Which sourcing channels produce the best hires

Prepared for a mid-size employer planning next year's recruiting budget. About 4 minutes to read.

Recommendation

Grow the referral program with tiered bonuses, and set a different channel mix for each role family.

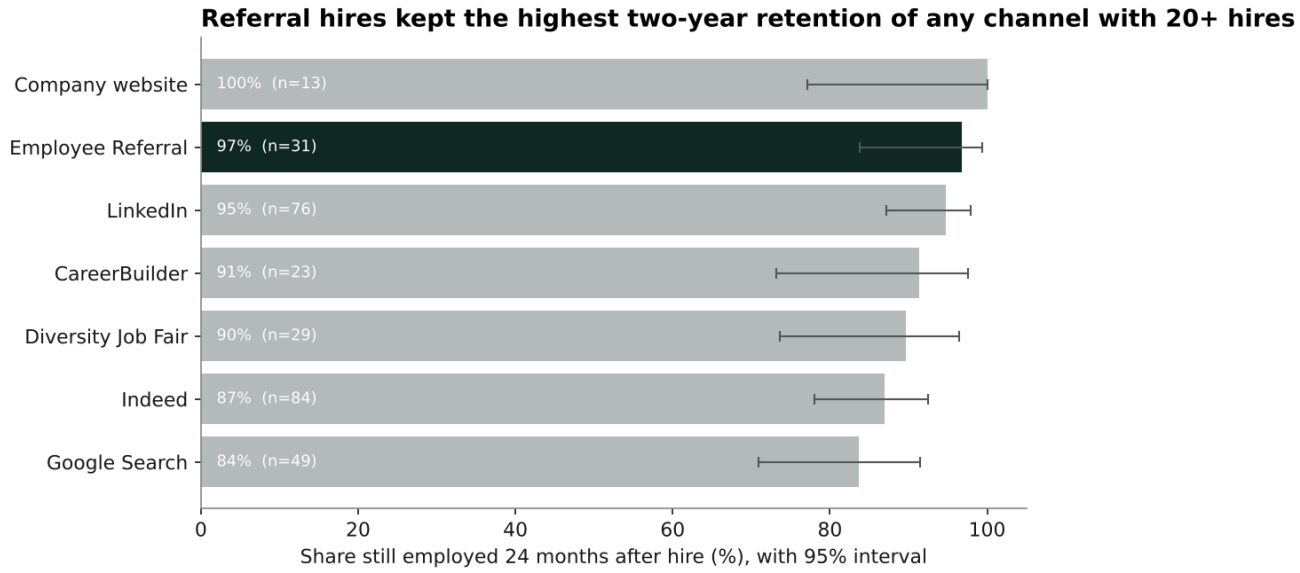
What to do

1. Pay referral bonuses in two parts. Half at 90 days and half at 12 months, so the bonus rewards hires who stay.
2. Use two tiers. About $1,500 for production roles and up to $3,500 for office and technical roles. Above roughly $3,500, a referral costs more per retained hire than the best job channel.
3. For production roles, recruit through referrals and LinkedIn first and keep CareerBuilder as the backup. Cut Indeed's share, since its production hires quit in year one more than any other source.
4. For office roles, recruit through referrals and LinkedIn. The company careers page also kept every hire it brought in, from a small base of 9.
5. Move Google Search ads to the bottom of the budget. Those hires had the lowest two-year retention (84%) and the fewest top ratings (4%).
6. Track two-year retention and first-year rating by source every quarter, and revisit the mix once a year.

Key numbers

Measure	Referral hires	Everyone else
Still employed at 24 months	97% (30 of 31)	90%
Rated below expectations	3%	10% (all hires)
Rated Exceeds	16%	12% (all hires)
Cost per hire still employed at 24 months (assumed costs)	$3,617	$4,700 to $5,617

