

# Understanding Graduate Student Completion Rates and Student Success

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Presented at

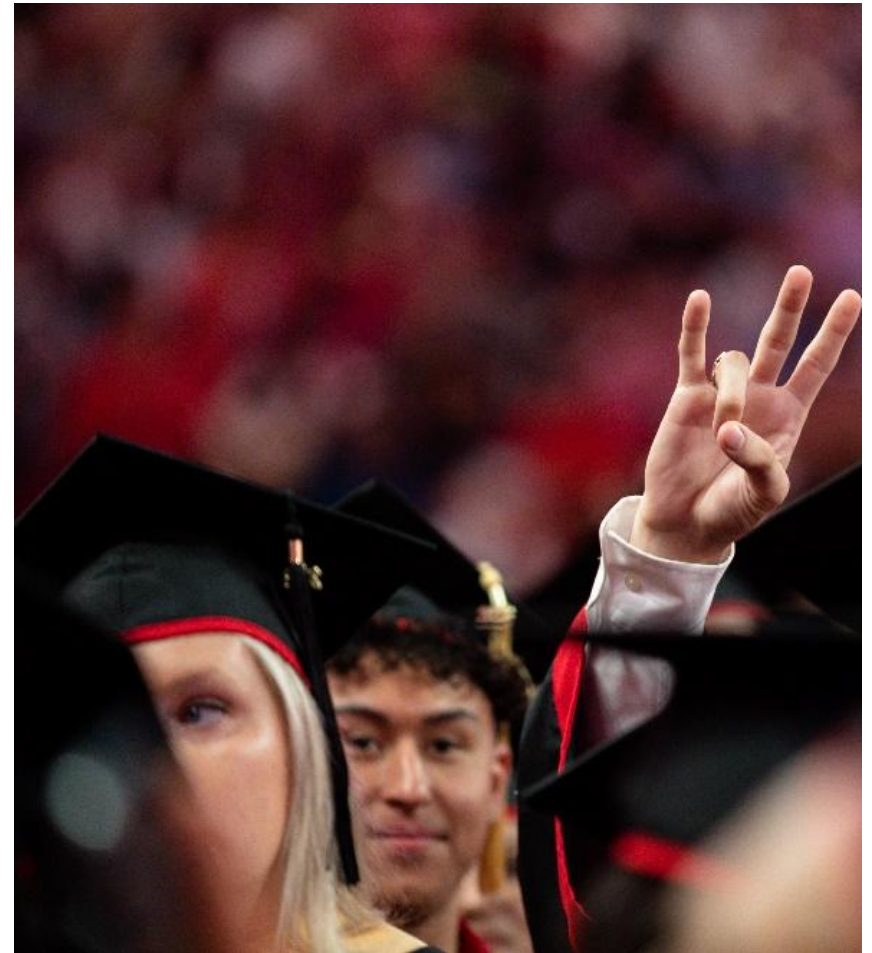
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# Outline

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- Preliminary Findings
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- Q&A



# University of Houston



- Fall 2024 enrollment: 47,980 students
- 285 programs offered
- 11,350 degrees awarded: 2,211 masters, 358 doctoral, 476 professional
- First cohort of UH medical school graduates
- Big 12 conference champ for the 2<sup>nd</sup> year

# What's the question?

What do we know about graduate student graduation rates at UH as an outcome of their background characteristics and program areas?



# Background

- 18 characteristics of Texas doctoral programs
- Data requests for graduation rates for all graduate levels
  - Began calculating masters' programs
- UH Graduation Rates dashboard for use by the campus community

