



# BUILDING A SUSTAINABLE WORKFORCE FOR USC BUILDS' GROWTH

“Insights and workforce strategy based on  
USC Builds’ employee and attendance data.”





## PROFESSIONAL TEAM



**Tanjina Moon**

Model Developer & Data  
Analyst



**Kavita Adha**

Market Research &  
Insights Analyst



**Omkarsinh Rana**

App Developer & Data  
Analyst



**Omkar Sheth**

Research



**Mishika Bhandari**

Research



## Our Project Workflow

We wanted to help USC understand why employees leave and how to keep them longer.

01

### Market Overview

“USC’s position in local construction market”

02

### Data Exploration

“Looking at workforce, attendance, and attrition data”

03

### Modeling & Insights

“Identifying what factors drive people to leave or stay”

04

### Strategic Recommendations

“Five concrete workforce strategies based on the data”

03

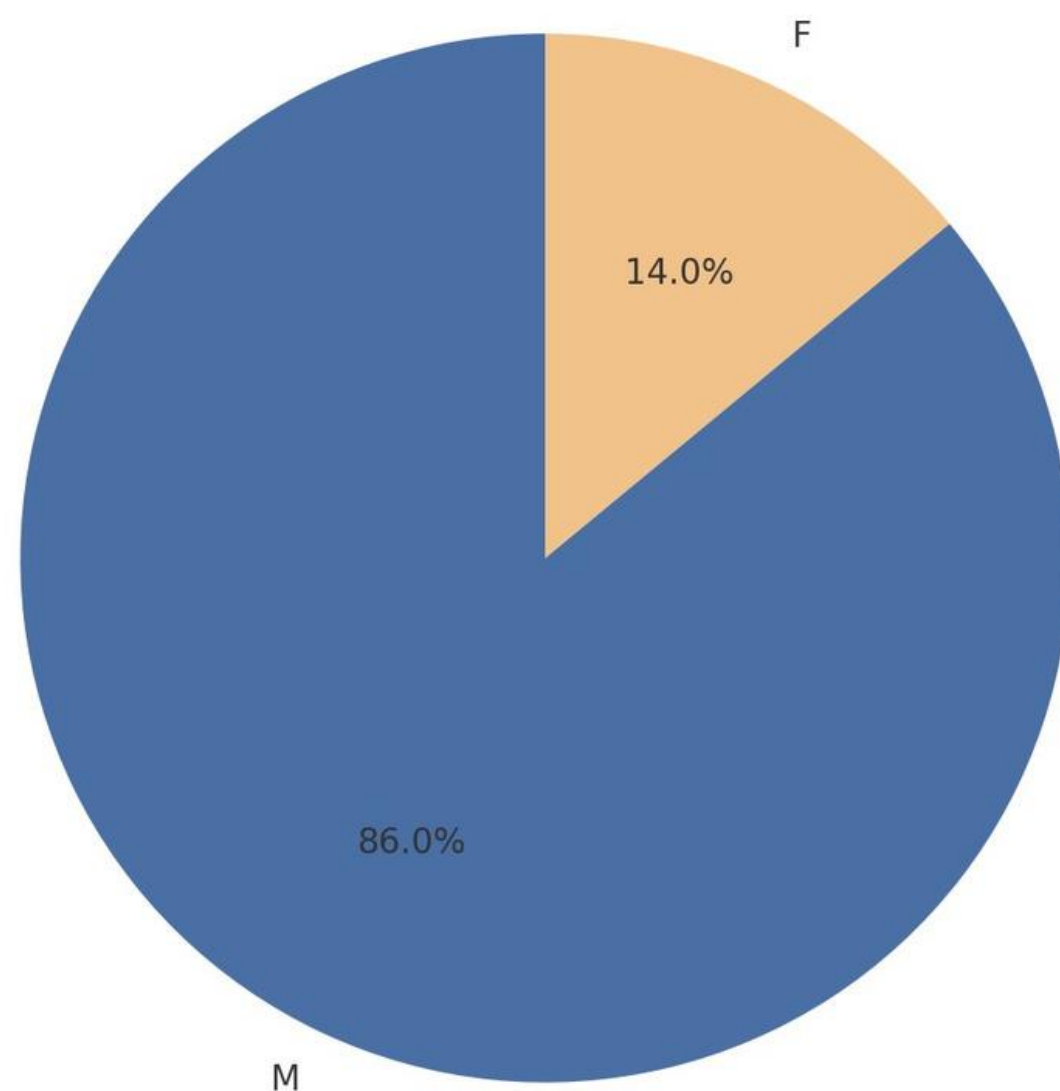
Company	Region	Size	Services	Key Projects	Minimum Pay Range
USC Builds	Rochester	50–100	GC, Developer	Local credibility labor pipeline	\$18
Redev Construction	Syracuse	~50	Developer + GC	Similar structure to USC	\$20
LeChase	Rochester	1,100+	CM, GC, self- perform	URMC, Wegmans, U of R	\$22
Lendlease	Rochester	10,000	Global GC developer	One Sydney, NYC megaprojects	\$40
Pike Construction	Rochester	50–100	GC, Developer	Global innovation ESG-aligned builds	\$18
DiMarco Constructors	Rochester	~50	GC, Developer	Strong local presence	\$20
Welliver	Ithaca	50–100	GC	Strong local	\$22
Hayner Hoyt	Syracuse	50–100	GC, CM	NYPCC and SUNY Albany	\$23



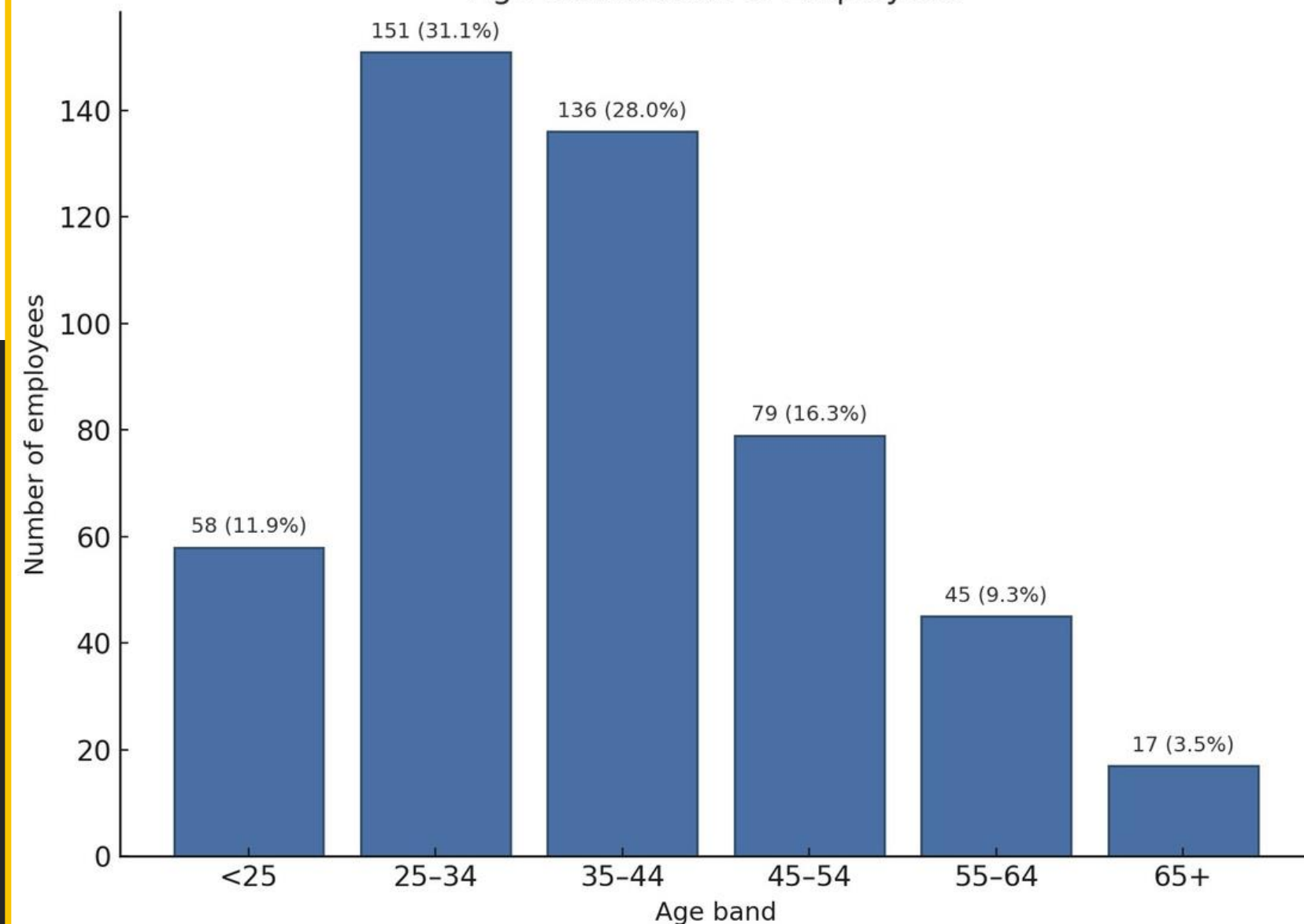
## Most Employees Are Male and Aged 25-44, but Few Are Under 25

- 86% of employees are male; only 14% are female.
- 59% of staff are between ages 25-44.
- Only 12% are under 25 and 13% are aged 55 or older.

