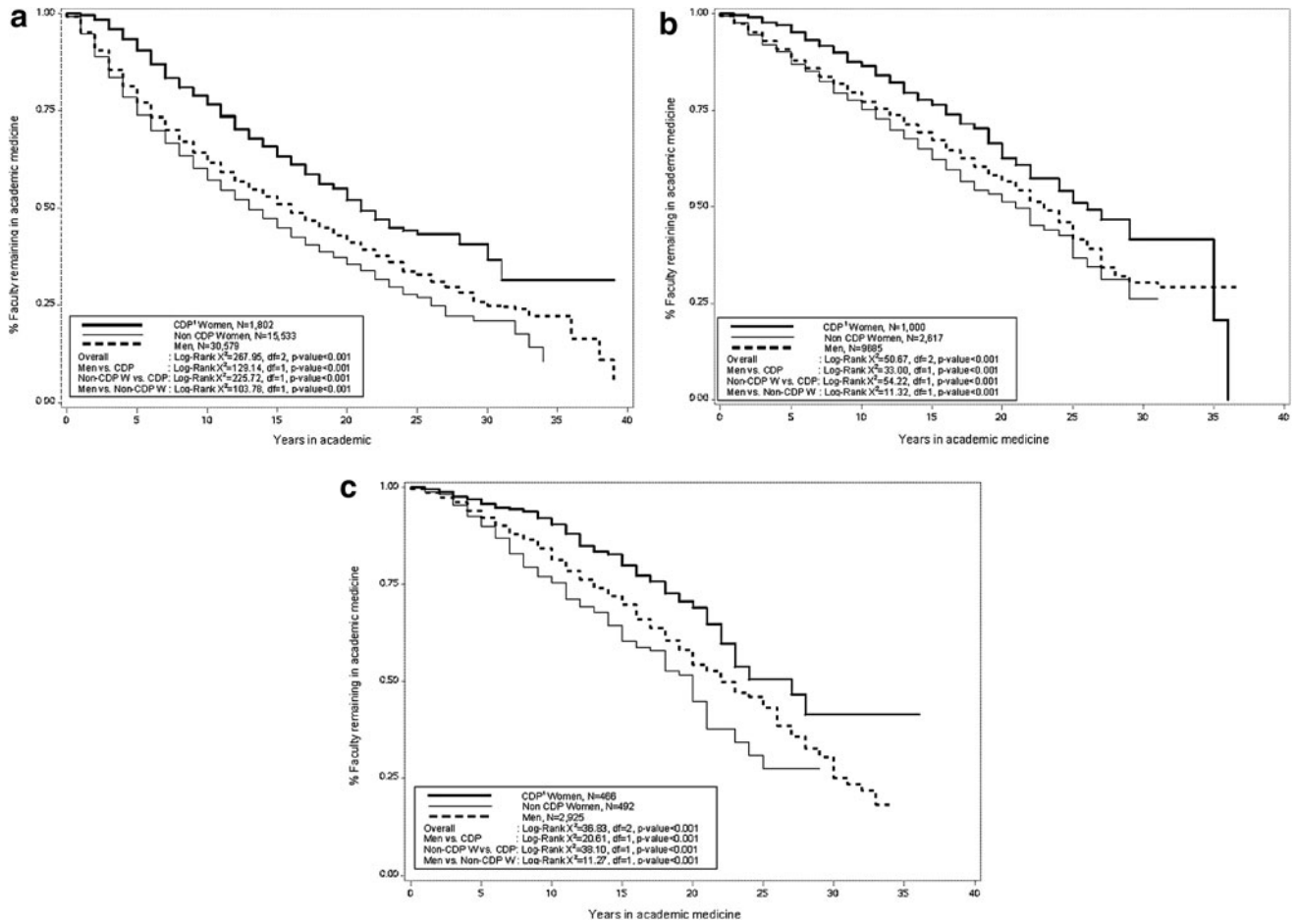
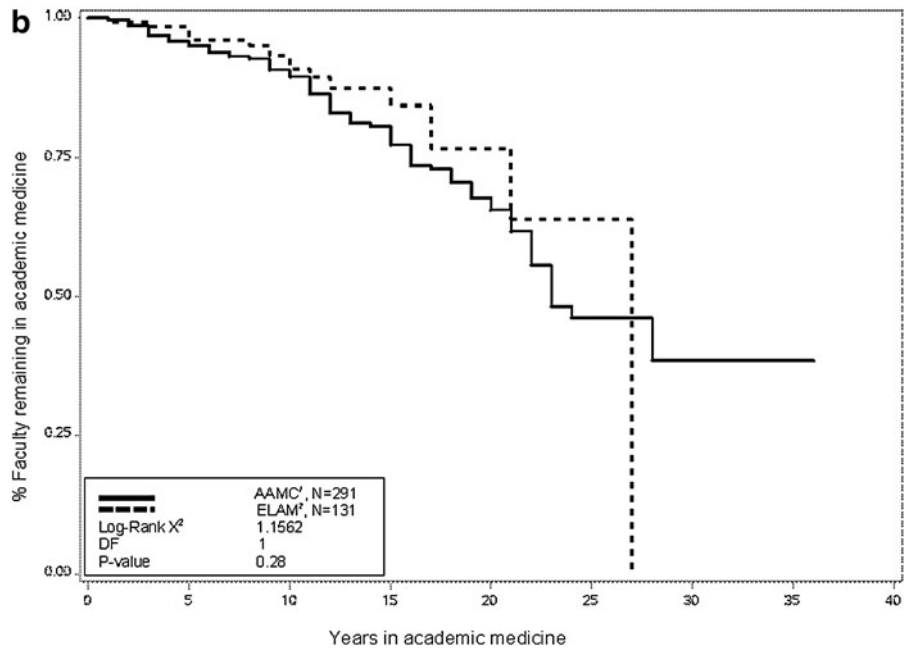
