



KEN RESEARCH · METHODOLOGY

When should you hire your first salesperson?

The data, the methods, every number and every limitation behind the study.

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ABOUT THE DATA

This study uses Ken internal data: the company, people and web records Ken uses for sales and outreach, reused by Cristian Frunze for this study.

Aggregates only. Any group smaller than 50 people is suppressed, and no individual is named.

Figures 1 to 4 are the study page's charts, drawn from the same numbers. The methodology after them keeps the full tables.

SUMMARY

When should you hire your first salesperson?

Startups that grew past 100 people hired their first AE at 36 months, a year sooner than those that stayed small, but with 28 people on the team, not 11.

13 months

sooner: fast growers hired their first AE at a median 36 months, against 49 for companies that stayed under 100 (interval 10 to 15).

28 vs 11

people on the team when the first AE started, at companies that grew past 100 against companies that stayed small.

55%

of companies had a sales leadership title before their first AE. At a median team of 11, that is usually the first senior seller.

1.07

hazard ratio for reaching 100 employees after a first AE hire (interval 0.94 to 1.21). No sign the hire itself drives growth.

Data and method

Data	Ken internal data: the public work histories and company records Ken uses for sales and outreach, reused by Cristian Frunze for this study, plus SEC Form D filings for US fundraising. Work histories cover people currently in six English-speaking countries.
Sample	26,360 software companies whose rebuilt headcount reached 10 people: 2,048 grew past 100 employees and 24,312 did not.
Date range	Companies founded 2010 to 2020, followed to the April 2026 data snapshot.
Method	Pre-registered comparison of medians with bootstrap 95% intervals, and a quarterly survival model of reaching 100 employees, adjusted for size, age, founding year and industry. Headline numbers recomputed by a separate analysis.
Excluded	• Founders and interns, who are not counted as hires • Companies whose rebuilt headcount never reached 10 people • Role records with no start date, or that start before the founding year
Privacy	Aggregates only. Any group smaller than 50 people is suppressed, and no individual is named.

FIGURES

The study's charts

FIGURE 1

Fast growers made every first hire sooner

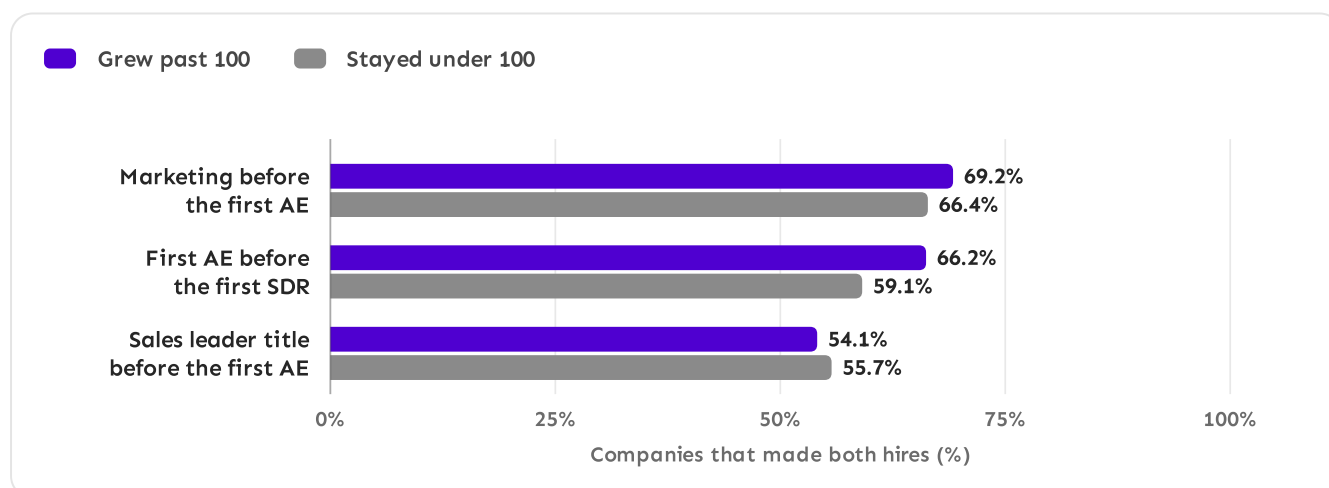


Company age when each first hire started, in months since the middle of the founding year. Dots are medians; lines span the middle half of companies (25th to 75th percentile).

Source: Ken internal data (company and career records Ken uses for sales and outreach), analysed by Cristian Frunze.

FIGURE 2

Marketing usually comes before the first AE

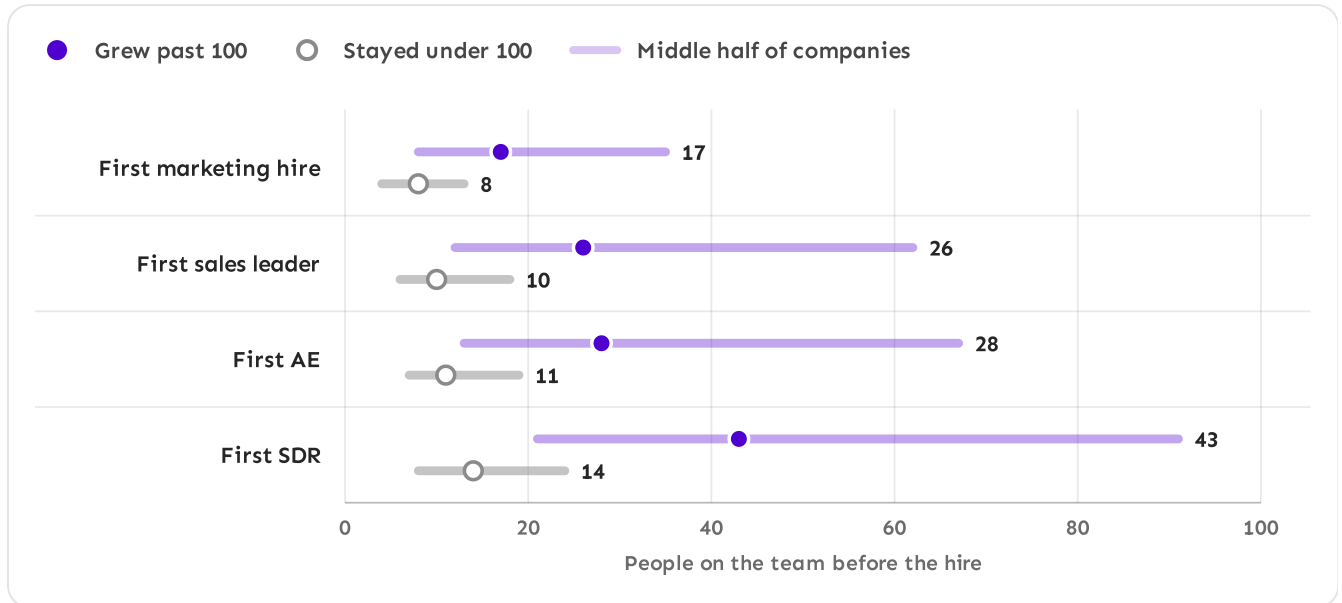


Among companies that made both hires, the share that made the first one strictly before the second. A sales leadership title is director, head of sales, VP or CRO.

