Supplementary Online Content

Jena AB, Khullar D, Ho O, Olenski AR, Blumenthal DM. Sex Differences in Academic Rank in US Medical Schools in 2014. *JAMA*. doi:10.1001/jama.2015.10680

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This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Characteristics of physicians with missing data on years since residency

	Non-missing data on years	Missing data on years
	since residency	since residency
	(N = 84,404)	(N = 6,669)
Faculty rank, No. (%)		
Assistant Professor	46,635 (55.3%)	3,648 (54.7%)
Associate Professor	18,607 (22.1%)	1,474 (22.1%)
Full Professor	19,162 (22.6%)	1,547 (23.2%)
Age, mean years (sd)	50.5 (11.4)	50.5 (12.2)
Specialty, No. (%)		
Anesthesiology	5,131 (6.1)	526 (7.9)
Cardiology	3,717 (4.4)	279 (4.2)
Emergency Medicine	3,285 (3.9)	223 (3.3)
Family Medicine	3,473 (4.1)	322 (4.8)
Gastroenterology	1,829 (2.2)	158 (2.4)
Hematology and Oncology	2,909 (3.4)	239 (3.6)
Infectious Disease	1,871 (2.2)	105 (1.6)
Internal Medicine	8,324 (9.9)	578 (8.7)
Neurology	3,676 (4.4)	204 (3.1)
Obstetrics and Gynecology	3,670 (4.3)	152 (2.3)
Orthopedic Surgery	2,297 (2.7)	180 (2.7)
Other	10,600 (12.6)	1,074 (16.1)
Pathology	3,204 (3.8)	275 (4.1)
Pediatrics	11,680 (13.8)	716 (10.7)
Psychiatry	4,528 (5.4)	261 (3.9)
Radiology	4,393 (5.2)	610 (9.1)
Surgery, general	4,129 (4.9)	326 (4.9)
Surgery, subspecialty	5,688 (6.7)	441 (6.6)
Publications (total), mean no. (sd)	20.1 (30.6)	22.2 (32.3)
NIH grant (at least one), No. (%)	7,675 (9.1)	621 (9.3)
Clinical trial investigator (at least one), No. (%)	6,804 (8.1)	506 (7.6)
Faculty member at top-20 school, No. (%)	24,060 (28.5)	(2006) 30.1

Notes: Data was missing on only one variable, years since residency, in 6,669/91,073 physicians (7.0%). These physicians were excluded from multivariable analysis since the characteristics of these physicians were comparable to physicians for whom years since residency was not missing (see table above). "Top-20" school refers to whether a physician was on faculty at a medical school ranked among the top 20 U.S. medical schools for research by U.S. News and World Report in 2013.

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eTable 2. Multivariable analysis of factors associated with faculty rank in 2014, among physicians self-registered with Doximity

				Absolute		
		Absolute	Associate	difference		Absolute
	Full	difference in	or Full	in	Full	difference in
	professor	proportion	professor	proportion	professor	proportion
	Crude	Unadjusted	Crude	Unadjusted	Crude	Unadjusted
	proportion	-	proportion	-	proportion	Adjusted
	(%)	(95% CI)	(%)	(95% CI)	(%)	(95% CI)
	_				Associate	
	All faculty		All faculty		or full	
Sample	(34,745)		(34,745)		(16,812)	
Sex						
	7,295 /		12,988 /		7,295 /	
Male	24,004	Reference	24,004	Reference	12,988	Reference
	(30.4%)		(54.1%)		(56.2%)	
	1,486 /		3,824 /		1,486 /	
Female	10,741	-16.6%	10,741	-18.5%	3,824	-17.3%
remaie		-3.5% (-4.4,-		-2.4% (-		-5.4% (-7,-
	(13.8%)	2.6)	(35.6%)	3.3,-1.5)	(38.9%)	3.7)
Age						
			223 /			
< 40 years	30 / 6,622	Reference	6,622	Reference	30 / 223	Reference
	(0.5%)		(3.4%)		(13.5%)	
	, ,		1,232 /		,	
40.44	82 / 5,806	0.9%	5,806	17.8%	82 / 1,232	-6.8%
40-44 years		1.2% (-		19.3%		-19.3% (-
	(1.4%)	0.9,3.4)	(21.2%)	(17.3,21.4)	(6.7%)	28.8,-9.8)
	580 /		2,489 /		580 /	
45-49 years	5,059	11.0%	5,059	45.8%	2,489	9.8%
43-49 years		14.2%		32.2%		1.1% (-
	(11.5%)	(12.1,16.4)	(49.2%)	(29.8,34.5)	(23.3%)	8.1,10.2)
	1,434 /		3,236 /		1,434 /	
50-54 years	4,917	28.7%	4,917	62.4%	3,236	30.8%
30 34 years		22.8%		34.3%		13.7%
	(29.2%)	(20.5,25.1)	(65.8%)	(31.6,37)	(44.3%)	(4.5,23)
	1,982 /		3,416 /		1,982 /	
55-59 years	4,680	41.9%	4,680	69.6%	3,416	44.5%
		23.8%		30.7%		15.9%
	(42.4%)	(21.3,26.3)	(73.0%)	(27.7,33.7)	(58.0%)	(6.4,25.4)
	2,048 /		2,900 /		2,048 /	
60-64 years	3,661	55.4%	3,661	75.8%	2,900	57.1%
,	(==)	23.6%	(=0.550)	25.6%	(=0.550)	17.6%
	(55.9%)	(20.8,26.3)	(79.2%)	(22.3,29)	(70.6%)	(7.8,27.4)
	2,625 /	C= +++	3,316 /	70	2,625 /	65
Above 65 years	4,000	65.1%	4,000	79.5%	3,316	65.7%
	(65.6%)	18.3%	(82.9%)	17.0%	(79.2%)	11.7%

