

|      | A      | C      | D      | E      | F      | G      | H       | I      | K      | L      | M     | N      | P      | Q      | R      | S      | T      | V      | W      | Y      |
|------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1:E  | 3.95%  | 0.01%  | 7.39%  | 71.27% | 0.01%  | 4.00%  | 0.43%   | 0.18%  | 3.33%  | 0.28%  | 0.02% | 0.59%  | 0.20%  | 3.54%  | 0.37%  | 0.12%  | 0.19%  | 3.92%  | 0.01%  | 0.20%  |
| 2:I  | 0.45%  | 0.21%  | 0.26%  | 0.03%  | 5.43%  | 0.29%  | 0.38%   | 55.31% | 0.15%  | 9.76%  | 1.62% | 2.39%  | 0.83%  | 0.01%  | 0.35%  | 3.93%  | 7.24%  | 11.26% | 0.00%  | 0.11%  |
| 3:V  | 2.16%  | 0.00%  | 0.16%  | 1.60%  | 0.41%  | 1.45%  | 0.00%   | 1.11%  | 0.08%  | 8.48%  | 3.32% | 0.01%  | 0.18%  | 0.07%  | 0.09%  | 0.10%  | 0.22%  | 80.55% | 0.02%  | 0.00%  |
| 4:L  | 0.13%  | 0.04%  | 0.00%  | 0.03%  | 1.14%  | 0.09%  | 0.00%   | 0.05%  | 0.03%  | 82.61% | 1.40% | 0.00%  | 0.21%  | 0.02%  | 0.20%  | 7.88%  | 0.09%  | 1.57%  | 4.49%  | 0.01%  |
| 5:T  | 4.42%  | 0.00%  | 0.01%  | 0.12%  | 0.00%  | 0.04%  | 0.00%   | 0.50%  | 2.24%  | 0.05%  | 1.11% | 0.18%  | 2.42%  | 0.04%  | 1.17%  | 1.13%  | 86.47% | 0.08%  | 0.01%  | 0.00%  |
| 6:Q  | 0.11%  | 0.01%  | 0.08%  | 1.60%  | 0.01%  | 0.08%  | 5.20%   | 0.01%  | 5.50%  | 6.11%  | 0.26% | 0.22%  | 3.85%  | 70.99% | 5.11%  | 0.17%  | 0.23%  | 0.24%  | 0.16%  | 0.06%  |
| 7:S  | 1.30%  | 1.56%  | 0.01%  | 0.00%  | 1.38%  | 0.03%  | 0.02%   | 0.03%  | 0.00%  | 0.11%  | 0.00% | 0.01%  | 2.93%  | 0.00%  | 0.04%  | 91.17% | 0.99%  | 0.03%  | 0.04%  | 0.35%  |
| 8:P  | 1.21%  | 0.00%  | 0.00%  | 0.03%  | 0.00%  | 0.01%  | 0.13%   | 0.02%  | 0.01%  | 2.84%  | 0.00% | 0.00%  | 93.08% | 0.53%  | 0.53%  | 1.23%  | 0.35%  | 0.04%  | 0.00%  | 0.00%  |
| 9:G  | 1.35%  | 0.21%  | 2.75%  | 0.61%  | 0.01%  | 91.86% | 0.04%   | 0.03%  | 0.01%  | 0.04%  | 0.00% | 0.06%  | 0.03%  | 0.00%  | 1.13%  | 0.48%  | 0.05%  | 1.31%  | 0.00%  | 0.03%  |
| 10:T | 4.89%  | 0.06%  | 0.18%  | 0.00%  | 0.09%  | 0.17%  | 0.05%   | 2.18%  | 0.11%  | 0.06%  | 0.11% | 1.51%  | 1.97%  | 0.00%  | 0.09%  | 5.08%  | 83.03% | 0.37%  | 0.00%  | 0.05%  |