# Graduation Rate for Graduate Students



Source: Google images

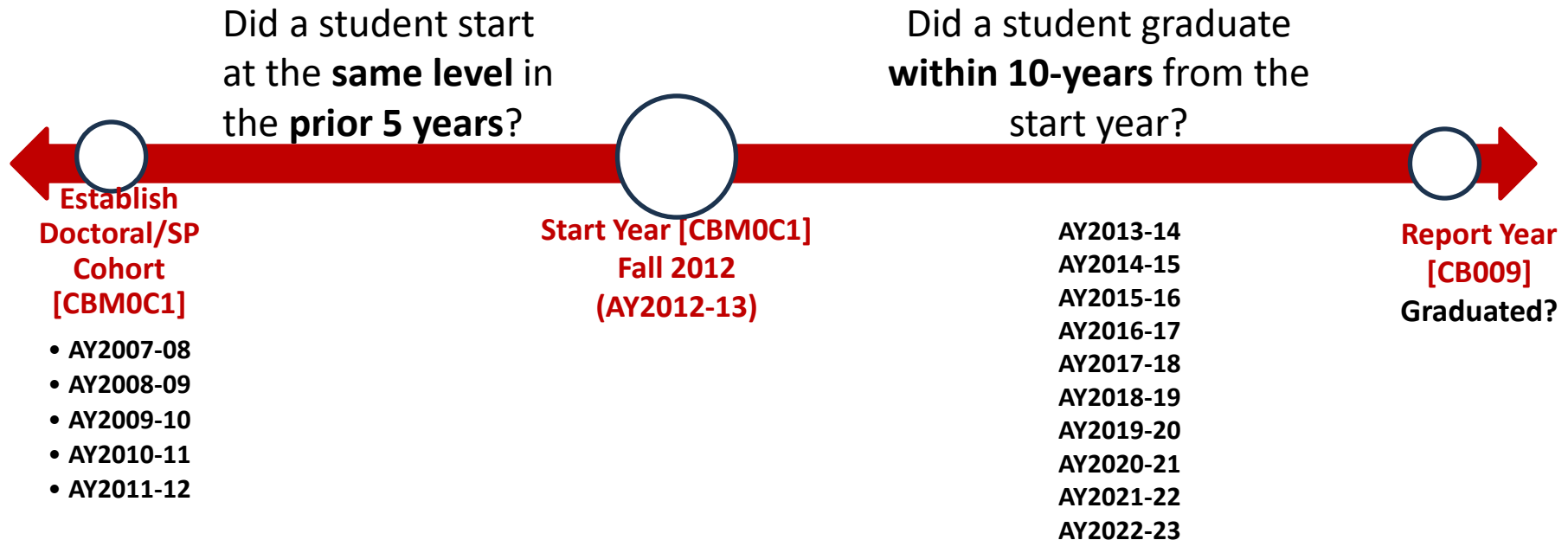


## Establishing a Cohort



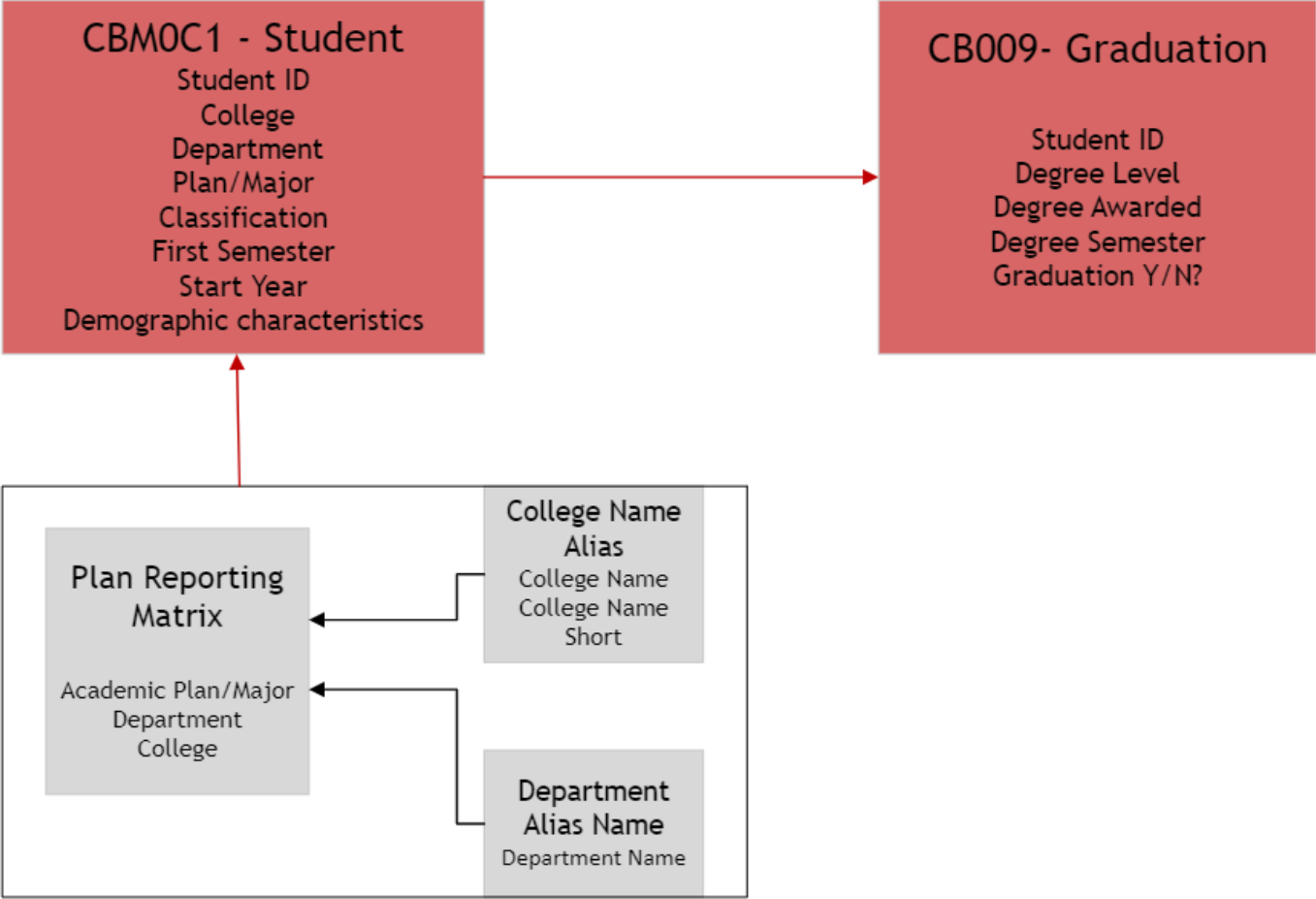
- Similar to CB definition, a cohort is determined by pulling all the students coded on the CBMOC1 at a graduate level in the fall semester
- **Checked in the five prior years** to determine if they had been coded at the same level
- Cohort established for those students who were not coded at that level in the prior years.

