Background. Although deviant sexual fantasies (DSF) are frequently associated with deviant sexual behavior, the definition of DSF is unclear. Although DSF often refer to paraphilic content (unusual objects, activities, or situations), the distinction between usual and unusual DSF is difficult to draw because existing studies with non-sexual offenders are based on relatively small samples limited to college students. Goal. The main purpose of this study was to determine the nature and rates of sexual fantasies of persons recruited among the general population in 2012. Methods. A total of 1516 adults (799♀, 717♂; 18 to 77 y.o.) were assessed with a modified version of the Wilson Sex Fantasy Questionnaire (57 questions with 0-7 likert scale responses). Percentages of endorsement (scores between 5 and 7) for each fantasy were considered as either statistically deviant (< 2.3% or 2 standard deviations from the mean), unusual (< 16% or 1 standard deviation from the mean), common (> 50%), frequent (> 84%), or widespread (> 97.7%). Between-group differences (gender) were also assessed. Results. Overall, few sexual fantasies (SF) are statistically deviant or unusual among the general population. Only SF involving animals and children (under 12 y.o) were statistically deviant in both women (1.4% and 0.75%, respectively) and men (1.5% and 1.4%, respectively). SF involving urine were deviant in women (being urinated on, 2.1%; urinating on, 2%) and unusual in men (5.6% and 6.7%, respectively, significantly different between groups). Witnessing two men having sexual intercourse (11.8%♀; 11.3%♂), exhibiting oneself in a public place (10%♀; 13.2%♂), forcing someone to have sex against his/her will (5.4%♀; 12.4%♂), cross-dressing (3.9%♀; 7.5%♂), and sex change (4%♀; 5.9%♂) were unusual SF for both women and men. Mate swapping with a known couple, having an affair with a total stranger, or having a sexual relationship with someone much younger were unusual SF only in women (9.9%, 9.9%, and 10.8%, respectively, vs. 27.8%, 33.3%, and 36.4%, respectively, in men, all significantly different). In opposition, fantasizing about same-sex behavior was unusual in men (15.3%), but not in women (26.4%. significantly different). All others fantasies (N=44, including voyeurism, fetishism, exhibitionism, domination, submission) were reported with rates higher than unusual in both women and men. Worth of noting, fantasizing about being sexually dominated (48.7%), having an extra-marital affair with an acquaintance (47.6%) or a celebrity (51.6%), and making love in a public place (57%) was common among women. Conclusion. Definitions of deviancy in SF should be based on forensic criteria (non-consenting partners, violence, suffering, illegal acts, etc.), not their frequency among the general population. Moreover, the traditional view that women’s SF tend to be limited to their partner in romantic settings is challenged.