NC STATE UNIVERSITY

Combined Future Plans Surveys and Survey of Recent Graduates: Academic Year 2020-2021 Doctoral and Master's Degree Recipients Introduction, Research Methods, and Response Rates

The 2020-2021 Academic Year (AY20-21) reports present combined results from the December 2020 and May 2021 Graduate Future Plans Surveys (GFPS) and the September 2021 Graduate Survey of Recent Graduates (GSRG). The GFPS and GSRG are designed to collect specific information on master's and doctoral degree recipients' plans following graduation, including detailed information on employment, additional graduate/professional school attendance, and participation in career preparation activities while at NC State.

This introductory report provides an overview of the research methods and response rates. Additional results, including a one-page fast facts sheet, interactive dashboards, and copies of the questionnaires, can be found on the Institutional Strategy and Analysis (ISA) <u>website</u>.

Research Methods

The Graduate Future Plans Survey population includes all master's and doctoral students who have submitted an "application for degree" and been approved by their academic department to graduate at the end of the current semester. The survey is administered in the weeks surrounding fall and spring commencement exercises. In Fall 2020, there was no commencement ceremony due to COVID-19 precautions. However, the GFPS was in the field from November 19, 2020, through December 17, 2020. In Spring 2021, commencement was held on May 15, and the GFPS was in the field from May 4 to June 2.

The Graduate Survey of Recent Graduates, administered in September, is a follow-up survey to the GFPS. Students who did not participate in the GFPS when they graduated in either December or May, along with those who received their degree in either Summer I or Summer II (and therefore were not invited to participate in the GFPS that academic year), are invited to participate in the GSRG. In order to get updated information from them, GSRG invitations are also sent to all graduates from the past year who, at the time they completed either the December or May GFPS, indicated that they not yet found full-time employment, had not yet decided on or been accepted into graduate school, or were still undecided on their plans. The September 2021 Graduate Survey of Recent Graduates was in the field from August 31 to September 29.

The final survey population for the combined GFPS and GSRG surveys is all those who received a master's or doctoral degree during the academic year, i.e., December 2020, May 2021, and 2021 Summer I and II. For respondents who completed both the GFPS and the follow-up GSRG, only their data from the GSRG are retained. For respondents who graduated in multiple semesters during the academic year (e.g., earned two master's and/or doctoral degrees), and submitted the GFPS in both December and May, or who submitted the GFPS and GSRG, only their data from the most recent survey is retained. More detailed information on the GSRG population can be found in Appendix A.

Response Rates

A total of 3,305 master's (n=2,795) and doctoral students (n=510) received their degrees from NC State in the 2020-2021 academic year (Tables 1 and 2). This includes 936 graduates in December 2020 (167 doctoral and 769 master's degree recipients), 1,927 who graduated in May 2021 (199 doctoral and 1,728 master's degree recipients), and an additional 442 who graduated in the Summer II session of 2021 (144 doctoral and 298 master's degree recipients).¹ After retaining their most recent survey record, a total of 2,192 graduates are included in the AY GFPS/GSRG results. The overall response rate for the AY20-21 GFPS/GSRG is 66 percent (66.3%; 68.8% for doctoral degree recipients and 65.9% for master's degree recipients).

Summer II graduates are slightly underrepresented in the AY GFPS/GSRG results, with 54 percent of doctoral degree recipients and just under 35 percent of master's degree recipients responding to the invitation to participate in the GSRG (53.5% and 34.9%, respectively).

	AY2	0-21 Population	GFPS	S/GSRG Respondents	Response Rate	
Semester Graduated	Ν	% of population	Ν	% of respondents	%	
Fall 2020	167	32.7%	128	36.5%	76.6%	
Spring 2021	199	39.0%	146	41.6%	73.4%	
Summer II 2021	144	28.2%	77	21.9%	53.5%	
Total	510	100.0%	351	100.0%	68.8%	

Table 1: Response Rate of AY20-21 Doctoral Degree Recipients,	Overall and by Semester Graduated
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Table 2: Response Rate	of AY20-21 Master's Deg	ree Recipients, Overall and	by Semester Graduated
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	AY20)-21 Population	GFPS/	GSRG Respondents	Response Rate					
Semester Graduated	Ν	% of population	Ν	% of respondents	%					
Fall 2020	769	27.5%	542	29.4%	70.5%					
Spring 2021	1,728	61.8%	1,195	64.9%	69.2%					
Summer II 2021	298	10.7%	104	5.6%	34.9%					
Total	2,795	100.0%	1,841	100.0%	65.9%					

