

Run Summary

riboHMM Validation Report

Run Timestamp: 2025-07-30T14:55:09.085082

Test Data File: /home/kai/Documents/00_RNA/01_riboHMM_simple_prod/02_Processed_Data/test_top500_raw.npz

Trained Model File: /home/kai/Documents/00_RNA/01_riboHMM_simple_prod/04_Models/model_top500_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: 100

The figure displays a 20x20 matrix visualization. The diagonal elements are highlighted in yellow and labeled '1.000'. The off-diagonal elements are dark purple and labeled '0.010'. The matrix is symmetric, with the top-left and bottom-right elements labeled '0.990'.

Pre-INIT-1

Pre-INIT-2

Pre-INIT-3

INIT

Post-INIT-1

Post-INIT-2

T1

T2

T3

Pre-TFRM-1

Pre-TERM-2

Pre-TERM-3

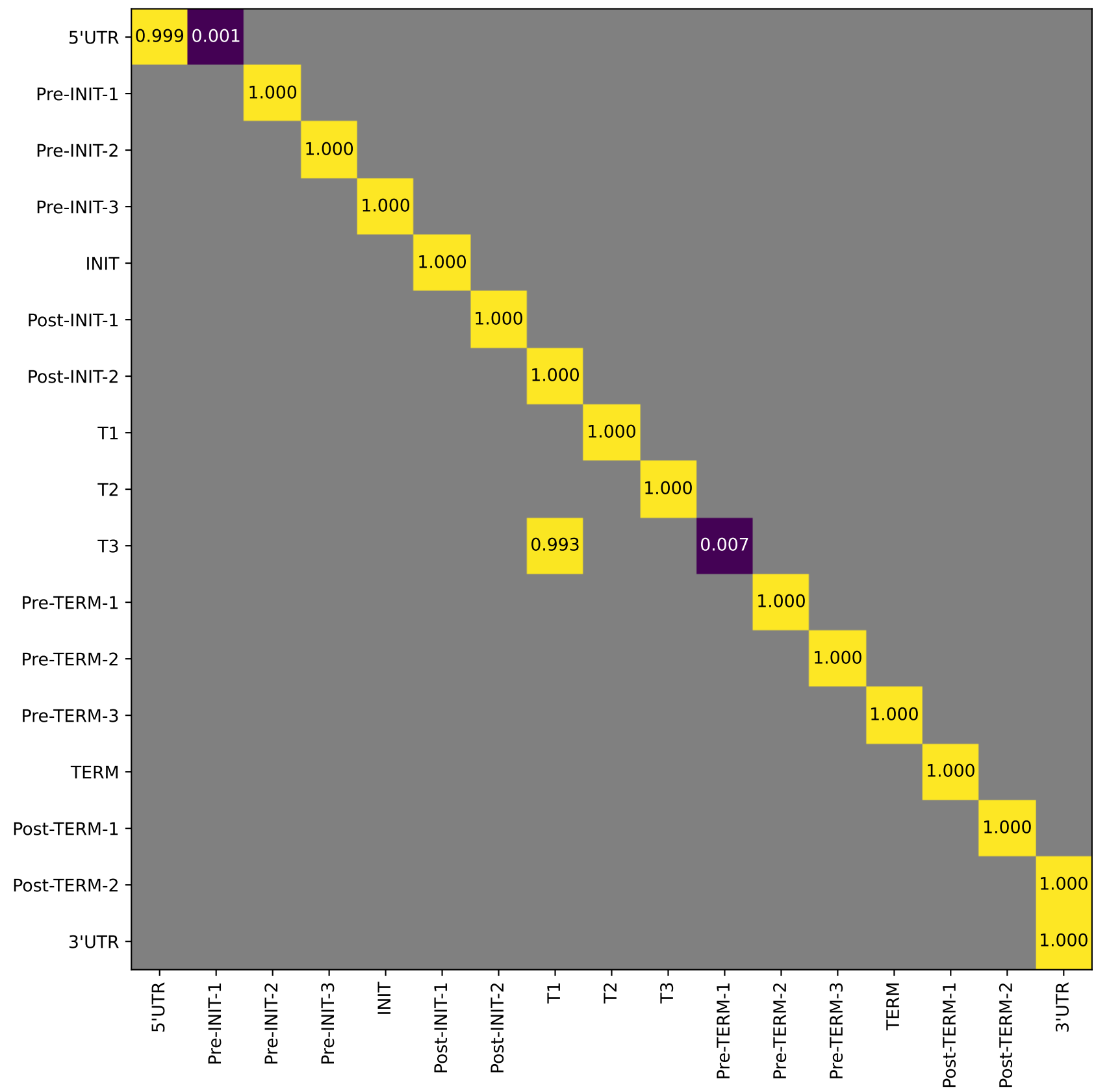
EDM

Project TERM 1

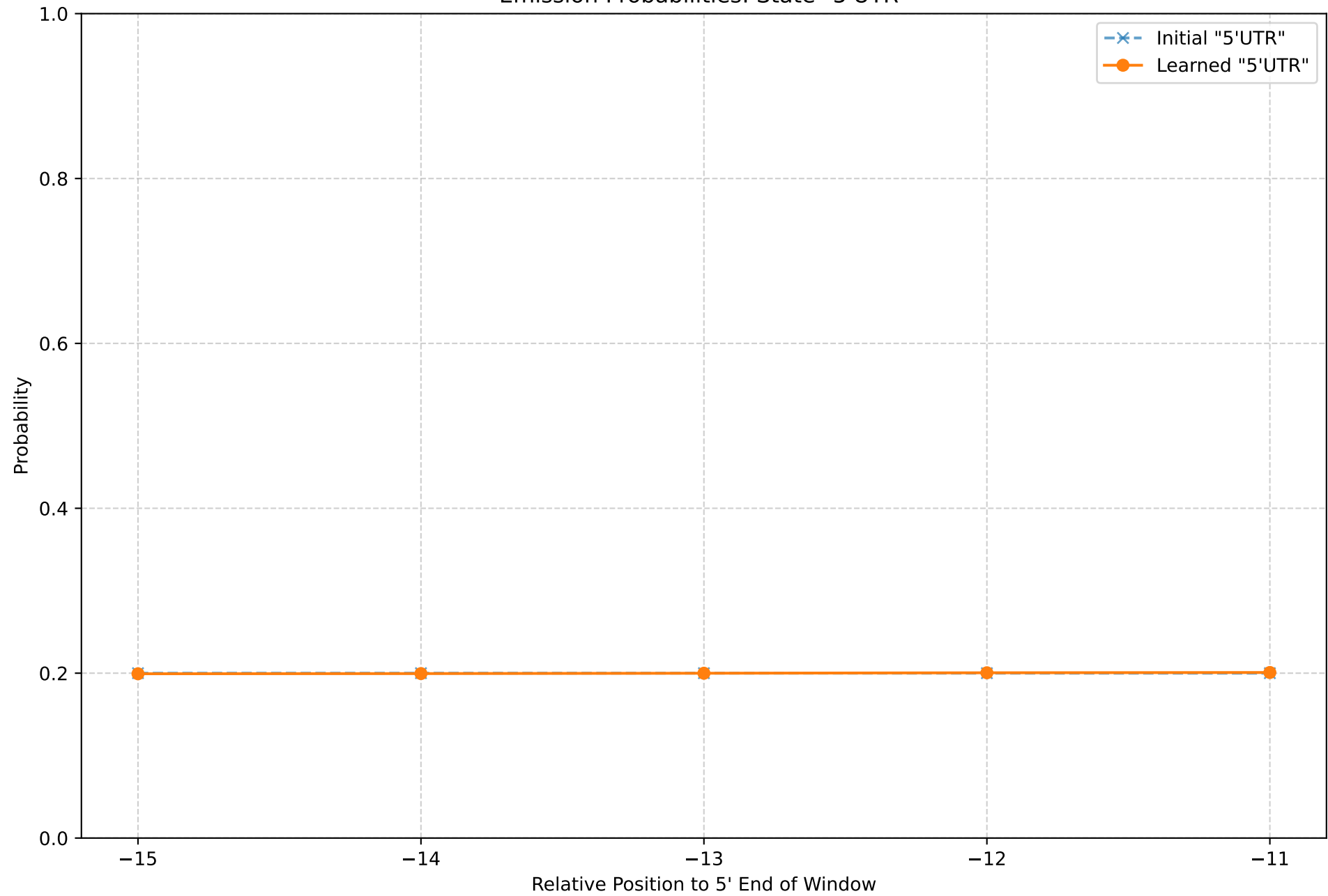
CONFIDENTIAL

DE

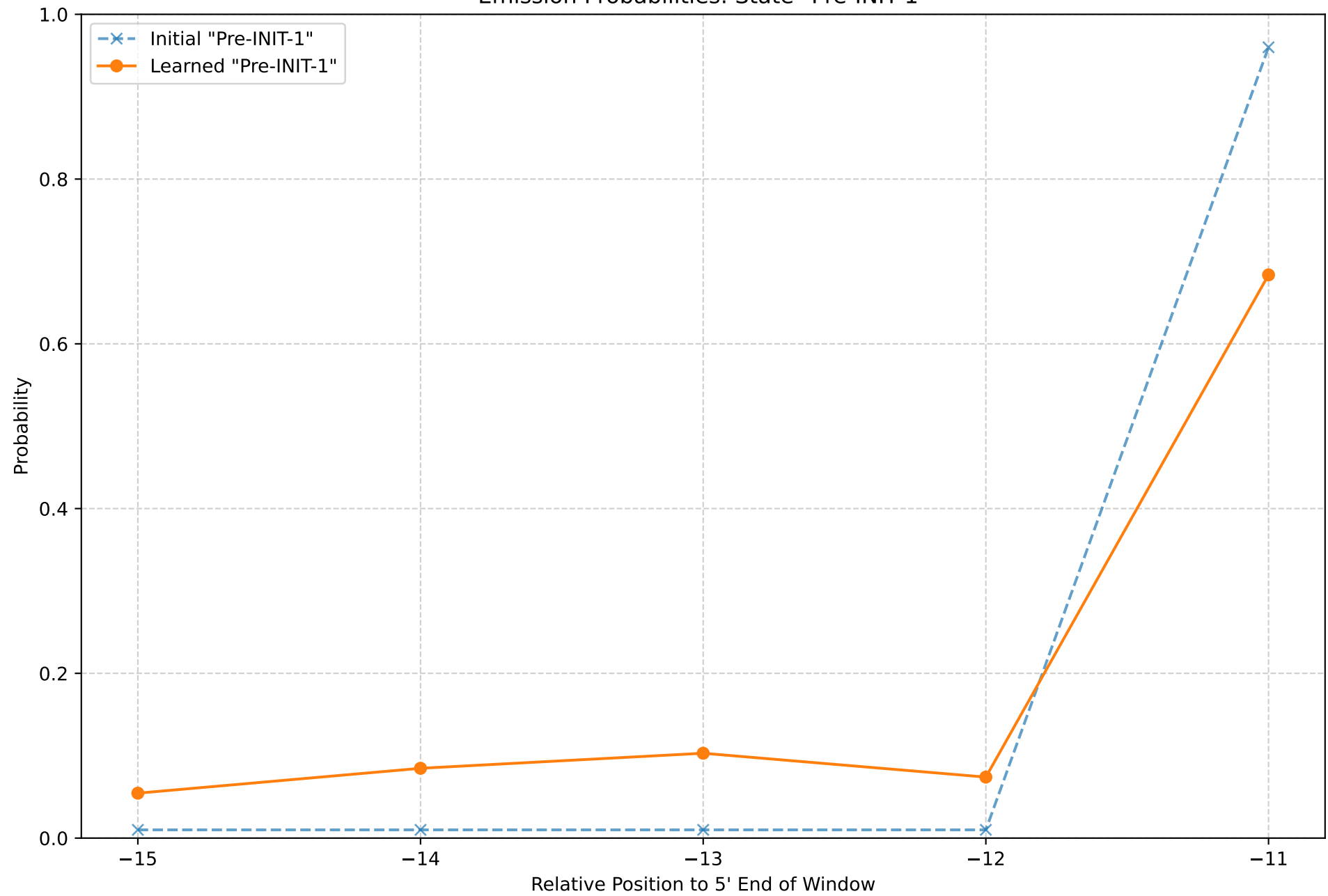
Learned Transition Matrix



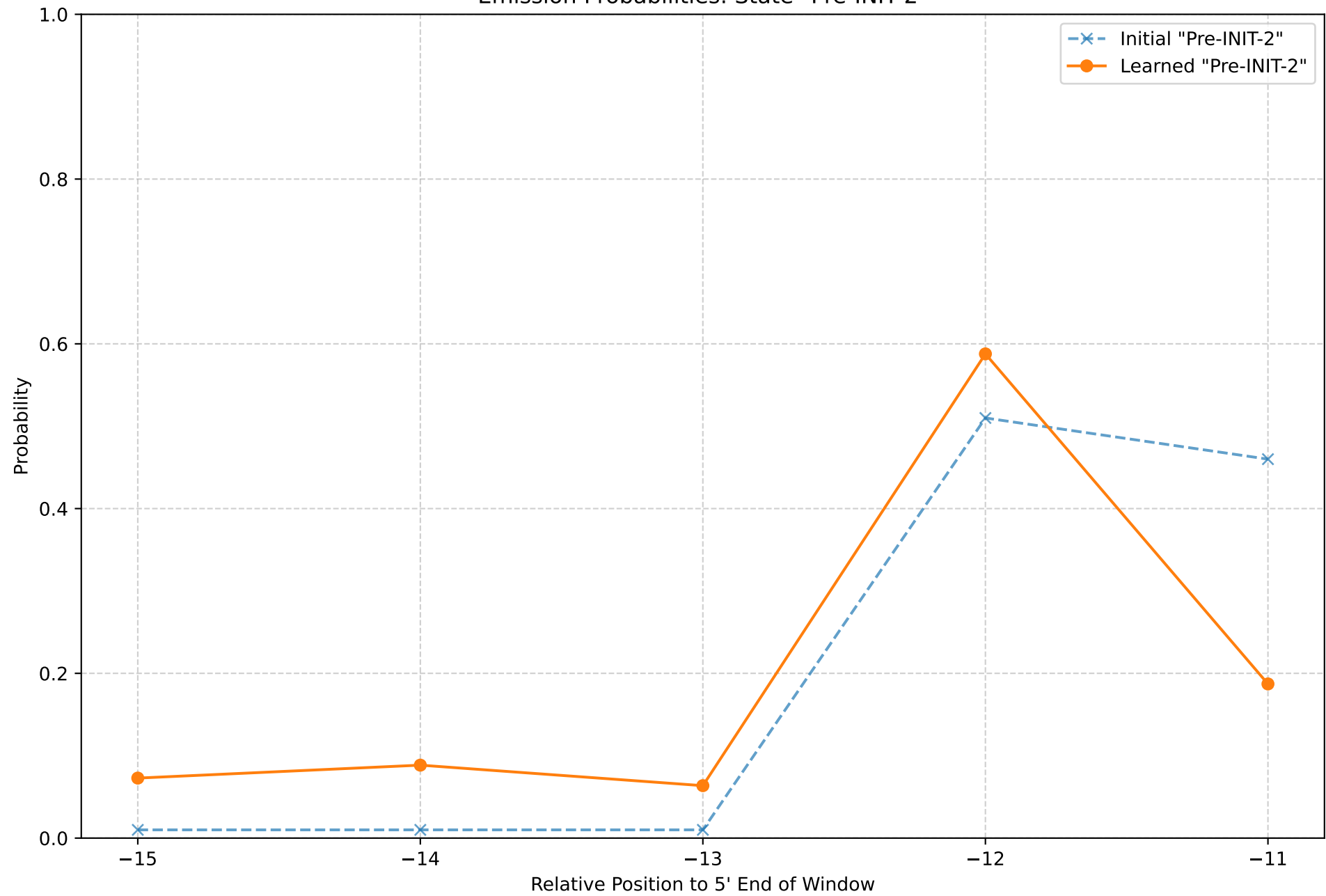
Emission Probabilities: State "5'UTR"



