

**Ph.D. COMPLETION AND ATTRITION
AT
DUKE UNIVERSITY FOR COHORTS
ENTERING BEFORE AND AFTER
INTERVENTIONS**

Lewis M. Siegel
Duke University

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INTERVENTIONS TO IMPROVE Ph.D. COMPLETION RATE AT DUKE AFTER 1995: STUDENT FUNDING

- Institute 5-6 year funding guarantee in all A&S units; generally support to degree in sciences
- Departments given budgets based on graduate education parameters, not service needs
- 3-year budgets to deal with variations in yield
- Reduction in student teaching loads; more fellowship years
- Competitive summer research support introduced
- Funded capstone teaching fellowships at dissertation stage

INTERVENTIONS TO IMPROVE Ph.D. COMPLETION RATE AT DUKE AFTER 1995: BETTER INFORMED SELECTION

- Reduce emphasis on GRE scores and GPA's – data show poor correlation with completion as Duke uses them
- Emphasize demonstrated research experience
- Transparency: Put Duke data on placement, time to degree, completion rates in each program – student should know what (s)he is getting into
- Interview students before admitting them – Exchange information to learn “fit” rather than just sell program

INTERVENTIONS TO IMPROVE Ph.D. COMPLETION RATE AT DUKE AFTER 1995: IMPROVED PROGRAMS

- Teaching: Require structured teaching experiences for graduate TA's where career-appropriate; Graduate school workshops in pedagogy and uses of instructional technology; expanded PFF program.
- Responsible conduct of research training extended to all Ph.D. students in all disciplines
- Field-specific symposia to introduce career options to Ph.D. students
- Enhanced student services; strong investment in subsidizing child care for graduate students
- "Best Practices" charter for faculty, students, Grad School

DUKE vs. CGS: Cohorts A at 10 Years

		% Completion		% Attrition		% Continuing	
		<u>Duke</u>	<u>CGS</u>	<u>Duke</u>	<u>CGS</u>	<u>Duke</u>	<u>CGS</u>
Social Sciences		61	56	37	27	2	17
Humanities		62	49	33	31	5	20
Physical Sciences		61	55	38	37	1	8
Biological Sciences		74	63	26	26	1	11
Engineering		62	64	38	27	0	9

Increased 7 Yr. Completion, Reduced Attrition in Humanities

<u>Program</u>	<u>Matrics</u>	1992-1994 Cohorts			1998-2000 Cohorts			
		<u>%PhD</u>	<u>%Withdraw</u>	<u>%Cont</u>	<u>Matrics</u>	<u>%PhD</u>	<u>%Withdraw</u>	<u>%Cont</u>
History	55	24%	24%	53%	30	33%	37%	16%
Religion	44	43%	18%	39%	38	50%	11%	39%
English	40	37%	33%	30%	23	43%	22%	35%
Romance Studies	31	32%	39%	29%	24	21%	25%	54%
Literature	27	48%	11%	41%	24	46%	21%	33%
Music	17	35%	47%	18%	17	65%	18%	18%
Classics	15	40%	53%	7%	10	50%	50%	0%
Philosophy	12	50%	17%	33%	11	64%	27%	9%
Other Small	26	23%	38%	18%	13	31%	15%	54%
HUMANITIES	267	35%	29%	36%	190	46%	23%	31%

Increased 7 Yr. Completion, Reduced Attrition in Social Sciences - - ECONOMICS UNCHANGED

<u>Program</u>	1992-1994 Cohorts					1998-2000 Cohorts				
	<u>Matrics</u>	<u>%PhD</u>	<u>%Withdrew</u>	<u>%Cont</u>		<u>Matrics</u>	<u>%PhD</u>	<u>%Withdrew</u>	<u>%Cont</u>	
Economics	69	55%	41%	4%		55	56%	40%	4%	
Psychology	41	78%	15%	7%		31	74%	13%	13%	
Political Science	37	24%	32%	43%		41	56%	22%	22%	
Sociology	24	25%	50%	25%		25	52%	44%	4%	
Business	21	71%	29%	0%		26	88%	8%	4%	
Cult Anthropology	19	42%	42%	16%		14	43%	29%	29%	
SOCIAL SCIENCES	211	51%	34%	15%		192	63%	27%	10%	

Relatively Little Change at 7 Yr. in STEM Fields---

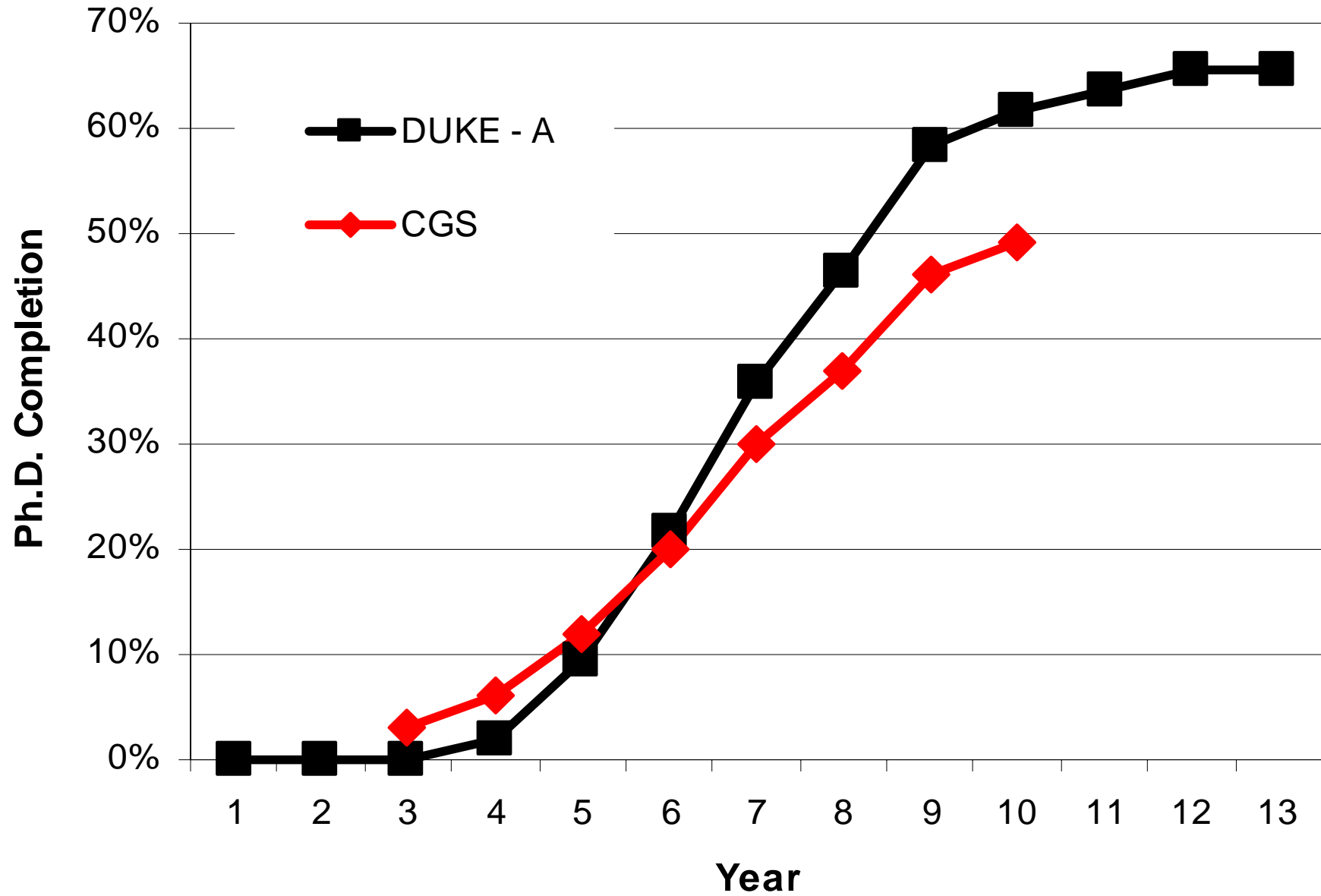
Improvement in High TA Programs, but ENV and EOS Get Worse

<u>Program</u>	<u>Matrics</u>	<u>1992-1994 Cohorts</u>			<u>1998-2000 Cohorts</u>			
		<u>%PhD</u>	<u>%Withdraw</u>	<u>%Cont</u>	<u>Matrics</u>	<u>%PhD</u>	<u>%Withdraw</u>	<u>%Cont</u>
Biomedical Sciences	177	67%	21%	18%	176	66%	23%	17%
A&S Biology	74	53%	36%	12%	58	71%	22%	7%
Environment	32	75%	19%	6%	34	50%	38%	12%
BIOLOGICAL SCIEN	273	64%	25%	11%	278	63%	27%	10%
Chemistry	51	65%	31%	4%	63	75%	22%	3%
Physics	41	62%	35%	3%	40	58%	35%	7%
Computer Science	37	51%	43%	5%	48	48%	46%	6%
Math	22	45%	50%	5%	30	60%	27%	13%
Statistics	18	78%	22%	0%	19	79%	21%	0%
Earth & Ocean Sci	15	53%	47%	0%	11	45%	55%	0%
PHYSICAL SCIENCE	184	60%	36%	4%	211	62%	32%	6%
Biomedical Engineerin	41	75%	15%	10%	47	81%	13%	6%
Mechanical Engineeri	47	62%	36%	2%	34	65%	15%	21%
Electrical & Computel	38	53%	42%	5%	68	50%	44%	6%
Civil & Environmental	34	35%	62%	3%	26	31%	65%	4%
ENGINEERING	160	58%	37%	5%	175	58%	33%	9%