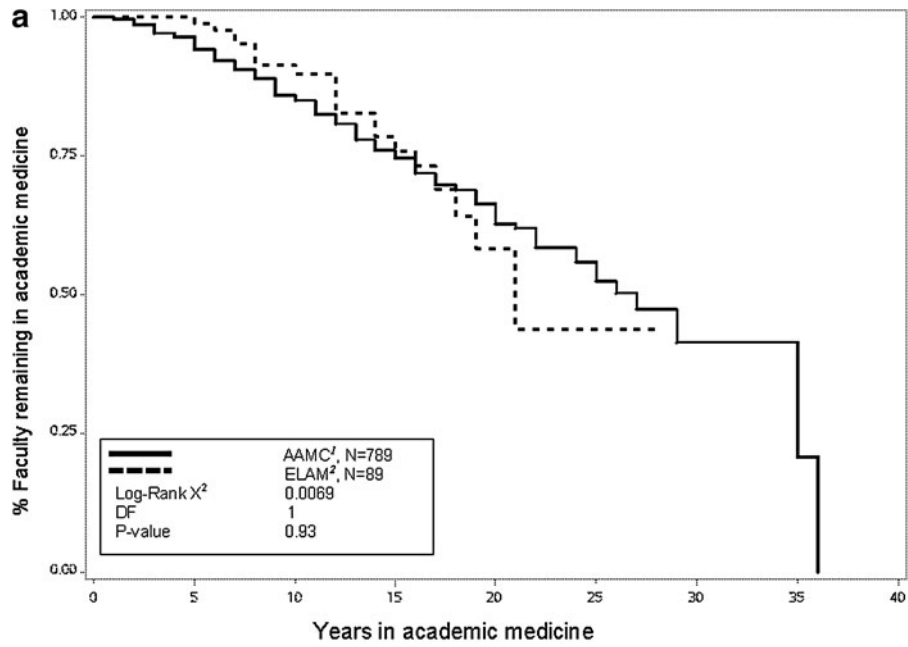


