

Run Summary

riboHMM Validation Report

Run Timestamp: 2025-07-30T14:58:03.075443

Test Data File: /home/kai/Documents/00_RNA/01_riboHMM_simple_prod/02_Processed_Data/test_top1000_raw.npz

Trained Model File: /home/kai/Documents/00_RNA/01_riboHMM_simple_prod/04_Models/model_top1000_raw.joblib

Model Config File: /home/kai/Documents/00_RNA/01_riboHMM_simple_prod/model_config.json

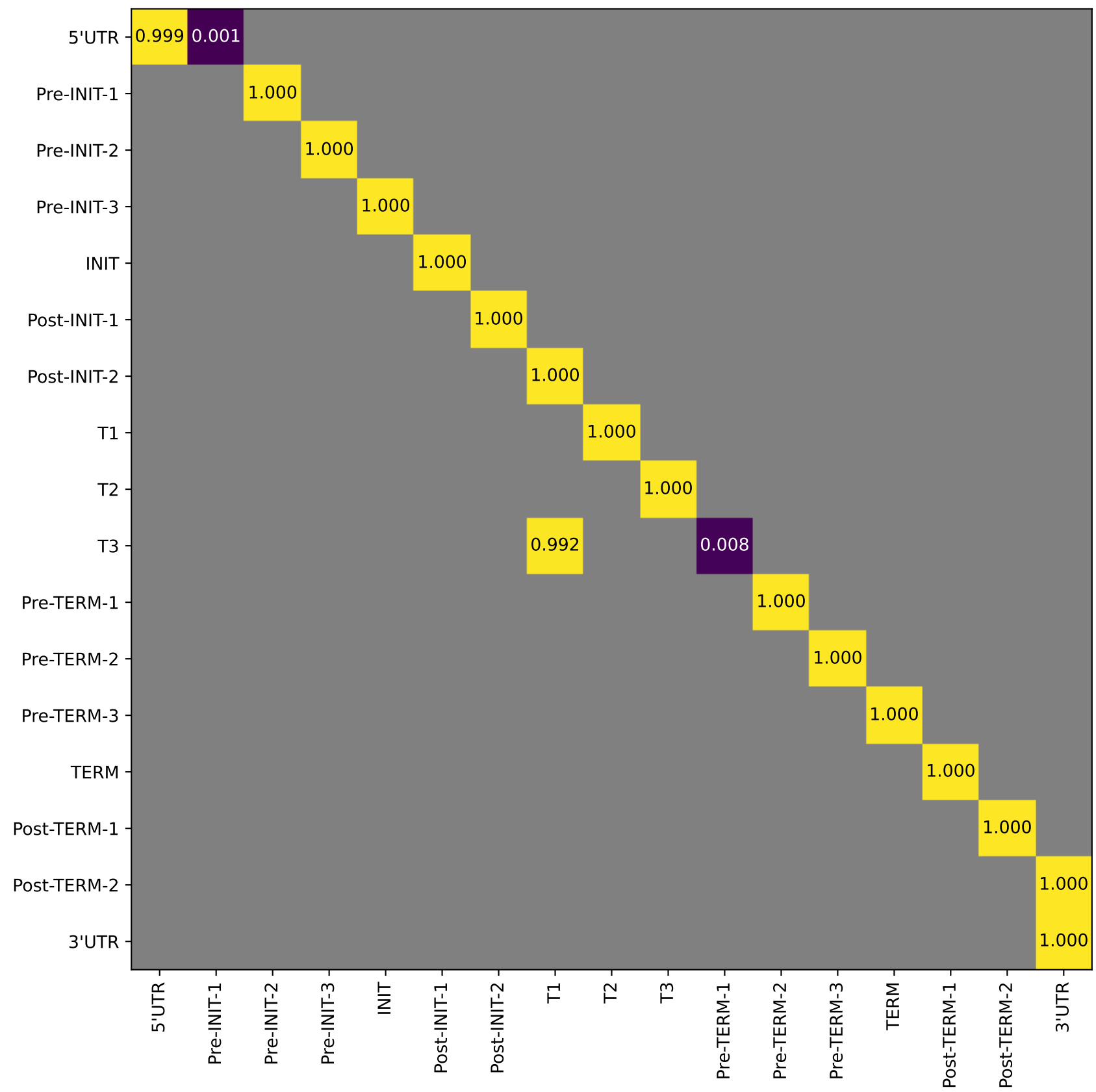
ORF Annotations File: /home/kai/Documents/00_RNA/01_riboHMM_simple_prod/01_Reference_Files/MANE_CDS_coordinates.csv

Number of Transcripts in Test Set: 200

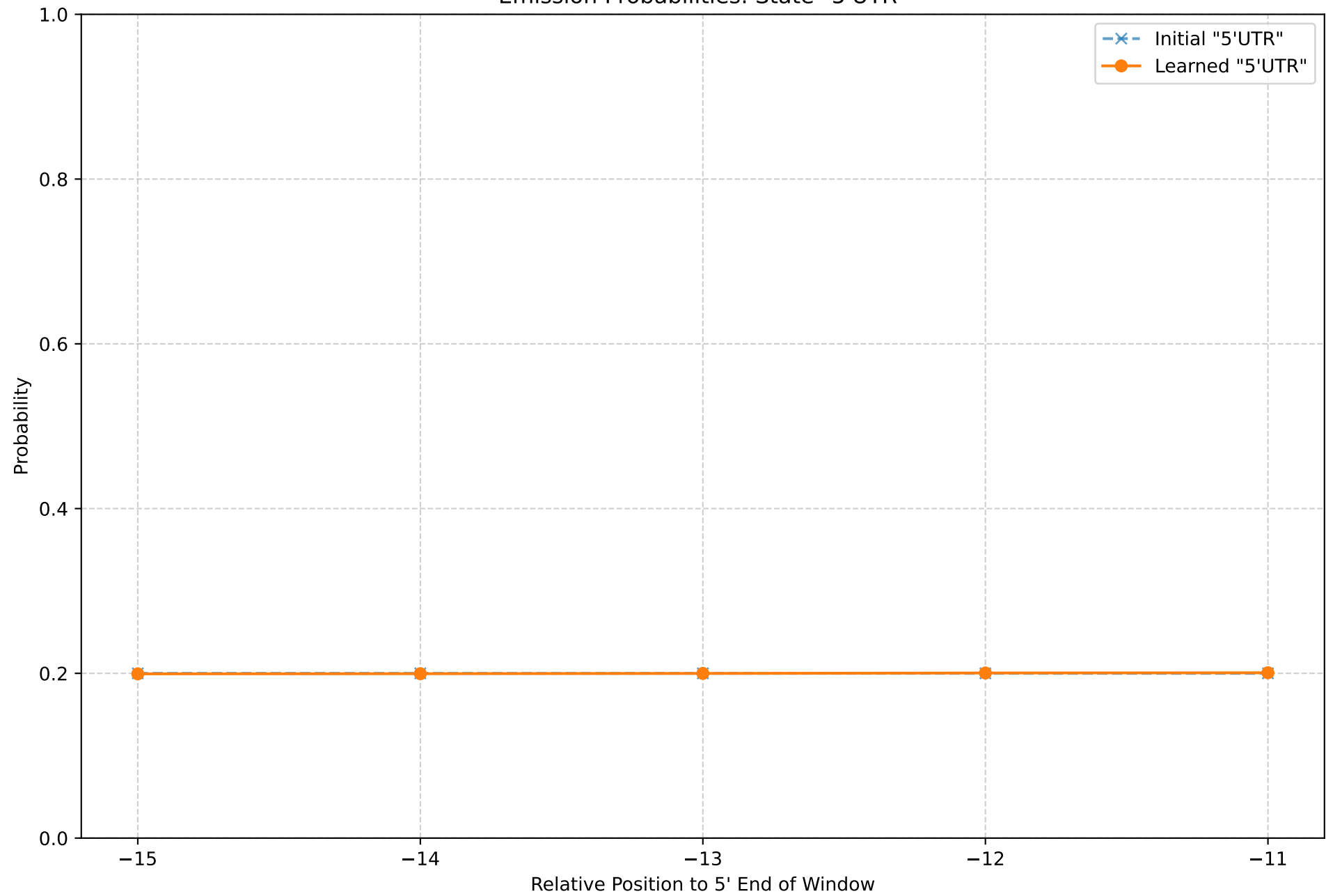
The heatmap displays a 16x16 matrix with a diagonal of dark purple cells labeled '0.010' and off-diagonal cells labeled '0.990' or '1.000'. The matrix is symmetric, with the values 0.990 and 0.010 appearing in the same positions as the diagonal elements.

3'UTR

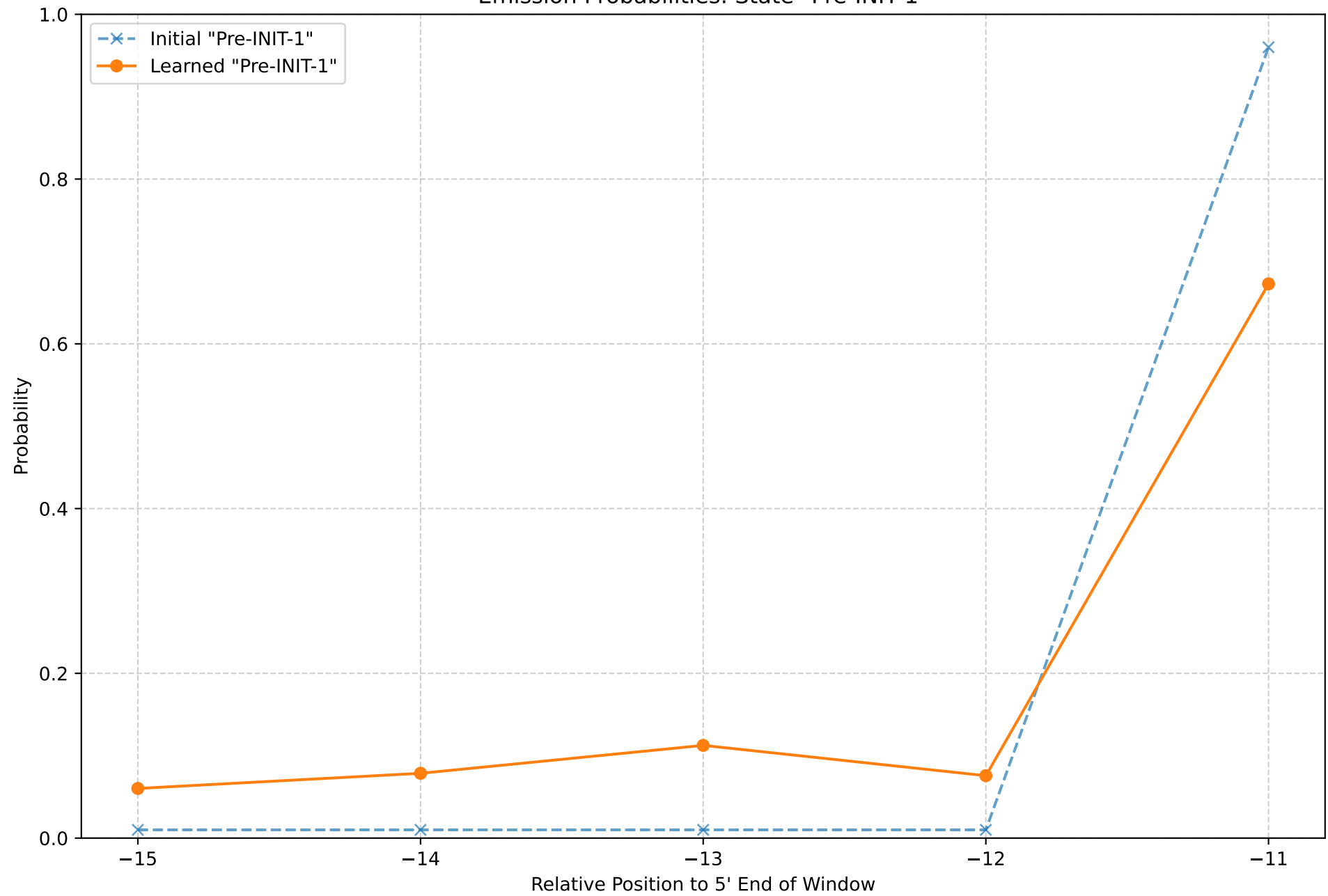
Learned Transition Matrix



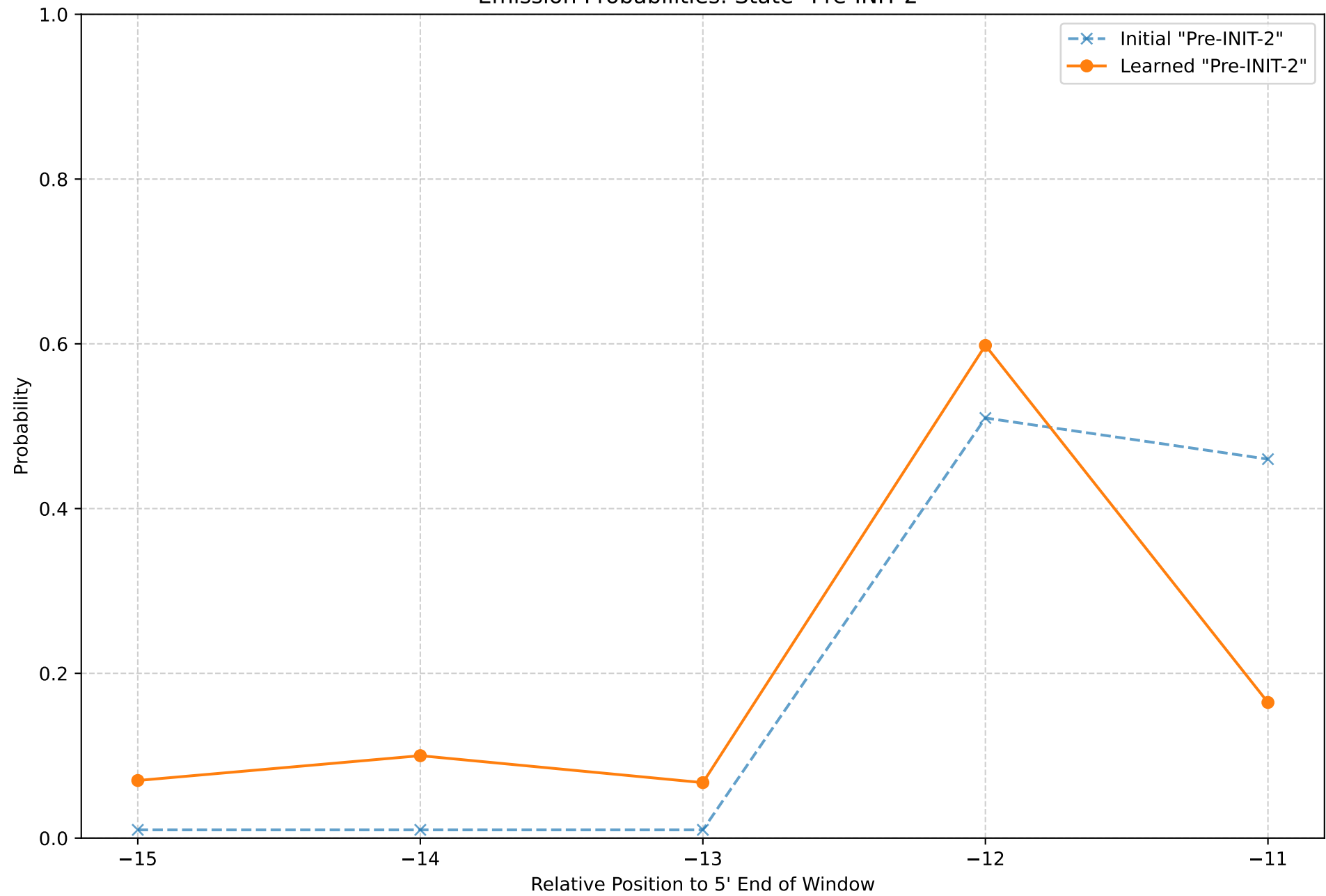
Emission Probabilities: State "5'UTR"



