

1069-11-360 **Craig S Franze*** (craig.s.franze@gmail.com). *A Weighted Selberg Sieve*. Preliminary report. The best known bounds concerning almost primes in polynomial sequences come from a weighted form of the Diamond, Halberstam, Richert (DHR) sieve. However, it is known that if the sieve dimension κ is sufficiently large, then Selberg's lower bound sieve is superior to the DHR sieve. Therefore, a weighted form of Selberg's sieve should be capable of improving these bounds. This is indeed the case, at least in some instances. I will present the new bounds and compare the two weighted sieves. (Received January 26, 2011)