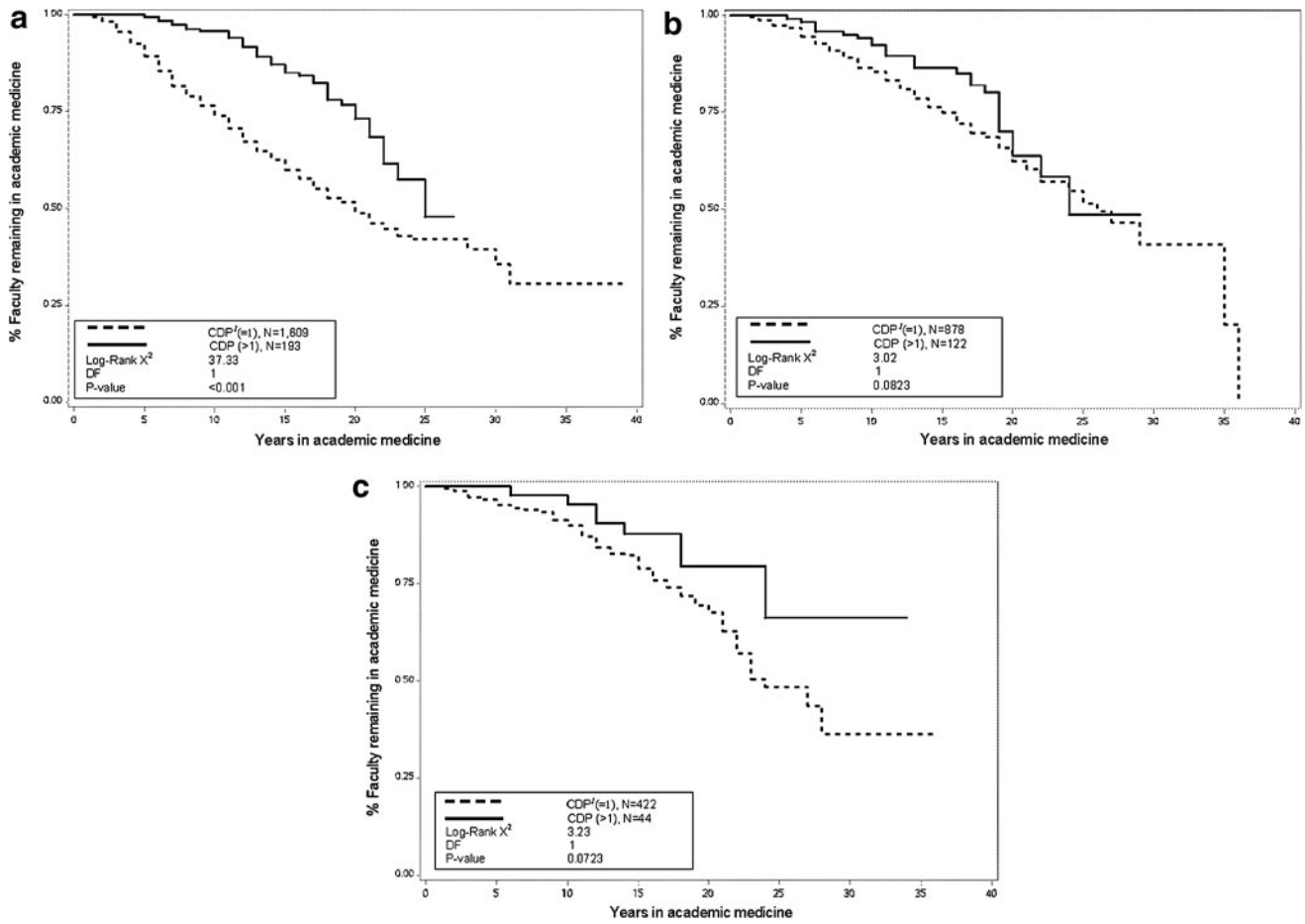
## Supplementary Data



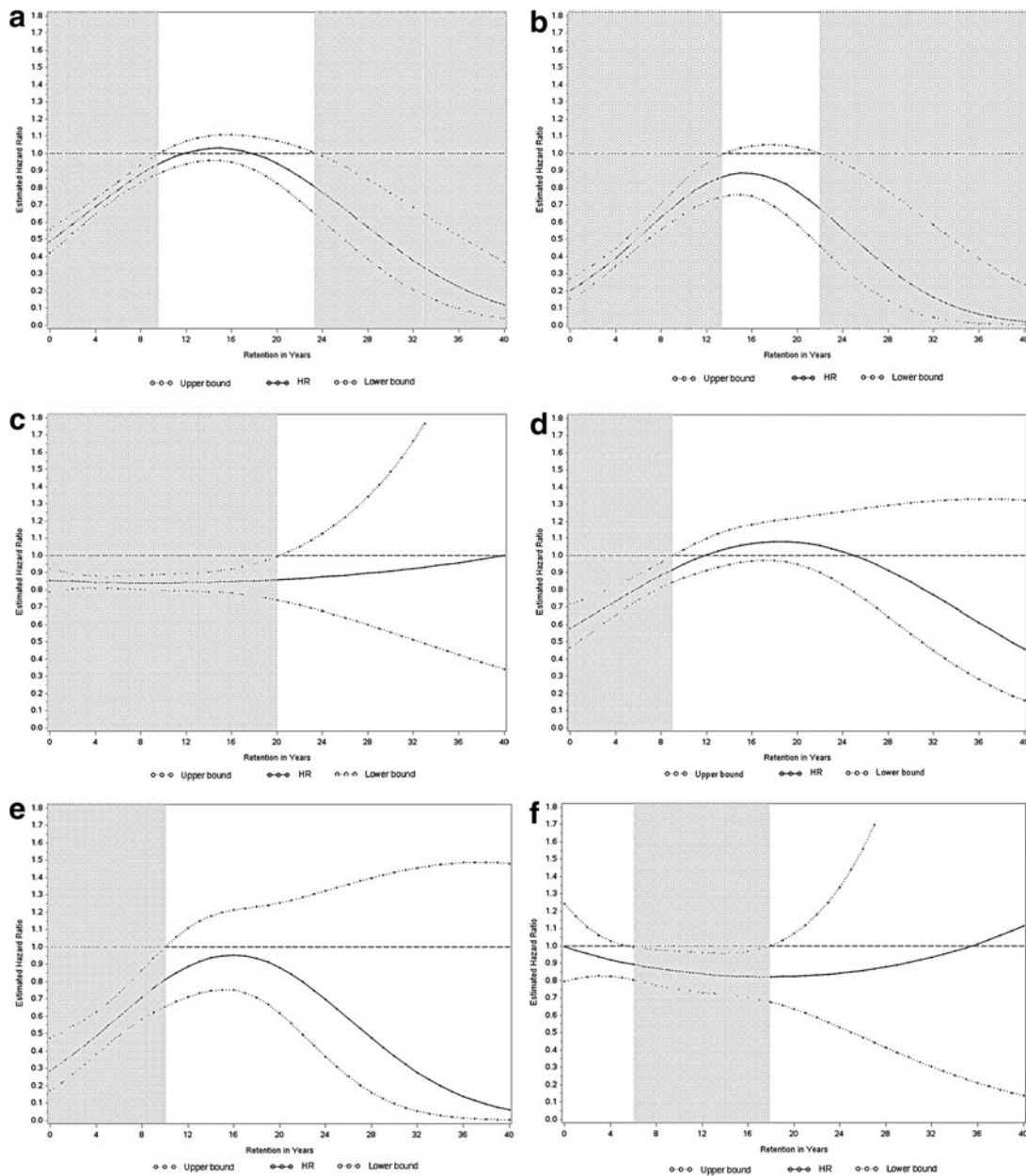
**SUPPLEMENTARY FIG. S1.** Retention from first year of appointment in index rank for CDP participants and non-participant women and men faculty comparisons by academic rank. **(a)** Assistant Professors (from first year of appointment as Assistant Professor), **(b)** Associate Professors (from first year of appointment as Associate Professor), and **(c)** Full Professors (from first year of appointment as Full Professor). CDP, career development program.



**SUPPLEMENTARY FIG. S2.** (a) Retention in academic medicine of Associate Professor ELAM participants was not significantly different from that of combined AAMC CDP participants at the same rank. (b) Retention in academic medicine of Full Professor ELAM participants was not significantly different from that of combined AAMC CDP participants at the same rank. AAMC, Association of American Medical Colleges; ELAM, Hedwig van Ameringen Executive Leadership in Academic Medicine.



**SUPPLEMENTARY FIG. S3.** Retention in academic medicine of CDP participants by number of CDP attended and academic rank at first CDP attended. **(a)** Retention in academic medicine of Assistant Professors attending more than one CDP was significantly longer than that for those attending only one CDP. **(b)** Retention in academic medicine of Associate Professors attending more than one CDP was not significantly longer than that for those attending only one CDP. **(c)** Retention in academic medicine of Full Professors attending more than one CDP was not significantly longer than that for those attending only one CDP.



