

This document was exported from Numbers. Each table was converted to an Excel worksheet. All other objects on each Numbers sheet were placed on separate worksheets. Please be aware that formula calculations may differ in Excel.

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Fixed Oper

Financial Calculations and

GREEN SUBARU

Dealership

MICHAEL BOSSMANN

Student

N418

Class #

Service Department Sales And Gross (Labor Only)

Category	Sales	Gross	Gross as % of Sales	%Sales Contribution
Customer Pay	\$ 32,674	\$ 22,213	67.98%	16.06%
Customer			0%	0.00%
Customer Other	\$ 80,555	\$ 60,802	75.48%	37.12%
Warranty	\$ 25,047	\$ 17,884	71.32%	11.54%
Warranty Other	\$ 59,445	\$ 42,273	71.11%	27.39%
Internal	\$ 19,305	\$ 14,402	74.60%	8.90%
NVI / Road Ready/ PDI			0%	0.00%
Adj. Cost Of Labor		\$ -0	0%	0.00%
Total	\$ 217,026	\$ 157,554	72.60%	100.00%

Clear Form

The Picture	
Customer Pay Gross Profit %	73.32%
Total Service Dept. G.P. %	72.60%

Parts To Labor Ratios

Category	Parts Sales	Labor Sales	P/L Ratio
Customer Pay	\$ 47,945	\$ 32,674	1.47
Customer		\$ -0	0.00
Customer Other	\$ 127,709	\$ 80,555	1.59
Warranty	\$ 25,894	\$ 25,047	1.03
Warranty Other	\$ 58,137	\$ 59,445	0.98
Internal	\$ 32,717	\$ 19,305	1.69
Total	\$ 292,402	\$ 217,026	1.35

Clear Form

The Picture	
Customer Pay Gross Profit %	73.32%
Total Service Dept. G.P. %	72.60%
Parts / Labor Ratio (Cust. Pay Only)	1.55

Service Department Profit Centering

Expense Category	Dollar Amount	% of Gross	Profile
Department Gross	\$ 157,554		
Variable Expense	\$ 48,514	30.79%	
Selling Expense		0.00%	
Personnel Expense	\$ 103,959	65.98%	
Semi-Fixed Expense		0.00%	
Fixed Expense	\$ 33,779	21.44%	
Unallocated Expense		0.00%	
Dealer's Salary		0.00%	
Total Expenses	\$ 186,252	118.21%	
Net Profit	\$ (28,698)	-18.21%	

Clear Form

The Picture	
Customer Pay Gross Profit %	73.32%
Total Service Dept. G.P. %	72.60%
Parts / Labor Ratio (Cust. Pay Only)	1.55
Total Service Dept. Expenses	\$ 186,252

Fixed Absorption

Parts Department Total Gross	\$ 107,288	% Adj Ovhd Exp 13.68%
Service Department Total Gross	\$ 157,574	20.10%
Body Shop Department Total Gross		0.00%
	38,251	
Total Fixed Gross Profit	\$ 303,113	
Total Dealership Expense	\$ 783,779	

Overhead Expense	\$ 783,779	
Total Fixed Gross Profit	\$ 303,113	
Total Dealership Expense	\$ 783,779	
Fixed Absorption Percentage	38.67%	Guideline : 60%

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The Picture	
Customer Pay Gross Profit %	73.32%
Total Service Dept. G.P. %	72.60%
Parts / Labor Ratio (Cust. Pay Only)	1.55
Total Service Dept. Expenses	\$ 186,252

SERVICE INVENTORY ANALYSIS

	Labor Sales / Month	Effective Labor Rates	Hours Billed
Customer Pay	\$ 32,674	÷ 89.39 =	365.5
Customer	\$ - 0	÷ =	0.00
Customer Other	\$ 80,555	÷ 89.39 =	901.2
Warranty	\$ 84,492	÷ 105.36 =	801.9
Internal	\$ 19,305	÷ 78.47 =	246.0
New Vehicle Prep	\$ - 0	÷ =	0.00
Total	\$ 217,026		2314.6

POTENTIAL

\$ 217,026	÷	2314.64	=	\$ 93.76		
Total labor sales for month		Total hours billed		Effective Labor Rate		
13.00	x	8	x	24.0	=	2,496.0
# Service mechanical technicians		# Hours/Day		Working Days/Month		Hours Available to Sell
2,496.0	x	\$ 93.76	=	\$ 234,031	=	\$ 292,538.53
Hours Available to Sell		Effective Labor Rate		Labor sales potential @100%		Labor sales potential @ 125%

How proficient are your technicians ?