# Ten-Year Doctoral/Professional Graduation Rate





# Data Model Using CB Tables in DW



# What changed?

- Request for additional and recent cohorts to see progress towards graduation
- Why understanding graduate graduation rates are important? What do trends tell us about our graduate students?

# Literature Review

- Little is known about the variations in graduate education outcomes and degree completion (Denning & Turner , 2024)
- Graduate degree attainment has increased overtime which has also led to increased graduate loan debt (NASFAA, 2023)

# Literature Review (Cont'd)

- Extant research shows disparities in degree completion among underrepresented and ethnic sub-groups (Offstein et al., 2004; Taylor et al., 2020).
- Using IPEDS longitudinal data, Solinas-Saunders et al. (2024) found a significant increase in graduate degree completion for Hispanic students and no adverse effect.

# Literature Review (cont'd)

- A recent study by Denning & Turner (2024) found a 10-percentage point increase in graduation rates between the entering cohorts of 2004 and 2013.
- Variation in graduation rates by:
  - Program areas (for e.g., Law and health programs had higher graduation rates compared to education or family consumer sciences programs).

# Literature Review (Cont'd)

- Institution Type (6-yr graduation rates at flagship public institutions was about 72% compared to 57% at non-research-intensive institutions).
- Student loan debt between graduate completers and non-completers.



# Methodology

- Sample size(n)=17,933 students
- Fall entry cohorts
  - Doctoral/Professional cohort years(2012-2017)
    - 7-year grad rate
  - Master's starting cohort years (2012 – 2019)
    - 5-year grad rate
- Exploratory data analysis
  - Descriptive statistics
    - Frequency distributions, cross-tabulations etc.
  - Inferential Statistics

# Descriptive Statistics

## Entry cohort 2012-2019

	Master's		Doctoral		Professional	
	Count	%	Count	%	Count	%
Female	6,130	52.9%	1,416	47.0%	1,869	56.3%
Male	5,468	47.1%	1,597	53.0%	1,453	48.2%
Full-time	8,716	75.2%	2,705	89.8%	3,078	92.7%
Part-time	2,882	24.8%	308	10.2%	244	7.3%
URM	3,136	27.0%	445	14.8%	678	20.4%
Non-URM	5,120	44.1%	1,029	34.2%	2,534	76.3%
International	3,342	28.8%	1,539	51.1%	*	3.3%
% Graduated	10,269	88.5%	2,097	69.6%	3,062	92.2%

**Note:** For Master's level, 2019 entry cohort is included. Doctoral and Professional counts include 2012 – 2018 entry cohorts.

**Underrepresented minority (URM)** includes African American, Hispanic, Native American, & Hawaiian Pacific Islander

## Descriptive Statistics by Program Areas

	Master's	Doctoral	Professional
Architecture	271		
Arts	284	*	
Business	2,314	94	
Education	988	501	
Engineering	1,933	648	
Public Affairs	*		
GHL	241	*	
Law	528		1,744
LASS	1,509	632	
NSM	972	895	
Nursing	*		
Optometry	*	*	709
Pharmacy	*	104	869
Social Work	1,521	*	
Technology	844		
<b>Total</b>	<b>11,598</b>	<b>3,013</b>	<b>3,322</b>