Employee Gender Distribution

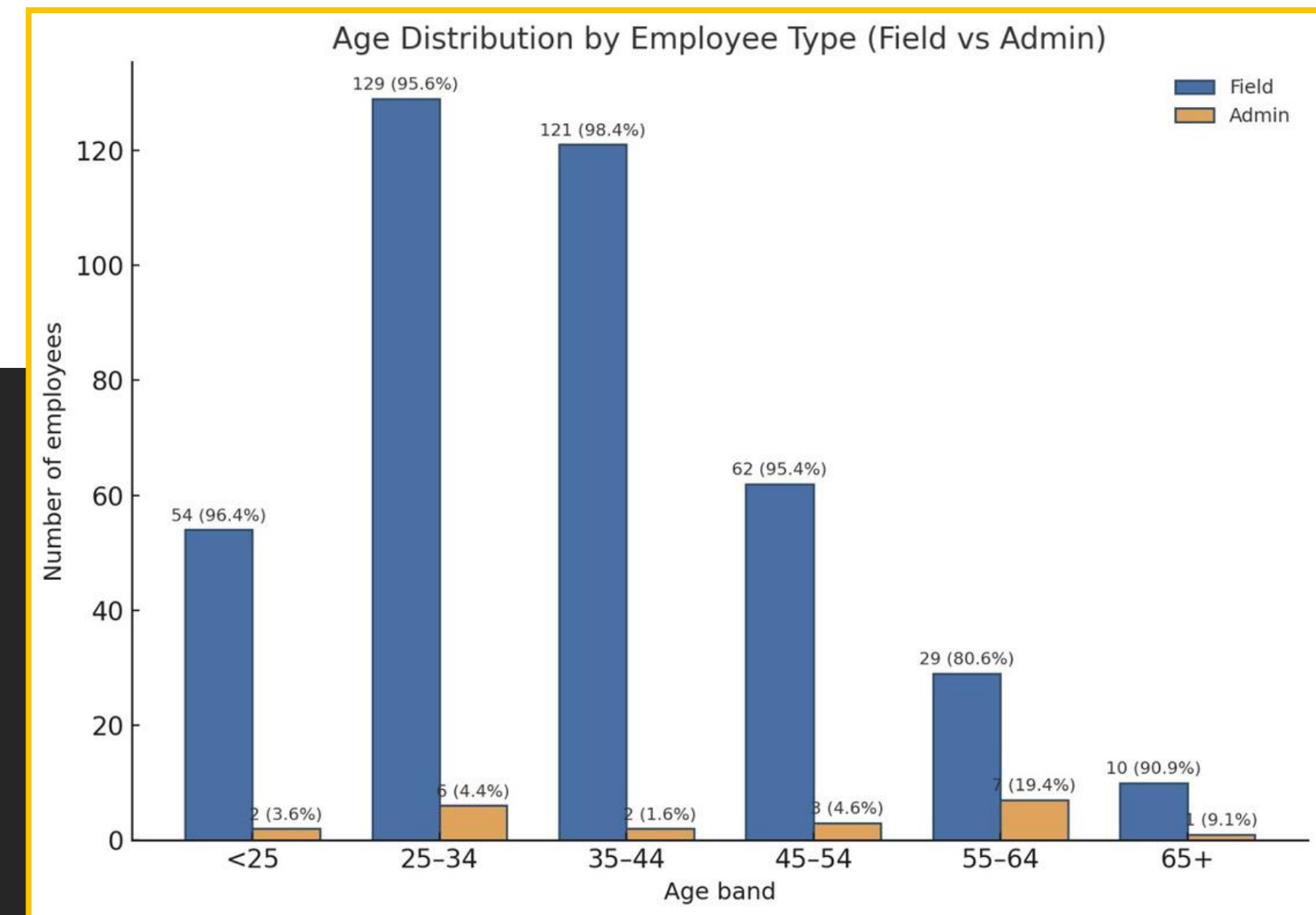
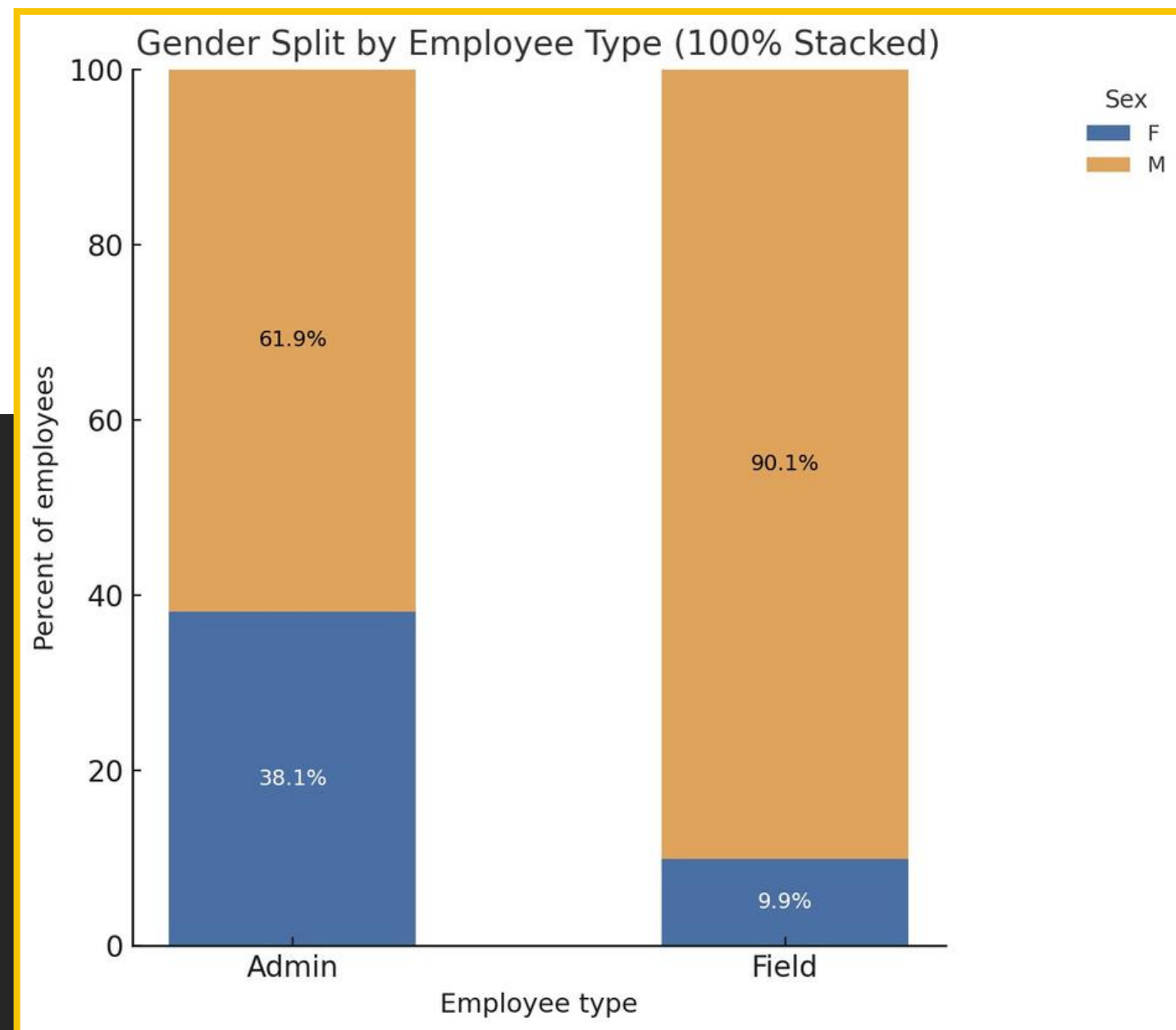


Age Distribution of Employees



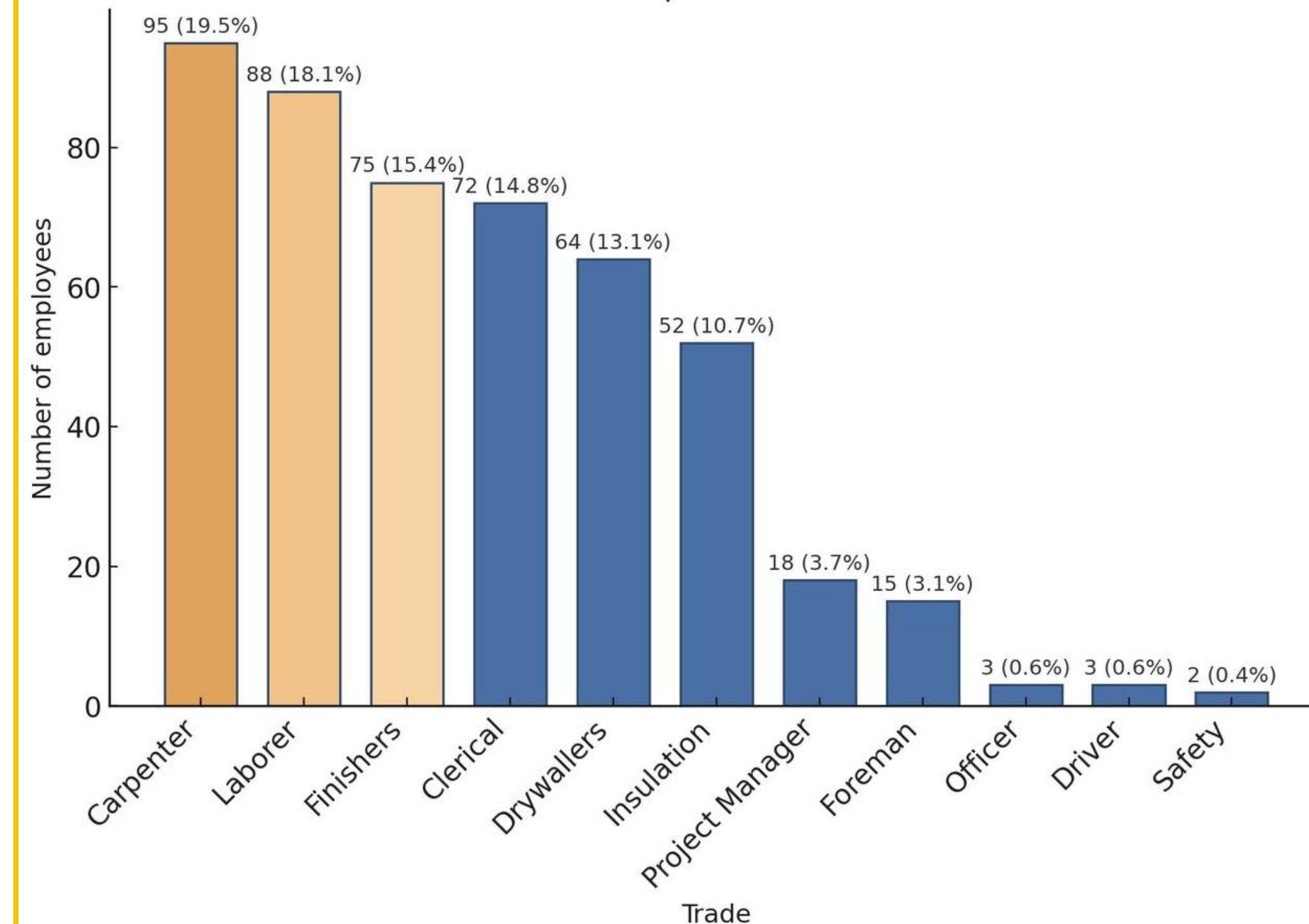
## Admin staff are more gender-balanced, while field staff are mostly young men