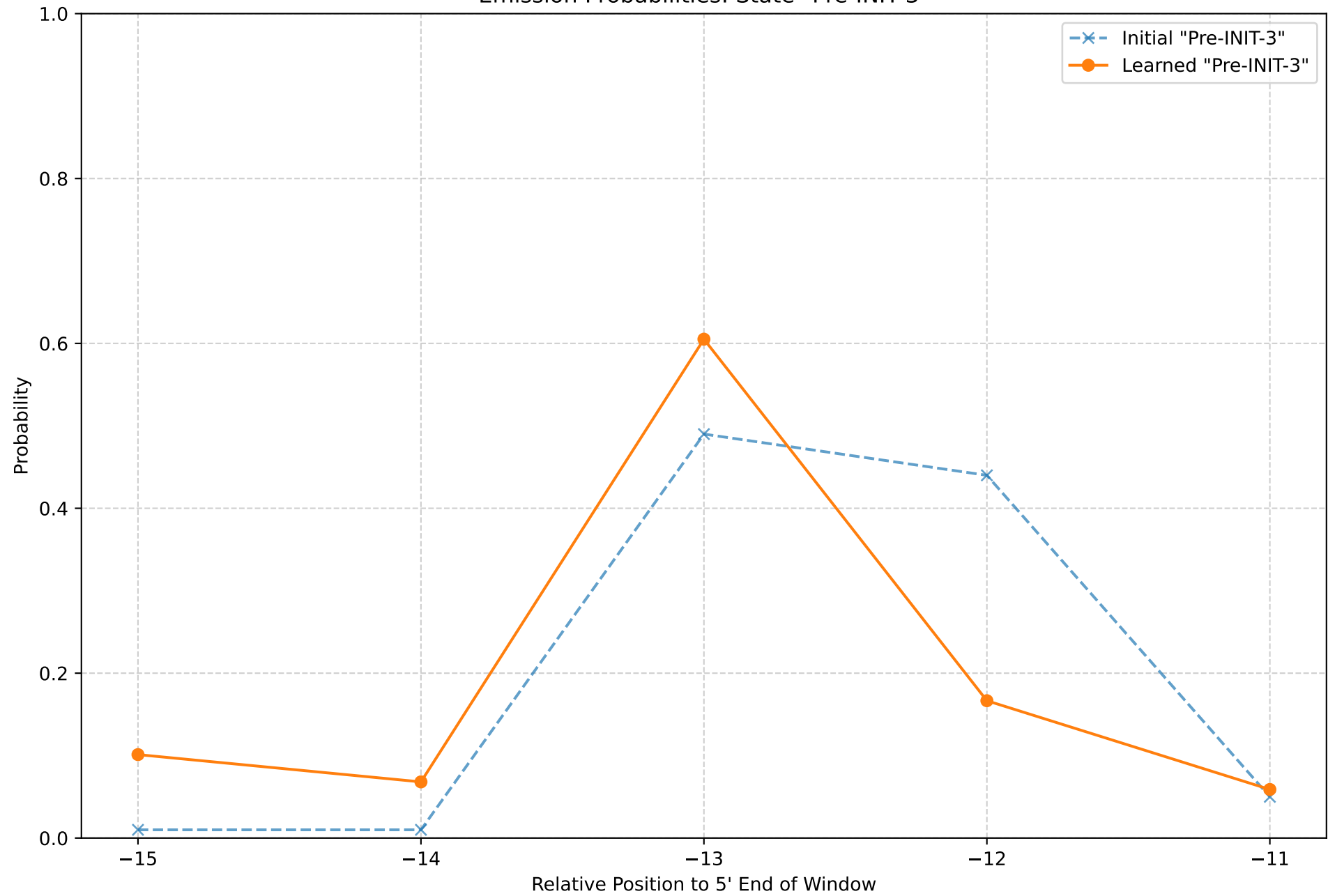
Emission Probabilities: State "Pre-INIT-1"



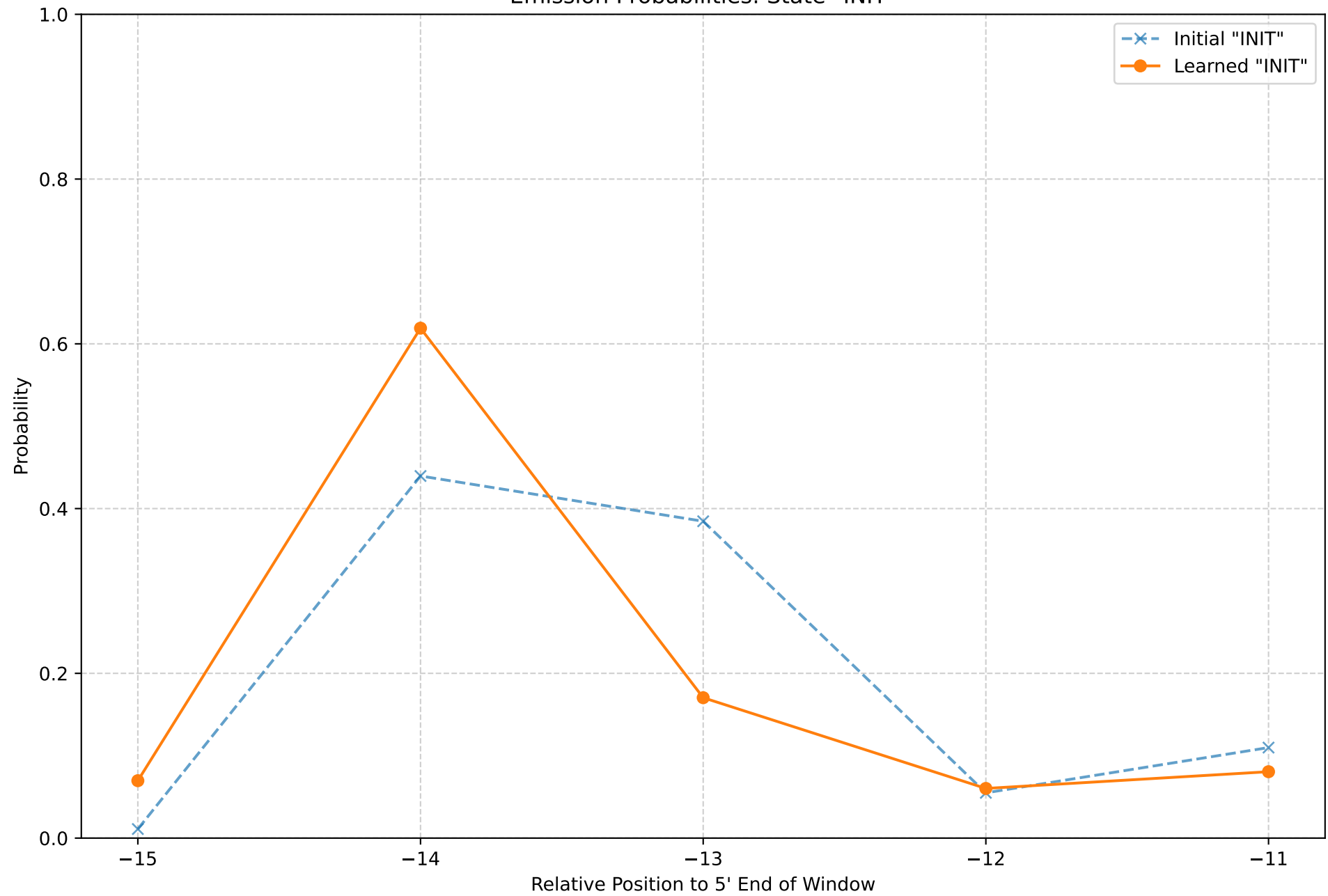
Emission Probabilities: State "Pre-INIT-2"



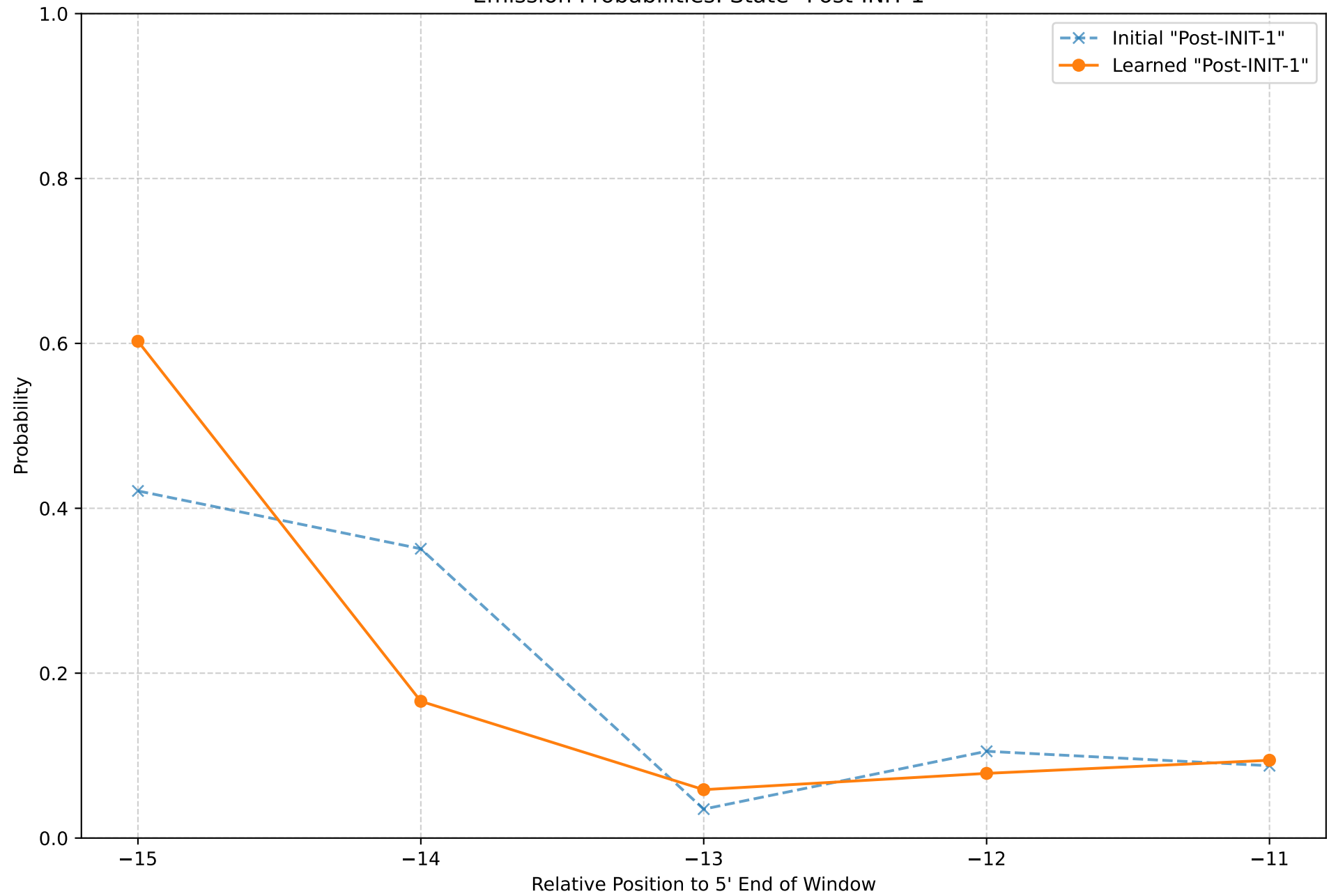
Emission Probabilities: State "Pre-INIT-3"



