

are less than the ERs of the corresponding $\tilde{\alpha}_{LINEX}$ for all number of records except at $n = 4, 7$.

The width of the Bayes credible intervals for $\hat{\lambda}_{SE}$ is shorter than that of the corresponding $\hat{\lambda}_{SE}$ for all number of records except at $n = 4$. While, the width of the credible intervals for $\tilde{\lambda}_{LINEX}$ when $\nu = 2$ is shorter than that of the corresponding $\tilde{\lambda}_{LINEX}$ for all number of records except at $n = 4, 8$ according to Table IV.

Table V shows that the ERs of $\hat{\alpha}_{SE}$ are less than the ERs of the corresponding $\hat{\alpha}_{SE}$ for all number of records except at $n = 3, 6$. While, the ERs of $\hat{\lambda}_{SE}$ are less than the ERs of the corresponding $\hat{\lambda}_{SE}$ for all number of records except at $n = 6, 8$. The ERs of $\tilde{\lambda}_{LINEX}$ when $\nu = 2$ are less than the ERs of the corresponding $\tilde{\lambda}_{LINEX}$ for all number of records except at $n = 6, 7$. While, when $\nu = -2$ the ERs of $\tilde{\lambda}_{LINEX}$ are less than the ERs of the corresponding $\tilde{\lambda}_{LINEX}$ for all number of records except at $n = 6, 7$.

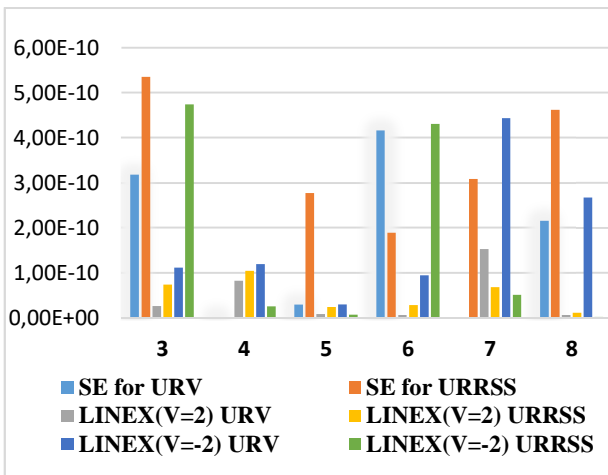


Fig. 5 ERs of α under SE and LINEX loss functions based on URV and URRSS at $(\alpha, \lambda) = (2, 1)$

From Fig. (5), the ERs of $\hat{\alpha}_{SE}$ are less than the ERs of the corresponding $\hat{\alpha}_{SE}$ for all the number of records except for $n = 4, 6$. Also, when $\nu = 2$ the ERs of $\tilde{\alpha}_{LINEX}$ are less than of the corresponding $\tilde{\alpha}_{LINEX}$ for all number of records except at $n = 7$. But when $\nu = -2$, the ERs of the $\tilde{\alpha}_{LINEX}$ are less than the ERs of the corresponding $\tilde{\alpha}_{LINEX}$ for all the number of records except at $n = 3, 6$.

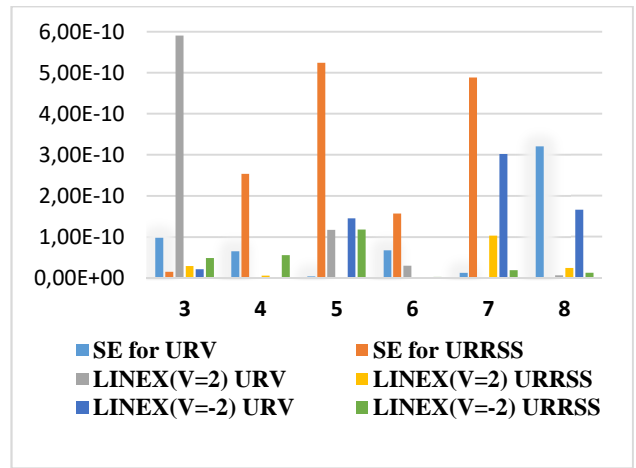


Fig. 6 ERs of λ under SE and LINEX loss functions based on URV and URRSS at $(\alpha, \lambda) = (2, 1)$

Fig. (6) shows that the ERs of $\hat{\lambda}_{SE}$ are less than of the corresponding $\hat{\lambda}_{SE}$ for all number of records except at $n = 3, 8$. Also, the ERs of $\tilde{\lambda}_{LINEX}$ when $\nu = 2$ are less than the ERs of the corresponding $\tilde{\lambda}_{LINEX}$ for $n = 3, 5, 6$. The ERs of $\tilde{\lambda}_{LINEX}$ when $\nu = -2$ are less than the ERs of the corresponding $\tilde{\lambda}_{LINEX}$ for $n = 5, 7, 8$.

Table VI shows that, the width of the Bayes credible intervals for $\hat{\alpha}_{SE}$ is shorter than that corresponding $\hat{\alpha}_{SE}$ for all number of records except at $n = 7, 8$. also, The width of the Bayes credible intervals for $\tilde{\alpha}_{LINEX}$ when $\nu = 2$ is shorter than that corresponding $\tilde{\alpha}_{LINEX}$ for all number of records except at $n = 3, 8$

IV. CONCLUSION

In this paper, we presented how to develop Bayes estimates in the context of upper record values and upper record ranked set sampling from generalized inverted exponential distribution under symmetric and asymmetric loss functions.

Based on the URV and URRSS, it is observed that the Bayes estimators cannot be obtained in explicit forms. Therefore, the MCMC technique has been used to generate posterior samples.

We observe from the numerical study that the relative absolute biases, estimated risks and widths of confidence intervals are very small based on the two sampling schemes for both SE and LINEX loss functions.

Generally, the Bayes estimates under LINEX loss function when $\nu = -2$ perform better than the Bayes estimates under LINEX loss function when $\nu = 2$ in case of URV in approximately most of situations. While the Bayes estimates under LINEX loss function when $\nu = 2$ perform better than estimates under LINEX loss function when $\nu = -2$ in case of URRSS in approximately most of situations.

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