		(15.4,21.2)		(13.4,20.5)		(1.4,21.9)
Years since residency (ref.		1.2%		1.6%		
increment, 1 yr)		(1.2,1.3)		(1.6,1.7)		1.8% (1.6,1.9)
Specialty						
	359 /		786 /			
Anesthesiology	1,817	Reference	1,817	Reference	359 / 786	Reference
	(19.8%)		(43.3%)		(45.7%)	
	542 /		967 /			
Cardiology	1,856	9.4%	1,856	8.8%	542 / 967	10.3%
cui diology		-1.5% (-		-3.0% (-		-3.5% (-
	(29.2%)	3.6,0.6)	(52.1%)	5.4,-0.6)	(56.0%)	7.5,0.5)
	150 /	7.50/	405 /	40.00/	450 / 405	0.70/
Emergency Medicine	1,217	-7.5%	1,217	-10.0%	150 / 405	-8.7%
	(12.20/)	-0.2% (-	(22.20/)	1.2% (-	(27.00/)	0.7% (4.6.6)
	(12.3%) 187 /	3,2.6)	(33.3%) 472 /	1.5,3.9)	(37.0%)	0.7% (-4.6,6)
	1,184	-4.0%	1,184	-3.4%	187 / 472	-6.1%
Family Medicine	1,104	-2.7% (-5.2,-	1,104	-2.5% (-	107 / 472	-4.2% (-
	(15.8%)	0.2)	(39.9%)	5.2,0.1)	(39.6%)	9.1,0.8)
	· · · · ·	·	,	-	,	
Gastroenterology	246 / 826	10.0%	440 / 826	10.0%	246 / 440	10.2% -1.9% (-
G usti senter sis _B ,	(29.8%)	0.8% (-2,3.6)	(53.3%)	2.6% (- 0.5,5.7)	(55.9%)	6.9,3.1)
	415 /	0.070 (2,3.0)	714 /	0.5,5.77	(55.570)	0.5,5.17
	1,267	13.0%	1,267	13.1%	415 / 714	12.4%
Hematology/Oncology		-0.4% (-	1,207	-1.4% (-	110 / 71	-2.9% (-
	(32.8%)	2.8,2)	(56.4%)	4.2,1.4)	(58.1%)	7.3,1.5)
	228 / 666	14.4%	392 / 666	15.6%	228 / 392	12.5%
Infectious Disease		2.3% (-	0027 000	2.3% (-		-0.7% (-
	(34.2%)	0.6,5.2)	(58.9%)	1,5.6)	(58.2%)	5.9,4.4)
	548 /		1,225 /	77	548 /	
	3,215	-2.8%	3,215	-5.2%	1,225	-1.0%
Internal Medicine		-1.8% (-		-1.3% (-		-1.9% (-
	(17.0%)	3.8,0.2)	(38.1%)	3.4,0.8)	(44.7%)	5.8,1.9)
	501/		866 /			
Neurology	1,635	10.8%	1,635	9.7%	501 / 866	12.2%
itear ology		2.5%		1.6% (-		
	(30.6%)	(0.2,4.7)	(53.0%)	0.9,4)	(57.9%)	0.9% (-3.2,5)
	331 /	4.40/	708 /	2.40/	224 / 700	4.40/
Obstetrics and Gynecology	1,558	1.4%	1,558	2.1%	331 / 708	1.1%
	(21.2%)	-0.6% (- 2.9,1.7)	(45.4%)	0.0% (- 2.5,2.4)	(46.8%)	-2.7% (-7,1.7)
	251/	2.3,1.7)	493 /	2.3,2.41	(40.070)	2.1/0 (-1,1.1)
	1,018	4.9%	1,018	5.1%	251 / 493	5.2%
Orthopedic Surgery		0.2% (-	_,510	-0.4% (-		-1.4% (-
	(24.7%)	2.4,2.7)	(48.4%)	3.2,2.5)	(50.9%)	6.2,3.3)
	1,413 /		2,480 /	,	1,413 /	,
Other	4,673	10.4%	4,673	9.8%	2,480	11.3%
	(30.2%)	1.7% (-	(53.1%)	0.9% (-	(57.0%)	0.6% (-2.8,4)

