

Table 2: Comparison with Transferable NAS on NB201 Serach Space. We present the accuracy achieved on four unseen datasets. Additionally, we provide the number of neural architectures (**Trained Archs**) that are actually trained to achieve accuracy. The accuracies are reported with 95% confidence intervals over 3 runs.

Type	Method	CIFAR-10		CIFAR-100		Aircraft		Oxford-IIIT Pets	
		Accuracy (%)	Trained Archs	Accuracy (%)	Trained Archs	Accuracy (%)	Trained Archs	Accuracy (%)	Trained Archs
	ResNet (He et al., 2016)	93.97 \pm 0.00	N/A	70.86 \pm 0.00	N/A	47.01 \pm 1.16	N/A	25.58 \pm 3.43	N/A
	RS (Bergstra & Bengio, 2012)	93.70 \pm 0.36	> 500	71.04 \pm 1.07	> 500	-	-	-	-
	REA (Real et al., 2019)	93.92 \pm 0.30	> 500	71.84 \pm 0.99	> 500	-	-	-	-
	REINFORCE (Williams, 1992)	93.85 \pm 0.37	> 500	71.71 \pm 1.09	> 500	-	-	-	-
One-shot NAS*	RSPS (Li & Talwalkar, 2019)	84.07 \pm 3.61	N/A	52.31 \pm 5.77	N/A	42.19 \pm 3.88	N/A	22.91 \pm 1.65	N/A
	SETN (Dong & Yang, 2019a)	87.64 \pm 0.00	N/A	59.09 \pm 0.24	N/A	44.84 \pm 3.96	N/A	25.17 \pm 1.68	N/A
	GDAS (Dong & Yang, 2019b)	93.61 \pm 0.09	N/A	70.70 \pm 0.30	N/A	53.52 \pm 0.48	N/A	24.02 \pm 2.75	N/A
	PC-DARTS (Xu et al., 2020)	93.66 \pm 0.17	N/A	66.64 \pm 2.34	N/A	26.33 \pm 3.40	N/A	25.31 \pm 1.38	N/A
	DrNAS (Chen et al., 2021)	94.36 \pm 0.00	N/A	73.51\pm0.00	N/A	46.08 \pm 7.00	N/A	26.73 \pm 2.61	N/A
BO-based NAS	BOHB (Falkner et al., 2018)	93.61 \pm 0.52	> 500	70.85 \pm 1.28	> 500	-	-	-	-
	GP-UCB	94.37\pm0.00	58	73.14 \pm 0.00	100	41.72 \pm 0.00	40	40.60 \pm 1.10	11
	BANANAS (White et al., 2021a)	94.37\pm0.00	46	73.51\pm0.00	88	41.72 \pm 0.00	40	40.15 \pm 1.59	17
	NASBOWL (Ru et al., 2021)	94.34 \pm 0.00	100	73.51\pm0.00	87	53.73 \pm 0.83	40	41.29 \pm 1.10	17
	HEBO (Cowen-Rivers et al., 2022)	94.34 \pm 0.00	100	72.62 \pm 0.20	100	49.32 \pm 6.10	40	40.55 \pm 1.15	18
Transferable NAS	TNAS (Shala et al., 2023)	94.37\pm0.00	29	73.51\pm0.00	59	59.15 \pm 0.58	26	40.00 \pm 0.00	6
	MetaD2A (Lee et al., 2021a)	94.37\pm0.00	100	73.34 \pm 0.04	100	57.71 \pm 0.20	40	39.04 \pm 0.20	40
	DiffusionNAG (Ours)	94.37\pm0.00	5	73.51\pm0.00	5	59.63\pm0.92	2	41.32\pm0.84	2