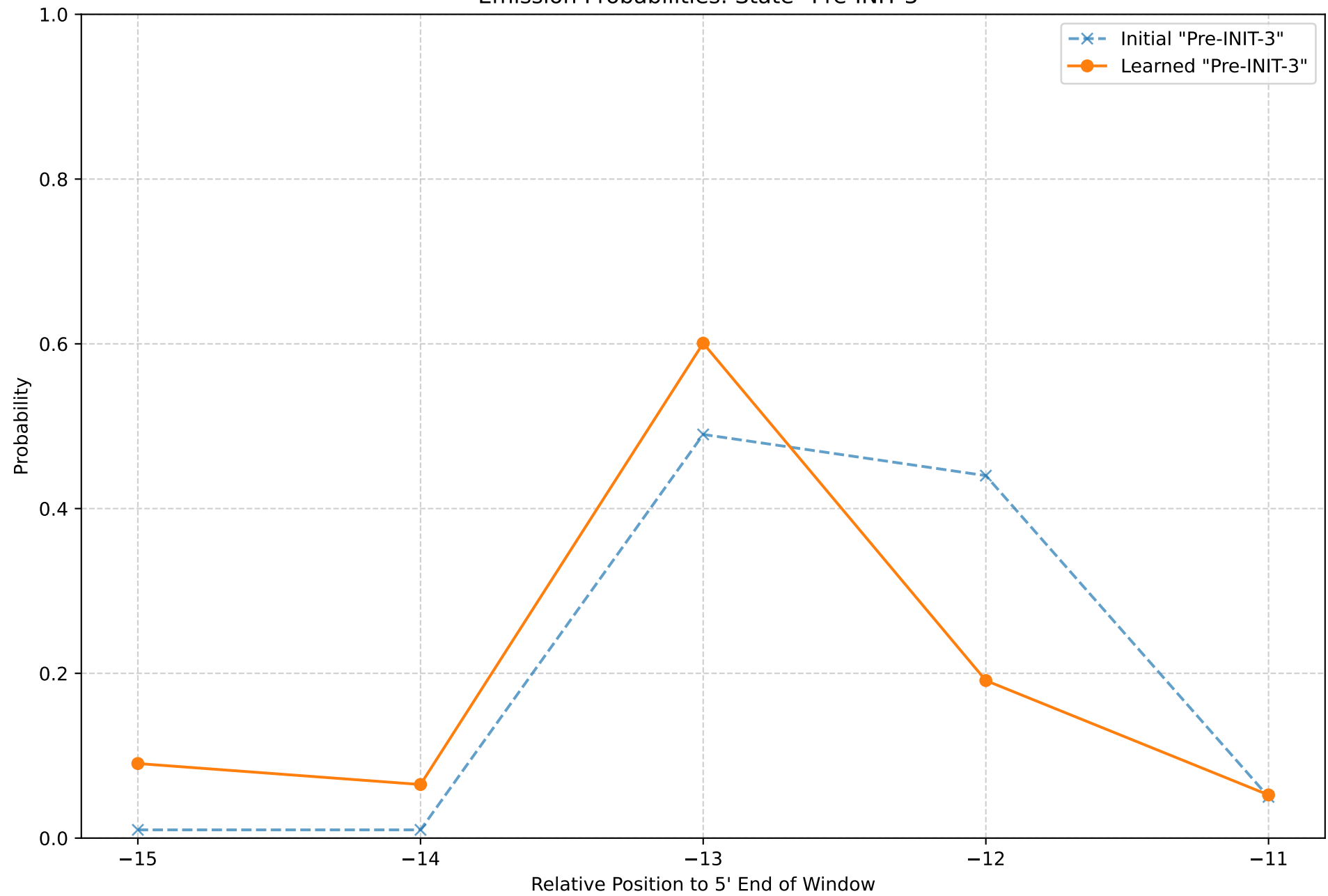
Emission Probabilities: State "Pre-INIT-1"



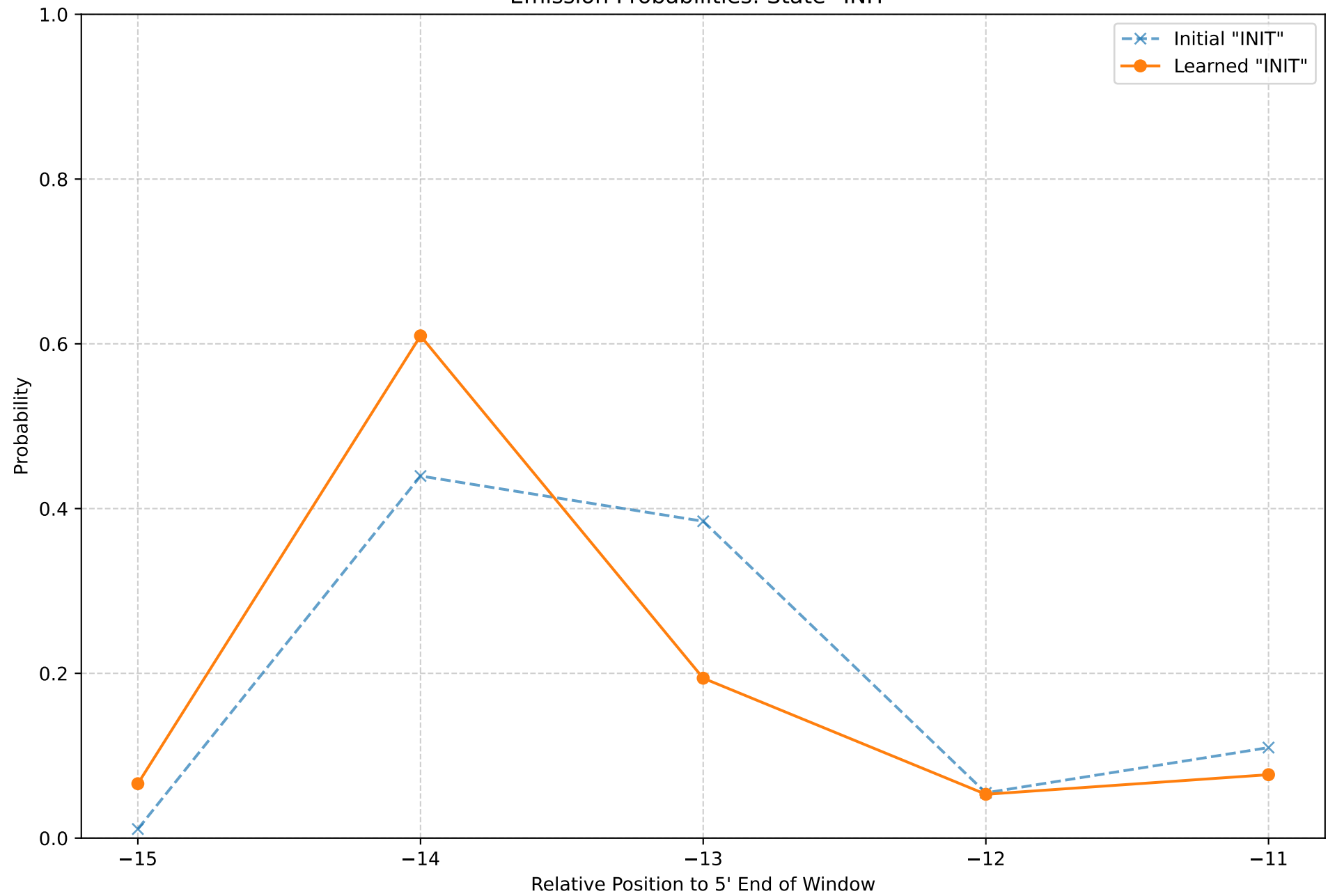
Emission Probabilities: State "Pre-INIT-2"



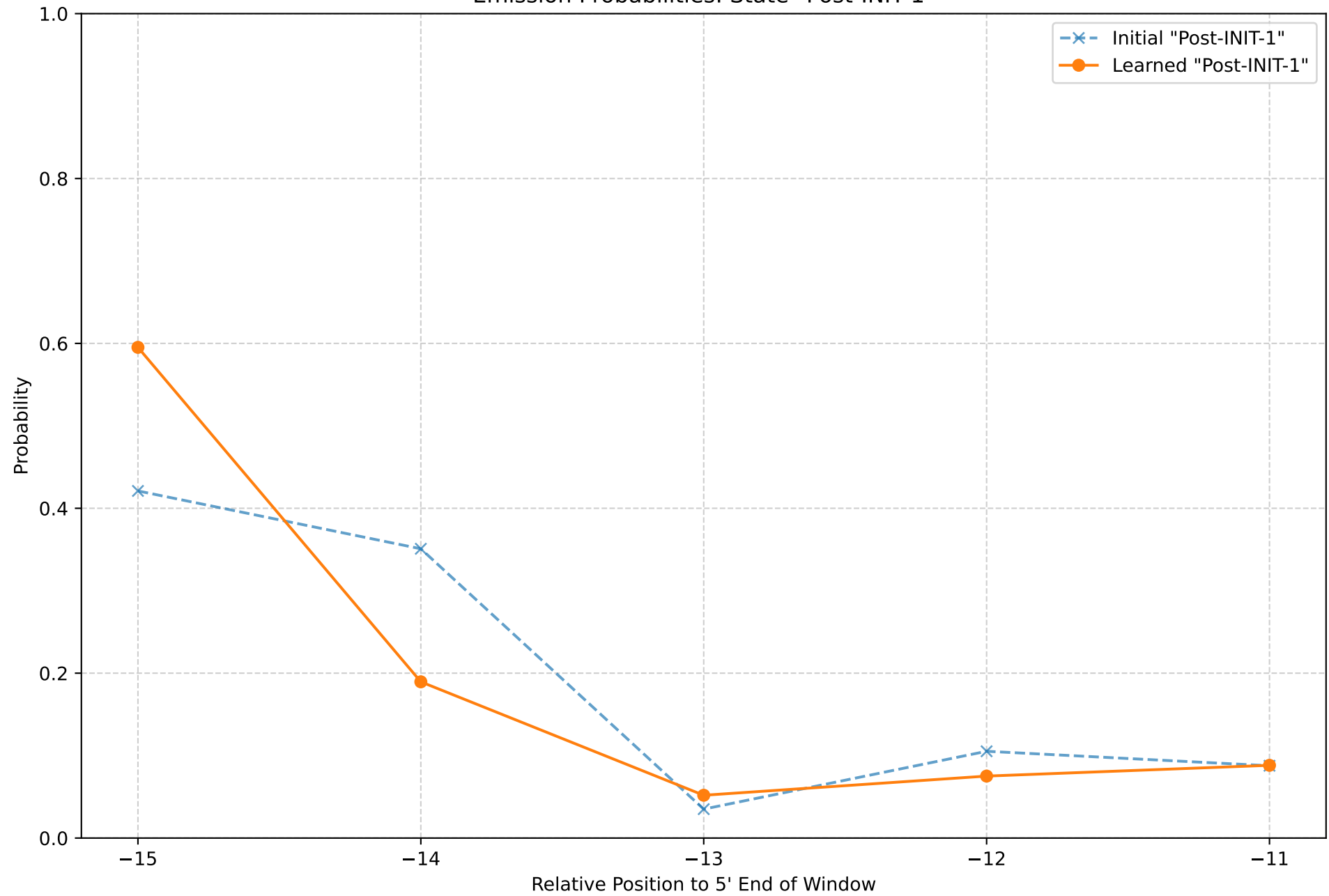
Emission Probabilities: State "Pre-INIT-3"



