
P.M.I. Certification	Certification	1
S.P.H.R.	Certification	1
Specialist	Certification	1
Masters Certificate	Masters Certificate	1.5
LL.M.	Masters	2
M.A.	Masters	2
M.A.I.R.	Masters	2
M.Acc.	Masters	2
M.B.A.	Masters	2
M.Ed.	Masters	2
M.I.B.	Masters	2
M.P.A.	Masters	2
M.P.H	Masters	2
M.P.S.	Masters	2
M.S.	Masters	2
Ed.S.	Post-Masters	2.5
D.B.A.	Doctorate	3
Ed.D.	Doctorate	3
Hon. D.Litt.	Doctorate	3
J.D.	Doctorate	3
Ph.D.	Doctorate	3

Row Labels	Count of Highest Education Ranking	Average of Highest Education Ranking
Creighton University	**86**	**0.96**
0	49	0.00
2	28	2.00
2.5	1	2.50
3	8	3.00
Saint Peter's University	**67**	**1.00**
0	38	0.00
2	20	2.00
3	9	3.00
University of Florida	**50**	**1.57**
0	12	0.00
2	35	2.00
2.5	1	2.50
3	2	3.00
Grand Total	**203**	**1.12**

Examining the dataset from a graduation year range shows a very different and non-linear trend as the assumption would have been a descending trend from the oldest graduation year in both average full-time employment months and distinct count of full-time roles. An interesting result was that although graduation year 2013 only had eight in the population, it had nearly double the amount of cumulative internship months at 333 than the next highest year, which had double the population.

Table 3
Count of Internship Months by Graduation Year

Undergrad Year Grad	Count of Undergrad Year Grad	Sum of Total Internship Months	Average of Total Internship Months	Sum of Internship Count
1954	1	0	0.00	0
1959	1	0	0.00	0
1962	2	0	0.00	0
1963	2	0	0.00	0
1964	2	0	0.00	0
1965	1	0	0.00	0
1966	3	0	0.00	0
1967	1	0	0.00	0
1968	1	0	0.00	0
1969	4	0	0.00	0
1970	1	0	0.00	0
1971	1	0	0.00	0
1972	1	0	0.00	0
1973	2	0	0.00	0
1974	2	0	0.00	0
1975	2	0	0.00	0
1977	4	0	0.00	0
1978	2	0	0.00	0
1979	3	0	0.00	0
1980	3	0	0.00	0
1983	4	0	0.00	0
1984	1	0	0.00	0
1985	1	0	0.00	0
1986	1	0	0.00	0
1987	1	0	0.00	0
1988	4	0	0.00	0
1990	5	13	2.60	1
1991	6	0	0.00	0
1992	7	0	0.00	0

Undergrad Year Grad	Count of Undergrad Year Grad	Sum of Total Internship Months	Average of Total Internship Months	Sum of Internship Count
1993	2	0	0.00	0
1994	5	0	0.00	0
1995	3	0	0.00	0
1996	5	0	0.00	0
1997	1	0	0.00	0
1998	7	13	1.86	1
1999	4	0	0.00	0
2000	5	75	15.00	3
2001	9	65	7.22	1
2002	3	0	0.00	0
2003	10	3	0.30	1
2004	13	0	0.00	0
2005	4	0	0.00	0
2006	5	12	2.40	1
2007	8	108	13.50	9
2008	12	87	7.25	7
2009	9	55	6.11	8
2010	11	50	4.55	9
2011	7	84	12.00	9
2012	11	76	6.91	13
2013	8	333	41.63	15
2014	8	76	9.50	17
2015	16	183	11.44	27
2016	7	127	18.14	9
2017	3	22	7.33	4
2018	9	144	16.00	20
2019	1	9	9.00	2
Grand Total	**255**	**1535**	**6.02**	**157**

