

Report of the Graduate School of Arts and Sciences

February 2013

Terminal Master's Degree Programs in the Graduate School of Arts and Sciences

Objective

The Graduate School of Arts and Sciences initiated a review of its terminal Master's degree (M.A. and M.S.) programs in Spring 2012, following its 2011 review of doctoral programs. Our objective was to understand the academic purpose and organization of Master's programs and to evaluate how they meet the needs of students. We planned to use the information gathered during the review to determine how to support Master's programs most effectively.

Overview of Master's Programs

The Graduate School currently administers twenty terminal Master's programs (cf. sixty-one Ph.D. programs) offering the M.A. or M.S. degree (see Table A, p. A2, Appendix). In addition, eleven of Yale's twelve professional schools administer separate Master's programs (e.g., M.B.A., M.F.A., M.Div.), which are not the subject of this review. English and History appear to be the oldest of the Graduate School's Master's programs, as the M.A. requirements in these subjects described in the 1919-20 Graduate School Bulletin are the earliest such requirements recorded in that publication. (Earlier Bulletins, beginning with the first in 1906-07, indicate that the Graduate School awarded unspecified M.A. and M.S. degrees, and that the first of these were awarded in 1874 and 1897, respectively.) A number of Master's programs of this and later vintages are no longer in existence, including Germanic Languages & Literatures, Mathematics, and Urban Education Studies. The two youngest Master's programs, Applied Physics and Computational Biology & Bioinformatics, were formed only within the last decade.

The Review Process

1. **Data Collection:** The Graduate School collected admissions and registration data over the past ten years for information about program size and student outcomes. We gathered basic information about curriculum and requirements from program websites and the Graduate School Bulletin. We also collected tuition income and financial aid figures.
2. **Meetings with DGSs:** Graduate School deans met individually with a number of DGSs to learn about the purpose, curriculum, and current challenges of their individual programs. We sought feedback from DGSs about a planned survey of Master's students.
3. **Master's Student Survey:** The Graduate School composed a survey to evaluate the collective experience of Master's students in their programs and at Yale generally. We refined the survey in consultation with the Office of Institutional Research (OIR), after integrating feedback from DGSs. OIR conducted the survey in May 2012.
4. **Sharing Data:** OIR provided the survey results to the Graduate School, which in turn shared the data with Master's programs. The Graduate School also provided Master's programs with admissions statistics for the past decade, including applicants' accept and decline reasons for the 2012-2013 year, along with information about student outcomes.
5. **Report Review:** After obtaining comments about program data and survey results from Master's programs, the Graduate School deans prepared a draft report. They finalized the report after integrating feedback from DGSs and the Graduate School's Faculty Advisory Committee.

Basic Program Information

One characteristic that differentiates the Graduate School's twenty Master's programs is their administrative relationship to a Ph.D.-granting department (Table A, p. A2, Appendix). Fourteen of the programs are administered by a Ph.D.-granting department. Of the remainder, four (African Studies, East Asian Studies, European & Russian Studies, and International Relations) may be considered "freestanding," as they exist independently of a Ph.D.-granting department. These four programs are

administered by the MacMillan Center for International and Area Studies. The two remaining programs are “quasi-freestanding”: Archaeological Studies is an interdepartmental program, while International & Development Economics (IDE) is administered as a stand-alone program by the Economic Growth Center on behalf of the Economics Department. Broadly speaking, the twenty existing terminal Master’s programs may be divided across the major academic divisions, with seven in the humanities, seven (including MacMillan Center programs) in the social sciences, and six in the sciences and engineering. It should be noted, however, that the MacMillan Center programs are academically interdisciplinary and also closely identified with the humanities division.

Table A on page A2 of the Appendix summarizes curricular and other Master’s program information, gleaned from program websites and the Graduate School Bulletin. Thirteen of the programs award the M.A. degree and seven award the M.S. Fourteen programs offer a degree after one year of study; five grant degrees after two years. The Epidemiology & Public Health (EPH) M.S. program is exceptional in offering both one- and two-year courses of study, depending on academic concentration. (In addition, IDE offers an optional two-year program which few students pursue). The number of required courses varies across programs with a range of six-ten courses in one-year programs and nine-sixteen courses in two-year programs. Approximately half of the programs require proficiency in one or two languages and an independent research project, such as a thesis.

The majority of Master’s programs do not offer courses and/or activities specifically created for Master’s students, but instead require students to take the same courses as Ph.D. students. Notable exceptions are African Studies, Archaeological Studies, EPH, European & Russian Studies, and International Relations (IR), each of which offers between one and three specially designed courses for their Master’s students. While Computer Science does not offer any specialized Master’s courses, it does provide tailored ethics training for Master’s students. The MacMillan Center also offers students in its Master’s programs professional development and social activities, which are also open to Ph.D. students.

Admissions and Enrollment

Between 2003 and 2012, the number of total applications to the Graduate School’s terminal Master’s programs grew more than two-fold, reflecting a steady increase beginning in 2008 (Table B, p. A3, Appendix). Correspondingly, there has been a roughly 50% increase in both the number of admissions offers extended and in overall applicant yields. Computer Science and Engineering & Applied Science have shown the most growth in matriculating students, increasing up to 3-fold over the past several years (Table C, p. A4, Appendix). Other programs experienced more modest growth or no significant growth by this metric. In this group are IR and IDE that nonetheless remain the two largest terminal Master’s programs in terms of admitted students.

Applicants’ stated reasons for accepting or declining offers of admission followed certain general patterns, according to a survey conducted by the Graduate School’s Office of Admissions for 2012-2013 (the results of which were shared with the Master’s programs). Yale’s reputation (41%), course of study (28%), and faculty (10%) were most often selected as the primary reason for accepting an offer, while financial support (33%), course of study (17%), and “other” factors (20%) were most commonly chosen as the primary reason for declining an offer. When asked to identify a weakness of Yale or the relevant program, 39% of all respondents in both accept and decline categories left that item blank. The most frequently checked weaknesses, however, were funding and location, both of which were selected by 22% of respondents.

