The purposes of this study were to identify trajectory groups of frequent marijuana use during emerging adulthood; distinguish among trajectory groups according to demographic and lifestyle characteristics; and examine how the trajectory groups relate to behavioral, attitudinal, and social-emotional correlates over time. National panel data from the Monitoring the Future study were used: 18 cohorts of high school seniors (classes of 1977-1994) were followed biennially through age 24. Frequent marijuana use was defined as 3+ occasions of use in past month and/or 20 to 40+ occasions in past year. Based on four waves of complete longitudinal data (N = 19,952), six frequent marijuana use trajectory groups were identified: chronic, decreased, increased, fling, rare, and abstain. Categorical analyses revealed trajectory group differences in demographic and lifestyle characteristics at senior year and age 24. The trajectory groups varied significantly in longitudinal patterns of other substance use, problem behaviors, and well-being.