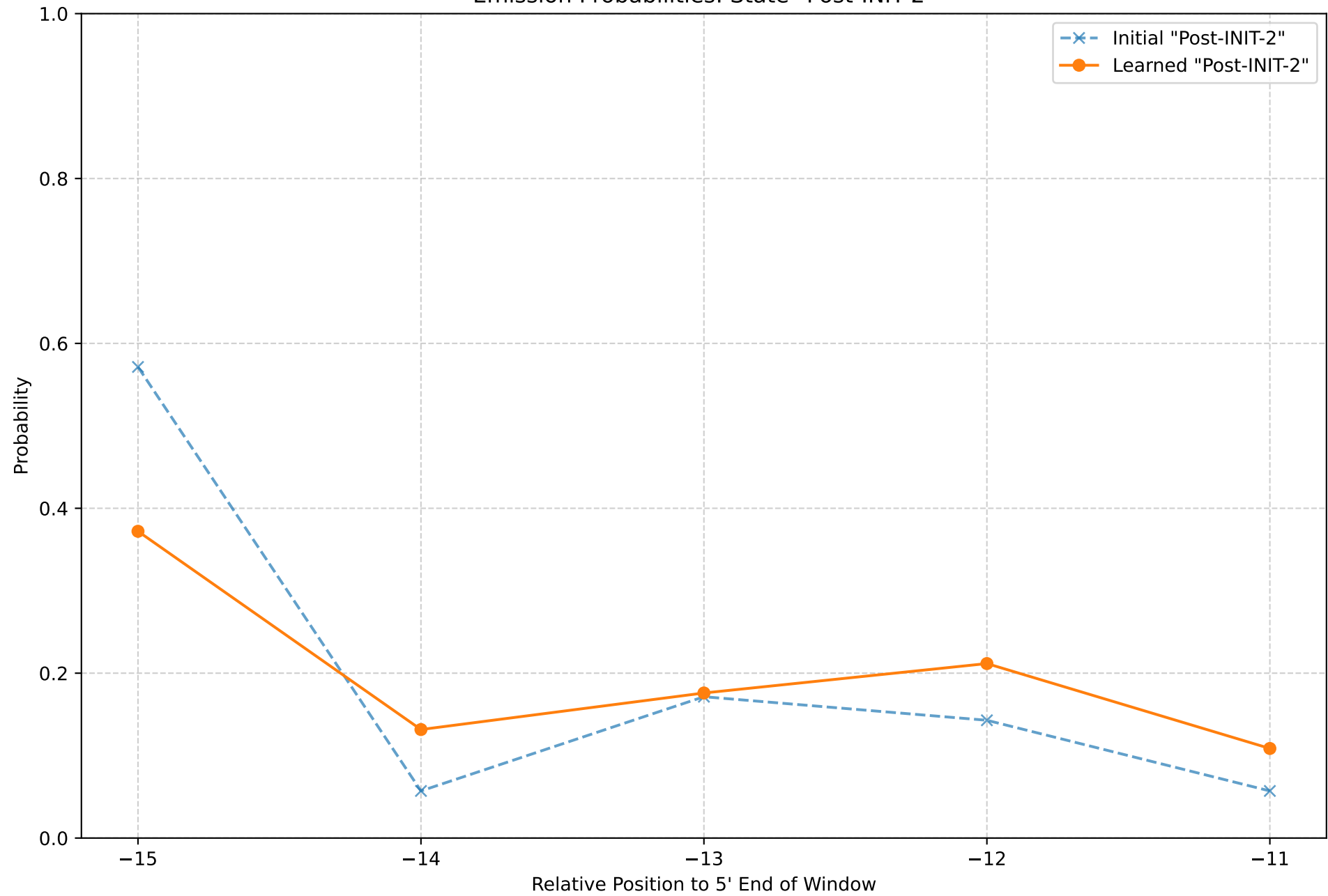
Emission Probabilities: State "INIT"



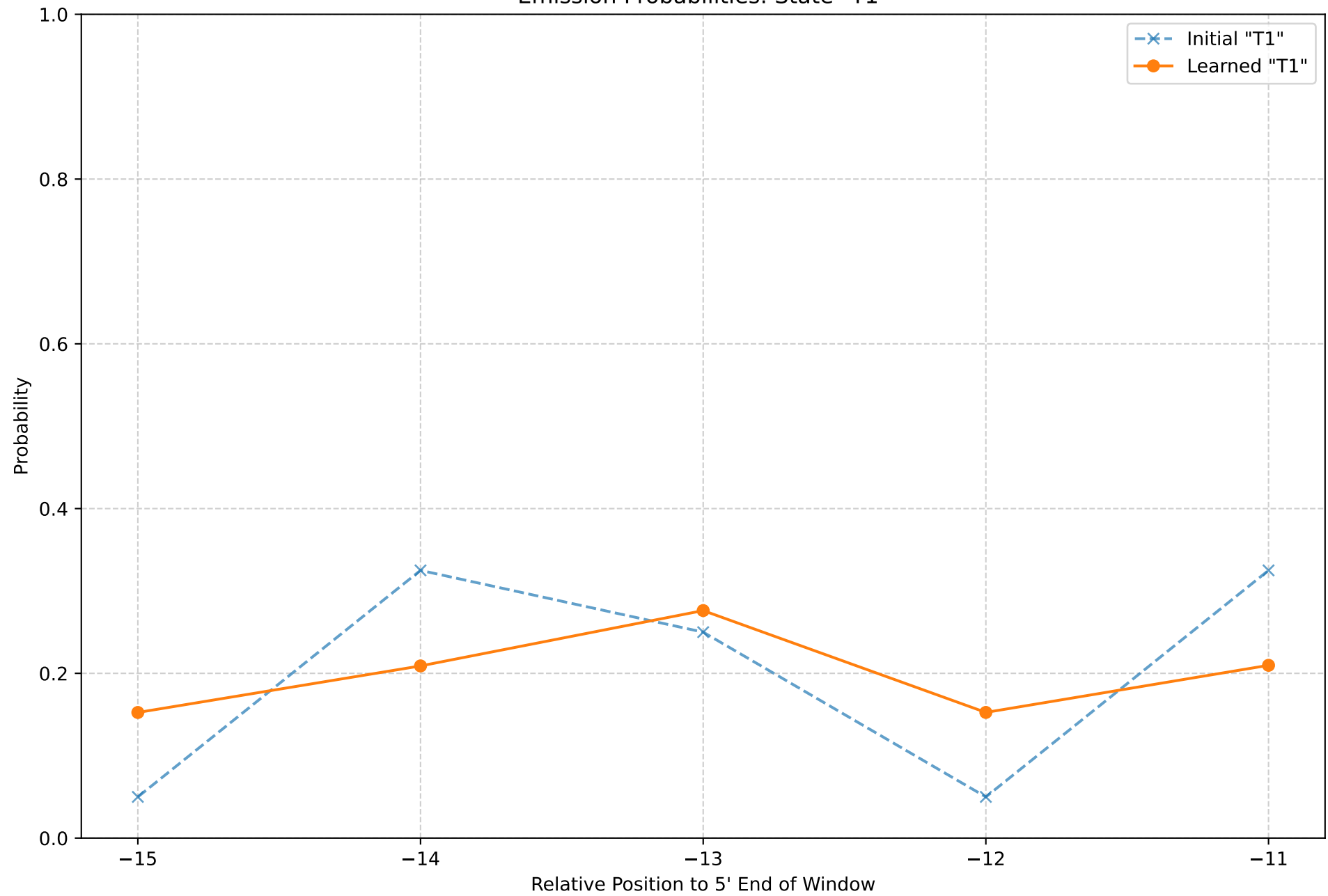
Emission Probabilities: State "Post-INIT-1"



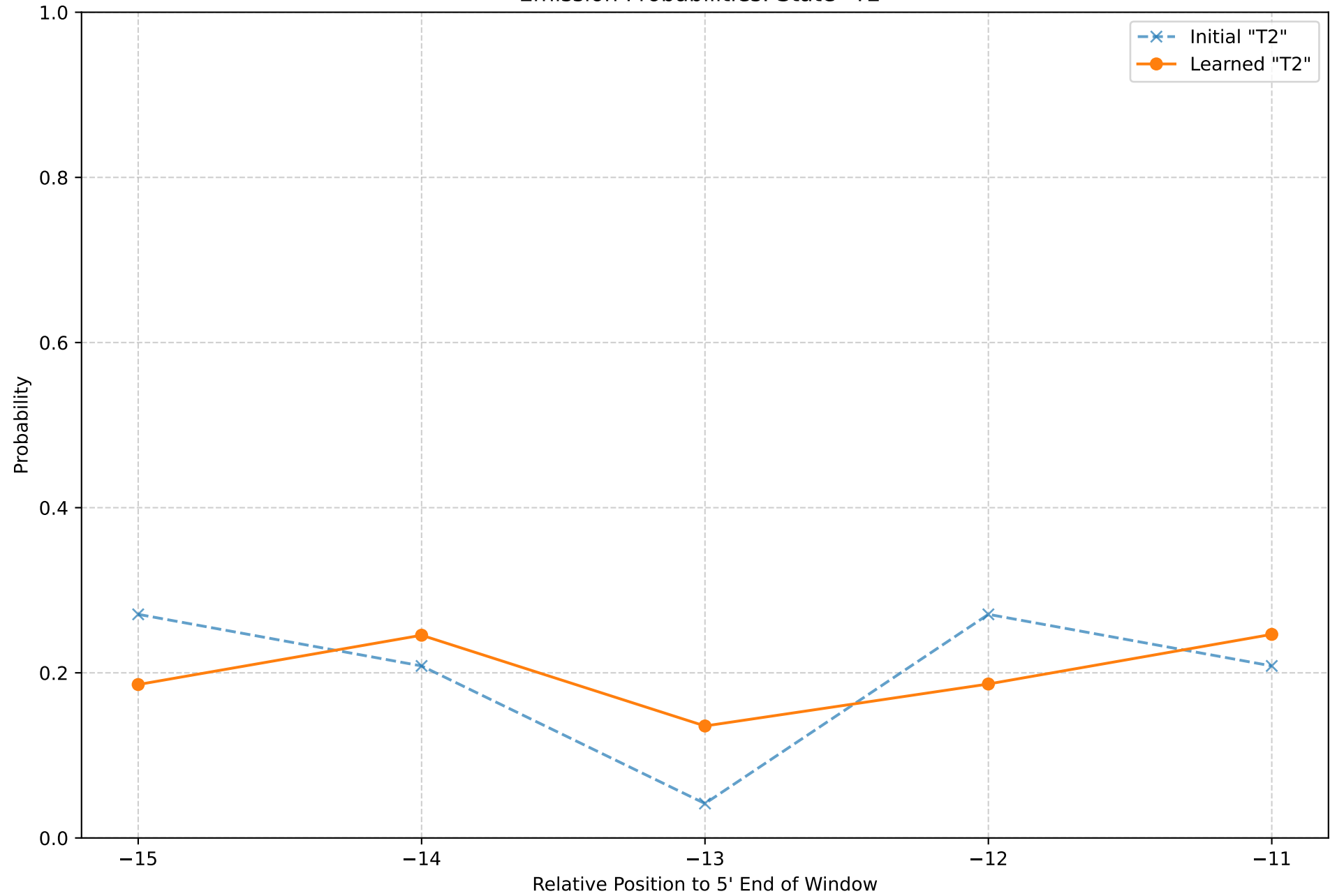
Emission Probabilities: State "Post-INIT-2"



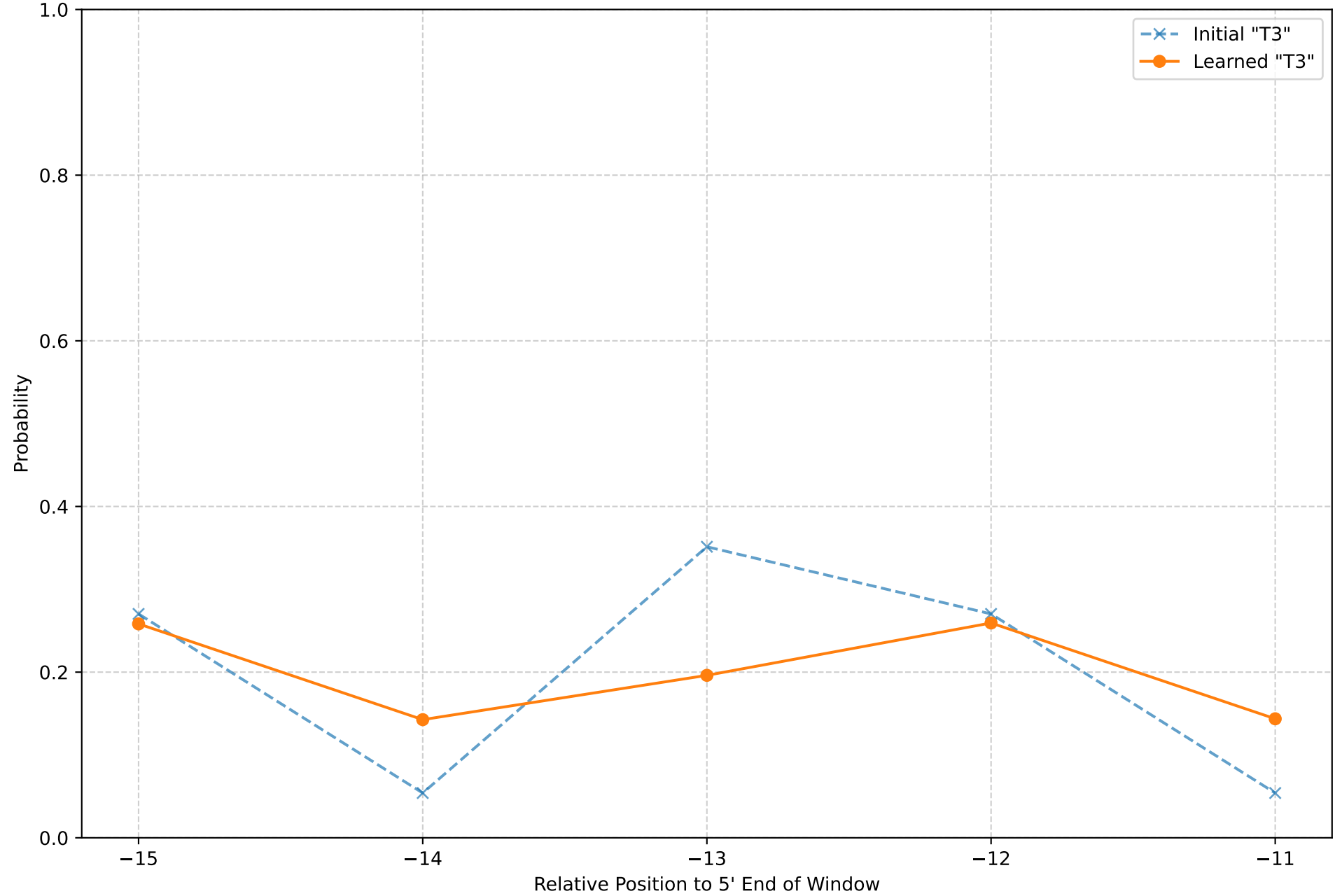
Emission Probabilities: State "T1"



