

## Analysis Printout

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### PART I:

#### 1) Approximate 95% Confidence Interval

Pop. Count	Group	Lower 95%	Upper 95%	% Pop			
19	Premium	9.43%	29.74%	20%		Approx MOE 95%	0.1015
39	Both	30.05%	50.36%	40%		MOE Prop. 95%	10.15%
29	Value	19.74%	40.05%	30%			
10	Neither	0.16%	20.46%	10%			
97							

#### 95% Confidence Intervals (Varying SE)

Pop. Count		% Pop	SE	MOE	Lower 95%	Upper 95%
19	Premium	19.59%	0.040	0.0800	11.59%	27.59%
39	Both	40.21%	0.050	0.0988	30.32%	50.09%
29	Value	29.90%	0.046	0.0923	20.67%	39.12%
10	Neither	10.31%	0.031	0.0613	4.18%	16.44%
97						

Note:

**Premium:** Preemie mothers who are *likely triers* at the *premium price*, but *unlikely triers* at the *value price*.

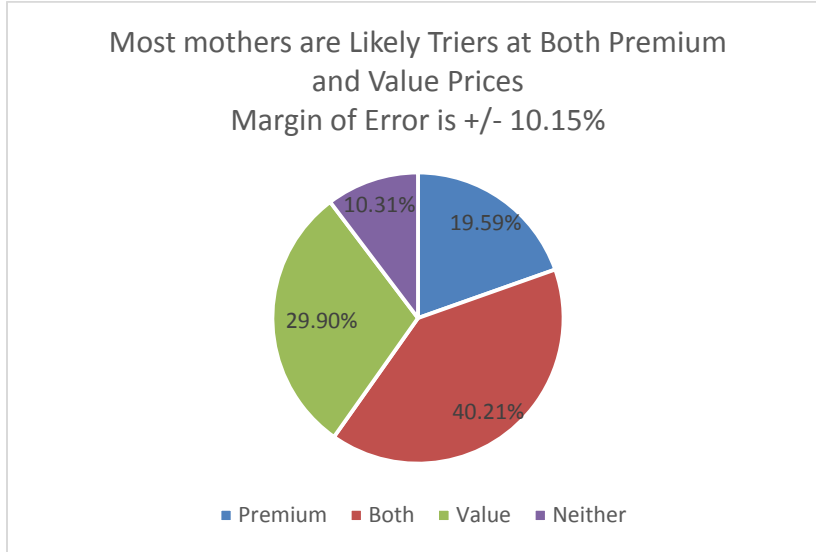
**Both:** Preemie mothers who are *likely triers* at both prices.

**Value:** Preemie mothers who are *likely triers* at the *value price*, but *unlikely triers* at the *premium price*.

**Neither:** Preemie mothers who are *unlikely triers* at both prices.

Utilizing a count function, we determined the number of each type of consumer and then calculated the upper and lower 95% confidence Intervals.

2) Pie chart representation with margin of error indication



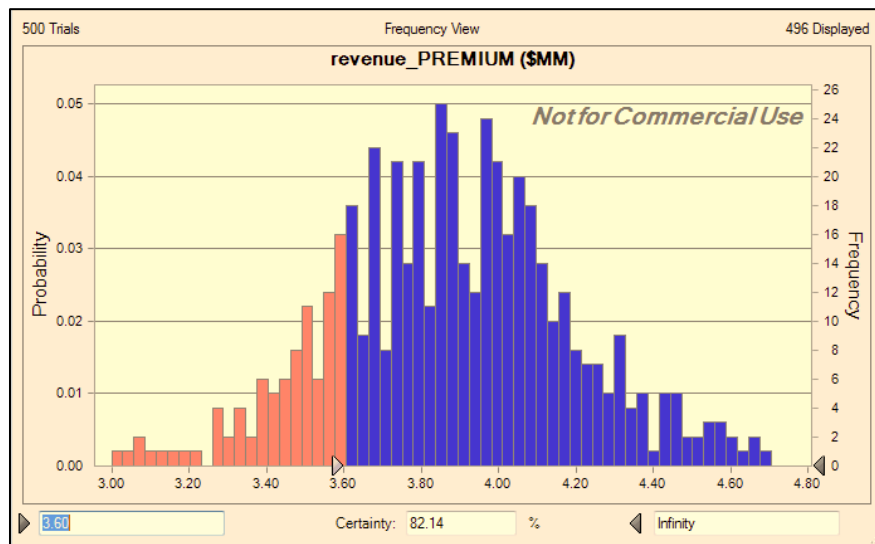
- 3) The difference in the proportions of mothers who prefer Premium Diapers as opposed to the mothers who prefer Value Diapers is due to random variation as they are all well within the margin of error and two standard deviations.