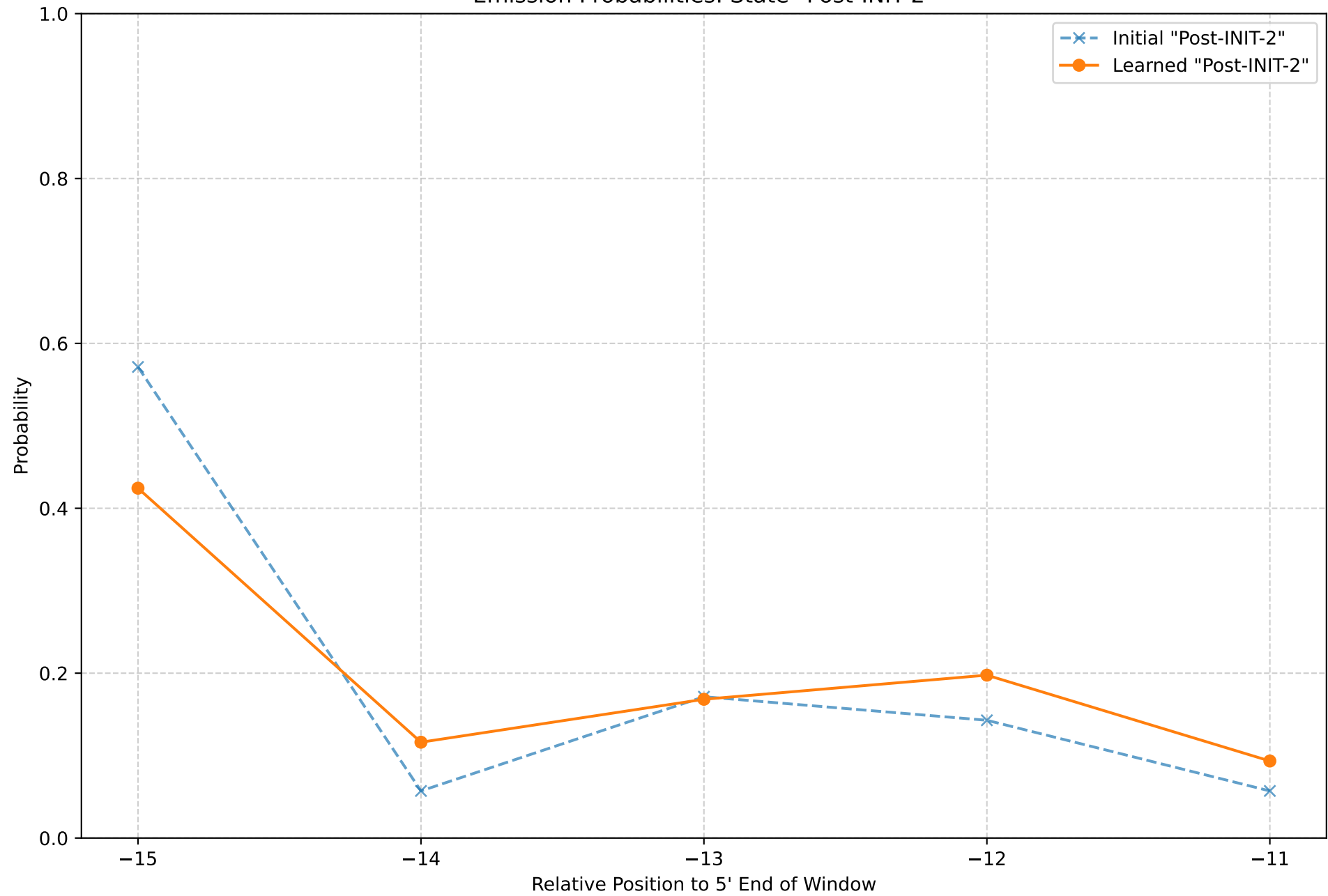
Emission Probabilities: State "INIT"



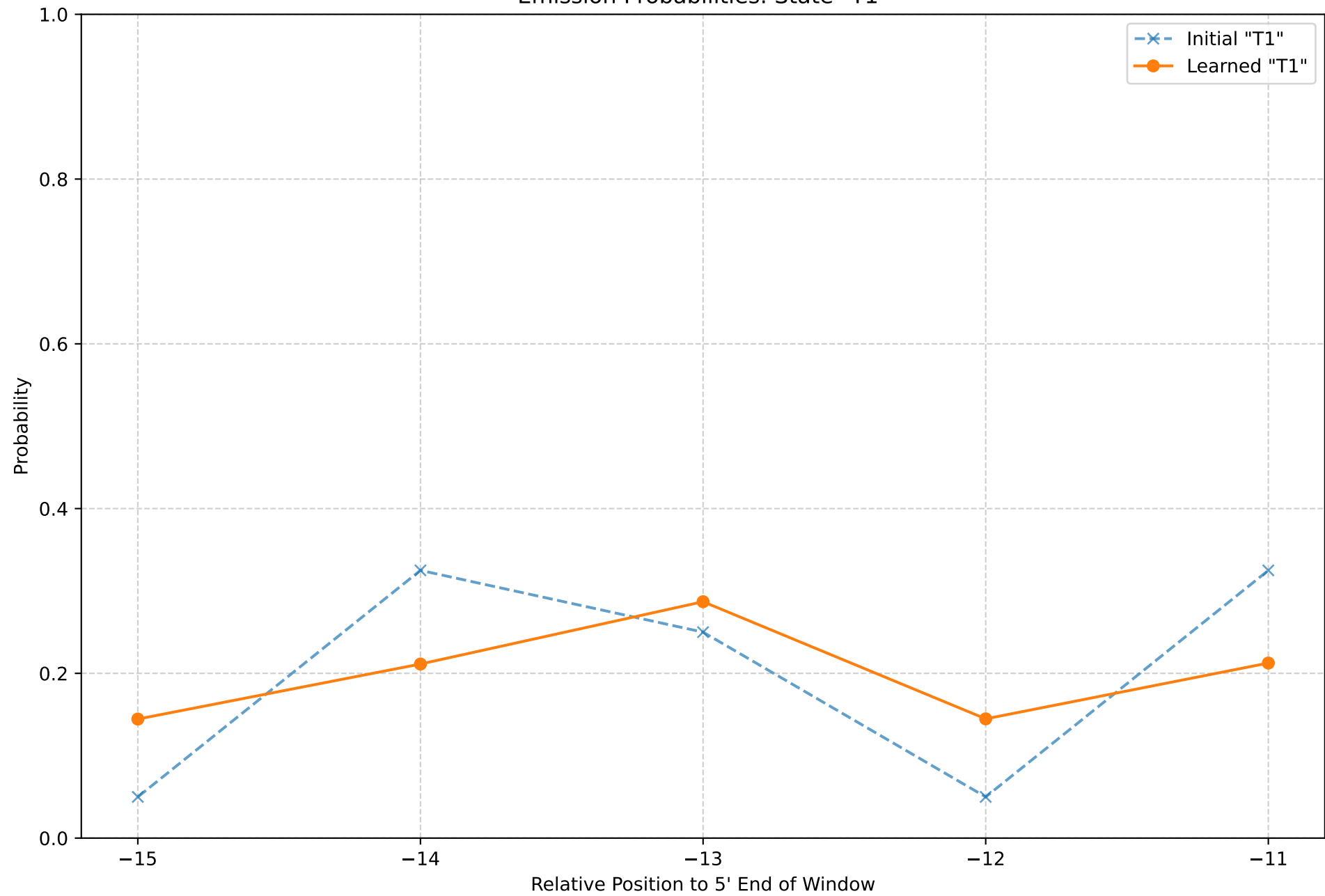
Emission Probabilities: State "Post-INIT-1"



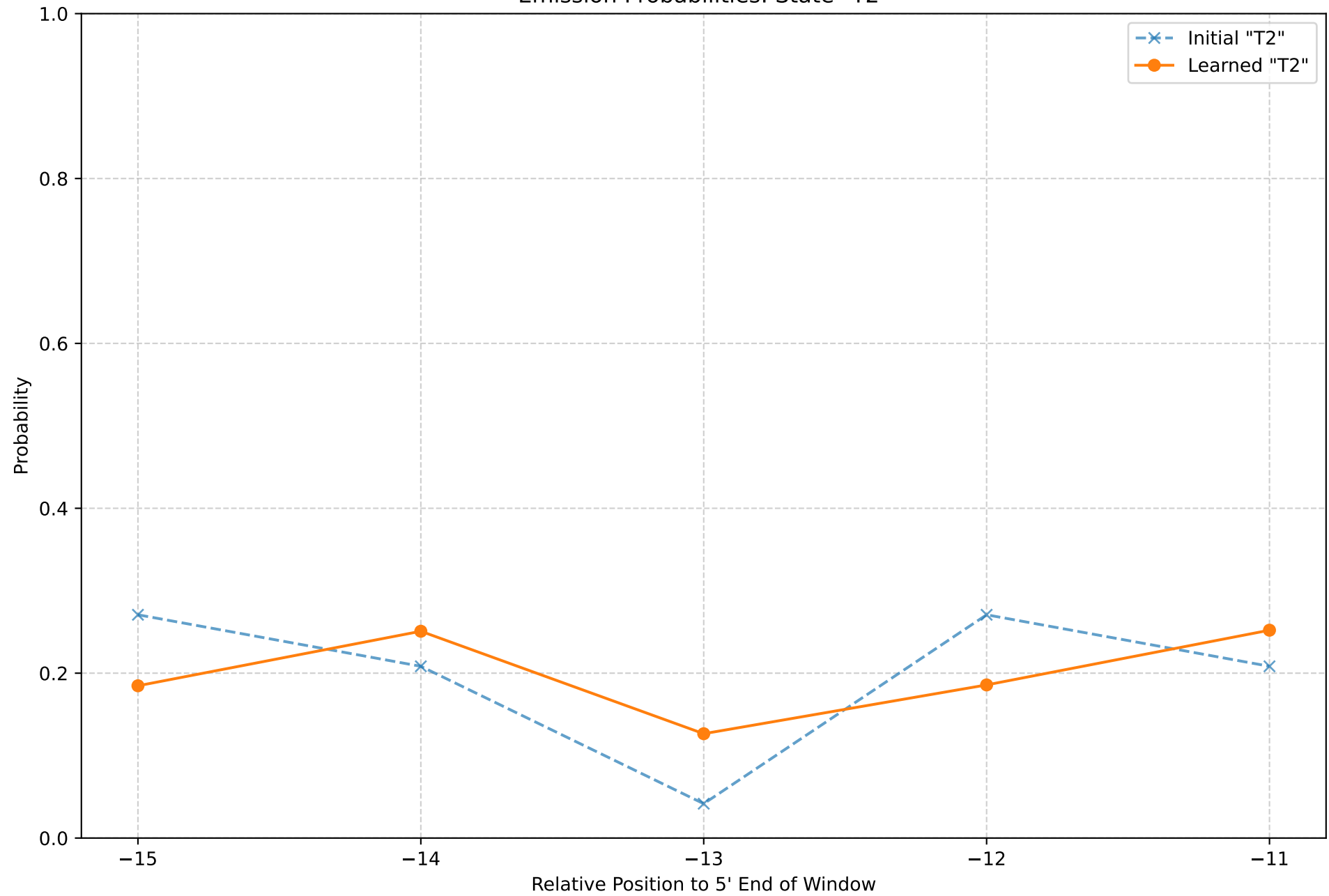
Emission Probabilities: State "Post-INIT-2"



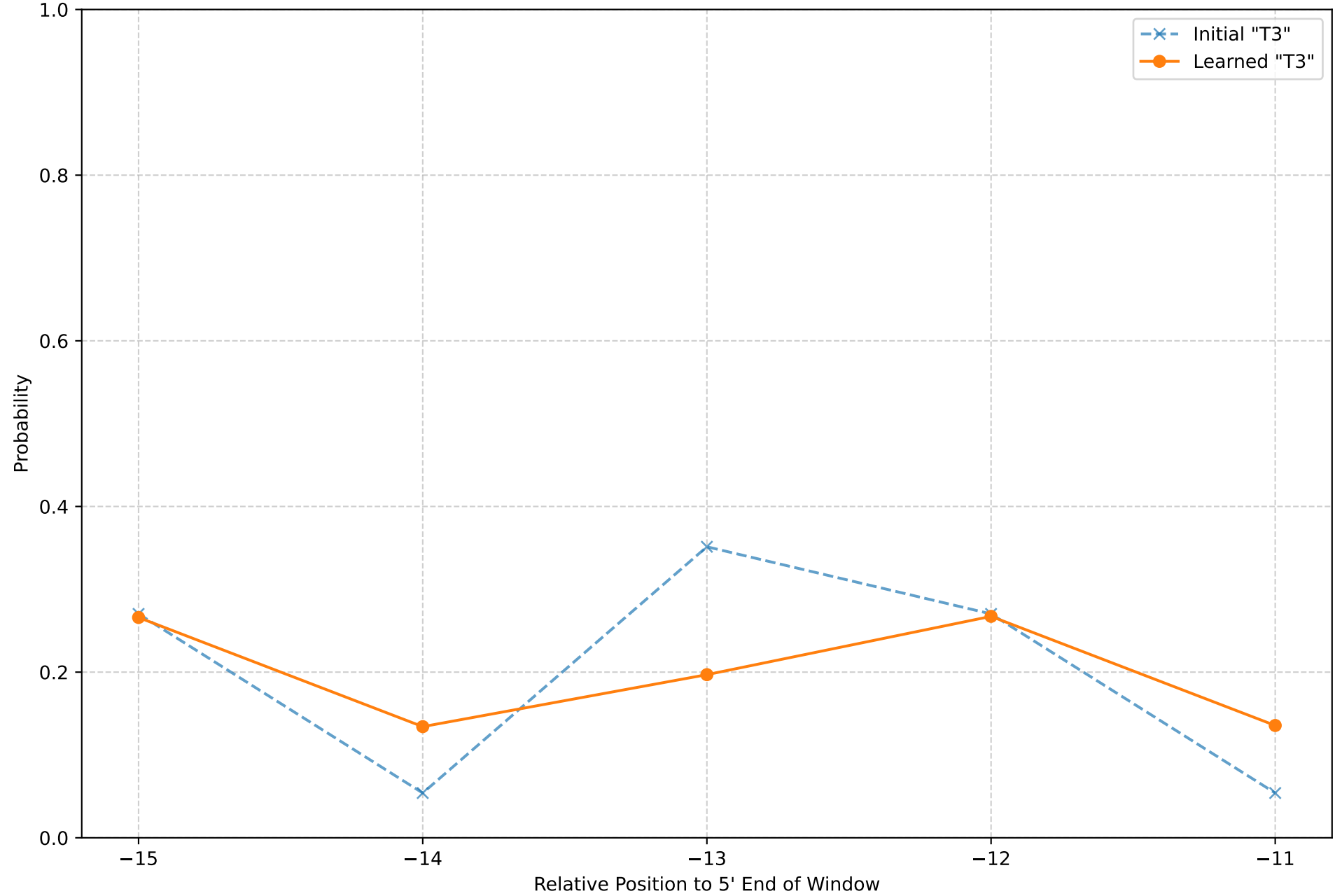
Emission Probabilities: State "T1"