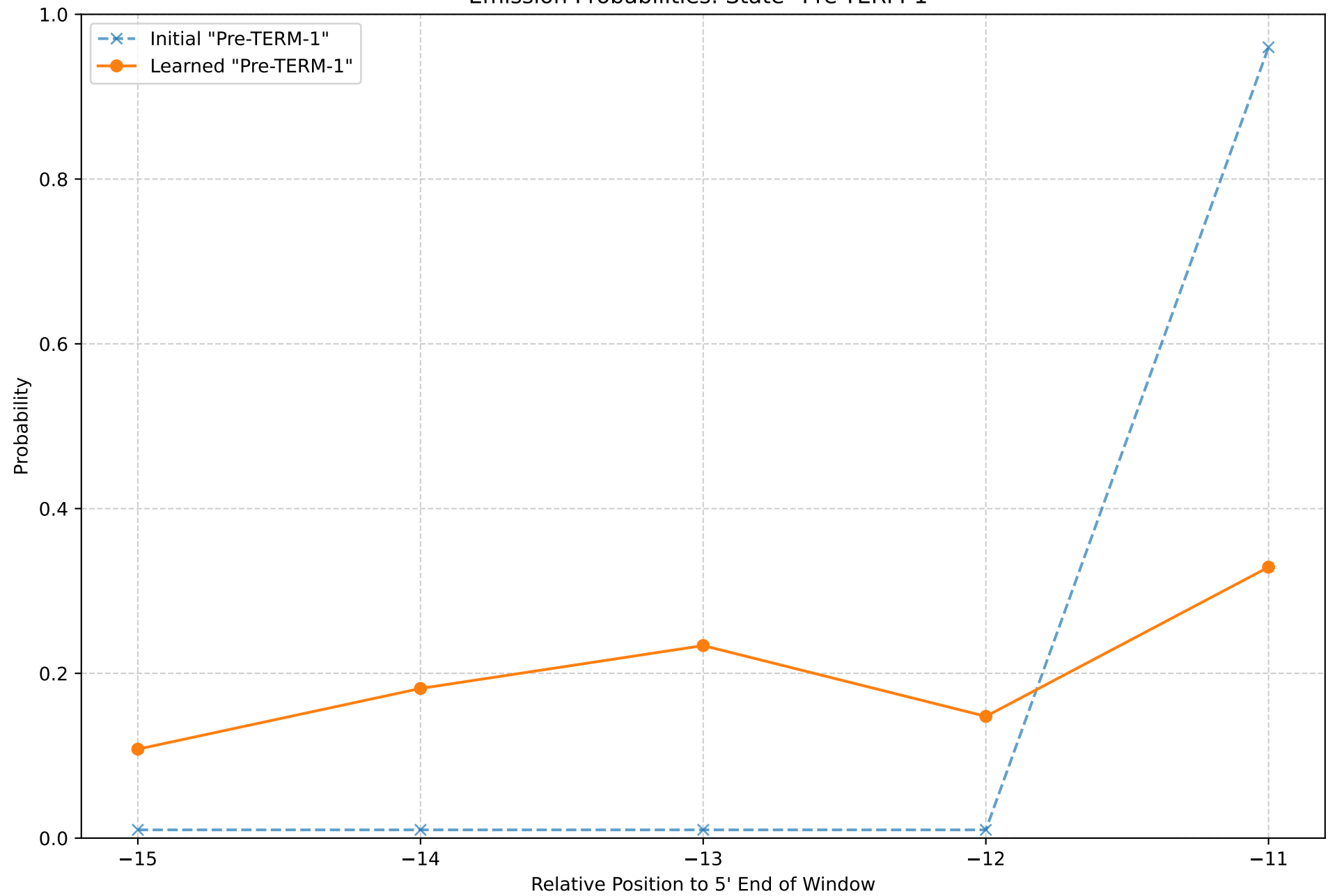
Emission Probabilities: State "T2"



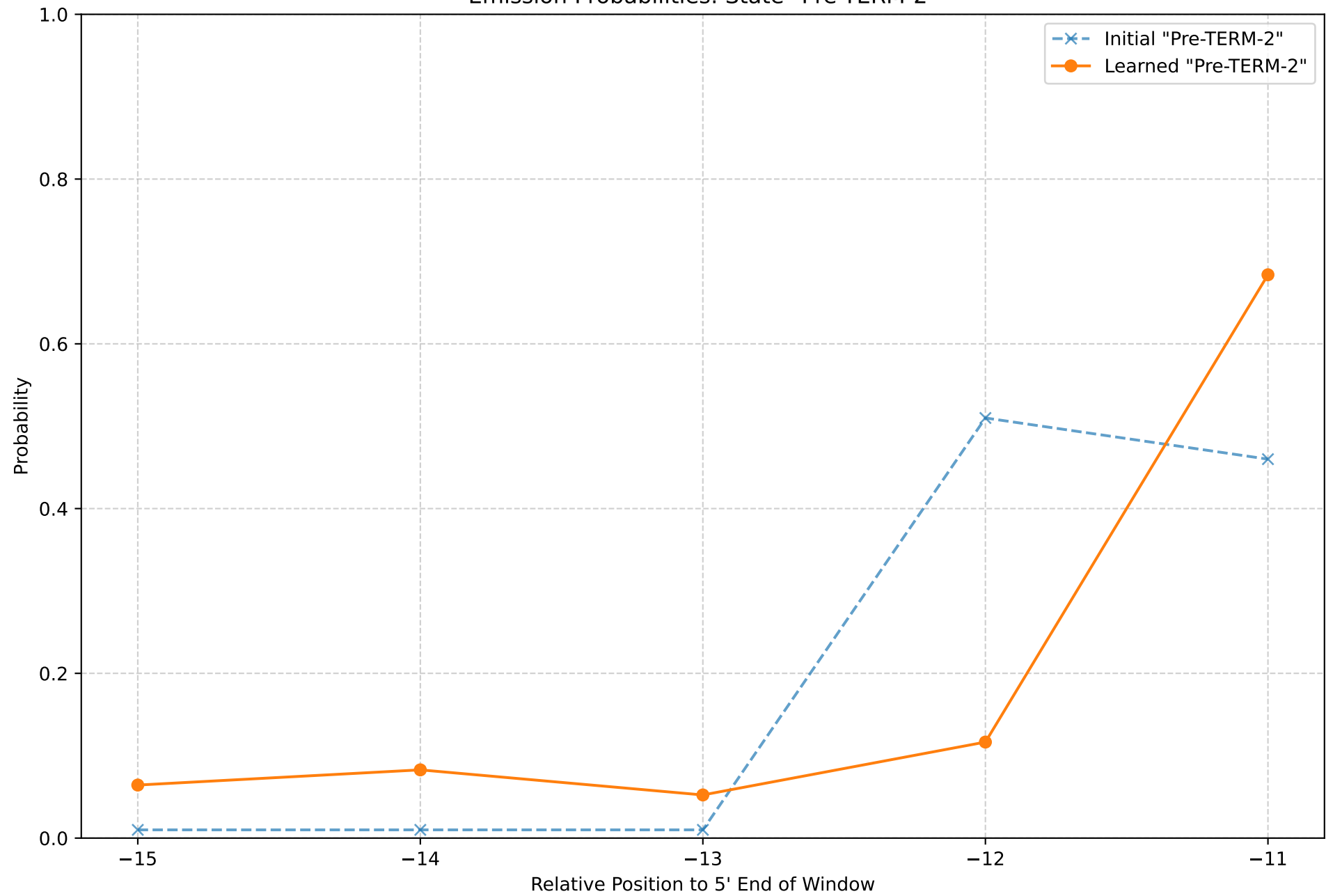
Emission Probabilities: State "T3"



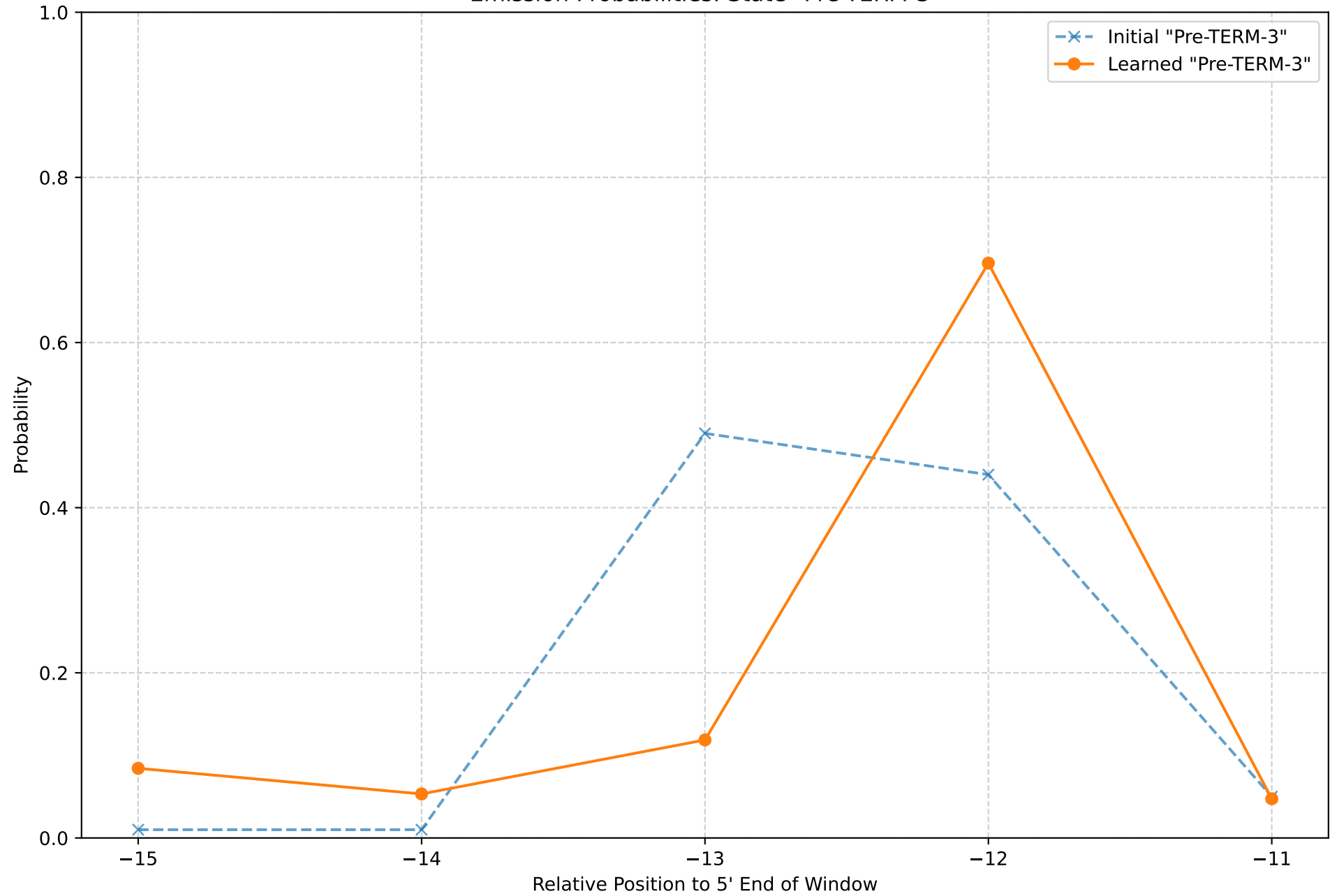
Emission Probabilities: State "Pre-TERM-1"



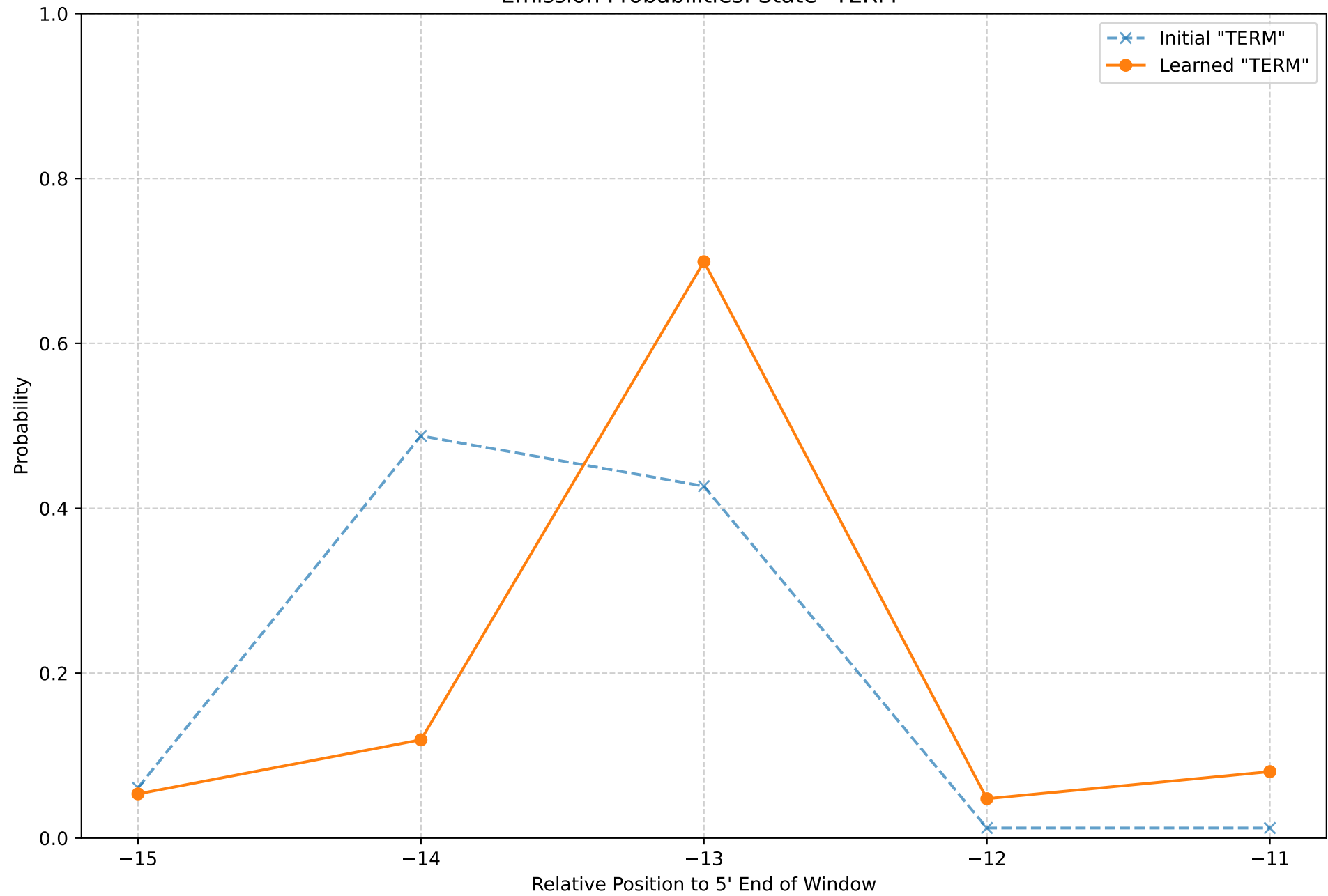
Emission Probabilities: State "Pre-TERM-2"