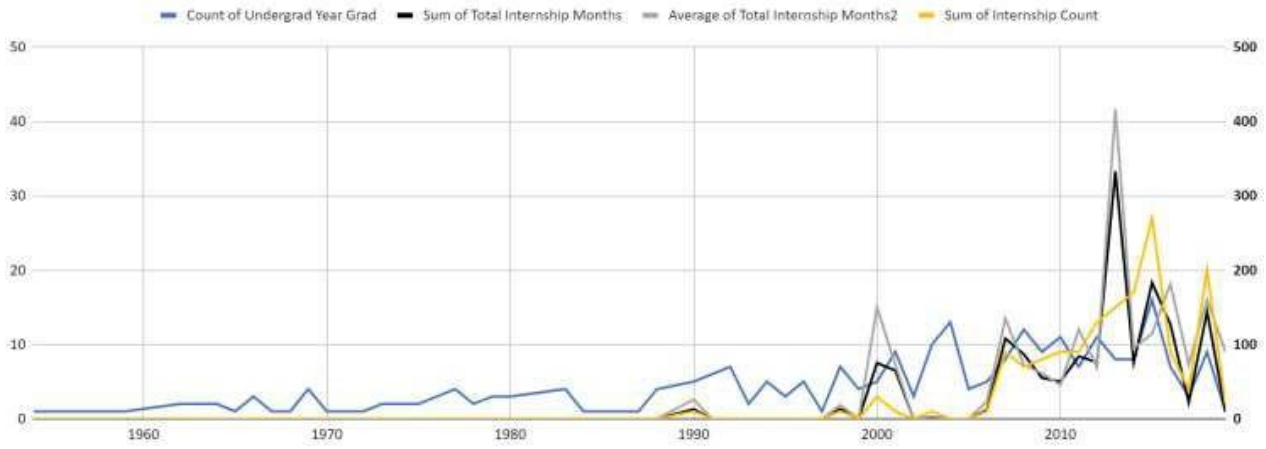


Figure 6: Internship Months Over Time

A graphical representation of the table above also shows that internship interests had a bump in 1990 but started to increase steadily in about 2000 with a peak in the data set in 2013 in internship months but interestingly not the peak amount of separate internships since that did not occur until 2015 (also when we had our highest count of undergrad graduation year fittingly- graph below). The graph below also points out that roughly 60% of the population in this

study graduated undergrad at or after 2001 so the population is diverse in its ability to accumulate both internship and full-time work experience.

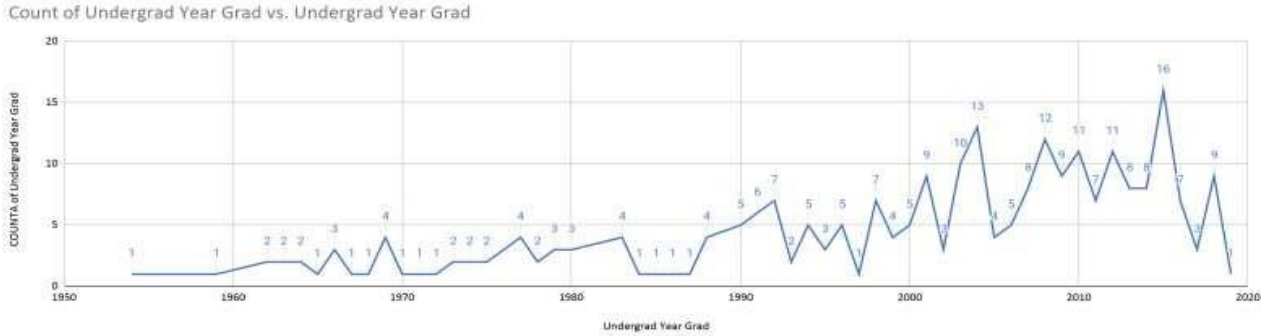


Figure 7: Graduation Year for Bachelor's

Moving from internships to full time employment, when a trendline analysis is shown against the averages of both total full-time employment months and average distinct count of full-time roles across the entire population, the decreasing trendline on both averages depicts the expected trend as undergrad graduation year increases, both decrease steadily (though FTE months decreases much sharper). The interesting find in these variables is that the trend line shows even though those with nearly forty years average employment have a trend average of seven distinct job roles, those with the minimum full time employed years only decreased to a trend average of four distinct roles. This shows that in the dataset, those with more full time work experience tend to have a lower job/role change rate than those with less full-time employment years/months, with the intersection of the trendlines at about 1969 and roughly 600 full time working months or 50 full time working years (some individuals held multiple roles on their profiles for years with no indication or hours per week worked so full time or 40 hours was assumed where role title was appropriate).