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		0.2,3.5)		1.1,2.9)		
	381 /		646 /			
Pathology	1,081	15.4%	1,081	16.5%	381 / 646	13.3%
i autology		6.2%		6.6%	,	6.6%
	(35.2%)	(3.6,8.7)	(59.8%)	(3.9,9.3)	(59.0%)	(2.2,10.9)
	1,036 /	1.00/	2,131 /	1 20/	1,036 /	2.00/
Pediatrics	4,778	1.9% 0.0% (-	4,778	1.3% 0.9% (-	2,131	2.9% -2.9% (-
	(21.7%)	1.8,1.9)	(44.6%)	1,2.9)	(48.6%)	6.3,0.5)
	362 /	2.0,2.0,	666 /		(101070)	0.0,0.0,
Davidiator	1,423	5.6%	1,423	3.5%	362 / 666	8.7%
Psychiatry		-1.9% (-		-2.1% (-		-3.5% (-
	(25.4%)	4.2,0.4)	(46.8%)	4.6,0.4)	(54.4%)	7.8,0.9)
	422 /		790 /			
Radiology	1,700	5.0%	1,700	3.2%	422 / 790	7.7%
<i>-</i>	(24.00/)	1.0% (-	(AC E0/)	-1.1% (-	(E2 40/\	1.2% (-
	(24.8%)	1.2,3.2)	(46.5%) 978 /	3.5,1.4)	(53.4%)	2.9,5.4)
	1,791	8.8%	1,791	11.3%	513 / 978	6.8%
Surgery, general		5.0%		4.6%	010 / 070	5.2%
	(28.6%)	(2.7,7.2)	(54.6%)	(2.2,6.9)	(52.5%)	(1.3,9.2)
	896 /		1,653 /		896 /	
Surgery, subspecialty	3,040	9.7%	3,040	11.1%	1,653	8.5%
Surgery, subspecialty		3.1%				2.8% (-
	(29.5%)	(1.1,5.1)	(54.4%)	2.8% (0.7,5)	(54.2%)	0.8,6.4)
Publications, total (ref. increment, 1 pub.)		0.2% (0.1,0.2)		0.3% (0.3,0.3)		0.2% (0.1,0.2)
Publications, first or last		(0.1,0.2)		(0.3,0.3)		0.2/8 (0.1,0.2)
author (ref. increment, 1		0.1%		0.2%		
pub.)		(0.1,0.2)		(0.1,0.3)		0.2% (0.1,0.3)
NIH grant						
	6,634 /		13,803 /		6,634 /	
No	31,137	Reference	31,137	Reference	13,803	Reference
	(21.3%)		(44.3%)		(48.1%)	
	2,147 /		3,009 /		2,147 /	
Yes	3,608	38.2%	3,608	39.1%	3,009	23.3%
163	(=====()	4.5%	(00.44)	3.9%	(=, ,,,)	5.4%
	(59.5%)	(3.2,5.7)	(83.4%)	(2.2,5.5)	(71.4%)	(3.4,7.5)
Clinical trial investigator						
	7,175 /	D-f-	14,264 /	D-f-	7,175 /	D-f-
No	31,295	Reference	31,295	Reference	14,264	Reference
	(22.9%)		(45.6%)		(50.3%)	
	1,606 /	22.70/	2,548 /	20.20/	1,606 /	42.70/
Yes	3,450	23.7%	3,450	28.3%	2,548	12.7%
	(46.6%)	6.1% (4.8,7.3)	(73.9%)	7.8% (6.4,9.3)	(63.0%)	6.8% (4.8,8.8)
Faculty at top-20 medical	(+0.070)	(7.0,7.3)	(73.370)	(0.4,3.3)	(03.070)	(7.0,0.0)
school						
		l	L	L		l

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No	5,759 / 23,975	Reference	11,228 / 23,975	Reference	5,759 / 11,228	Reference
	(24.0%)		(46.8%)		(51.3%)	
	3,022 /		5,584 /		3,022 /	
Vac	10,770	4.1%	10,770	5.0%	5,584	2.8%
Yes		1.5% (-		-0.5% (-		1.3% (-
	(28.1%)	1.8,4.9)	(51.8%)	4.6,3.7)	(54.1%)	3.1,5.6)

Notes: eTables 2 and 3 address potential inaccuracies in the database by analyzing sex differences in faculty rank among physicians who self-completed profiles with Doximity (N = 34,745), a sub-group for whom these data are presumably most accurate (eTable2) as well as non-registered physicians (eTable3). In both tables, Column (1) reports factors associated with full professorship among faculty of all ranks. Column (2) reports factors associated with associate or full professorship among faculty of all ranks. Column (3) reports factors associated with full professorship among faculty at the associate or full professor rank. The reported association between faculty rank and publication count (or years since residency) reflects the marginal impact of an additional publication (or year post residency) on the probability of a given faculty rank. "Top-20" school refers to whether a physician was on faculty at a medical school ranked among the top 20 U.S. medical schools for research by U.S. News and World Report in 2013.