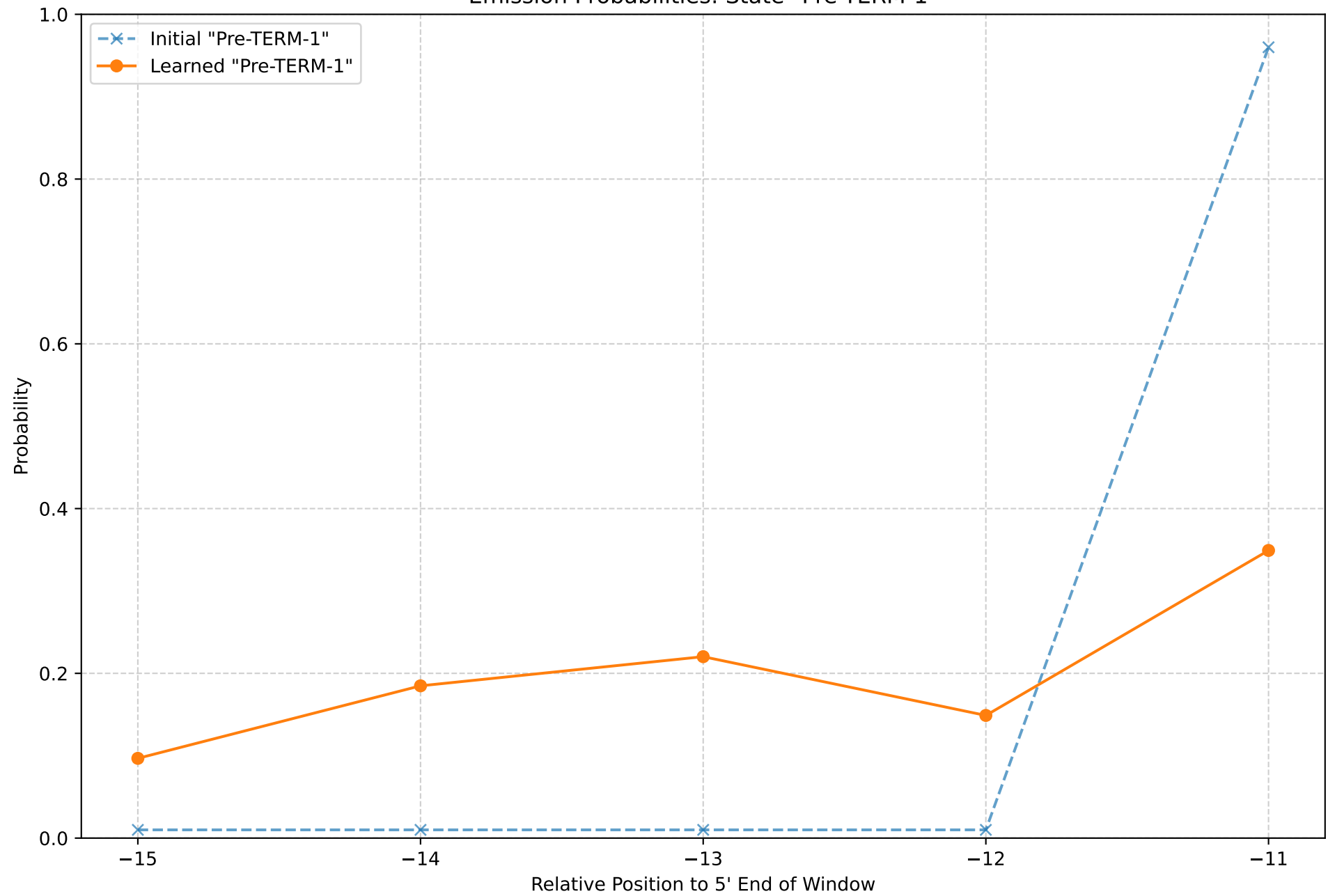
Emission Probabilities: State "T2"



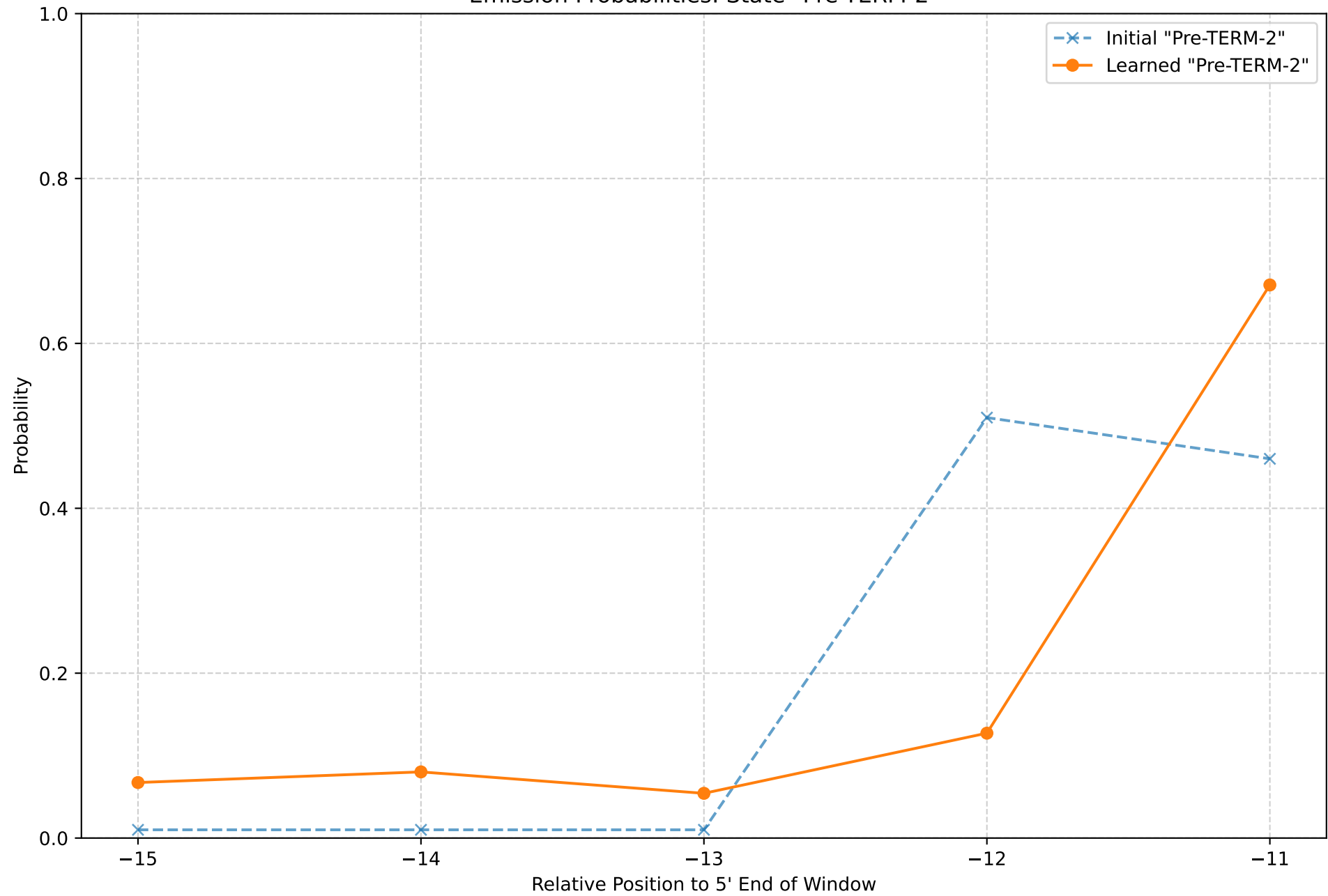
Emission Probabilities: State "T3"



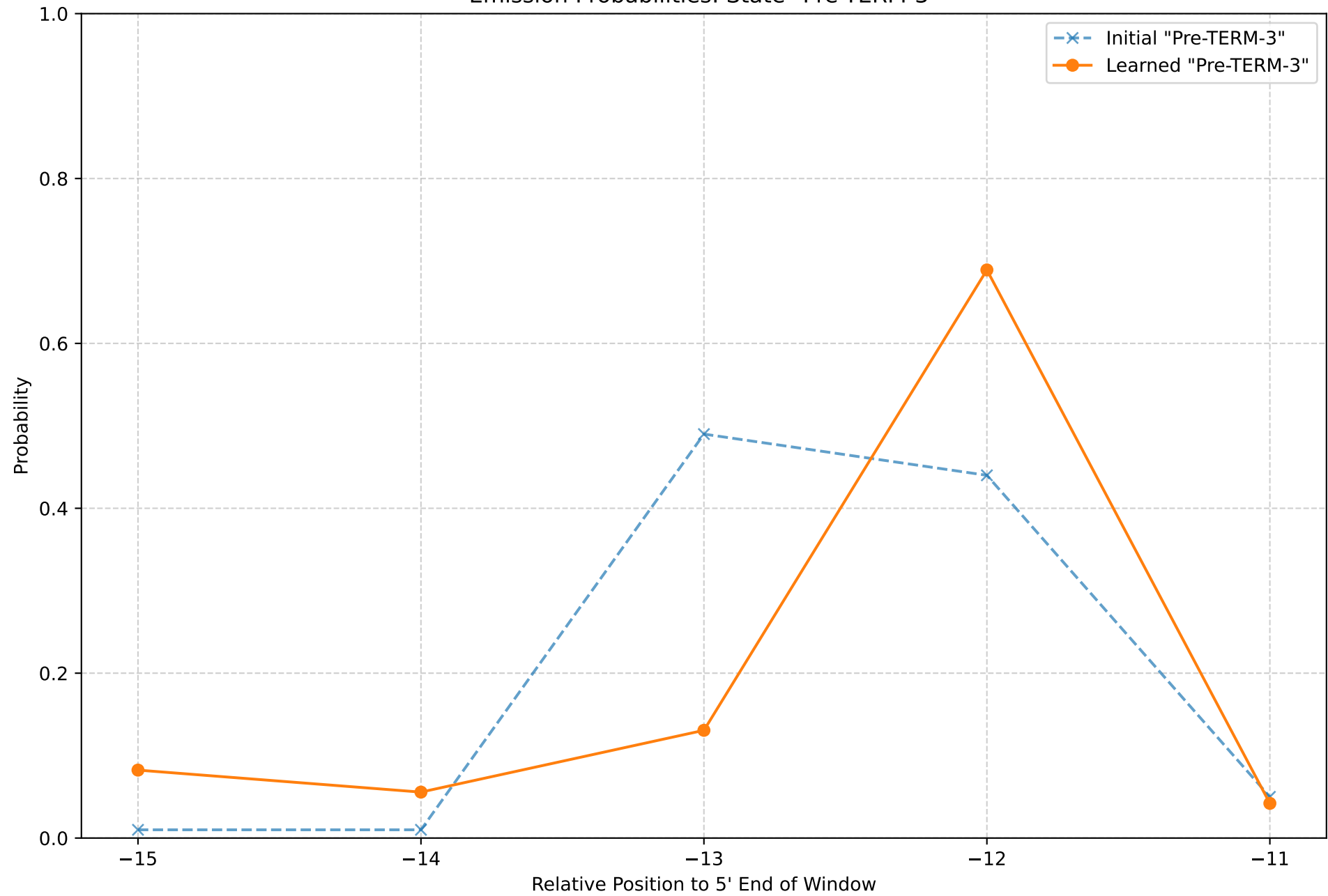
Emission Probabilities: State "Pre-TERM-1"



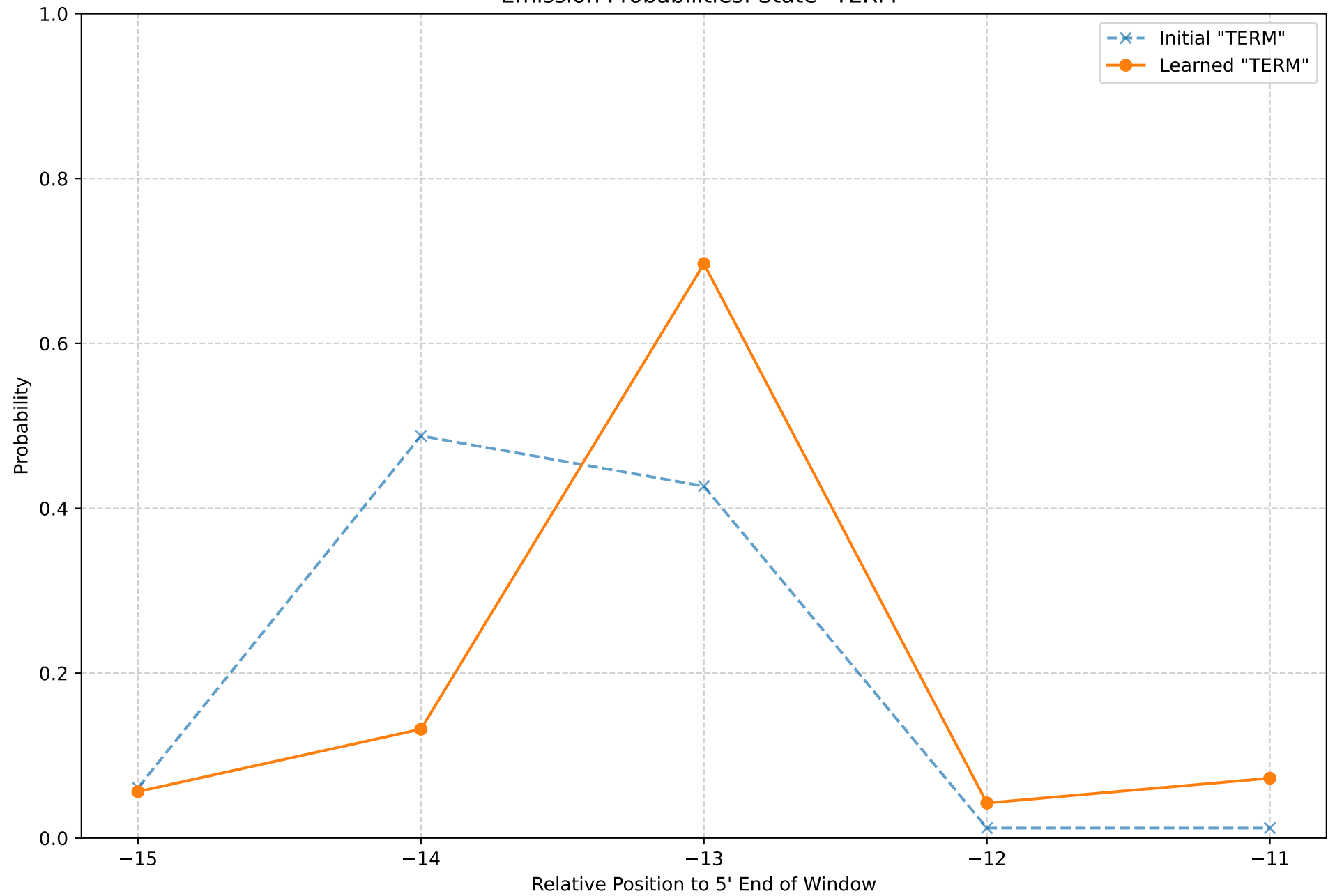
Emission Probabilities: State "Pre-TERM-2"