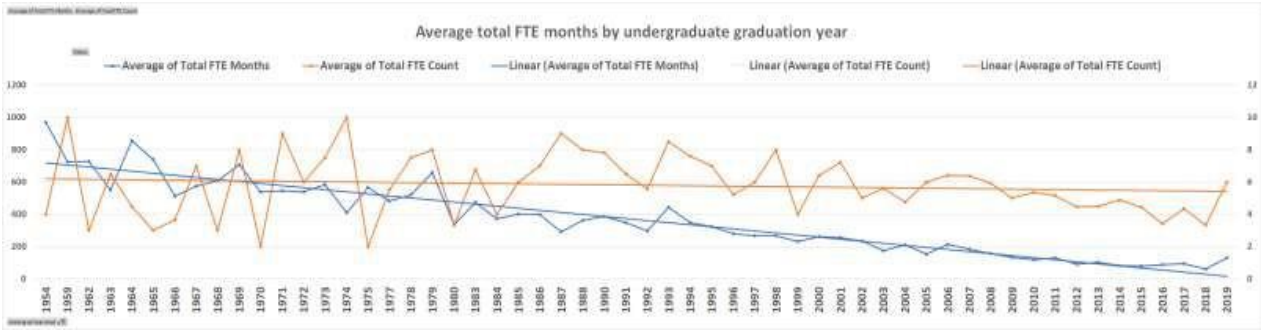


Figure 8: Average FTE Months by Undergraduate Graduation Year

The data and graph below also shows that although there are individuals ranging from one to fifteen distinct full time job role changes, a majority of the population studied (75%) have between 3-7 different full time role changes over their career. The two peak career change points seem to be about 5-6 role/job changes over a lifetime at roughly 17% at each point. Now, a large factor of this may also be that a large portion (154 or 60%) of the population graduated with their bachelor's level education beginning 2001 and have had less or only 20 years time to accumulate years of experience vs. those that graduated 1954 through 2001.

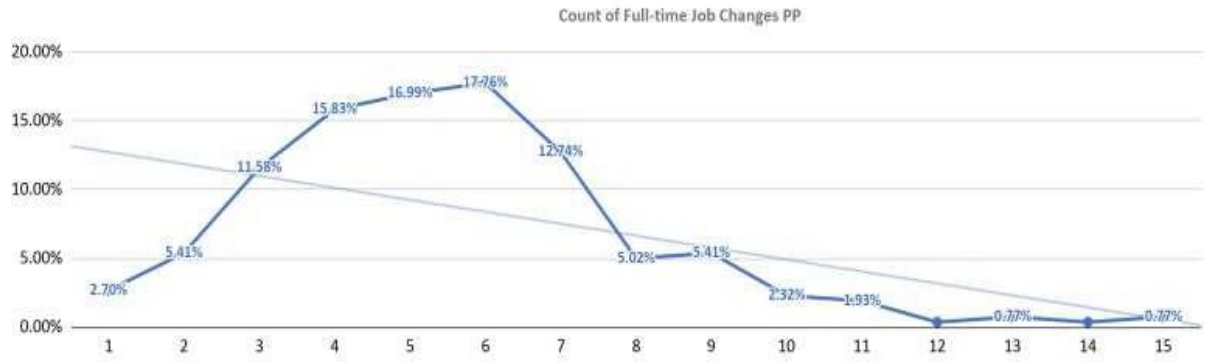


Figure 9: Count of Full-Time Job Changes

Table 4
Total FTE Months

Total FTE Months			
	Mean		251.77
	Standard Error		11.99
	Median		192.00
	Mode		86.00
Standard Deviation		192.91	
37,214.5			
Sample Variance			2
Kurtosis			2.41
Skewness			1.48
Range			1067.00
Minimum			13.00
Maximum			1,080.00
65,209.0			
Sum			0
Count			259.00
Confidence Level (95.0%)			23.60
Total Intern Months			
	Mean		5.58
	Standard Error		0.16
	Median		5.00
	Mode		6.00
	Standard Deviation		2.51
	Sample Variance		6.31
	Kurtosis		1.43
	Skewness		0.88
	Range		14.00
	Minimum		1.00
	Maximum		15.00
	Sum		1,444.00
	Count		259.00
	Confidence Level (95.0%)		0.31

Using descriptive statistics for reviewing the total full time employed months, as well as the total months in internships shows a distinctive range in the dataset, along with means that would be good target goals for universities that are below that mean line (5.58 months) on internship months for their students. The total sum of 65,209 months (5,434 years) of employment with a range from 13 to 1,080 (concurrent full time job roles) shows a wide variety in our sample that makes it much easier to draw more general positions from the data. The below data more specific to internships is intriguing because using the entire sample, nearly 76% of them had no internships in their career but looking at the three target universities shows that University of Florida had the highest average per person internship count at .88 but Creighton had the longest average single internship tenure at 9.84 average months at a single internship, nearly double that of the next highest average tenure.