In 2011-2012, nearly 200 students were enrolled in terminal Master’s programs at Yale, compared to over 2,500 in Ph.D. programs. Based on this enrollment size (and counting part-time students as fractional full-time equivalents or FTEs), the twenty Master’s programs can be divided into three broad size groupings:

< 5 FTE students	5-14 FTE students	≥ 15 FTE students
American Studies	African Studies	Computer Science
Applied Mathematics	Archaeological Studies	Engineering & Applied Sci
Applied Physics	East Asian Studies	International Relations
Comp. Bio. & Bioinformatics	Epidem. & Public Health	International & Dev. Econ.
English Languages & Lit.	European & Russ. Studies	
History of Science & Med.	History	
Medieval Studies	Statistics	
Music		
Near Eastern Langs. & Civs.		

Outcomes

Students in the terminal Master’s programs maintain high graduation rates (Table D, p. A5, Appendix). In one snapshot view, 94% of entering classes between 2008 and 2011 received the Master’s degree, with the graduation rate exceeding 90% in half of all programs. Among graduates, 97% earned their degree “on time,” that is, within the standard duration of their programs, even though many programs do permit part-time study that extends the time to degree (Table E, p. A5, Appendix).

Unfortunately, we have little-to-no information about Master’s students after graduation. The Graduate School does not conduct exit or five-year-out surveys of Master’s students, as it does with Ph.D. students. The majority of Master’s programs also do not track their graduates, with three exceptions. The MacMillan Center conducts an exit survey upon graduation and maintains a career directory of graduates of its four Master’s programs. The Statistics and EPH Master’s programs also track the placement of their graduates internally.

Purpose

Our discussions with DGSs of Master’s programs revealed that students have different reasons – both academic and professional – for pursuing terminal Master’s degrees. Some students are interested in undertaking doctoral work, but require additional academic preparation through Master’s study to pursue this goal. Others use Master’s degree study to sample their field of interest, while deciding if doctoral work is appropriate for them. Many students also pursue the terminal Master’s degree for its own sake. Some of these students have clear professional reasons, such as gaining knowledge or expertise necessary for advancement or for a career switch, while others are simply satisfying their intellectual curiosity.

The terminal Master’s programs serve a variety of academic and professional needs. Programs such as African Studies and East Asian Studies, for example, are designed for students interested in doctoral study, as well as those intending to work in the public or private sector. For some Master’s programs housed within Ph.D. departments (typically smaller programs like American Studies or Near Eastern Languages & Civilizations [NELC]), a department may not necessarily be interested in cultivating its Master’s program beyond preparing students for admission to a Ph.D. program in their field. In NELC and History, the Master’s program helps to provide a critical mass of students in a highly specialized field.

Programs vary in their attitudes about whether a Master’s program should be considered a possible steppingstone to a Yale Ph.D. program. American Studies, for example, explicitly discourages students from viewing the Master’s program as a springboard to its doctoral program. On the other hand, Computer Science explicitly allows its Master’s graduates to apply to its Ph.D. program, and both English and Statistics view their Master’s programs as a way to identify qualified potential doctoral students.

Role of DGS

DGSs play a critical role in administering and nurturing Master's programs. That essential role appears particularly significant in programs housed within Ph.D.-granting departments, when faculty hold mixed views or perhaps do not recognize the intrinsic value of the Master's program. In addition, DGSs are typically the sole faculty advisor for most Master's students. In many of our conversations, a DGS's palpable enthusiasm for his or her Master's students and program appeared to be a key ingredient in the success of a program.

Program Concerns and Challenges

We asked DGSs of Master's programs to identify important issues and challenges they face. Several programs voiced concerns about whether Master's students feel like second class-citizens compared to Ph.D. students. Master's students may have this perception when they encounter difficulties enrolling in a course, for example, because instructors give priority to Ph.D. students or even undergraduates. In programs within Ph.D.-granting departments, Master's students may feel undervalued because they have to pay tuition, while doctoral students attending the same classes do not. Students in African Studies also suffer from a paucity of appropriate courses, caused by lack of faculty with relevant expertise. Several programs expressed concerns surrounding funding – whether about financial aid to Master's students, support for program activities, or support of Ph.D. students in the case of certain programs within Ph.D. departments.

Survey of Master's Students

The Graduate School surveyed Master's students about their experiences in their respective programs in May 2012. OIR administered the survey, polling nearly 63% of all enrolled Master's students (pp. A6-A14, Appendix). The number of survey respondents from the humanities, sciences, and social sciences closely reflected the population of Master's students in these divisions (Table 1, p. A6). The survey results were shared with the Graduate School academic deans and with Master's programs. To maintain student confidentiality, program-specific responses were provided only if there were at least ten responses per program, which was the case for Computer Science, Engineering & Applied Science, IDE, IR, and the three other MacMillan Center programs collectively. To make the survey results more useful to smaller programs in the sciences and social sciences, they were given aggregated results from smaller programs in their respective divisions.

Overall, survey respondents were very satisfied with their degree programs: 84% would definitely or probably recommend their program to others (Table 2, p. A7), and 89% indicated that their program had met their academic expectations (Table 5, p. A8). Respondents did not rank all aspects of their experience highly, however. Only a minority of students were satisfied with their interactions with other students outside of class (40%) or with workspace and facilities for their programs (37%) (Table 3, p. A7). In addition, a minority of respondents were very satisfied with the academic and career advising resources enumerated in the survey (Tables 13-16, pp. A11-A12).