2,314.6	÷	2,496.00	=	92.73%
Total Hours Billed		Hours Available to Sell		Tech Proficiency

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Hours Per RO (RO Analysis)	2.1
Percent of One Item R.O.'s (RO Analysis)	64.00%
Customer Pay Effective Labor Rate (DMS Report)	\$ 89.39
Warranty Labor Rate (DMS Report)	\$ 105.36
Total Overall Effective Labor Rate	\$ 93.76
Overall Technician Proficiency	92.73%

FACILITY POTENTIAL	
Number of Bays	<input type="text" value="13"/>
	x
Number of Days	<input type="text" value="25"/>
	x
Number of Hours	<input type="text" value="9"/>
	x
Effective Labor Rate	<input type="text" value="\$ 93.76"/>
	<i>equals</i>
FACILITY POTENTIAL	<input type="text" value="\$ 274,255"/>

FACILITY UTILIZATION	
Total Labor Sales	<input type="text" value="\$ 217,026"/>
	÷
Facility Potential	<input type="text" value="\$ 274,255"/>
	<i>equals</i>
FACILITY UTILIZATION	<input type="text" value="79.13%"/>

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Calculations	
<input type="text" value="\$ 217,026"/>	Labor Sales
<input type="text" value="2,315.0"/>	Divided by Hours Billed
<input type="text" value="\$ 93.75"/>	= OELR

<input type="text" value="\$25.69"/>	÷	Real Cost
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Calculating Real Cost of Labor

\$ 217,026	Labor Sales
\$ 157,554	-Labor Gross
\$ 59,472	=Labor Cost

\$ 59,472	Labor Cost
2,315.00	/ Hours Billed
\$ 25.69	=Real Cost

24.00%	=	\$107.04
		E.L.R. Needed to earn 76%

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OWNER BASE POTENTIAL

5385	x	8
5 Year Owner Base		Annual Hours Purchased
43,080.0	x	\$ 93.75
Market Potential/ Hours		Effective Labor Rate
\$ 186,771	x	12
Avg. Mos. Labor Sales (excluding internal, PDI and NVI)		Annualized
\$ 2,241,256	÷	\$ 4,038,652
Labor Sales Trend		5 Yr. O.B. Sales Potential

**Note: The industry average of 35% is very poor performance*

AL

= 43,080.0
Market Potential / Hours

= \$ 4,038,652
5 Yr. O.B Sales Potential

= \$ 2,241,256
Current Labor Sales Trend

= 55.50%
Ouch

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PROFIT ON LABOR SALES

	\$ 186,252 Service Expenses	
divided by	72.60% Current Labor Gross Profit %	52.60% Current Labor Gross Profit % Minus 20
	\$ 256,557 Sales to Breakeven	\$ 354,113 Sales To Net 20%
		62.60% Current Labor Gross Profit % Minus 10
		\$ 297,542 Sales To Net 10%

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The Picture

Customer Pay Gross Profit %	73.32%
Total Service Dept. G.P.%	72.60%
Parts / Labor Ratio (Cust Pay Only)	1.55
Total Service Dept Expense	\$ 186,252
Hours Per R.O (recap)	2.06
Percent Of One Item R.O.'s	64.00%

Customer Pay E.L.R.
Total (overall) E.L.R.
Warranty Labor Rate
Overall Tech Proficiency