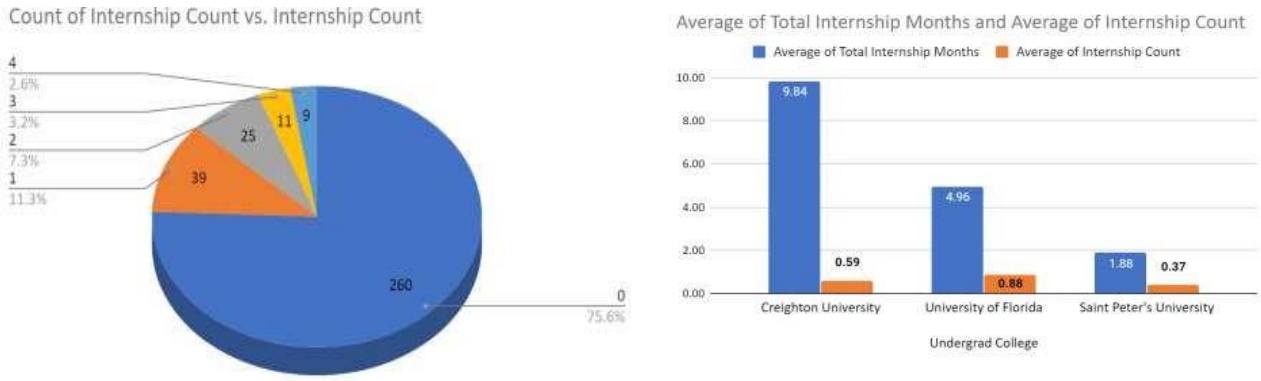


Figure 10: Internship Months vs. Number Internships

Role types-seniority level was a large concern in the data that is important and applicable in administrative decision making as well. The below chart shows that over the 1,436 different jobs in the population, the Manager role was the most prevalent at 203 or 14% of the population.

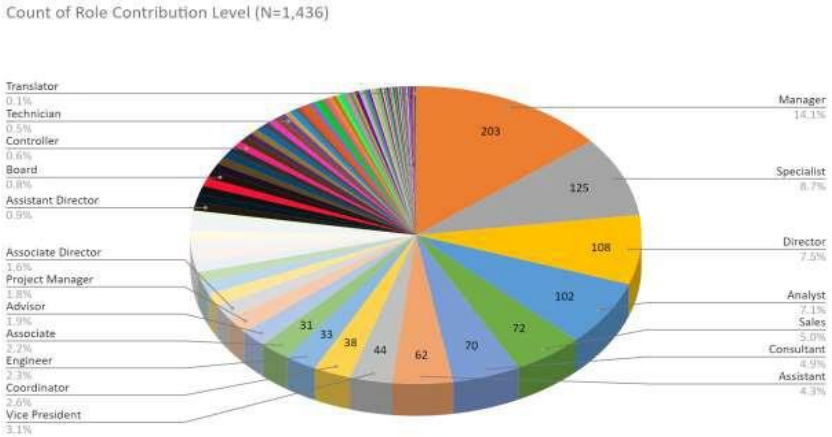
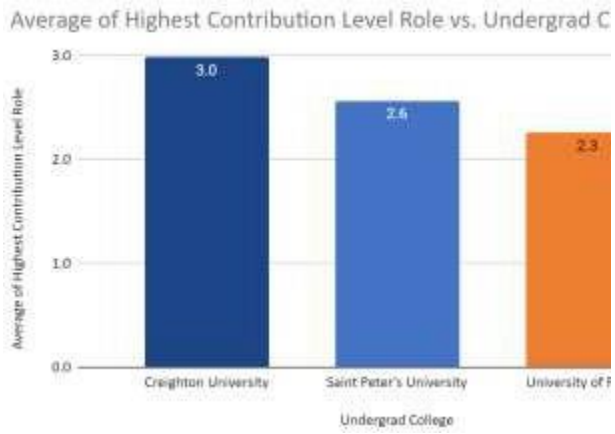