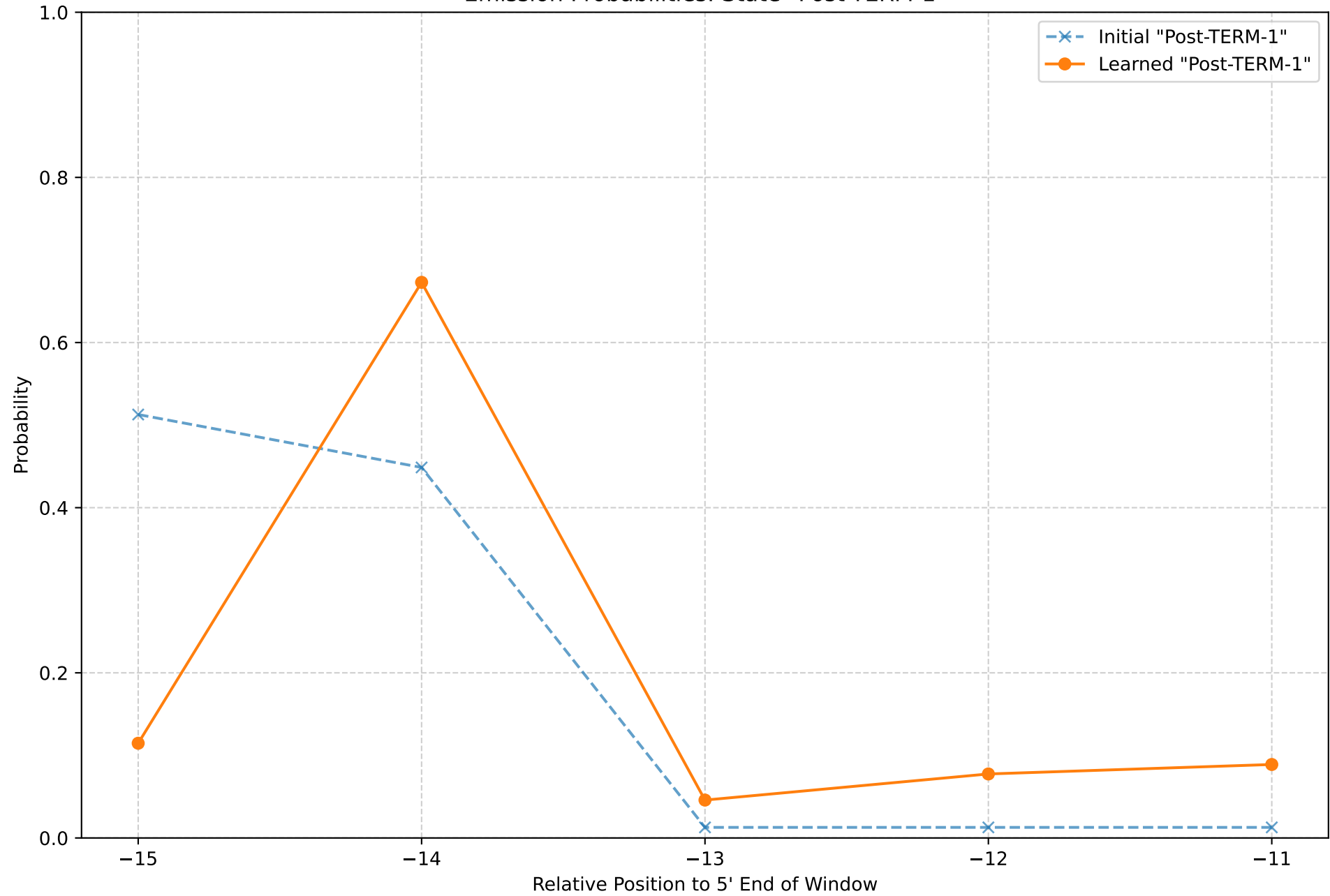
Emission Probabilities: State "Pre-TERM-3"



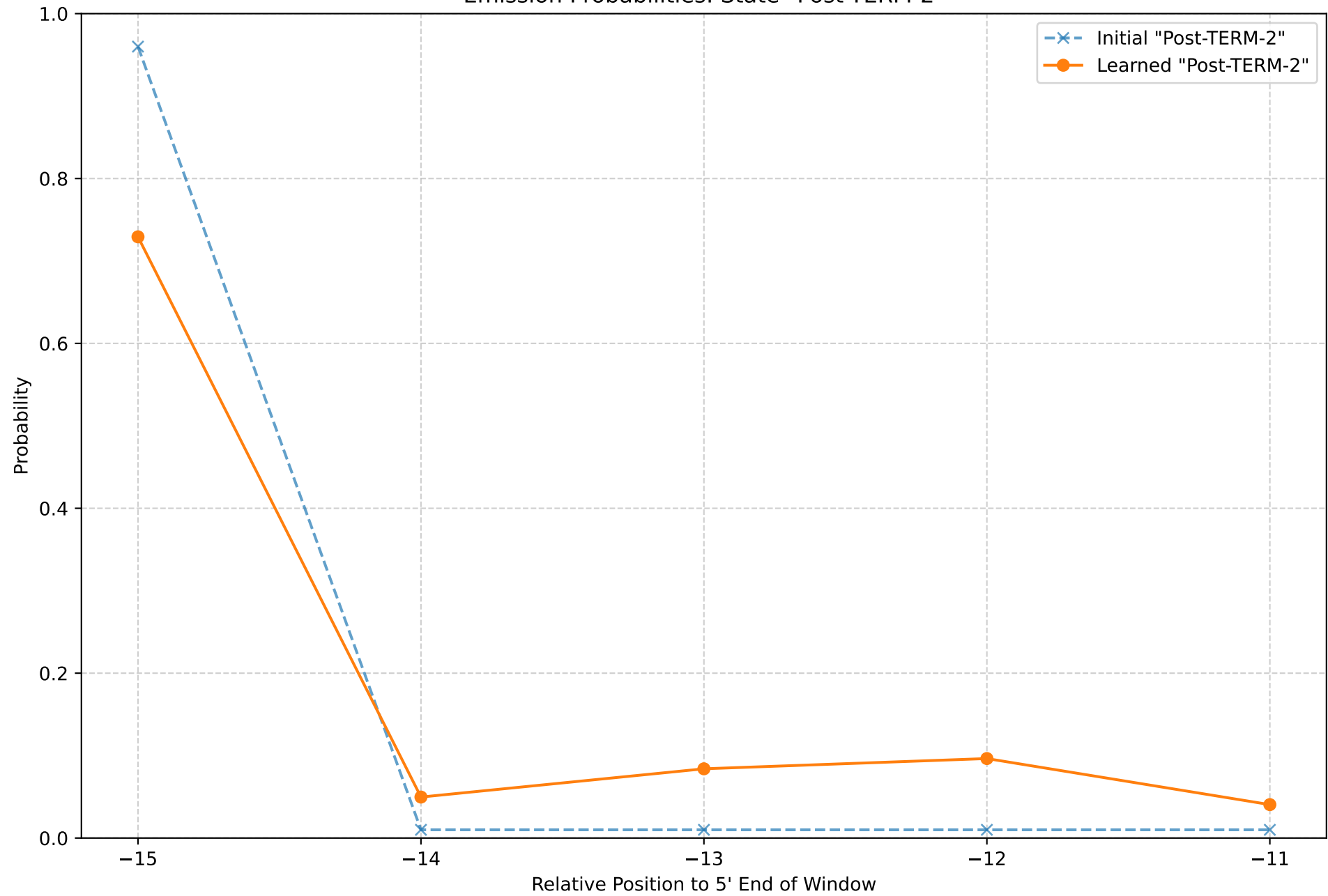
Emission Probabilities: State "TERM"



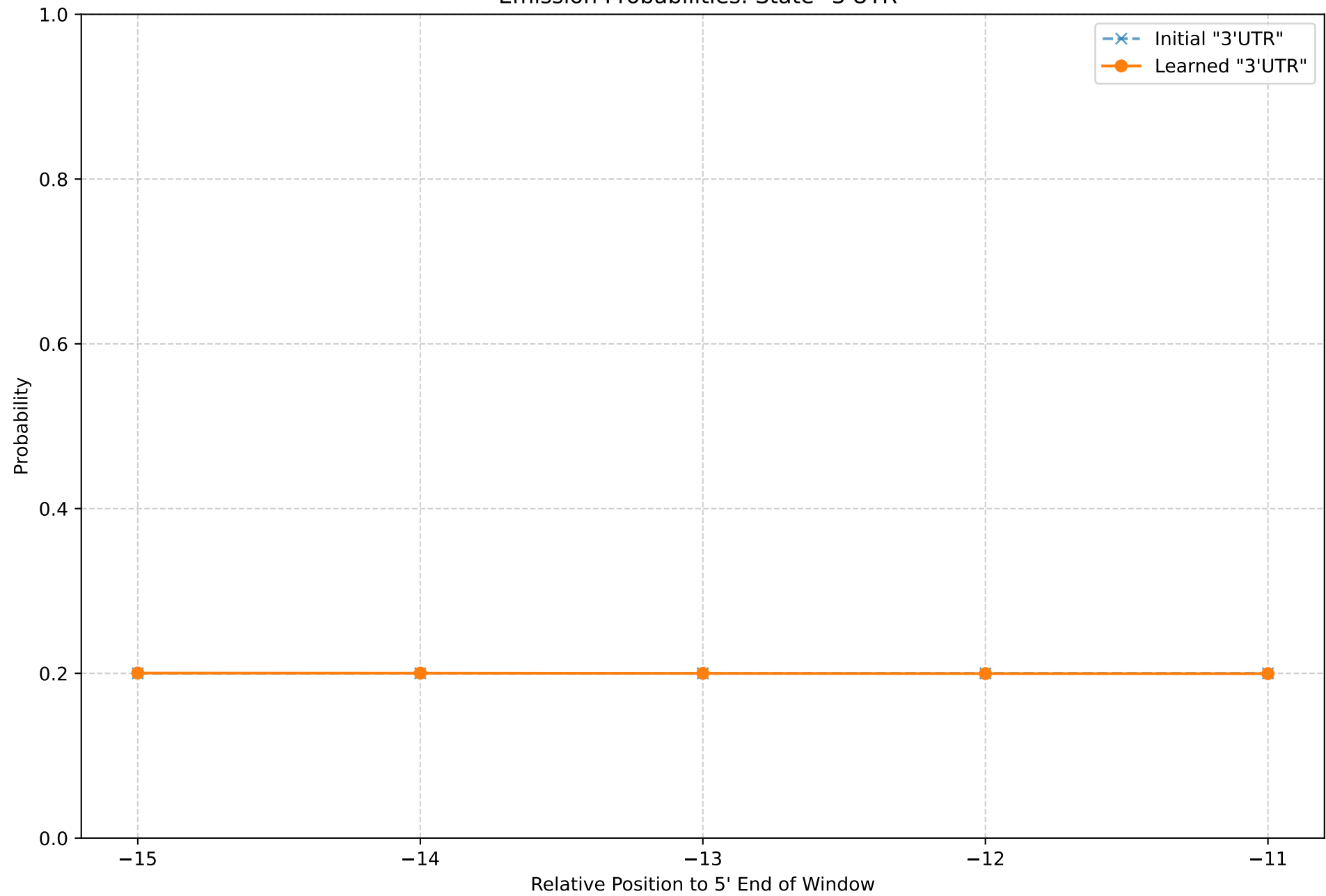
Emission Probabilities: State "Post-TERM-1"