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eTable 3. Multivariable analysis of factors associated with faculty rank in 2014, among physicians not self-registered with Doximity

				A boolists		
		Absoluts	A = = = = = = = = = = = = = = = = = = =	Absolute		Abackita
	Full	Absolute difference in	Associate or Full	difference in	Full	Absolute difference in
	-					
	professor	proportion	professor	proportion	professor	proportion
	Crude	Unadjusted	Crude	Unadjusted	Crude	Unadjusted
	proportion		proportion	_	proportion	_
	(%)	(95% CI)	(%)	(95% CI)	(%)	(95% CI)
					Associate	
	All faculty		All faculty		or full	
Sample	(56,328)		(56,328)		(24,242)	
Sex						
	10,059 /		18,365 /		10,059 /	
Male	36,605	Reference	36,605	Reference	18,365	Reference
	(27.5%)		(50.2%)		(54.8%)	
	2,137 /		5,877 /		2,137 /	
	19,723	-16.7%	19,723	-20.4%	5,877	-18.4%
Female	15,725	-4.0% (-4.7,-	13,723	-3.1% (-	3,377	-6.7% (-8.1,-
	(10.8%)	3.4)	(29.8%)	3.8,-2.4)	(36.4%)	5.4)
	(10.6%)	3.4)	(29.6%)	3.6,-2.4)	(30.4%)	5.4)
Age						
	112 /		388 /			
< 40 years	10,913	Reference	10,913	Reference	112 / 388	Reference
	(1.0%)		(3.6%)		(28.9%)	
	125 /		1,618 /		125 /	
	8,412	0.5%	8,412	15.6%	1,618	-21.2%
40-44 years	·	-2.3% (-3.8,-		17.0%		-41.3% (-
	(1.5%)	0.8)	(19.2%)	(15.4,18.5)	(7.7%)	46.9,-35.6)
	600 /		2,939 /	(====)	600 /	,,
	7,310	7.2%	7,310	36.6%	2,939	-8.5%
45-49 years	7,310	6.2%	7,310	29.5%	2,333	-27.7% (-33,-
	(9.2%)		(40.2%)		(20.4%)	
	(8.2%)	(4.7,7.8)	(40.2%)	(27.7,31.2)	(20.4%)	22.4)
	1,608 /	22.00/	3,995 /	F2 F0/	1,608 /	11 40/
50-54 years	6,995	22.0%	6,995	53.5%	3,995	11.4%
	,	15.3%	/	34.5%	(40 1)	-13.3% (-
	(23.0%)	(13.7,17)	(57.1%)	(32.6,36.5)	(40.3%)	18.5,-8)
	2,401 /		4,379 /		2,401 /	
55-59 years	6,721	34.7%	6,721	61.6%	4,379	25.9%
JJ-JJ years		17.4%		32.7%		-9.4% (-14.8,-
	(35.7%)	(15.7,19.2)	(65.2%)	(30.6,34.8)	(54.8%)	4)
	2,448 /		3,853 /		2,448 /	
60.64	5,479	43.7%	5,479	66.7%	3,853	34.6%
60-64 years		17.0%		29.0%		-8.6% (-14.2,-
	(44.7%)	(15.1,18.9)	(70.3%)	(26.7,31.3)	(63.5%)	3)
	4,902 /	, , , , , , , , , , , ,	7,070 /	, , , , , , , , , , , , , , , , , , , ,	4,902 /	
	10,498	45.7%	10,498	63.7%	7,070	40.4%
Above 65 years	10,438		10,430		7,070	
	(46.70/)	13.2%	(67.20/)	23.5%	(60.20/)	-13.0% (-
	(46.7%)	(11.3,15.1)	(67.3%)	(21.2,25.7)	(69.3%)	18.9,-7.2)

