

Maintenance Management Overview

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DO WHAT YOU KNOW

Not what you want to do

- Some fleets are best served by having a PM only capacity.***
 - Outsourcing major maintenance activities frees up your mechanics to focus on PM and scheduled maintenance initiatives.***
 - Trade Cycle strategies will eliminate many unplanned maintenance***
 - activities-relegating them to Warranty coverage repairs-and determines the experience and qualification level of technicians.***
 - Diagnostic capabilities will determine the type, source, and time of repair.***
 - Well equipped and staffed maintenance operations may offset fleet maintenance costs by absorbing outside work. Be sure to review your insurance requirements.***
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KNOW YOUR MAINTENANCE COSTS

- Get your software (or other recordkeeping and reporting capability) to identify and break out specific costs by type of equipment***
 - Separate tractor and trailer tire costs***
 - Keep a historical and manufacturer record of MTBF and ECLS***
 - MTBF=Mean Time Between Failures (avg. hours or miles that a component fails)***
 - ECLS=Expected Component Life System (studying fleet maintenance trends and replace before they fail)***
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HOW MANY TECHNICIANS DO WE REALLY NEED?

- What are the factors that limit the amount (and type) of maintenance activities, and what are the expected production capabilities?*
 - Hours available*
 - Space of facility*
 - Type of maintenance performed*
 - Age of Fleet*
 - Type of operation-Vocational, OTR, Severe Service, etc.*
 - Shop Efficiency Rate – 90%?**
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Determining Required Mechanics

- ❑ Number of working days per week X working weeks per year = A Days
 - ❑ Subtract vacation days & holidays (-) = B Days
 - ❑ Number of available working days X 8 hrs./day = C Hrs.
 - ❑ Yields number of hours per year
 - ❑ Deduct break time, allowable clean up and tool storage (-) = D Hrs.
 - ❑ (minutes per day X C)
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Determining Required Mechanics-continued

- Deduct Hrs. for shop meetings, safety meetings, sick time, (-) =E Hrs.
 - personal time off per year.
 - Deduct Indirect Hours unrelated to repair activities (-) =F Hrs.
 - (Sweeping, parts room) Mins. /day X available days
 - Total Mechanic Hours to work on equipment =G
 - (Hrs./Mechanic)
Hrs./Year
 - The total number of required hours per all fleet equipment divided by
 - available hours will yield the number of mechanics needed.
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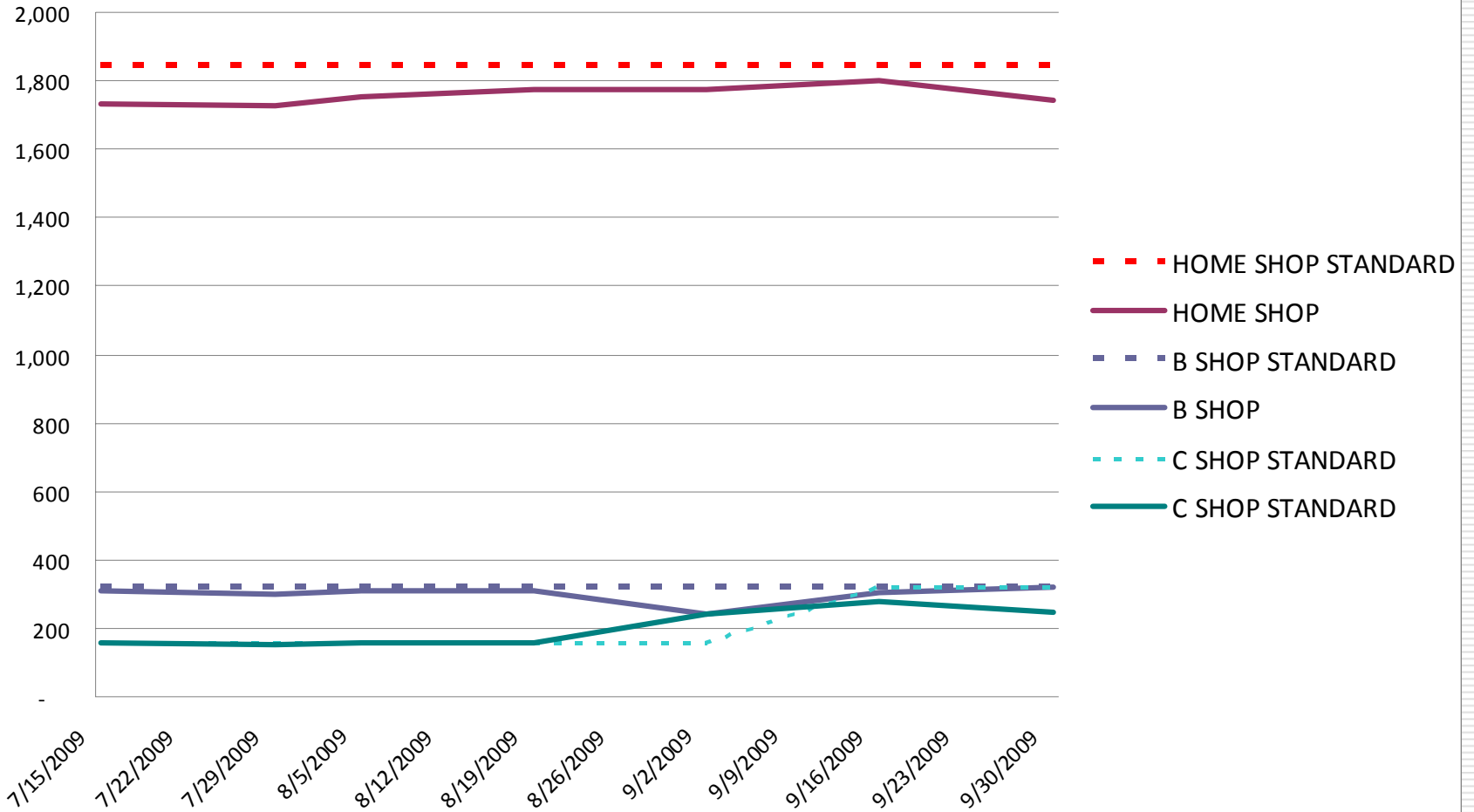
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- Determine the average number of hours per fleet vehicle by a historical Repair Order analysis.
 - This can be done by tractor, trailer, or component evaluation that identifies the mechanic specialty for your fleet.
 - By knowing the available mechanic hours and the past requirements of the fleet by Repair Order, an average requirement can be determined.
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LABOR HOURS