There were some notable differences in student responses across academic divisions. Humanities students reported the highest degree of satisfaction with their experiences and programs. For example, 100% of humanities students, compared to 51% and 55% of science and social science students, respectively, described themselves as very satisfied with the quality of instruction. Similarly, 100% of humanities students, versus 51% of science and 48% of social science students, reported being very satisfied regarding their interactions with faculty (Table 3, p. A7). Interestingly, none of the humanities students reported that their programs offered any activities specifically for Master's students, in contrast to 10% and 46% of science and social science students, respectively (Table 4, p. A7). Humanities students most frequently (83%) cited program reputation as an essential reason for choosing a Master's program, while science and social science students most frequently (71% and 58%, respectively) picked Yale's reputation as a whole (Table 6, p. A8). Finally, humanities students chose furthering education as their top current professional goal (57%), while science and social science students chose new

employment in a related field (49% and 59%, respectively) (Table 9, p. A9). Master's programs appear to be quite helpful for students deciding whether to pursue doctoral studies. When asked how their goals have changed since applying to their programs, a majority of the respondents across all disciplines indicated that they no longer were interested in pursuing doctoral work.

We also asked students about financing their Master's education. The majority of respondents (57%) reported that they had borrowed no loans, but among those students who took out loans to finance their education approximately 90% had borrowed \$10,000 or more (Tables 17 and 18, p. A13). Overall, loans represented around 22% of all funding sources used by students, with the percentage varying substantially by division (humanities 40%, sciences 9%, and social sciences 29%). The largest single source of financing was family support at 54% averaged across all three divisions. Family support was most significant for science students (73%), whereas non-Yale fellowships or grants and Yale fellowships were most important for humanities students (67%) and social science students (48%), respectively. Excluding the MacMillan Center programs, which provide financial aid and represent the largest cohort of social science Master's programs, only 17% of survey respondents from the social sciences reported Yale fellowships as a source of funding.

On the survey, students were given the opportunity to provide suggestions for improving their programs and to comment on their experiences. Nearly one-half of survey respondents offered suggestions for improvement. The most frequent suggestion, which came entirely from respondents in the sciences and social sciences, was to improve curriculum, in particular by adding more courses and faculty with relevant expertise. The second most prevalent comment came from respondents across all disciplines and was to improve academic and career advising, including by designating a formal individual faculty advisor in addition to the DGS. Some students also expressed an interest in more program-specific activities and a desire for more appreciation of Master's students, particularly vis-à-vis Ph.D. students. Other suggested improvements included lengthening programs, and improving funding options. Approximately 20% of respondents provided written comments in an additional "comments" section; almost half of this group indicated that they had had a good experience, although two respondents clearly expressed dissatisfaction.

General Conclusions

Terminal Master's programs at the Graduate School differ in many aspects, including size, structure, purpose, and student objectives. One commonality across all programs is the key role that the DGS plays in the success of each program. The survey of Master's students suggests that most survey respondents had positive academic and non-academic experiences in their programs, and that terminal Master's programs are generally successful in meeting the needs of their students. Nonetheless, survey respondents highlighted several areas for suggested improvement, including curriculum, advising, and funding. Both programs and students also expressed the concern and desire for the Graduate School to have a better appreciation of Master's students and their needs.

Recommendations

We make the following recommendations based on the findings of our review. In implementing any recommendation, however, we are mindful of the many differences between programs and the need to tailor any action accordingly.

- 1. Program Self-Assessment:* We recommend that each Master's program review all aspects of its program, guided by feedback in the student survey. Larger programs that received program-specific survey data will be able to readily identify issues of particular relevance to them, while smaller programs will need to select relevant concerns. Two academic issues frequently raised by survey respondents related to curriculum (e.g., offering more courses, extending program length) and faculty advising (e.g., providing a formal faculty advisor). Once they have completed a review, programs should consider and devise possible measures for improving or strengthening their programs based on their findings. The Graduate School will touch base with programs by the end

of the spring 2013 semester to find out what issues were under consideration and how they may be addressed.

2. *Valuing Master's Students:* The Graduate School and Master's programs should promote greater recognition of the important role and contributions of Master's students to the intellectual life of the university. Programs may be able to address this issue, in part, by making certain changes, such as assigning a formal faculty advisor to each student and developing program-specific activities. If programs identify a problem that may contribute to their students feeling underappreciated (e.g., encountering difficulty with enrolling in a particular course), they should contact the Graduate School for its help in addressing the problem. The Graduate School should initiate internal discussions about ways to improve its programs and services for Master's students, including, perhaps, expanding the offerings of the Graduate Career Services office to meet the particular needs of Master's students, or creating a Graduate School social event specifically for Master's students.
3. *Tracking Master's Program Graduates:* We recommend that the Graduate School track Master's program graduates by conducting exit and five-year-out surveys, as it does of Ph.D. graduates. Programs should also try to maintain records of graduates and their career paths.
4. *Regular Surveys of Master's Students:* The Graduate School should consider conducting regular surveys of Master's students to gauge their experiences and obtain feedback about their programs of study. The next survey could occur in three years' time, giving programs an opportunity to implement changes in response to the 2012 survey.

Acknowledgments

Many individuals contributed to the review of Master's programs. We thank Dean Plummer, in particular, for his invaluable work collecting and analyzing data for the review. We also thank Jennifer Brinley for financial data and analysis, Lisa Furino and Bob Colonna for admissions data, and Cyndi Langin (OIR) for conducting the student survey. We appreciate the time and effort that DGSs, Nancy Ruther, and Melanie Elliott took to inform us about their programs and give us feedback on various aspects under review. We also thank the members of the Faculty Advisory Committee, as well as Elena Kallestinova and Bill Rando, for their helpful comments on the report.