Participation rates for the GFPS/GSRG varied by college. The Poole College of Management had the highest response rate among doctoral degree recipients, with all 5 doctoral degree earners completing the survey (100%; Table 3). Other colleges with high response rates among doctoral degree recipients include the College of Natural Resources (80%) and the College of Education (76.4%). No college that conferred a doctoral degree in the 2020-2021 academic year had fewer than 50 percent of its doctoral degree earners respond to the GFPS/GSRG.

The graduates of the Institute for Advanced Analytics had the highest participation rates amongst master's degree earners, with 97 percent responding to the GFPS (96.6%). The College of Veterinary Medicine had the lowest participation rate, with one of five master's degree earners completing the survey (20%). The Poole College of Management (54.3%)

¹ No NC State master's or doctoral students were conferred degrees in Summer I 2021.

and the College of Agriculture and Life Sciences (56.1%) also had low response rates compared to other colleges. The remaining colleges with master's degree recipients had response rates that fell between 63 and 70 percent.

	AY2	0-21 Population	GFPS	S/GSRG Respondents	Response Rate	
College/School	Ν	% of population	Ν	% of respondents	%	
College of Agriculture and Life Sciences	61	12.0%	42	12.0%	68.9%	
College of Design	7	1.4%	4	1.1%	57.1%	
College of Education	55	10.8%	42	12.0%	76.4%	
College of Engineering	199	39.0%	138	39.3%	69.3%	
College of Natural Resources	10	2.0%	8	2.3%	80.0%	
College of Humanities and Social Sciences	43	8.4%	27	7.7%	62.8%	
College of Sciences	89	17.5%	57	16.2%	64.0%	
Wilson College of Textiles	28	5.5%	20	5.7%	71.4%	
College of Veterinary Medicine	13	2.5%	8	2.3%	61.5%	
Poole College of Management	5	1.0%	5	1.4%	100.0%	
Total	510	100.0%	351	100.0%	68.8%	

Table 3: Response Rate of AY20-21 Doctoral Degree Recipients, Overall and by College

Table 4: Response Rate of AY20-21 Master's Degree Recipients, Overall and by College

)-21 Population		GSRG Respondents	Response Rate
College/School	Ν	% of population	Ν	% of respondents	%
Institute for Advanced Analytics	117	4.2%	113	6.1%	96.6%
College of Agriculture and Life Sciences	239	8.6%	134	7.3%	56.1%
College of Design	76	2.7%	51	2.8%	67.1%
College of Education	314	11.2%	212	11.5%	67.5%
College of Engineering	1,021	36.5%	709	38.5%	69.4%
College of Natural Resources	93	3.3%	59	3.2%	63.4%
College of Humanities and Social Sciences	276	9.9%	175	9.5%	63.4%
College of Sciences	232	8.3%	151	8.2%	65.1%
Wilson College of Textiles	54	1.9%	36	2.0%	66.7%
College of Veterinary Medicine	5	0.2%	1	0.1%	20.0%
Poole College of Management	368	13.2%	200	10.9%	54.3%
Total	2,795	100.0%	1,841	100.0%	65.9%

Overview of Responses Included in Final Results

Tables 5 and 6 provide an overview of from which specific survey the responses included in this report are drawn. Among those doctoral respondents who graduated in Fall 2020, the December GFPS record was used for 68 percent of them, and the September GSRG record was used for the remaining 32 percent. Among doctoral degree recipients who graduated in May 2021, the May GFPS record was used for 82 percent (81.5%; all but one respondent),

while the September GSRG record was used for the remaining graduate. All but two of the records for Summer II doctoral degree recipients came from the September GSRG.

Among those master's respondents who graduated in Fall 2020, the December GFPS record was used for 91 percent of them (90.8%), the May GFPS record was used for one graduate (0.2%), and the September GSRG was used for the remaining nine percent. Among master's degree recipients who graduated in May 2021, the May GFPS record was used for about 80 percent (79.5%), while the September GSRG record was used for about 20 percent (20.5%). Again, all but two of the records for the Summer II master's degree recipients came from the September GSRG.