| 11:L | 0.03%  | 0.00%  | 0.00%  | 0.03%  | 0.04%  | 0.01%  | 0.10%   | 0.02%  | 0.02%  | 89.79% | 0.56% | 0.00%  | 4.01%  | 2.42%  | 1.78%  | 0.04%  | 0.04%  | 1.09%  | 0.01%  | 0.00%  |
| 12:S | 1.71%  | 1.34%  | 0.02%  | 0.00%  | 0.69%  | 0.03%  | 0.03%   | 0.02%  | 0.00%  | 0.07%  | 0.00% | 0.02%  | 3.61%  | 0.00%  | 0.03%  | 90.82% | 1.11%  | 0.02%  | 0.02%  | 0.45%  |
| 13:L | 0.05%  | 0.05%  | 0.00%  | 0.02%  | 2.80%  | 0.04%  | 0.00%   | 0.03%  | 0.01%  | 90.77% | 0.63% | 0.00%  | 0.16%  | 0.04%  | 0.09%  | 2.01%  | 0.02%  | 2.02%  | 1.25%  | 0.01%  |
| 14:S | 1.69%  | 1.53%  | 0.01%  | 0.00%  | 1.34%  | 0.02%  | 0.03%   | 0.03%  | 0.00%  | 0.11%  | 0.00% | 0.01%  | 3.57%  | 0.00%  | 0.03%  | 90.12% | 1.11%  | 0.03%  | 0.03%  | 0.32%  |
| 15:P | 1.22%  | 0.00%  | 0.00%  | 0.02%  | 0.00%  | 0.01%  | 0.12%   | 0.02%  | 0.01%  | 2.85%  | 0.00% | 0.00%  | 93.03% | 0.53%  | 0.53%  | 1.25%  | 0.35%  | 0.03%  | 0.00%  | 0.00%  |
| 16:G | 0.36%  | 0.03%  | 0.19%  | 1.27%  | 0.00%  | 96.09% | 0.00%   | 0.00%  | 0.02%  | 0.02%  | 0.01% | 0.00%  | 0.01%  | 0.02%  | 1.35%  | 0.10%  | 0.02%  | 0.35%  | 0.16%  | 0.00%  |
| 17:E | 2.09%  | 0.00%  | 5.47%  | 76.82% | 0.00%  | 5.47%  | 0.16%   | 0.22%  | 4.55%  | 0.14%  | 0.02% | 0.38%  | 0.09%  | 1.35%  | 0.84%  | 1.05%  | 0.52%  | 0.79%  | 0.00%  | 0.03%  |
| 18:R | 0.07%  | 0.06%  | 0.01%  | 0.15%  | 0.00%  | 7.93%  | 0.01%   | 0.56%  | 1.61%  | 0.07%  | 0.03% | 0.15%  | 0.06%  | 0.11%  | 85.91% | 1.86%  | 1.36%  | 0.04%  | 0.02%  | 0.00%  |
| 19:A | 69.12% | 0.03%  | 4.60%  | 0.31%  | 0.09%  | 5.43%  | 0.05%   | 0.57%  | 0.02%  | 0.17%  | 0.01% | 0.20%  | 2.40%  | 0.00%  | 0.10%  | 1.55%  | 4.18%  | 11.14% | 0.00%  | 0.02%  |
| 20:T | 4.92%  | 0.04%  | 0.11%  | 0.00%  | 0.06%  | 0.12%  | 0.03%   | 1.14%  | 0.09%  | 0.05%  | 0.07% | 1.05%  | 3.61%  | 0.00%  | 0.06%  | 4.00%  | 84.36% | 0.26%  | 0.00%  | 0.03%  |