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Master's Programs Review

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Table A. Terminal Master's Programs: Basic Facts

Terminal Masters Program (20 total)	Division	Information from Graduate School Bulletin or Program Website						Information on Program Website?	
		Length (year)	Part-Time Study	Financial Aid	Courses	Language	Thesis/Research	Application	Requirements
Within PhD Departments (14)									
American Studies	Humanities	1	?	?	7	1	writing project	link to admissions	yes
Applied Mathematics	Science	1	yes (max 4 yrs)	no	10	?	?	yes	yes
Applied Physics	Science	1	yes (max 4 yrs)	?	8	?	?	no	no
Computational Biology & Bioinformatics	Science	2	?	?	~ 9	?	project/report	links to BBS, admissions	no
Computer Science	Science	1	yes (max 4 yrs)	?	8	0	independent project optional	yes	yes
Engineering & Applied Science	Science	1	yes (max 4 yrs)	no	8	0	no	yes	yes
English	Humanities	1	yes implied	?	7 or 6 + project	2	project optional	link to bulletin	yes
EPH--Biostatistics/Chronic Disease Epidemiology	Science	2/1	yes (max 5 yrs)	?	14 (12 + thesis) [6]/10 [3]*	0	yes/capstone experience	yes	yes
History	Humanities	1	?	no	7	1	no	yes	yes
History of Science & Medicine	Humanities	1	?	?	6	1	paper	link to admissions	yes
Medieval Studies	Humanities	1	?	?	8	2	no	no	no
Music	Humanities	1	?	no	7	1	no	link to admissions	yes
Near Eastern Languages & Civilizations	Humanities	2	?	no	12		yes	link to admissions	yes
Statistics	Social Science	1	yes	?	8	0	no	yes	yes
Freestanding (4)									
African Studies	Social Science	2	?	?	16 [2]	1	yes	link to admissions	yes
East Asian Studies	Social Science	1	?	?	8	1	no	yes	yes
European & Russian Studies	Social Science	2	?	?	16 [2]	2	yes	link to grad school	yes
International Relations	Social Science	2	?	yes	16 [3]	1	summer internship or alternative	yes	yes
Quasi-freestanding (2)									
Archeological Studies (interdepartmental)	Social Science	1	yes (max 3 yrs)	?	8 [1]	0	yes + summer field project	no	yes
International & Development Economics	Social Science	1 (optional 2)	no	no	8	0	no	yes	yes

? indicates no relevant information could be discerned from the consulted sources.

* Indicated in brackets is number of courses uniquely designed for Master's program, usually representing core curriculum; does not include independent study or thesis/research course.

Table B. Terminal Master's Programs Admissions 2003-2012

Program	Applications											Offers											Accepts											Total			Overall 2003-2012		2012	
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Applic	Offers	Accepts	Admit %	Yield %	Admit %	Yield %			
African Studies	13	25	15	16	15	17	17	17	12	13	4	15	11	11	9	10	11	9	8	9	4	10	8	3	4	6	5	2	5	8	160	97	55	61%	57%	69%	89%			
American Studies	12	16	11	11	14	10	9	7	14	7	1	0	1	0	0	2	0	2	1	1					2		1	1	1	111	8	5	7%	63%	14%	100%				
Applied Mathematics	6	6	8	3	8	9	15	12	18	17	0	0	0	0	0	0	1	0	0	0						1			102	1	1	1%	100%	0%	0%					
Applied Physics								4	3										2	2									7	4	0	57%	0%	67%	0%					
Archaeological Studies	12	11	12	8	6	13	12	12	16	12	8	7	8	6	4	6	5	9	6	1	6	5	7	1	2	3		4	4	0	114	60	32	53%	53%	8%	0%			
Computatnl Bio & Bioinformatcs				1	3	1	2	5	4	4			0	0	1	1	2	0	0						1		1		0	20	4	2	20%	50%	0%	0%				
Computer Science	44	47	37	21	28	43	88	94	159	231	18	23	15	7	14	19	9	20	43	41	7	9	6	5	6	8	3	13	20	19	792	209	96	26%	46%	18%	46%			
East Asian Studies	52	49	55	66	61	55	102	116	129	114	12	17	26	22	28	18	27	33	17	27	4	4	11	5	13	7	13	14	8	13	799	227	92	28%	41%	24%	48%			
Engineering & Applied Science	78	62	64	61	56	95	97	112	184	261	8	20	16	17	18	25	18	21	44	42	4	9	6	7	6	13	8	8	26	20	1070	229	107	21%	47%	16%	48%			
English Language & Literature	12	24	18	23	16	19	15	21	20	23	0	3	1	1	1	3	4	2	4	4				1	1		3	1	2	3	191	23	14	12%	61%	17%	75%			
Epidemiology & Public Health	23	16	11	10	13	15	20	24	33	49	17	9	6	8	5	8	9	12	20	19	5	2	1	1	5	4	2	4	7	8	214	113	39	53%	35%	39%	42%			
European & Russian Studies	18	13	15	23	13	27	29	33	26	25	4	3	6	7	8	19	14	15	11	15	3	1	3	3	6	9	4	4	6	9	222	102	48	46%	47%	60%	60%			
History	36	25	33	34	28	28	30	16	30	20	20	4	2	2	3	5	6	6	10	12	10	3	1	1	2	2	4	3	6	9	280	70	41	25%	59%	60%	75%			
History of Science & Medicine	1	4		4	1	4	5	3			0	2		3	1	1	2	2							1						22	11	3	50%	27%	0%	0%			
International Relations	326	309	304	265	264	274	296	334	315	353	63	68	65	58	56	63	55	63	65	63	31	23	30	19	20	28	22	21	35	26	3040	619	255	20%	41%	18%	41%			
International&Devlpmnt Econ	92	108	100	138	153	221	283	270	322	384	48	48	35	46	46	52	56	54	51	50	25	27	15	18	23	23	25	29	28	28	2071	486	241	23%	50%	13%	56%			
Medieval Studies	3	2	4	1	6	1	5	1	1	2	0	0	1	0	0	0	0	0	0	0											26	1	1	4%	100%	0%	0%			
Music	7	7	12	15	18	12	11	8	7	11	0	0	0	0	0	0	0	0	0	1											108	1	1	1%	100%	9%	100%			
Near Eastern Languages & Civs	4	3	7	3	6	3	7	6	2	7	0	0	1	1	4	1	2	1	1	4					1		2	1	1	3	48	15	9	31%	60%	57%	75%			
Statistics	22	21	24	19	31	57	86	112	215	277	9	12	9	12	22	29	32	23	23	24	4	9	3	3	11	12	16	13	6	8	864	195	85	23%	44%	9%	33%			
Total	761	748	730	722	740	904	1129	1203	1511	1817	212	231	203	201	219	262	252	274	306	315	103	106	92	68	100	119	108	120	155	156	10265	2475	1127	24%	46%	17%	50%			