	Graduated December 2020				Graduated Summer I 2021		Graduated Summer II 2021		Total	
Survey Results Included in Report	N	%	Ν	%	Ν	%	Ν	%	Ν	%
December GFPS	87	68.0%	0	0.0%	0	0.0%	1	1.3%	88	25.1%
May GFPS	0	0.0%	119	81.5%	0	0.0%	1	1.3%	120	34.2%
September GSRG	41	32.0%	27	18.5%	0	0.0%	75	97.4%	143	40.7%
Total	128	100.0%	146	100.0%	0	0.0%	77	100.0%	351	100.0%

 Table 5: Survey Results Included for Doctoral Degree Recipients, by Semester Graduated

Table 6: Survey Results Included for Master's Degree Recipients, by Semester Graduated

Survey Results		Graduated December 2020		Graduated Graduated December 2020 Spring 2021		Graduated Summer I 2021		Graduated Summer II 2021		Total	
Included in Report	Ν	%	N	%	N	%	N	%	Ν	%	
December GFPS	492	90.8%	0	0.0%	0	0.0%	0	0.0%	492	26.7%	
May GFPS	1	0.2%	950	79.5%	0	0.0%	2	1.9%	953	51.8%	
September GSRG	49	9.0%	245	20.5%	0	0.0%	102	98.1%	396	21.5%	
Total	542	29.4%	1,195	64.9%	0	0.0%	104	5.6%	1,841	100.0%	

Prepared by: Hannah McQueen, Assistant Director for Survey Research

For more information about the Graduate Future Plans Survey, contact:

Institutional Strategy and Analysis Box 7002 NC State University Phone: (919) 515-6438 Email: studentsurveys@ncsu.edu

Appendix A: Graduate Survey of Recent Graduates Population and Response Rate

The Graduate Survey of Recent Graduates enables us to provide a more complete picture of the employment and further education of NC State's master's and doctoral degree recipients from the previous academic year, taking into consideration those who might have taken a few months beyond graduation to obtain employment or enroll in additional graduate/professional education. This appendix further breaks down the composition of the population for the September 2021 GSRG and the survey responses included in the AY reports.

Of the 3,305 graduates receiving master's or doctoral degrees in AY20-21, 2,531 were invited to complete the September 2021 Graduate Survey of Recent Graduates (Table 7). Forty-two percent of those invited had not completed the Graduate Future Plans Survey when asked to do so when they graduated in either December or May (41.8%), and 17 percent were Summer II graduates who had not been invited to participate in the GFPS (17.3%). The remaining 41 percent of those who were invited to participate in the GSRG had submitted their GFPS when they graduated in either December or May, but had indicated at that time that they did not have confirmed plans for after graduation. Altogether, 23 percent of the GSRG population graduated in Fall 2020, 60 percent in Spring 2021, and 17 percent in Summer II, 2021 (data not shown).

Five hundred thirty-nine of the 2,531 AY20-21 graduates invited to participate in the GSRG submitted their survey for an overall response rate of 21 percent (21.3%). Graduates of the Summer II session were most likely to submit the GSRG, with 177 of the 439 graduates in this group participating in the GSRG (40.3%). About one in four graduates who had previously submitted their GFPS, but who had unconfirmed plans at the time, submitted the GSRG to update their information (24.3%). (As a reminder, the responses from the GFPS submitted when they graduated are included in the combined GFPS/GSRG academic year results for those who did not participate in the GSRG when asked to do so.) Those who were nonrespondents in the fall or spring were the least likely to participate in the GSRG; yet 111 graduates, or 11 percent (10.5%) of the nonrespondent population, chose to complete the GSRG.

	Population		Re	spondents	•
Group	Ν	% of population	Ν	% of respondents	Response Rate
GFPS respondent (with unconfirmed plans)	1033	40.8%	251	46.6%	24.3%
GFPS nonrespondent	1059	41.8%	111	20.6%	10.5%
Summer II graduate	439	17.3%	177	32.8%	40.3%
Total	2531	100.0%	539	100.0%	21.3%

Table 7: Graduate Survey of Recent Graduates Response Rate, by type of respondent