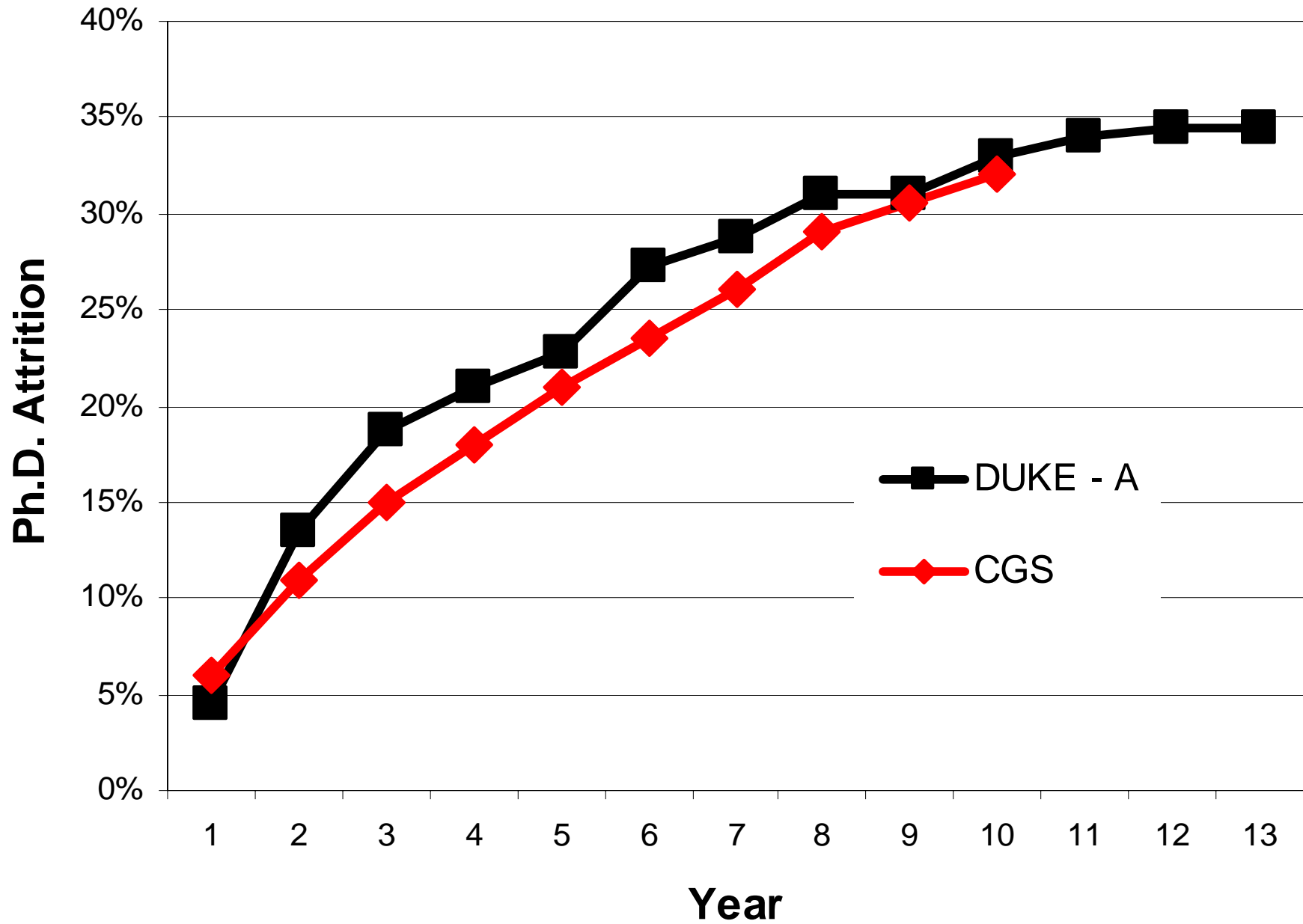
7 Year Completion Rate Increases for Graduate School

<u>Program</u>	1992-1994 Cohorts					1998-2000 Cohorts				
	<u>Matrics</u>	<u>%PhD</u>	<u>%Withdrew</u>	<u>%Cont</u>		<u>Matrics</u>	<u>%PhD</u>	<u>%Withdrew</u>	<u>%Cont</u>	
GRAD SCHOOL	1095	53%	31%	16%		1046	59%	28%	13%	

