Cannabis use motives, or reasons people choose to use cannabis, are well-established risk factors for cannabis use and related negative consequences and include (in order of most to least risky) using cannabis to reduce negative affect (coping motives), increase positive affect (enhancement motives), to avoid negative social experiences (conformity motives), to enhance social experiences (social motives), and to expand one’s experiences (expansion motives). Our current research also examines motivations to use cannabis responsibly based on self-determination theory (SDT), which includes (in order of most to least protective) consciously valuing responsible use (autonomous motivation), seeking/avoiding internal rewards/punishments (introjected regulation), seeking/avoiding external rewards/punishments (external regulation), and lacking conscious motivations (amotivation). We examined the relationship between cannabis use motives and motivations for using cannabis responsibly as well as their unique and incremental associations with outcomes (cannabis protective behavioral strategies, cannabis use frequency, negative consequences, and cannabis use disorder symptoms). A sample of 408 past month cannabis users were recruited from a multisite study of college students (n=1856). External regulation for using cannabis responsibly was strongly correlated with conformity use motive (r=.47) and was significantly correlated with each of the other cannabis use motives (.12<rs<.27); autonomous motivation to use responsibly was significantly correlated with expansion use motive (r=.18). Thus, these constructs were modestly related, highlighting little redundancy. As expected, motivation to use responsibly was most strongly associated with PBS use, whereas cannabis use motives were most strongly related to cannabis use/problems. Both motivational constructs predicted cannabis-related outcomes beyond the other, but cannabis use motives generally accounted for more variance. Integrating motivation in relation to both cannabis use and responsible cannabis use responsibly may lead to a better understanding of cannabis-related behaviors and the associated negative consequences among college students, which can be used to inform the development and tailoring of effective cannabis interventions.