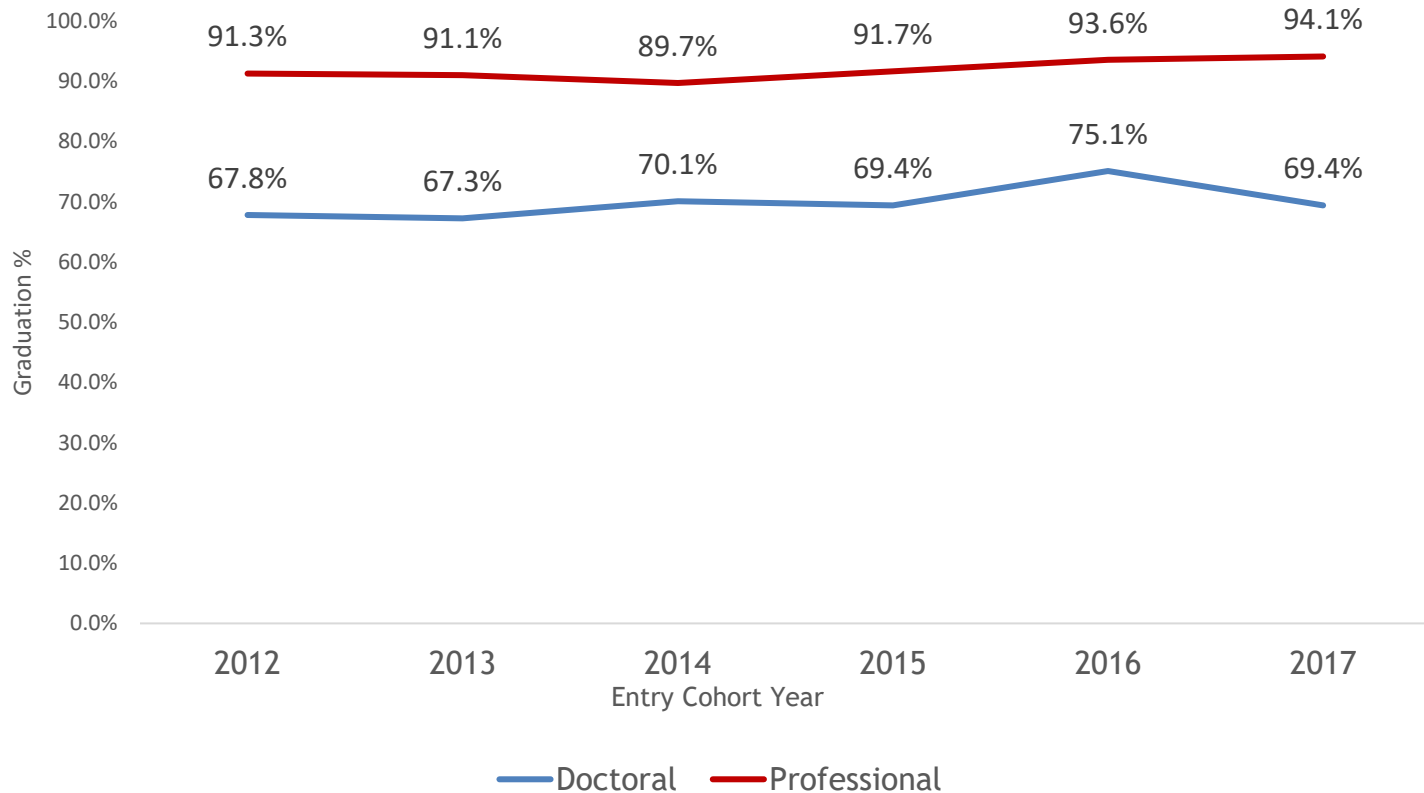
\* Small cell values

Note: 2019 entry cohort included only for Master's level.

Doctoral and Professional counts include 2012 – 2018 entry cohorts.