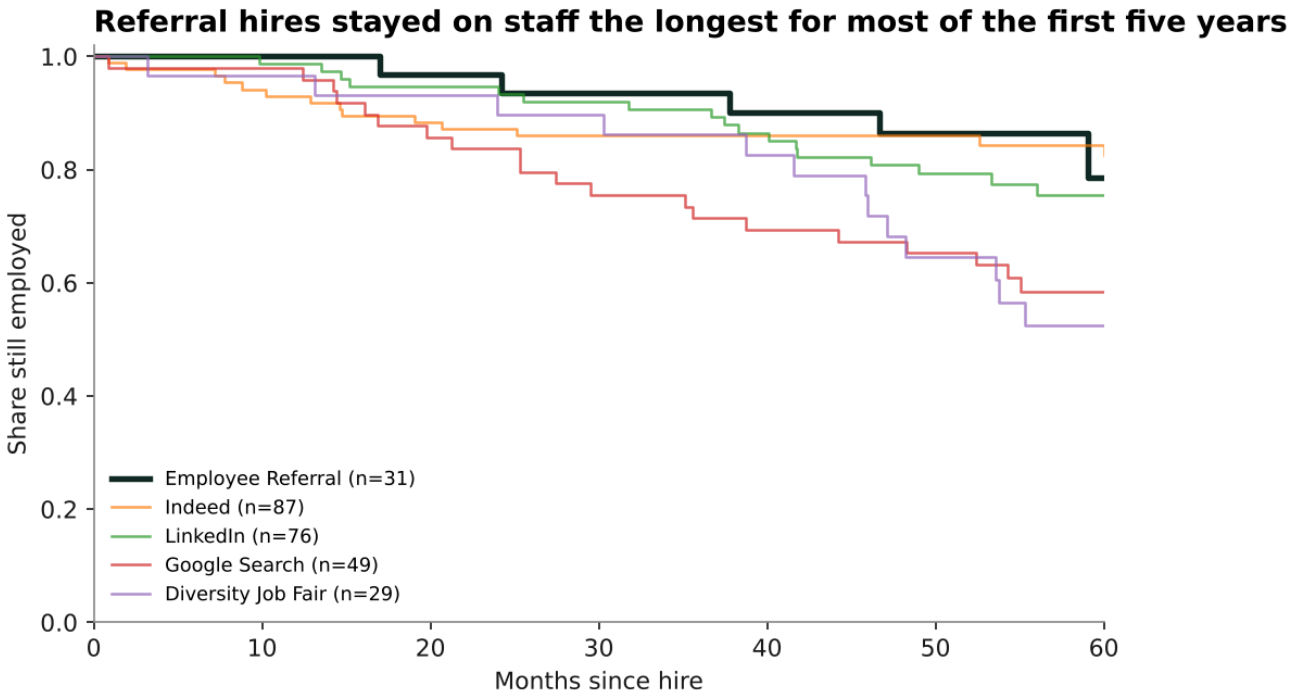
The referral advantage points the same way in every measure. The sample is small, so none of the gaps pass a significance test on their own. Published hiring data shows the same pattern at much larger scale, which is why the recommendation stands.



Retention over time

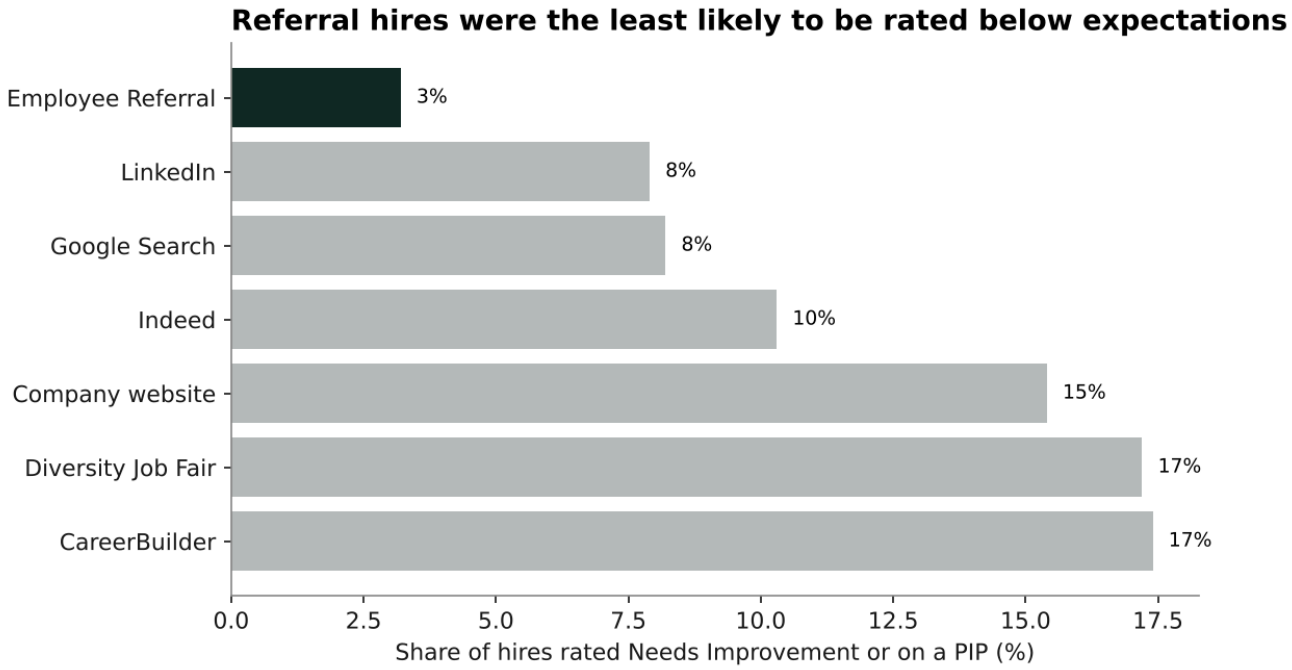
Kaplan-Meier curves follow each source from the hire date. Referral hires stayed on staff the longest for most of the first five years.