Source: Ken internal data (company and career records Ken uses for sales and outreach), analysed by Cristian Frunze.

FIGURE 3

But they had more people on the team when they did

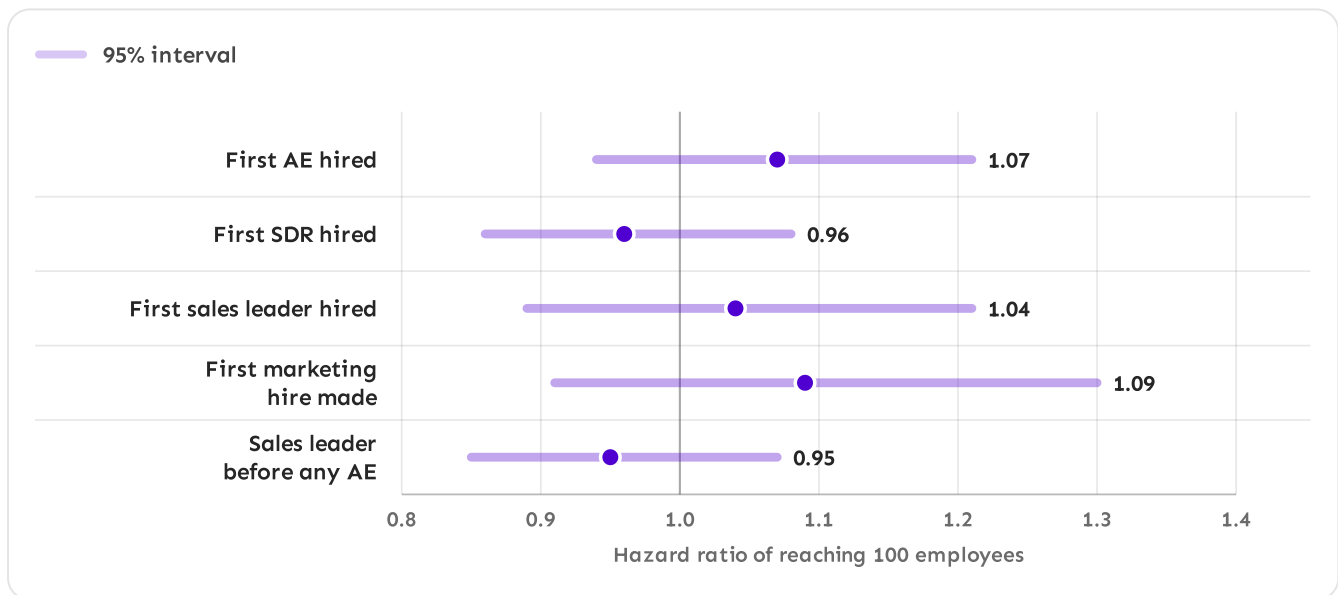


Headcount in the quarter before each first hire started, rebuilt from work histories. Dots are medians; lines span the middle half of companies (25th to 75th percentile).

Source: Ken internal data (company and career records Ken uses for sales and outreach), analysed by Cristian Frunze.

FIGURE 4

None of the first hires moved the odds of reaching 100



Hazard ratio of reaching 100 employees in the next quarter for companies that had made each hire, against companies of the same size, age, founding year and industry that had not. 1 means no difference; every 95% interval crosses it.

Source: Ken internal data (company and career records Ken uses for sales and outreach), analysed by Cristian Frunze.

The data, the methods and every number

Data snapshot April 2026; analysis October 2026.

Summary

We rebuilt the hiring history of 26,360 B2B software companies founded 2010-2020 whose team reached at least 10 people, using Ken internal data. For each company we found the first account executive (AE), first sales development rep (SDR), first sales leader and first marketing hire. We measured the company's age and headcount at each hire, and compared companies that grew past 100 employees (2,048) with companies that stayed under 100 (24,312).

Headline. Companies that grew past 100 hired their first AE a median 36 months after founding, against 49 months for companies that stayed under 100. That is a difference of 13 months, with a 95% bootstrap interval of 10 to 15 months. They had a median 28 people when the first AE started, against 11, a difference of 17 people (interval 15 to 19). In a survival model that holds company size, age, founding year and industry fixed, having hired a first AE was not linked with a higher chance of reaching 100 employees: hazard ratio 1.07, 95% interval 0.94 to 1.21.

Hypotheses and verdicts

The hypothesis, plan and pass/fail criteria were pre-registered on 2026-10-16, before any data was pulled.

Pre-registered hypothesis	Pass/fail rule	Result	Verdict
H1a. First marketing hire comes before the first AE	Wrong if the median first AE comes before the median first marketing hire	Median first marketing hire at 32 months and 8 people; first AE at 47 months and 12 people; 66.9% of companies with both hired marketing first	Supported
H1b. Median first AE at a headcount of about 8-20	Wrong if outside 5-30	12	Supported
H1c. First sales leader after headcount 20	Stated as an expectation	Median 11; 55.4% hired a sales leader title before any AE	Not supported
H2a. Companies that passed 100 made their first AE earlier in company age	Wrong if the difference is 3 months or less, or the interval includes 0	13 months earlier (interval 10 to 15)	Supported
H2b. ... but at a similar headcount	Wrong if the medians differ by more than 5 people	28 vs 11, 17 more people (interval 15 to 19)	Not supported
H3a. Having hired a first AE is linked with a higher hazard of reaching 100	Wrong if the 95% interval includes 1	1.07 (0.94 to 1.21); discrete-time model with company-clustered errors 1.11 (0.96 to 1.29)	Not supported
H3b. A sales leader hired before any AE is linked with a lower hazard	Wrong if not below 1	0.95 (0.85 to 1.07); discrete-time 0.96 (0.83 to 1.10)	Not supported (interval includes 1)