## PART II:

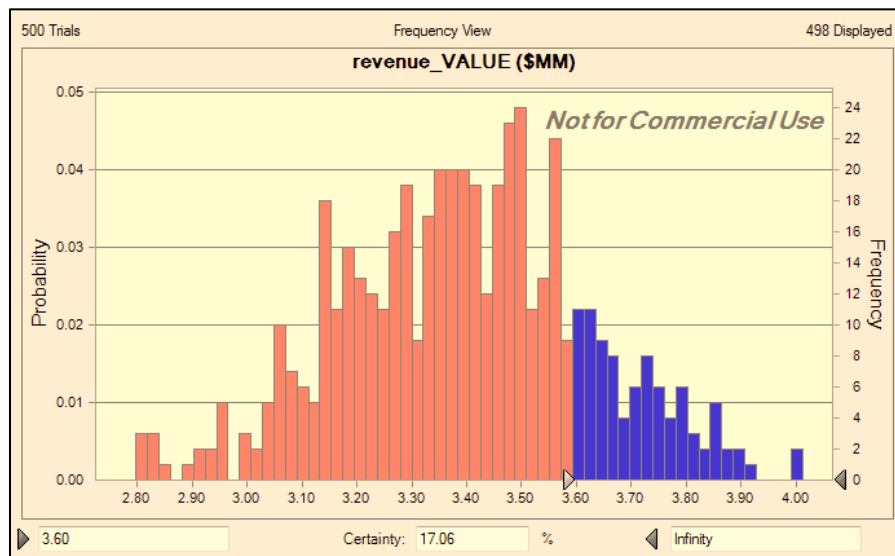
For reference: the following values are the 90% confidence intervals that were used in our simulation.

Premium Count 90%	59.79%			0.60	Proportion
lower	51.63%	Prem MOE at 90%		0.05	SE of Proportion
upper	67.96%	8.16%		0.08	MOE
Value Count 90%	70.10%			0.70	Proportion
Lower	62.48%	Value MOE at 90%		0.05	SE of Proportion
Upper	77.73%	7.62%		0.08	MOE

- 1) We can say that revenue will be greater than or equal to \$3.6MM with 82.14% certainty for the Premium Diaper Market.



- 2) We can say that revenue will be greater than or equal to \$3.6MM with only 17.06% certainty for the Value Diaper Market.