Note: Only Fall term admissions shown

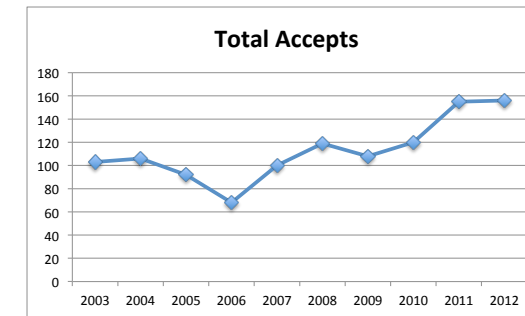
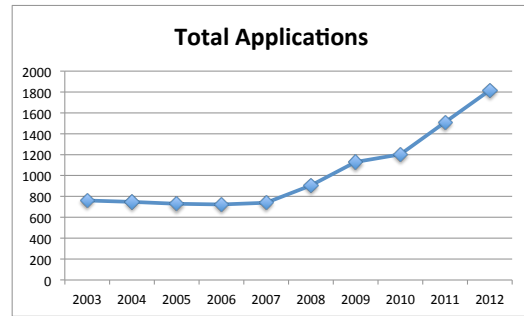


Table C. Terminal Master's Programs Matriculants 2008-2011

Terminal Master's Program	2008			2009			2010			2011			Total			
	Accept	Matric	M/A %	Accept	Matric	M/A %	Accept	Matric	M/A %	Accept	Matric	M/A %	Accept	Matric	M/A %	
African Studies	6	4	67%	5	4	80%	2	1	50%	5	5	100%	18	14	78%	
American Studies	2	1	50%				1	1	100%	1	1	100%	4	3	75%	
Applied Mathematics				1	0	0%							1	0	0%	
Applied Physics										0			0			
Archaeological Studies	3	2	67%	0			4	4	100%	4	4	100%	11	10	91%	
Computatnl Bio & Bioinformatcs	1	1	100%	0			1	1	100%				2	2	100%	
Computer Science	8	7	88%	3	2	67%	13	12	92%	20	20	100%	44	41	93%	
East Asian Studies	7	5	71%	13	9	69%	14	14	100%	8	7	88%	42	35	83%	
Engineering & Applied Science	13	12	92%	8	8	100%	8	6	75%	26	21	81%	55	47	85%	
English Language & Literature	0			3	1	33%	1	1	100%	2	1	50%	6	3	50%	
Epidemiology & Public Health	4	4	100%	2	2	100%	4	4	100%	7	7	100%	17	17	100%	
European & Russian Studies	9	7	78%	4	4	100%	4	4	100%	6	6	100%	23	21	91%	
History	2	1	50%	4	2	50%	3	3	100%	6	6	100%	15	12	80%	
History of Science & Medicine	0			0			1	1	100%				1	1	100%	
International Relations	28	27	96%	22	19	91%	21	20	95%	35	35	100%	106	101	95%	
International&Devlpmnt Econ	23	22	96%	23	22	96%	29	29	100%	28	26	93%	103	99	96%	
Medieval Studies																
Music																
Near Eastern Languages & Civs	1	1	100%	2	0	0%	1	1	100%	1	1	100%	5	3	60%	
Statistics	11	6	55%	16	13	81%	13	12	92%	6	6	100%	46	37	80%	
Grand Total	118	100	85%	106	86	82%	120	114	95%	155	146	94%	499	446	89%	

Notes:

- 1) Matric represents how many applicants who accepted offer of admission actually matriculated
- 2) In accept category 0 means an offer of admissions was made but not accepted while blank means no offer was made (see Table 1)
- 3) Only fall admissions shown

Table D. Terminal Master's Programs Degrees Awarded

Program	Total	Awarded	% Awarded	Attrition	Continuing
African Studies	9	8	89%	1	0
American Studies	2	1	50%	1	0
Archaeological Studies	6	4	67%	1	1
Computatnl Bio & Bioinformatcs	2	2	100%	0	0
Computer Science	24	22	92%	2	0
East Asian Studies	28	28	100%	0	0
Engineering & Applied Science	24	22	92%	1	1
English Language & Literature	2	2	100%	0	0
Epidemiology & Public Health	11	8	73%	1	2
European & Russian Studies	15	15	100%	0	0
History	6	6	100%	0	0
History of Science & Medicine	1	0	0%	1	0
International Relations	66	61	92%	3	2
International&Devlpmnt Econ	73	72	99%	1	0
Near Eastern Languages & Civs	3	2	67%	1	0
Statistics	32	32	100%	0	0
Total	304	285	94%	13	6

Table E. Terminal Master's Programs Time to Degree

Program	2 terms	3 terms	4 terms	5 terms	6 terms	Total	"on time"
African Studies			8			8	100%
American Studies	1					1	100%
Archaeological Studies	1		2		1	4	25%
Computatnl Bio & Bioinformatcs			2			2	100%
Computer Science	17	4	1			22	77%
East Asian Studies	27	1				28	96%
Engineering & Applied Science	19		3			22	86%
English Language & Literature	2					2	100%
Epidemiology & Public Health	3		4	1		8	88%
European & Russian Studies			15			15	100%
History	6					6	100%
International Relations		3	57	1		61	98%
International&Devlpmnt Econ	70	1	1			72	99%
Near Eastern Languages & Civs			2			2	100%
Statistics	32					32	100%
Total	178	9	95	2	1	285	97%

Notes:

- 1) Data for 2008-2010 matriculants (spring and fall), status as of Fall 2012
- 2) Many programs allow part-time study
- 3) Epidemiology & Public Health has both 1-year and 2-year programs
- 4) International Relations "on time" includes 3 early degrees (3 terms)
- 5) International&Devlpmnt Econ is 1-year program with 2-year option

The Enrolled Master’s Student Survey was developed by the Academic Deans of the Graduate School of Arts and Sciences as a component of a review of GSAS Master’s degree programs. It was administered by the Office of Institutional Research and launched May 2, 2012. Sixty-three percent of enrolled Master’s students responded at least partially (119 out of 190 for whom we had email addresses). The sample accurately represented the population in citizenship, gender, division and status (Table 1).