TOTAL LABOR HOURS:	7/15/09	7/29/09	8/5/09	8/19/09	9/2/09	9/16/09	9/30/09
HOME SHOP STANDARD	1,840	1,840	1,840	1,840	1,840	1,840	1,840
HOME SHOP	1,734	1,727	1,753	1,776	1,776	1,801	1,745
B SHOP STANDARD	320	320	320	320	320	320	320
B SHOP	312	299	310	311	240	304	320
C SHOP STANDARD	160	160	160	160	160	320	320
C SHOP STANDARD	160	151	160	160	240	277	249

LABOR HOURS

TOTAL LABOR HOURS

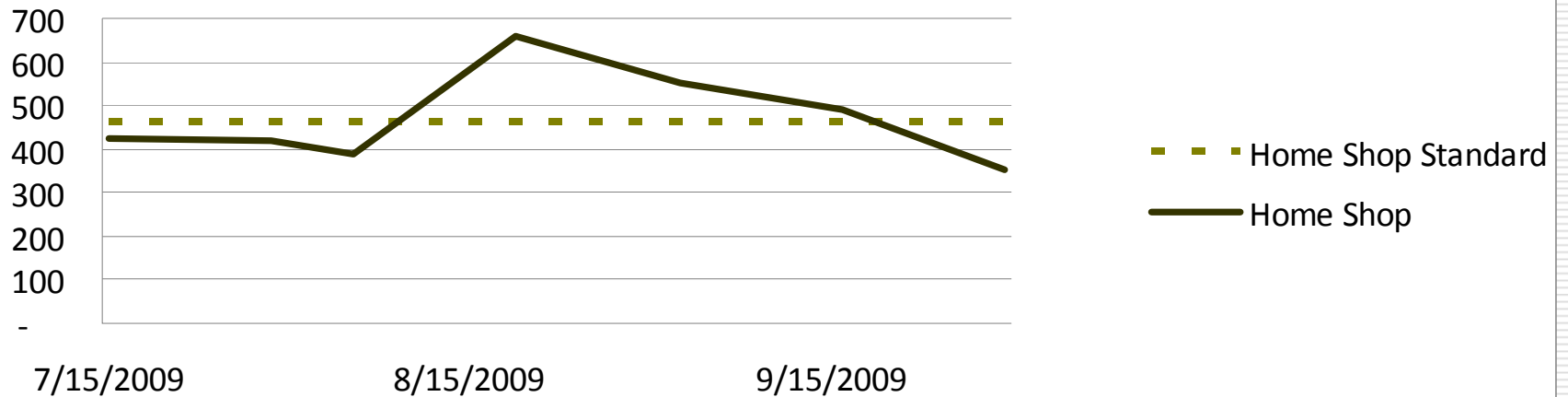


OVERTIME HOURS

OVERTIME HOURS	7/15/09	7/29/09	8/5/2009	8/19/09	9/2/09	9/16/09	9/30/09
Home Shop Standard	460	460	460	460	460	460	460
Home Shop	423	417	391	660	553	493	355
OVERTIME HOURS	7/15/09	7/29/09	8/5/2009	8/19/09	9/2/2009	9/16/09	9/30/09
B Shop Standard	60	60	60	60	60	80	80
B Shop	92	96	88	155	109	114	130
C Shop Standard	40	40	40	40	40	80	80
C Shop	47	24	18	43	42	64	52