# Preliminary Findings

## 7-Yr Doctoral and Professional Graduation Rate

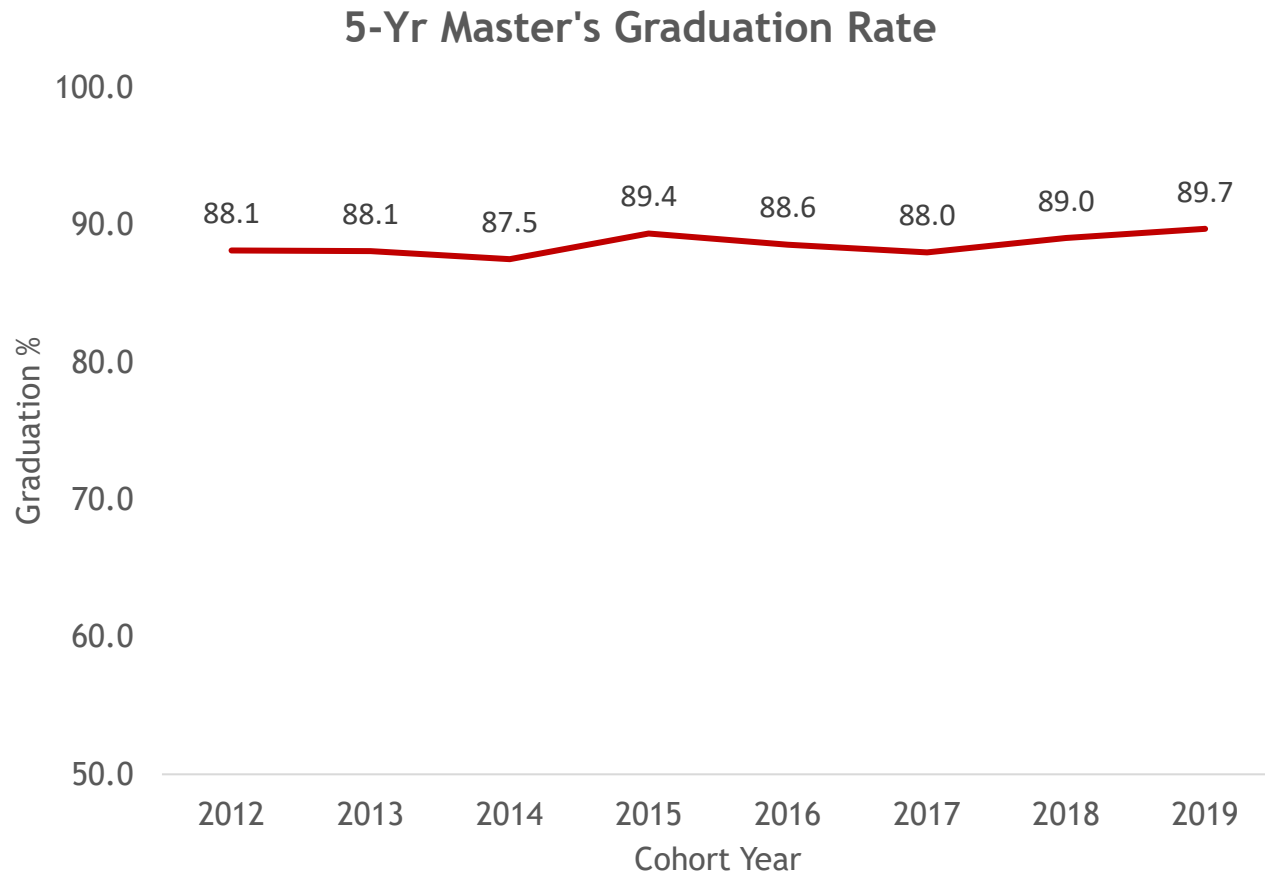


## Overall Graduation Rate

Doctoral : 69.9%

Professional: 91.9%