A Cox model controlled for role family and hire year, since people hired earlier had more time to leave. Referral hires had about 22% lower risk of leaving than Indeed hires (hazard ratio 0.78). The 95% interval runs from 0.30 to 1.99, so the data cannot rule out no difference.



Performance ratings

Referral hires had the highest average rating (3.16 on a 4-point scale) and the lowest share rated Needs Improvement or on a PIP (3%). Diversity Job Fair hires had the most Exceeds ratings (21%) and also one of the highest shares below expectations (17%). A Kruskal-Wallis test across sources gives p = 0.49.

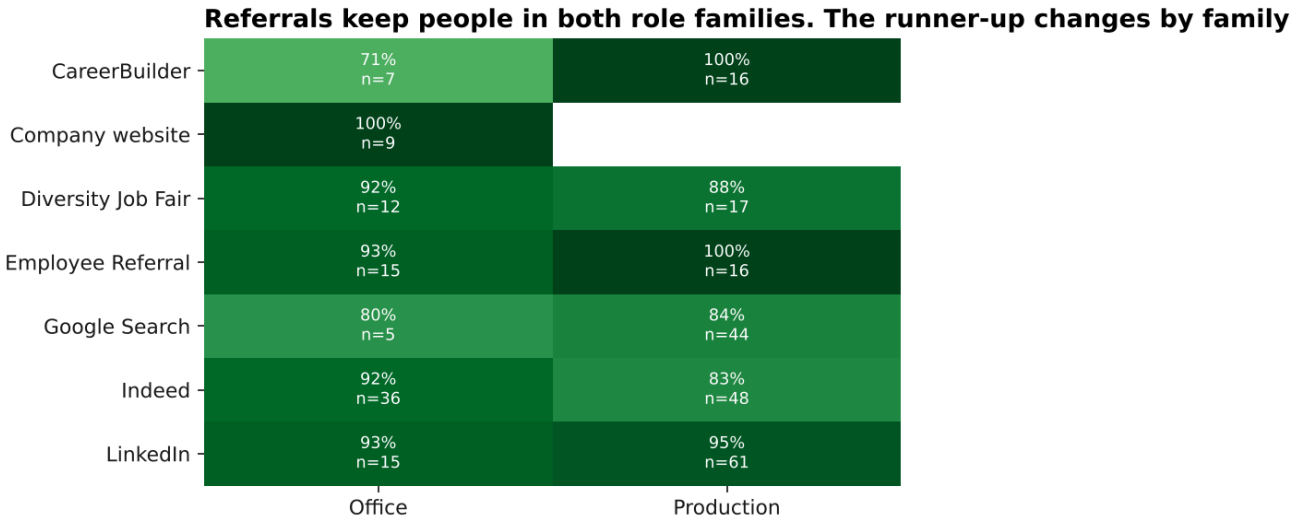


Channel mix by role family

Production covers 209 of the 311 employees. Every other department is grouped as Office.

In Production, referral and CareerBuilder hires kept 100% at 24 months and LinkedIn kept 95%. Indeed kept 83%, and 8% of its production hires quit within their first year. In Office roles, the company website kept all 9 of its hires. LinkedIn and referrals each kept 93%.