What the results say

- Order.** Marketing came first at two thirds of companies. The first AE came before the first SDR at 60.8% of companies with both. A sales leadership title came before the first AE at 55.4%. At a median team of 11, that title usually belongs to the first senior seller rather than a manager of sellers.
- Fast growers hire sooner and bigger.**

- Companies that grew past 100 made every first hire earlier in company age: marketing 23 vs 34 months, AE 36 vs 49, SDR 46 vs 55, sales leader 34 vs 46.
 - They did so with more people on the team: marketing 17 vs 8, AE 28 vs 11, SDR 43 vs 14, sales leader 26 vs 10.
 - They were also far more likely to have an AE title at all (78.2% vs 34.4%).
 - The gaps hold within each founding cohort, without IT services firms, for US-headquartered companies only, and for companies whose website is still in the latest web crawl (Table 4).
3. **No independent link with growth.** Once headcount in the previous quarter is in the model, none of the four first-hire indicators, and not the leader-before-AE order, shows a link with reaching 100 employees. That holds in both model forms, with 50 employees as the outcome, without companies whose first hires came before 2015, and for US companies with Form D funding added (Table 5). Headcount itself dominates the model, as expected for an outcome defined by headcount.
4. **Interpretation.** Companies that are growing fast hire everything sooner in calendar time, sales included, and have more people around when they do. The data supports "fast growers hire sellers early" as a description. It does not support "hiring a seller early makes you grow" as advice.

Results tables

Cells resting on fewer than 50 companies are suppressed. The Cox models use 26,133 of the 26,360 sample companies. The other 227 contribute no at-risk quarters: either they had already reached 100 by the quarter they entered the risk set, or they entered it in the final quarter of the data.

Table 1. Sample

Step	Companies
software-set company records founded 2010-2020	238,190
with at least one rebuilt-headcount quarter	148,509
analysis sample: rebuilt headcount reached 10	26,360
passed 100	2,048
stalled (never reached 100)	24,312
analysis sample, US HQ	17,764
analysis sample with a first ae	9,970
analysis sample with a first sdr	7,459
analysis sample with a first sales leader	12,611
analysis sample with a first marketing hire	18,995

Table 2a. Company age at the hire (months since 1 July of the founding year)

Group	Founded	Hire	Companies with hire	Share of group	Median	25th pct	75th pct
All	all	First AE	9,970	37.8%	47	25	77
All	all	First SDR	7,459	28.3%	54	32	82
All	all	First sales leader	12,611	47.8%	44	22	73
All	all	First marketing hire	18,995	72.1%	32	12	60
All	2010-2014	First AE	4,389	39.8%	60	32	98
All	2010-2014	First SDR	3,109	28.2%	75	44	111

Group	Founded	Hire	Companies with hire	Share of group	Median	25th pct	75th pct
All	2010-2014	First sales leader	5,527	50.1%	56	26	93
All	2010-2014	First marketing hire	8,050	72.9%	42	18	81
All	2015-2020	First AE	5,581	36.4%	40	22	62
All	2015-2020	First SDR	4,350	28.4%	44	26	64
All	2015-2020	First sales leader	7,084	46.2%	38	18	60
All	2015-2020	First marketing hire	10,945	71.4%	27	11	49
Grew past 100	all	First AE	1,601	78.2%	36	18	61
Grew past 100	all	First SDR	1,453	70.9%	46	28	71
Grew past 100	all	First sales leader	1,759	85.9%	34	16	57
Grew past 100	all	First marketing hire	1,983	96.8%	23	9	43
Grew past 100	2010-2014	First AE	877	80.5%	44	23	73
Grew past 100	2010-2014	First SDR	790	72.5%	57	35	89
Grew past 100	2010-2014	First sales leader	949	87.1%	39	20	68
Grew past 100	2010-2014	First marketing hire	1,068	98.0%	26	11	50
Grew past 100	2015-2020	First AE	724	75.6%	30	14	51
Grew past 100	2015-2020	First SDR	663	69.2%	37	21	57
Grew past 100	2015-2020	First sales leader	810	84.6%	28	13	47
Grew past 100	2015-2020	First marketing hire	915	95.5%	19	6	37
Stayed under 100	all	First AE	8,369	34.4%	49	27	79
Stayed under 100	all	First SDR	6,006	24.7%	55	33	85
Stayed under 100	all	First sales leader	10,852	44.6%	46	23	75
Stayed under 100	all	First marketing hire	17,012	70.0%	34	13	62
Stayed under 100	2010-2014	First AE	3,512	35.3%	66	36	104
Stayed under 100	2010-2014	First SDR	2,319	23.3%	84	48	117
Stayed under 100	2010-2014	First sales leader	4,578	46.0%	60	30	98
Stayed under 100	2010-2014	First marketing hire	6,982	70.2%	47	19	85
Stayed under 100	2015-2020	First AE	4,857	33.8%	42	24	63
Stayed under 100	2015-2020	First SDR	3,687	25.7%	46	27	66
Stayed under 100	2015-2020	First sales leader	6,274	43.7%	39	19	61
Stayed under 100	2015-2020	First marketing hire	10,030	69.8%	28	11	50

Table 2b. Headcount at the last quarter end before the hire (primary, pre-registered)

Group	Founded	Hire	Companies with hire	Share of group	Median	25th pct	75th pct
All	all	First AE	9,970	37.8%	12	7	22
All	all	First SDR	7,459	28.3%	16	9	31
All	all	First sales leader	12,611	47.8%	11	6	21
All	all	First marketing hire	18,995	72.1%	8	4	14
All	2010-2014	First AE	4,389	39.8%	13	7	24

