



Money Matters Case Study: How Much Will I Take Home? D.I. Wallace, K. Rheinlander



THE CORPORATE LADDER

Charlie is trying to decide between two good job offers. Lucky Charlie! His degree in management and minor in math have paid off. One job is as store manager of Brusselator Recreation in Atlanta, with a starting salary of \$46,000. The other offer is from Pangolin Outdoors in Macon, a smaller and less expensive city, with a starting salary of \$42,000. Charlie is very enthusiastic about both of these offers and is inclined to take the Atlanta job because it pays more, even though the cost of living is higher there.

Both employers provide the same level of medical benefits, and both have 401k retirement plans, which allow employees to place a portion of their pre-tax earnings into mutual funds, which should not be used until retirement. The only difference is that Pangolin offers an employer match of 50% of the employee's contribution, up to 10% of salary. In other words, if Charlie puts \$100 per month into his 401k account, Pangolin will add another \$50 to it, as long as the annual contribution from Pangolin does not exceed 10% of Charlie's salary. Charlie calculates 10% of \$42,000 and realizes that the employer contribution could effectively raise his income to \$46,400, exceeding the offer from Brusselator.

However, Charlie also realizes that he will have to contribute \$8,400 to the 401k account in order to get the full employer match. He wonders what effect this will have on his take home pay. He also wonders what would happen if he put in half of that, or only a small amount. He goes online to find a calculator:

Paycheck calculator

<https://www.paycycle.com/external/business/paycheckCalculators.jsp>

Charlie notices that, if he puts \$100 in his 401k, then only approximately \$80 disappears from his paycheck. At first he is confused, but then he realizes that his 401k contribution is not taxes. The money saved in taxes accounts for the \$20 in his paycheck.

At some point he also wonders what effect his various choices would have on his retirement fund, so he finds a calculator for that too:

401k calculator

<http://www.money-zine.com/Calculators/Retirement-Calculators/401k-Savings-Calculator/>

However he is confused and would like some good advice about his situation. Using the calculators, explore the effect on Charlie's take home pay and his future retirement fund. Here are some scenarios.

1. What if he takes the Brusselator job and puts the difference between its salary and the Pangolin salary into a 401k along with \$200 per month extra? How would this affect his take home pay and his long term retirement investment?
2. What if he takes the Pangolin job and just puts \$200 per month into the 401k? How would this affect his take home pay and his long term retirement investment?
3. What if he takes the Pangolin job and puts \$8,400 per year into his 401k? How much would he have to contribute from the Brusselator job in order to get contribution to his 401k? What is the take home pay in these two cases?
4. Experiment with some other scenarios. Be sure and try different assumed rates of return on Charlie's 401k.
5. Based on your experiments, what would you recommend Charlie do? Which job should he take and how much should he put into his 401k each month? If Charlie follows your recommendations, what will his monthly take home pay be? Prepare a written statement outlining your advice to Charlie, along with justification of it.