**SUPPLEMENTARY FIG. S4.** HRs and their 95% CIs over time, where HRs indicate the likelihood of leaving academic medicine adjusted for tenure track status and department type for compared same career-stage groups by academic rank. **(a)** Assistant Professors: Compared to men, CDP participants were significantly less likely to leave academic medicine from first year in rank until year 9 and then after year 23. From years 9 to 23, CDP participants and men were equally likely to leave academic medicine as the 95% CI included 1.0, indicating lack of a statistically significant HR. **(b)** Assistant Professors: Compared to non-CDP women, CDP participants were significantly less likely to leave academic medicine from first year in rank until year 13 and after year 22. From years 13 to 22, CDP participants and non-CDP women were equally likely to leave academic medicine as the 95% CI included 1.0, indicating lack of a statistically significant HR. **(c)** Assistant Professors: Compared to non-CDP women, men were significantly less likely to leave academic medicine for 20 years since first appointment in rank. After that time, men and non-CDP women were equally likely to leave academic medicine as the 95% CI included 1.0, indicating lack of a statistically significant HR. **(d)** Associate Professors: Compared to men, CDP participants were significantly less likely to leave academic medicine for up to 9 years since first year of appointment in rank. After that time, men and non-CDP women were equally likely to leave academic medicine as the 95% CI included 1.0, indicating lack of a statistically significant HR. **(e)** Associate Professors: Compared to non-CDP women, CDP participants were significantly less likely to leave academic medicine for 10 years since first year of appointment in rank. After that time, men and non-CDP women were equally likely to leave academic medicine as the 95% CI included 1.0, indicating lack of a statistically significant HR. **(f)** Associate Professors: Compared to non-CDP women, men were significantly less likely to leave academic medicine from the sixth year since appointment in rank for 12 years until year 18. Before the sixth year in rank and after the 18th year, men and non-CDP women were equally likely to leave academic medicine. *Shaded area* indicates statistically significant HR. CI, confidence interval; HR, hazard ratio.

SUPPLEMENTARY TABLE S1. NUMBER OF WOMEN FACULTY BY FIRST CDP ATTENDED  
AND ACADEMIC RANK AT TIME OF CDP

<i>Academic rank</i>	<i>CDP</i>				<i>Total (N=3268)</i>
	<i>WIM (n=264)</i>	<i>EWIM (n=1389)</i>	<i>MWIM (n=1378)</i>	<i>ELAM (n=237)</i>	
Assistant Professors	201	1309	278	14	1802
Associate Professors	54	74	780	92	1000
Full Professors	9	6	320	131	466

CDP, career development program; WIM, AAMC Women Faculty Professional Development programs; EWIM, AAMC Early Career Women Faculty Professional Development programs; MWIM, AAMC Mid-Career Women Faculty Professional Development programs; ELAM, Hedwig van Ameringen Executive Leadership in Academic Medicine.

SUPPLEMENTARY TABLE S2. CDP PARTICIPANTS BY NUMBER OF CDPs ATTENDED AND TYPE OF CDP

<i>Type of CDP</i>	<i>Women attending only one CDP by program attended, n (%)</i>	<i>Women attending more than one CDP in order of CDP attended, n (%)</i>		
		<i>1st CDP attended</i>	<i>2nd CDP attended</i>	<i>3rd and 4th CDP attended</i>
EWIM	1408 (48)	182 (51)	15 (4)	1 (3)
MWIM	1267 (44)	174 (48)	187 (52)	9 (26)
ELAM	234 (8)	3 (1)	157 (44)	24 (71)

SUPPLEMENTARY TABLE S3. HAZARD RATIOS AND THEIR 95% CONFIDENCE INTERVALS BY ACADEMIC RANK AND EACH YEAR IN RANK, FOR WHICH HRS ADJUSTED FOR TENURE TRACK STATUS AND DEPARTMENT TYPE INDICATED THE LIKELIHOOD OF LEAVING ACADEMIC MEDICINE OF COMPARED SAME CAREER-STAGE GROUPS

<i>Years in academic rank as Assistant Professor</i>	<i>Hazard ratio</i>	<i>95% Confidence interval</i>
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(a) *Assistant Professors: CDP participants compared to men from first year of appointment in rank*

0	0.49 <sup>a</sup>	0.42–0.56
1	0.54 <sup>a</sup>	0.48–0.60
2	0.59 <sup>a</sup>	0.53–0.65
3	0.64 <sup>a</sup>	0.59–0.69
4	0.69 <sup>a</sup>	0.65–0.74
5	0.74 <sup>a</sup>	0.70–0.78
6	0.79 <sup>a</sup>	0.75–0.83
7	0.84 <sup>a</sup>	0.79–0.88
8	0.88 <sup>a</sup>	0.83–0.93
9	0.92 <sup>a</sup>	0.86–0.97
10	0.95	0.89–1.01
11	0.98	0.92–1.05
12	1.00	0.94–1.07
13	1.02	0.95–1.09
14	1.03	0.96–1.10
15	1.03	0.96–1.11
16	1.03	0.95–1.11
17	1.01	0.93–1.11
18	1.00	0.90–1.10
19	0.97	0.87–1.09
20	0.94	0.83–1.07
21	0.91	0.78–1.06
22	0.87	0.72–1.04
23	0.82	0.67–1.01
24	0.77 <sup>a</sup>	0.61–0.98
25	0.73 <sup>a</sup>	0.55–0.95
26	0.67 <sup>a</sup>	0.49–0.92
27	0.62 <sup>a</sup>	0.44–0.89
28	0.57 <sup>a</sup>	0.38–0.85
29	0.52 <sup>a</sup>	0.33–0.81
30	0.47 <sup>a</sup>	0.29–0.77
31	0.42 <sup>a</sup>	0.25–0.73
32	0.38 <sup>a</sup>	0.21–0.69
33	0.33 <sup>a</sup>	0.17–0.65
34	0.29 <sup>a</sup>	0.14–0.60
35	0.26 <sup>a</sup>	0.12–0.56
36	0.22 <sup>a</sup>	0.10–0.52
37	0.19 <sup>a</sup>	0.08–0.48
38	0.17 <sup>a</sup>	0.06–0.44
39	0.14 <sup>a</sup>	0.05–0.41
40	0.12 <sup>a</sup>	0.04–0.37