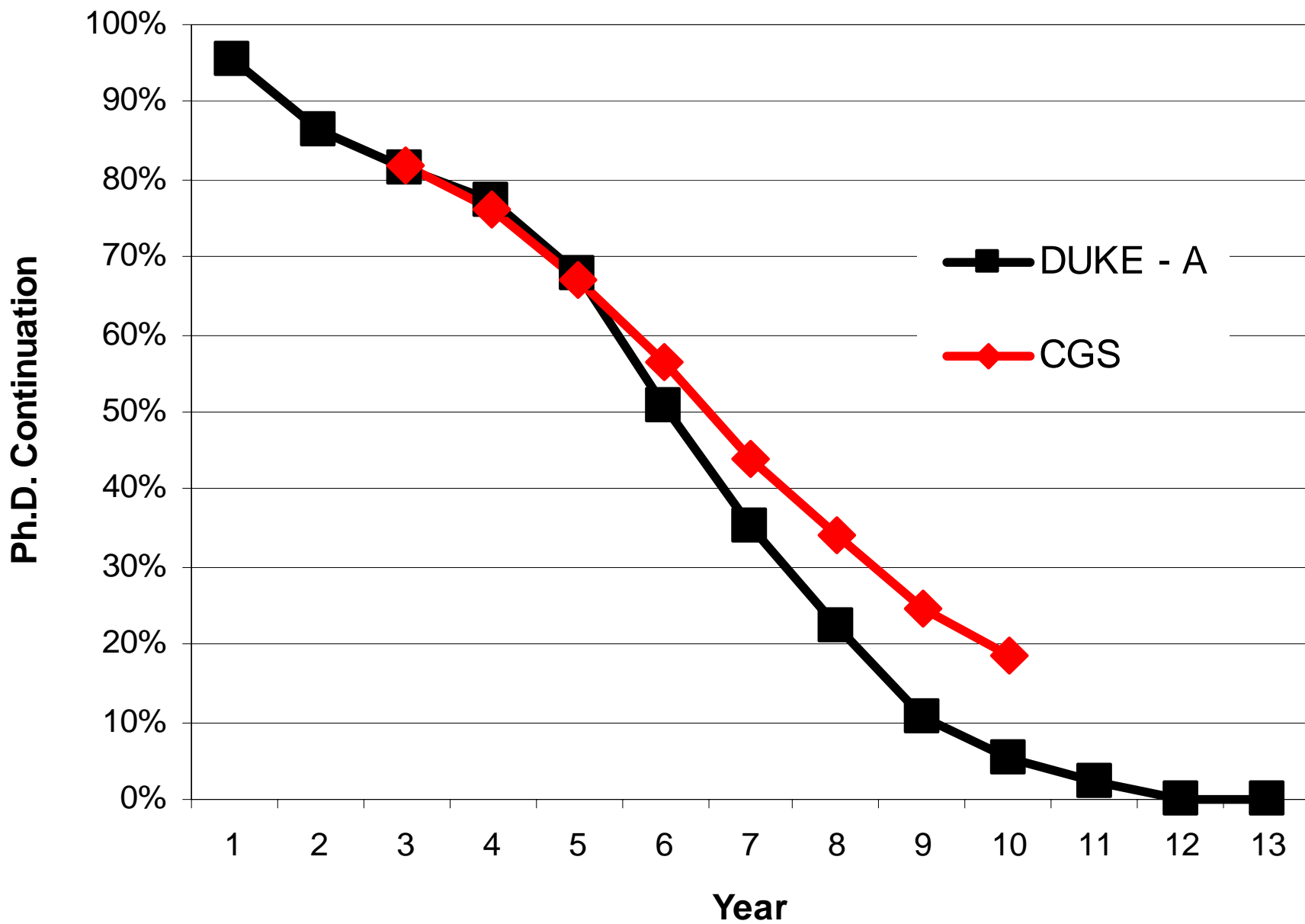
HUMANITIES: Ph.D. COMPLETION



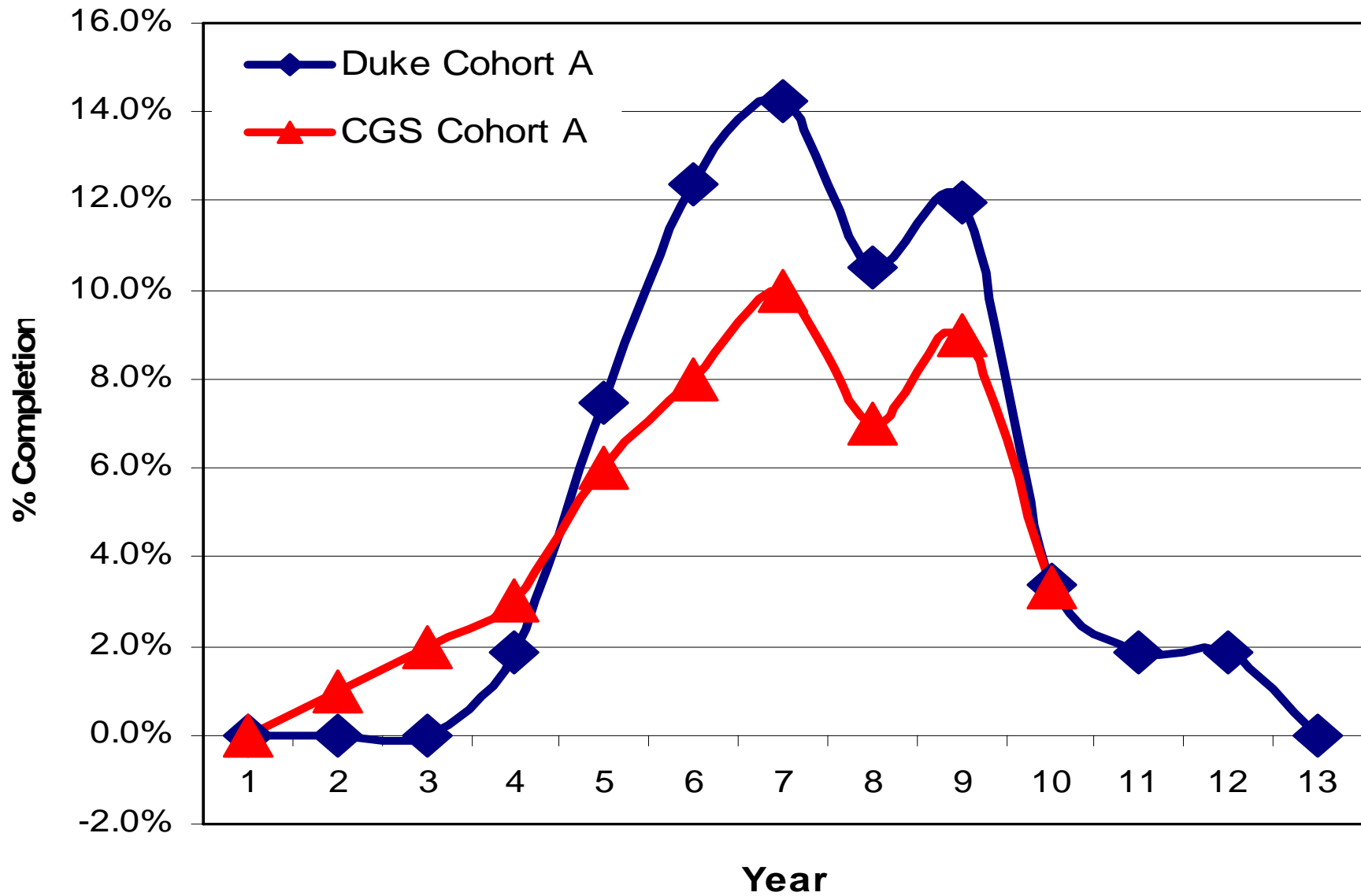
HUMANITIES: Ph.D. ATTRITION



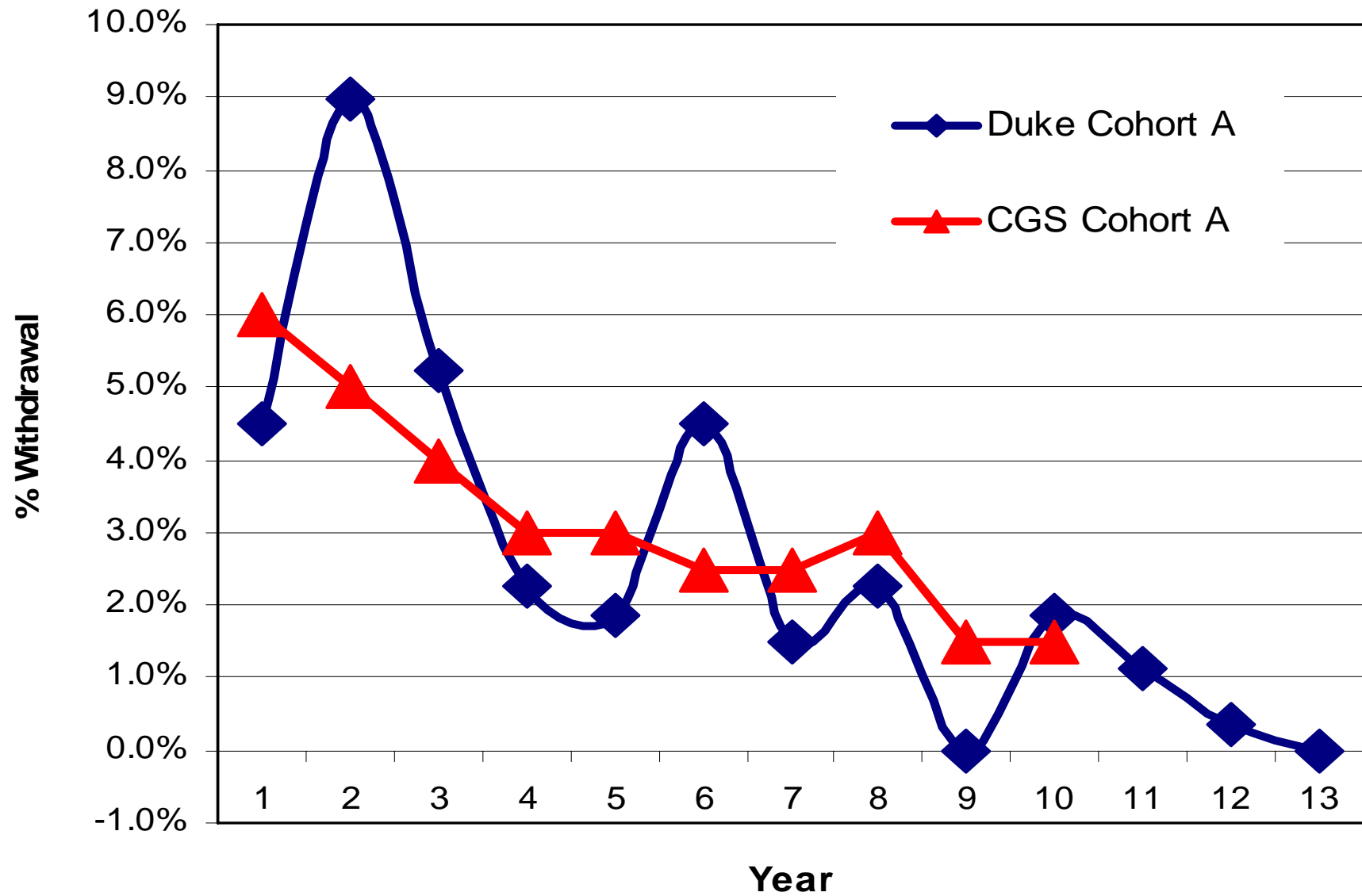
HUMANITIES: Ph.D. CONTINUATION



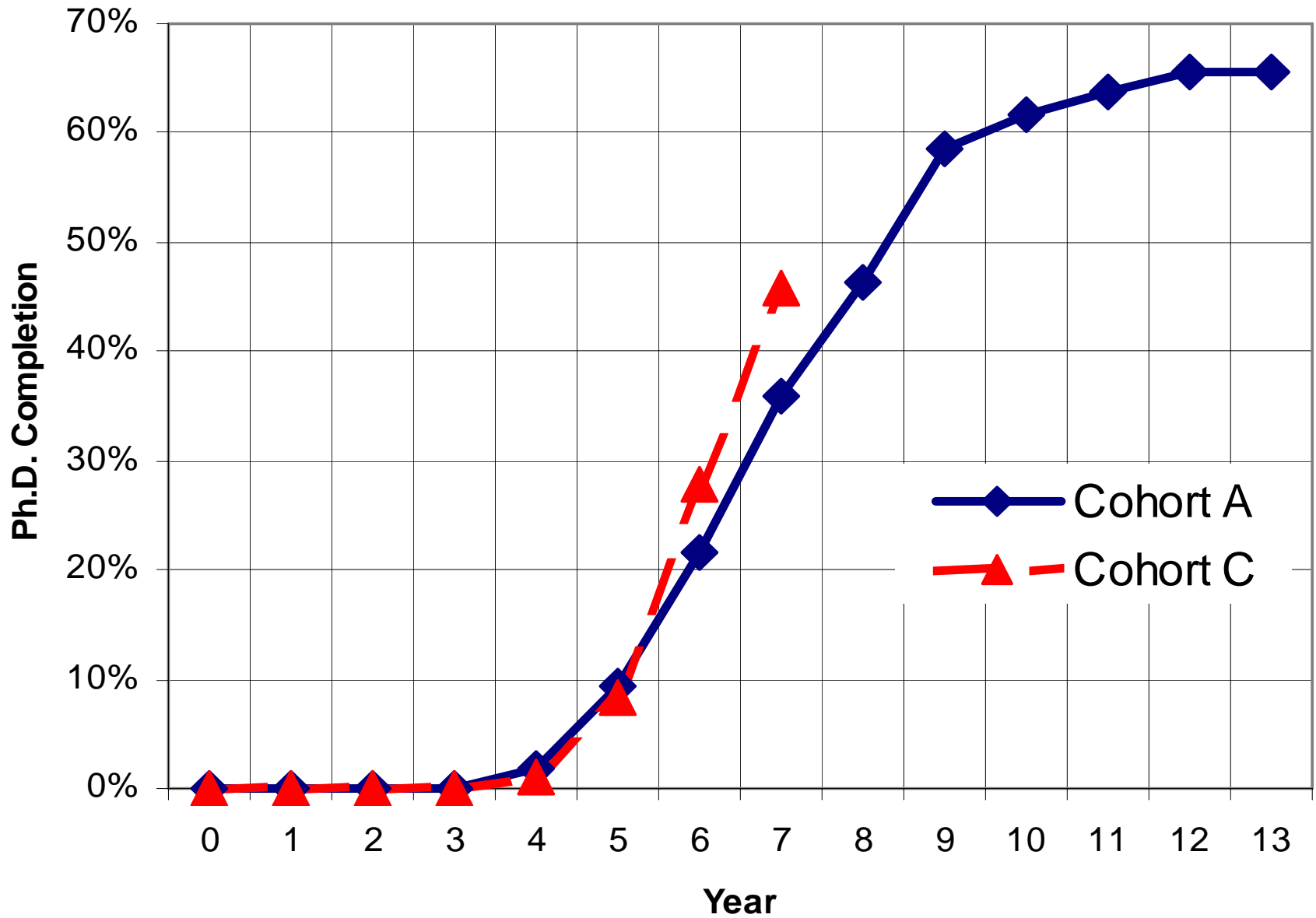
Humanities: Annual Rate of Completion of Ph.D. Program



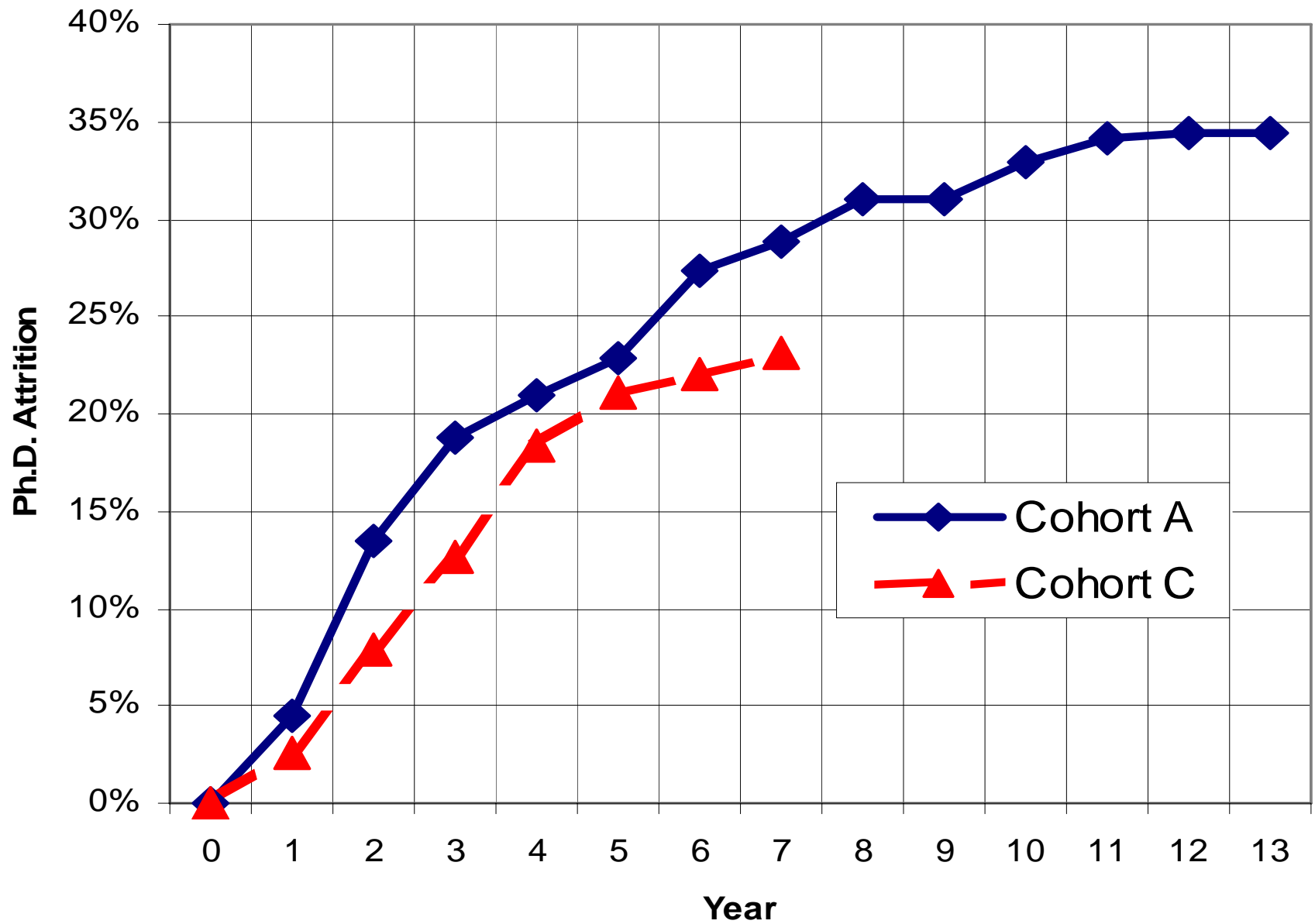
Humanities: Annual Rate of Attrition from Ph.D. Program