| 21:L | 0.06%  | 0.04%  | 0.02%  | 0.00%  | 2.67%  | 0.03%  | 0.71%   | 0.64%  | 0.00%  | 87.89% | 0.03% | 0.01%  | 3.95%  | 0.05%  | 1.21%  | 0.05%  | 0.03%  | 2.61%  | 0.00%  | 0.01%  |
| 22:S | 2.04%  | 1.34%  | 0.03%  | 0.00%  | 1.43%  | 0.04%  | 0.08%   | 0.03%  | 0.00%  | 0.34%  | 0.00% | 0.04%  | 5.58%  | 0.00%  | 0.07%  | 87.10% | 0.88%  | 0.06%  | 0.04%  | 0.89%  |
| 23:C | 0.08%  | 79.46% | 0.27%  | 0.00%  | 2.23%  | 1.43%  | 0.54%   | 0.02%  | 0.01%  | 0.21%  | 0.00% | 0.26%  | 0.17%  | 0.01%  | 1.33%  | 5.26%  | 0.05%  | 0.03%  | 0.38%  | 8.26%  |
| 24:R | 0.02%  | 0.02%  | 0.00%  | 0.05%  | 0.00%  | 3.82%  | 0.00%   | 0.02%  | 0.65%  | 0.01%  | 0.18% | 0.02%  | 0.01%  | 0.01%  | 92.37% | 0.75%  | 0.33%  | 0.01%  | 1.72%  | 0.00%  |
| 25:A | 94.18% | 0.00%  | 0.75%  | 0.02%  | 0.01%  | 0.34%  | 0.01%   | 0.05%  | 0.00%  | 0.01%  | 0.00% | 0.03%  | 0.85%  | 0.00%  | 0.00%  | 0.61%  | 1.72%  | 1.43%  | 0.00%  | 0.00%  |
| 26:S | 0.13%  | 2.08%  | 0.09%  | 0.00%  | 0.04%  | 3.26%  | 0.10%   | 1.46%  | 0.10%  | 0.04%  | 0.02% | 3.49%  | 0.10%  | 0.00%  | 5.98%  | 78.33% | 4.64%  | 0.06%  | 0.04%  | 0.04%  |
| 27:Q | 0.01%  | 0.00%  | 0.02%  | 0.50%  | 0.00%  | 0.04%  | 3.03%   | 0.00%  | 0.53%  | 2.36%  | 0.02% | 0.02%  | 2.72%  | 86.74% | 3.86%  | 0.02%  | 0.02%  | 0.02%  | 0.06%  | 0.02%  |
| 28:S | 0.11%  | 0.92%  | 0.16%  | 0.01%  | 0.05%  | 2.75%  | 0.10%   | 5.63%  | 0.25%  | 0.08%  | 0.09% | 5.35%  | 0.08%  | 0.01%  | 5.47%  | 72.64% | 6.13%  | 0.12%  | 0.02%  | 0.04%  |
| 29:V | 6.24%  | 0.08%  | 2.45%  | 0.28%  | 3.89%  | 2.47%  | 0.16%   | 5.83%  | 0.02%  | 8.22%  | 0.31% | 0.15%  | 0.66%  | 0.01%  | 0.24%  | 0.38%  | 0.49%  | 68.05% | 0.00%  | 0.06%  |
| 30:S | 0.56%  | 2.89%  | 1.26%  | 0.06%  | 0.44%  | 7.93%  | 0.39%   | 5.29%  | 0.77%  | 0.37%  | 0.15% | 8.67%  | 0.15%  | 0.02%  | 30.35% | 35.25% | 4.26%  | 0.49%  | 0.15%  | 0.54%  |
| 31:S | 0.25%  | 1.26%  | 0.53%  | 0.04%  | 0.10%  | 3.46%  | 0.38%   | 2.83%  | 0.98%  | 0.11%  | 0.10% | 8.65%  | 0.14%  | 0.03%  | 32.42% | 42.88% | 5.35%  | 0.18%  | 0.06%  | 0.22%  |
