Strategies on Improving Graduate Enrollment

Oliver Yao 10/1/2021



Grad Enrollment Updates – Incoming Class

	Calendar Year 2019	Calendar Year 2020	Calendar Year 2021	Changes 2020- 2021 (%)	Changes 2019- 2021 (%)
Submitted Applications	3,180	3,419	2,821	-17.49%	-11.29%
Admitted Students	1,577	1,915	1,439	-24.86%	-8.75%
Deposits	732	831	598	-28.04%	-18.30%
College of Arts & Sciences Deposits	133	133	115	-13.53%	-13.53%
College of Business Deposits	129	216	113	-47.69%	-12.40%
College of Education Deposits	214	276	178	-35.51%	-16.82%
College of Engineering Deposits	239	191	175	-8.37%	-26.78%
Intercollegiate Programs Deposits	17	15	17	-13.33%	0.00%

Note: Calendar year includes Spring, Summer and Fall semesters.



University Graduate Enrollment History

Year (FY)	Total	Doctorate	Masters	Non Degree Certificate	Degree not declared
2011	2,270	734	1,356		180
2012	2,186	734	1,305		147
2013	2,197	738	1,324		135
2014	2,165	741	1,311		113
2015	2,057	739	1,225	20	73
2016	1,979	700	1,186	35	58
2017	1,979	714	1,182	28	55
2018	1,942	701	1,160	29	52
2019	1,802	698	1,030	37	37
2020	1,775	816	862	45	52
2021	1,864	765	1,000	55	44
10 Yr % Change	-17.9%	4.2%	-26.3%		-75.6%
CAGR*	-2.0%	0.4%	-3.0%		-13.1%

^{*}CAGR: Compound Annual Growth Rate



University Graduate Enrollment History by College

			Arts &			
Year (FY)	Total	Business	Sciences	Education	Engineering	Intercollegiate
2011	2,270	449	497	661	663	
2012	2,186	447	457	602	680	
2013	2,197	467	476	518	736	
2014	2,165	450	454	498	763	
2015	2,057	415	436	477	729	
2016	1,979	394	375	462	748	
2017	1,979	275	359	503	757	85
2018	1,942	276	341	504	755	66
2019	1,802	276	337	453	688	48
2020	1,775	257	342	466	672	38
2021	1,864	345	349	507	635	28
10 Yr % Change	-17.9%	-42.8%	-31.2%	-29.5%	1.4%	
CAGR	-2.0%	-2.6%	-3.5%	-2.6%	-0.4%	



University Masters Enrollment by College

Year (FY)	Total	Business	Arts & Sciences	Engineering	Education	Intercollegiate
2011	1,356	387	216	337	416	
2012	1,305	385	189	346	385	
2013	1,324	404	191	398	331	
2014	1,311	397	186	422	306	
2015	1,225	366	173	391	295	
2016	1,186	349	136	416	285	
2017	1,182	248	127	423	299	85
2018	1,160	255	115	421	303	66
2019	1,030	253	120	349	260	48
2020	862	233	109	223	259	38
2021	1,000	323	120	239	290	28
10 Yr % Change	-26.3%	-16.5%	-44.4%	-29.1%	-30.3%	
CAGR	-3.0%	-1.8%	-5.7%	-3.4%	-3.5%	



Peer Comparison Grad Enrollments (Source: IPEDS)