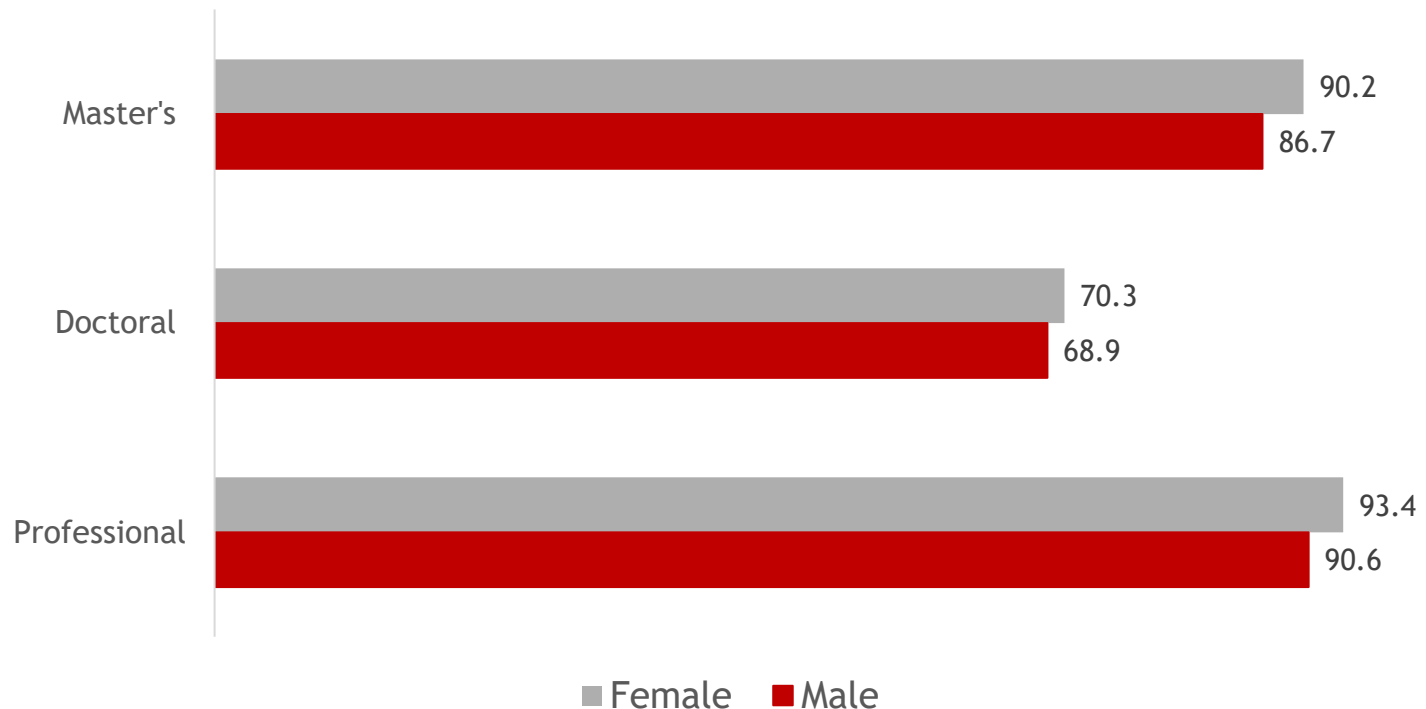
# Preliminary Findings



5-year Master's Grad Rate (2012-2019): 88.5%

# Preliminary Findings

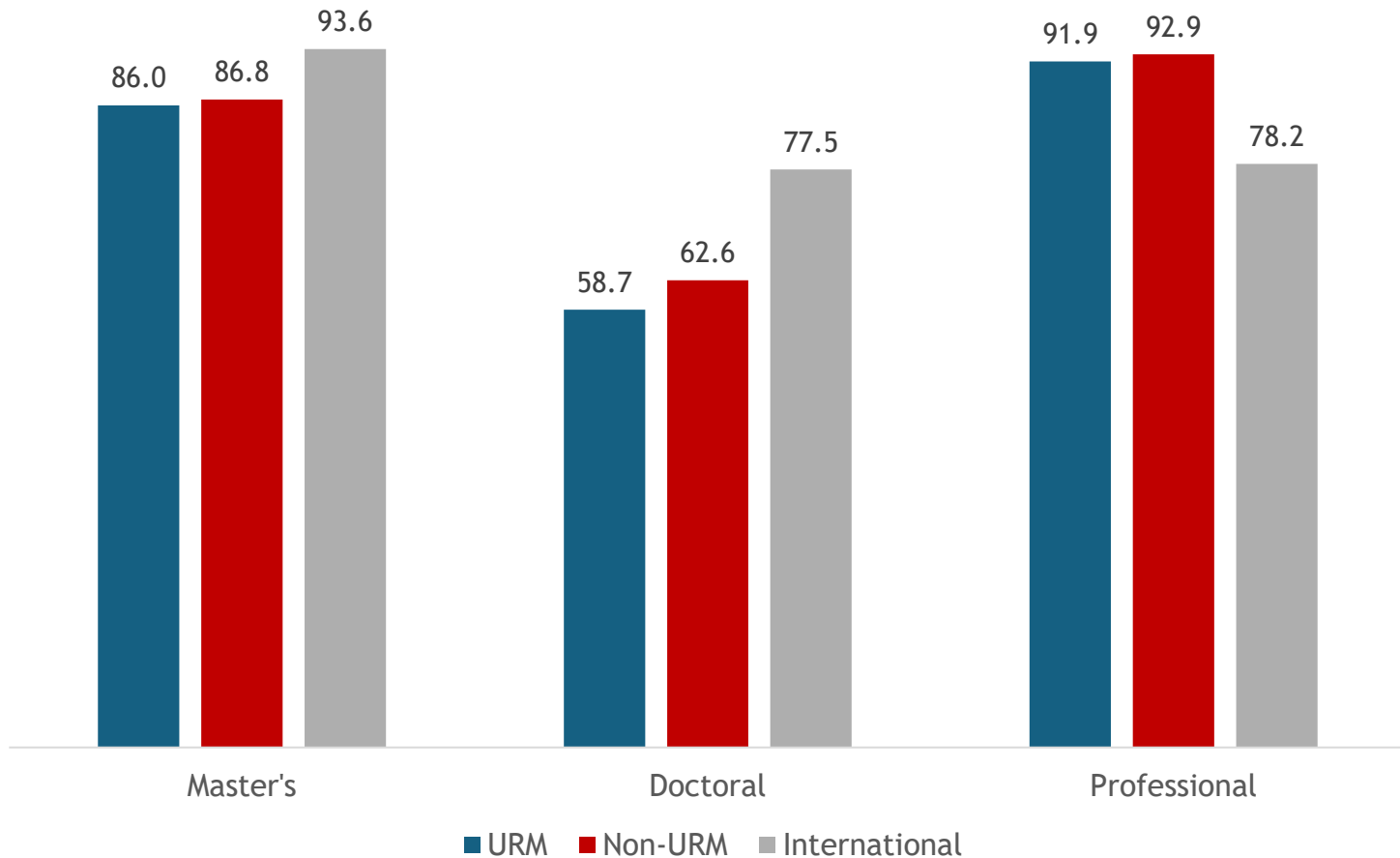
Graduation Rate by Degree Level & Gender