| 32:S | 0.35%  | 1.64%  | 0.74%  | 0.05%  | 0.12%  | 3.06%  | 0.44%   | 2.80%  | 1.10%  | 0.12%  | 0.21% | 10.93% | 0.15%  | 0.02%  | 15.49% | 56.11% | 6.12%  | 0.18%  | 0.11%  | 0.27%  |
| 33:Y | 0.08%  | 9.13%  | 2.46%  | 0.04%  | 5.49%  | 0.16%  | 7.31%   | 0.10%  | 0.24%  | 0.90%  | 0.00% | 3.72%  | 0.25%  | 0.12%  | 0.39%  | 5.15%  | 0.14%  | 0.06%  | 0.27%  | 63.99% |
| 34:L | 0.11%  | 0.10%  | 0.00%  | 0.04%  | 7.32%  | 0.03%  | 0.01%   | 1.01%  | 0.02%  | 80.74% | 0.11% | 0.00%  | 0.80%  | 0.19%  | 0.22%  | 8.05%  | 0.10%  | 0.98%  | 0.15%  | 0.02%  |
| 35:A | 78.40% | 0.11%  | 3.11%  | 0.13%  | 0.13%  | 2.77%  | 0.04%   | 0.25%  | 0.01%  | 0.10%  | 0.02% | 0.14%  | 2.16%  | 0.00%  | 0.04%  | 1.94%  | 3.82%  | 6.77%  | 0.00%  | 0.07%  |
| 36:W | 0.12%  | 12.57% | 0.09%  | 0.21%  | 0.40%  | 8.55%  | 0.06%   | 0.01%  | 0.03%  | 0.69%  | 0.01% | 0.03%  | 0.07%  | 0.05%  | 3.36%  | 1.45%  | 0.02%  | 0.07%  | 71.11% | 1.10%  |
| 37:Y | 0.15%  | 8.45%  | 6.86%  | 0.21%  | 4.12%  | 0.33%  | 7.62%   | 0.48%  | 0.98%  | 0.67%  | 0.01% | 10.86% | 0.17%  | 0.15%  | 0.50%  | 4.21%  | 0.26%  | 0.15%  | 0.11%  | 53.71% |
| 38:Q | 0.06%  | 0.01%  | 0.09%  | 1.84%  | 0.01%  | 0.07%  | 7.39%   | 0.01%  | 1.32%  | 2.15%  | 0.04% | 0.12%  | 2.75%  | 80.06% | 3.74%  | 0.06%  | 0.07%  | 0.07%  | 0.03%  | 0.10%  |
| 39:Q | 0.17%  | 0.01%  | 0.20%  | 5.40%  | 0.01%  | 0.24%  | 1.26%   | 0.05%  | 24.61% | 1.56%  | 0.87% | 0.53%  | 1.02%  | 57.94% | 4.73%  | 0.16%  | 0.70%  | 0.16%  | 0.33%  | 0.05%  |
| 40:K | 0.21%  | 0.00%  | 0.21%  | 2.48%  | 0.00%  | 0.31%  | 0.10%   | 1.94%  | 69.96% | 0.06%  | 0.28% | 6.41%  | 0.13%  | 1.40%  | 9.46%  | 0.64%  | 6.30%  | 0.05%  | 0.00%  | 0.02%  |
| 41:P | 4.22%  | 0.69%  | 0.18%  | 0.02%  | 0.59%  | 0.42%  | 1.68%   | 0.46%  | 0.02%  | 4.75%  | 0.01% | 0.16%  | 70.02% | 0.15%  | 3.64%  | 7.66%  | 4.48%  | 0.68%  | 0.01%  | 0.15%  |
| 42:G | 0.76%  | 0.46%  | 1.63%  | 0.05%  | 0.00%  | 95.04% | 0.01%   | 0.01%  | 0.00%  | 0.01%  | 0.00% | 0.03%  | 0.01%  | 0.00%  | 0.51%  | 1.06%  | 0.02%  | 0.38%  | 0.01%  | 0.01%  |