Figure 11. Role Type & Seniority Level

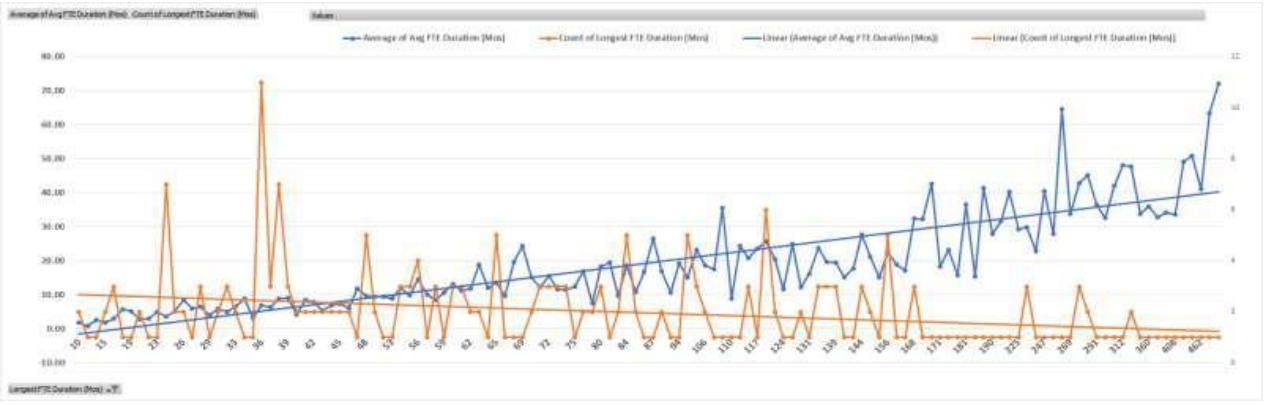
Converting from qualitative to quantitative was also something we targeted to be able to achieve quantitative analysis of roles in the sample. The below table and chart show the numeric conversion key as well as the average role contribution level for the three target universities with Creighton having the highest average at 3.0 or a Director level average while the other two targeted universities skewed more towards managerial roles.



Role conversion table	
NA	0
Individual	1
Manager	2
Director	3
Executive	4
Founder	5
Board of Directors	6
Politician-Government	7

Figure 12/Table 5: Level of Roles

The graph below analyzes the count of individuals who have spent that much time in months at a maximum in their career for a single role and employer against the average of the people who have spent that much time at a maximum single role and employer. The graph of the population at each point shows that as the amount of time at a single employer and role increases, the amount of people decreases steadily. The immediate visual standout below is that the highest count for a maximum amount of time at any employer and role in the population is roughly 36 months while the average amount of time for a single role of that same group (those with a max of 36 months in a single role) is 7 months. Another visual cue is that the two trend lines cross at about 44 months (4 years) when the average amount of time spent at a single employer crosses the count of people that have spent that much time, indicating that after 44 months the maximum amount of time at a single employer per individual decreases steadily.



a

b

Figure 13 a-b: Length of time at Employer

The above graph also lays out that although the count of individuals spending more than 44 months in a single role decreases steadily, nearly 50% of the population studied spent between 27-43% of their career at a single company. It is important to note that in the population, roughly 60% graduated undergrad after 2001, meaning that the possible amount of full-time work years and therefore ability to change roles and companies is limited to the last 20 years.

Discussion of implications for theory and practice

This study provides critical insights into alumni career trajectories and the interplay between university resources, employer partnerships, and alumni outcomes. The findings underscore the importance of informed decision-making and targeted resource allocation by university career centers, human resources, and alumni foundations. By benchmarking across three universities, this analysis allows benchmarking and an exploration of how organizational goals can be set based on how comparable factors (i.e. amount of distinct internships), affect longer-term career outcomes, like alumni reaching leadership levels in different local, and regional, or national organizations or even the universities penetration into national markets or even rankings themselves. The findings reveal that alumni often experience peak durations in a single role at around three years, with a decline after 44 months. This insight allows career centers and alumni organizations to proactively engage alumni nearing the 36-month mark in their roles. Strategic collaborations with employers to identify and facilitate career advancement opportunities can benefit all stakeholders—alumni achieve career growth, universities strengthen alumni loyalty and potential philanthropic contributions, and employers access a pool of qualified talent (Nurmala, 2022).

