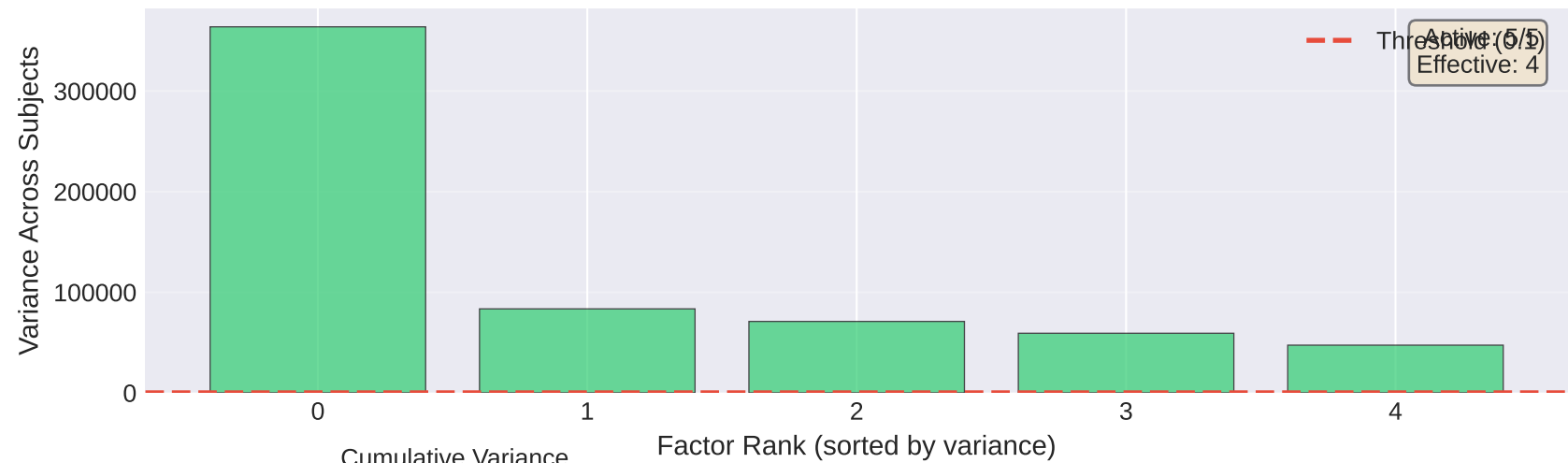
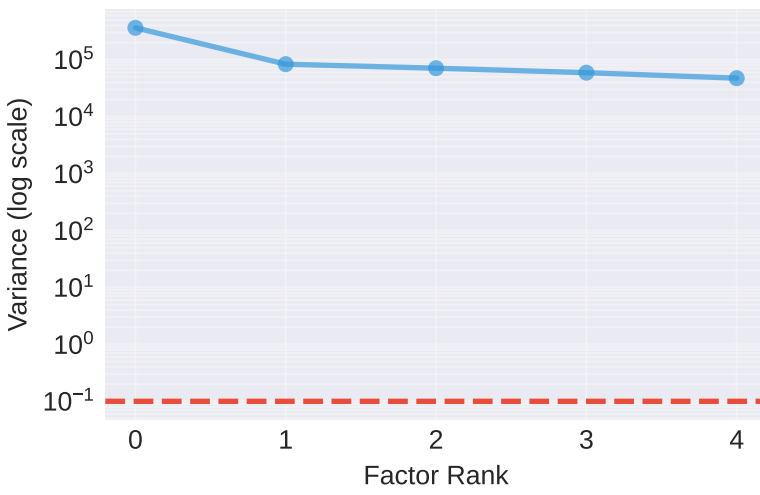


Factor Variance Analysis: ARD Shrinkage Assessment (K=5)

Factor Variance Profile (K=5): 5 Active Factors

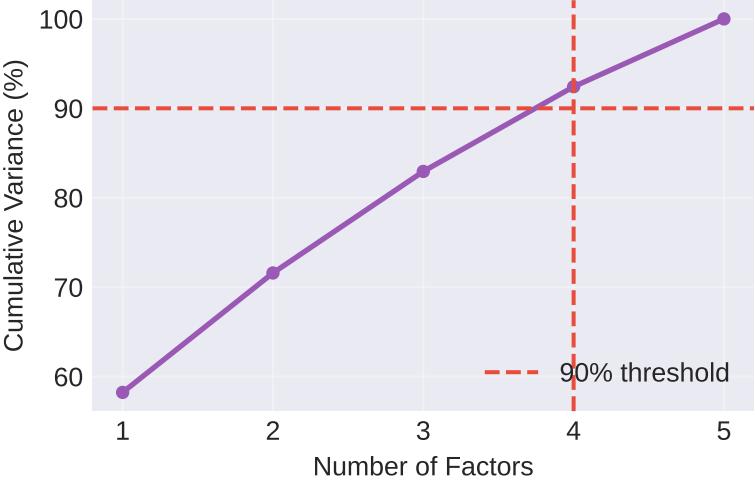


Log-Scale Variance
(Sharp drop = good ARD)