| 43:Q | 0.03%  | 0.00%  | 0.01%  | 1.02%  | 0.00%  | 0.03%  | 0.75%   | 0.00%  | 0.70%  | 1.17%  | 0.02% | 0.01%  | 3.39%  | 90.15% | 2.62%  | 0.02%  | 0.07%  | 0.01%  | 0.01%  | 0.00%  |
| 44:A | 61.72% | 0.06%  | 0.38%  | 0.06%  | 0.07%  | 1.05%  | 0.02%   | 0.40%  | 0.00%  | 0.10%  | 0.00% | 0.11%  | 9.13%  | 0.00%  | 0.06%  | 4.72%  | 20.68% | 1.43%  | 0.00%  | 0.01%  |
| 45:P | 1.89%  | 0.08%  | 0.03%  | 0.00%  | 0.10%  | 0.03%  | 1.84%   | 0.06%  | 0.00%  | 3.17%  | 0.00% | 0.03%  | 88.24% | 0.06%  | 1.54%  | 1.81%  | 0.96%  | 0.09%  | 0.00%  | 0.05%  |
| 46:R | 0.02%  | 0.25%  | 0.01%  | 0.03%  | 0.00%  | 2.64%  | 0.00%   | 0.12%  | 0.63%  | 0.02%  | 0.20% | 0.20%  | 0.02%  | 0.03%  | 82.14% | 12.27% | 0.46%  | 0.01%  | 0.93%  | 0.00%  |
| 47:L | 0.05%  | 0.04%  | 0.01%  | 0.00%  | 1.75%  | 0.01%  | 0.51%   | 0.47%  | 0.00%  | 90.80% | 0.03% | 0.05%  | 3.60%  | 0.04%  | 1.08%  | 0.06%  | 0.02%  | 1.47%  | 0.00%  | 0.01%  |
| 48:L | 0.10%  | 0.07%  | 0.03%  | 0.00%  | 3.36%  | 0.04%  | 0.64%   | 1.04%  | 0.00%  | 86.43% | 0.02% | 0.01%  | 3.60%  | 0.04%  | 1.09%  | 0.11%  | 0.03%  | 3.35%  | 0.00%  | 0.03%  |
| 49:I | 0.28%  | 0.07%  | 0.08%  | 0.02%  | 3.40%  | 0.13%  | 0.06%   | 68.51% | 0.27%  | 5.99%  | 5.73% | 1.29%  | 0.21%  | 0.01%  | 0.34%  | 1.35%  | 3.98%  | 8.26%  | 0.00%  | 0.03%  |
| 50:Y | 0.10%  | 8.26%  | 2.06%  | 0.08%  | 8.93%  | 0.12%  | 6.13%   | 0.12%  | 0.17%  | 0.83%  | 0.00% | 3.07%  | 0.28%  | 0.37%  | 0.41%  | 9.27%  | 0.22%  | 0.07%  | 0.11%  | 59.41% |
| 51:A | 3.86%  | 1.51%  | 5.93%  | 0.40%  | 0.08%  | 79.73% | 0.28%   | 0.15%  | 0.02%  | 0.09%  | 0.00% | 0.38%  | 0.19%  | 0.01%  | 1.63%  | 3.89%  | 0.40%  | 1.29%  | 0.02%  | 0.15%  |
| 52:A | 85.13% | 0.00%  | 0.34%  | 3.98%  | 0.01%  | 0.98%  | 0.01%   | 0.22%  | 0.12%  | 0.17%  | 0.02% | 0.02%  | 1.41%  | 0.03%  | 0.09%  | 1.94%  | 4.35%  | 1.16%  | 0.00%  | 0.00%  |
| 53:S | 1.43%  | 1.87%  | 0.08%  | 0.00%  | 2.14%  | 0.09%  | 0.09%   | 0.08%  | 0.00%  | 0.30%  | 0.00% | 0.06%  | 3.60%  | 0.00%  | 0.11%  | 87.84% | 0.87%  | 0.12%  | 0.02%  | 1.28%  |
