MMLU Sociology  $p_{\theta}^{\mathsf{Choices}}(\mathsf{Correct\ Choice})$ — Cerebras (Param. and Data Scaling) — INCITE 7B Param. (Data Scaling) Correlation: pearson Correlation: kendall LLM360 Amber 7B Tokens (Param Scaling) — OLMo 7B Param. (Data Scaling) — Pythia 12B Param. (Data Scaling) — Pythia 300B Tokens (Param. Scaling)

0.50

Correlation Between FLOPs and Scores (Per Sample)

0.75

1.00

-1.00

Correlation: spearman

Correlation Between FLOPs and Scores (Per Sample)

0.75

-0.75

1.00 -1.00

1.0

0.6

0.4

0.2

Model Family

0.75

Correlation Between FLOPs and Scores (Per Sample)

1.00