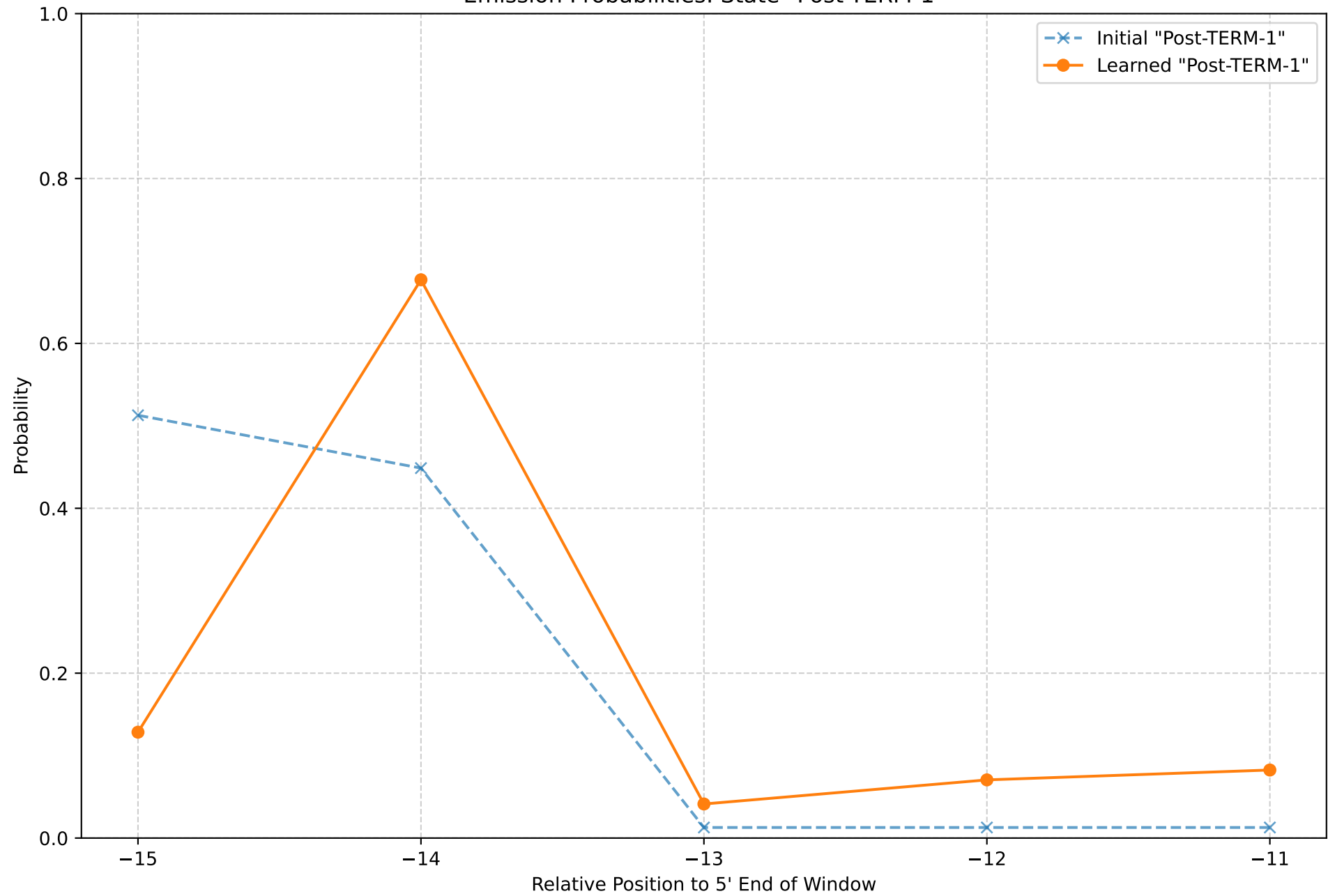
Emission Probabilities: State "Pre-TERM-3"



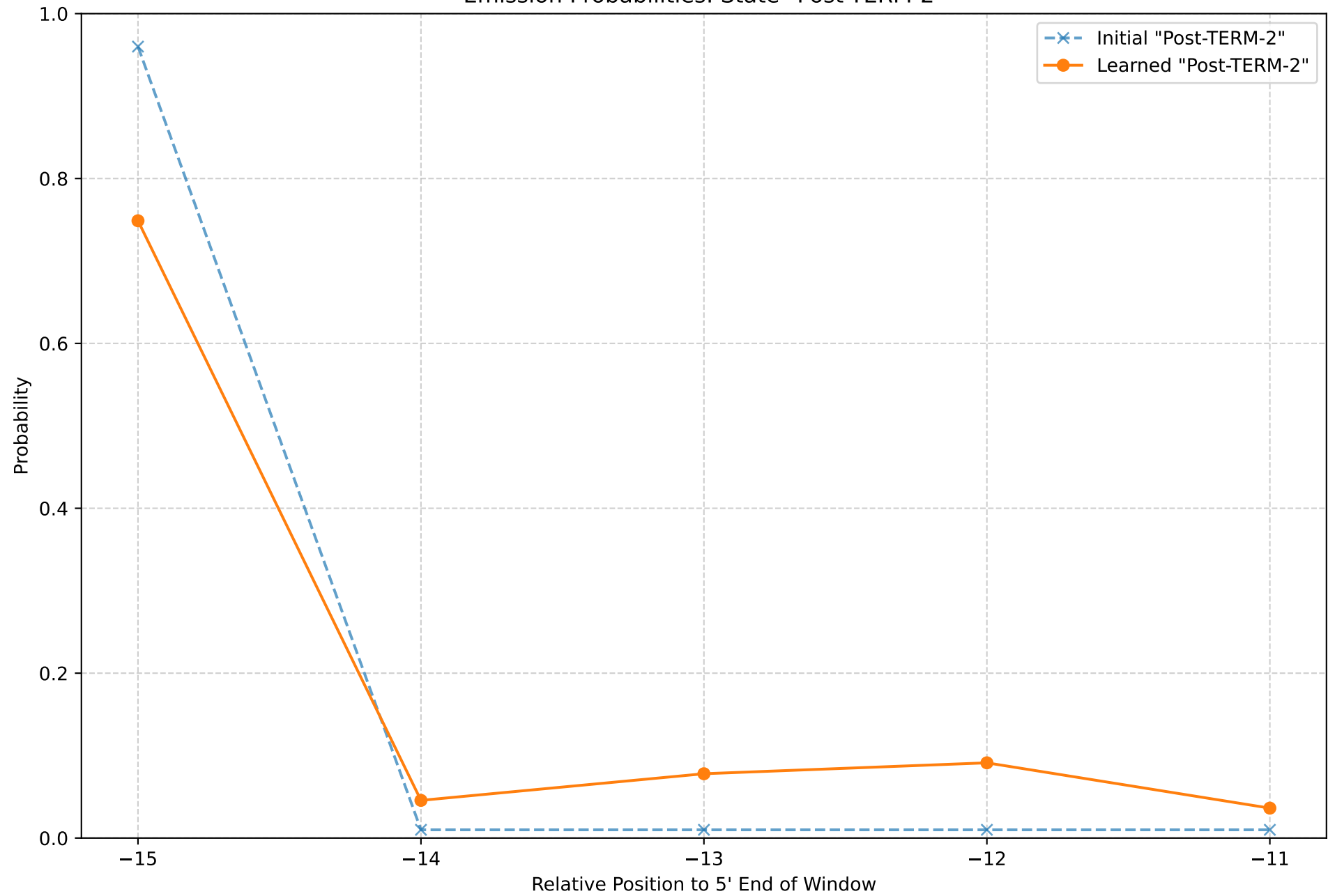
Emission Probabilities: State "TERM"



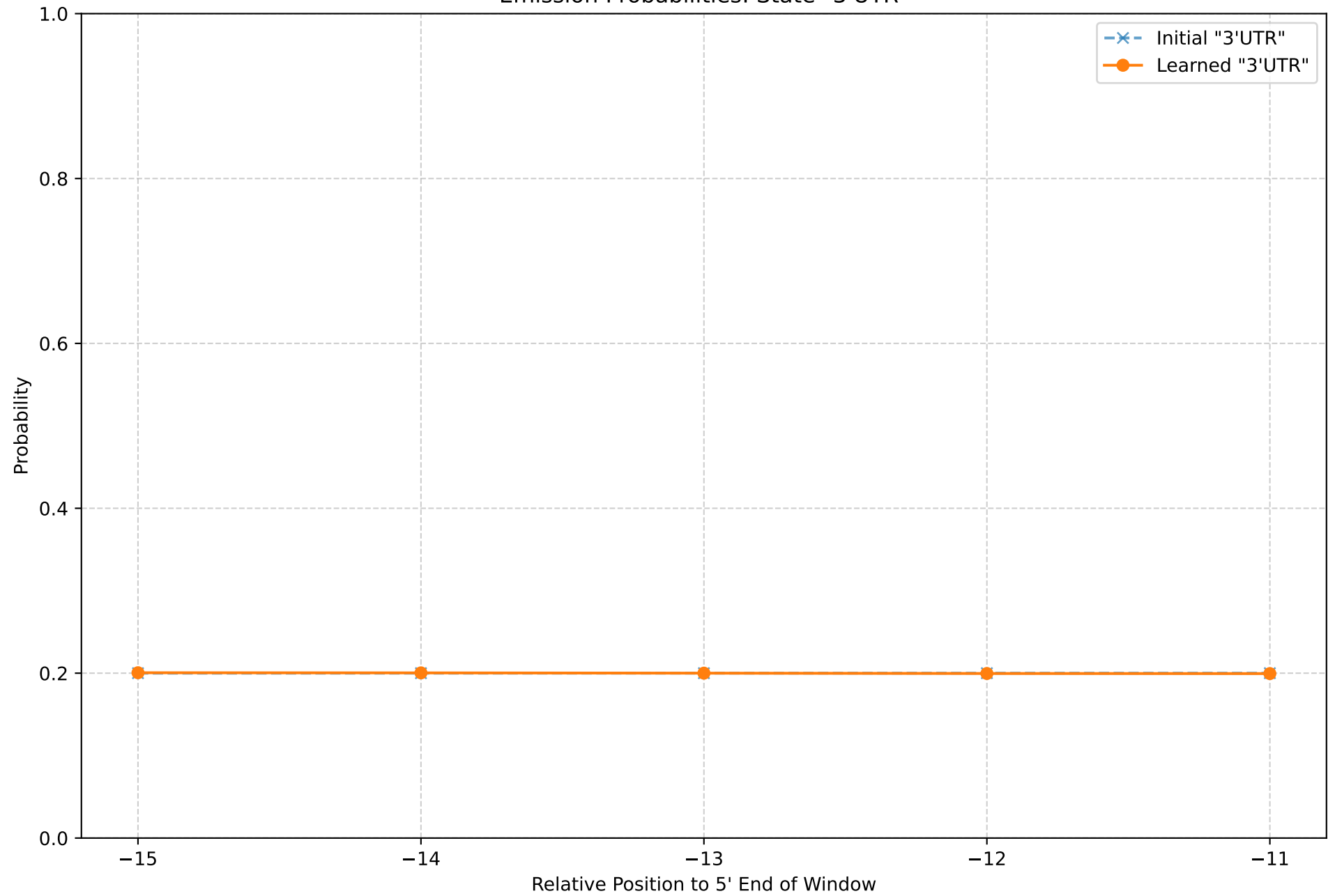
Emission Probabilities: State "Post-TERM-1"