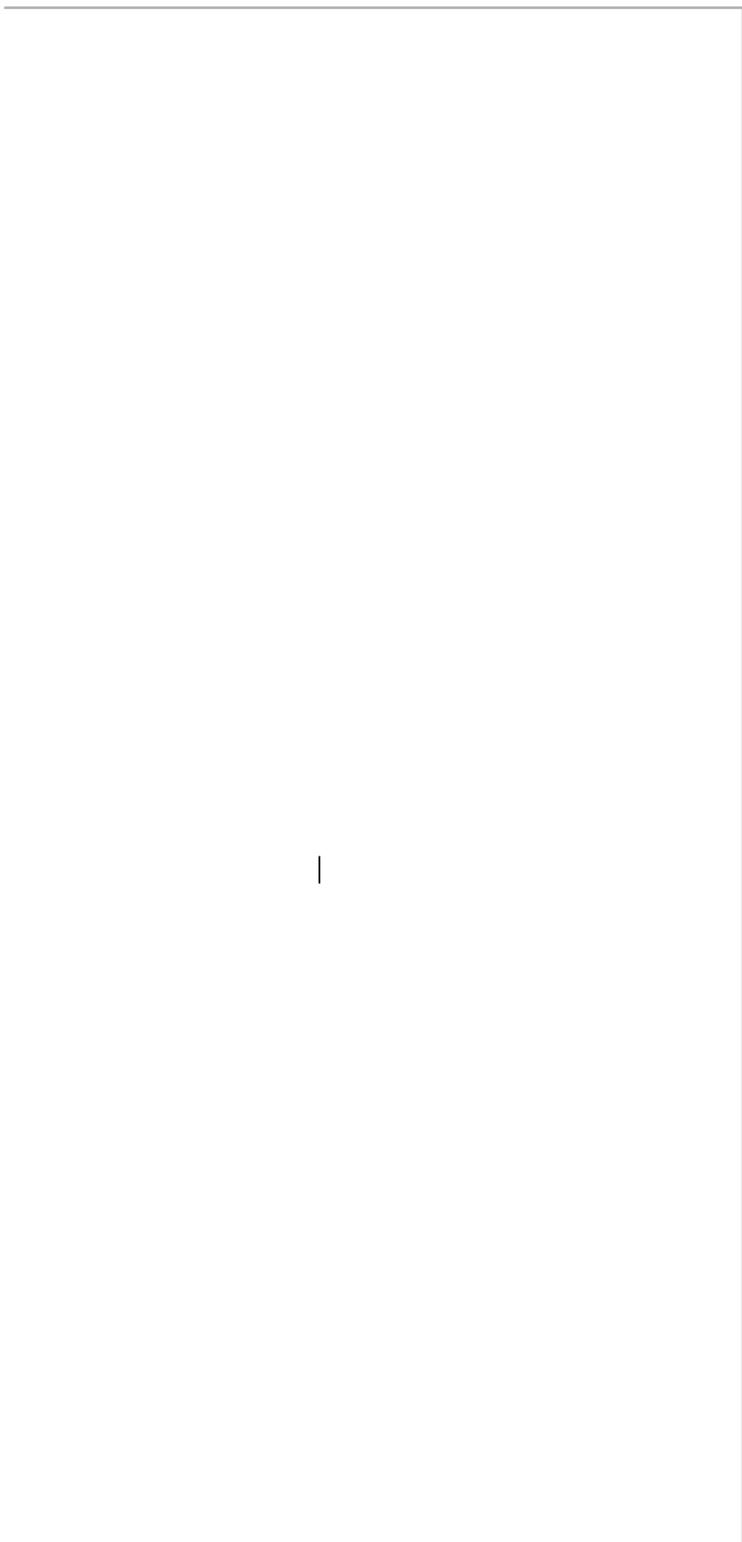


\$ 89.39

\$ 93.76

\$ 105.36

92.73%



|

Technician Value

Calculate using daily available hours per technician

Hours	x	Days	x	Labor Rate	=	Sales Value
8		24		\$ 93.76		\$ 18,002

Sales Value	x	Gross Margin	=	Profit Value
\$ 18,002		72.60%		\$ 13,069

\$ 13,069	x	70%	\$ 9,148
\$ 13,069	x	80%	\$ 10,455
\$ 13,069	x	90%	\$ 11,762
\$ 13,069	x	100%	\$ 13,069
\$ 13,069	x	110%	\$ 14,376
\$ 13,069	x	120%	\$ 15,683
\$ 13,069	x	92.7%	\$ 12,119
Profit Value		Your Proficiency #	Adjusted Profit Value

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STAFFING REQUIREMENTS

A. Sales To Break Even

Service Expenses for One Month		Current Gross Profit Percent	=	Sales To Break Even
\$ 186,252		72.60%		\$ 256,557

B. Sales To Generate 20% Net

Service Expenses for One Month		Current Gross Profit Percent (Minus 20)	=	Sales To Generate 20% Net
\$ 186,252		52.60%		\$ 354,113

