Building the Business Case

Let's worry now about the inflation. You can see here that somebody earning $136,800 in the first year, we are going to have to give them a little bit more to get them to stick around for the second year and then the year after. The increase that they get every year is based on their current salary unfortunately. We don't give them an increase based on the salary that they had when they first started, it's going to be the increase on the salary that they have in that current year. We need to add compounding inflation. It's going to be inflation times inflation, times inflation.

The first thing that we need to do is put in some assumptions for inflation. Go to your assumptions page. Go to the inflation cell and put in 3%. 3% is the assumption that we are going to make. We will call it Inflation and created a named range. We are going to be referring to that quite a few times throughout our model but we are following best practice by having just a single input cell. Every time we refer to inflation, we are always going to be linking back to the named range Inflation.

Go back to your staff page. In the first year, we don't have any inflation at all because that is the salary that is given to us. In the second year, we are going to have to give them one lot of inflation, in the third year we are going to have to give them two lots of inflation. The formula in year two is going to be the entire formula multiplied by, open bracket, one plus inflation. That is a really common technique we use for escalation; we are always saying one plus inflation. We want to multiply the whole thing by 103% to increase it so we say one plus 3% is 103%. The first year is nothing. The second year is going to be one plus inflation. The third year is going to be one plus inflation times inflation. The fourth year is going to be one plus inflation, times inflation, time inflation and so one. Instead of doing that we are

going to use to the power of. In the first year, we are going to have one plus inflation to the power of zero. The second year, we have one plus inflation to the power of two, then it will be to the power of three, the power of four and so on and so forth. The power of, if you haven't used that in Excel before is just the little hat symbol (^). It is usually above the six. If you hold down Shift and press 6, it will appear.

Let's go into the first one. This is going to be a zero. In order to use to the power of zero, one thing we could do is put a row across the top and have zero, one, two, three, four as a helper row. A little bit of a more elegant way of doing it though would be to use the years. We could say 18 minus 18 is equal to zero. 19 minus 18 is equal to one and so on. We can use those years within our formulas to calculate to the power of. Let me show you what I mean. We go to the end of that first formula and we say multiplied by one plus inflation, close bracket, to the power of (^) G6 and I going to anchor 6, minus G6 and anchor the whole thing. The dollar signs are really important here. You need to put a dollar sign just above the row for G$6 minus G6 so you need both the dollar signs in for the second one. Enter it in and then we are going to have consistent formulas by copying it all the way across and down. Do a sense check. If you have a calculator, make sure it works properly and that it is calculating the right thing before you move on. That's what your formula should look like.

Once you have got that working, we are going to do a summary down below. What we want to know here is how many business analysts have we got, how many call centre staff and so we will do a summary and then here we want to add up how much we are spending on each. Have a bit of think about it and then we will do it together. This one is going to be using a COUNTIF formula and the range is this one here and the criteria is going to be business analyst. I don't need to worry about my dollar signs for this one here and just copy that down. Let's do a sense check and you can see here, it is okay.

For the next one it is going to be a SUMIF formula. The range here; a bit of trick here is it's easier to grab the bottom one and Shift Ctrl up arrow and you can go back down one and then use F4 to put in dollar signs. If you are using a MAC, it's Command T. Go to Criteria, pick up business analyst, SUM range and this is where dollar signs are really important in this one. Shift Ctrl up arrow and now we need to get our dollar signs in the row but not in

the column because you want to be able to copy it across and the column will change but when you copy it down, you don't want the rows to change. I can't use Shift Ctrl right arrow because it doesn't know where to stop so I need to use my arrow keys for this one. There we go and I've done something wrong. When you've done something wrong, you can use F2 and you can see what happened, I forgot to put the dollar sign in front of my column. I need to go back to my original one, go into my formula and fix that up. Shift Ctrl right arrow, Shift Ctrl down, hold down the Shift key, go back up one and hit enter. That's what your formula should look like.

This is a great opportunity to put in an error check. You can try a couple of different methods for error checks. You can either say one cell minus another. You can use an equals, equals or you can say if the absolute value of the difference between the two is greater than one, give me an error, otherwise give me a zero. I will let you figure out which one you would like to do. I am going to do my favourite one which is the simplest option. This cell here, minus this cell here and I will change my formatting to change it to red and copy that across. That way if somebody makes a mistake, you can see that it comes up with the red number.

Once you are happy with that, we can then pull that through to the summary sheet. Go back to your P&L Summary Sheet, go to Staff Costs equals and link that through. I am going to link to that one there and then copy that across. That is our staff costs.

What we are going to do next is have a look at the revenue.