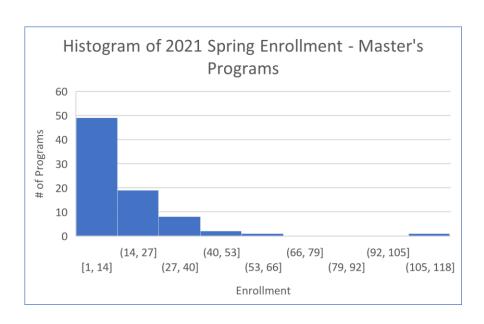
						5 Year %		
Institution name	FY16	FY17	FY18	FY19	FY20	Change	CAGR	Lehigh Rank
Lehigh University	1,979	1,979	1,942	1,802	1,775	-10.3%	-2.7%	26th out of 26
George Washington University	15,055	15,655	15,974	15,626	15,330	1.8%	0.5%	
Georgetown University	10,897	11,072	11,542	11,745	12,080	10.9%	2.6%	
University of Miami	5,725	5,952	6,171	6,214	6,504	13.6%	3.2%	
Emory University	6,921	7,206	7,326	7,372	7,297	5.4%	1.3%	
Northwestern University	12,816	13,032	13,308	13,485	13,766	7.4%	1.8%	
University of Notre Dame	3,830	3,863	3,891	3,990	3,951	3.2%	0.8%	
Tulane University of Louisiana	4,644	4,657	4,513	4,726	4,943	6.4%	1.6%	
Boston College	4,558	4,596	4,707	4,793	4,846	6.3%	1.5%	
Boston University	14,226	14,751	15,275	16,142	15,737	10.6%	2.6%	
Brandeis University	2,131	2,121	2,086	2,161	2,137	0.3%	0.1%	
Northeastern University	6,243	6,908	7,664	7,718	8,005	28.2%	6.4%	
Tufts University	5,847	5,981	5,908	5,943	5,971	2.1%	0.5%	
Colgate University	8	8	8	11	12	50.0%	10.7%	
Cornell University	7,589	7,753	8,109	8,418	8,984	18.4%	4.3%	
Rensselaer Polytechnic Institute	1,118	1,098	1,226	1,267	1,287	15.1%	3.6%	
University of Rochester	4,801	4,823	5,102	5,282	5,453	13.6%	3.2%	
Wake Forest University	2,966	3,013	3,014	3,176	3,208	8.2%	2.0%	
Bucknell University	56	55	67	71	70	25.0%	5.7%	
Carnegie Mellon University	6,914	6,975	7,336	7,440	7,562	9.4%	2.3%	
University of Pennsylvania	13,288	13,244	13,651	14,009	14,803	11.4%	2.7%	
Villanova University	3,734	3,843	4,017	4,113	3,983	6.7%	1.6%	
Brown University	2,806	2,855	3,107	3,214	3,173	13.1%	3.1%	
Vanderbilt University	5,684	5,716	5,707	5,963	6,245	9.9%	2.4%	
Rice University	2,809	2,962	3,021	3,132	3,293	17.2%	4.1%	
Southern Methodist University	5,232	5,218	5,337	5,170	5,114	-2.3%	-0.6%	
Peer Totals	149,898	153,357	158,067	161,181	163,754	9.2%	2.2%	xhz

Peer Comparison Masters Awarded (Source: IPEDS)