(b) *Assistant Professors: CDP participants compared to non-CDP women from first year of appointment in rank*

0	0.20 <sup>a</sup>	0.15–0.27
1	0.24 <sup>a</sup>	0.19–0.31
2	0.29 <sup>a</sup>	0.24–0.35
3	0.34 <sup>a</sup>	0.29–0.40
4	0.39 <sup>a</sup>	0.34–0.45
5	0.45 <sup>a</sup>	0.40–0.51
6	0.51 <sup>a</sup>	0.45–0.57
7	0.57 <sup>a</sup>	0.51–0.64
8	0.63 <sup>a</sup>	0.56–0.71

(continued)

SUPPLEMENTARY TABLE S3. (CONTINUED)

<i>Years in academic rank as Assistant Professor</i>	<i>Hazard ratio</i>	<i>95% Confidence interval</i>
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9	0.68 <sup>a</sup>	0.60–0.78
10	0.74 <sup>a</sup>	0.65–0.84
11	0.78 <sup>a</sup>	0.69–0.90
12	0.82 <sup>a</sup>	0.72–0.94
13	0.85 <sup>a</sup>	0.74–0.98
14	0.87	0.76–1.01
15	0.89	0.76–1.03
16	0.88	0.75–1.04
17	0.87	0.73–1.05
18	0.85	0.69–1.05
19	0.82	0.64–1.04
20	0.78	0.59–1.04
21	0.73	0.52–1.02
22	0.68	0.46–1.00
23	0.62 <sup>a</sup>	0.40–0.98
24	0.56 <sup>a</sup>	0.33–0.95
25	0.50 <sup>a</sup>	0.28–0.91
26	0.44 <sup>a</sup>	0.23–0.87
27	0.39 <sup>a</sup>	0.18–0.83
28	0.33 <sup>a</sup>	0.14–0.78
29	0.28 <sup>a</sup>	0.11–0.73
30	0.24 <sup>a</sup>	0.08–0.68
31	0.20 <sup>a</sup>	0.06–0.63
32	0.16 <sup>a</sup>	0.04–0.58
33	0.13 <sup>a</sup>	0.03–0.53
34	0.10 <sup>a</sup>	0.02–0.48
35	0.08 <sup>a</sup>	0.02–0.44
36	0.06 <sup>a</sup>	0.01–0.39
37	0.05 <sup>a</sup>	0.01–0.35
38	0.04 <sup>a</sup>	0.00–0.31
39	0.03 <sup>a</sup>	0.00–0.27
40	0.02 <sup>a</sup>	0.00–0.23

(c) *Assistant Professors: Men compared to non-CDP women from first year of appointment in rank*

0	0.85 <sup>a</sup>	0.79–0.93
1	0.85 <sup>a</sup>	0.80–0.91
2	0.85 <sup>a</sup>	0.80–0.89
3	0.85 <sup>a</sup>	0.81–0.88
4	0.84 <sup>a</sup>	0.81–0.88
5	0.84 <sup>a</sup>	0.81–0.88
6	0.84 <sup>a</sup>	0.81–0.88
7	0.84 <sup>a</sup>	0.80–0.88
8	0.84 <sup>a</sup>	0.80–0.88
9	0.84 <sup>a</sup>	0.80–0.89
10	0.84 <sup>a</sup>	0.79–0.89
11	0.84 <sup>a</sup>	0.79–0.89
12	0.84 <sup>a</sup>	0.79–0.89
13	0.84 <sup>a</sup>	0.79–0.90
14	0.84 <sup>a</sup>	0.79–0.90
15	0.85 <sup>a</sup>	0.78–0.91
16	0.85 <sup>a</sup>	0.78–0.92
17	0.85 <sup>a</sup>	0.77–0.93
18	0.85 <sup>a</sup>	0.76–0.95
19	0.85 <sup>a</sup>	0.75–0.97
20	0.86 <sup>a</sup>	0.74–0.99
21	0.86	0.73–1.02
22	0.87	0.71–1.05
23	0.87	0.70–1.09
24	0.87	0.68–1.13
25	0.88	0.66–1.17
26	0.88	0.64–1.22