- 90% of field workers are male; admin roles have 38% female staff
- Over 95% of employees under 45 work in field roles
- Female and admin employees are more common in older age bands



## Over Half of Employees Are Carpenters, Laborers, or Finishers

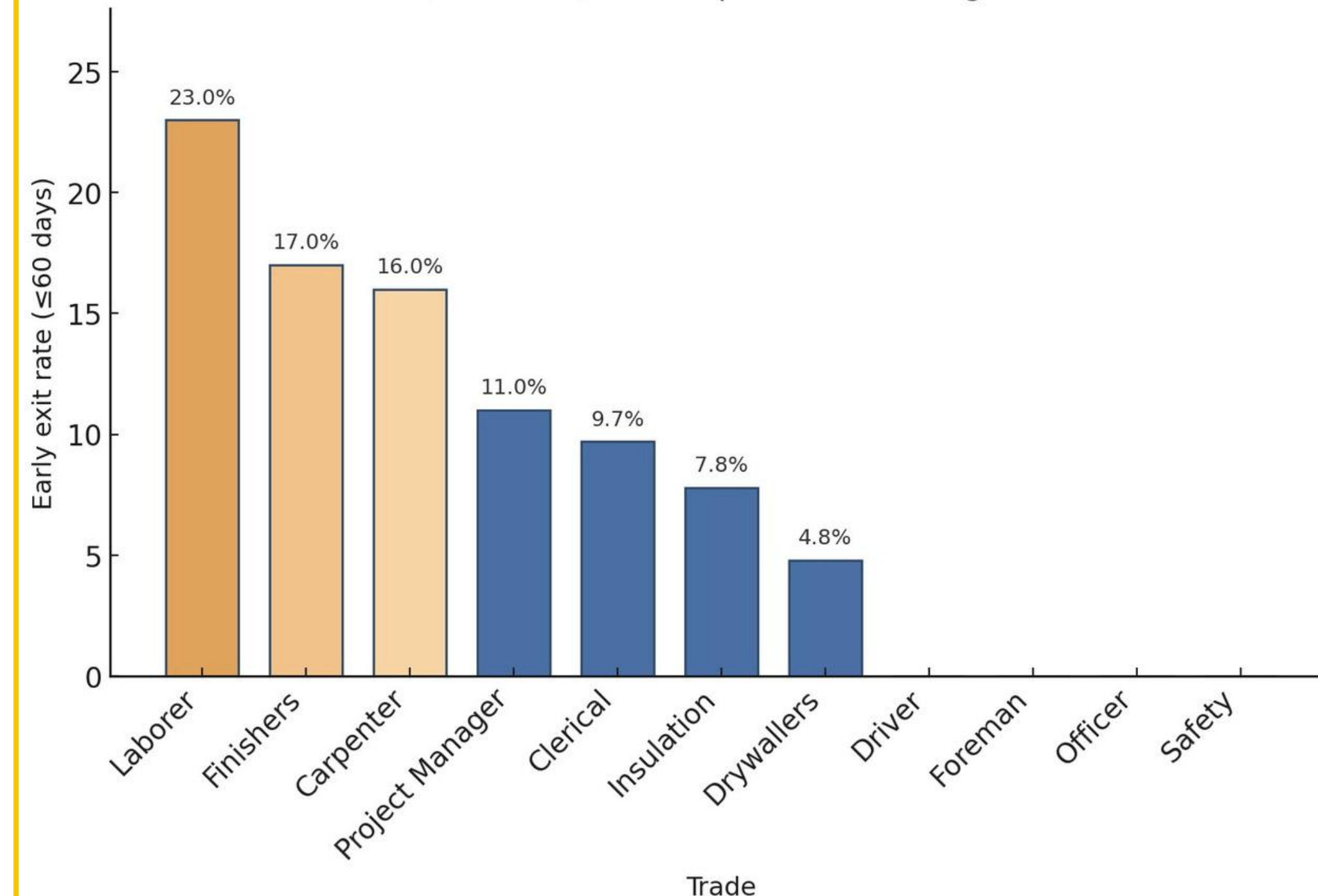
Trade Headcount – Carpenters & Laborers Dominate



- Carpenters (19.5%) and laborers (18.1%) form the largest groups
- Together with finishers (15.4%), they make up over 53% of the workforce
- Safety, officer, and driver roles are less than 1% each

## Laborers and Finishers Have the Highest Early Exit Rates

Early Exit Rate ( $\leq 60$  Days) by Trade  
Laborers, Finishers, and Carpenters Have Highest Churn

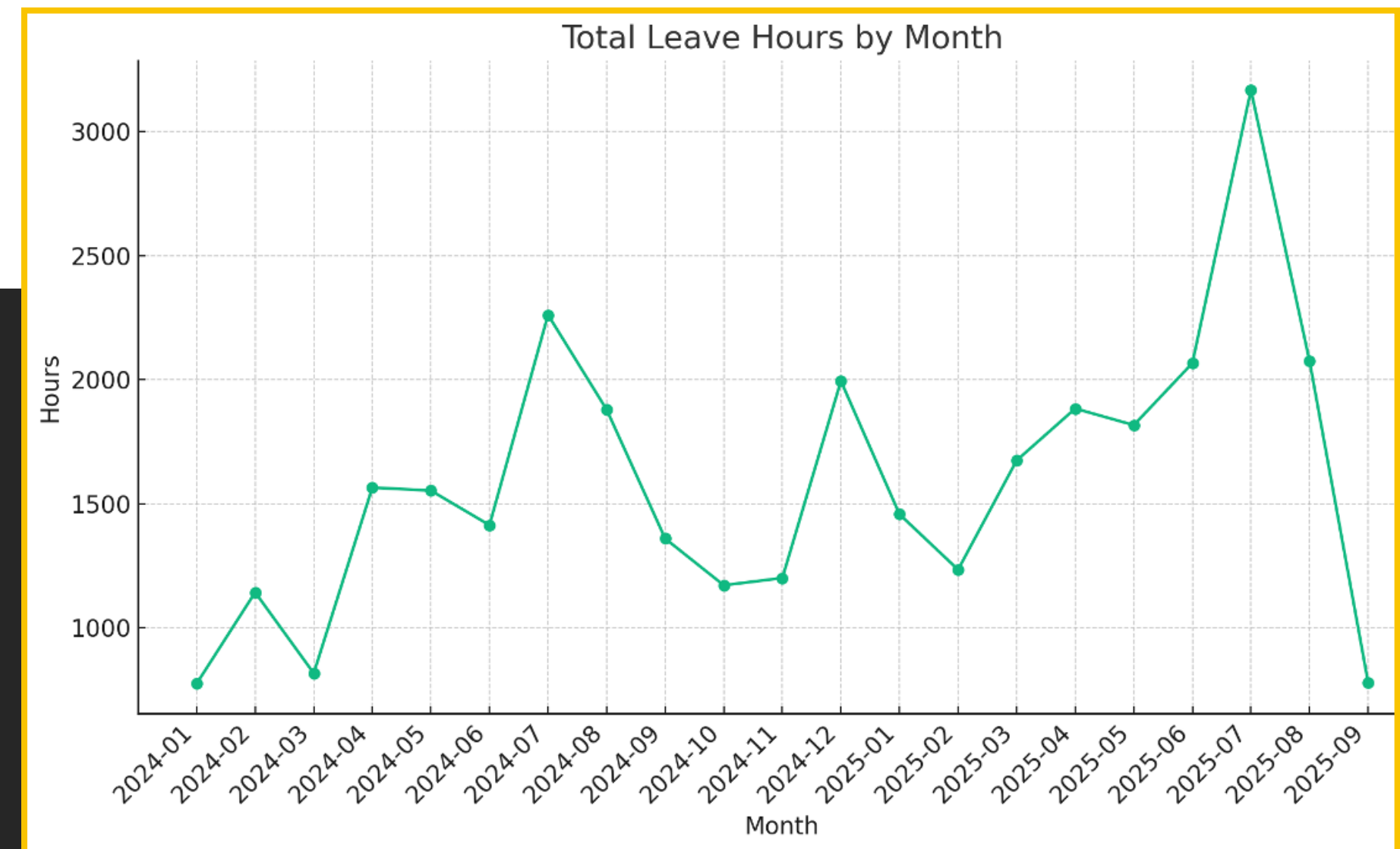
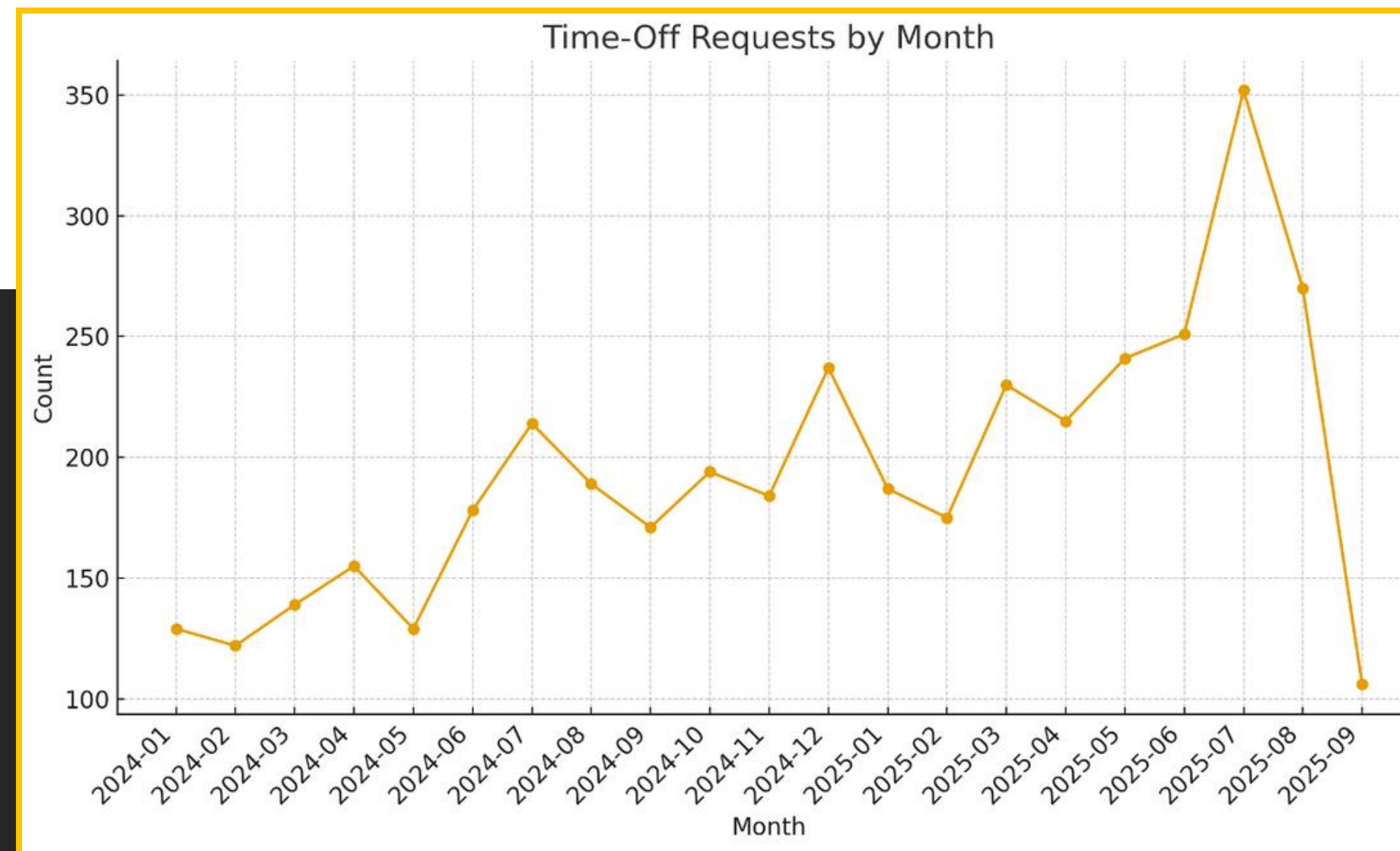