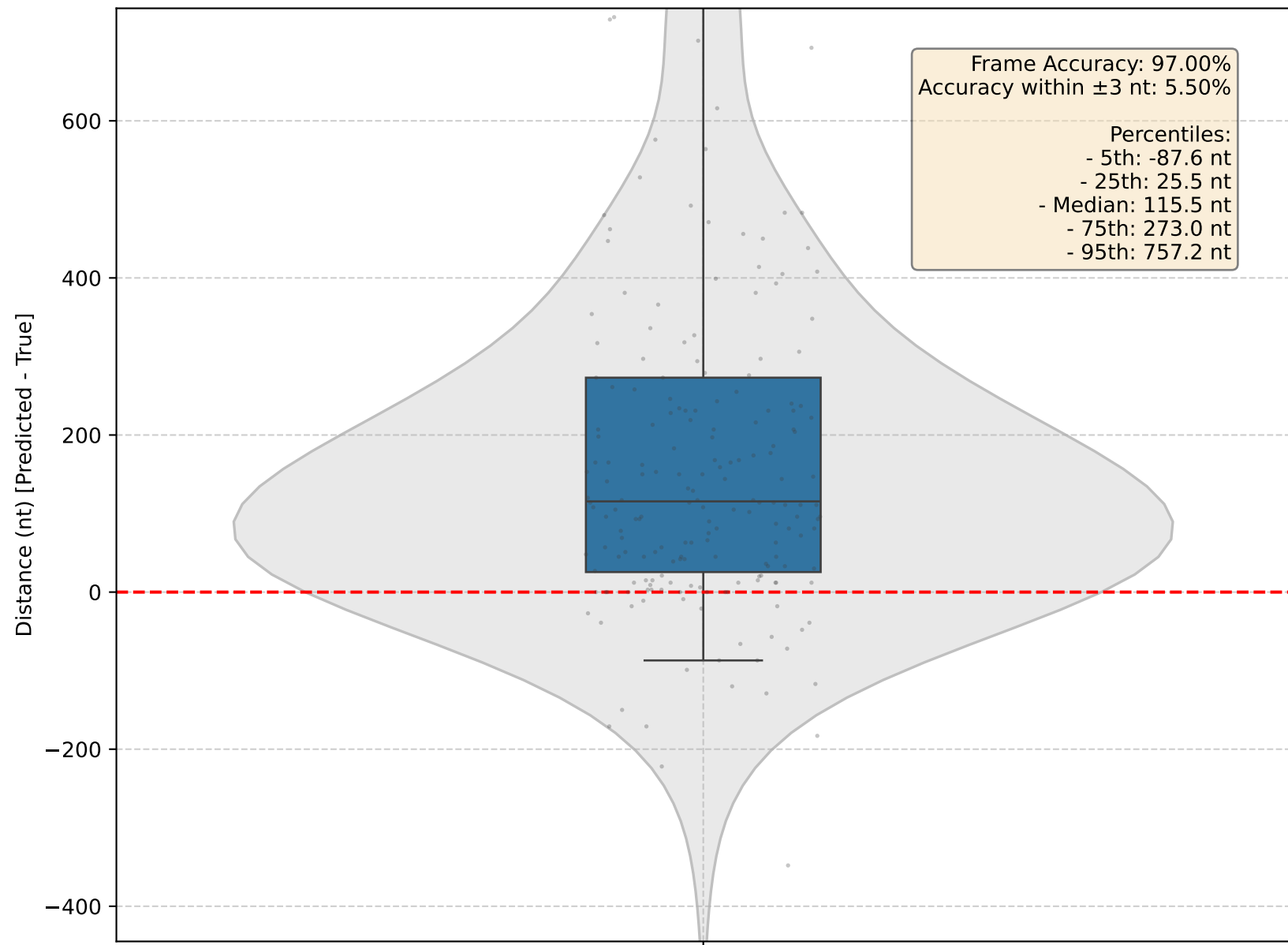
Emission Probabilities: State "Post-TERM-2"



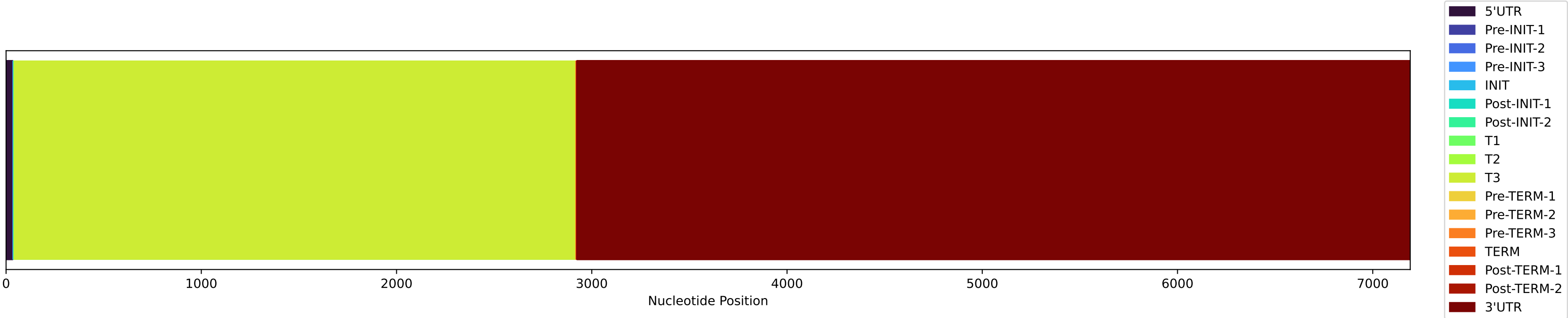
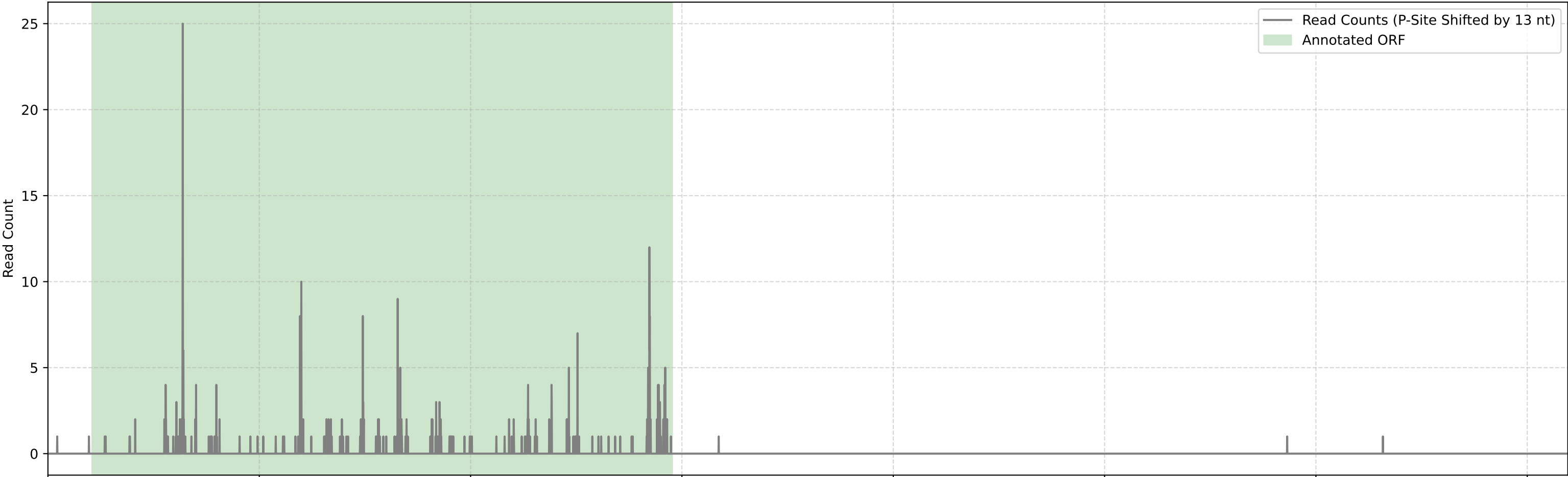
Emission Probabilities: State "3'UTR"



Distance: Predicted INIT State vs. True Start Codon

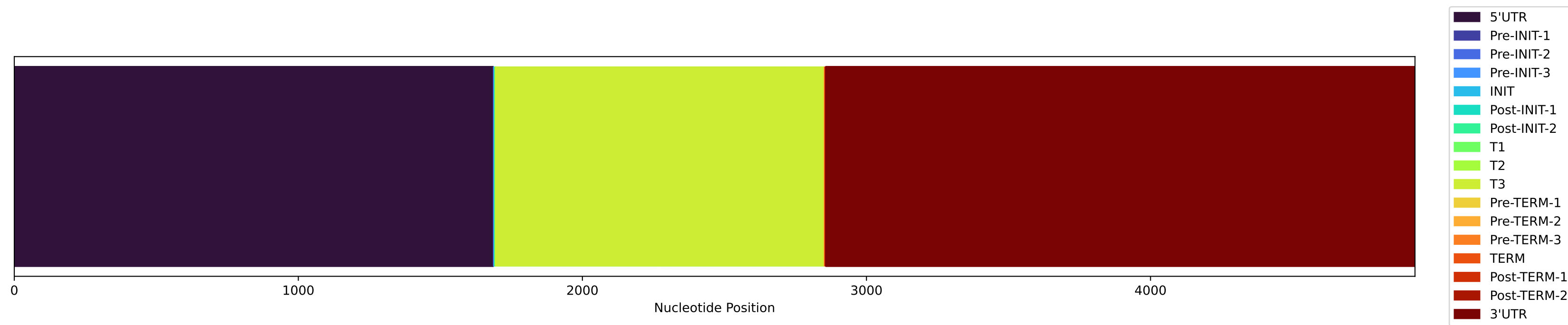
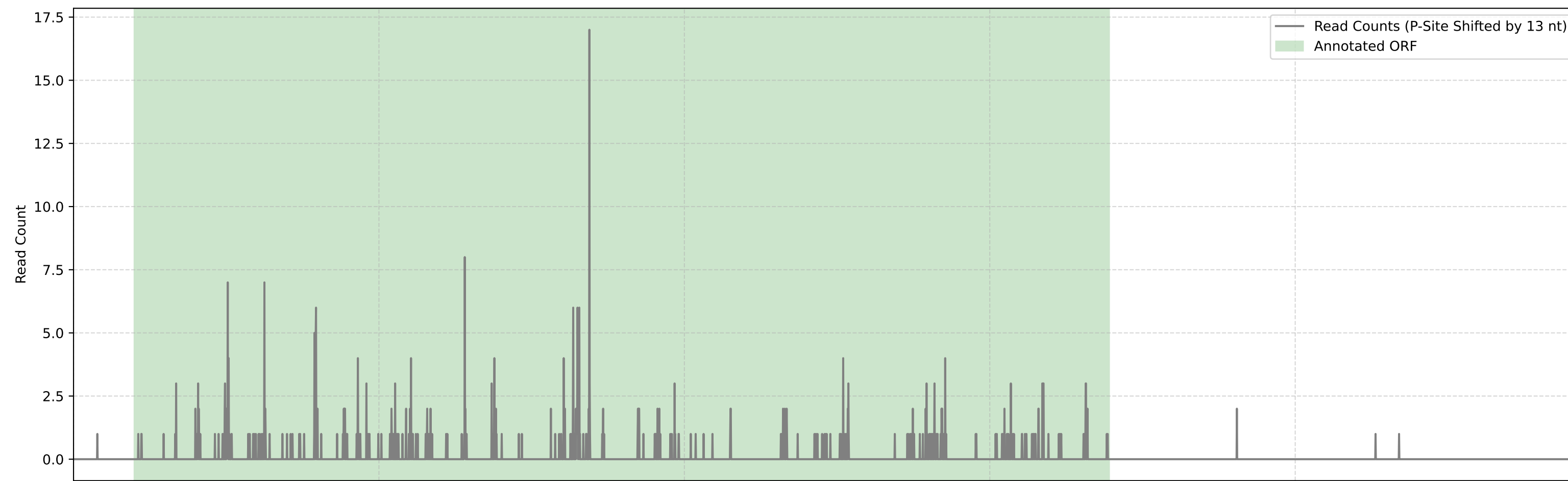


Example: 10th Percentile (by TPM) Transcript (ENST00000266712.11)
Total Reads: 449 | TPM: 699.41

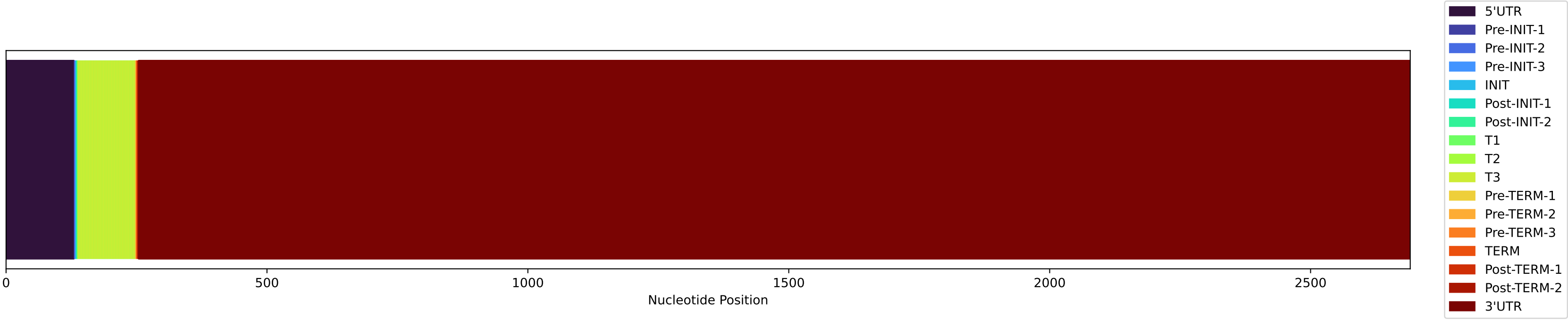
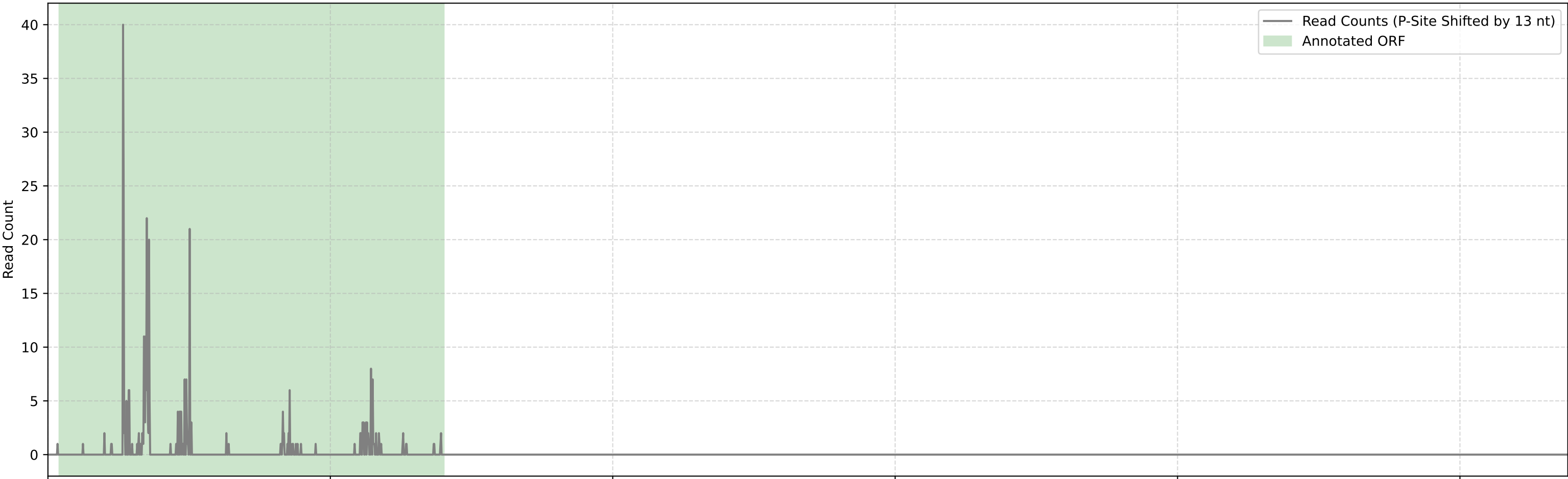