Group	Founded	Hire	Companies with hire	Share of group	Median	25th pct	75th pct
All	2010-2014	First SDR	3,109	28.2%	19	10	36
All	2010-2014	First sales leader	5,527	50.1%	11	6	21
All	2010-2014	First marketing hire	8,050	72.9%	8	4	14
All	2015-2020	First AE	5,581	36.4%	12	7	21
All	2015-2020	First SDR	4,350	28.4%	15	8	27
All	2015-2020	First sales leader	7,084	46.2%	11	6	20
All	2015-2020	First marketing hire	10,945	71.4%	8	4	14
Grew past 100	all	First AE	1,601	78.2%	28	13	67
Grew past 100	all	First SDR	1,453	70.9%	43	21	91
Grew past 100	all	First sales leader	1,759	85.9%	26	12	62
Grew past 100	all	First marketing hire	1,983	96.8%	17	8	35
Grew past 100	2010-2014	First AE	877	80.5%	27	13	64
Grew past 100	2010-2014	First SDR	790	72.5%	45	23	93
Grew past 100	2010-2014	First sales leader	949	87.1%	24	11	58
Grew past 100	2010-2014	First marketing hire	1,068	98.0%	15	7	31
Grew past 100	2015-2020	First AE	724	75.6%	29	14	71
Grew past 100	2015-2020	First SDR	663	69.2%	41	18	86
Grew past 100	2015-2020	First sales leader	810	84.6%	28	13	66
Grew past 100	2015-2020	First marketing hire	915	95.5%	19	9	39
Stayed under 100	all	First AE	8,369	34.4%	11	7	19
Stayed under 100	all	First SDR	6,006	24.7%	14	8	24
Stayed under 100	all	First sales leader	10,852	44.6%	10	6	18
Stayed under 100	all	First marketing hire	17,012	70.0%	8	4	13
Stayed under 100	2010-2014	First AE	3,512	35.3%	11	7	20
Stayed under 100	2010-2014	First SDR	2,319	23.3%	15	9	27
Stayed under 100	2010-2014	First sales leader	4,578	46.0%	10	6	18
Stayed under 100	2010-2014	First marketing hire	6,982	70.2%	7	4	13
Stayed under 100	2015-2020	First AE	4,857	33.8%	11	7	19
Stayed under 100	2015-2020	First SDR	3,687	25.7%	13	8	22
Stayed under 100	2015-2020	First sales leader	6,274	43.7%	10	6	18
Stayed under 100	2015-2020	First marketing hire	10,030	69.8%	8	4	13

Table 2c. People already at the company in the hire month (check)

Group	Founded	Hire	Companies with hire	Share of group	Median	25th pct	75th pct
All	all	First AE	9,970	37.8%	12	7	23
All	all	First SDR	7,459	28.3%	17	9	31
All	all	First sales leader	12,611	47.8%	11	6	21
All	all	First marketing hire	18,995	72.1%	8	4	14

Group	Founded	Hire	Companies with hire	Share of group	Median	25th pct	75th pct
All	2010-2014	First AE	4,389	39.8%	13	7	24
All	2010-2014	First SDR	3,109	28.2%	19	10	37
All	2010-2014	First sales leader	5,527	50.1%	11	6	21
All	2010-2014	First marketing hire	8,050	72.9%	8	4	14
All	2015-2020	First AE	5,581	36.4%	12	7	22
All	2015-2020	First SDR	4,350	28.4%	15	9	28
All	2015-2020	First sales leader	7,084	46.2%	11	6	20
All	2015-2020	First marketing hire	10,945	71.4%	8	4	14
Grew past 100	all	First AE	1,601	78.2%	29	14	69
Grew past 100	all	First SDR	1,453	70.9%	44	22	93
Grew past 100	all	First sales leader	1,759	85.9%	27	12	63
Grew past 100	all	First marketing hire	1,983	96.8%	17	8	36
Grew past 100	2010-2014	First AE	877	80.5%	27	13	65
Grew past 100	2010-2014	First SDR	790	72.5%	45	23	96
Grew past 100	2010-2014	First sales leader	949	87.1%	24	12	58
Grew past 100	2010-2014	First marketing hire	1,068	98.0%	16	8	33
Grew past 100	2015-2020	First AE	724	75.6%	30	14	72
Grew past 100	2015-2020	First SDR	663	69.2%	42	20	90
Grew past 100	2015-2020	First sales leader	810	84.6%	30	14	69
Grew past 100	2015-2020	First marketing hire	915	95.5%	20	10	40
Stayed under 100	all	First AE	8,369	34.4%	11	7	19
Stayed under 100	all	First SDR	6,006	24.7%	14	8	24
Stayed under 100	all	First sales leader	10,852	44.6%	10	6	18
Stayed under 100	all	First marketing hire	17,012	70.0%	8	4	13
Stayed under 100	2010-2014	First AE	3,512	35.3%	11	7	19
Stayed under 100	2010-2014	First SDR	2,319	23.3%	15	9	27
Stayed under 100	2010-2014	First sales leader	4,578	46.0%	10	6	18
Stayed under 100	2010-2014	First marketing hire	6,982	70.2%	8	4	13
Stayed under 100	2015-2020	First AE	4,857	33.8%	11	7	19
Stayed under 100	2015-2020	First SDR	3,687	25.7%	13	8	23
Stayed under 100	2015-2020	First sales leader	6,274	43.7%	10	6	18
Stayed under 100	2015-2020	First marketing hire	10,030	69.8%	8	4	13

Table 3. Order of first hires (companies that made both)

Group	First	Then	Companies	Share first strictly before	Same month
All	First marketing hire	First AE	8,764	66.9%	2.3%
All	First AE	First SDR	5,687	60.8%	2.7%
All	First AE	First sales leader	7,703	41.6%	3.1%

Group	First	Then	Companies	Share first strictly before	Same month
All	First sales leader	First AE	7,703	55.4%	3.1%
All	First SDR	First AE	5,687	36.6%	2.7%
All	First marketing hire	First sales leader	10,780	61.4%	2.1%
Grew past 100	First marketing hire	First AE	1,585	69.2%	3.2%
Grew past 100	First AE	First SDR	1,350	66.2%	2.7%
Grew past 100	First AE	First sales leader	1,534	42.4%	3.5%
Grew past 100	First sales leader	First AE	1,534	54.1%	3.5%
Grew past 100	First SDR	First AE	1,350	31.1%	2.7%
Grew past 100	First marketing hire	First sales leader	1,739	64.1%	2.1%
Stayed under 100	First marketing hire	First AE	7,179	66.4%	2.1%
Stayed under 100	First AE	First SDR	4,337	59.1%	2.7%
Stayed under 100	First AE	First sales leader	6,169	41.4%	2.9%
Stayed under 100	First sales leader	First AE	6,169	55.7%	2.9%
Stayed under 100	First SDR	First AE	4,337	38.3%	2.7%
Stayed under 100	First marketing hire	First sales leader	9,041	60.9%	2.1%

Table 4. Grew past 100 vs stayed under 100 (difference in medians, 95% bootstrap interval, 2,000 resamples)

