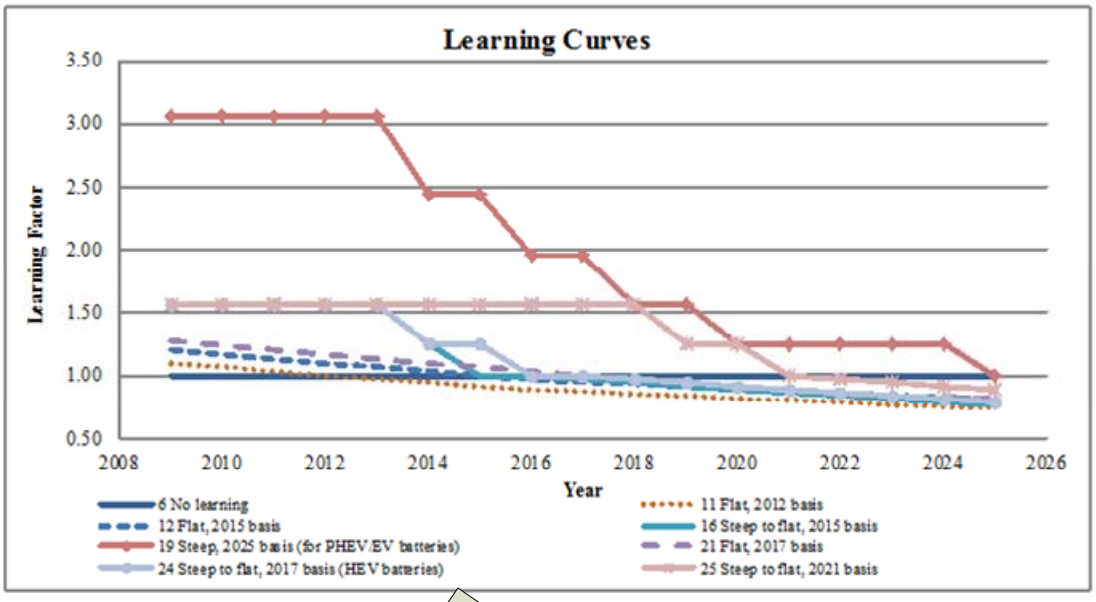

Direct Manufacturing Cost

Sources

- FEV
- 2012-2016FR
- Agency Estimate of Mass Reduction based on Literature Review
- ANL BatPac Model for Battery Cost
- EPA Estimate for Non-Battery and Charger Cost

Dollar Year

Per cylinder, per bank, per vehicle

Learning Curve

8 types of learning curves used

Gather Direct Manufacturing Cost for Each Technology (DMC) (89 items)

Calculate Learned Direct Manufacturing Cost for Each Technology (DMCwLearning)
DMCwLearning = DMC x Year-by-Year Learning

Calculate Indirect Manufacturing Cost for Each Technology (InDMC)
InDMC = DMCwLearning x ICM_Warranty + DMC x ICM_NonWarranty

Calculate Total Cost for Each Technology (Total Cost)
Total Cost = DMCwLearning + InDMC

Electrification Cost = Battery Cost + NonBattery Cost + Charger Cost (PHEV and EV)

Calculate Incremental Cost Relative to the Previous Technology

ICM

	ICM-Warranty		ICM-Other Indirect Costs	
	Short Term	Long Term	Short Term	Long Term
Low2	0.0116	0.0054	0.2303	0.1871
Medium2	0.0446	0.0310	0.3427	0.2587
High1	0.0647	0.0318	0.4989	0.3136
High2	0.0736	0.0488	0.6964	0.4478