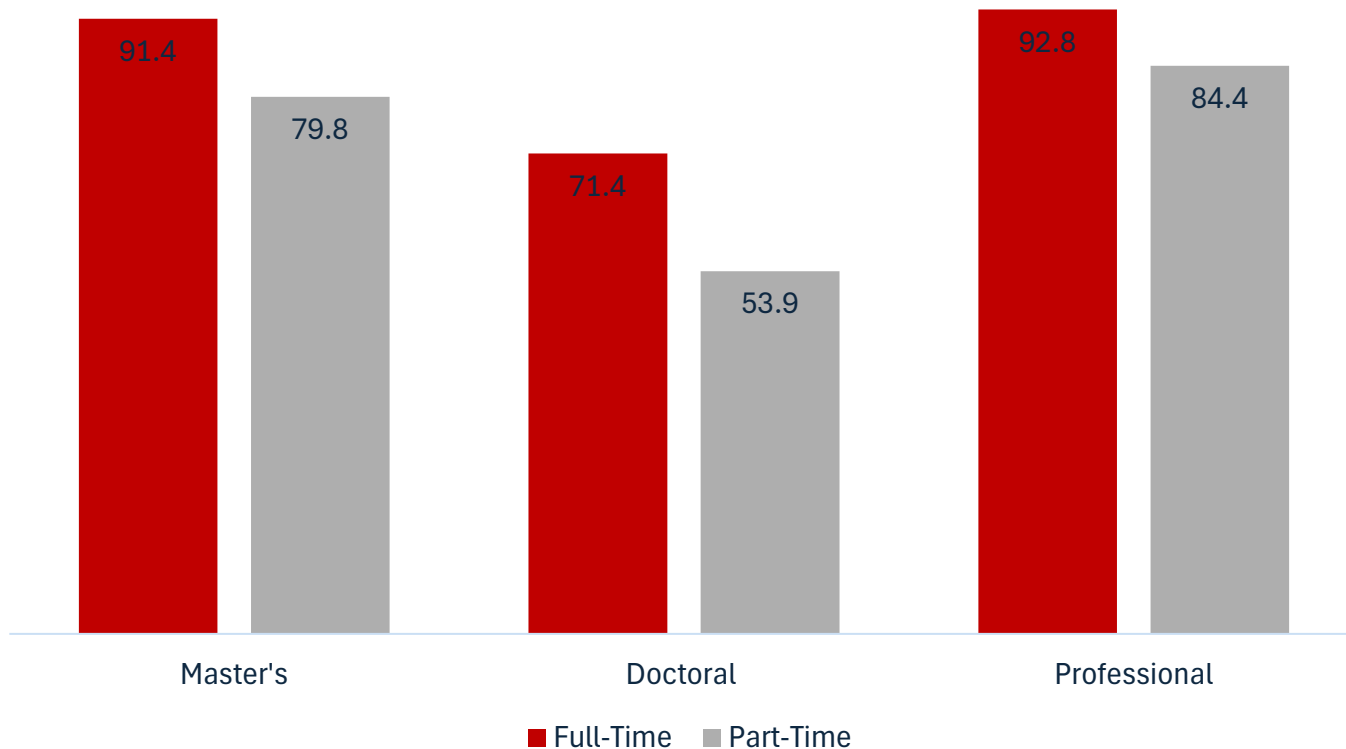
# Preliminary Findings

## Graduation Rate by URM and Degree Level



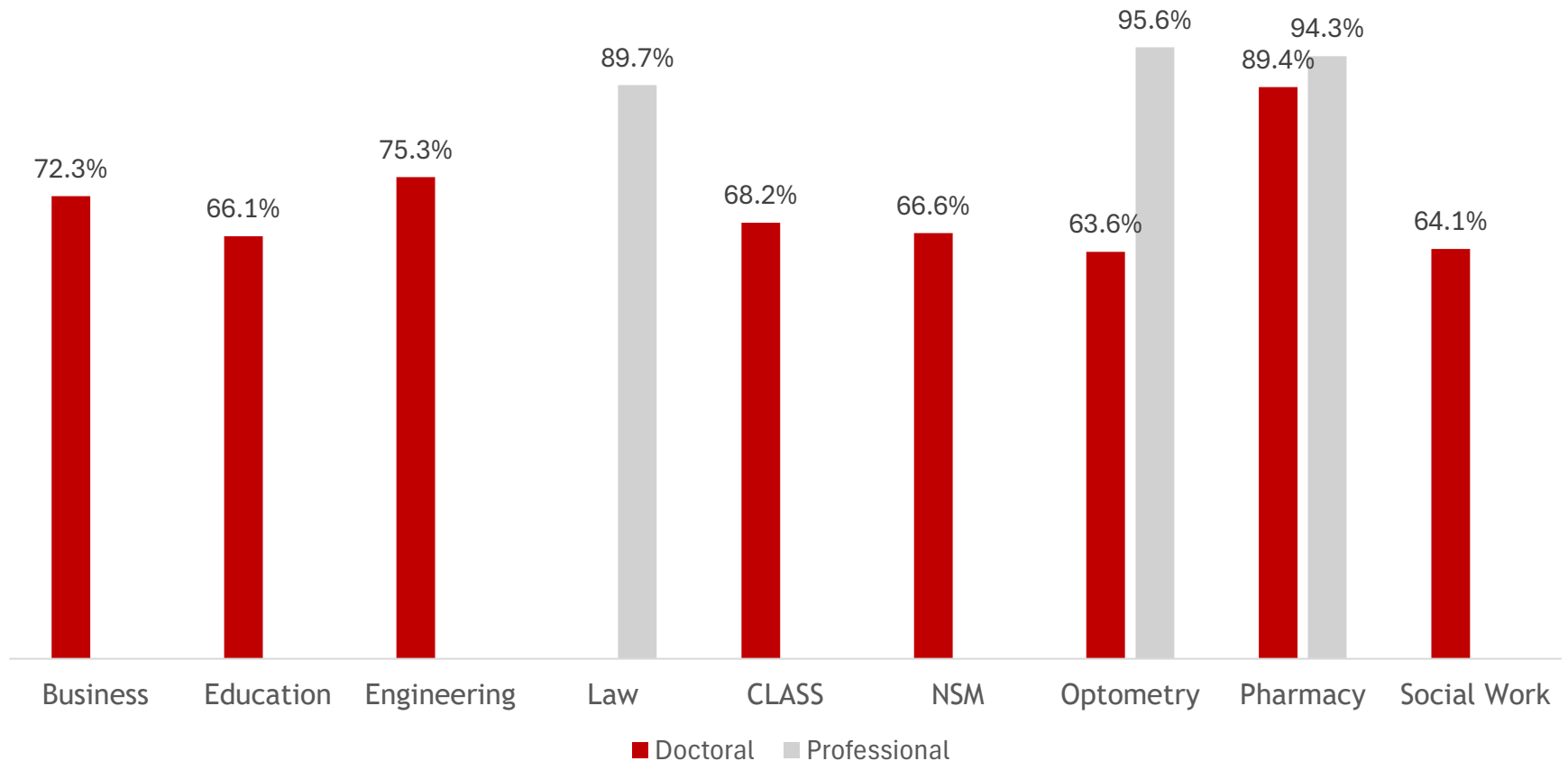
# Preliminary Findings

## FT/PT status and Graduation Rate



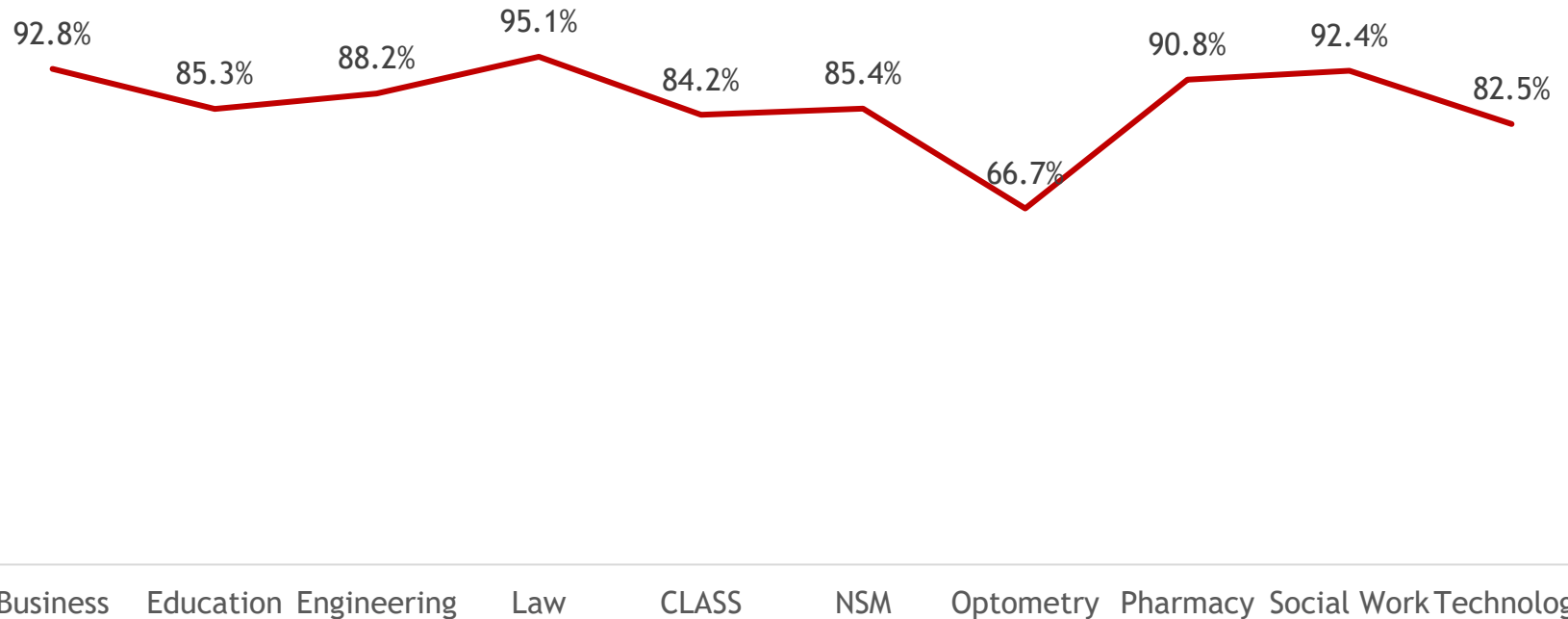
# Preliminary Findings

## Graduation Rate for Doctoral/Professional Program Areas



# Preliminary Findings

Graduation Rate for Master's Program Areas



# Trends in Graduation Rates

- Female students graduate at higher rates across all the degree levels.
- Consistent with prior research findings, professional programs have higher graduation rates compared to doctoral programs within the same time frame (i.e., 7-year graduation rates).

# Trends in Graduation Rates

- At the master's level, URM and non-URM students graduate at similar rates (86%) within 5-years from their cohort entry year.
- Doctoral URM students graduate at lower rates (58%) compared to Non-URM (63%) and International graduate students (78%) within 7-years from their cohort entry year.



# Next Steps

- Adding student loans and any institutional aid to the data to examine the impact on graduate graduation rates.
- Conducting predictive analysis to understand the impact of the factors on graduation rates.

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# Selected References