												11 Year %	
Institution	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Change	CAGR
Lehigh University	587	609	606	619	637	628	640	589	648	537	522	-11.1%	-1.2%
University of Miami	844	876	979	912	1,045	1,175	1,265	1,465	1,602	1,705	1,782	111.1%	7.8%
Georgetown University	2,346	2,726	2,838	2,965	3,209	3,370	3,623	3 <i>,</i> 750	3,899	4,091	4,072	73.6%	5.7%
Brown University	428	417	479	491	462	520	626	633	717	846	733	71.3%	5.5%
Carnegie Mellon University	1,963	2,145	2,242	2,408	3,020	2,811	2,947	2,943	3,336	3,133	3,256	65.9%	5.2%
Villanova University	763	938	1,036	1,070	1,080	1,144	1,109	1,279	1,200	1,305	1,261	65.3%	5.2%
Cornell University	1,953	2,163	2,150	2,289	2,328	2,428	2,510	2,717	2,730	2,778	3,156	61.6%	4.9%
Boston University	3,816	3,879	4,237	4,197	4,290	4,306	4,373	4,589	4,984	5,566	5,857	53.5%	4.4%
Wake Forest University	653	613	675	680	739	822	875	899	897	937	957	46.6%	3.9%
Rice University	619	619	594	659	719	711	792	849	874	898	906	46.4%	3.9%
Northwestern University	2,971	3,199	3,155	3,274	3,610	3,803	3,907	4,340	4,455	4,393	4,332	45.8%	3.8%
University of Rochester	1,026	1,192	1,103	1,181	1,259	1,338	1,278	1,292	1,279	1,368	1,403	36.7%	3.2%
University of Pennsylvania	3,168	3,452	3,565	3,767	3,713	3,702	3,777	3,836	3,950	4,185	4,289	35.4%	3.1%
Tufts University	943	1,110	1,108	1,201	1,248	1,184	1,286	1,261	1,305	1,281	1,262	33.8%	3.0%
Colgate University	3	4	4	7	4	4	5	2	1	5	4	33.3%	2.9%
George Washington University	3,664	3,929	3,883	4,210	4,376	4,223	4,109	4,363	4,774	4,597	4,780	30.5%	2.7%
University of Notre Dame	910	951	891	940	983	991	1,058	1,062	1,003	1,129	1,160	27.5%	2.5%
Northeastern University	2,268	2,803	3,122	3,449	2,119	1,919	2,062	2,225	2,563	2,652	2,886	27.2%	2.4%
Southern Methodist University	1,342	1,292	1,458	1,522	1,382	1,485	1,648	1,814	1,896	1,790	1,659	23.6%	2.1%
Emory University	1,249	1,284	1,351	1,342	1,317	1,426	1,518	1,507	1,639	1,588	1,539	23.2%	2.1%
Brandeis University	701	775	805	784	741	776	840	799	832	862	847	20.8%	1.9%
Vanderbilt University	1,280	1,252	1,432	1,421	1,416	1,496	1,421	1,487	1,477	1,382	1,512	18.1%	1.7%
Tulane University of Louisiana	1,288	1,247	1,380	1,527	1,526	1,547	1,568	1,495	1,601	1,728	1,509	17.2%	1.6%
Rensselaer Polytechnic Institute	374	416	359	390	389	408	408	429	407	368	390	4.3%	0.4%
Boston College	1,400	1,447	1,498	1,422	1,368	1,346	1,370	1,393	1,443	1,370	1,428	2.0%	0.2%
Bucknell University	46	43	34	29	26	22	36	21	16	18	19	-58.7%	-8.5%
Peer Totals	36,018	38,772	40,378	42,137	42,369	42,957	44,411	46,450	48,880	49,975	50,999	41.	3.5%

Goals in Graduate Enrollment

- Doctoral Programs
 - Student Quality vs. Quantity
 - Emerging interdisciplinary areas
 - How do we recruit the best students?
- Master's Programs
 - Resources constraints are not binding many programs with small number of enrollment
 - Upward trending from our peer or aspiring schools
 - How do we recruit more students?





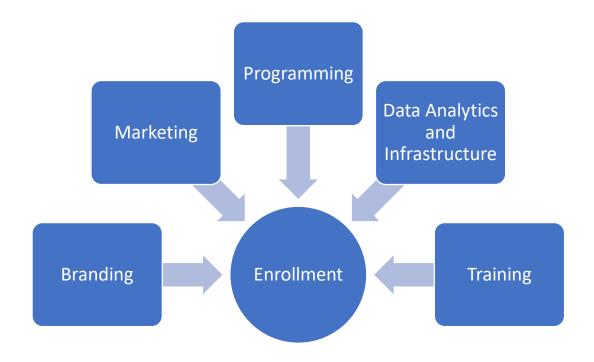
Plans on Improving Graduate Enrollment

- At Strategic Level:
 - Improve current programs' quality and reputation
 - Academic planning
 - Rankings
 - Outcomes
 - Incentive mechanisms for new, cutting-edge programs
 - Incubator Program
 - a faculty group to facilitate campus-wide discussion on ideas of potential new programs, particularly inter-collegiate programs
 - Accelerator Program
 - Providing resources to help colleges in launching new programs
 - Changes in our mindset and culture in graduate recruitment
 - A sense of urgency
 - From reactive admission to proactive recruitment
 - Building a learning culture



Plans on Improving Graduate Enrollment

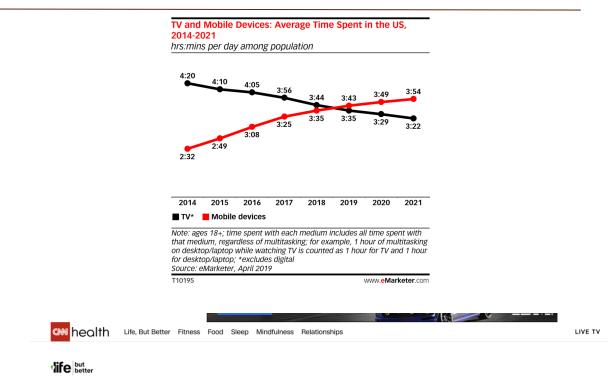
- At Tactical Level:
 - A multi-dimensional attacking plan
 - Expanding branding and marketing externally
 - Improving recruitment efficiency internally