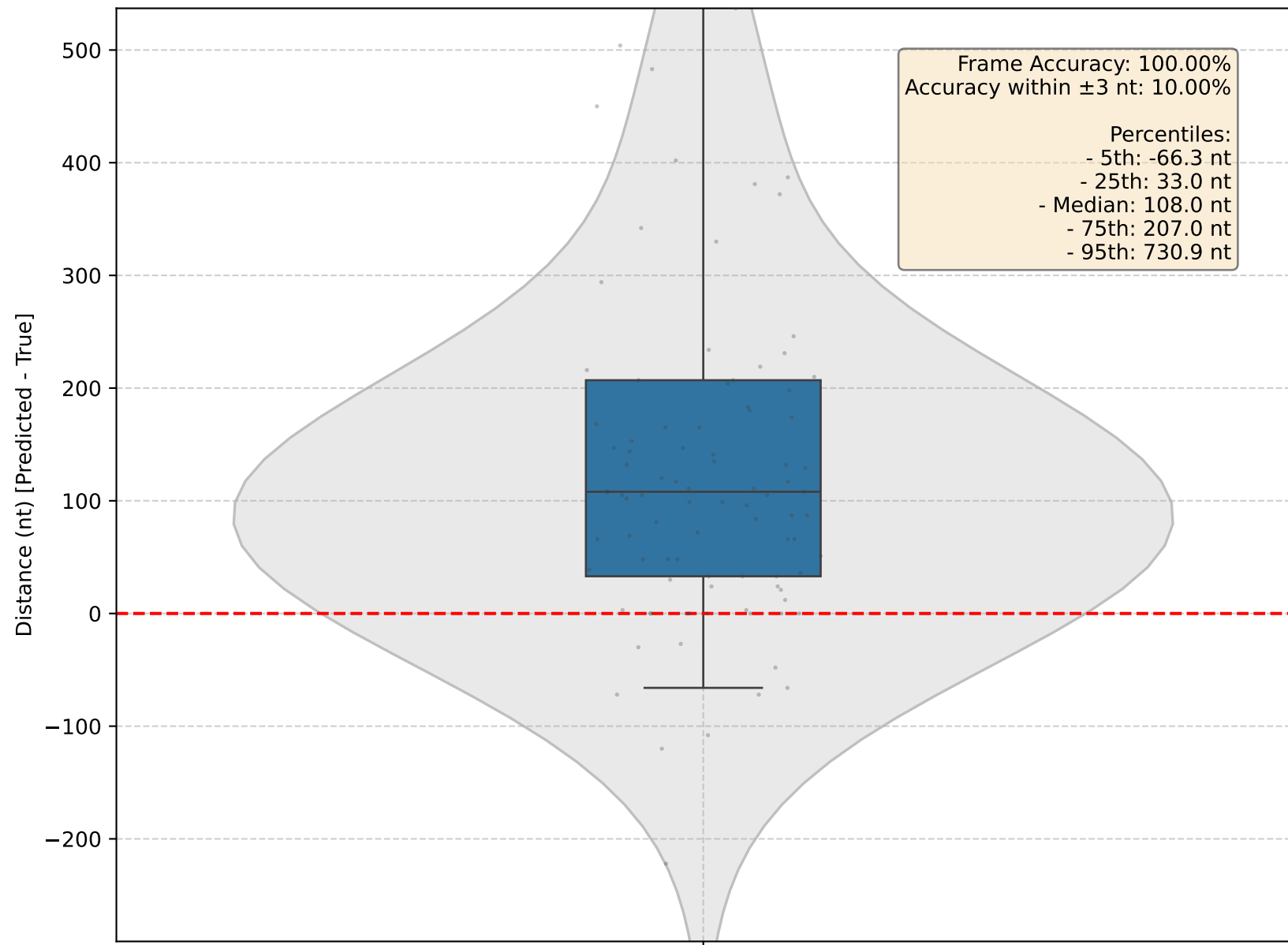
Emission Probabilities: State "Post-TERM-2"



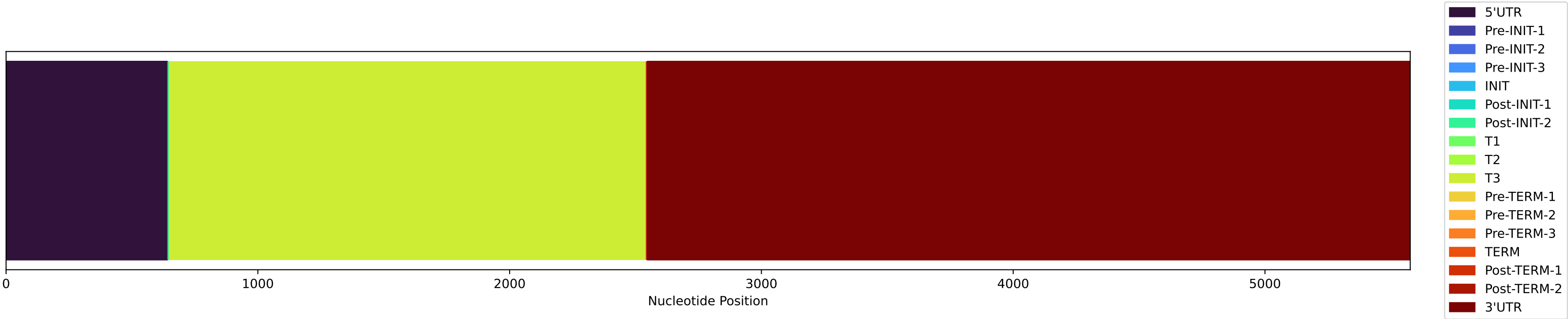
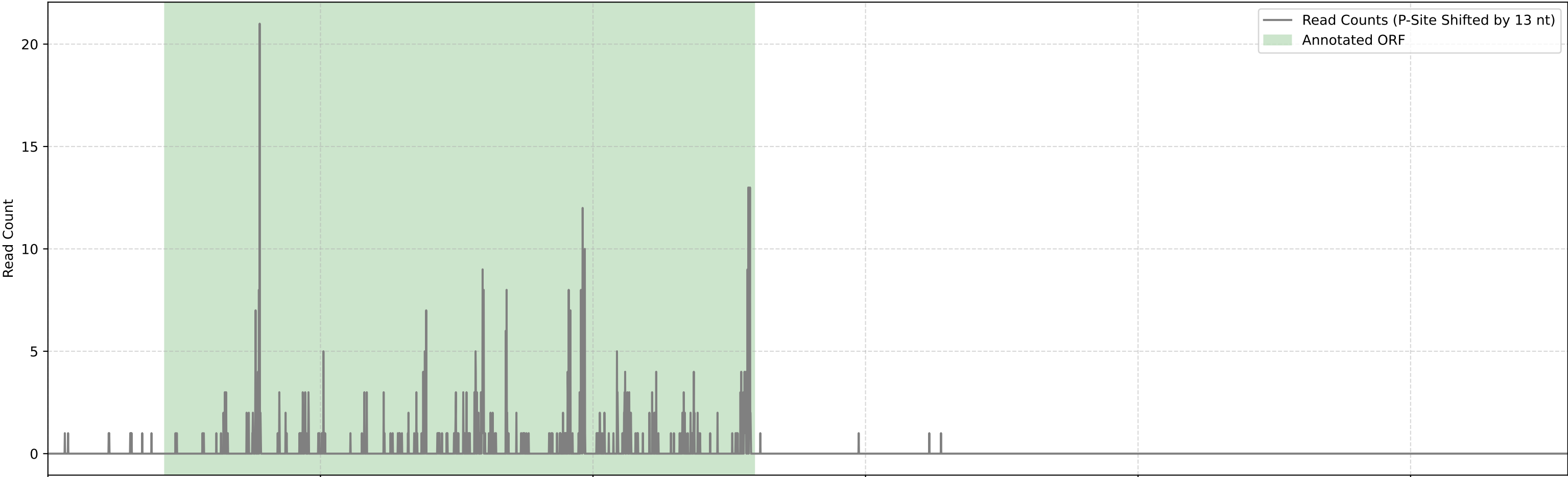
Emission Probabilities: State "3'UTR"



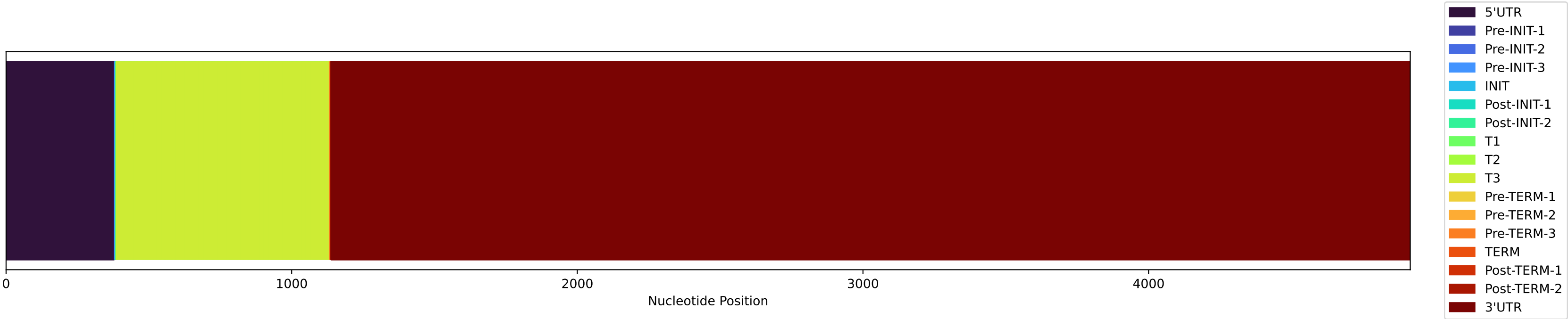
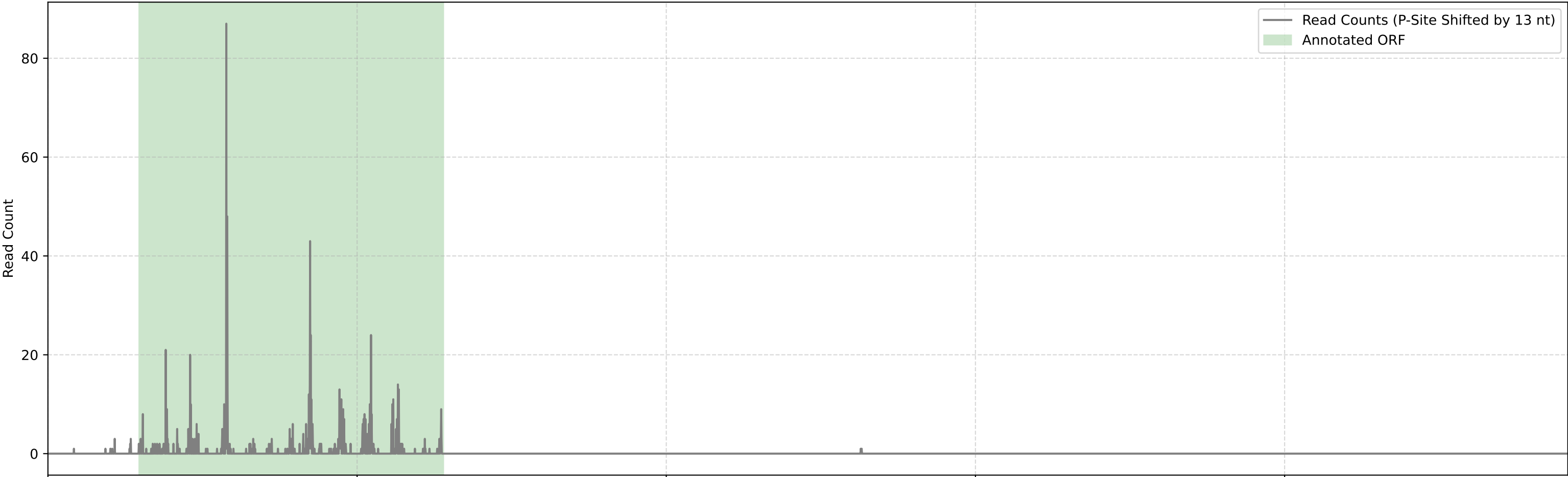
Distance: Predicted INIT State vs. True Start Codon



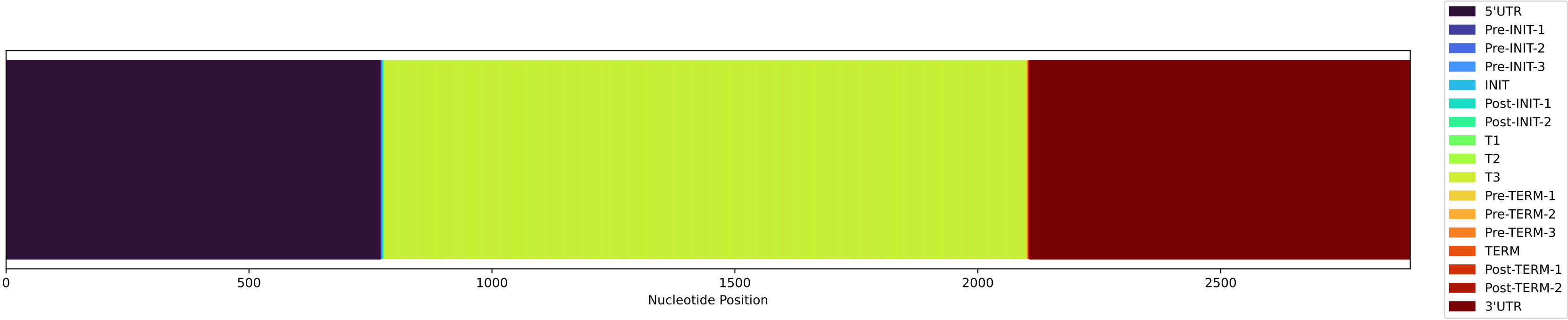
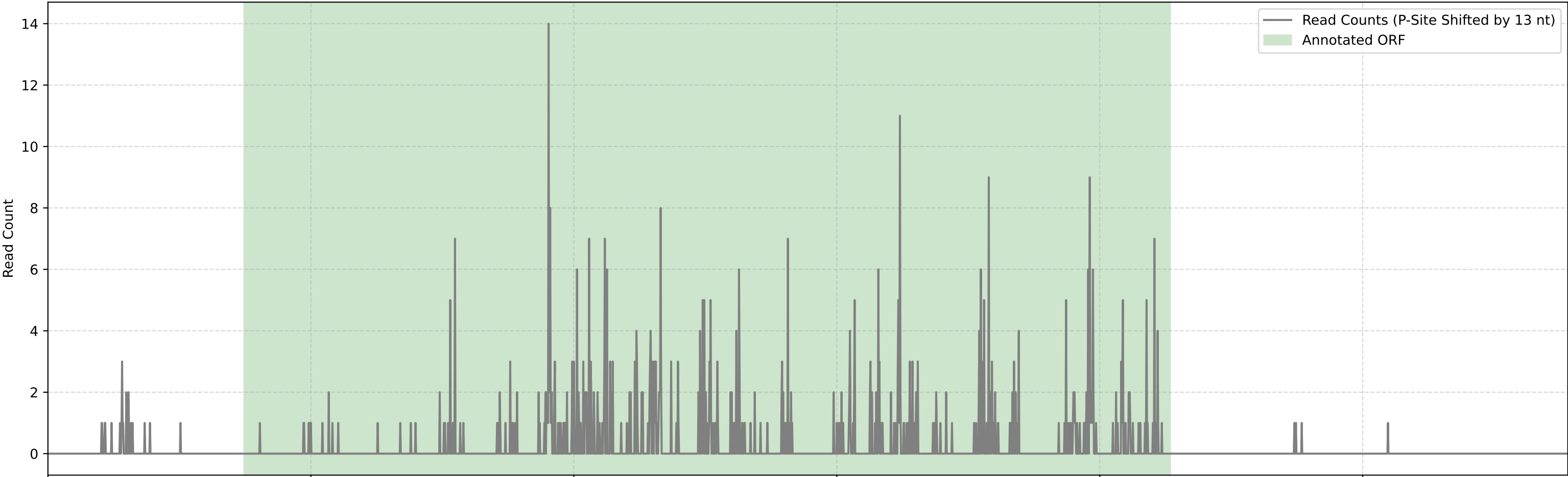
Example: 10th Percentile (by TPM) Transcript (ENST00000357430.8)
Total Reads: 650 | TPM: 1681.74