- 23% of laborers leave within 60 days
- Finishers and carpenters also show high churn at 17% and 16%
- Officer, safety, and foreman roles had zero early exits



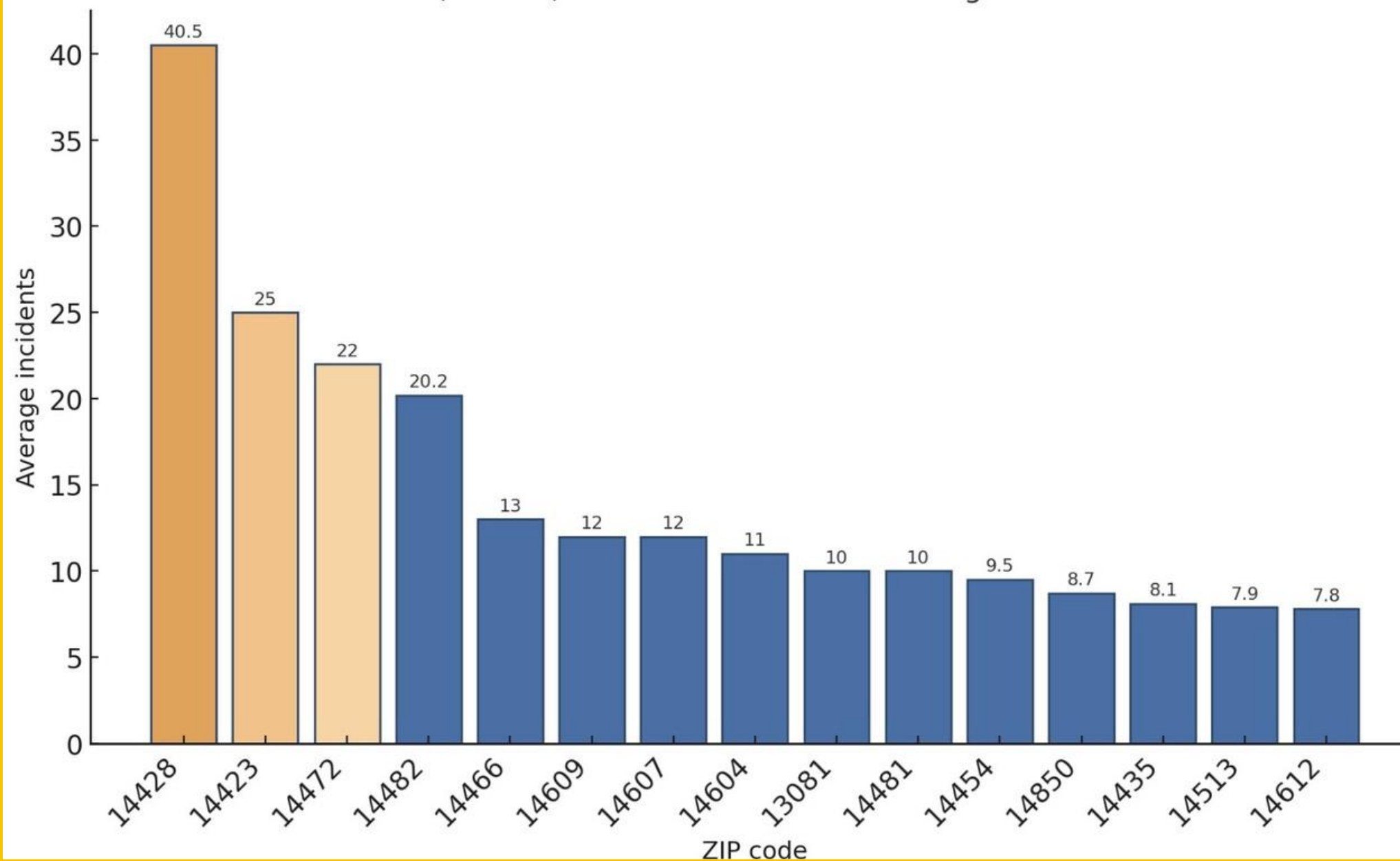
## Time-Off Peaks in Summer and December

- Sharp spikes in July, August, and December show the highest time-off activity
- July 2025 saw over 350 time-off requests and 3,200 leave hours



## Areas Like Churchville and Caledonia Have the Most Attendance Incidents

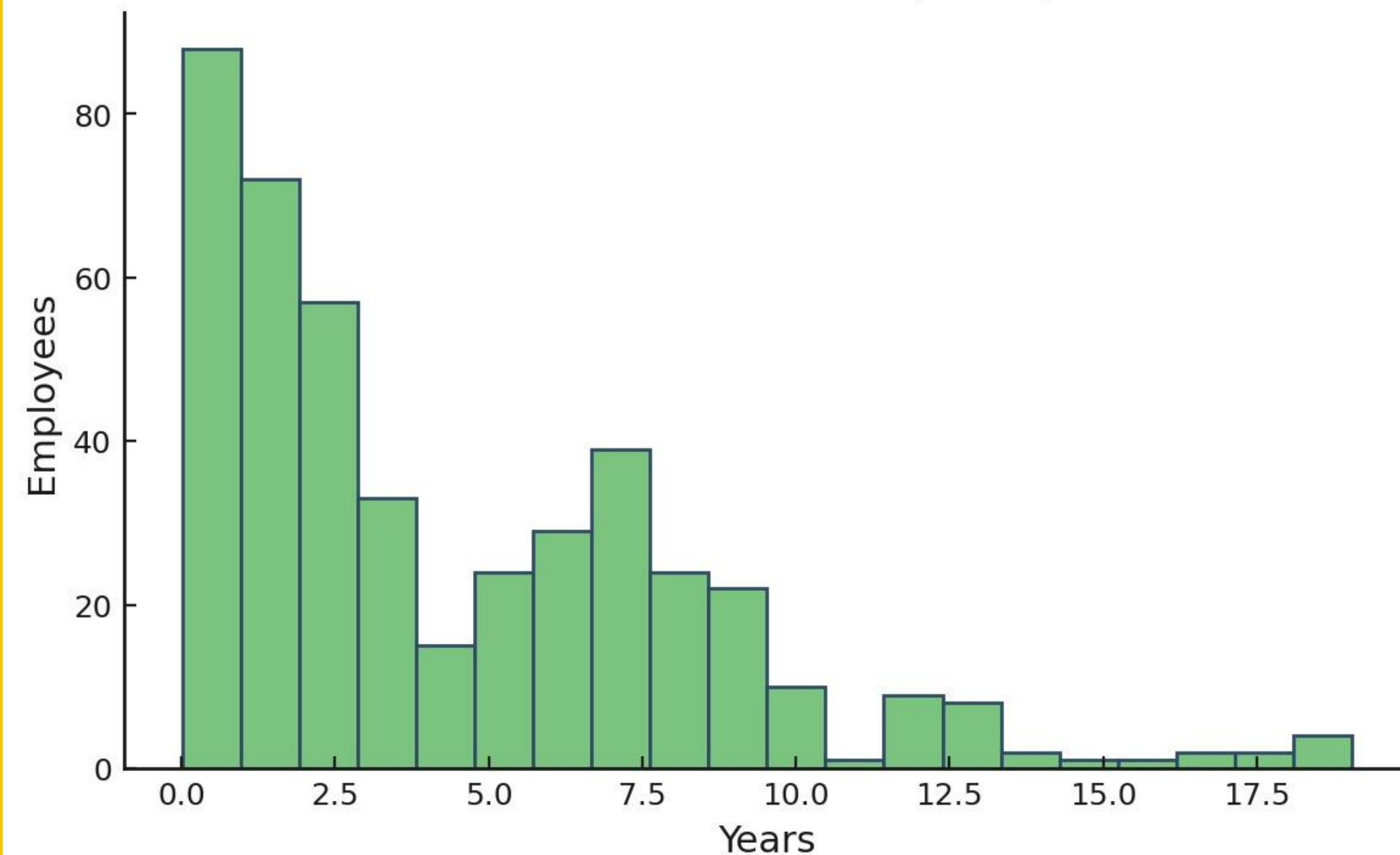
Top ZIP Codes by Average Attendance Incidents  
14428, 14423, and 14472 Stand Out as High-Risk Areas