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Years since residency (ref.	1.00/	(4.4.4)	1 20/	(1 2 1 1)	1.60/	(4 5 4 7)
increment, 1 yr)	1.0%	(1,1.1)	1.3%	(1.3,1.4)	1.6%	(1.5,1.7)
Specialty						
	515 /		1,281 /	_	515 /	
Anesthesiology	3,840	Reference	3,840	Reference	1,281	Reference
	(13.4%)		(33.4%)		(40.2%)	
	617 /		1,095 /		617 /	
Cardiology	2,140	15.4%	2,140	17.8%	1,095	16.1%
		0.4% (-		-1.7% (-		0.2% (-
	(28.8%)	1.3,2.1)	(51.2%)	3.8,0.3)	(56.3%)	3.4,3.8)
	236 /		637 /			
Emergency Medicine	2,291	-3.1%	2,291	-5.6%	236 / 637	-3.2%
Emergency Medicine				-0.1% (-		2.0% (-
	(10.3%)	0.0% (-2,1.9)	(27.8%)	2.2,2)	(37.0%)	2.3,6.2)
	348 /		822 /			
Family Medicine	2,611	-0.1%	2,611	-1.9%	348 / 822	2.1%
ranning ividualitie		-0.5% (-		-2.6% (-		2.4% (-
	(13.3%)	2.3,1.3)	(31.5%)	4.5,-0.6)	(42.3%)	1.5,6.3)
	317 /		560 /			
Gastroenterology	1,161	13.9%	1,161	14.8%	317 / 560	16.4%
Gustroenterology		0.9% (-		-1.5% (-		2.2% (-
	(27.3%)	1.2,3.1)	(48.2%)	4.1,1.1)	(56.6%)	2.4,6.7)
	592 /		1,016 /		592 /	
Hematology/Oncology	1,881	18.1%	1,881	20.6%	1,016	18.1%
ricinatology, oncology				-2.5% (-		1.6% (-
	(31.5%)	1.2% (-0.6,3)	(54.0%)	4.7,-0.3)	(58.3%)	2.1,5.3)
	391/		733 /			
Infectious Disease	1,310	16.4%	1,310	22.6%	391 / 733	13.1%
inicetious Discuse		3.4%		5.1%		
	(29.8%)	(1.3,5.5)	(56.0%)	(2.7,7.5)	(53.3%)	2.0% (-2,6)
	886 /		2,014 /		886 /	
Internal Medicine	5,687	2.2%	5,687	2.0%	2,014	3.8%
meeria weatenie		0.1% (-		0.0% (-		0.6% (-
	(15.6%)	1.3,1.6)	(35.4%)	1.6,1.7)	(44.0%)	2.6,3.7)
	606 /		1,090 /		606 /	_
Neurology	2,245	13.6%	2,245	15.2%	1,090	15.4%
		3.5%			4=====	
	(27.0%)	(1.7,5.3)	(48.6%)	3.0% (1,5.1)	(55.6%)	3.4% (-0.2,7
	436 /		926 /		106 / == :	
Obstetrics and Gynecology	2,264	5.9%	2,264	7.5%	436 / 926	6.9%
, -01	(40.22()	2.4%	(40.000)	2.5%	(47.400)	3.0% (-
	(19.3%)	(0.6,4.2)	(40.9%)	(0.5,4.5)	(47.1%)	0.7,6.6)
	346 /	40.004	728 /	46.70	246 / 725	7.00/
Orthopedic Surgery	1,459	10.3%	1,459	16.5%	346 / 728	7.3%
. 5,	(22 =24)	1.2% (-	(40.00()	2 70/ /2 / = `	(47 -00)	0.5% (-
	(23.7%)	0.8,3.1)	(49.9%)	2.7% (0.4,5)		3.5,4.5)
	1,870 /	42.254	3,433 /	45.624	1,870 /	44.004
Other	7,001	13.3%	7,001	15.6%	3,433	14.3%
	(26.7%)	2.4% (1,3.7)	(49.0%)	2.8%	(54.5%)	2.5% (-