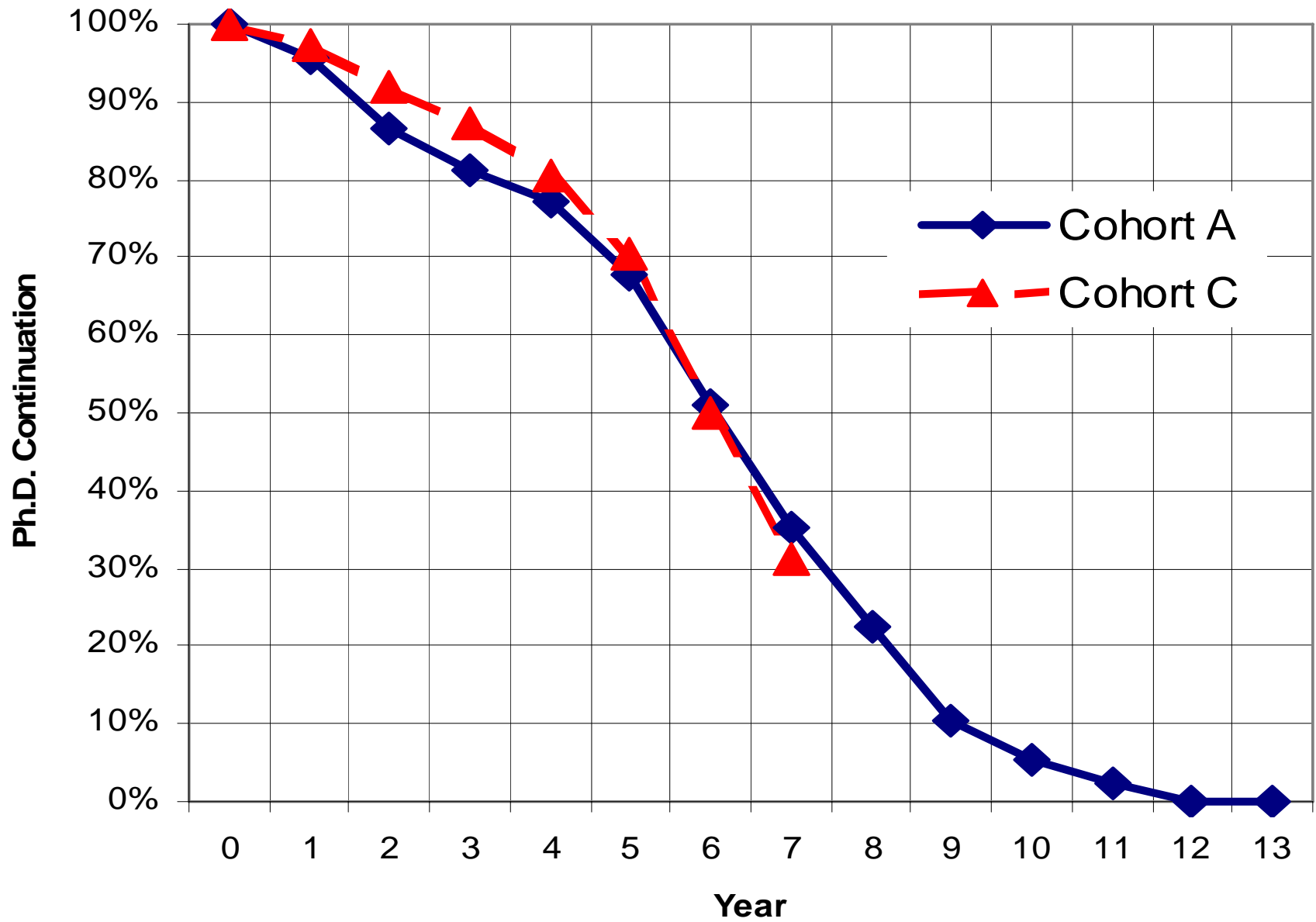
HUMANITIES: DUKE University Ph.D. Completion Rates for Cohorts A and C



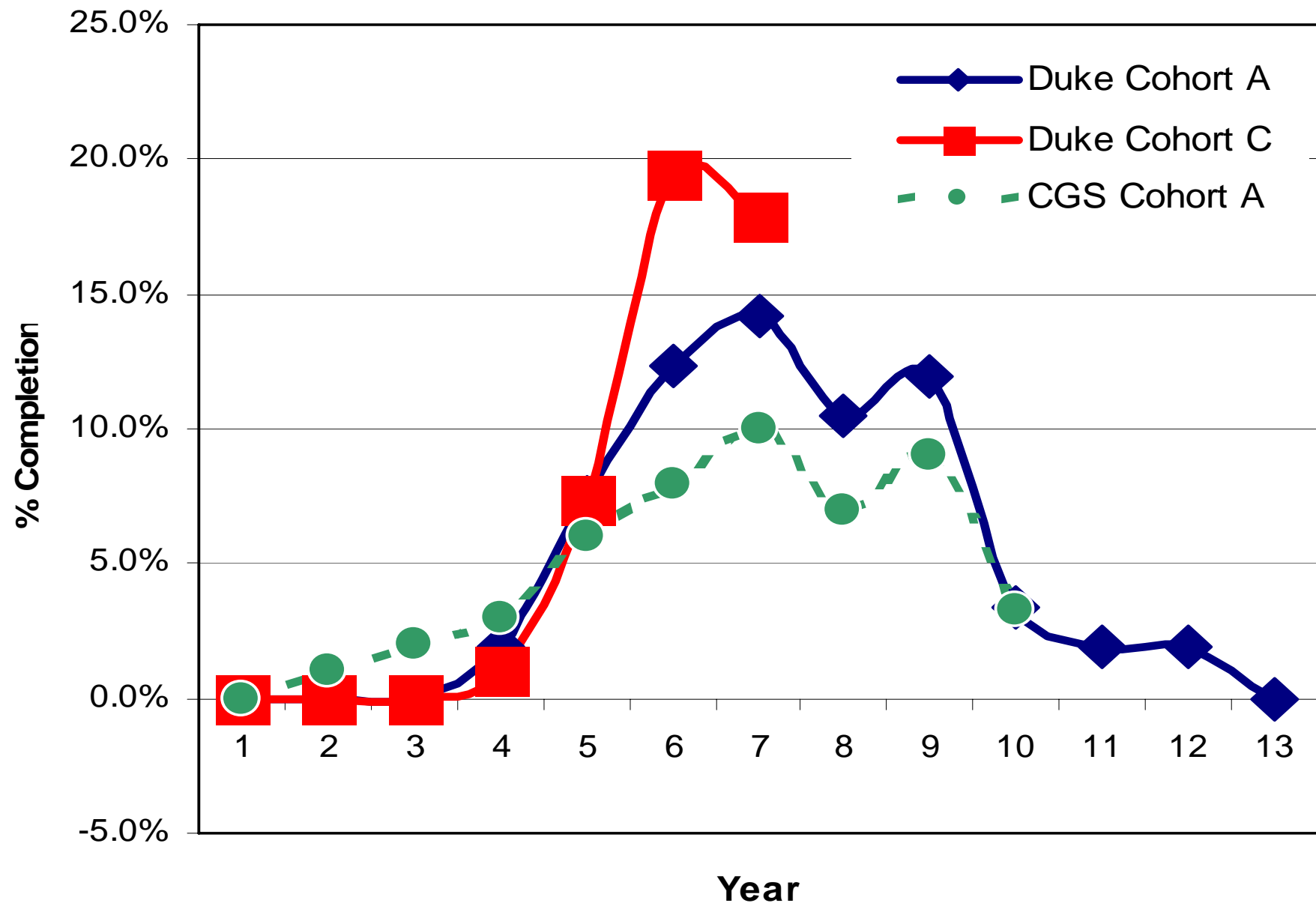
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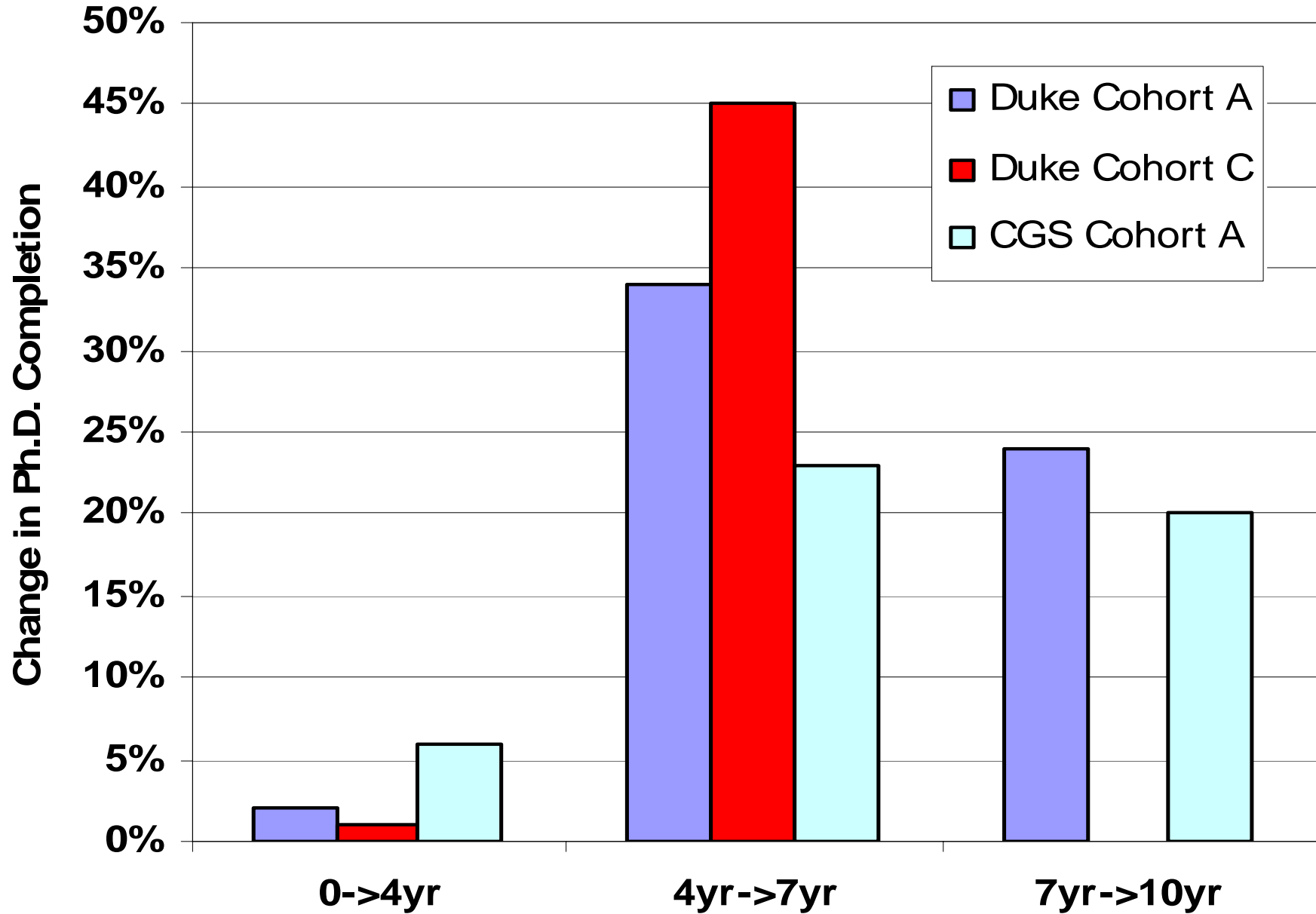
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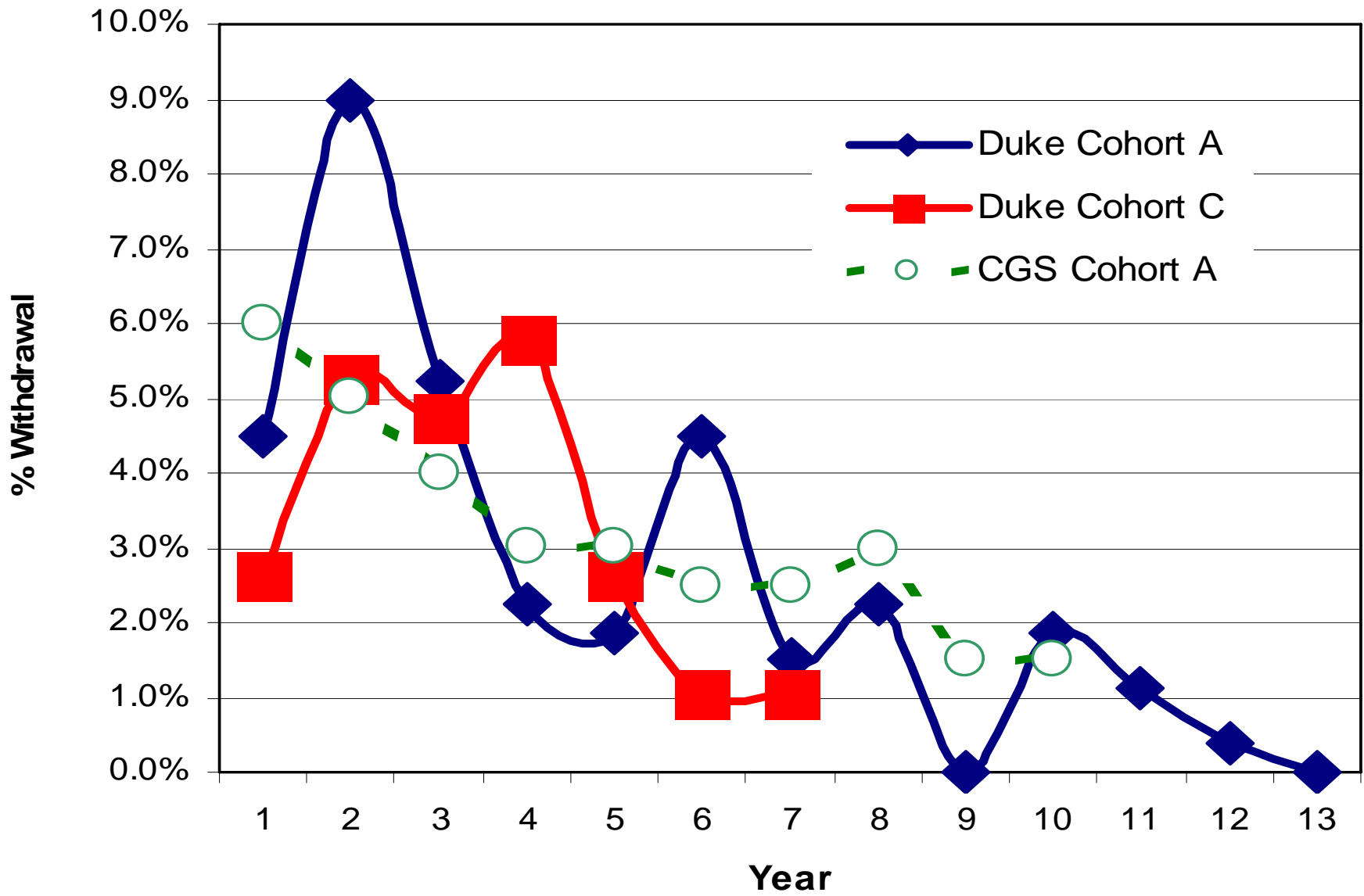
Humanities: Annual Rate of Completion of Ph.D. Program