- Churchville (14428) has the highest average with 40.5 incidents
- Caledonia (14423) and Honeoye Falls (14472) also show high incident rates
- Other areas like Geneseo and Brockport show lower but notable averages

## Most Employees Have Less Than 3 Years of Tenure

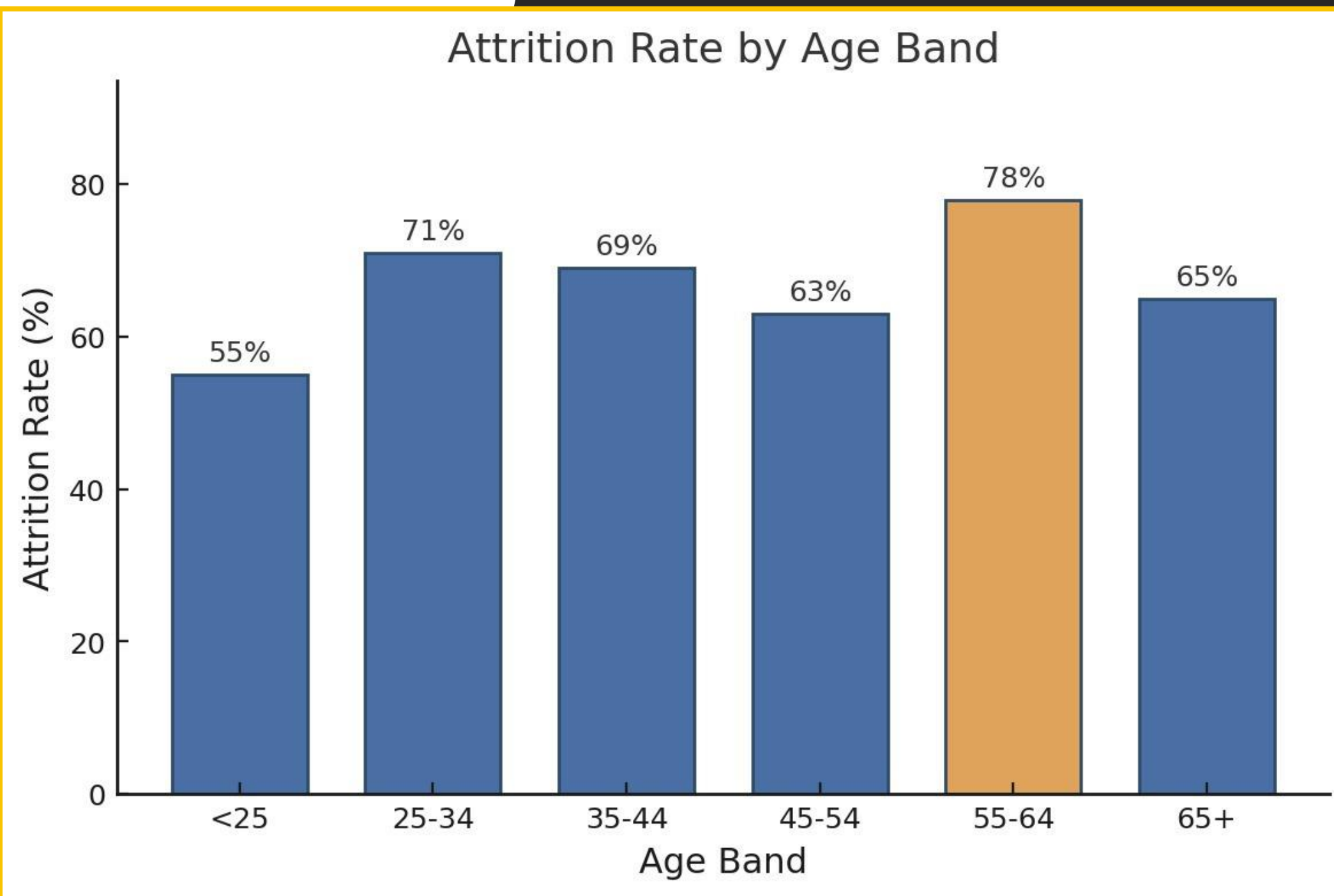
Tenure Distribution (Years)



- Over 60% of employees have under 3 years of service
- Tenure sharply declines after 3 years
- Very few employees stay beyond 10 years



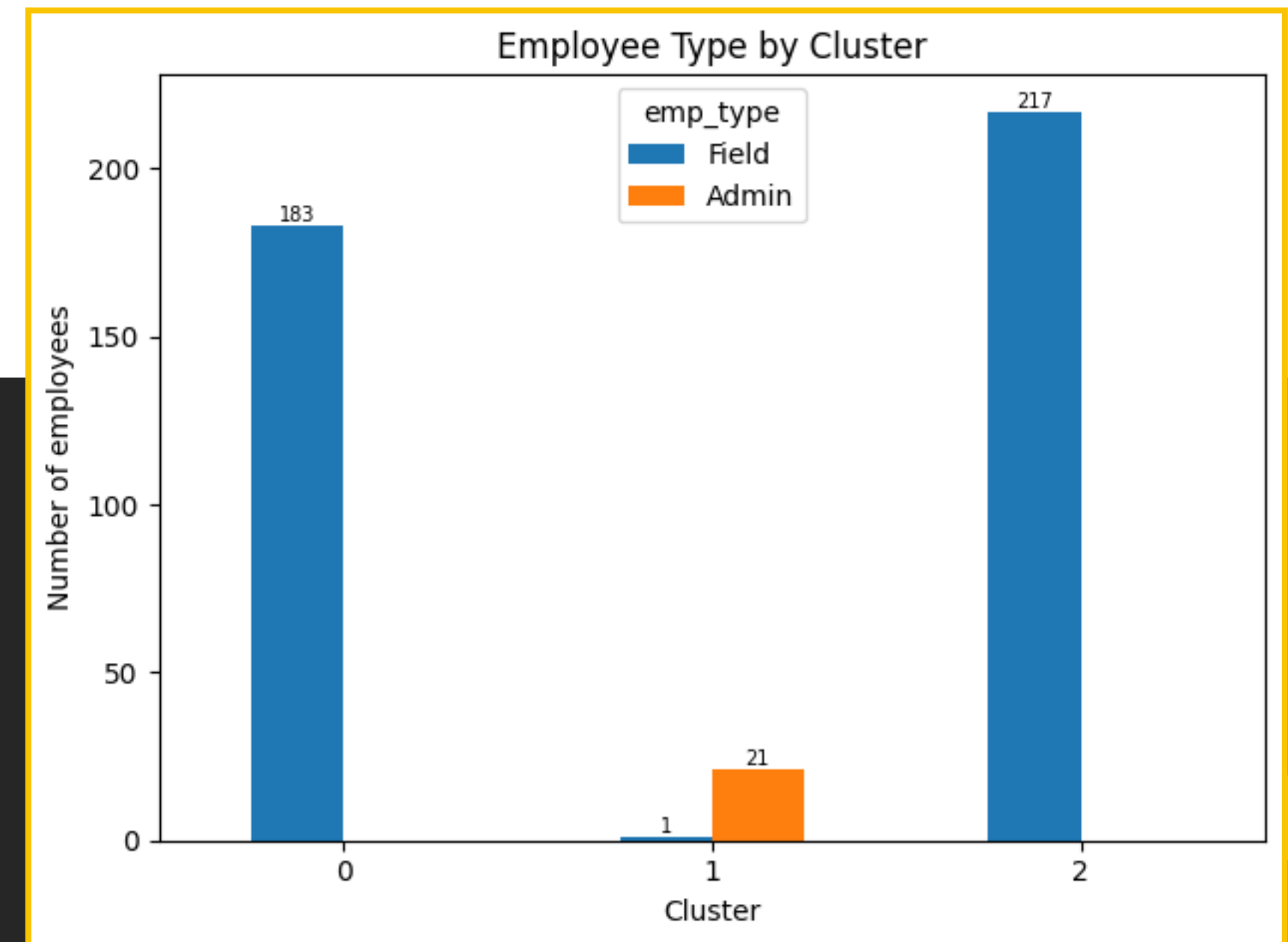
## Attrition Is Highest Among Ages 55–64



- 78% attrition rate for employees aged 55–64
- 25–44 age group also faces high attrition (~70%)
- Younger workers (<25) have the lowest attrition at 55%