C. Technician Value

Daily Work Hours	x	Average Proficiency Rate	x	Overall Effective Labor Rate	x	Work Days Per Month	=
8		80%		\$ 93.76		24	
8		90%		\$ 93.76		24	
8		100%		\$ 93.76		24	
8		120%		\$ 93.76		24	

D. Staffing To Break Even

Sales To Break Even		Technician Value	=
\$ 256,557		14,402 @ 80%	
\$ 256,557		16,202 @ 90%	
\$ 256,557		18,002 @ 100%	
\$ 256,557		21,603 @ 120%	

E. Staffing To Generate 20% Net

Sales To Generate 20% Net		Technician Value	=
\$ 354,113		\$ 14,402 @ 80%	
\$ 354,113		\$ 16,202 @ 90%	
\$ 354,113		\$ 18,002 @ 100%	
\$ 354,113		\$ 21,603 @ 120%	

Technician Value

Staffing

Staffing

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Service Advisor Performance

How To Set Advisor Sales Objectives To: Break Even, Net 10%, & Net 20%

Break Even		Net 10 %		
1 Service Department's Monthly Expenses	<input type="text" value="\$186,252"/>	1 Service Department's Monthly Expenses	<input type="text" value="\$186,252"/>	1
2 Divide by current labor gross profit % to break even	<input type="text" value="72.60%"/>	2 Divide by current labor gross profit % minus 10 to net 10%	<input type="text" value="62.60%"/>	2
3 Equals New Sales Objective	<input type="text" value="\$ 256,557"/>	3 Equals New Sales Objective	<input type="text" value="\$ 297,542"/>	3
4 Number of Advisors	<input type="text" value="4.0"/>	4 Number of Advisors	<input type="text" value="4.0"/>	4
5 Equals Sales Objective per Advisor	<input type="text" value="\$ 64,139"/>	5 Equals Sales Objective per Advisor	<input type="text" value="\$ 74,386"/>	5
6 Number of work days per month	<input type="text" value="24"/>	6 Number of work days per month	<input type="text" value="24"/>	6
7 Equals daily sales objective per advisor	<input type="text" value="\$ 2,672"/>	7 Equals daily sales objective per advisor	<input type="text" value="\$ 3,099"/>	7
8 Current overall effective labor rate	<input type="text" value="\$ 93.76"/>	8 Current overall effective labor rate	<input type="text" value="\$ 93.76"/>	8
9 Equals daily sales objective per advisor (FRH's)	<input type="text" value="28.5"/>	9 Equals daily sales objective per advisor (FRH's)	<input type="text" value="33.1"/>	9

Net 20 %

Service Department's Monthly Expenses		\$186,252
Divide by current labor gross profit % minus 20 to net 20%		52.60%
	=	
Equals New Sales Objective		\$ 354,113
Number of Advisors		4.0
	=	
Equals Sales Objective per Advisor		\$ 88,528
Number of work days per month		24
	=	
Equals daily sales objective per advisor		\$ 3,689
Current overall effective labor rate		\$ 93.76
	=	
Equals daily sales objective per advisor (FRH's)		39.3

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Exercise to See What Happens When You Increase Your Hours Per Repair Order

Number of customer R.O.'s for the month			1111
	x		
Multiply by .3 hours			0.3 hours
	=		
Additional customer labor hours generated			333.30
	x		
Multiply by Customer Labor Rate			\$ 89.39
	=		
Equals additional Customer Labor Sales Generated			\$ 29,794
	x		
Multiply by customer Labor Gross Profit %			73.32%
	=		
Equals additional Labor Gross Profit \$ generated		= (A)	\$ 21,844
	=		
Divide Parts Sales R.O. by Labor Sales R.O. to calculate \$ parts sales per 1\$ of Labor Sales			1.55
	x		
Multiply by Customer Labor Sales			\$ 29,794
	=		
Equals additional Customer Parts Sales generated			\$ 46,219
	x		
Multiply by Customer Parts Sales Gross Profit %			35.50%
	=		
Equals additional Parts Gross Profit \$ Generated		= (B)	\$ 16,408
	=		
Add Gross Profit from Labor (A) and Parts (B)			\$ 38,251

