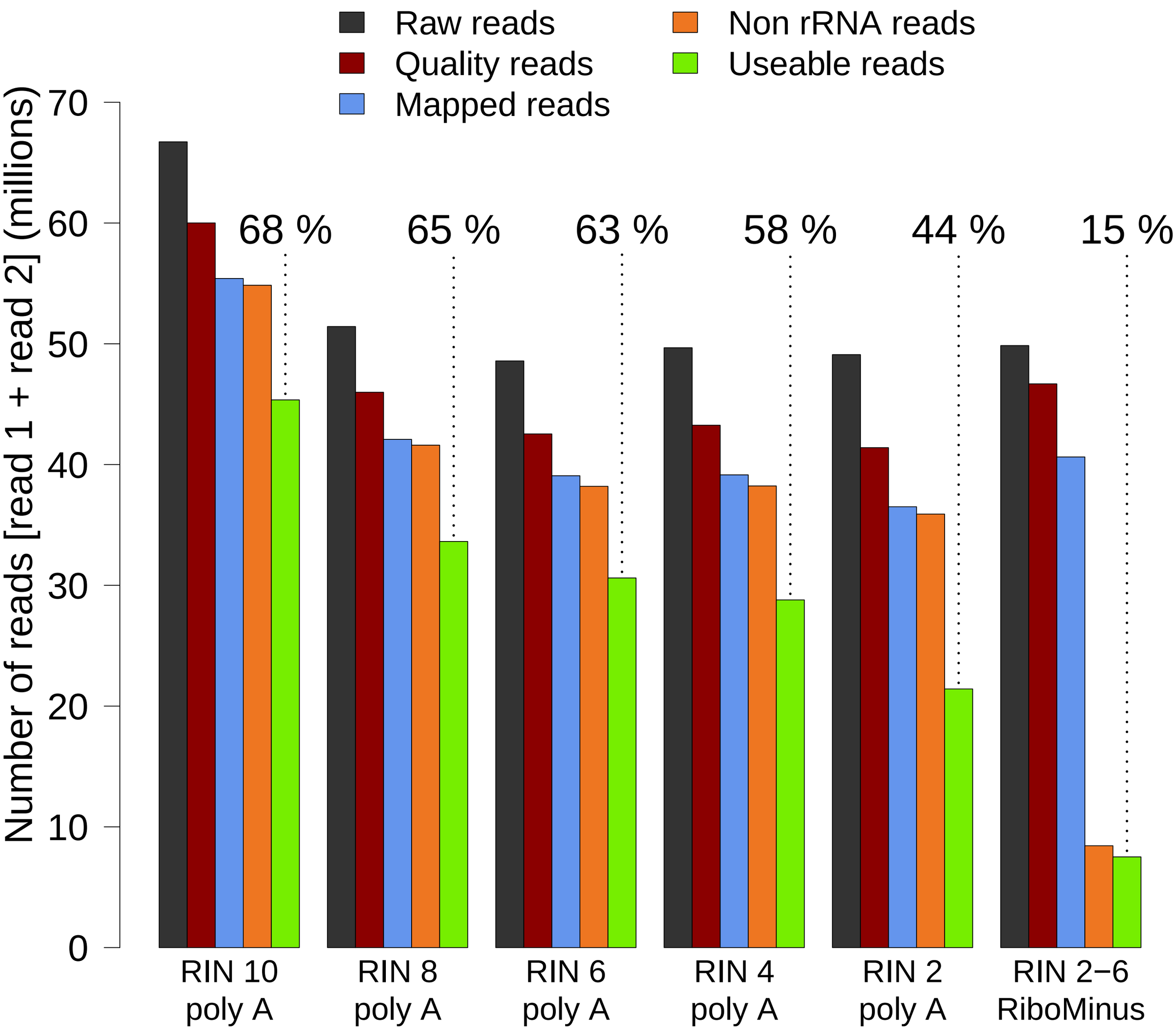Effects of preprocessing analysis pipeline