Digital Marketing

- Digital marketing is the way going forward
 - Programmatic advertising
 - Social media advertising
- How can we internalize the expertise in digital marketing?
 - Start-up funds
 - Reinforcement funds
 - Study group: meets regularly in the fall



US teens use screens more than seven hours a day on average – and that's not including school work

By Kristen Rogers, CNN Published 7:07 AM EDT, Tue October 29, 2019



Partnering with Niche.com



21 people clicked to your website or social media in August

Niche is where students and families choose their school. The Niche Profile enables our partners to connect with these highly-engaged prospects when they are actively researching your school and schools like yours. These metrics show how prospective students and families are engaging with your Niche Profile and detail the traffic referred from the Profile to key areas of your website.



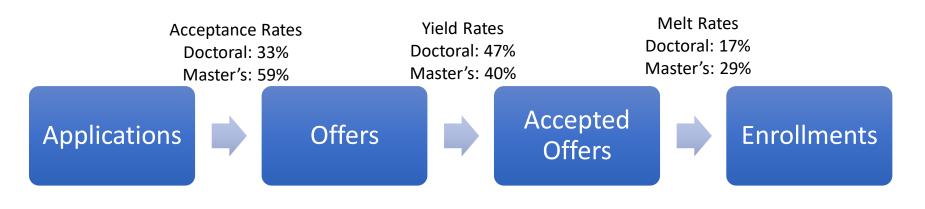


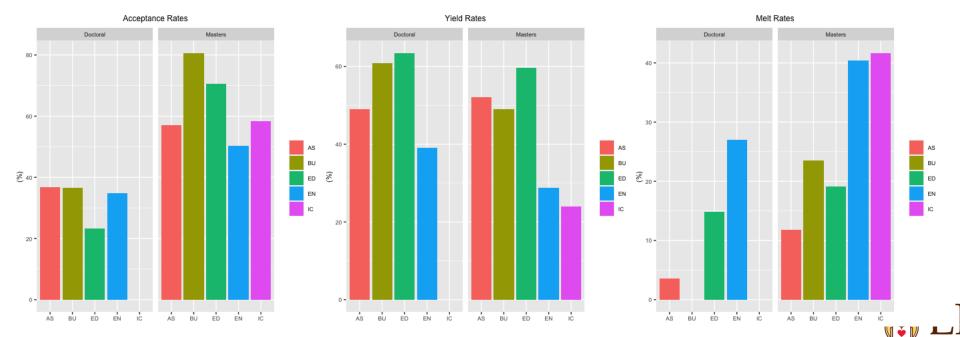
Data-Driven Recruitment

- 4-year application data
 - Conversion rates
 - Time between decisions
 - Drivers of yield rates
 - Primary sources
- Reasons on why accepted or declined our offers
- Next Destination data
- Job placement for Ph.D. students



Conversions in the Admission Funnel





Estimating "Customer Acquisition Costs"

Using Master's program data as an example, in order to yield 1 enrollment, we need:

- 1/(1-29%)=1.41 accepted offers
- 1.41/40%=3.53 offers
- 3.53/59%=5.98 applications
- 5.98/10%=59.8 leads
- 59.8*\$50=\$2,990 ← acquisition cost per student enrollment