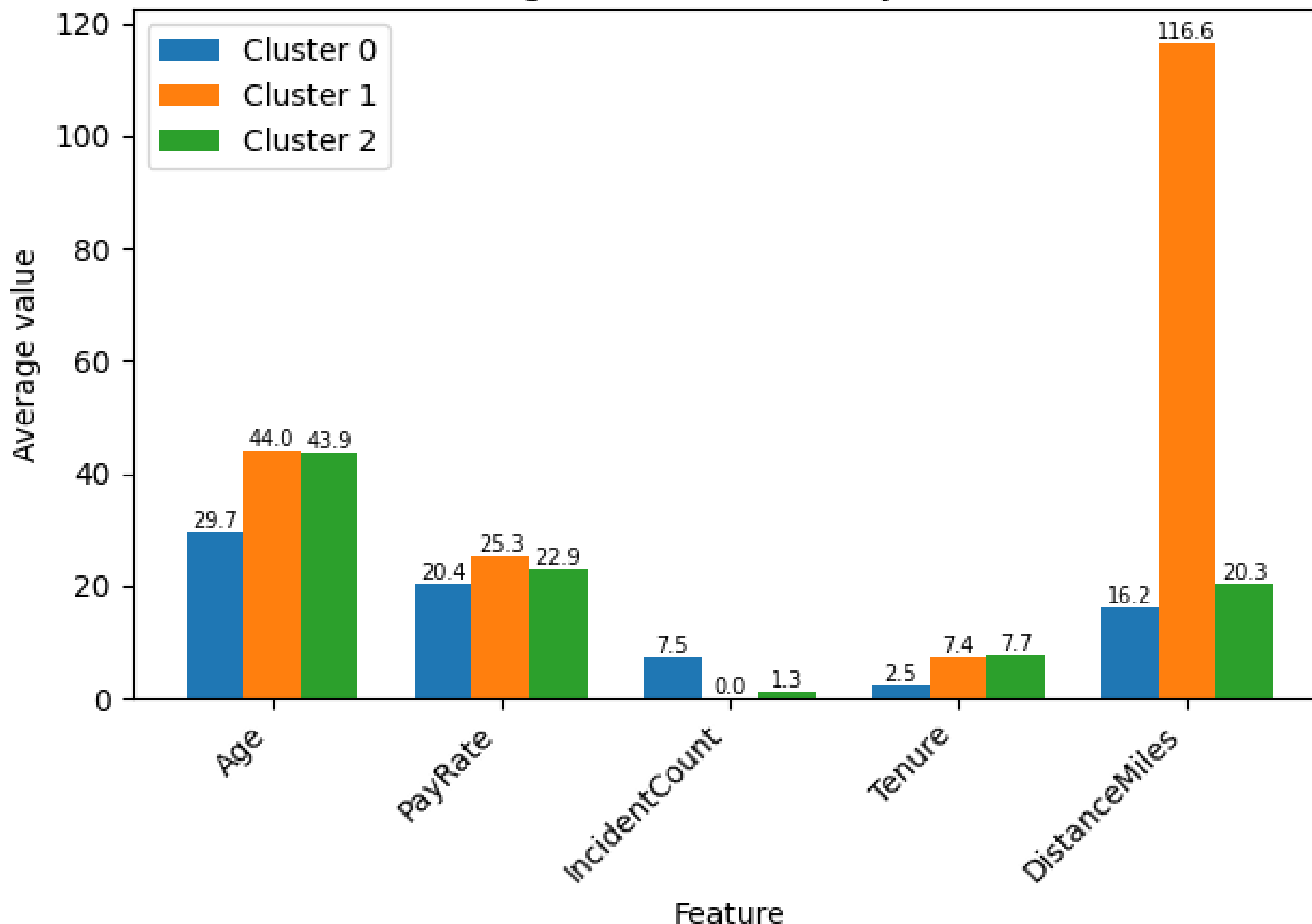
## Cluster Breakdown: Risky Newcomers, Steady Admins, and Committed Field Staff

- Cluster 0 – Risky Newcomers: 183 employees, all field
- Cluster 1 – Steady Admins: 22 employees, all admin
- Cluster 2 – Committed Field Staff: 217 employees, all field



## Clear Differences in Cluster Behaviors

Average Characteristics by Cluster



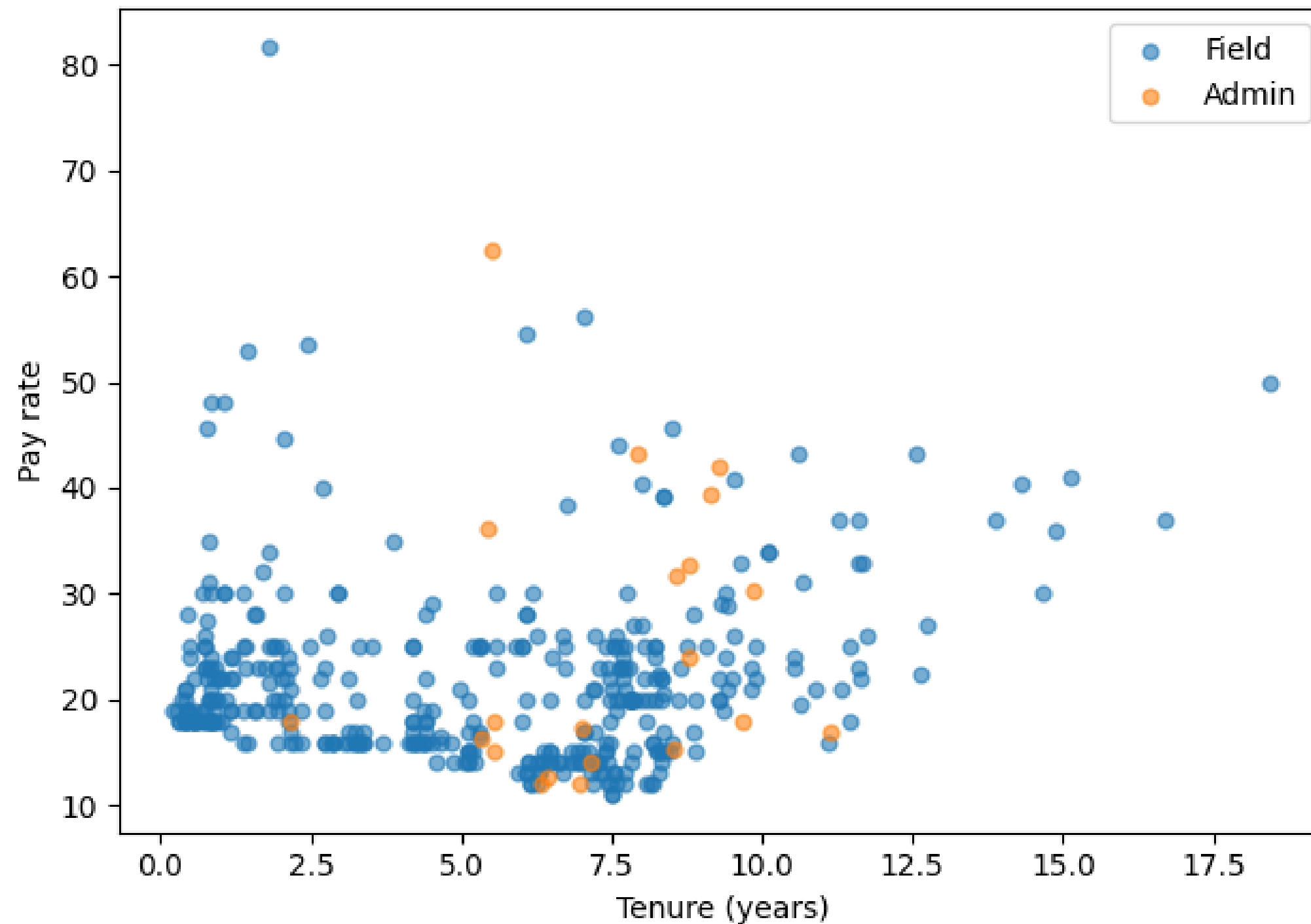
- Risky Newcomers (Cluster 0): Youngest, lowest pay & tenure, highest incidents
- Steady Admins (Cluster 1): Oldest, highest pay, longest commutes, no incidents
- Committed Field Staff (Cluster 2): Longest tenure, few incidents, moderate pay



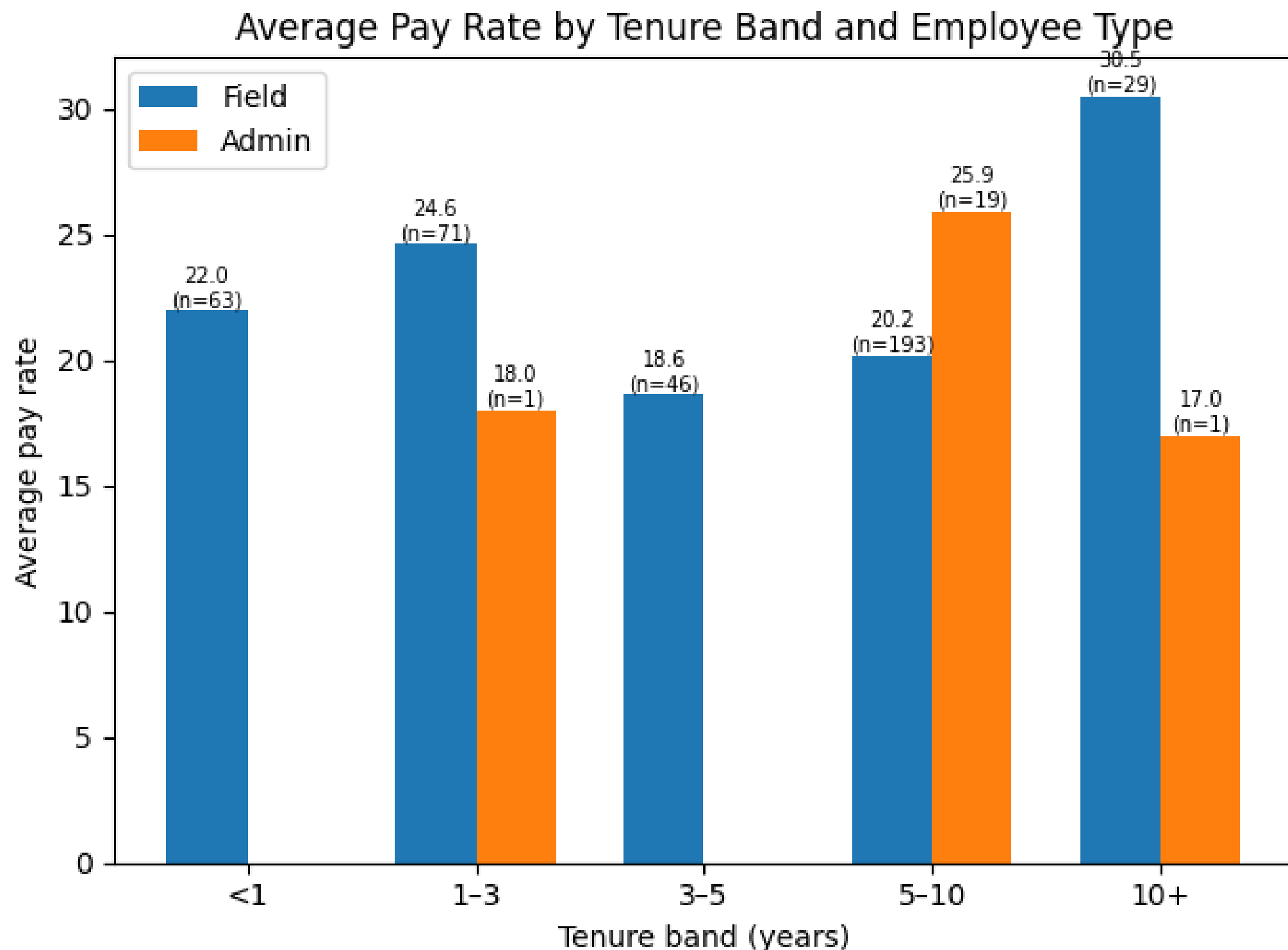
## Pay Rate Varies Widely Regardless of Tenure