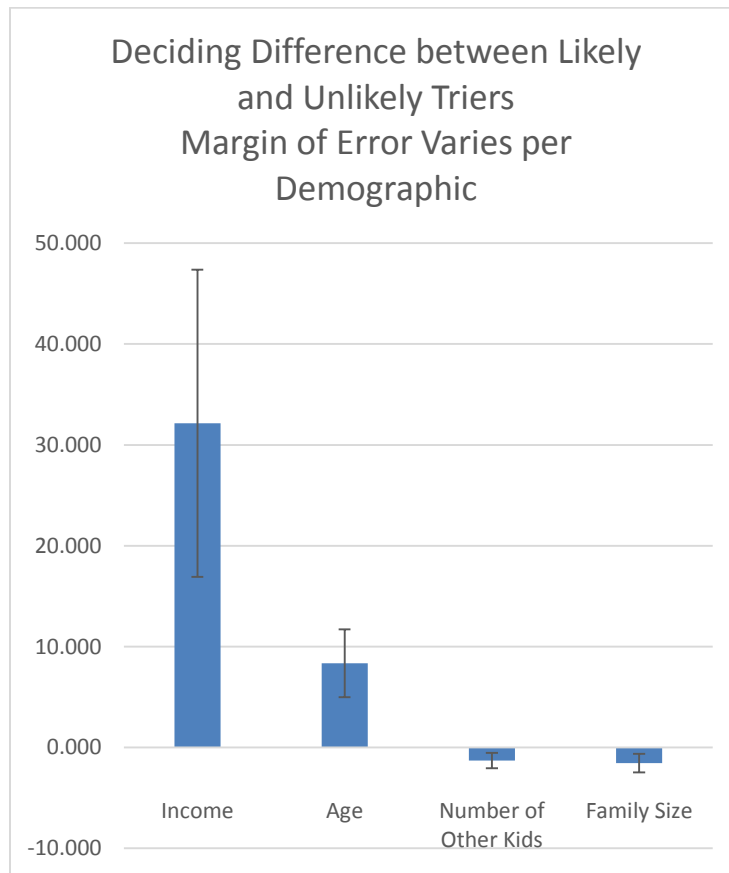
PART III:

- 6) By constructing confidence intervals for each of the 4 demographic characteristics, we were able to determine that the most likely buyers of Premium Diapers vary significantly at all levels. Specifically, women with a higher income, an age that is categorized as “young older” (20 to 35), fewer children, and smaller family size, are most likely to purchase Premium Diapers.

a)

		Income	Age	Number of Other Kids	Family Size	
P Value		6.31E-05	4.10614E-06	0.001081968	0.0012759	
Significant		yes	yes	yes	yes	
MEAN	<b>Likely</b>	72.6034	30.8448	1.1207	4.1379	
	<b>Unlikely</b>	40.4615	22.4872	2.4359	5.6923	
	Difference	32.1419	8.3576	-1.3152	-1.5544	
STD DEV	<b>Likely</b>	36.1561	7.5459	1.3256	1.6378	
	<b>Unlikely</b>	37.1433	8.4849	2.1250	2.5356	
						<b>Count</b>
SE	<b>Likely</b>	4.7475	0.9908	0.1741	0.2151	<b>58</b>
	<b>Unlikely</b>	5.9477	1.3587	0.3403	0.4060	<b>39</b>
					TOTAL:	97
CRITICAL T	<b>Likely</b>	2.0025	2.0025	2.0025	2.0025	
	<b>Unlikely</b>	2.0244	2.0244	2.0244	2.0244	
MOE	<b>Likely</b>	9.5068	1.9841	0.3485	0.4306	
	<b>Unlikely</b>	12.0405	2.7505	0.6888	0.8219	
95% Confidence Intervals						
<b>Likely</b>	Lower	63.0967	28.8607	0.7722	3.7073	
	Upper	82.1102	32.8289	1.4692	4.5686	
<b>Unlikely</b>	Lower	28.4211	19.7367	1.7471	4.8704	
	Upper	52.5020	25.2377	3.1247	6.5142	
<b>DIFFERENCES:</b>						
SE Diff of Means		7.610121	1.681580227	0.382200894	0.4594542	
MOE		15.22024	3.363160454	0.764401788	0.9189085	
T VALUE	2					
95% Confidence Intervals						
	Lower	16.9217	4.9945	-2.0796	-2.4733	
	Upper	47.3622	11.7208	-0.5508	-0.6355	

b)



- c) Women with a higher income, an age that is categorized as “young older” (20 to 35), fewer children, and smaller family size, are most likely to purchase Premium Diapers.
- d) Strategies to market to the target segments:
- Implement agreements with hospitals that allow P&G Premium Diapers to be distributed more often to young older women as initial, free “starter kits.”
  - Women that choose more expensive delivery methods and care would be given coupons for Premium Diapers.
  - Premium Diaper events held at private hospitals, given that the service cost is likely to be more expensive and those who are able to afford such services are most likely more wealthy (higher income).