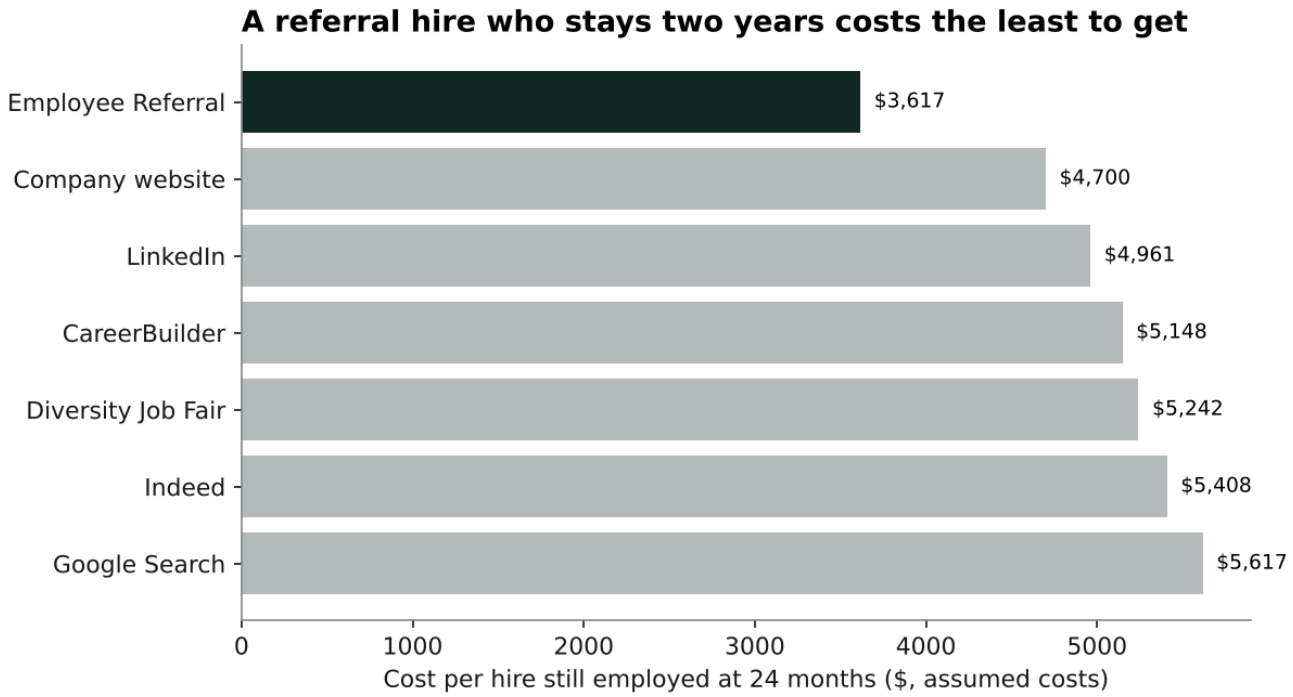
For an outside benchmark, BLS JOLTS puts manufacturing's annual quit rate at 23% on average from 2021 to 2025 (17% in 2025). Every channel in this sample beat that in year one, so the data likely comes from a steadier workforce than the national average.



Cost per retained hire and the bonus ceiling

Cost per hire divided by two-year retention gives the cost of a hire who is still there at 24 months. Referral costs assume a $2,500 bonus plus about $1,000 of recruiter time. Every other channel uses SHRM's published average cost per hire of $4,700. These are assumptions, and they can be edited in `data/raw/channel_cost_assumptions.csv`.

Referrals cost $3,617 per retained hire. The next best large channel (LinkedIn) costs $4,961. A referral stays cheapest until its total cost reaches about $4,548 per hire, which leaves room for a bonus of about $3,500.



What published research says

- Ashby's Quality of Hire report scored referred hires at 4.0, against 3.8 for inbound applicants and 3.9 for sourced candidates (35,000+ hiring manager scorecards).
- On Ashby's platform, referrals made up about 1% of applications and about 18% of hires from 2021 to 2025.
- A New York Fed study found referred hires start with a salary about 2.1% higher, so referrals are not free on pay.
- An iCIMS and EmployeeReferrals.com study of 91,000 employees at 50+ companies found referral hires stayed longer, with the biggest gain in high-turnover industries.

Full list with links in `data/raw/benchmarks.csv`.

Limits of this study

The Huebner HR Dataset is synthetic. It was built for teaching HR analytics and has 311 employees. Treat its numbers as an example of the method. The conclusions rest on the direction of the results plus the published research.

Recruitment source is recorded once at hire. People who heard about a job from a friend and then applied on Indeed may be logged under Indeed.

Costs per channel are assumptions. A real employer should replace them with invoices and recruiter hours.

Data sources

- Huebner, R. and Patalano, C. Human Resources Data Set, v14. Kaggle (synthetic). https://www.kaggle.com/datasets/rhuebner/human-resources-data-set
- U.S. Bureau of Labor Statistics, Job Openings and Labor Turnover Survey, hires and quits rates by industry, 2016 to 2025. https://www.bls.gov/jlt/
- Ashby, Gem and New York Fed figures as summarized by Noon (2026). https://www.noon.ai/blog/articles/360-employee-referral-statistics-2026
- iCIMS, How employee referrals impact retention. https://www.icims.com/blog/how-employee-referrals-impact-retention/
- SHRM average cost per hire as summarized by Devlin Peck (2026). https://www.devlinpeck.com/content/employee-onboarding-statistics

Tools used

Python (pandas, SciPy, lifelines, matplotlib), DuckDB SQL, Jupyter, BLS Public Data API, Kaggle.

Andrew Ly · andrewlengly.com · November 2026