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				(1.2,4.4)		0.4,5.4)
	707 /		1,328 /	, , ,	707 /	- //
	2,398	16.1%	2,398	22.0%	1,328	13.0%
Pathology		7.1%	_,555	8.5%		8.0%
	(29.5%)	(5.3,8.9)	(55.4%)	(6.6,10.5)	(53.2%)	(4.6,11.4)
	1,359 /		2,955 /		1,359 /	
Pediatrics	7,618	4.4%	7,618	5.4%	2,955	5.8%
1 ediatries		2.0%		1.8%		1.4% (-
	(17.8%)	(0.6,3.4)	(38.8%)	(0.2,3.3)	(46.0%)	1.5,4.3)
	656 /	6.40/	1,317 /	F 70/	656 /	0.50/
Psychiatry	3,366	6.1%	3,366	5.7%	1,317	9.6%
	(19.5%)	-1.3% (- 2.8,0.3)	(39.1%)	-2.2% (-4,- 0.4)	(49.8%)	-1.8% (- 5.2,1.6)
	726 /	2.0,0.3)	1,365 /	0.4)	726 /	3.2,1.0)
	3,303	8.6%	3,303	7.9%	1,365	13.0%
Radiology	,	3.3%	,	0.8% (-	,	6.2%
	(22.0%)	(1.6,4.9)	(41.3%)	1.1,2.6)	(53.2%)	(2.8,9.6)
	719 /		1,316 /		719 /	
Surgery, general	2,664	13.6%	2,664	16.0%	1,316	14.4%
Surgery, general		5.4%		3.7%		7.3%
	(27.0%)	(3.7,7.2)	(49.4%)	(1.8,5.7)	(54.6%)	(3.9,10.7)
	869 /	4.4.70/	1,626 /	40.20/	869 /	42.20/
Surgery, subspecialty	3,089	14.7%	3,089	19.2%	1,626	13.2%
	(28.1%)	3.4% (1.8,5)	(52.6%)	2.8% (0.9,4.7)	(53.4%)	4.0% (0.7,7.3)
Publications, total (ref.	(20.170)	0.2%	(32.070)	0.5%	(33.470)	(0.7,7.3)
increment, 1 pub.)		(0.2,0.2)		(0.5,0.5)		0.3% (0.3,0.3)
Publications, first or last		, ,		, , ,		, , ,
author (ref. increment, 1		0.2%		0.5%		
pub.)		(0.2,0.2)		(0.5,0.5)		0.3% (0.3,0.3)
NIH grant						
	9,508 /		20,354 /		9,508 /	
No	51,640	Reference	51,640	Reference	20,354	Reference
	(18.4%)		(39.4%)		(46.7%)	
	2,688 /		3,888 /		2,688 /	
Yes	4,688	38.9%	4,688	43.5%	3,888	22.4%
	(== 00()	3.0%	(00.00()	2.9%	(50.40()	3.8%
	(57.3%)	(1.9,4.1)	(82.9%)	(1.3,4.5)	(69.1%)	(1.8,5.7)
Clinical trial investigator						
	10,411 /	D-f	21,357 /	D-4	10,411 /	D-1
No	52,468	Reference	52,468	Reference	21,357	Reference
	(19.8%)		(40.7%)		(48.7%)	
	1,785 /	26.40/	2,885 /	24.00/	1,785 /	12.20/
Yes	3,860	26.4%	3,860	34.0%	2,885	13.2%
	(46.2%)	5.7% (4.5,6.9)	(74.7%)	8.6% (7.2,10.1)	(61.9%)	6.0% (4.1,7.9)
Faculty at top-20 medical	(+0.2/0)	(4.3,0.3)	(/+.//0)	(1.2,10.1)	(01.3/0)	(7.1,7.3)
school						
	1	1		1		I.

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	8,120 /	5.6	16,627 /	2.6	8,120 /	5.6
No	41,032	Reference	41,032	Reference	16,627	Reference
	(19.8%)		(40.5%)		(48.8%)	
	4,076 /		7,615 /		4,076 /	
Vac	15,296	6.8%	15,296	9.3%	7,615	4.7%
Yes		1.3% (-		-0.1% (-		1.5% (-
	(26.6%)	1.7,4.3)	(49.8%)	4.6,4.3)	(53.5%)	2.3,5.3)

Notes: eTables 2 and 3 address potential inaccuracies in the database by analyzing sex differences in faculty rank among physicians who self-completed profiles with Doximity (N = 34,745), a sub-group for whom these data are presumably most accurate (eTable2) as well as non-registered physicians (eTable3). In both tables, Column (1) reports factors associated with full professorship among faculty of all ranks. Column (2) reports factors associated with associate or full professorship among faculty of all ranks. Column (3) reports factors associated with full professorship among faculty at the associate or full professor rank. The reported association between faculty rank and publication count (or years since residency) reflects the marginal impact of an additional publication (or year post residency) on the probability of a given faculty rank. . "Top-20" school refers to whether a physician was on faculty at a medical school ranked among the top 20 U.S. medical schools for research by U.S. News and World Report in 2013.

eTable 4. Multivariable analysis of factors associated with faculty rank in 2014, among physicians with a history of NIH funding