While 60% of the population studied graduated at the bachelor's level in the past two decades, nearly half spent significant portions of their careers (27-43%) at a single company. This suggests that enhanced opportunities for internal promotions and role transitions could retain alumni within organizations, reducing turnover and fostering long-term partnerships between universities and employers. Additionally, universities with regional alumni concentrations should track metrics such as alumni residence and work locations, leveraging this data for targeted recruiting, events, and retention strategies. The shift to remote work, accelerated by the COVID-19 pandemic, has introduced new complexities to these dynamics but also presents opportunities for universities to redefine engagement strategies.

Looking deeper at the three target universities in the study, with two being private and more regional universities while the third is a top ten ranked national public university with a significant multiplier in undergraduate attendance than the other two, it is important to note that the breakdown in the population is relatively even with 33% of undergraduates coming from Creighton University, 30% of first graduate degrees coming from University of Florida, and 14% of second graduate degrees coming from a tie of both St. Peter's University and University of Florida. The current state location of the population was also split nearly even between the three states of the targeted universities with 22% in Florida, 20% in Nebraska, and 18% in New York. Although the spread across the three universities and their approximate locations was nearly even, their comparison of internships for students and the highest contribution

level of their alumni job roles was very different. Comparing internships for their students, even though throughout the entire population 76% had no internships, the University of Florida had the highest average internship count among their alumni with .88 while St. Peter's came in last with only .37.

Although in the middle of the other two universities in average internship count at .59, Creighton University had a substantial lead in the average of total internship months their alumni spent with 9.84 months and St. Peter's again taking the last place with only 1.88 months average months for their alumni. Although there is a large difference between the three, this is an obstacle that can be overcome with the right programs and partnerships with local, regional, and national employers, as well as internship prep and requirements for graduating students, which many universities have started adding to their graduation requirements. This is an interesting comparison to the three universities' highest contribution level role of their alumni where Creighton had the highest average at 3.0 or director level while the University of Florida had the lowest contribution level with 2.3 or a manager level and St. Peter's split the difference with 2.6. This difference could be attributed to many things, including the companies based in the region where Creighton is located and their hierarchical role breakdowns but can easily be compared to Creighton University's significantly higher average total internship months where the students were able to make deeper relationships and accumulate more experience to propel promotions once they became full-time employees.

This study underscores the critical role of aligned efforts between universities, alumni, and employers in fostering career success. The analysis demonstrates that robust internship programs and strategic alumni engagement positively influence career trajectories and organizational contributions. As universities strive to enhance their offerings, they should consider the following actionable strategies.

- Proactive Alumni Engagement: Career centers should target alumni at pivotal career junctures, such as the 36-month mark in a single role, to facilitate advancement opportunities.
- Internship Integration: Universities should expand internship requirements and create internal opportunities for underclassmen, fostering early professional development.
- Regional Focus: Tracking alumni locations can inform regional engagement strategies, enhancing retention and participation in university events.
- Enhanced Faculty Networks: Including faculty and staff in alumni studies can reveal patterns in turnover and professional influence, helping universities identify key personnel to retain and leverage for alumni engagement.

Future research could expand the dataset to include larger and more diverse alumni populations while integrating faculty and staff data to uncover additional insights. By leveraging such findings, universities can strengthen their networks, enhance student and alumni outcomes, and solidify their positions as leaders in education and career development. In conclusion, the findings of this comparative study underscore the importance of leveraging data-driven insights to inform decision-making and resource allocation within universities. By closely examining alumni career trajectories, internship participation, and regional retention trends, universities can align their strategies to enhance student outcomes, strengthen alumni engagement, and build mutually beneficial partnerships with employers. The implications for theory and practice highlight the critical role of internships and sustained alumni relationships in shaping institutional success.

Future research could expand on this methodology by incorporating larger datasets, exploring additional universities, and including longitudinal analyses to track evolving patterns over time. Integrating faculty and staff career data would further deepen our understanding of how academic institutions influence and are influenced by professional mobility. This study not only offers actionable recommendations for career centers, alumni foundations, and human resources teams but also sets the stage for a broader exploration of how universities can serve as pivotal nodes in the dynamic ecosystems of education, employment, and societal advancement. Through these efforts, the academic community can continue to innovate and thrive in an increasingly interconnected world.

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