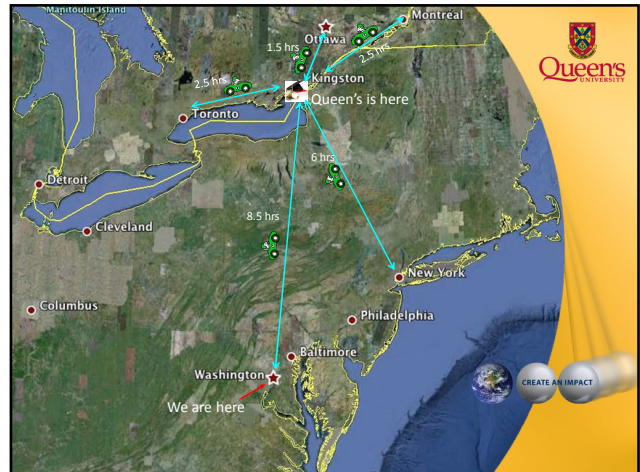


## Ph.D. Completion Rates in the STEM disciplines

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CREATE AN IMPACT



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## Background

Medium size, research intensive university

- Graduate students (n= 3,970) represent 19% of total student population; 67% enrolled at the Master's level
- 27 programs in STEM offer MSc, MAsC, MEng, MES and PhD degrees
- 40% of graduate student population is in STEM
  - 33% of all Masters
  - 56% of all PhDs

Ph.D. Enrolments



Discipline	Percentage
Engineering	19%
Natural/Phys Sci	26%
Life Sci	11%
Other	44%

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<b>Life Science</b>	Anatomy & Cell Biology Biochemistry Epidemiology Microbiology & Immunology Neuroscience Pathology & Molecular Medicine Physiology Pharmacology & Toxicology Rehabilitation Science
<b>Biology</b>	Chemistry Computing Environmental Science Geological Science Geography Kinesiology Mathematics Physics
<b>Applied Science</b>	Chemical Engineering Civil Engineering Electrical & Computing Engineering Engineering Chemistry Engineering Physics Geological Engineering Mechanical & Materials Engineering Mining Engineering Mathematics & Engineering
	<b>Natural and physical science</b>

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### Admission to a PhD program

- Masters degree
- In exceptional circumstances, direct entry from a four year honours undergraduate degree

### Promotion to PhD prior to completion of Masters

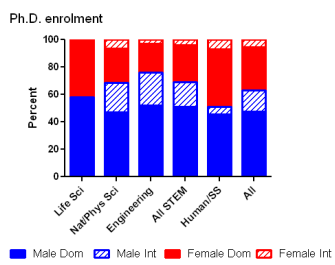
- Excellent research potential
- Demonstrated academic excellence

**20.6% of Masters students in STEM are promoted**  
 43.0% in Life Science  
 21.2% in Natural/Physical Science  
 4.1% in Engineering and Applied Science



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### Enrolment trends

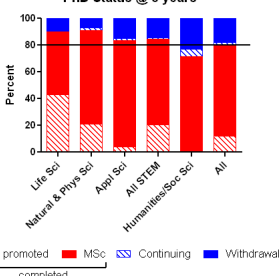
Ph.D. enrolment





Discipline	Male Dom	Male Int	Female Dom	Female Int
Life Sci	60%	0%	40%	0%
Nat/Phys Sci	45%	15%	40%	0%
Engineering	55%	15%	30%	0%
All STEM	50%	15%	35%	0%
Humanities	45%	0%	55%	0%
All	50%	10%	40%	0%

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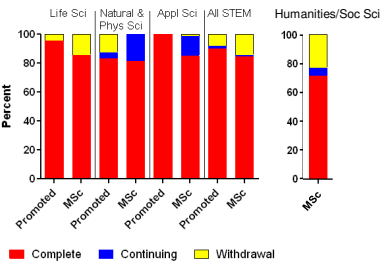
### PhD Status @ 8 years