(continued)

SUPPLEMENTARY TABLE S3. (CONTINUED)

<i>Years in academic rank as Assistant Professor</i>	<i>Hazard ratio</i>	<i>95% Confidence interval</i>
27	0.89	0.62–1.28
28	0.90	0.60–1.34
29	0.90	0.58–1.41
30	0.91	0.56–1.49
31	0.92	0.53–1.57
32	0.92	0.51–1.66
33	0.93	0.49–1.77
34	0.94	0.47–1.88
35	0.95	0.45–2.01
36	0.96	0.42–2.16
37	0.97	0.40–2.32
38	0.98	0.38–2.50
39	0.99	0.36–2.69
40	1.00	0.34–2.92

(d) *Associate Professors: CDP participants compared to men from first year of appointment in rank*

0	0.58 <sup>a</sup>	0.46–0.71
1	0.62 <sup>a</sup>	0.51–0.74
2	0.66 <sup>a</sup>	0.56–0.77
3	0.70 <sup>a</sup>	0.61–0.79
4	0.73 <sup>a</sup>	0.66–0.82
5	0.77 <sup>a</sup>	0.70–0.85
6	0.81 <sup>a</sup>	0.74–0.89
7	0.85 <sup>a</sup>	0.78–0.92
8	0.88 <sup>a</sup>	0.81–0.96
9	0.92	0.84–1.00
10	0.95	0.87–1.03
11	0.98	0.89–1.07
12	1.00	0.91–1.10
13	1.02	0.93–1.13
14	1.04	0.95–1.15
15	1.06	0.96–1.17
16	1.07	0.97–1.18
17	1.08	0.97–1.19
18	1.08	0.97–1.21
19	1.08	0.96–1.21
20	1.08	0.95–1.22
21	1.07	0.93–1.23
22	1.06	0.90–1.24
23	1.04	0.87–1.25
24	1.02	0.83–1.26
25	1.00	0.79–1.27
26	0.97	0.74–1.28
27	0.94	0.69–1.29
28	0.91	0.64–1.29
29	0.88	0.59–1.30
30	0.84	0.55–1.31
31	0.81	0.50–1.32
32	0.77	0.45–1.32
33	0.73	0.40–1.32
34	0.69	0.36–1.33
35	0.65	0.32–1.33
36	0.61	0.28–1.33
37	0.57	0.25–1.33
38	0.53	0.21–1.33
39	0.49	0.18–1.33
40	0.46	0.16–1.32

(e) *Associate Professors: CDP participants compared to non-CDP women from first year of appointment in rank*

0	0.29 <sup>a</sup>	0.17–0.48
1	0.33 <sup>a</sup>	0.22–0.51

(continued)

SUPPLEMENTARY TABLE S3. (CONTINUED)

<i>Years in academic rank as Assistant Professor</i>	<i>Hazard ratio</i>	<i>95% Confidence interval</i>
2	0.38 <sup>a</sup>	0.27–0.54
3	0.43 <sup>a</sup>	0.32–0.58
4	0.49 <sup>a</sup>	0.38–0.63
5	0.54 <sup>a</sup>	0.44–0.68
6	0.60 <sup>a</sup>	0.49–0.73
7	0.66 <sup>a</sup>	0.54–0.80
8	0.71 <sup>a</sup>	0.58–0.86
9	0.76 <sup>a</sup>	0.62–0.93
10	0.81	0.66–1.00
11	0.85	0.69–1.06
12	0.89	0.71–1.11
13	0.92	0.73–1.15
14	0.94	0.75–1.18
15	0.95	0.75–1.20
16	0.95	0.75–1.21
17	0.95	0.74–1.22
18	0.93	0.71–1.23
19	0.91	0.67–1.24
20	0.88	0.62–1.25
21	0.84	0.56–1.27
22	0.80	0.50–1.29
23	0.75	0.43–1.30
24	0.70	0.37–1.32
25	0.64	0.31–1.34
26	0.59	0.25–1.36
27	0.53	0.20–1.38
28	0.47	0.16–1.40
29	0.42	0.12–1.41
30	0.37	0.10–1.43
31	0.32	0.07–1.44
32	0.28	0.05–1.46
33	0.24	0.04–1.47
34	0.20	0.03–1.47
35	0.17	0.02–1.48
36	0.14	0.01–1.49
37	0.11	0.01–1.49
38	0.09	0.01–1.49
39	0.07	0.00–1.49
40	0.06	0.00–1.48

