

Model	Comparison	ℓ_1 Sparsity Crosscoder				
		ℓ_0	Dead Feats	Δ CE A	Δ CE B	Δ CE C
Pythia-1B Layer 8	128M 1B	88	9	0.00	0.07	-
	1B 4B	214	1	0.05	0.18	-
	4B 286B	190	9	0.15	0.48	-
	1B 4B 286B	215	19	0.03	0.16	0.54
OLMo-1B Layer 8	2B 4B	184	0	0.08	0.20	-
	4B 33B	227	0	0.14	0.21	-
	33B 3048B	182	425	0.16	0.35	-
	4B 33B 3048B	225	101	0.12	0.18	0.43
BLOOM-1B Layer 12	550M 6B	211	6	0.10	0.20	-
	6B 55B	112	8	0.14	0.29	-
	55B 341B	96	12	0.18	0.18	-
	6B 55B 341B	118	19	0.13	0.20	0.22

Table 1: **Crosscoder statistics.** Results averaged over three seeds on validation set. Δ CE is the change in cross-entropy loss when doing a forward pass using the original output versus the crosscoder reconstruction. A, B, C refer to the 1st, 2nd and 3rd checkpoints used for loss computation. ℓ_0 and dead feature averages are rounded to integers. Less trained models (, 1B) get smaller Δ CE values than further trained models (, 286B) due to the former’s high original CE loss.