- Carrasco, M. (2023). *Report: Graduate Loans Could Soon Comprise the Majority of Federal Student Loan Portfolio*. NASFAA. [https://www.nasfaa.org/news-item/31431/Report\\_Graduate\\_Loans\\_Could\\_Soon\\_Comprise\\_the\\_Majority\\_of\\_Federal\\_Student\\_Loan\\_Portfolio](https://www.nasfaa.org/news-item/31431/Report_Graduate_Loans_Could_Soon_Comprise_the_Majority_of_Federal_Student_Loan_Portfolio)
- Denning & Turner (2024). *The Graduation Part II: Graduate School graduation Rates*. Working paper 32749. National Bureau of Economic Research. [The Graduation Part II: Graduate School Graduation Rates | NBER](#)
- Offstein, E. H., Larson, M. B., Mcneill, A. L., & Mwale, H. M. (2004). Are we doing enough for today's graduate students? *International Journal of Educational Management*, 18(7), 396-407.
- Solinas-Saunders, M. , Hobson C.J., Griffin, A., Azemi, Y., Szostek, J., & Novak, J.M. (2024). Descriptive national evidence comparing Hispanic and White student graduate degree completion rates. *Journal of Hispanic Higher Education*, 23(1), 17-31.  
DOI:10.1177/15381927231172576
- Taylor, M., Turk, J. M., Chessman, H. M., & Espinosa, L. L. (2020). Race and ethnicity in higher education: 2020 supplement. *American Council on Education*. [equityinhighered.org](http://equityinhighered.org)



# Thank you!!

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