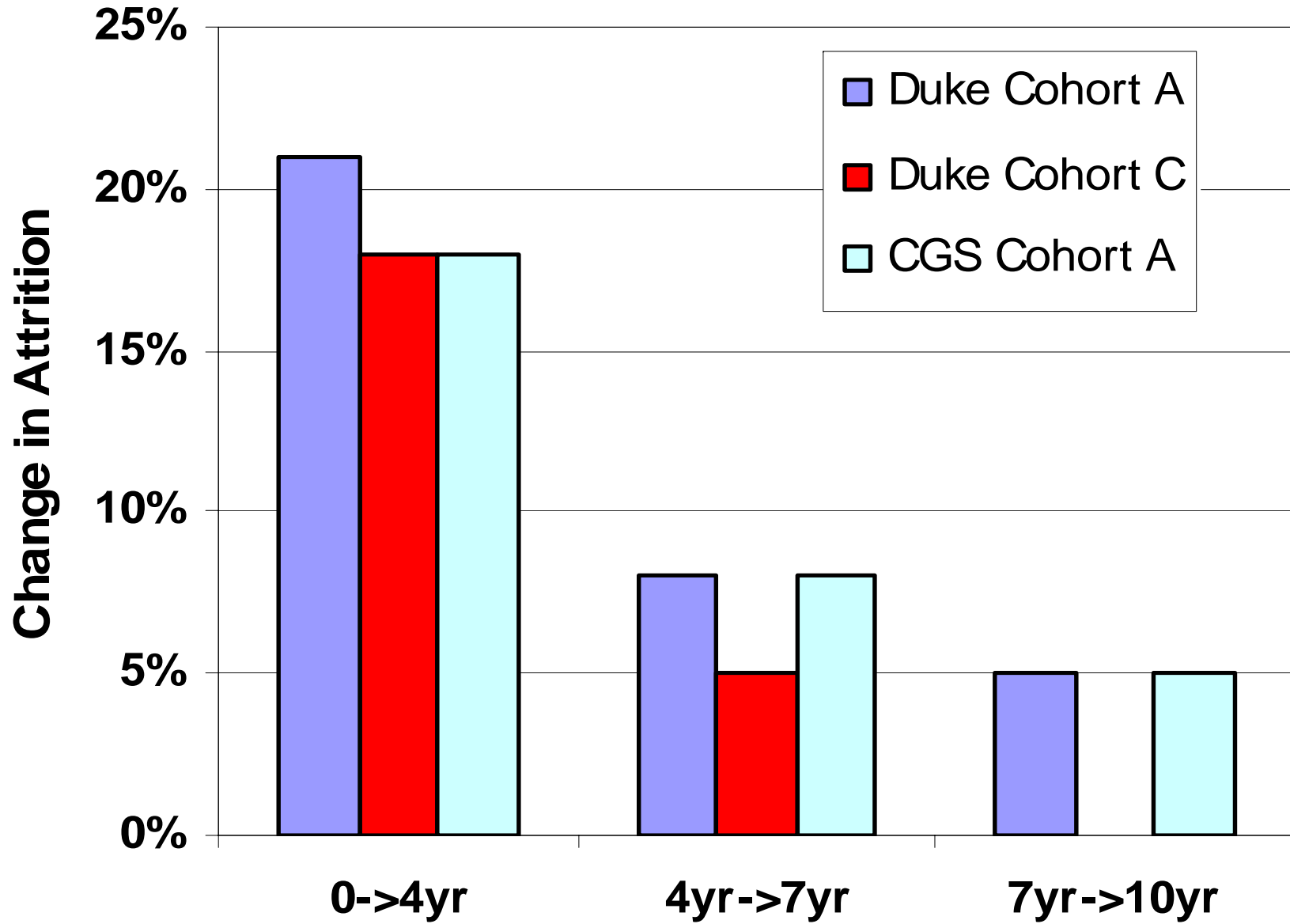
HUMANITIES Ph.D. COMPLETION: DUKE vs. CGS DATA