Table 1. Sample and population characteristics

	Sample		Population	
	%	#	%	#
Citizenship				
Foreign national (inc. Canadian)	55%	65	52%	101
United States/Permanent Resident	45%	54	49%	95
Gender				
Female	45%	54	48%	94
Male	55%	65	52%	102
Division				
Humanities	6%	7	6%	11
Sciences	34%	41	31%	61
Social Sciences	60%	71	63%	124
Status				
Exiting	71%	85	68%	130
Continuing	29%	34	32%	62

This report shows summary survey results by the above subgroups. Detailed results can be found in the Appendix. Because of the small number of respondents, differences among groups that appear to be large may not be statistically significant (i.e., different than we would expect to see by chance).

Satisfaction – Overall and Program

Table 2. Would you recommend Yale to someone considering your degree program?

	Col %									
	Total	Division			Status		Gender		Citizenship	
		Hum	Sci	Soc	Exiting	All others	F	M	Intl	US
Definitely	63%	86%	68%	58%	64%	59%	54%	70%	72%	51%
Probably	21%	0%	20%	24%	20%	24%	24%	19%	25%	17%
Maybe	13%	14%	8%	15%	11%	18%	19%	8%	0%	28%
Probably not	2%	0%	0%	3%	2%	0%	4%	0%	0%	4%
Definitely not	2%	0%	5%	0%	2%	0%	0%	3%	3%	0%
# of respondents	118	7	40	71	84	34	54	64	65	53

Table 3. Satisfaction with aspects of program, sorted by total

How satisfied are you with the following aspects of your program?	% who answered "Very Satisfied"									
	Total	Division			Status		Gender		Citizenship	
		Hum	Sci	Soc	Exiting	All others	F	M	Intl	US
Quality of instruction	56%	100%	51%	55%	59%	50%	59%	54%	60%	52%
Intellectual community	54%	86%	46%	56%	55%	53%	49%	58%	56%	52%
Availability of faculty	52%	57%	56%	49%	56%	41%	46%	57%	58%	44%
Interactions with faculty	52%	100%	51%	48%	56%	41%	43%	60%	60%	43%
Access to courses outside program	50%	71%	37%	55%	49%	50%	48%	51%	51%	48%
Interactions with students outside of class	40%	71%	27%	45%	38%	47%	41%	40%	43%	37%
Workspace and facilities	37%	43%	46%	31%	40%	29%	28%	45%	48%	24%
# of respondents	119	7	41	71	85	34	54	65	65	54

* Approximate - varies slightly by item

Table 4. Activities specifically for Master's students

Does your program offer activities specifically for students in the Master's program?	Col %									
	Total	Division			Status		Gender		Citizenship	
		Hum	Sci	Soc	Exiting	All others	F	M	Intl	US
Yes	31%	0%	10%	46%	25%	44%	32%	30%	27%	36%
No	50%	100%	58%	40%	53%	41%	51%	48%	52%	47%
Don't know	20%	0%	33%	14%	22%	15%	17%	22%	22%	17%
# of respondents	117	7	40	70	83	34	53	64	64	53

Academic expectations & feedback

Table 5. Academic expectations, communication and feedback

	% responding									
	Total	Division			Status		Gender		Citizenship	
		Hum	Sci	Soc	Exiting	All others	F	M	Intl	US
% whose programs are meeting their academic expectations	89%	100%	90%	87%	89%	88%	89%	89%	89%	89%
# of respondents	119	7	41	71	85	34	54	65	65	54
% who rec'd clear information regarding academic req. before they started	93%	71%	97%	92%	93%	93%	91%	94%	93%	92%
# of respondents	110	7	39	64	80	30	47	63	61	49
% who have rec'd written feedback regarding performance and progress, besides grades	19%	43%	15%	19%	20%	18%	19%	19%	14%	25%
# of respondents	116	7	40	69	82	34	52	64	65	51

Goals and reasons for pursuing a Master's/choosing program

Table 6. Reasons for choosing program, sorted by total

How important were each of the following in choosing your program?	% who answered "Essential"									
	Total	Division			Status		Gender		Citizenship	
		Hum	Sci	Soc	Exiting	All others	F	M	Intl	US
Yale's reputation	62%	57%	71%	58%	68%	47%	57%	66%	77%	44%
Faculty	40%	71%	46%	33%	45%	26%	43%	37%	42%	37%
Program reputation	28%	83%	34%	20%	35%	12%	21%	34%	36%	19%
Interdisciplinary possibilities	24%	29%	22%	24%	25%	21%	25%	23%	23%	24%
Funding from Yale	23%	0%	12%	31%	15%	41%	28%	18%	14%	33%
Curriculum	21%	0%	22%	23%	22%	18%	20%	22%	22%	20%
Student peers	16%	0%	17%	17%	18%	12%	11%	20%	26%	4%
Location	12%	14%	17%	9%	10%	18%	9%	14%	6%	19%
# of respondents *	119	7	41	71	85	34	54	65	65	54

