

Maria goes to Lincoln College. Lincoln costs \$34,000 per year. Maria's parents make \$90,000 per year combined, and have agreed to pay \$600 per month for her tuition. Maria will take out the maximum available Stafford Loans. Then, her parents have agreed to take a PLUS loan out to cover the rest as long as Maria contributes \$5000 per year from her part-time job.

- a. Find Maria's Student Loan Balances after 4 years at Lincoln College (assume Maria takes advantage of the increasing Stafford amounts).

	Freshman Year	Sophomore Year	Junior Year	Senior Year	TOTALS
Scholarships/Grants	<hr/>				
Parent Contribution	7200	7200	7200	7200	28800
Part-Time Job	5000	5000	5000	5000	5000
Stafford Loan	5500	6500	7500	7500	27,000
PLUS Loan	16,300	15,300	14,300	14,300	60,200
Private Loan	<hr/>				
TOTALS	34,000	34,000	34,000	34,000	<del>136,000</del> 136,000

- b. Find Maria's monthly payment for her Stafford and PLUS loans. Use current gov't rates (Stafford 4.99%, PLUS 7.54%).

$$L = 27,000 \quad r = 0.0499 \quad n = 120 \quad \text{Stafford} \quad \text{\$286.24}$$

$$L = 60,200 \quad r = 0.0754 \quad n = 120 \quad \text{PLUS} \quad \text{\$715.84}$$

- c. If Maria keeps the default 10 year Student Loan period, how much will she pay back in student loans after 10 years?

$$\begin{array}{r} 286.24 \\ \times 120 \\ \hline \text{\$34,348.80} \end{array} \quad \begin{array}{r} 715.84 \\ \times 120 \\ \hline 85,900.80 \end{array} \quad = \text{\$120,249.60}$$

2. After Maria graduates, she borrows ANOTHER \$50,000 in Graduate PLUS loans to obtain a Master's degree.

- a. What will Maria's monthly payment be on this graduate loan if the rate is 6.7% for 10 years?

$L = 50,000 \quad r = 0.067 \quad n = 120 \quad \text{\$572.84}$

- b. What will be the total final cost of this graduate loan?

$572.84 \times 120 = \text{\$68,740.80}$

3. Maria is thinking about rolling ALL of her undergraduate and graduate loans into one large consolidation loan at 2.4% for 20 years

- a. What is Maria's total school loan balance (undergrad and grad)?

Use only the original debt!  $27,000 + 60,200 + 50,000 = \text{\$137,200}$

- b. If Maria consolidates to the 20 year loan, what will the new monthly payment be?

$L = 137,200 \quad r = 0.024 \quad n = 240 \rightarrow \text{\$720.36}$

- c. How much will she save per month using the consolidated loan?

Current Monthly Pmts:  $\text{\$286.24} + 715.84 + 572.84 = 1574.92 - 720.36 = \text{\$854.56}$  saved per month

- d. How will consolidation affect her total amount paid to all loans?

$\text{\$720.36} \times 240 \text{ months} = \text{\$172,886.40}$  if using consolidation loan total repayment  
 If she doesn't consolidate, her repayment is  
 $\text{\$34,348.80} + 85,900.80 + 68,740.80 = \text{\$188,990.40}$   
 So the consolidation loans actually make monthly pmt and total repayment cheaper. (This doesn't always happen)