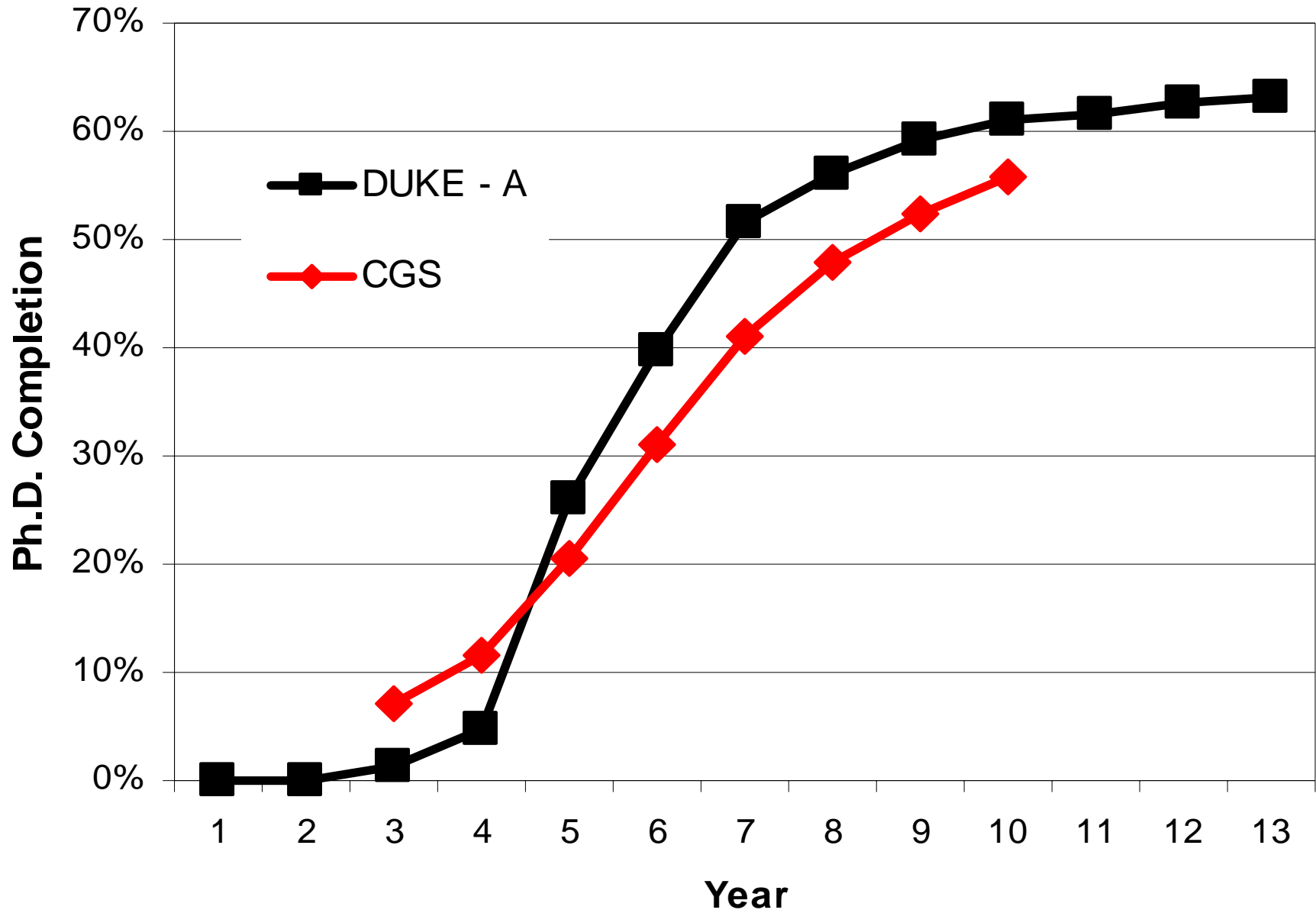
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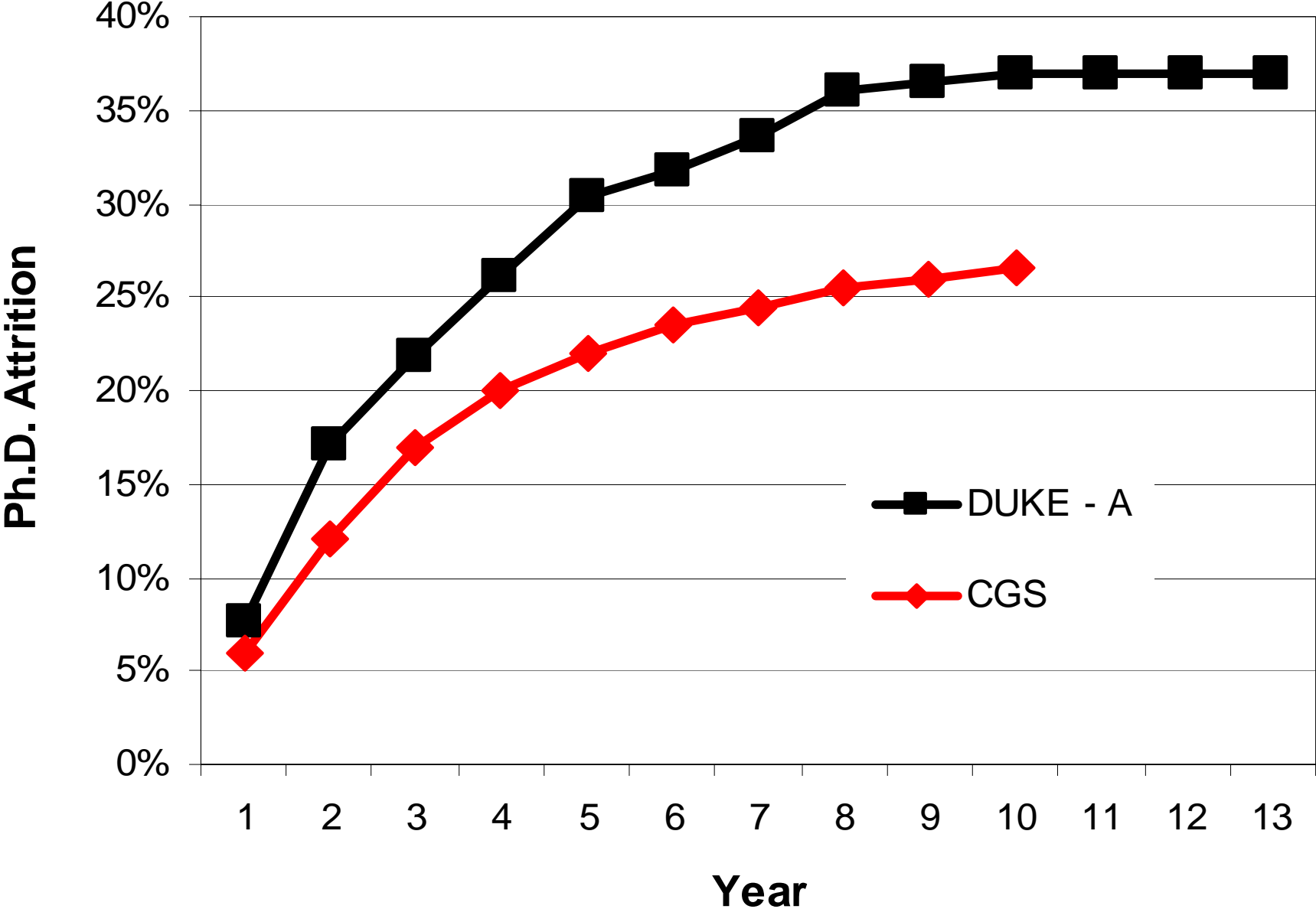
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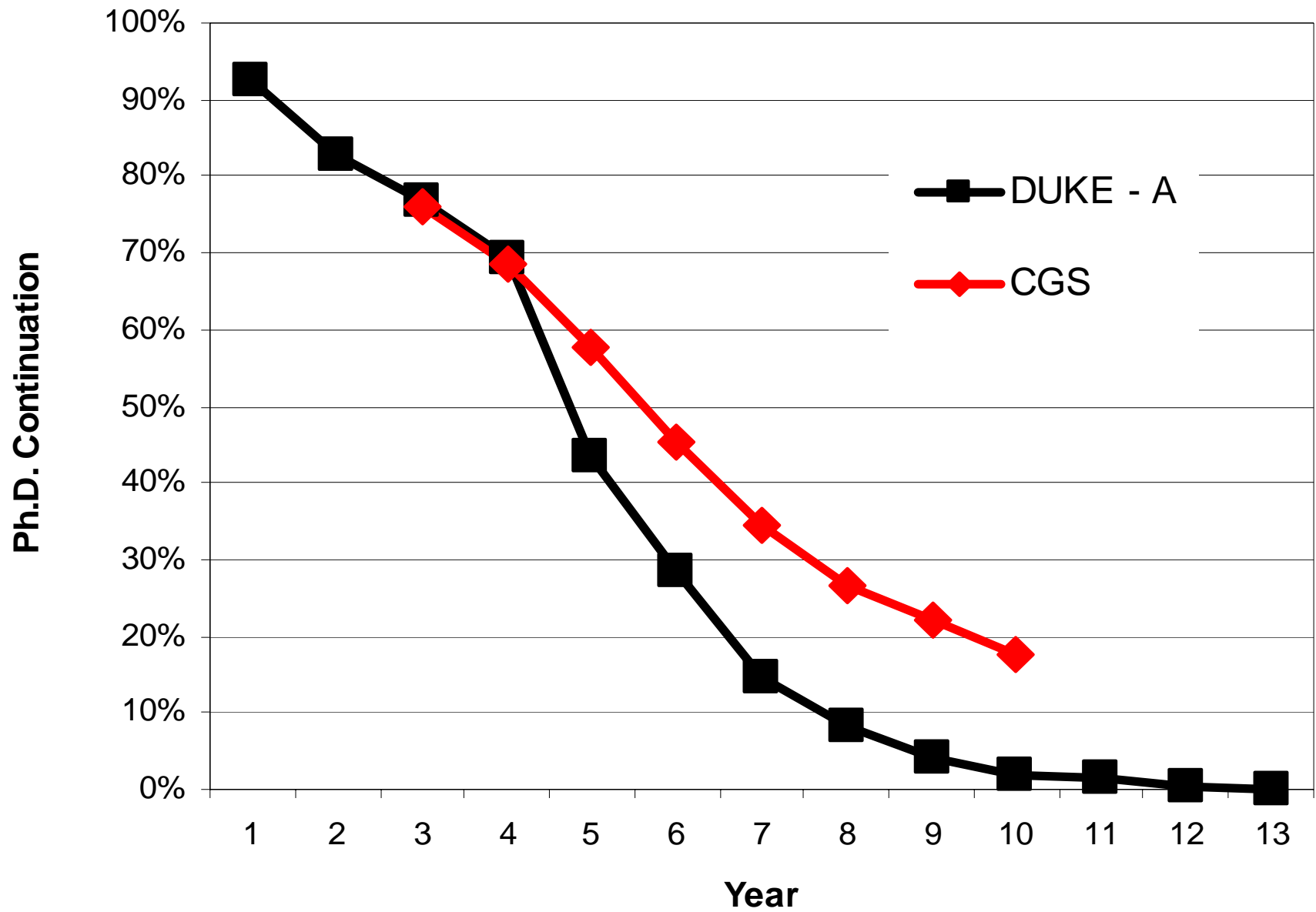
SOCIAL SCIENCES: Ph.D. COMPLETION