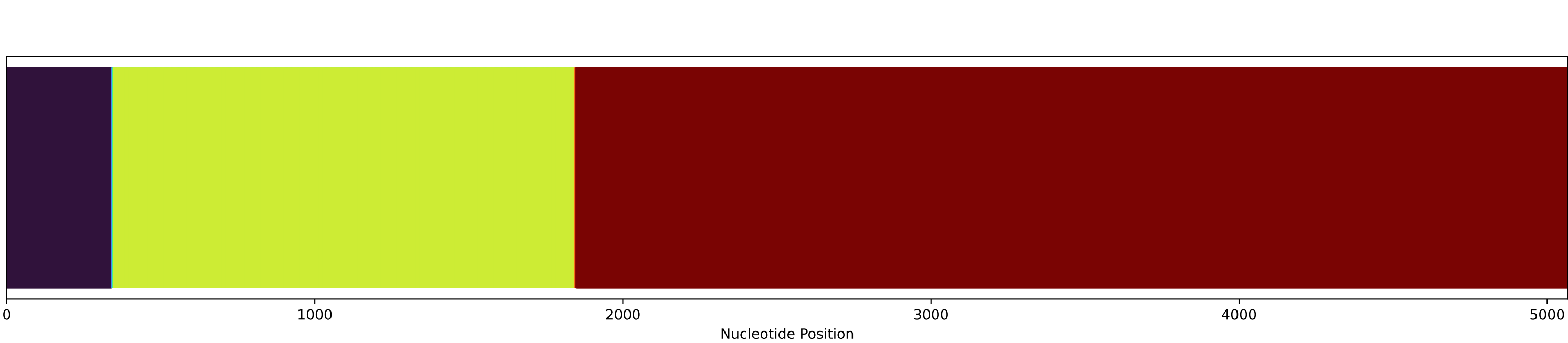
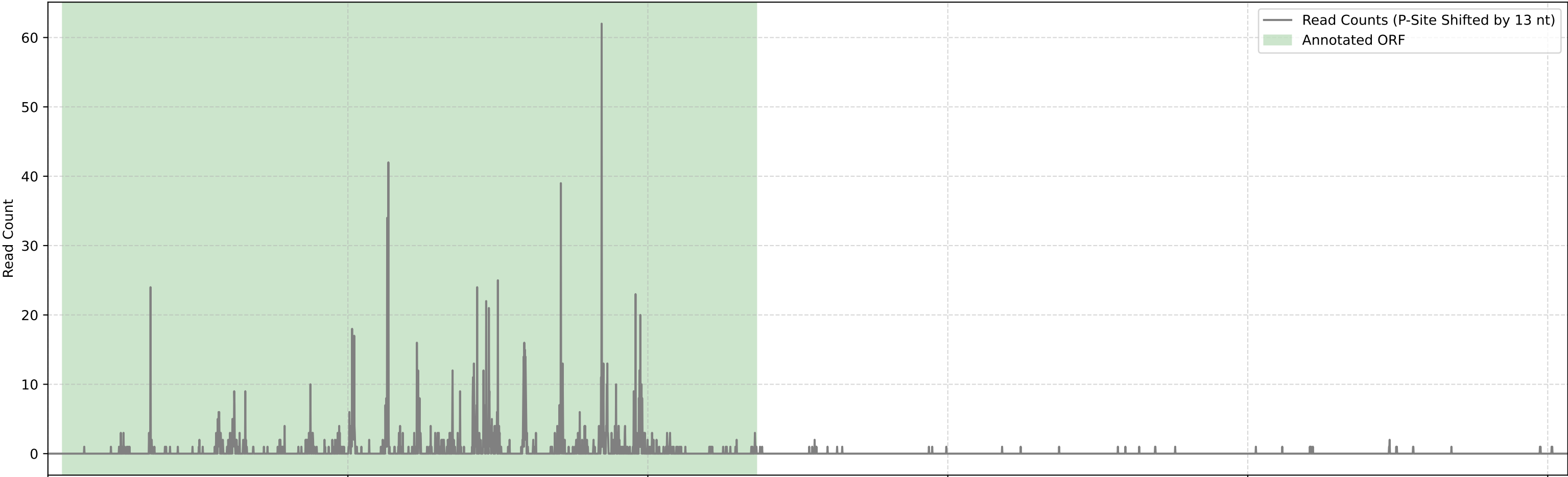
Example: 20th Percentile (by TPM) Transcript (ENST00000395366.3)
Total Reads: 942 | TPM: 2764.94



Example: 30th Percentile (by TPM) Transcript (ENST00000261366.10)
Total Reads: 671 | TPM: 3350.21

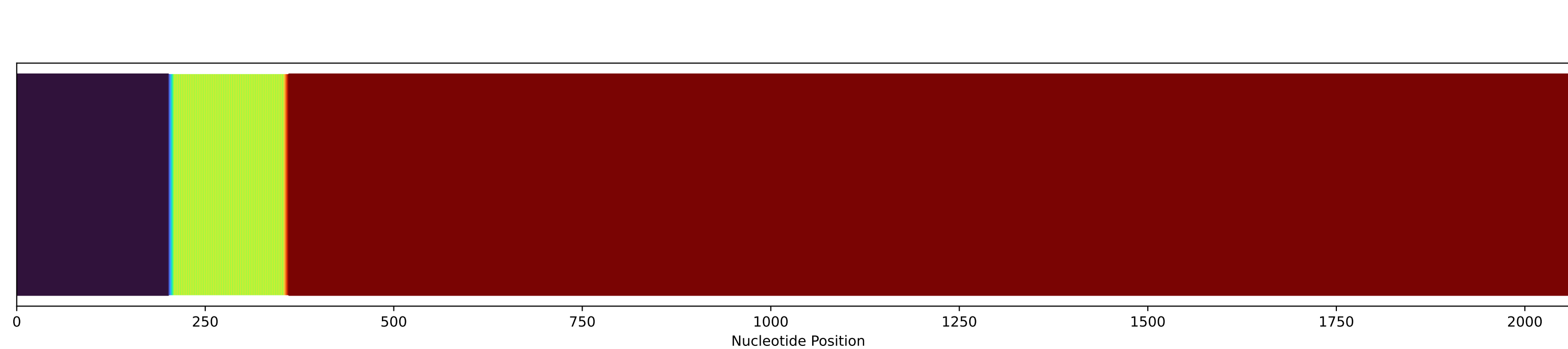
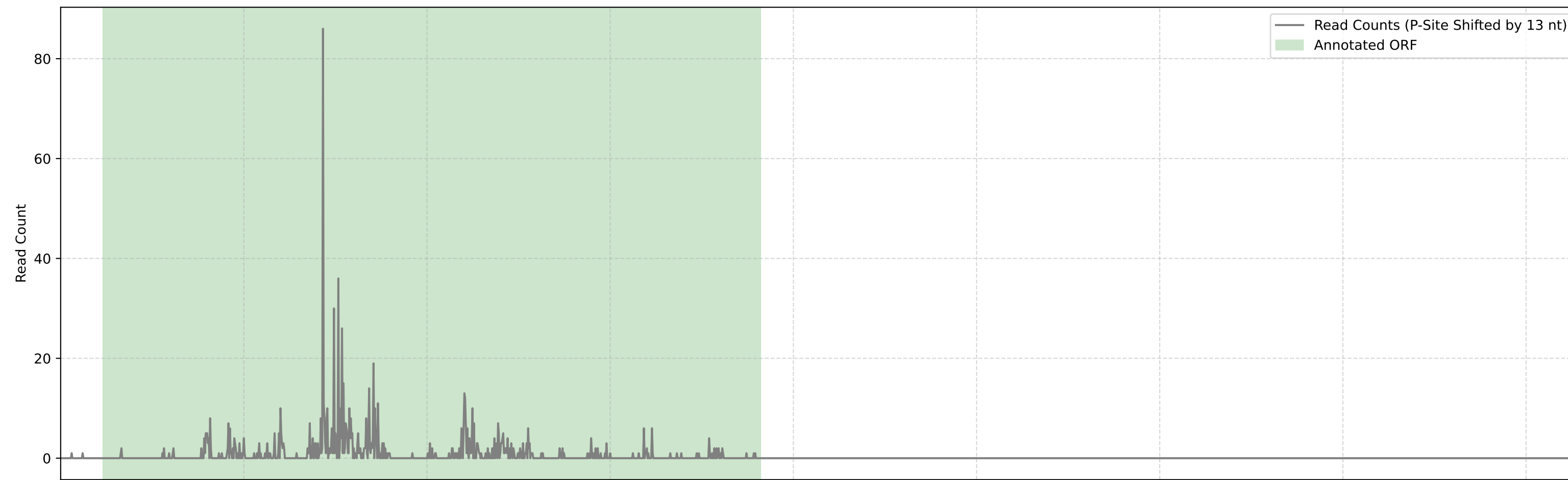


Example: 40th Percentile (by TPM) Transcript (ENST00000374893.11)
Total Reads: 1,769 | TPM: 5037.60



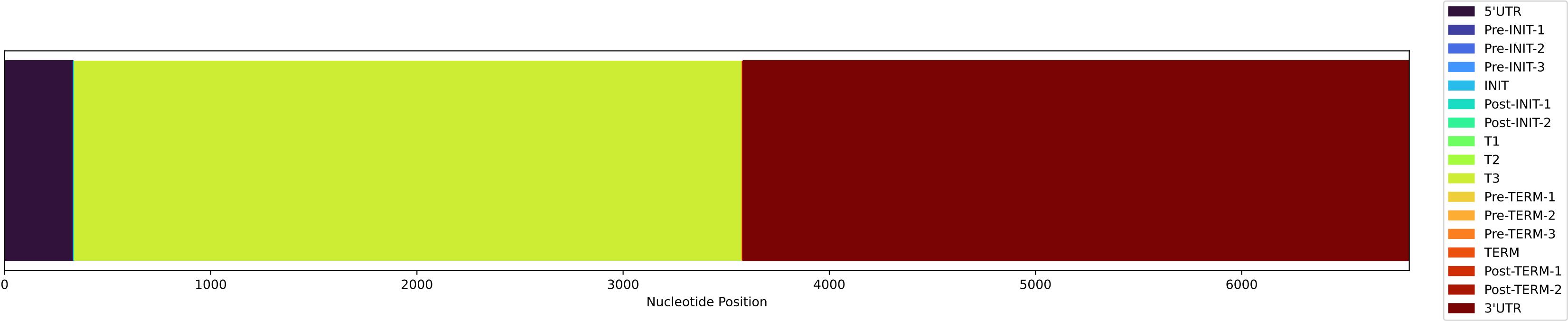
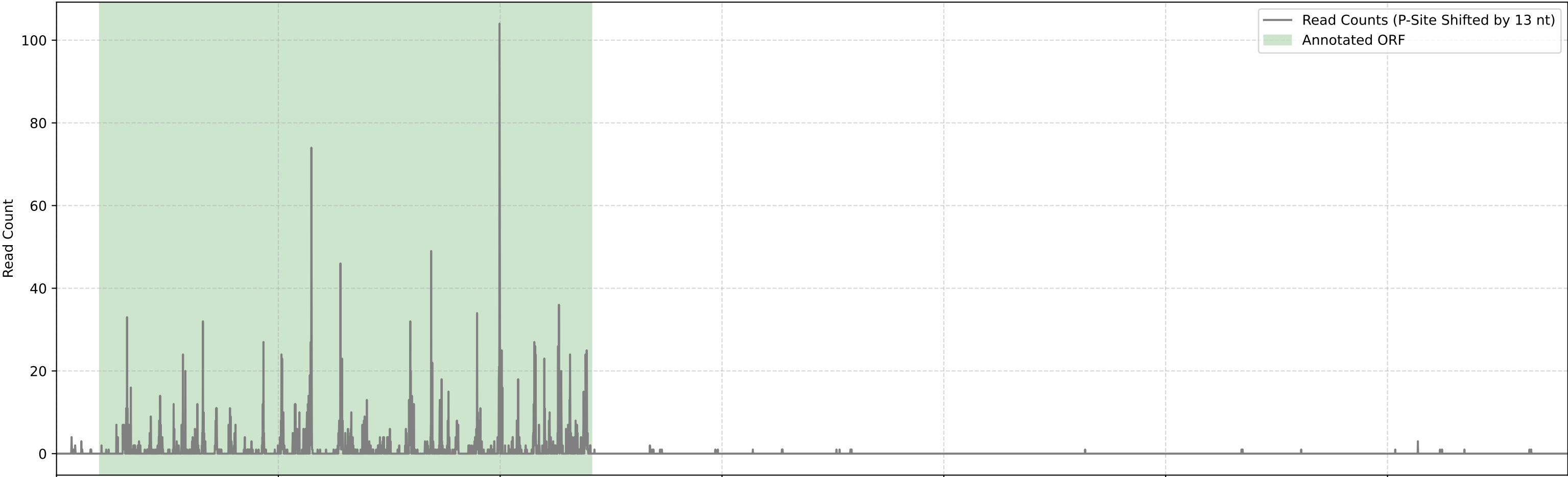
Example: 51th Percentile (by TPM) Transcript (ENST00000260130.9)