Example: 20th Percentile (by TPM) Transcript (ENST00000648651.1)

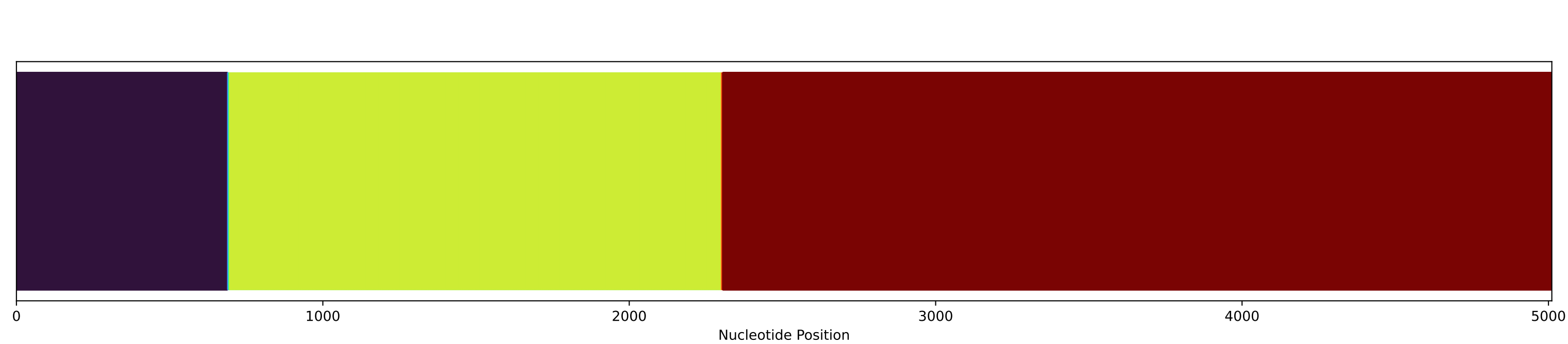
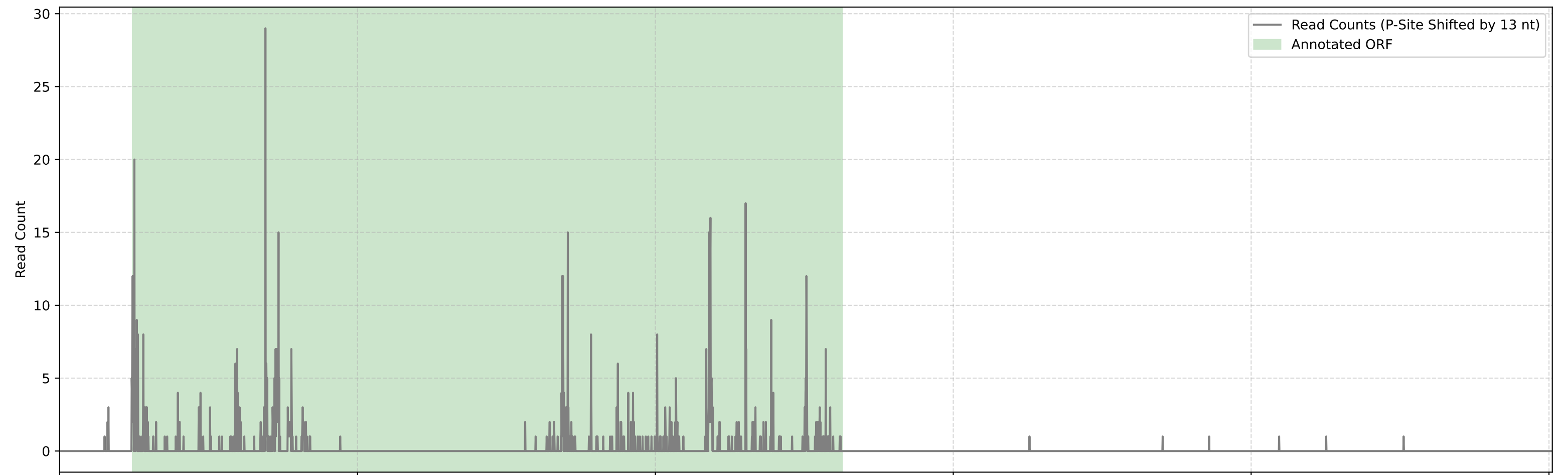
Total Reads: 480 | TPM: 1090.54



Example: 30th Percentile (by TPM) Transcript (ENST00000263672.11)
Total Reads: 360 | TPM: 1498.73

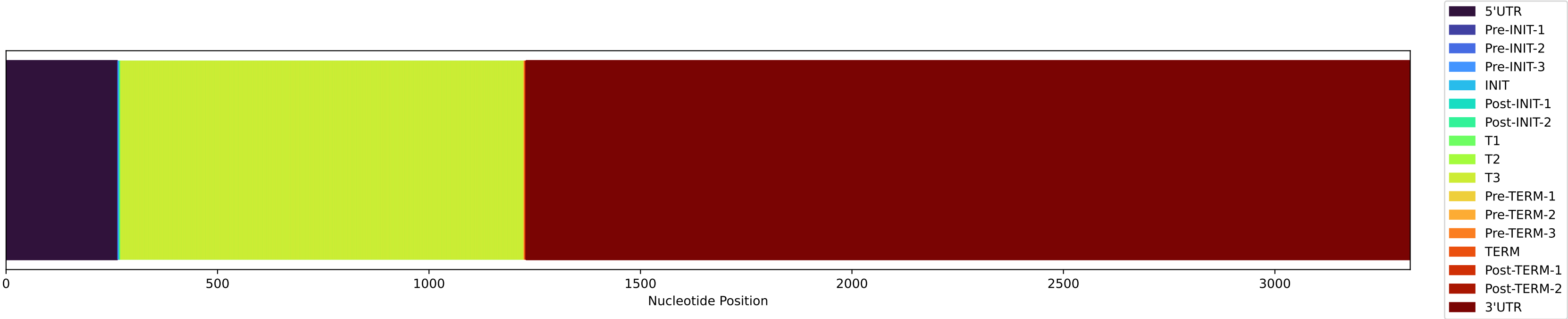
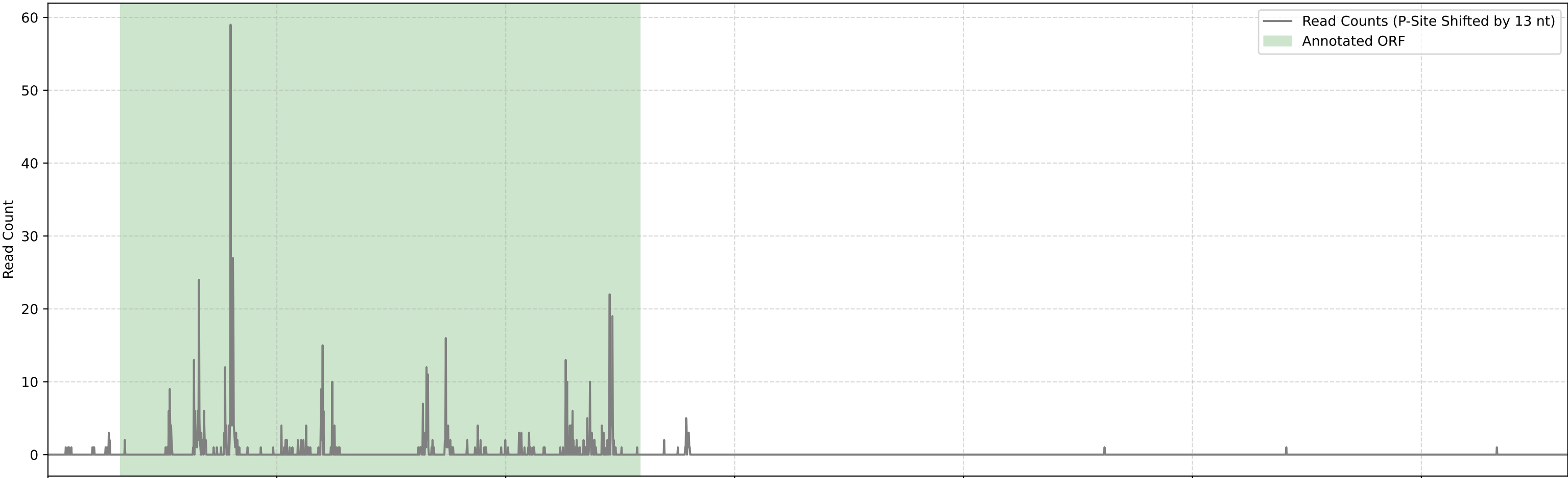


Example: 40th Percentile (by TPM) Transcript (ENST00000361675.7)
Total Reads: 920 | TPM: 2056.83

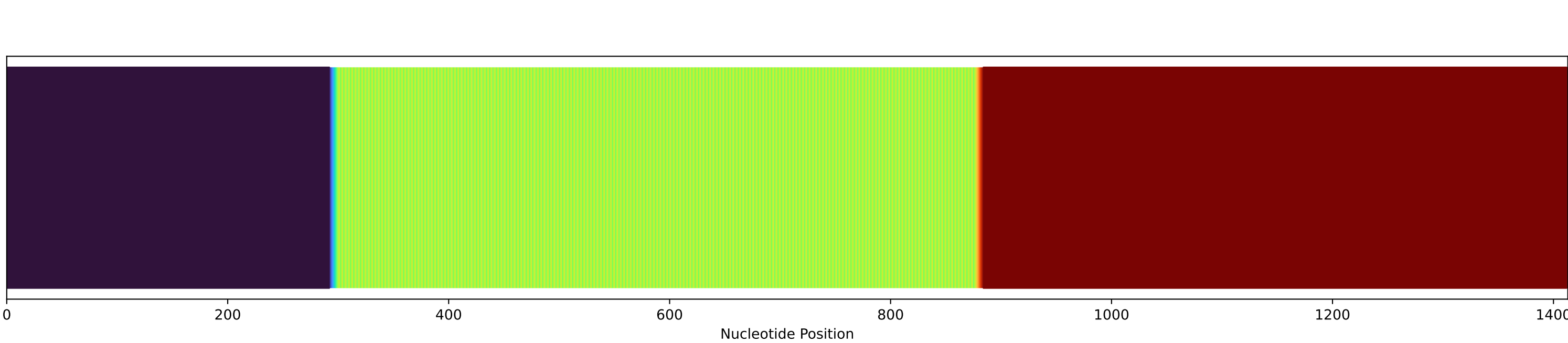
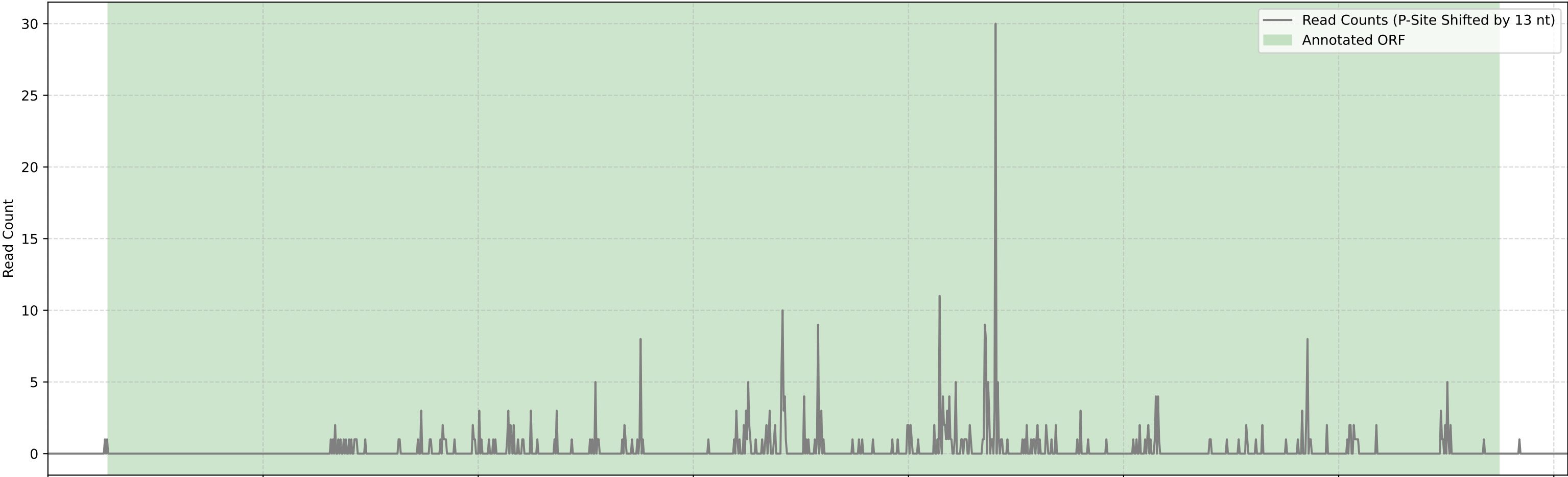