Sample	Hire	Measure	Companies (grew)	Median (grew)	Companies (stayed)	Median (stayed)	Difference	95% interval
all software set	First AE	age, months	1,601	36	8,369	49	-13	-15 to -10
all software set	First AE	headcount, quarter end	1,601	28	8,369	11	+17	15 to 19
all software set	First AE	headcount, hire month	1,601	29	8,369	11	+18	16 to 20
all software set	First SDR	age, months	1,453	46	6,006	55	-9	-12 to -7
all software set	First SDR	headcount, quarter end	1,453	43	6,006	14	+29	26 to 32
all software set	First SDR	headcount, hire month	1,453	44	6,006	14	+30	26 to 33
all software set	First sales leader	age, months	1,759	34	10,852	46	-12	-14 to -10
all software set	First sales leader	headcount, quarter end	1,759	26	10,852	10	+16	14 to 18
all software set	First sales leader	headcount, hire month	1,759	27	10,852	10	+17	15 to 19
all software set	First marketing hire	age, months	1,983	23	17,012	34	-11	-12 to -9
all software set	First marketing hire	headcount, quarter end	1,983	17	17,012	8	+9	8 to 10

Sample	Hire	Measure	Companies (grew)	Median (grew)	Companies (stayed)	Median (stayed)	Difference	95% interval
all software set	First marketing hire	headcount, hire month	1,983	17	17,012	8	+9	9 to 10
excluding IT services	First AE	age, months	1,348	36	6,037	47	-11	-13.5 to -8
excluding IT services	First AE	headcount, quarter end	1,348	26	6,037	12	+14	12.5 to 16
excluding IT services	First AE	headcount, hire month	1,348	27	6,037	12	+15	13 to 17
founded 2015-2020	First AE	age, months	724	30	4,857	42	-12	-14 to -10
founded 2015-2020	First AE	headcount, quarter end	724	29	4,857	11	+18	15 to 22
founded 2015-2020	First AE	headcount, hire month	724	30	4,857	11	+19	16 to 24
founded 2010-2014	First AE	age, months	877	44	3,512	66	-22	-26 to -19
founded 2010-2014	First AE	headcount, quarter end	877	27	3,512	11	+16	14 to 19
founded 2010-2014	First AE	headcount, hire month	877	27	3,512	11	+16	14 to 19
US HQ	First AE	age, months	1,314	35	6,062	47	-12	-14.5 to -10
US HQ	First AE	headcount, quarter end	1,314	27	6,062	11	+16	14 to 18
US HQ	First AE	headcount, hire month	1,314	28	6,062	11	+17	15 to 19
domain live in latest crawl	First AE	age, months	1,544	37	8,151	49	-12	-15 to -10
domain live in latest crawl	First AE	headcount, quarter end	1,544	28	8,151	11	+17	15 to 20
domain live in latest crawl	First AE	headcount, hire month	1,544	29	8,151	11	+18	16 to 20
domain not in latest crawl	First AE	age, months	57	30	218	44	-14	-27 to -2.5
domain not in latest crawl	First AE	headcount, quarter end	57	22	218	12	+10	3 to 20.025
domain not in latest crawl	First AE	headcount, hire month	57	24	218	11	+13	3 to 25

Table 5. Time to 100 employees: hazard ratios

Model	Term	Hazard ratio	95% interval	p	Standard errors	Companies	Events
main: time to 100	First AE hired	1.07	0.94 to 1.21	0.300	model-based (clustered SE not finite)	26,133	1,964

Model	Term	Hazard ratio	95% interval	p	Standard errors	Companies	Events
main: time to 100	First SDR hired	0.96	0.86 to 1.08	0.515	model-based (clustered SE not finite)	26,133	1,964
main: time to 100	First sales leader hired	1.04	0.89 to 1.21	0.652	model-based (clustered SE not finite)	26,133	1,964
main: time to 100	First marketing hire made	1.09	0.91 to 1.30	0.362	model-based (clustered SE not finite)	26,133	1,964
main: time to 100	Sales leader hired before any AE	0.95	0.85 to 1.07	0.412	model-based (clustered SE not finite)	26,133	1,964
main: time to 100	Log headcount, previous quarter	4.53e+05	2.77e+05 to 7.41e+05	0.000	model-based (clustered SE not finite)	26,133	1,964
main: time to 100 (discrete-time)	First AE hired	1.11	0.96 to 1.29	0.154	robust clustered by company	26,133	1,964
main: time to 100 (discrete-time)	First SDR hired	0.96	0.83 to 1.12	0.643	robust clustered by company	26,133	1,964
main: time to 100 (discrete-time)	First sales leader hired	1.06	0.87 to 1.29	0.549	robust clustered by company	26,133	1,964
main: time to 100 (discrete-time)	First marketing hire made	1.17	0.92 to 1.48	0.197	robust clustered by company	26,133	1,964
main: time to 100 (discrete-time)	Sales leader hired before any AE	0.96	0.83 to 1.10	0.562	robust clustered by company	26,133	1,964
main: time to 100 (discrete-time)	Log headcount, previous quarter	3.28e+06	1.41e+06 to 7.64e+06	0.000	robust clustered by company	26,133	1,964
US HQ with Form D funding	First AE hired	1.03	0.89 to 1.19	0.730	model-based (clustered SE not finite)	17,608	1,545
US HQ with Form D funding	First SDR hired	0.96	0.84 to 1.09	0.498	model-based (clustered SE not finite)	17,608	1,545
US HQ with Form D funding	First sales leader hired	1.09	0.91 to 1.31	0.348	model-based (clustered SE not finite)	17,608	1,545
US HQ with Form D funding	First marketing hire made	1.17	0.95 to 1.45	0.139	model-based (clustered SE not finite)	17,608	1,545
US HQ with Form D funding	Sales leader hired before any AE	0.95	0.84 to 1.08	0.456	model-based (clustered SE not finite)	17,608	1,545
US HQ with Form D funding	Log headcount, previous quarter	3.49e+05	2.01e+05 to 6.03e+05	0.000	model-based (clustered SE not finite)	17,608	1,545
US HQ with Form D funding	Form D raise filed	0.73	0.24 to 2.23	0.578	model-based (clustered SE not finite)	17,608	1,545