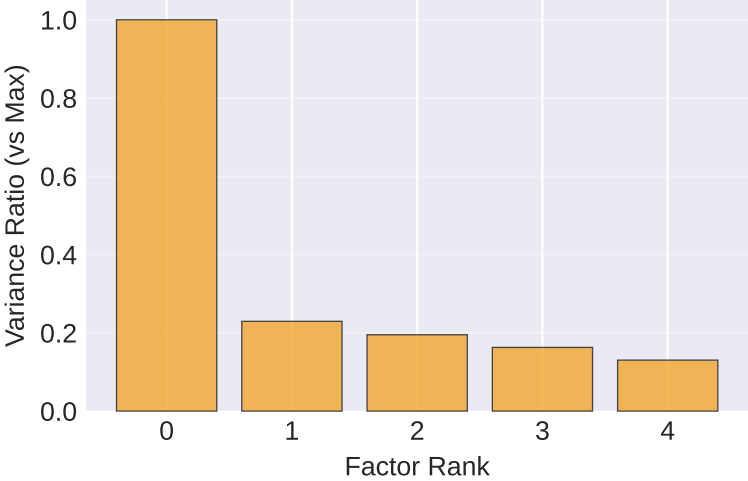


Cumulative Variance
(90% @ 4 factors)

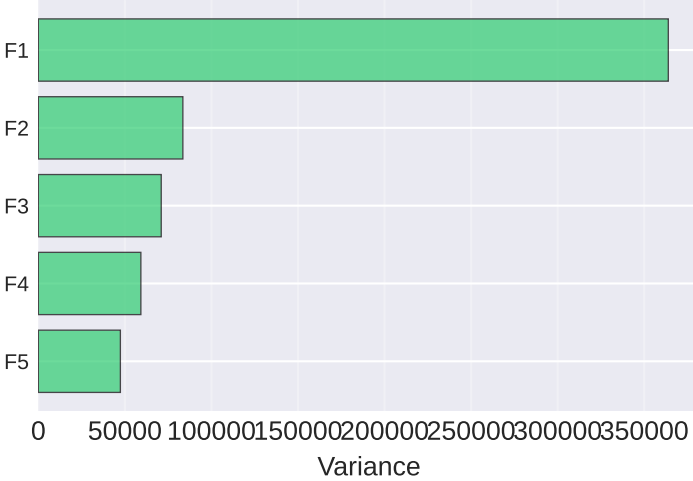
Factor Rank (sorted by variance)



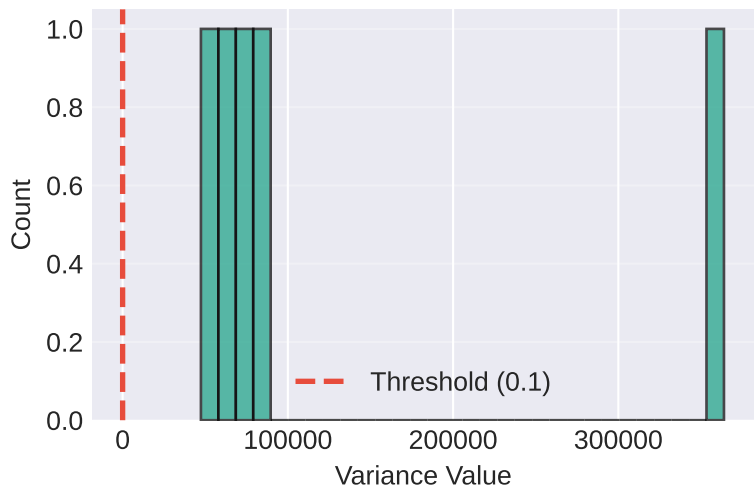
Normalized Variance Profile



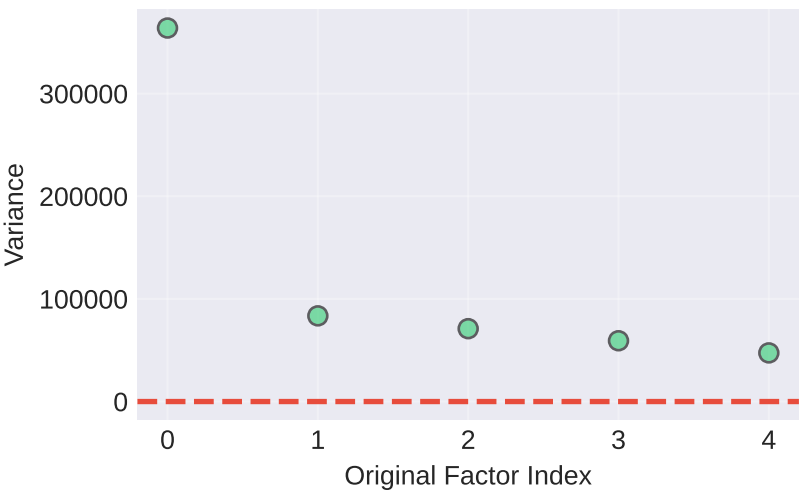
Top 5 Factors



Distribution of Factor Variances



Variance by Original Factor Order



VARIANCE PROFILE SUMMARY

Total Factors (K): 5
Active Factors: 5
Effective Dim (90%): 4

Max Variance: 363902.4062
Mean Variance: 124995.9781
Median Variance: 70987.1250

Top 3 Variances:
#1: 363902.4062
#2: 83481.8516
#3: 70987.1250

ARD Shrinkage: N/A (K < 10)
Shrinkage Ratio: nan

INTERPRETATION:

Poor shrinkage suggests:

- Convergence issues
- Overfitting
- Need longer sampling