		<u> </u>		Abactists		
		Absolute	Associate	Absolute difference		Absolute
	Full	difference in		in	Full	difference in
	professor	proportion	professor	proportion	professor	proportion
	Crude	Unadjusted	Crude	Unadjusted	Crude	Unadjusted
	proportion	-	proportion	_	proportion	-
	(%)	(95% CI)	(%)	(95% CI)	(%)	(95% CI)
	(70)	(93% CI)	(70)	(93% CI)	Associate	(93/6 CI)
	All faculty		All faculty		or full	
Sample	(13,225)		(13,225)		(10,197)	
-	(13,223)		(13,223)		(10,137)	
Sex						
	5,457 /	_	7,922 /	_	5,457 /	_
Male	9,790	Reference	9,790	Reference	7,922	Reference
	(55.7%)		(80.9%)		(68.9%)	
	1,197 /		2,275 /		1,197 /	
Female	3,435	-20.9%	3,435	-14.7%	2,275	-16.3%
Terriale		-2.8% (-4.3,-		-1.0% (-		-3.5% (-5.3,-
	(34.8%)	1.4)	(66.2%)	2.2,0.1)	(52.6%)	1.7)
Age						
4.40	12 / 760	Reference	57 / 760	Reference	12 / 57	Reference
< 40 years	(1.6%)		(7.5%)		(21.1%)	
	Ì		642 /		,	
40.44	60 / 1,785	1.8%	1,785	28.5%	60 / 642	-11.8%
40-44 years		1.7% (-		18.5%		-17.8% (-32,-
	(3.4%)	6.4,9.8)	(36.0%)	(14.1,23)	(9.3%)	3.5)
	423 /		1,462 /		423 /	-
	2,079	18.7%	2,079	62.8%	1,462	7.8%
45-49 years		18.9%		27.8%		-0.9% (-
	(20.3%)	(11.1,26.6)	(70.3%)	(23,32.6)	(28.9%)	14.6,12.8)
	1,145 /	, , ,	2,026 /		1,145 /	,
	2,291	48.4%	2,291	80.9%	2,026	35.4%
50-54 years	-	29.5%		31.8%		10.5% (-
	(50.0%)	(21.6,37.4)	(88.4%)	(26.6,36.9)	(56.5%)	3.3,24.3)
	1,534 /	, , ,	2,039 /		1,534 /	•
	2,152	69.7%	2,152	87.2%	2,039	54.1%
55-59 years	,	30.9%		31.9%		11.9% (-
	(71.3%)	(22.7,39.1)	(94.7%)	(26.2,37.5)	(75.2%)	2.1,25.8)
	1,479 /	, , ,	1,708 /	, ,	1,479 /	, ,
	1,770	82.0%	1,770	89.0%	1,708	65.5%
60-64 years	_,	30.5%	,	25.9%	,	12.9% (-
	(83.6%)	(21.9,39)	(96.5%)	(19.4,32.5)	(86.6%)	1.4,27.2)
	2,001 /	(==:5,55)	2,263 /	(==::/0=:0)	2,001/	: ·, ,,
	2,388	82.2%	2,388	87.3%	2,263	67.3%
Above 65 years	2,300	24.2%	2,300	22.5%	_,	7.6% (-
	(83.8%)		(94.8%)		(88 4%)	•
	(83.8%)	(15.5,32.9)	(94.8%)	(16.4,28.6)	(88.4%)	6.8,22.1)

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Years since residency (ref. increment, 1 yr)		1.8% (1.7,1.9)		1.4% (1.3,1.5)		2.0% (1.8,2.2)
Specialty		(1.7,1.3)		(1.5,1.5)		2.070 (1.0,2.2
	129 / 331	Reference	234 / 331	Reference	129 / 234	Reference
Anesthesiology	(39.0%)		(70.7%)		(55.1%)	
	402 / 746	14.9%	592 / 746	8.7%	402 / 592	12.8%
Cardiology				-3.0% (-		-2.2% (-
	(53.9%)	0.6% (-4,5.2)	,	6.8,0.7)	(67.9%)	7.9,3.4)
Emarganau Madiaina	72 / 178	1.4%	127 / 178	0.6%	72 / 127	1.6%
Emergency Medicine	(40.4%)	8.3% (1.9,14.6)	(71.3%)	4.4% (- 0.1,8.9)	(56.7%)	7.0% (- 0.5,14.5)
	60 / 133	6.1%	99 / 133	3.7%	60 / 99	5.5%
Family Medicine	00 / 133	-3.6% (-	33 / 133	-3.5% (-	00 / 33	-5.1% (-
	(45.1%)	10.8,3.6)	(74.4%)	9.4,2.4)	(60.6%)	14.4,4.1)
	233 / 414	17.3%	326 / 414	8.0%	233 / 326	16.4%
Gastroenterology		0.1% (-		-1.7% (-		-3.0% (-
	(56.3%)	5.2,5.3)	(78.7%)	6.1,2.7)	(71.5%)	9.5,3.4)
	596 / 1,363	4.7%	970 / 1,363	0.5%	596 / 970	6.3%
Hematology/Oncology	1,303	-2.1% (-	1,303	-4.5% (-8,-	330 / 370	-4.6% (-
	(43.7%)	6.4,2.2)	(71.2%)	1.1)	(61.4%)	9.9,0.7)
	292 / 575	11.8%	435 / 575	5.0%	292 / 435	12.0%
Infectious Disease		1.0% (-		-3.8% (-		-1.4% (-
	(50.8%)	3.8,5.8)	(75.7%)	7.7,0.2)	(67.1%)	7.4,4.5)
	441 / 931	8.4%	707 / 931	5.2%	441 / 707	7.3%
Internal Medicine	(47.40/)	-1.3% (-	(75.00/)	-1.9% (-	(62.40/)	2 50/ / 0 2 1
	(47.4%)	5.8,3.2)	(75.9%)	5.4,1.7)	(62.4%)	-3.5% (-9,2.1 13.0%
Neurology	487 / 903	14.9% 3.7% (-	715 / 903	8.5% 0.7% (-	487 / 715	13.0%
11000067	(53.9%)	0.8,8.2)	(79.2%)	2.8,4.3)	(68.1%)	4.4,6.5)
	191 / 407	7.9%	310 / 407	5.5%	191 / 310	6.5%
Obstetrics and Gynecology	2027 107	4.8% (-	3237 .07	1.0% (-	131, 313	0.070
	(46.9%)	0.2,9.9)	(76.2%)	3,4.9)	(61.6%)	2.9% (-3.2,9
	90 / 173	13.0%	141 / 173	10.8%	90 / 141	8.7%
Orthopedic Surgery		4.1% (-		5.8%		1.2% (-
	(52.0%)	2.5,10.7)	(81.5%)	(0.7,10.8)	(63.8%)	6.8,9.1)
	1,307 / 2,453	14.3%	1,921 / 2,453	7.6%	1,307 /	12.9%
Other	2,433	1.8% (-	2,433	-0.8% (-	1,921	-0.4% (-
	(53.3%)	2.3,5.9)	(78.3%)	4.1,2.4)	(68.0%)	5.4,4.6)
	260 / 401	25.8%	351 / 401	16.8%	260 / 351	19.0%
Pathology	,	7.2%	-	3.2% (-		5.0% (-
	(64.8%)	(2.1,12.3)	(87.5%)	1.1,7.4)	(74.1%)	1.2,11.1)
Pediatrics	800 / 1,817	5.0%	1,332 / 1,817	2.6%	800 / 1,332	5.0%
r culati its	(44.0%)	-0.2% (-	(73.3%)	-1.4% (-	(60.1%)	-2.9% (-