Model	Term	Hazard ratio	95% interval	p	Standard errors	Companies	Events
US HQ with Form D funding	Log cumulative Form D amount	1.02	0.96 to 1.09	0.536	model-based (clustered SE not finite)	17,608	1,545
US HQ with Form D funding (discrete-time)	First AE hired	1.07	0.91 to 1.28	0.409	robust clustered by company	17,608	1,545
US HQ with Form D funding (discrete-time)	First SDR hired	0.95	0.80 to 1.13	0.574	robust clustered by company	17,608	1,545
US HQ with Form D funding (discrete-time)	First sales leader hired	1.13	0.90 to 1.41	0.292	robust clustered by company	17,608	1,545
US HQ with Form D funding (discrete-time)	First marketing hire made	1.24	0.95 to 1.63	0.114	robust clustered by company	17,608	1,545
US HQ with Form D funding (discrete-time)	Sales leader hired before any AE	0.97	0.83 to 1.13	0.691	robust clustered by company	17,608	1,545
US HQ with Form D funding (discrete-time)	Log headcount, previous quarter	2.56e+06	1.01e+06 to 6.5e+06	0.000	robust clustered by company	17,608	1,545
US HQ with Form D funding (discrete-time)	Form D raise filed	0.66	0.17 to 2.54	0.549	robust clustered by company	17,608	1,545
US HQ with Form D funding (discrete-time)	Log cumulative Form D amount	1.03	0.95 to 1.11	0.520	robust clustered by company	17,608	1,545
robustness: time to 50	First AE hired	1.06	0.99 to 1.15	0.113	model-based (clustered SE not finite)	26,034	4,665
robustness: time to 50	First SDR hired	1.05	0.97 to 1.12	0.235	model-based (clustered SE not finite)	26,034	4,665
robustness: time to 50	First sales leader hired	0.97	0.88 to 1.07	0.589	model-based (clustered SE not finite)	26,034	4,665
robustness: time to 50	First marketing hire made	0.96	0.89 to 1.05	0.390	model-based (clustered SE not finite)	26,034	4,665
robustness: time to 50	Sales leader hired before any AE	1.03	0.94 to 1.12	0.571	model-based (clustered SE not finite)	26,034	4,665
robustness: time to 50	Log headcount, previous quarter	1.98e+05	1.47e+05 to 2.66e+05	0.000	model-based (clustered SE not finite)	26,034	4,665
robustness: time to 50 (discrete-time)	First AE hired	1.08	0.99 to 1.18	0.101	robust clustered by company	26,034	4,665
robustness: time to 50 (discrete-time)	First SDR hired	1.07	0.98 to 1.17	0.128	robust clustered by company	26,034	4,665
robustness: time to 50 (discrete-time)	First sales leader hired	0.98	0.87 to 1.10	0.731	robust clustered by company	26,034	4,665
robustness: time to 50 (discrete-time)	First marketing hire made	0.97	0.88 to 1.07	0.550	robust clustered by company	26,034	4,665
robustness: time to 50 (discrete-time)	Sales leader hired before any AE	1.02	0.91 to 1.13	0.755	robust clustered by company	26,034	4,665

Model	Term	Hazard ratio	95% interval	p	Standard errors	Companies	Events
robustness: time to 50 (discrete-time)	Log headcount, previous quarter	1.09e+06	7.09e+05 to 1.68e+06	0.000	robust clustered by company	26,034	4,665
robustness: drop first hires before 2015	First AE hired	1.11	0.95 to 1.29	0.196	model-based (clustered SE not finite)	22,647	1,354
robustness: drop first hires before 2015	First SDR hired	0.97	0.84 to 1.11	0.639	model-based (clustered SE not finite)	22,647	1,354
robustness: drop first hires before 2015	First sales leader hired	1.09	0.90 to 1.31	0.386	model-based (clustered SE not finite)	22,647	1,354
robustness: drop first hires before 2015	First marketing hire made	1.10	0.90 to 1.35	0.345	model-based (clustered SE not finite)	22,647	1,354
robustness: drop first hires before 2015	Sales leader hired before any AE	0.95	0.82 to 1.10	0.491	model-based (clustered SE not finite)	22,647	1,354
robustness: drop first hires before 2015	Log headcount, previous quarter	2.36e+05	1.35e+05 to 4.11e+05	0.000	model-based (clustered SE not finite)	22,647	1,354
robustness: drop first hires before 2015 (discrete-time)	First AE hired	1.14	0.95 to 1.36	0.159	robust clustered by company	22,647	1,354
robustness: drop first hires before 2015 (discrete-time)	First SDR hired	0.98	0.82 to 1.18	0.859	robust clustered by company	22,647	1,354
robustness: drop first hires before 2015 (discrete-time)	First sales leader hired	1.17	0.93 to 1.47	0.170	robust clustered by company	22,647	1,354
robustness: drop first hires before 2015 (discrete-time)	First marketing hire made	1.17	0.92 to 1.50	0.207	robust clustered by company	22,647	1,354
robustness: drop first hires before 2015 (discrete-time)	Sales leader hired before any AE	0.95	0.80 to 1.12	0.518	robust clustered by company	22,647	1,354
robustness: drop first hires before 2015 (discrete-time)	Log headcount, previous quarter	1.43e+06	5.29e+05 to 3.88e+06	0.000	robust clustered by company	22,647	1,354

Table 6. Proportional hazards checks, main model

Term	Check	Statistic	p
First AE hired	Schoenfeld residuals vs log time	rho -0.125	0.0000
First SDR hired	Schoenfeld residuals vs log time	rho -0.073	0.0013
First sales leader hired	Schoenfeld residuals vs log time	rho -0.206	0.0000
First marketing hire made	Schoenfeld residuals vs log time	rho -0.216	0.0000
Sales leader hired before any AE	Schoenfeld residuals vs log time	rho -0.235	0.0000
Log headcount, previous quarter	Schoenfeld residuals vs log time	rho 0.264	0.0000
First AE hired	interaction with log time (discrete model)	coef -0.010	0.9399
First SDR hired	interaction with log time (discrete model)	coef 0.017	0.8908
First sales leader hired	interaction with log time (discrete model)	coef -0.240	0.1661
First marketing hire made	interaction with log time (discrete model)	coef -0.102	0.5617

Term	Check	Statistic	p
Sales leader hired before any AE	interaction with log time (discrete model)	coef -0.066	0.6538
Log headcount, previous quarter	interaction with log time (discrete model)	coef 0.305	0.0002

Table 7. Early-hire titles (first 10 non-founder people per company)