Total Reads: 908 | TPM: 6320.24

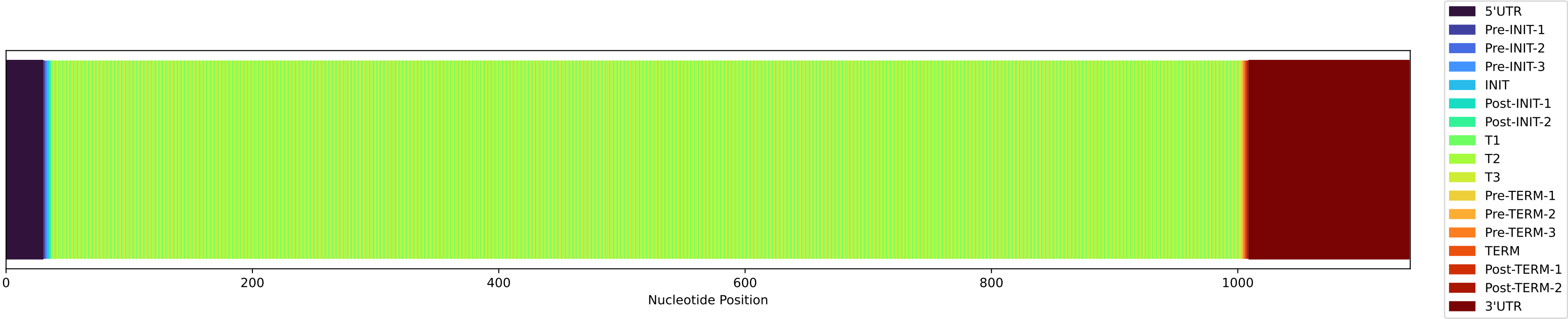
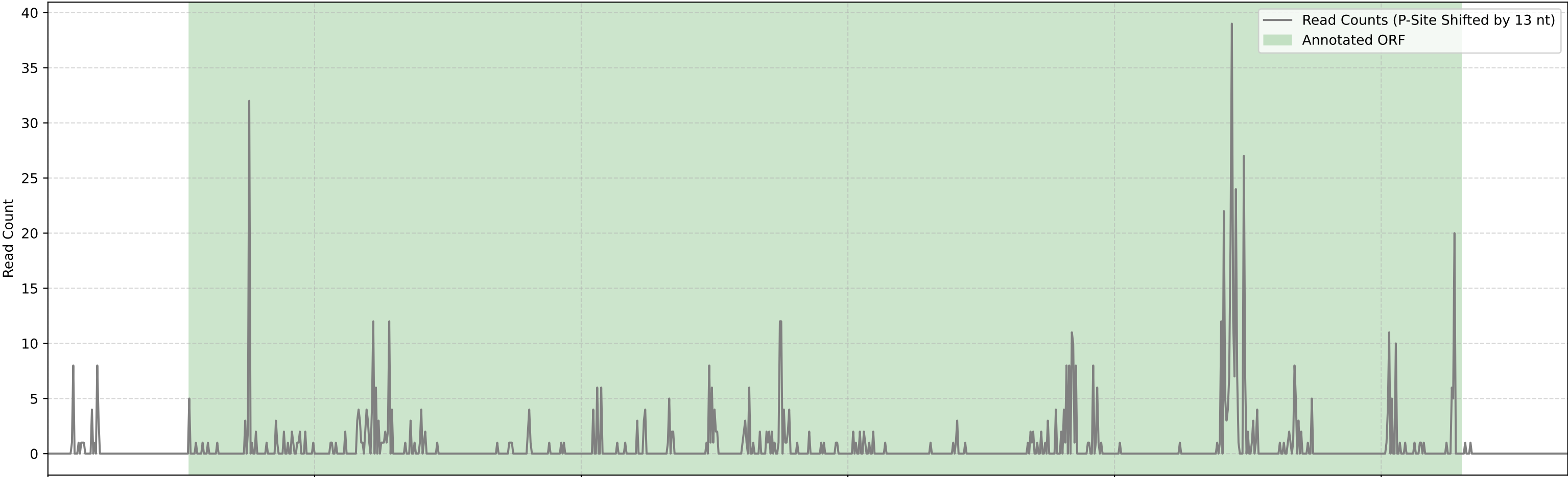


- 5'UTR
- Pre-INIT-1
- Pre-INIT-2
- Pre-INIT-3
- INIT
- Post-INIT-1
- Post-INIT-2
- T1
- T2
- T3
- Pre-TERM-1
- Pre-TERM-2
- Pre-TERM-3
- TERM
- Post-TERM-1
- Post-TERM-2
- 3'UTR

Example: 60th Percentile (by TPM) Transcript (ENST00000563924.6)
Total Reads: 3,388 | TPM: 7175.50

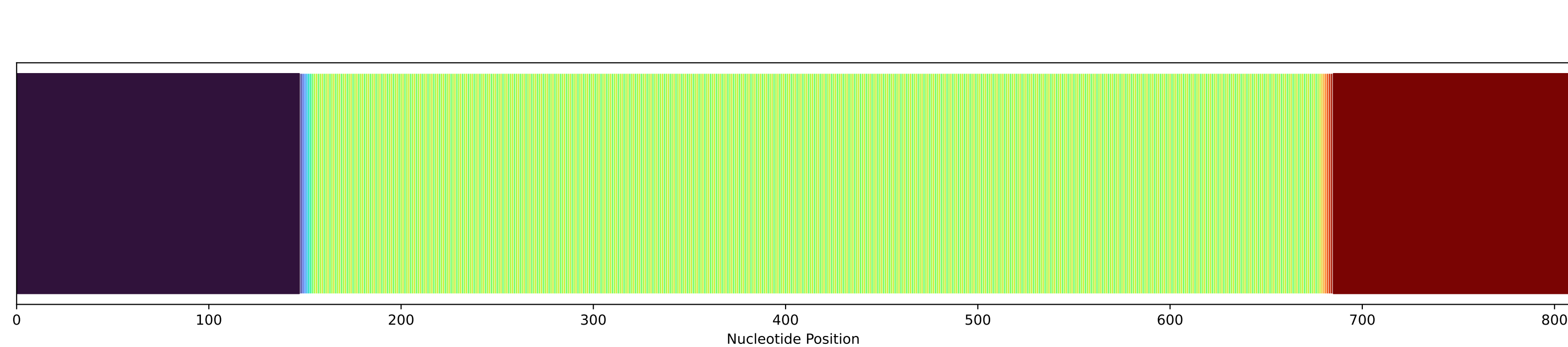
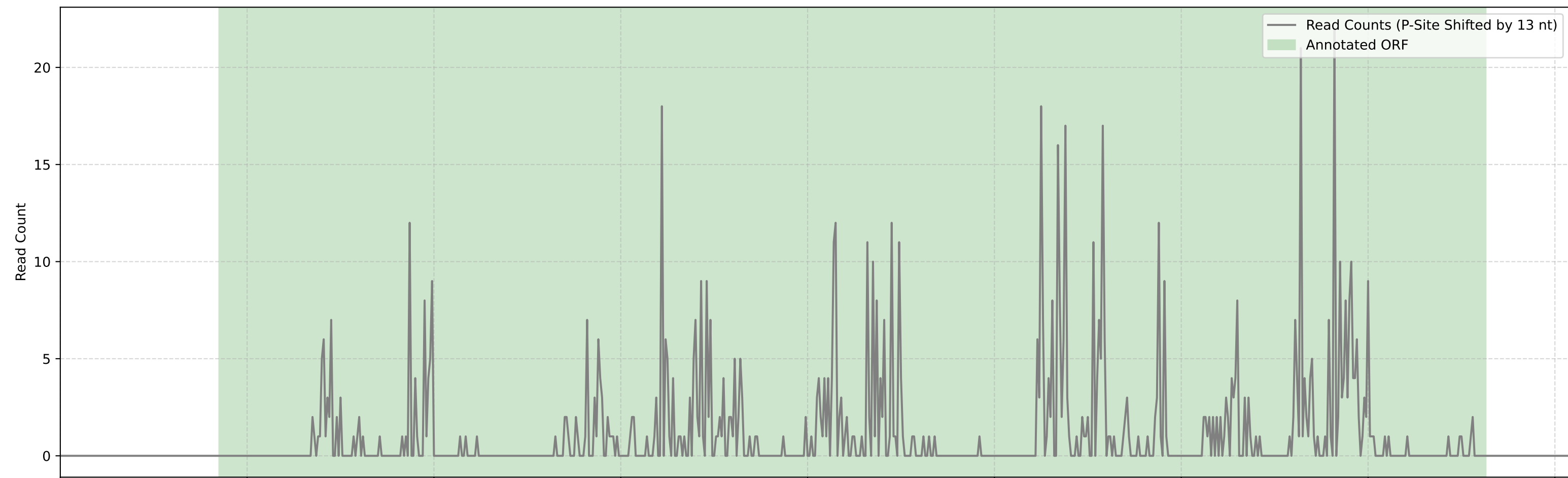


Example: 70th Percentile (by TPM) Transcript (ENST00000512805.6)
Total Reads: 752 | TPM: 9518.31



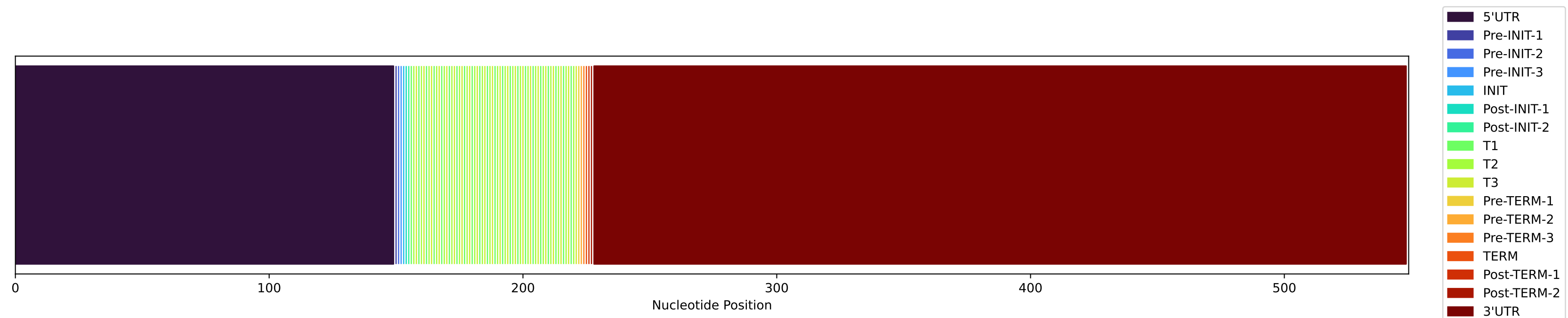
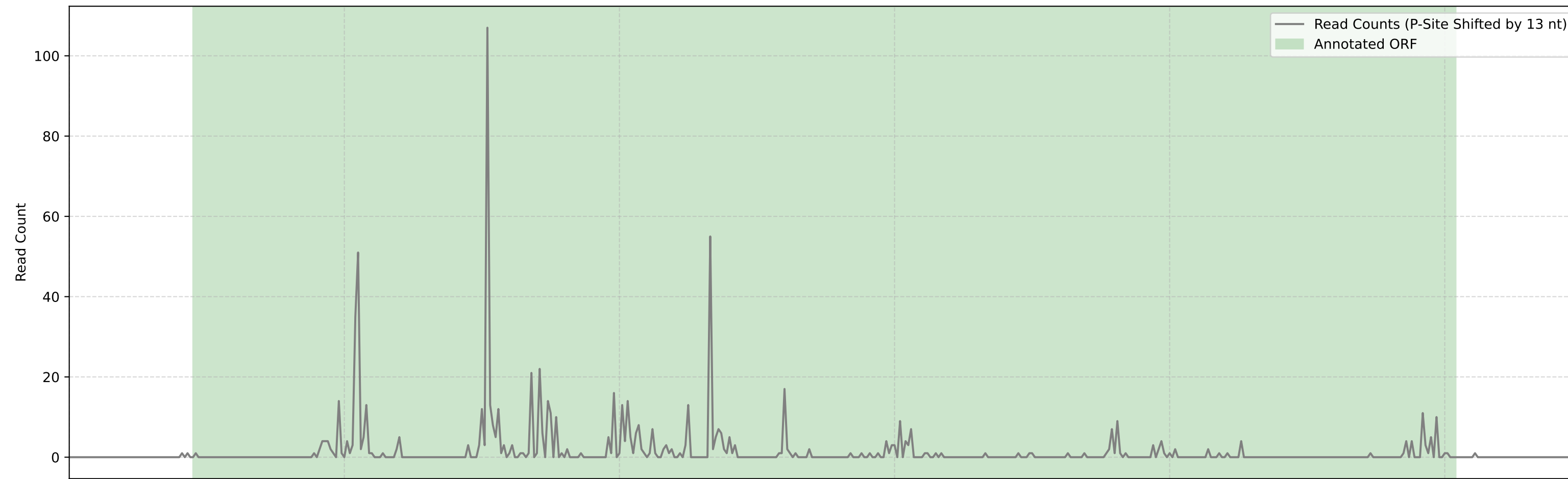
Example: 80th Percentile (by TPM) Transcript (ENST00000392222.7)

Total Reads: 820 | TPM: 14643.65



- 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: 90th Percentile (by TPM) Transcript (ENST00000439602.7)
Total Reads: 783 | TPM: 20579.57



Example: Max Expression Transcript (ENST00000233143.6)
Total Reads: 3,720 | TPM: 116436.44