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		4.3,4)		4.7,1.9)		8.1,2.2)
	390 / 713	15.7%	570 / 713	9.2%	390 / 570	13.3%
Psychiatry		-0.2% (-		-0.6% (-		-3.0% (-
	(54.7%)	4.9,4.5)	(79.9%)	4.4,3.2)	(68.4%)	8.8,2.7)
	152 / 282	14.9%	218 / 282	6.6%	152 / 218	14.6%
Radiology		6.3%		-0.7% (-		
	(53.9%)	(0.8,11.7)	(77.3%)	5.3,4)	(69.7%)	6.6% (0,13.2)
	311 / 580	14.6%	482 / 580	12.4%	311 / 482	9.4%
Surgery, general		7.3%				5.1% (-
	(53.6%)	(2.6,12)	(83.1%)	3.7% (0,7.5)	(64.5%)	0.6,10.7)
	441 / 825	14.5%	667 / 825	10.1%	441 / 667	11.0%
Surgery, subspecialty		6.0%		1.4% (-		3.4% (-
	(53.5%)	(1.6,10.5)	(80.8%)	2.2,5)	(66.1%)	2.1,8.8)
Publications, total (ref.		0.1%		0.2%		
increment, 1 pub.)		(0.1,0.2)		(0.1,0.2)		0.1% (0.1,0.2)
Publications, first or last						
author (ref. increment, 1		0.2%				
pub.)		(0.1,0.2)		0.1% (0,0.2)		0.2% (0.1,0.2)
Faculty at top-20 medical						
school	2.056./		E 002 /		2.056./	
	3,956 /	D - f	5,903 /	Deference	3,956 /	Deference
No	7,449	Reference	7,449	Reference	5,903	Reference
	(53.1%)		(79.2%)		(67.0%)	
	2,698 /		4,294 /		2,698 /	
Yes	5,776	-6.4%	5,776	-4.9%	4,294	-4.2%
		-3.0% (-		-2.9% (-		-3.6% (-7.0,-
	(46.7%)	6,0.1)	(74.3%)	5.5,-0.3)	(62.8%)	0.2)

Notes: Table addresses lack of information on job track/nature, which may be associated with both faculty rank and sex. For example, women physicians may choose clinical track faculty appointments rather than research tracks, the latter being associated with more rapid promotion. We addressed this issue by focusing on a sub-group of physicians with prior NIH funding who are presumably more likely to be on research tracks. Column (1) reports factors associated with full professorship among faculty of all ranks. Column (2) reports factors associated with associate or full professorship among faculty at the associate or full professor rank. Column (3) reports factors associated with full professorship among faculty at the associate or full professor rank. The reported association between faculty rank and publication count (or years since residency) reflects the marginal impact of an additional publication (or year post residency) on the probability of a given faculty rank. "Top-20" school refers to whether a physician was on faculty at a medical school ranked among the top 20 U.S. medical schools for research by U.S. News and World Report in 2013.

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