Group	People	Companies	Unclassified (other or missing)	Share	Vague titles	Share vague
All	262,530	26,343	90,220	34.4%	13,567	5.2%
Grew past 100	20,460	2,048	7,656	37.4%	1,389	6.8%
Stayed under 100	242,070	24,295	82,564	34.1%	12,178	5.0%

Table 8. Early-hire titles by function (functions with at least 50 people)

Function	People	Share
other	90,189	34.4%
software engineering	55,888	21.3%
consulting	17,685	6.7%
marketing	15,608	5.9%
partnerships and business development	9,441	3.6%
other engineering	9,311	3.5%
general sales	8,823	3.4%
student or intern	7,660	2.9%
customer support	6,400	2.4%
business operations	6,260	2.4%
data and analytics	5,574	2.1%
recruiting and HR	5,573	2.1%
product	4,335	1.7%
customer success	4,057	1.5%
account executive	3,842	1.5%
account management	3,279	1.2%
sales engineering	2,510	1.0%
SDR/BDR	1,809	0.7%
growth marketing	1,649	0.6%
revenue operations	1,511	0.6%
demand generation	509	0.2%
other GTM roles	277	0.1%
marketing operations	251	0.1%

Table 9. Processing counts

Step	Count
Work-history roles read for headcount	555,053,752

Step	Count
Roles at sample companies	3,835,966
Dropped: no start date	127,520
Dropped: no end date and not current	115
Roles used for headcount	3,708,331
Sales and marketing roles at sample companies (first-hire step)	1,608,374
First-hire step, dropped: no start date	17,189
First-hire step, dropped: before founding year	42,022
First-hire step, dropped: founder or intern	90,603
Sample companies with a domain	212,737
... of which in the latest web crawl	207,571

Data

Ken internal data. Ken's dataset of public professional profiles, work histories and company records. Each profile lists the person's roles with title, employer, and start and end month. Each company record carries an industry label, a founding year, a headquarters location and a website domain. The profile data covers people whose current country is the United States, the United Kingdom, Canada, Australia, Ireland or New Zealand. Earlier roles can be anywhere. Profiles were last refreshed between November 2025 and April 2026.

SEC Form D. US companies raising money under Regulation D file a Form D with the Securities and Exchange Commission, usually within 15 days of the first sale. The SEC publishes every filing as quarterly data sets. We used every quarter from 2008 Q1 to 2026 Q3 and removed investment funds, special purpose vehicles and non-US issuers. We then matched each issuer to a company record by legal name and state. Form D carries no website, so name and state are the only link.

Ken's web archive. We used the latest crawl only to check whether each company's website domain is still being crawled. That check feeds one robustness split.

Sample

Companies whose record has a software industry label (software development; IT services and IT consulting; technology, information and internet; computer and network security; data infrastructure and analytics; and five smaller software product labels) and a founding year from 2010 to 2020. Of those, we kept companies whose headcount, rebuilt from work histories, reached at least 10 people in some quarter. Smaller companies have no team in which to make a "first hire".

Companies that have since shut down stay in the sample. Their former employees still list them in their work histories, so a dead company's early hires and headcount can be rebuilt. This limits survivorship bias, but does not remove it (see Limitations).

Definitions

- **First AE:** the earliest start month of any role at the company titled as an account executive.
- **First SDR:** the earliest start month of a sales or business development representative role.

- **First sales leader:** the earliest start month of a director, head of, VP or chief level role in sales, account management or revenue operations, or a chief revenue, sales or commercial officer.
- **First marketing hire:** the earliest start month of any marketing, demand generation, growth marketing or marketing operations role.
- Titles are classified by the same fixed rule set used across Ken Research studies. Founders and interns never count as a first hire. Roles that start before 1 January of the founding year are ignored.
- **Company age at a hire:** months from 1 July of the founding year to the hire's start month. Company records give the year only, so mid-year keeps the worst-case error at six months.
- **Headcount:** the number of distinct people with a role at the company that covers a quarter end. A role covers a date when it started on or before it and ended on or after it, or is current. **Headcount before a hire** is the headcount at the last quarter end before the hire month. A month-precision version (people already at the company in the hire month) is reported as a check.
- **Grew past 100:** rebuilt headcount reached 100 at some quarter end up to 2026 Q1. **Stayed under 100:** never did. Every sample company was at least six years old in 2026.

Methods

1. **Distributions.** For each first hire, the median and the 25th and 75th percentiles of company age and headcount at the hire, among companies that made that hire. Shown for all companies, by founding cohort (2010-2014, 2015-2020) and by outcome group.
2. **Order of hires.** Among companies that made both hires in a pair, the share where one came strictly before the other.
3. **Headline comparison.** The difference in median company age and median headcount at the first AE between companies that grew past 100 and companies that stayed under it, with a 95% bootstrap interval (2,000 resamples of companies within each group).
4. **Survival model.** A Cox proportional hazards model of the time from founding to 100 employees. A company enters the risk set once its headcount first reaches 10, and leaves when it reaches 100 or at 2026 Q1. Each first hire is a time-varying indicator that switches on the quarter after the hire, so a hire only counts from when it happened. This avoids crediting companies that survived long enough to hire with a growth effect. Controls: headcount in the previous quarter (log), founding year, and industry group (as strata). Standard errors are clustered by company. A second model adds Form D funding for US companies: whether the company had filed a Form D raise by the previous quarter, and the log of the cumulative amount raised. A discrete-time version of each model (complementary log-log, quarterly) is reported next to it.
5. **Checks.** Proportional hazards tested with Schoenfeld residuals against log time. Robustness:
 - 50 employees instead of 100 as the outcome;
 - dropping companies whose first hires fall before 2015;
 - splitting companies whose domain appears in the latest web crawl from those whose domain doesn't;
 - excluding IT services companies;
 - US companies only.
6. **Privacy.** Only aggregates are reported. Any cell with fewer than 50 companies or 50 people is suppressed.

The hypothesis, plan and pass/fail criteria were pre-registered before any data was pulled.