(f) *Associate Professors: Men compared to non-CDP women from first year of appointment in rank*

0	0.99	0.79–1.24
1	0.97	0.81–1.17
2	0.95	0.82–1.11
3	0.94	0.83–1.06
4	0.92	0.83–1.03
5	0.91	0.82–1.01
6	0.89 <sup>a</sup>	0.80–0.99
7	0.88 <sup>a</sup>	0.79–0.98
8	0.87 <sup>a</sup>	0.77–0.98
9	0.86 <sup>a</sup>	0.76–0.97
10	0.85 <sup>a</sup>	0.75–0.97
11	0.84 <sup>a</sup>	0.74–0.97
12	0.84 <sup>a</sup>	0.73–0.96
13	0.83 <sup>a</sup>	0.72–0.96
14	0.83 <sup>a</sup>	0.72–0.96
15	0.83 <sup>a</sup>	0.71–0.96
16	0.82 <sup>a</sup>	0.70–0.97
17	0.82 <sup>a</sup>	0.69–0.98
18	0.82	0.68–1.00
19	0.82	0.66–1.03
20	0.83	0.64–1.07

(continued)



SUPPLEMENTARY TABLE S3. (CONTINUED)

<i>Years in academic rank as Assistant Professor</i>	<i>Hazard ratio</i>	<i>95% Confidence interval</i>
21	0.83	0.61–1.12
22	0.83	0.59–1.18
23	0.84	0.56–1.25
24	0.84	0.53–1.34
25	0.85	0.50–1.44
26	0.86	0.47–1.56
27	0.87	0.44–1.70
28	0.88	0.41–1.86
29	0.89	0.39–2.06
30	0.90	0.36–2.28
31	0.92	0.33–2.55
32	0.93	0.30–2.87
33	0.95	0.28–3.24
34	0.97	0.25–3.69
35	0.99	0.23–4.23
36	1.01	0.21–4.87
37	1.03	0.19–5.64
38	1.06	0.17–6.58
39	1.09	0.15–7.72
40	1.12	0.14–9.11

<sup>a</sup>Statistically significant hazard ratio.

SUPPLEMENTARY TABLE S4. RETENTION OF CDP PARTICIPANTS, MEN AND WOMEN COMPARISONS BY RANK AND GENDER: SENSITIVITY ANALYSIS USING PROPENSITY SCORE MATCHED DATA

<i>Academic rank</i>	<i>Comparison analysis</i>	<i>CDP, N<sup>a</sup></i>	<i>Parameter estimate (standard error)</i>	<i>Chi-square</i>	<i>p</i>	<i>Hazard ratio</i>	<i>95% Confidence intervals</i>
Assistant Professors	CDP vs. men	1786	-0.77 (0.07)	111.34	<0.001	0.47	0.40–0.54
	CDP vs. women	1786	-0.81 (0.07)	121.31	<0.001	0.44	0.38–0.51
Associate Professors	CDP vs. men	996	-0.34 (0.12)	8.50	0.004	0.71	0.57–0.90
	CDP vs. women	989	-0.43 (0.12)	12.60	0.001	0.65	0.52–0.83
Full Professors	CDP vs. men	460	-0.26 (0.19)	1.95	0.16	0.77	0.53–1.11
	CDP vs. women	332	-0.50 (0.23)	4.78	0.03	0.61	0.39–0.95

<sup>a</sup>To create one-to-one matched data sets, we used the closest propensity score within a caliper width of 0.2 of the propensity score of a given CDP participant of an individual man or woman faculty to identify each man and woman faculty comparison. We had equal numbers of CDP participants and same career-stage men and non-CDP women ( $n=1786$ ) for analysis of Assistant Professors. Among Associate Professors, we had 996 CDP participants for comparison with 996 men and 989 CDP participants for comparison with 989 women. Among Full Professors for analysis, we had 460 CDP participants for comparison with 460 men and 332 CDP participants for comparison with 332 women.