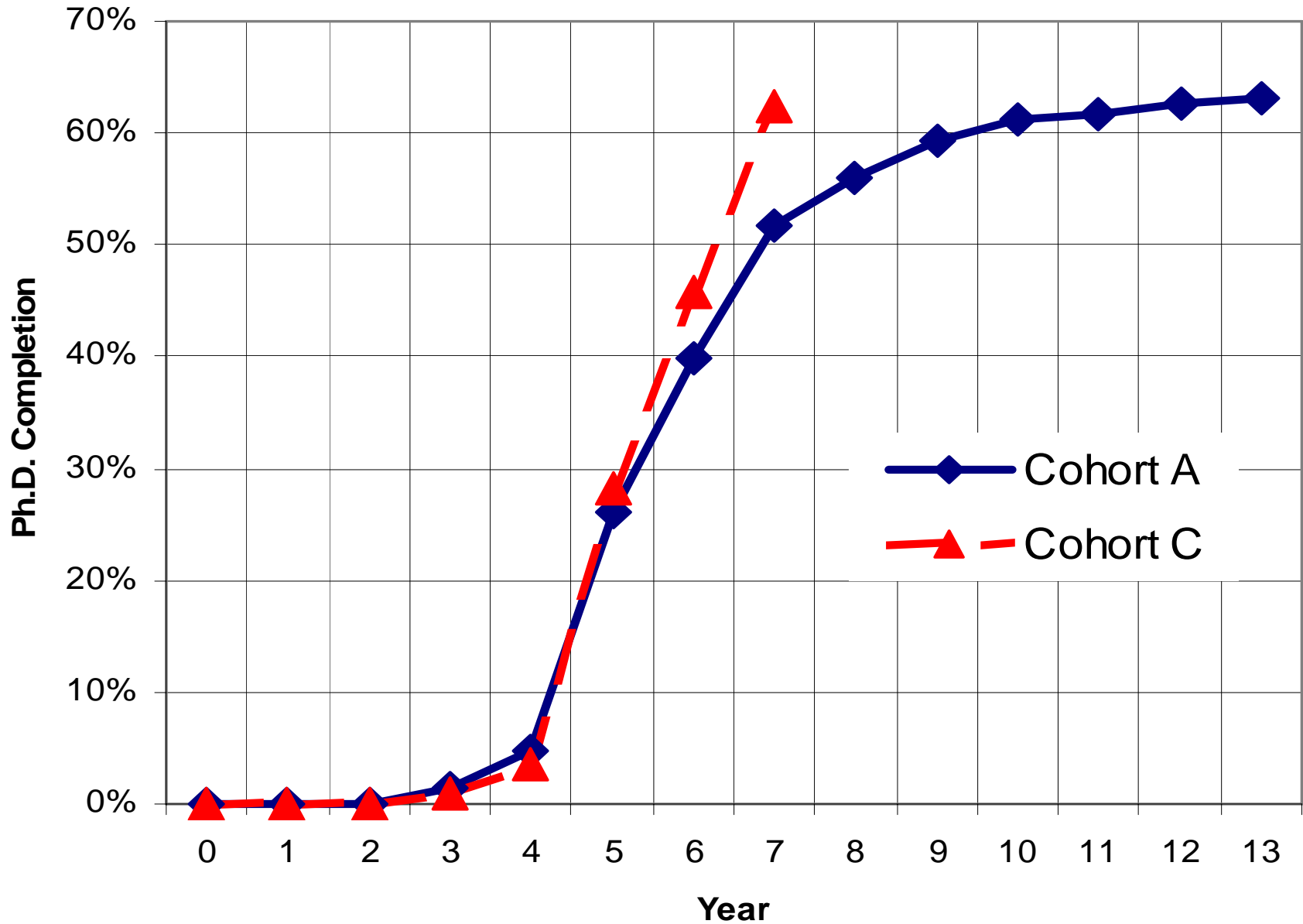
SOCIAL SCIENCES: Ph.D. ATTRITION



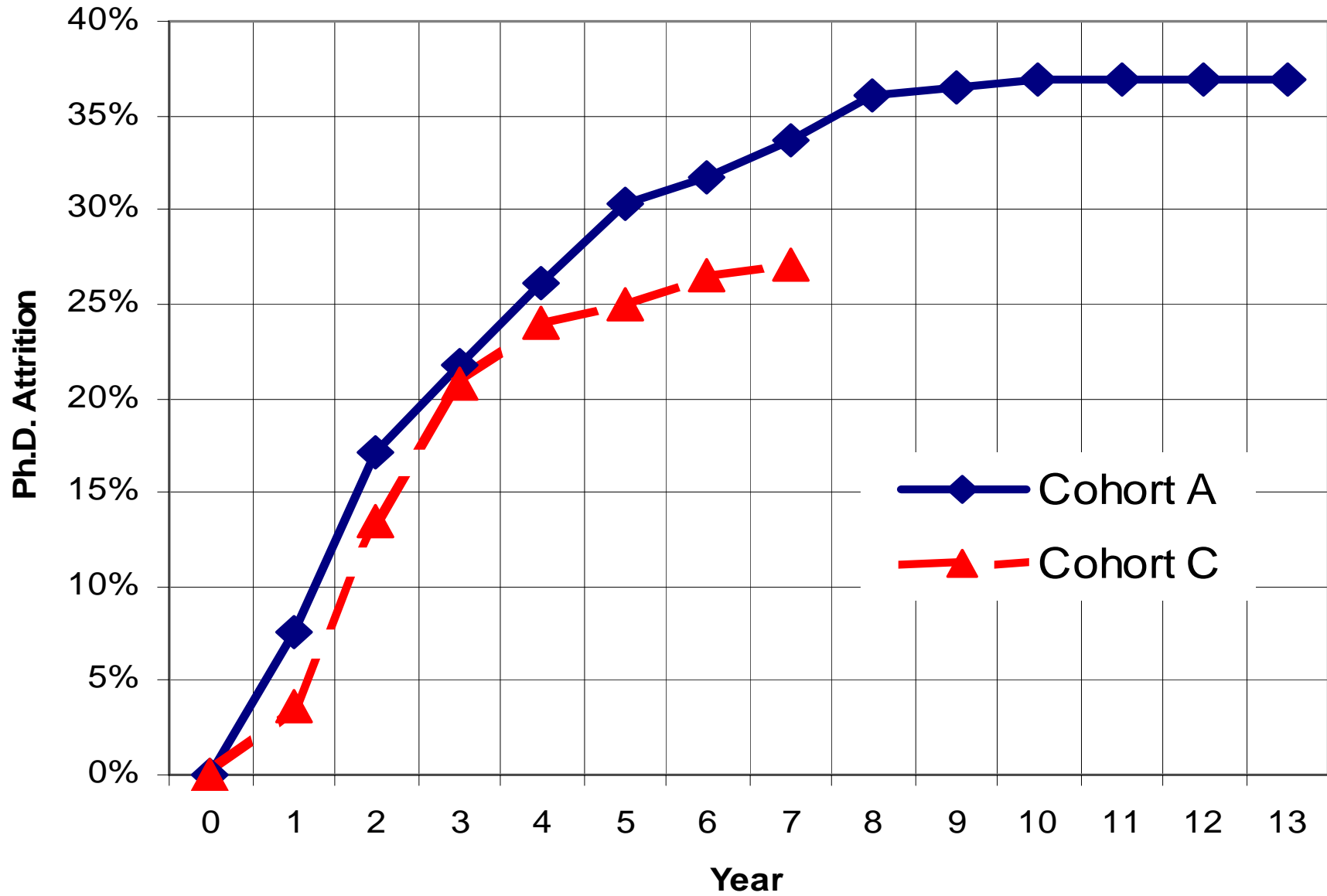
SOCIAL SCIENCES: Ph.D. CONTINUATION



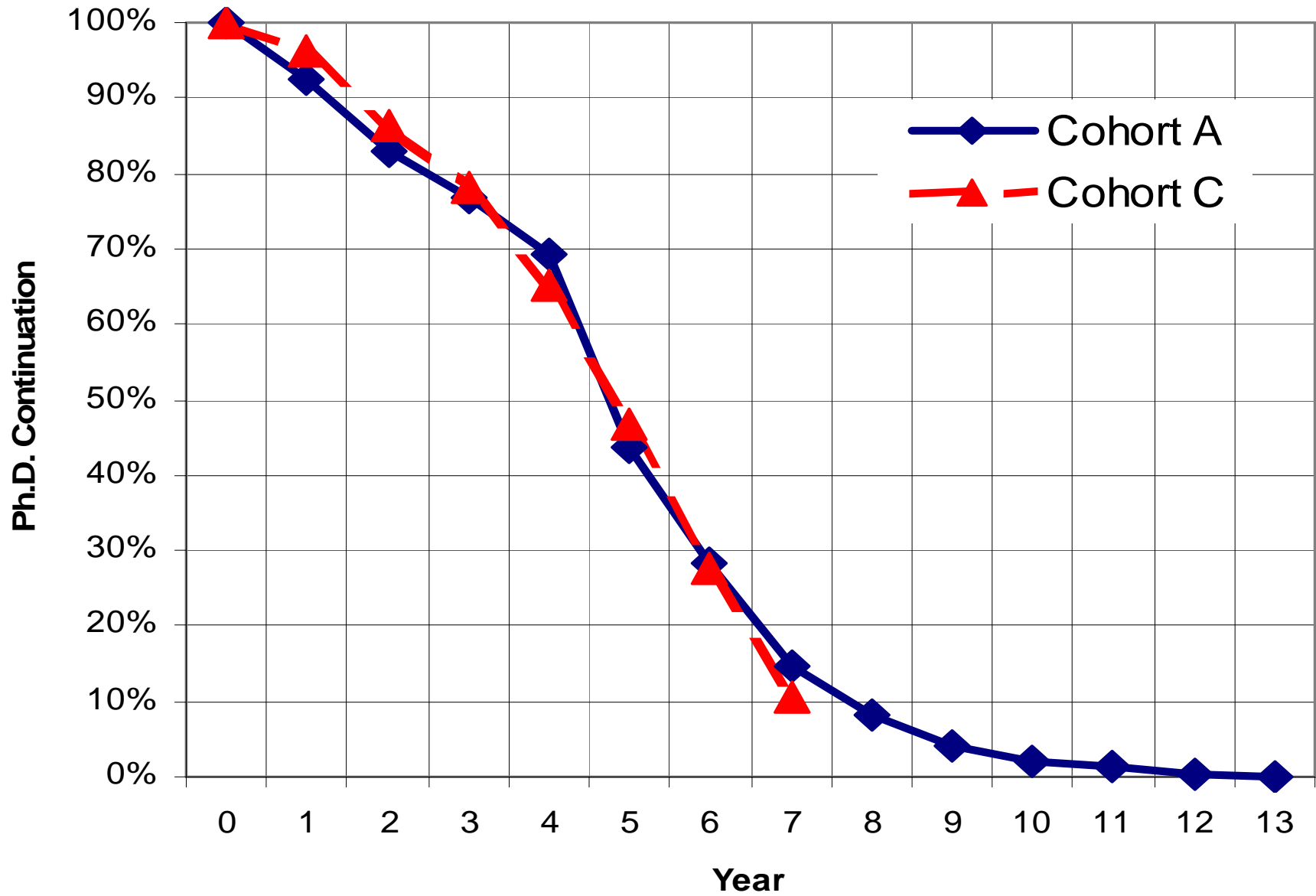
SOCIAL SCIENCES: DUKE University Ph.D. Completion Rates for Cohorts A and C