Limitations

- **Self-reported histories.** People leave short jobs off their profiles and add new jobs late. Early employees who left long ago and deleted their profiles are missing, so rebuilt headcount undercounts, most of all for older years and smaller companies.
- **Six countries.** Only people whose current profile country is one of six English-speaking countries are in the data. A company's staff elsewhere are missing from its headcount, and a first hire made abroad can be missed.
- **Titles.** Early hires often have vague titles ("founding team", "operations", "generalist"). A person who sold under such a title is not counted as an AE. The share of early titles the rules could not classify is reported.
- **Title edits.** When someone is promoted, some people edit the old title instead of adding a role, so an early AE can show up only as a later manager or leader.
- **Survivorship.** Dead companies appear only through former employees who still have active profiles, so they are thinner in the data than live ones.
- **Funding.** Form D covers only US issuers using a Regulation D exemption, and many small raises are never filed. "No Form D" means no recorded filing, not "never raised". Name matching misses renamed companies.
- **Correlation, not cause.** The survival model shows which hiring patterns are linked with reaching 100 employees, controlling for size, age, industry and funding. It cannot show that hiring earlier causes growth. Companies that already see demand both hire sellers and grow.
- **Industry labels.** "Software" is a self-chosen label on the company record. IT services firms and agencies are included and are checked separately.

Sources

- Ken internal data: Ken's dataset of public professional profiles, work histories and company records (snapshot April 2026).
- U.S. Securities and Exchange Commission, Form D data sets, 2008 Q1 to 2026 Q3, [sec.gov](#).
- Ken's web archive, September 2026 crawl.

Verification

An independent re-analysis, written from the study plan without seeing our code, recomputed the headline numbers on 2026-10-17. It was given only the study plan, the logged decisions and the raw extracts. It did not see the study's code, derived tables or results.

Headline number	Study	Independent recomputation	Match
Analysis sample; grew past 100; stayed under 100	26,360; 2,048; 24,312	26,360; 2,048; 24,312	yes
Companies with a first AE (all; grew; stayed)	9,970; 1,601; 8,369	9,970; 1,601; 8,369	yes
Median company age at first AE (all; grew; stayed), months	47; 36; 49	47; 36; 49	yes
Median headcount before first AE (all; grew; stayed)	12; 28; 11	12; 28; 11	yes
Difference in median age at first AE, 95% interval	-13 (-15 to -10)	-13 (-15 to -10)	yes

Headline number	Study	Independent recomputation	Match
Difference in median headcount before first AE, 95% interval	+17 (15 to 19)	+17 (15 to 19)	yes
First marketing hire, SDR, sales leader: companies, median age, median headcount	18,995, 32, 8; 7,459, 54, 16; 12,611, 44, 11	same	yes
Marketing strictly before first AE; sales leader strictly before first AE	0.669 of 8,764; 0.554 of 7,703	0.669 of 8,764; 0.554 of 7,703	yes
Early-hire titles unclassified	34.4%	34.4% (262,531 people; the study's audit table has 262,530)	yes, to the reported precision
Discrete-time hazard ratio, first AE hired (95% interval)	1.11 (0.96 to 1.29)	1.11 (0.96 to 1.29)	yes, after the fix below
Discrete-time hazard ratio, sales leader before any AE	0.96 (0.83 to 1.10)	0.96 (0.83 to 1.10)	yes, after the fix below

One mismatch, found and fixed. In the first comparison, the study's discrete-time model gave 0.95 for the lower bound on "first AE hired" and 0.94 (0.82 to 1.09) for "sales leader before any AE". The recomputation gave 0.96 and 0.96 (0.83 to 1.10). The cause was the order rule. The study's model decided whether the leader came before the AE by comparing hire quarters, while the recomputation compared start months, the same rule the order table uses. Month precision matches the plan's wording better, so the study's model was changed to it (Decision D21) and rerun. After the fix, every term in the discrete-time model matches the recomputation to two decimals. The Cox estimate for "first AE hired" moved from 1.06 to 1.07 with the same interval. No descriptive number changed.

The recomputation's early-hire audit counted one more person (262,531 vs 262,530). It kept spells with no end date that are not current, which the study's code drops before the audit. The share is the same to a tenth of a percent.

The recomputation did not fit the Cox model, the funding model or the robustness models. Those use the same panel and covariates as the discrete-time model it did reproduce.

Alternative explanations considered

- 1. Fast growers are bigger at every age, so they reach any headcount sooner.** This is the main reason the fast growers' first AE comes earlier in age but at a larger team. The survival model addresses it by comparing companies of the same size in the same quarter; there, the first-hire indicators show no link with reaching 100. *Ruled out as a confounder of the model result; it is the explanation of the descriptive gap.*
- 2. Reverse causation: growth causes the hire.** Companies that start to grow hire sellers. The model only counts a hire from the quarter after it happens and holds the previous quarter's headcount fixed, which removes the mechanical part. A company that hires because it expects growth can't be separated from one that grows because it hired. *Named as a limitation; the study makes no causal claim.*
- 3. Survivorship.** Fast growers keep more employees with active profiles, so their history is rebuilt more completely. That could make their headcount at the hire look larger. The gap is large (28 vs 11) and holds in both founding cohorts and in the US-only sample, but it can't be ruled out. *Limitation.*
- 4. Title conventions.** At small companies the first seller may carry a "head of sales" or "founding AE" title, or a vague one. A sales leader title came before any AE at 55.4% of companies with both, and 34.4% of early hires have unclassified titles. *Named as a limitation; the leader result is read as a title effect.*
- 5. IT services firms** have different hiring patterns. Dropping them leaves the gaps in place (36 vs 47 months; 26 vs 12 people). *Ruled out.*
- 6. Older companies' early years are thin in the data.** The gaps hold for companies founded 2015-2020 (30 vs 42 months; 29 vs 11 people), and the model results hold when companies whose first hires came before 2015 are dropped. *Ruled out.*

7. **Funding drives both hiring and growth.** For US companies, adding recorded Form D raises leaves the first-AE estimate at 1.03 (0.89 to 1.19). Form D misses many raises, so funding is only partly controlled. *Partly ruled out.*
8. **Proportional hazards.** The Schoenfeld residual check finds that the link between the hire indicators and the hazard changes with company age (Table 6). The reported hazard ratios are averages over company age, not constant effects. The discrete-time model's interaction terms show no significant change for the hire indicators. *Named as a limitation.*

Further limitations found during the analysis

- The field that links merged company ids was empty on every sample company record, so spells pointing at a merged company id could not be folded onto the current record. Those spells are missing from the affected companies.
- In the Cox model, clustered standard errors were not numerically finite in any specification, so it reports model-based errors (Table 5, column "Standard errors"). The discrete-time model with company-clustered errors gives the same conclusions and is the one the independent recomputation reproduced.

Ken Research · When should you hire your first salesperson? · Cristian Frunze, Founder of Ken