* Approximate - varies slightly by item

Table 7. Reasons for pursuing a Master's degree when applying, sorted by total

	% answering "One or two most important reasons"									
	Total	Division			Status	Gender		Citizenship		
		Hum	Sci	Soc	Exiting	All others	F	M	Intl	US
Expand knowledge of field	72%	57%	76%	71%	74%	66%	68%	74%	74%	68%
Improve employment prospects	66%	29%	65%	71%	60%	81%	69%	64%	67%	66%
Make professional connections	33%	14%	36%	33%	36%	25%	31%	35%	44%	19%
Prepare to enter a PhD program	32%	57%	31%	30%	31%	34%	27%	36%	32%	32%
Change career or field	29%	29%	29%	30%	29%	30%	29%	30%	30%	28%
Prepare to teach or enter academia	21%	43%	17%	21%	23%	16%	13%	28%	18%	25%
# of respondents *	109	7	38	64	79	30	49	60	63	46

* Approximate - varies slightly by item

Table 8. Change in goals since joining program

Since joining the program have your goals changed?	Total	Division			Status	Gender		Citizenship		
		Hum	Sci	Soc	Exiting	All	F	M	Intl	US
						others				
% whose goals have changed since joining program	23%	29%	13%	29%	28%	13%	33%	16%	16%	33%
# of respondents	112	7	39	66	80	32	49	63	64	48

Table 9. Current professional goals

What are your current professional goals upon completion of your program?	Total	% responding								
		Division			Status	Gender		Citizenship		
		Hum	Sci	Soc	Exiting	All others	F	M	Intl	US
Prev employment in related field	8%	0%	8%	9%	5%	16%	2%	13%	5%	13%
Prev employment in unrelated field	3%	0%	3%	3%	4%	0%	4%	2%	5%	0%
New employment in related field	53%	14%	49%	59%	53%	53%	57%	49%	56%	48%
New employment in unrelated field	5%	14%	5%	5%	6%	3%	10%	2%	6%	4%
Further education	26%	57%	31%	20%	29%	19%	18%	32%	27%	25%
Other	5%	14%	5%	5%	4%	9%	8%	3%	2%	10%
# of respondents	112	7	39	66	80	32	49	63	64	48

Independent research & thesis

Table 10. Independent research, expectations and current status

	Col %										
	Total	Division			Exiting	Status	All others	Gender		Citizenship	
		Hum	Sci	Soc				F	M	Intl	US
When you began your program did you expect to conduct independent research											
Yes	48%	71%	48%	46%	46%	53%	52%	45%	46%	51%	
No	21%	14%	25%	20%	25%	12%	22%	20%	26%	15%	
Wasn't sure	31%	14%	28%	34%	29%	35%	26%	34%	28%	34%	
# of respondents	118	7	40	71	84	34	54	64	65	53	
Do you now expect to conduct or have you conducted independent research?											
Completed	25%	57%	15%	28%	35%	3%	26%	25%	15%	38%	
Currently conducting	14%	14%	18%	13%	14%	15%	13%	16%	17%	11%	
Expect to conduct	27%	0%	28%	30%	15%	56%	28%	27%	31%	23%	
Do NOT expect to conduct	33%	29%	40%	30%	36%	26%	33%	33%	37%	28%	
# of respondents	118	7	40	71	84	34	54	64	65	53	

Table 11. Independent research (expectations vs. behavior)

	When you first began, did you expect to conduct independent research?		
	Col %		
	Yes	No	Wasn't sure
Do you now expect to conduct or have you conducted independent research?			
Completed	37%	4%	22%
Currently conducting	28%	0%	3%
Expect to conduct	30%	20%	28%
Do NOT expect to conduct	5%	76%	47%
# of respondents	57	25	36

Table 12. Status of thesis

Are you working on or have you completed a thesis?	Total	Col %								
		Division			Status	Gender		Citizenship		
		Hum	Sci	Soc	Exiting	All others	F	M	Intl	US
No	77%	86%	90%	68%	78%	74%	73%	80%	85%	67%
Working on thesis	10%	0%	3%	16%	4%	26%	10%	11%	6%	16%
Completed thesis	13%	14%	8%	16%	18%	0%	17%	9%	9%	18%
# of respondents	116	7	40	69	82	34	52	64	65	51

Table 13. Quality of thesis advising

Row %	N/A, have not reached this point	None received	Poor	Fair	Good	Excellent	# of respondents
Topic selection	4%	8%	0%	13%	42%	33%	24
Research	8%	8%	0%	12%	36%	36%	25
Writing	24%	12%	0%	16%	24%	24%	25
Publishing	36%	32%	4%	12%	12%	4%	25

Advising – use and rating of sources

Table 14. Use of sources for academic and career advising, sorted by total

	Total	% who used each								
		Division			Status	Gender		Citizenship		
		Hum	Sci	Soc	Exiting	All others	F	M	Intl	US
Academic advising:										
DGS	83%	100%	74%	87%	79%	94%	79%	87%	80%	88%
Registrar	65%	86%	67%	62%	61%	76%	60%	69%	65%	66%
Faculty mentor	49%	71%	59%	41%	52%	41%	47%	51%	52%	45%
Faculty advisor	41%	29%	54%	34%	40%	41%	32%	48%	45%	35%
# of respondents *	116	7	39	70	82	34	53	63	65	51
Career advising:										
Career services	71%	43%	69%	75%	71%	72%	71%	71%	72%	70%
Faculty mentor	59%	86%	62%	54%	61%	53%	52%	65%	53%	66%
DGS	50%	71%	38%	54%	52%	44%	40%	58%	53%	46%
Faculty advisor	40%	29%	51%	35%	39%	44%	33%	47%	45%	34%
# of respondents *	114	7	39	68	82	32	52	62	64	50

* Approximate, varies slightly by item

Table 15. Satisfaction with sources of academic and career advising, sorted by use (see Table 14)

	% Very Satisfied, among those who used									
	Total	Division			Status		Gender		Citizenship	
		Hum	Sci	Soc	Exiting	All others	F	M	Intl	US
Academic advising:										
DGS	42%	57%	41%	40%	47%	31%	36%	46%	52%	30%
Registrar	47%	50%	42%	49%	42%	56%	47%	47%	38%	58%
Faculty mentor	46%	60%	48%	41%	49%	36%	40%	50%	44%	48%
Faculty advisor	43%	---	43%	46%	45%	36%	35%	47%	31%	61%
Career advising:										
Career services	26%	0%	26%	27%	24%	30%	16%	34%	24%	29%
Faculty mentor	48%	67%	46%	46%	46%	53%	44%	50%	38%	58%
DGS	42%	60%	47%	38%	47%	29%	29%	50%	44%	39%
Faculty advisor	35%	---	50%	25%	41%	21%	29%	38%	34%	35%

Number of respondents varies by usage so is not shown in this table. See previous table for details.