Key Takeaways from Graduate Application Data Analyses

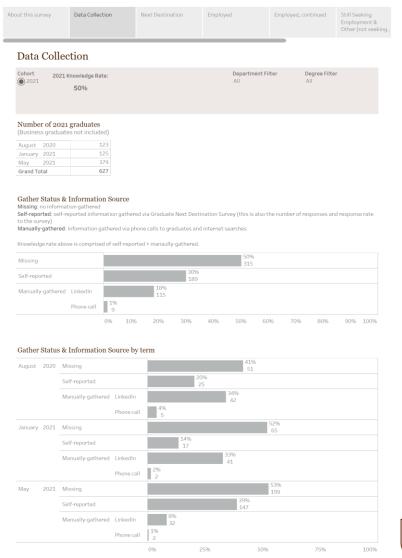
- We can do better with yield/melt rates.
 - High leverage of the yield/melt rates: minor changes translate into major savings in recruiting and marketing.
 - Faster admission decision increases yields.
- "People" are very important.
 - Students accepted our offers because of "professor", "advisor", or "officer".
 - Alumni, friends and faculty are major sources of our applicants.
- Strong effect of Word-of-Mouth
 - How can we improve student learning?
 - How can we improve student experience?
- Information on Internet
 - Does your program have good website?
 - Does your program market on Internet or social media?



Graduate Next Destination Data

- First such effort
- Started in May, still ongoing
- Expect to release a beta version in September

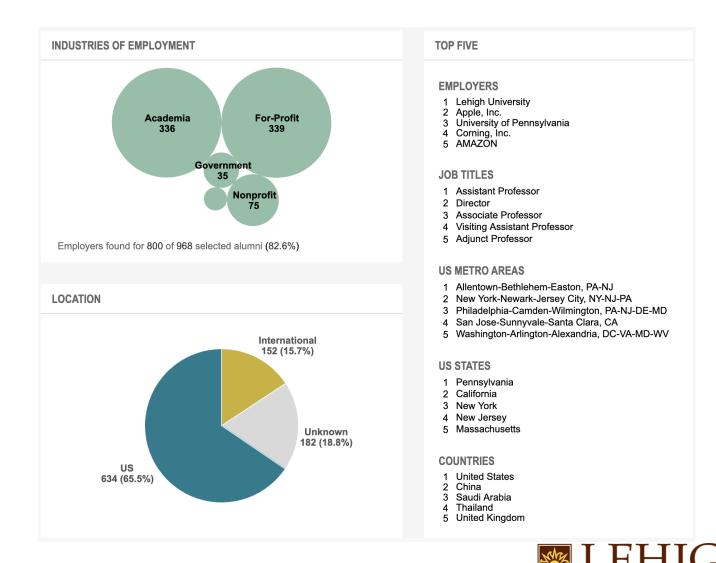
Graduate Next Destination Dashboard





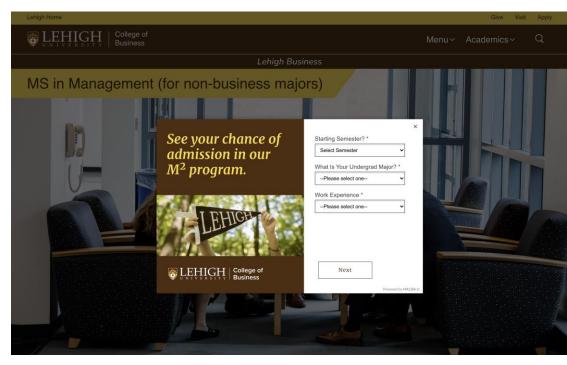
Ph.D. Alumni Information

- Outsourced to Academics Analytics
- 968 graduates in past 10 years
- Found 800 of them



Technology Use

- Migrating from CollegeNet to Salesforce
- Strongly encouraging colleges to use Salesforce in recruiting
- Providing Salesforce training
- Exploring chatbot for webpages





Innovative Programming

- Online Programs
- 4+1 Accelerated Programs
- Dual Degree Programs



4+1 Accelerated Program

Three Features:

- Acceleration early advising by graduate advisors
- Guaranteed admissions must meet certain criteria
- Potential tuition discounts
- Recruitment Starting with Undergraduate Admissions
 - Free marketing to 14,000 applicants, potentially much more
- Flexibility
 - Students can opt out at any time.
 - Students can join in at any time. (If joining too late, acceleration may not be possible.)



Dual Degree Programs

- Product Bundling Strategy
- Potential Synergy between Two Programs
- Increase Demand
- Increase Internal Efficiency





Training

- Best Practices in Recruitment
- Workshop on Recruitment
 - Full day workshop on 8/8/2021 (all slides)
 - Planning on special topics in the future
- Monthly Meetings of Recruitment Staff