- 5'UTR
- Pre-INIT-1
- Pre-INIT-2
- Pre-INIT-3
- INIT
- Post-INIT-1
- Post-INIT-2
- T1
- T2
- T3
- Pre-TERM-1
- Pre-TERM-2
- Pre-TERM-3
- TERM
- Post-TERM-1
- Post-TERM-2
- 3'UTR

Example: 50th Percentile (by TPM) Transcript (ENST00000367042.6)
Total Reads: 758 | TPM: 2557.80

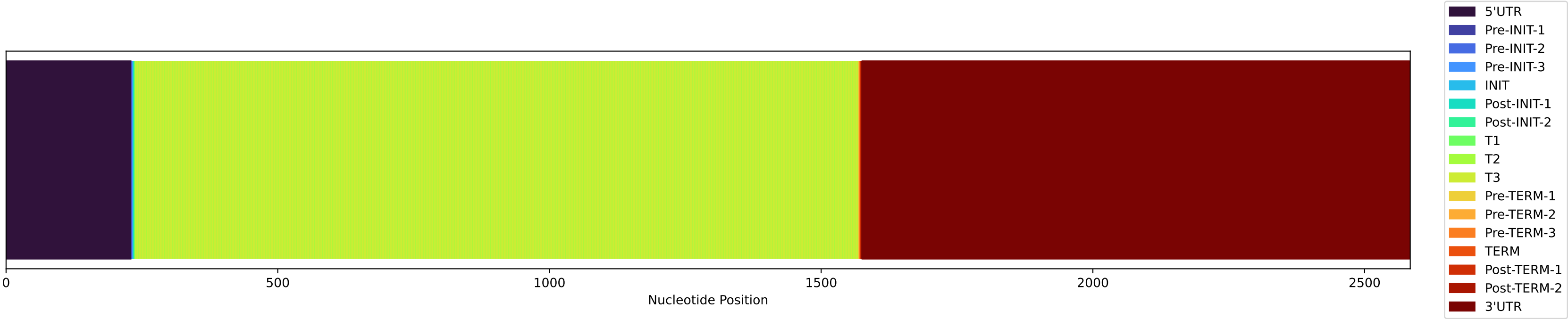
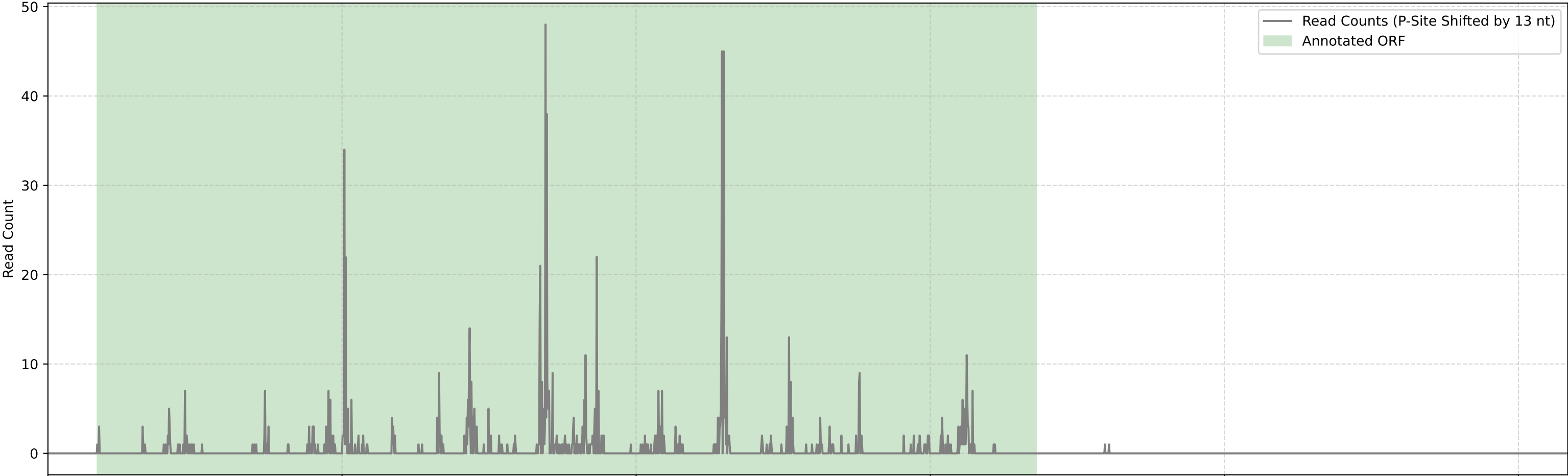


Example: 60th Percentile (by TPM) Transcript (ENST00000388835.4)
Total Reads: 402 | TPM: 3187.28



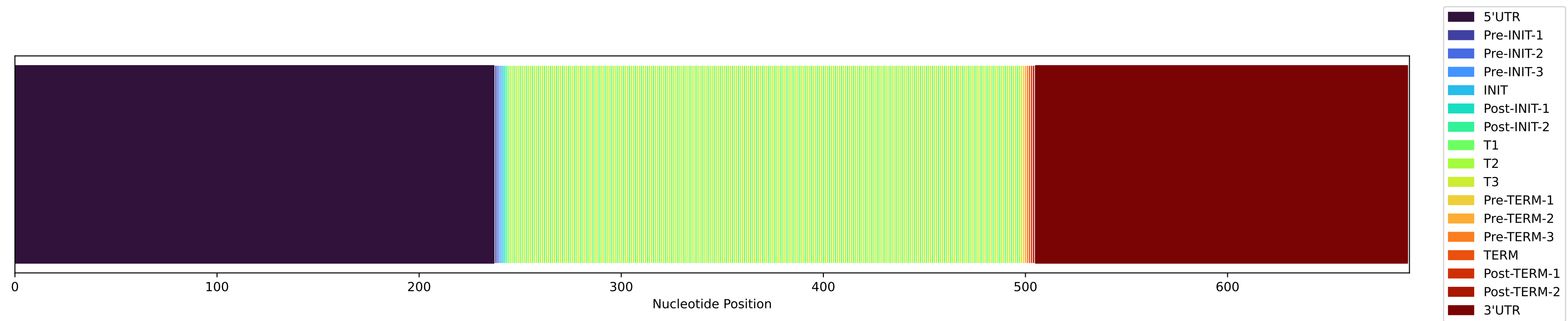
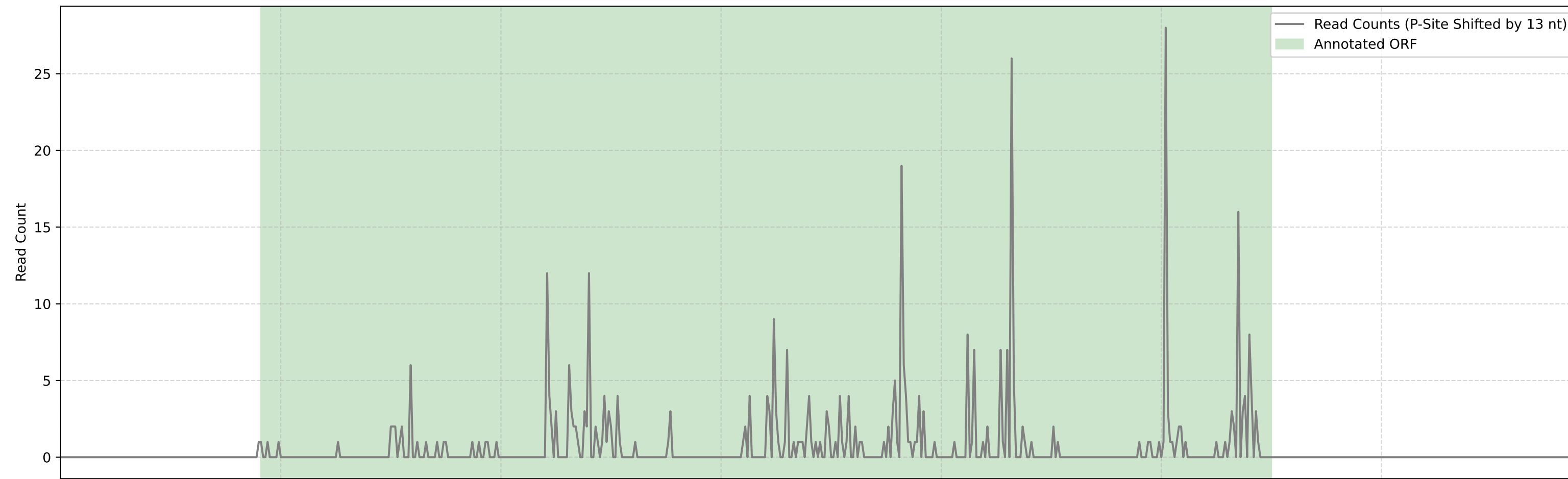
- 5'UTR
- Pre-INIT-1
- Pre-INIT-2
- Pre-INIT-3
- INIT
- Post-INIT-1
- Post-INIT-2
- T1
- T2
- T3
- Pre-TERM-1
- Pre-TERM-2
- Pre-TERM-3
- TERM
- Post-TERM-1
- Post-TERM-2
- 3'UTR

Example: 70th Percentile (by TPM) Transcript (ENST00000275603.9)
Total Reads: 1,023 | TPM: 4435.26

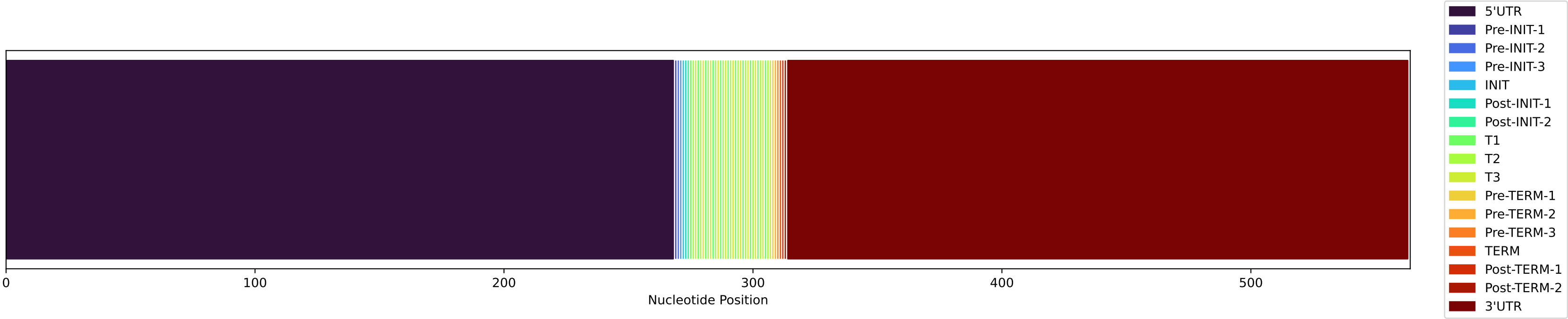
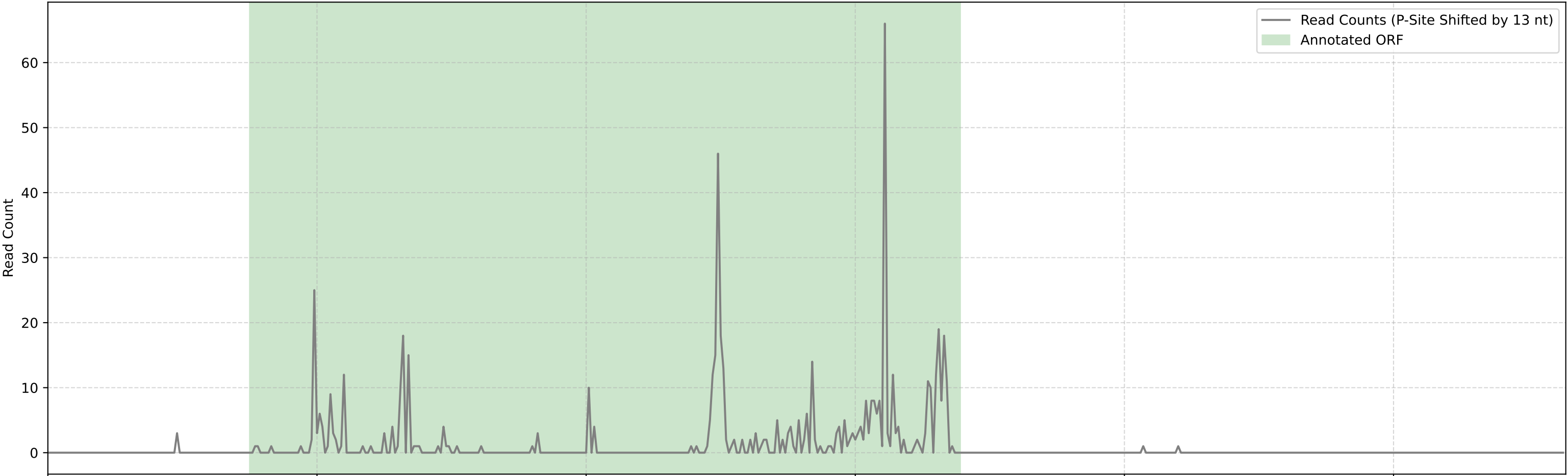


Example: 80th Percentile (by TPM) Transcript (ENST00000512737.6)

Total Reads: 391 | TPM: 6348.39



Example: 90th Percentile (by TPM) Transcript (ENST00000355857.8)
Total Reads: 595 | TPM: 11818.81



Example: Max Expression Transcript (ENST00000233143.6)
Total Reads: 3,720 | TPM: 90402.00