MacDougal Center use and evaluation

Table 16. MacDougal Center, awareness, use & evaluation

	% Very Satisfied, among those who used									
	Total	Division			Status		Gender		Citizenship	
		Hum	Sci	Soc	Exiting	All others	F	M	Intl	US
% familiar with the MacDougal Center	91%	86%	87%	94%	93%	88%	92%	90%	89%	94%
% who used , sorted by Total										
Grad Student Life	66%	57%	62%	70%	65%	70%	72%	62%	66%	67%
Grad Career Services	60%	43%	77%	52%	66%	45%	66%	56%	70%	47%
Grad Writing Center	28%	29%	28%	28%	26%	33%	24%	32%	38%	16%
Grad Office for Div. & EO	17%	0%	26%	13%	20%	9%	14%	19%	25%	6%
Grad Teaching Center	16%	0%	21%	15%	16%	15%	10%	21%	20%	10%
# of respondents *	113	7	39	67	80	33	50	63	64	49
% who rated services "Good" or "Excellent", among those who used										
Grad Student Life	84%	---	88%	81%	85%	82%	83%	85%	88%	79%
Grad Career Services	68%	---	73%	62%	68%	66%	69%	66%	74%	56%
Grad Writing Center	81%	---	72%	84%	81%	82%	92%	75%	87%	63%
Grad Office for Div. & EO	74%	---	70%	78%	69%	---	72%	75%	75%	---
Grad Teaching Center	84%	---	88%	80%	77%	100%	80%	85%	92%	60%

* Approximate, varies slightly by item

Funding for program

Table 17. Funding sources, sorted by total

	% using source to fund >25% of Master's degree									
	Total	Division			Status	Gender		Citizenship		
		Hum	Sci	Soc	Exiting	All others	F	M	Intl	US
Family	53%	34%	73%	41%	57%	39%	58%	48%	75%	24%
Personal funds	31%	0%	38%	28%	29%	36%	23%	36%	36%	24%
Yale fellowship	30%	0%	3%	48%	20%	56%	37%	24%	20%	42%
Loans	22%	40%	9%	28%	19%	35%	21%	24%	10%	37%
Non-Yale fellowship or grant	18%	67%	0%	24%	14%	28%	18%	18%	16%	21%
Employer benefits	16%	20%	13%	17%	13%	27%	15%	17%	11%	22%

Table 18. Loans to fund Master's degree

Total amount borrowed or expected to borrow to finance Master's degree	Col %									
	Total	Division			Status	Gender		Citizenship		
		Hum	Sci	Soc	Exiting	All others	F	M	Intl	US
\$0 - no loans	57%	71%	50%	60%	57%	58%	65%	51%	60%	53%
\$1 to \$9,999	4%	0%	3%	5%	4%	3%	8%	0%	0%	9%
\$10,000 to \$19,999	8%	0%	8%	9%	9%	6%	4%	11%	8%	9%
\$20,000 to \$29,000	5%	14%	5%	5%	5%	6%	4%	7%	3%	9%
\$30,000 to \$39,000	5%	0%	5%	6%	5%	6%	0%	10%	6%	4%
\$40,000 to \$49,999	5%	0%	8%	3%	6%	0%	4%	5%	8%	0%
\$50,000 to \$59,999	8%	14%	18%	2%	11%	0%	12%	5%	10%	6%
\$60,000 to \$69,999	3%	0%	3%	3%	1%	6%	0%	5%	2%	4%
\$70,000 or more	5%	0%	0%	8%	1%	13%	2%	7%	3%	6%
# of respondents	110	7	38	65	79	31	49	61	63	47

Background

Table 19. Activity prior to starting Master's program

What were you doing immediately before entering your program? (Check all that apply)	% responding									
	Total	Division			Status		Gender		Citizenship	
		Hum	Sci	Soc	Exiting	All others	F	M	Intl	US
F/T employment in related field	29%	29%	23%	32%	26%	34%	20%	35%	23%	35%
P/T employment in related field	2%	0%	0%	3%	1%	3%	2%	2%	0%	4%
Employment in unrelated field (full/part time)	16%	14%	13%	18%	13%	25%	20%	13%	8%	27%
School (degree or nondegree)	54%	57%	67%	45%	60%	38%	55%	52%	66%	38%
# of respondents	112	7	39	66	80	32	49	63	64	48

Table 20. Field(s) of undergraduate major(s)

	% responding									
	Total	Division			Status		Gender		Citizenship	
		Hum	Sci	Soc	Exiting	All others	F	M	Intl	US
Humanities	25%	71%	3%	33%	23%	31%	29%	22%	13%	42%
Social Sciences	42%	14%	5%	67%	36%	56%	47%	38%	38%	48%
Natural & Physical Sciences	18%	0%	36%	9%	18%	19%	14%	21%	22%	13%
Engineering	23%	0%	67%	0%	31%	3%	20%	25%	33%	10%
Other	10%	14%	0%	15%	6%	19%	8%	11%	6%	15%
# of respondents	112	7	39	66	80	32	49	63	64	48