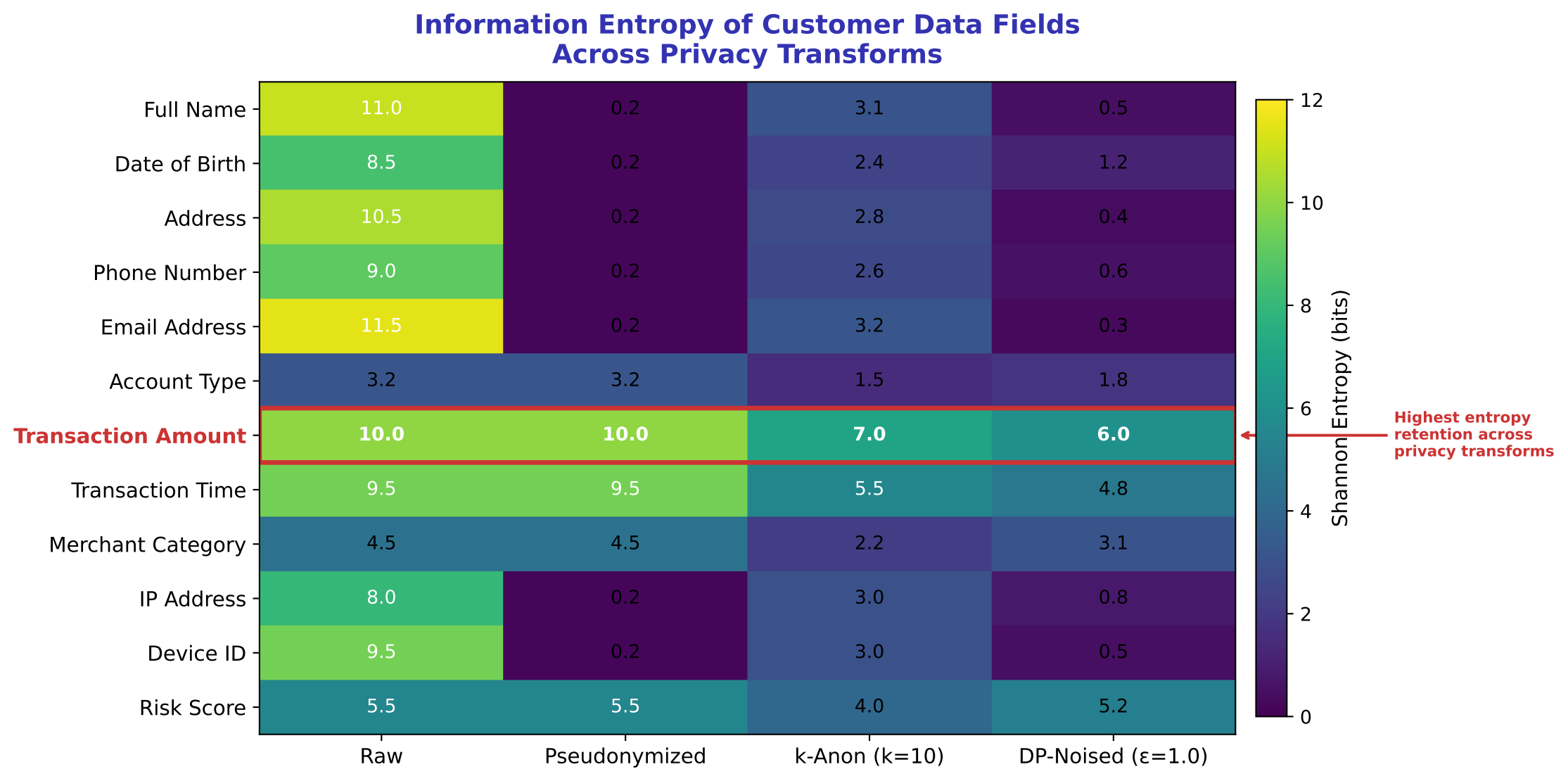
Information Entropy of Customer Data Fields
Across Privacy Transforms
Full Name
Date of Birth
Address
Phone Number
Email Address
Account Type
Transaction Amount
Transaction Time
Merchant Category
IP Address
Device ID
Risk Score
11.0 0.2 3.1 0.5
8.5 0.2 2.4 1.2
10.5 0.2 2.8 0.4
9.0 0.2 2.6 0.6
11.5 0.2 3.2 0.3
3.2 3.2 1.5 1.8
10.0 10.0 7.0 6.0
9.5 9.5 5.5 4.8
4.5 4.5 2.2 3.1
8.0 0.2 3.0 0.8
9.5 0.2 3.0 0.5
5.5 5.5 4.0 5.2
Raw
Pseudonymized
k-Anon (k=10)
DP-Noised (ε=1.0)
Shannon Entropy (bits)
0
2
4
6
8
10
12
Highest entropy retention across privacy transforms