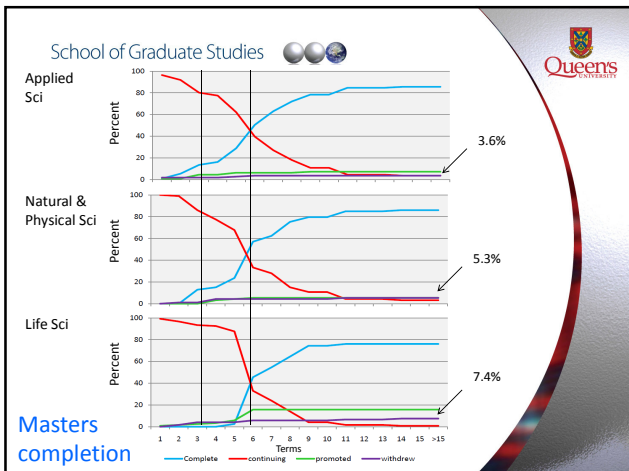
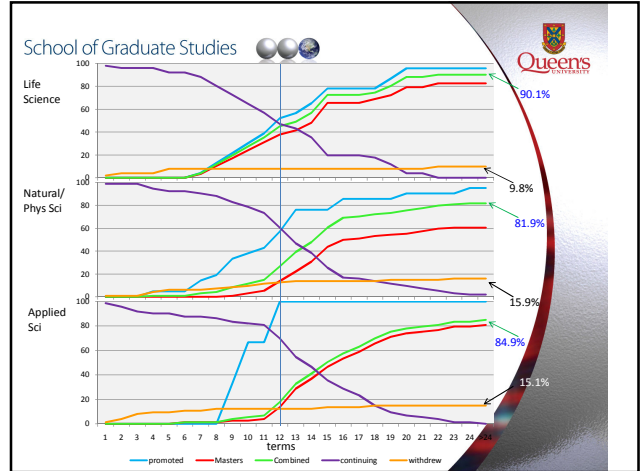
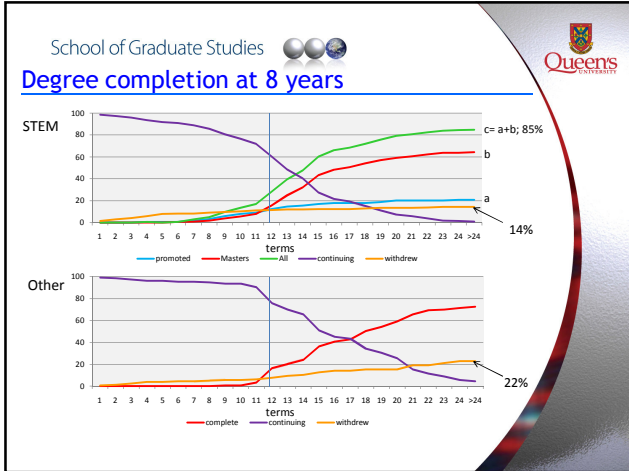
Discipline	promoted/completed	MSc	Continuing	Withdrawal
Life Sci	40%	50%	10%	0%
Natural & Phys Sci	20%	70%	10%	0%
Appl Sci	10%	80%	10%	0%
All STEM	15%	65%	15%	5%
Humanities/Soc Sci	10%	60%	25%	5%
All	15%	65%	15%	5%

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### 8 year status by entry to PhD



Discipline	Entry	Complete	Continuing	Withdrawal
Life Sci	Promoted	90%	10%	0%
	MSc	85%	15%	0%
Natural & Phys Sci	Promoted	80%	15%	5%
	MSc	75%	20%	5%
Appl Sci	Promoted	85%	10%	5%
	MSc	80%	15%	5%
All STEM	Promoted	85%	10%	5%
	MSc	80%	15%	5%
Humanities/Soc Sci	MSc	75%	10%	15%



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### Drivers of current practices

- Government assisted universities
  - Provincial funds for 2 years of Masters program and 4 years of PhD
- Federal/Provincial scholarship support
  - Eligibility requirements
- University funding practices
  - Minimum funding guarantees

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## Outcomes post-Ph.D. degree

Discipline Cluster	Postdoc	Industry	Government	Professional
Life Sciences	64.8%	7.4%	12.8%	14.8%
Natural & Physical Sciences	59.5%	17.7%	13.9%	8.8%
Applied Science	53.9%	19.7%	14.5%	11.8%
Humanities/SS	56.1	4.8%	4.8%	34.1%