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Labor Rate Calculations

1 Calculate the **Labor Rate** for the following operation.

A/C Charge and Check

	Labor Price	\$144.00		Hours	1.2
\$144.00		1.2	=	Labor Rate	\$120.00
Price		Hours			

2 Calculate the **Effective Labor Rate** for the following "Repair" operations.

Labor Operations	Labor Price		Labor Hours	=	Labor Rate
Clean Fuel Injectors	\$ 117.60		1.20	=	\$ 98.00
R&R Rear Hub Bearing.	\$ 96.00		0.80	=	\$ 120.00
Replace Trans. Pan gasket	\$ 107.80		1.10	=	\$ 98.00
R&R Headlight unit (1)	\$ 108.00		0.90	=	\$ 120.00
	429.4		4	=	107.35
	Total Price		Total Hours		Effective Labor Rate

(For This R.O.)

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Calculating Mark-Up

3 Using the following formula, mark-up a part costing \$6.72 to attain a 35% gross profit (round to the nearest cent)

<div style="border: 1px solid black; padding: 2px; display: inline-block; background-color: yellow;">100%</div> 100%	\rightarrow	<div style="border: 1px solid black; padding: 2px; display: inline-block;">35%</div> Desired Gross Profit percent	=	<div style="border: 1px solid black; padding: 2px; display: inline-block; background-color: yellow;">154%</div> Mark-Up Factor
<div style="border: 1px solid black; padding: 2px; display: inline-block;">\$6.72</div> Part Cost	\times	<div style="border: 1px solid black; padding: 2px; display: inline-block; background-color: yellow;">154%</div> Mark-Up Factor	=	<div style="border: 1px solid black; padding: 2px; display: inline-block; background-color: yellow;">\$10.34</div> Retail Price

4 Calculate the "Weighted Average" price at a 40% Gross Profit for the following parts (round to the nearest cent)

Item	Cost		Annual Turnover		Total Cost
Filter #1	\$4.36	\times	112	=	<div style="border: 1px solid black; padding: 2px; display: inline-block;">\$488.32</div>
Filter #2	\$4.01	\times	56	=	<div style="border: 1px solid black; padding: 2px; display: inline-block;">\$224.56</div>
Filter #3	\$3.56	\times	85	=	<div style="border: 1px solid black; padding: 2px; display: inline-block;">\$302.60</div>
Filter #4	\$3.86	\times	202	=	<div style="border: 1px solid black; padding: 2px; display: inline-block;">\$779.72</div>
Filter #5	\$3.51	\times	36	=	<div style="border: 1px solid black; padding: 2px; display: inline-block;">\$126.36</div>
Total Items			<div style="border: 1px solid black; padding: 2px; display: inline-block; background-color: yellow;">491</div>		Total Cost <div style="border: 1px solid black; padding: 2px; display: inline-block; background-color: yellow;">\$1,921.56</div>

<div style="border: 1px solid black; padding: 2px; display: inline-block; background-color: yellow;">\$ 1,921.56</div> Total Cost	\div	<div style="border: 1px solid black; padding: 2px; display: inline-block; background-color: yellow;">491</div> Total Items	=	<div style="border: 1px solid black; padding: 2px; display: inline-block; background-color: yellow;">\$ 3.91</div> Weighted Average Cost
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<div style="border: 1px solid black; padding: 2px; display: inline-block; background-color: yellow;">\$ 3.91</div> Weighted Average Cost	\times	<div style="border: 1px solid black; padding: 2px; display: inline-block;">1.67</div> Mark-Up Factor	=	<div style="border: 1px solid black; padding: 2px; display: inline-block; background-color: yellow;">\$ 6.54</div> Weighted Average Price
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Cost Of A Come-Back

Lost Customer Opportunity		1.5		
Average Hours per R.O.	X	2.1		
	=	3.1		
Effective Labor Rate	X	\$ 93.76		
Lost Labor Sales	=	\$ 290	(A)	

Service Department Gross Profit % (Excluding Sublet)	X	72.60%		
Lost Labor Gross	=	\$ 210	(B)	

Lost Labor Sales		\$ 290	(A)	
Parts / Labor Ratio	X	1.47		
	=	\$ 425		
Parts Dept Gross Profit % R.O.Sales	X	35.50%		
Lost Parts Gross	=	\$ 151	(C)	

Lost Labor Gross		\$ 210	(B)	
Lost Parts Gross	+	\$ 151	(C)	
Total Lost Gross	=	\$ 361		

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