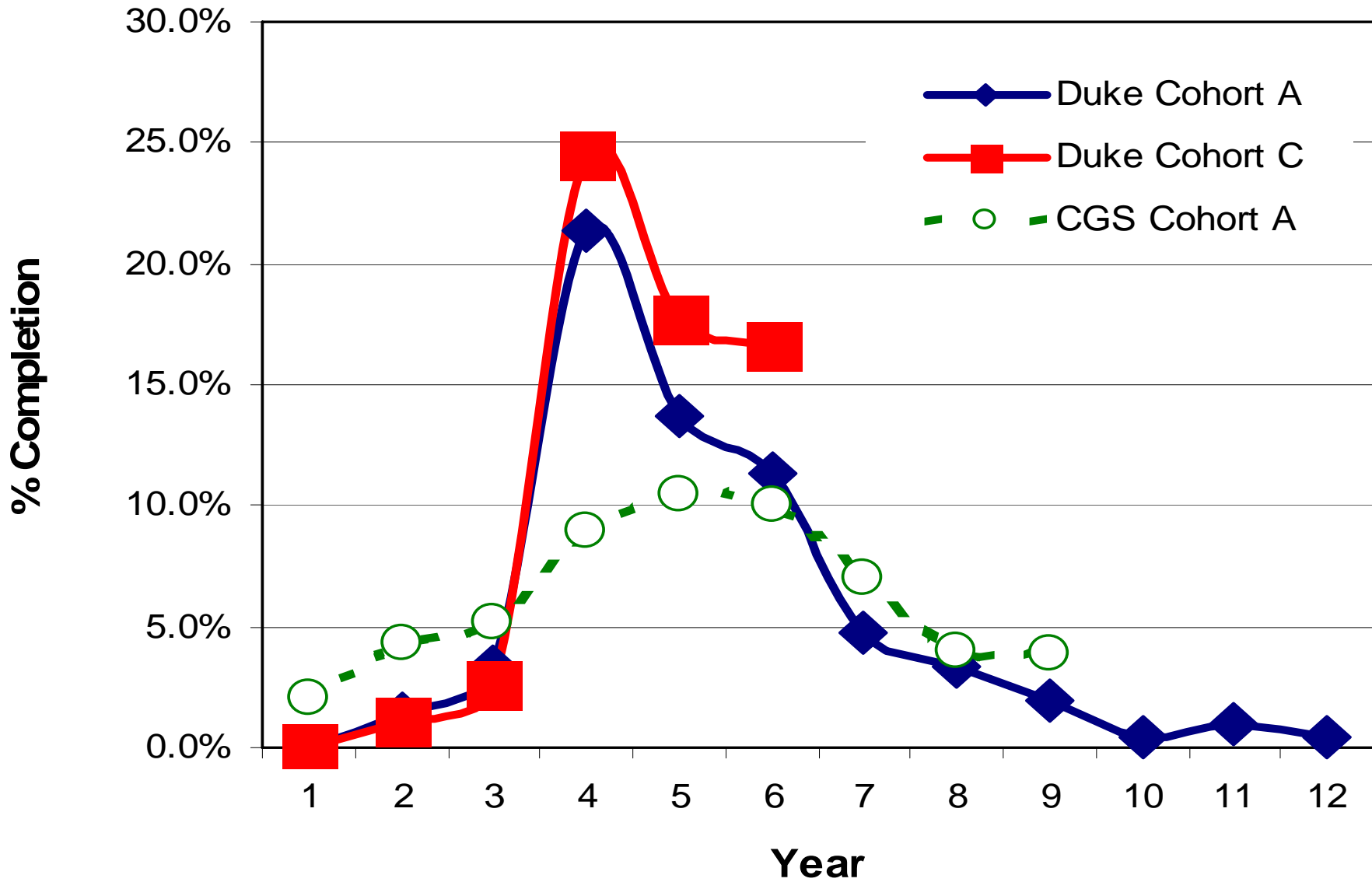
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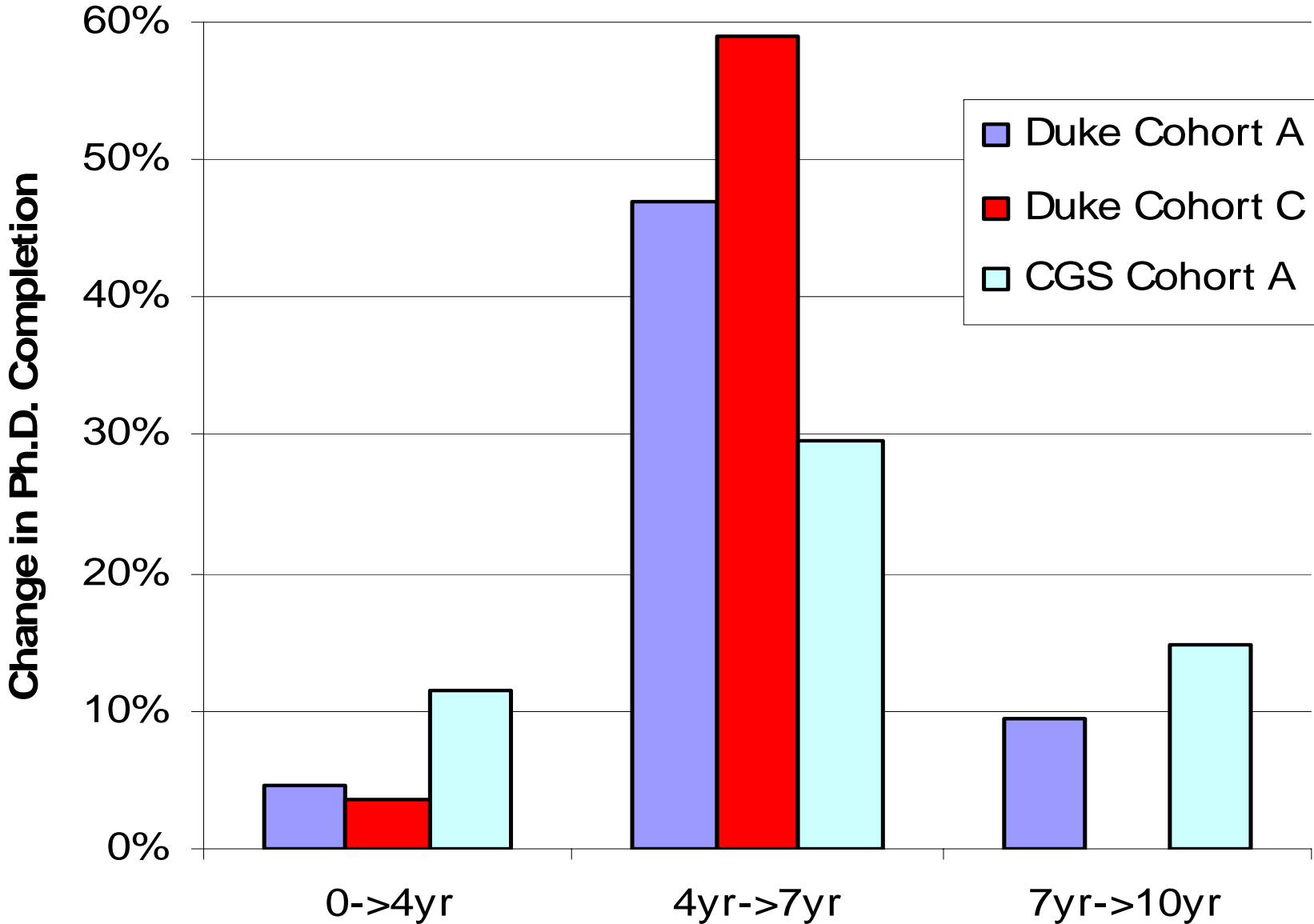
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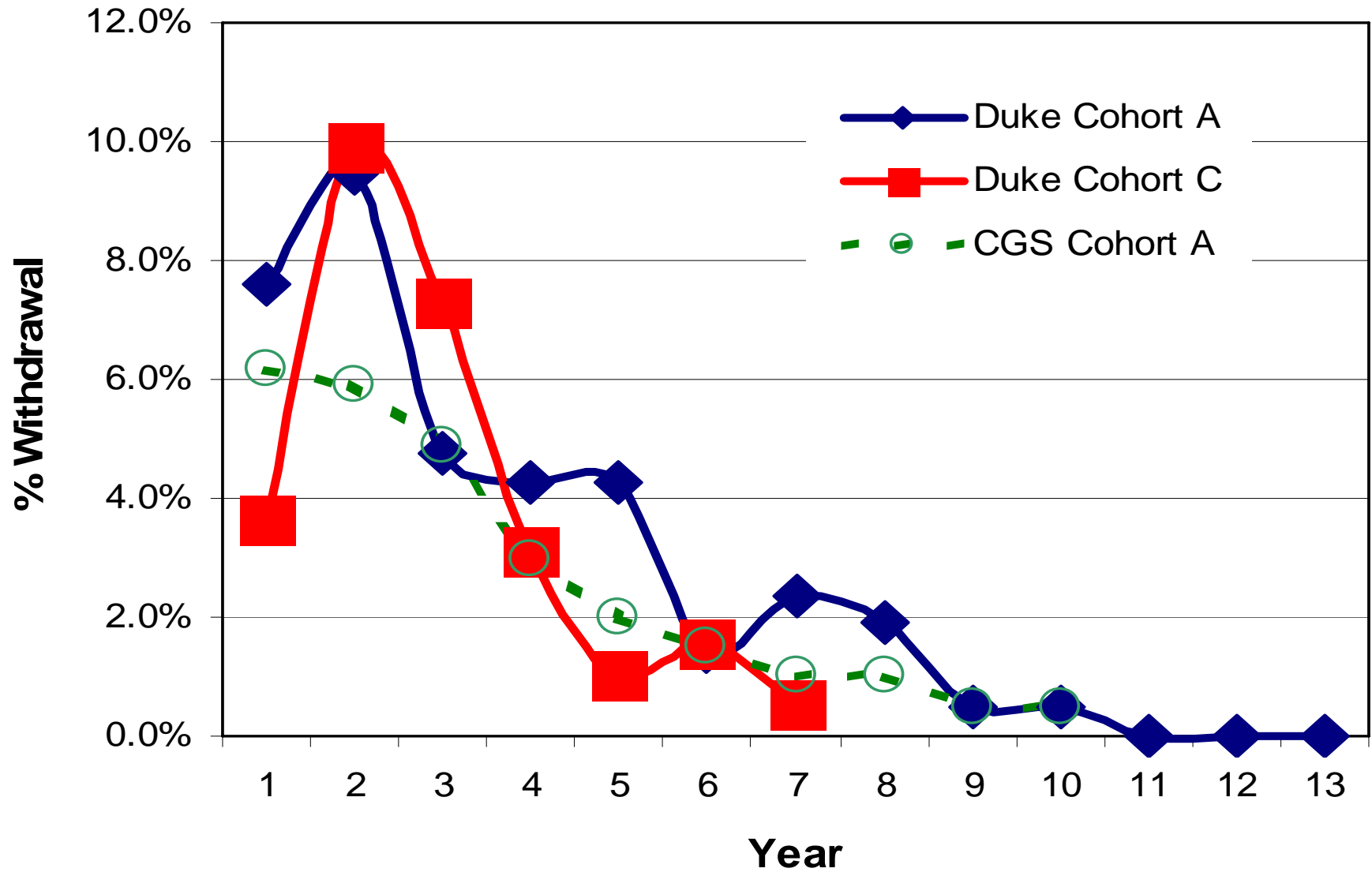
Social Sciences: Annual Rate of Completion of Ph.D. Program



SOCIAL SCIENCES Ph.D. COMPLETION: DUKE vs. CGS DATA



Social Sciences: Annual Rate of Attrition from Ph.D. Program



SOCIAL SCIENCES Ph.D. ATTRITION: DUKE vs. CGS DATA