- Most employees earn between \$15–30/hour
- Longer tenure doesn't always mean higher pay
- A few Admins earn above \$50/hour despite shorter tenure

Tenure vs Pay Rate by Employee Type

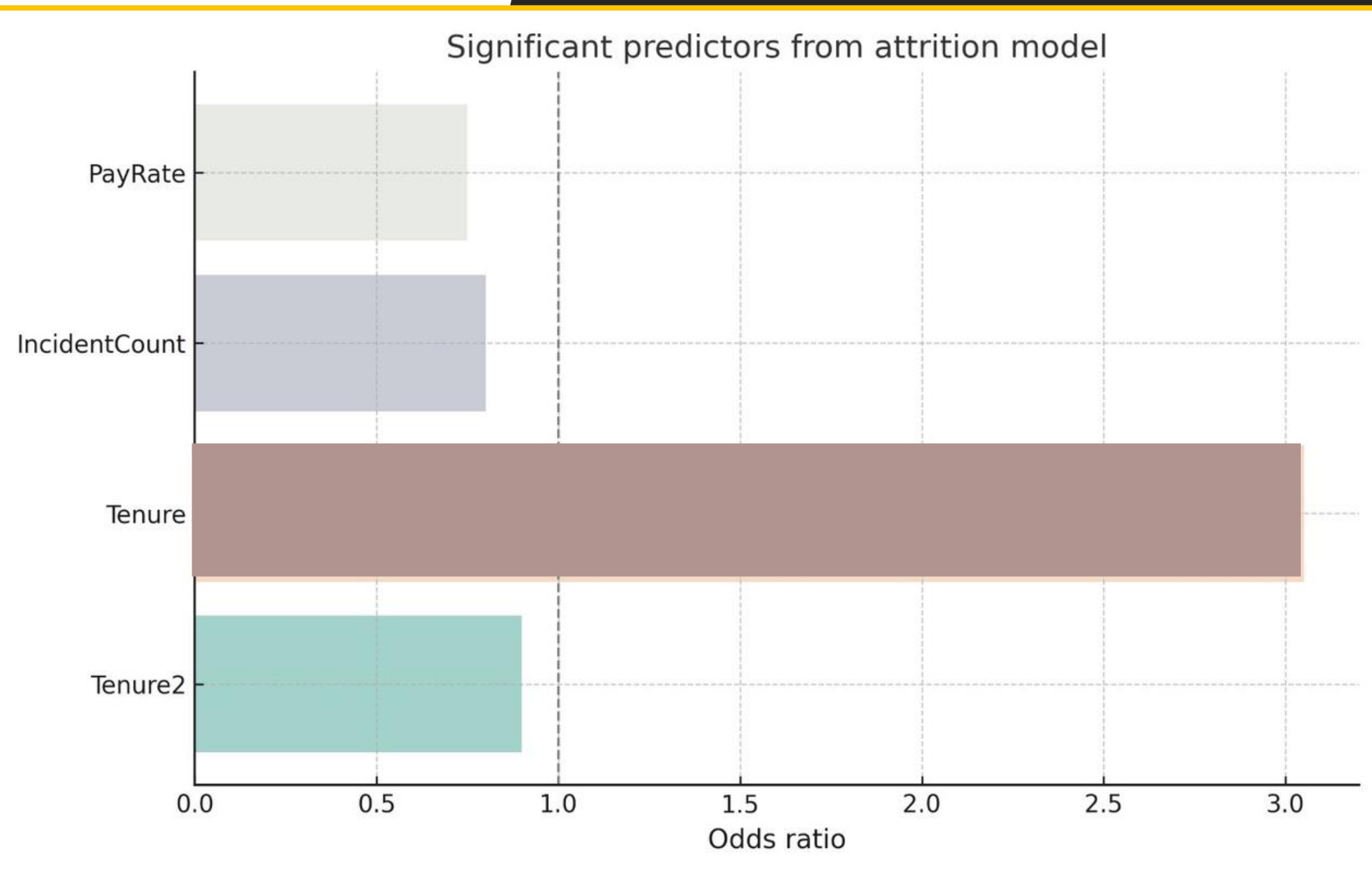


## Field Staff Earn More with Longer Tenure



- Field pay peaks at \$30.5/hour for 10+ years
- Highest Admin average is \$25.9/hour at 5–10 years

## Tenure Strongly Predicts Attrition



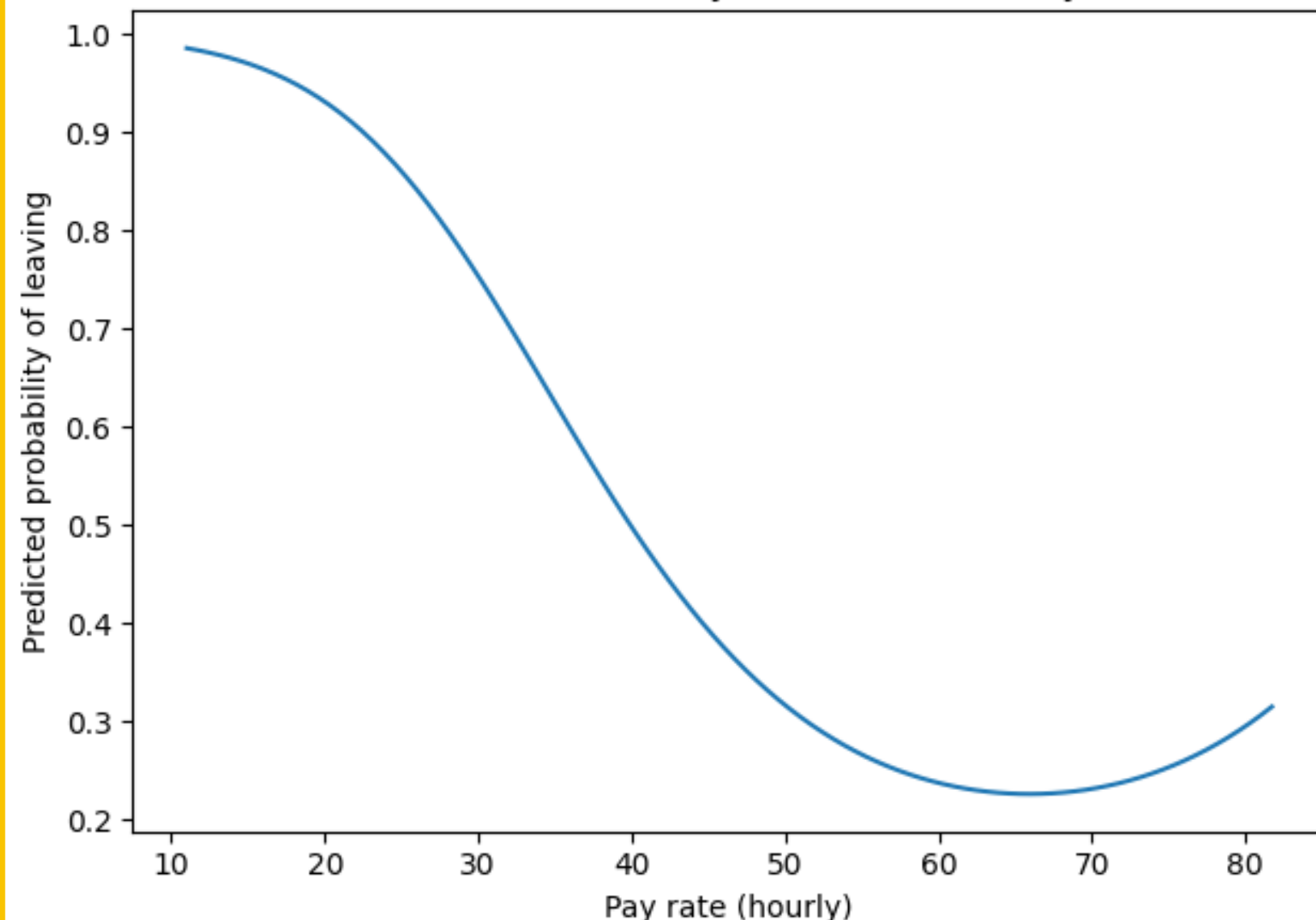
- Longer tenure increases attrition risk (odds ratio > 3)
- Incident count and low pay also raise risk
- Tenure<sup>2</sup> term suggests non-linear effects