| 54:S | 0.26%  | 1.67%  | 0.32%  | 0.02%  | 0.10%  | 3.01%  | 0.41%   | 2.56%  | 0.96%  | 0.15%  | 0.11% | 8.58%  | 0.24%  | 0.03%  | 33.64% | 42.01% | 5.49%  | 0.17%  | 0.05%  | 0.23%  |
| 55:R | 0.02%  | 0.02%  | 0.00%  | 0.05%  | 0.00%  | 3.71%  | 0.00%   | 0.02%  | 0.69%  | 0.02%  | 0.19% | 0.02%  | 0.01%  | 0.02%  | 92.46% | 0.75%  | 0.34%  | 0.02%  | 1.66%  | 0.00%  |
| 56:A | 94.24% | 0.00%  | 0.72%  | 0.03%  | 0.00%  | 0.34%  | 0.00%   | 0.05%  | 0.00%  | 0.01%  | 0.00% | 0.03%  | 0.82%  | 0.00%  | 0.01%  | 0.65%  | 1.68%  | 1.40%  | 0.00%  | 0.00%  |
| 57:T | 3.47%  | 0.09%  | 0.10%  | 0.00%  | 0.11%  | 0.22%  | 0.05%   | 3.65%  | 0.09%  | 0.12%  | 0.05% | 1.65%  | 3.11%  | 0.00%  | 0.22%  | 7.15%  | 79.58% | 0.30%  | 0.00%  | 0.03%  |
| 58:G | 5.00%  | 0.36%  | 10.67% | 0.29%  | 0.02%  | 79.09% | 0.03%   | 0.05%  | 0.01%  | 0.02%  | 0.00% | 0.10%  | 0.02%  | 0.00%  | 0.65%  | 0.74%  | 0.07%  | 2.80%  | 0.00%  | 0.06%  |
| 59:I | 0.21%  | 0.06%  | 0.06%  | 0.01%  | 3.25%  | 0.08%  | 0.03%   | 79.33% | 0.14%  | 3.08%  | 2.64% | 0.84%  | 0.12%  | 0.00%  | 0.32%  | 1.42%  | 3.59%  | 4.79%  | 0.00%  | 0.02%  |
| 60:P | 1.58%  | 0.00%  | 0.00%  | 0.06%  | 0.00%  | 0.02%  | 0.03%   | 0.05%  | 0.02%  | 1.20%  | 0.00% | 0.00%  | 90.44% | 0.50%  | 0.73%  | 3.32%  | 1.97%  | 0.07%  | 0.00%  | 0.00%  |
| 61:D | 2.80%  | 0.02%  | 87.68% | 1.18%  | 0.02%  | 5.77%  | 0.25%   | 0.04%  | 0.04%  | 0.04%  | 0.00% | 0.51%  | 0.02%  | 0.02%  | 0.06%  | 0.04%  | 0.124% | 0.00%  | 0.25%  |        |
| 62:R | 0.10%  | 0.17%  | 0.04%  | 0.18%  | 0.01%  | 2.97%  | 0.02%   | 0.36%  | 4.11%  | 0.08%  | 1.18% | 0.80%  | 0.07%  | 0.08%  | 79.25% | 7.57%  | 2.24%  | 0.09%  | 0.67%  | 0.01%  |
| 63:F | 0.09%  | 1.80%  | 0.04%  | 0.00%  | 75.16% | 0.05%  | 0.04%   | 2.46%  | 0.00%  | 13.41% | 0.06% | 0.04%  | 0.16%  | 0.00%  | 0.09%  | 2.34%  | 0.05%  | 3.69%  | 0.10%  | 0.39%  |
| 64:S | 0.20%  | 2.55%  | 0.25%  | 0.01%  | 0.09%  | 4.02%  | 0.21%</ |        |        |        |       |        |        |        |        |        |        |        |        |        |