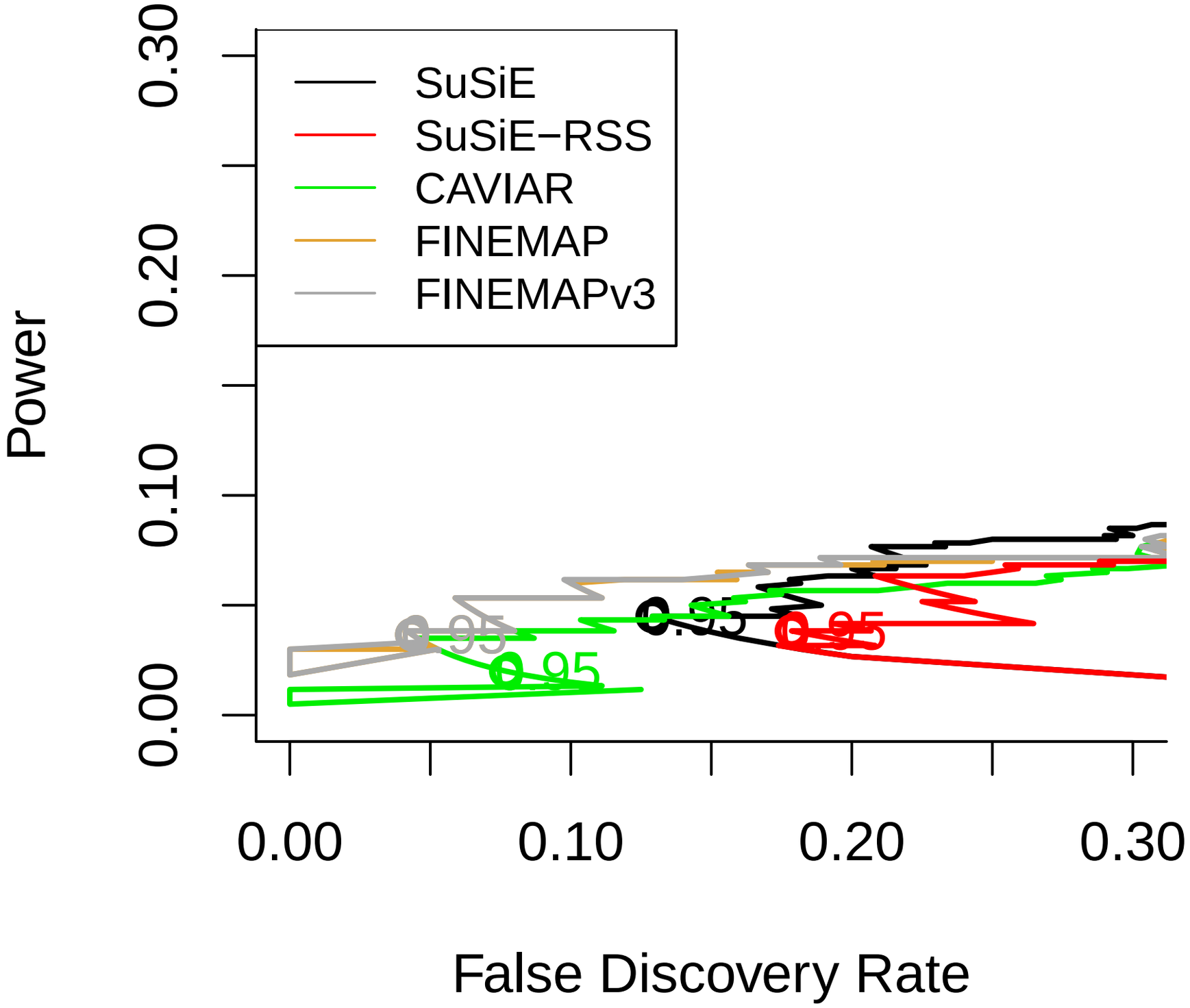3 effect variables