Short answer: why might a gshare predictor outperform bimodal? Gshare Predictor uses the history of recently executed branches to predict the next branch. This can be extremely useful when there are correlated branches. In this case gshare predictor is likely to outperform bimodal because it takes the correlated branch pattern into consideration when making prediction.

Short answer: why might a bimodal predictor outperform gshare? Binomal is simpler, so it is likely to learn faster and cause less collisions. When there are less correlated branches, gshare predictor tends to have higher collisions and lower chances to converge. In this case, a bimodal predictor might outperform gshare.