Phone Survey Problem

Percentages	Landline	Cell Phone		Contacts	Made		Required
Young Women	8%	20%		Young Women	1500	>=	1500
Young Men	8%	18%		Young Men	1400	>=	1400
Older Women	20%	20%		Older Women	2250	>=	1100
Older Men	20%	18%		Older Men	2150	>=	1000
No Answer	44%	24%					
				Total cost	$ 3,750.00		
Cost/call	$ 0.20	$ 0.50					
	Landline	Cell Phone					
Calls made	6250	5000					
		<=					
Max Cell Phone		5625					

Nil Simsek:
=($B$12*B2+$C$12*C2)

Nil Simsek:
=$B$9*$B$12+$C$9*$C$12

Nil Simsek:
=(B12+C12)/2

Solver Parameters

Set Objective: $F$7

To: ⚪ Max 🔘 Min ⚪ Value Of: [0]

By Changing Variable Cells:

$B$12:$C$12

Subject to the Constraints:

$B$12:$C$12 = integer
$F$2 >= $H$2
$F$3 >= $H$3
$F$4 >= $H$4
$F$5 >= $H$5

[Add]

[Change]

[Delete]

[Reset All]

[Load/Save]

☑ Make Unconstrained Variables Non-Negative

Select a Solving Method: [Simplex LP ▼]

[Options]

Solving Method

Select the GRG Nonlinear engine for Solver Problems that are smooth nonlinear. Select the LP Simplex engine for linear Solver Problems, and select the Evolutionary engine for Solver problems that are non-smooth.

[Close] [Solve]

Funding a Pension Liability

		Bonds	Bond 1	Reinv Bond 2	0.02 Bond 3				Rate 4%			
Purchased		197930.977	74.00	78.00	28.00							
		Price	980.00	970.00	1050.00							

Nil Simsek: =SUMPRODUCT($C$3:$E$3,C7:E7)

Nil Simsek: =SUMPRODUCT(C3:E3.C5:E5)+F7

Nil Simsek: =I7*(1+$H$2)

Nil Simsek: =F7+G7-H7

						Cash in from Perv Period	Cash from Bonds	Pension Liability	Surplus Cash		
						20,351	$0	11,000	$9,350.98	>=	0
2	01-Jan-06		60	65	75	9,725	$11,610	12,000	$9,335.02	>=	0
3	01-Jan-07		60	65	75	9,708	$11,610	14,000	$7,318	>=	0
4	01-Jan-08		60	65	75	7,611	$11,610	15,000	$4,221	>=	0
5	01-Jan-09		60.00	65	75	4,390	$11,610	16,000	$0	>=	0
6	01-Jan-10		1060.00	65	75	0	$85,610	18,000	$67,610	>=	0
7	01-Jan-11			65	75	70,314	$7,170	20,000	$57,484	>=	0
8	01-Jan-12			65	75	59,784	$7,170	21,000	$45,954	>=	0
	01-Jan-13			65	75	47,792	$7,170	22,000	$32,962	>=	0
	01-Jan-14			65	75	34,280	$7,170	24,000	$17,450	>=	0
1	01-Jan-15			65	75	18,148	$7,170	25,000	$318	>=	0
2	01-Jan-16			1065.00	75	331	$85,170	30,000	$55,501	>=	0
3	01-Jan-17				75	57,721	$2,100	31,000	$28,821	>=	0
4	01-Jan-18				75	29,974	$2,100	31,000	$1,074	>=	0
5	01-Jul-19				1075.00	1,117	$30,100	31,000	$217	>=	0

Solver Parameters

Set Objective: `$B$3`

To: ○ Max ● Min ○ Value Of: `0`

By Changing Variable Cells:

`$C$3:$E$3,$F$7`

Subject to the Constraints:

```
$C$3:$E$3 = integer
$F$7 >= $H$7
$I$7:$I$21 >= 0
```

[Add]
[Change]
[Delete]
[Reset All]
[Load/Save]

☑ Make Unconstrained Variables Non-Negative

Select a Solving Method: `Simplex LP` ▼ [Options]

Solving Method

Select the GRG Nonlinear engine for Solver Problems that are smooth nonlinear. Select the LP Simplex engine for linear Solver Problems, and select the Evolutionary engine for Solver problems that are non-smooth.

[Close] [Solve]