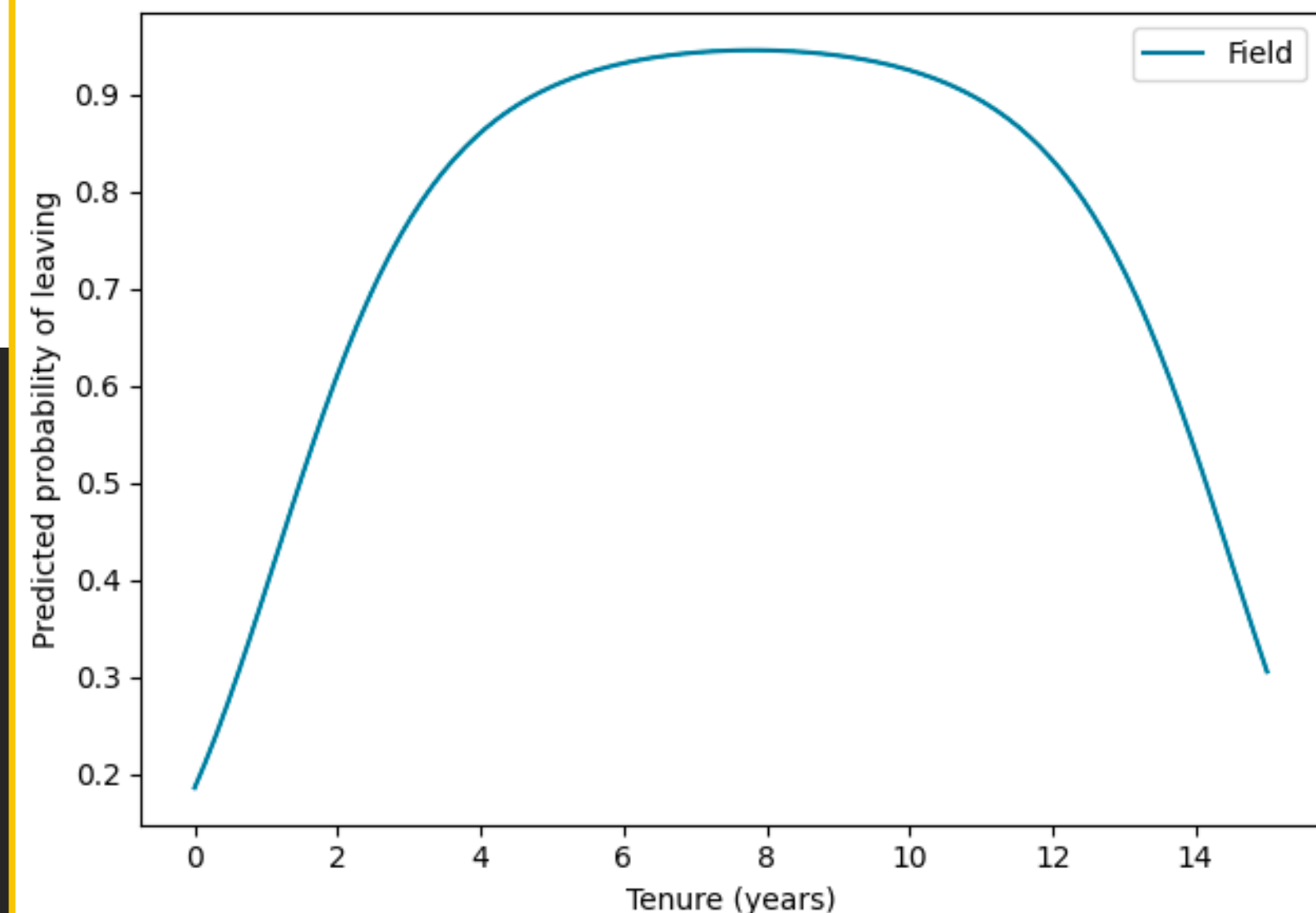
## Attrition Drops Strongly with Higher Pay and Very Long Tenure

- Low pay (<\$20/hr) shows very high attrition risk (~95%), which falls sharply as pay increases.
- Mid-tenure (4–10 years) employees have the highest probability of leaving (~90%).

Predicted attrition vs Pay (Field, tenure = 5 years)



Predicted attrition vs Tenure



# RECOMMENDATIONS

Unlock growth by fixing five specific workforce problems



## Vision

### Five workforce problems blocking growth:

- New field workers leaving in the first ninety days
- High attendance issues in distant zip codes (14622, 14626)
- Mid-career employees leaving between three and seven years
- Older experts (age fifty five to sixty four) leaving without successors
- Very high attrition in the lowest pay band



## Mission

### A five-part, data-driven plan:

- Stop early exits in the first ninety days
- Fix attendance in 14622 and 14626 using the site-worker app
- Retain mid-career employees with clear “next-role” paths
- Keep older experts and transfer their knowledge
- Raise the pay floor to reduce low-pay attrition



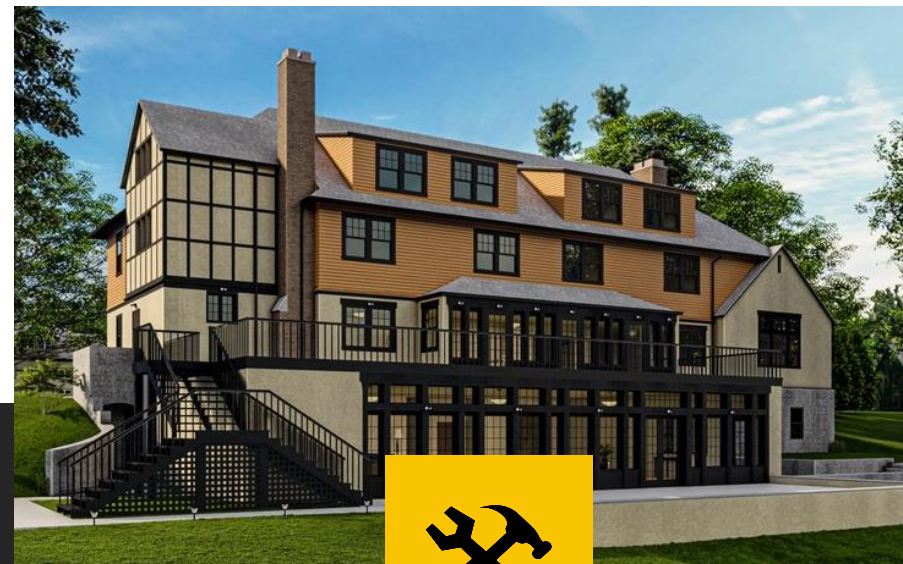
# RECOMMENDATIONS



## First ninety days programme

**Do:** Show five-year path in the app, assign a buddy, and complete three check-ins before day ninety.

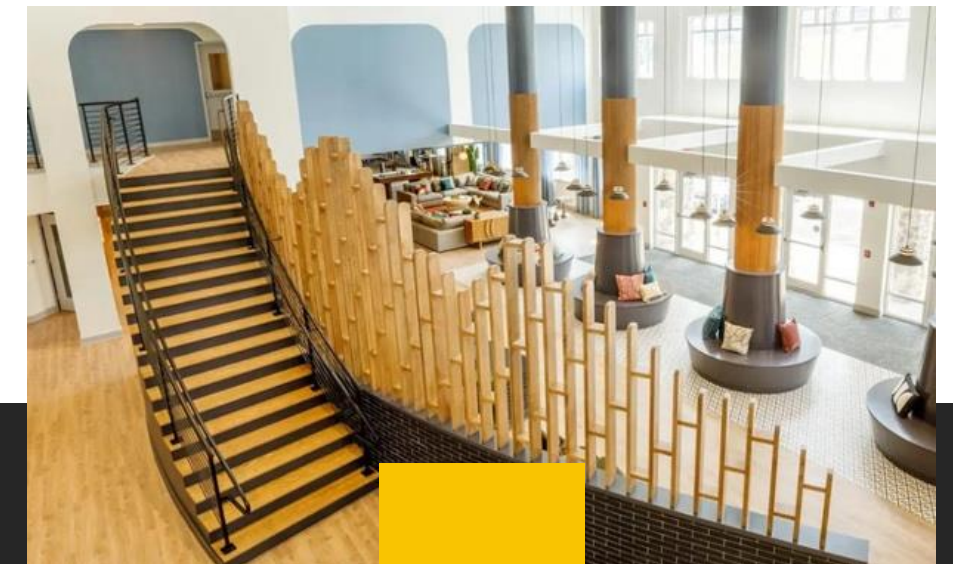
**Result:** Fewer new workers leaving in the first ninety days.



## Work near home for 14622 and 14626

**Do:** Use the app to place these workers at the nearest sites and support carpool or pick-up from one hub.

**Result:** Lower attendance incidents from distant zip codes.



## Pay floor and simple pay bands

**Do:** Set a minimum pay above the highest-risk level and group all roles into clear pay bands.

**Result:** Reduced attrition among the lowest paid workers.



# RECOMMENDATIONS



## “Next-role” paths for mid-career employees

**Do:** For every employee with 3-7 years tenure, define the next role, timeline, skills, and pay step.

**Result:** More employees stay beyond 5 years and move into leadership roles.



## Senior expert and knowledge transfer roles

**Do:** Create a lighter “Senior Professional” role and pair each senior with juniors for planned skill transfer.

**Result:** Experience is retained and juniors are ready to replace departing experts.



# GET IN TOUCH WITH USC APP

Workforce Insights App gives each worker a live view of their performance, skill progress, career path, and nearby USC Builds job sites in one place.

## Key Features

- Peer review system for performance feedback
- “Find jobs near me” location-based job matching
- Seamless data pipeline combining attendance, tenure, and HR data
- Personalized career progress tracker
- Early-exit risk detection
- Milestone roadmap (6-month skills training → promotion path)





# THANK YOU!!!

---

Thank you for inviting us for site visit and have a closer look at USC Builds work and process, it gave us clear insights about company.



It was a wonderful  
Experience.





University  
of Rochester  
Simon Business School



USC  
BUILDS

# THANK YOU

**For Your Attention**