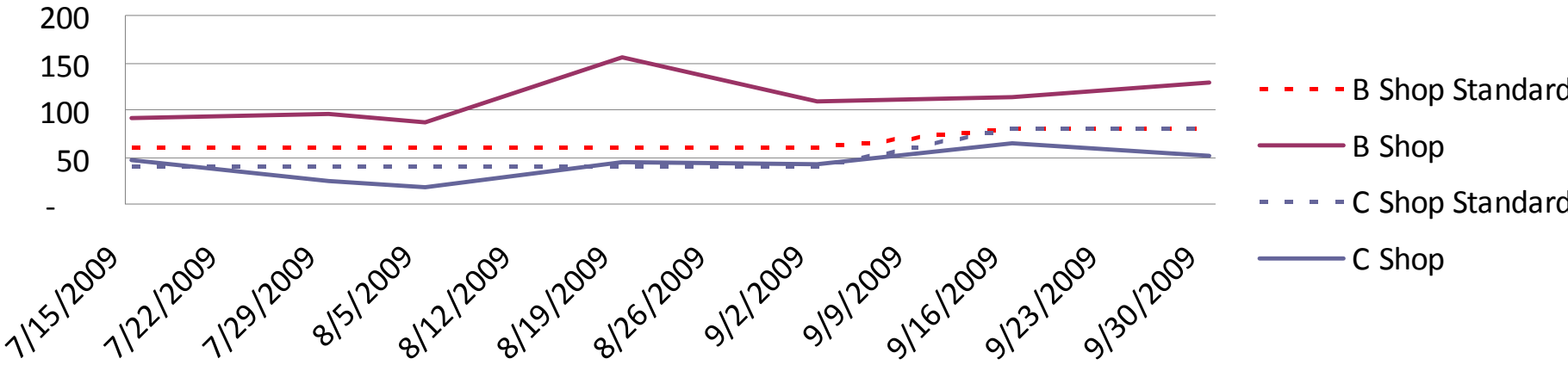
OVERTIME HOURS

TOTAL OVERTIME HOURS



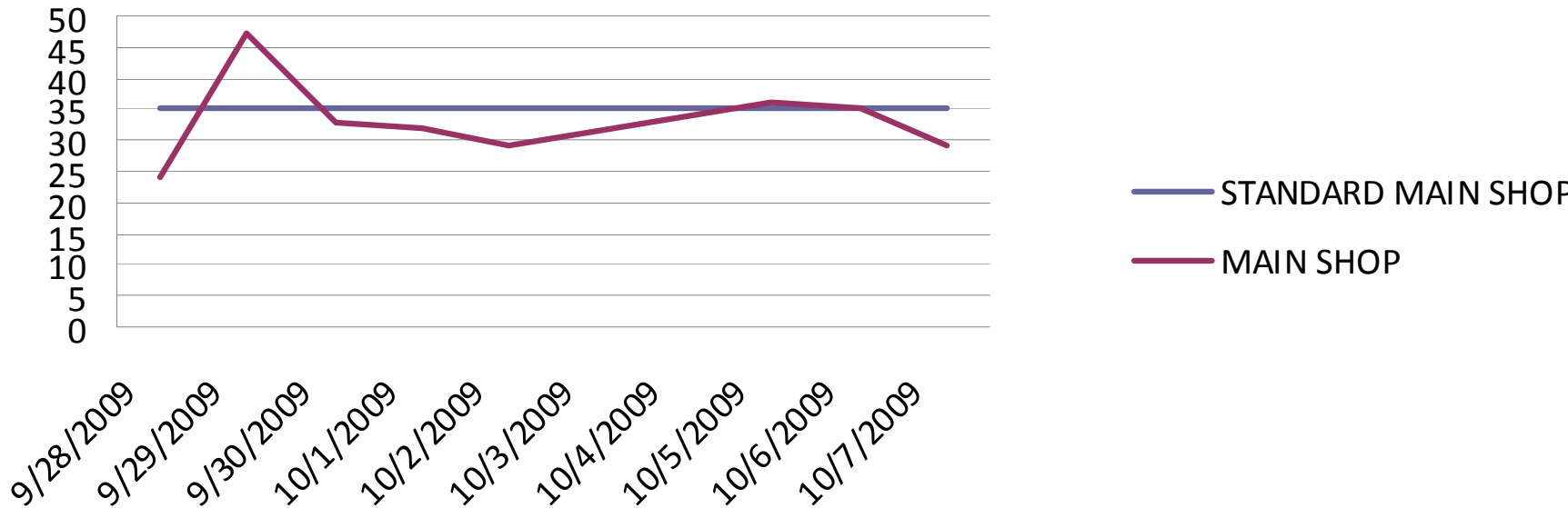
OVERTIME HOURS

TOTAL OVERTIME HOURS



WORK ORDERS

OPEN WORK ORDERS



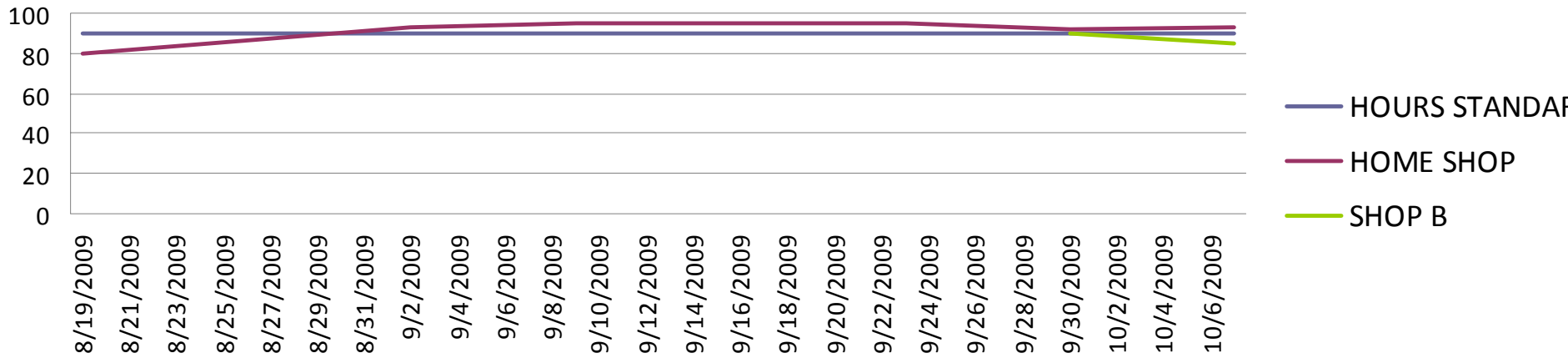
HOURS ABSORBED

HOURS ABSORBED ON WORK ORDERS	8/19/09	9/2/09	9/9/09	9/16/09	9/23/09	9/30/09	10/7/09
HOURS STANDARD	90	90	90	90	90	90	90
HOME SHOP	80	93	95	95	95	92	93
SHOP B						90	85

HOURS ABSORBED



PERCENTAGE OF HOURS ABSORBED



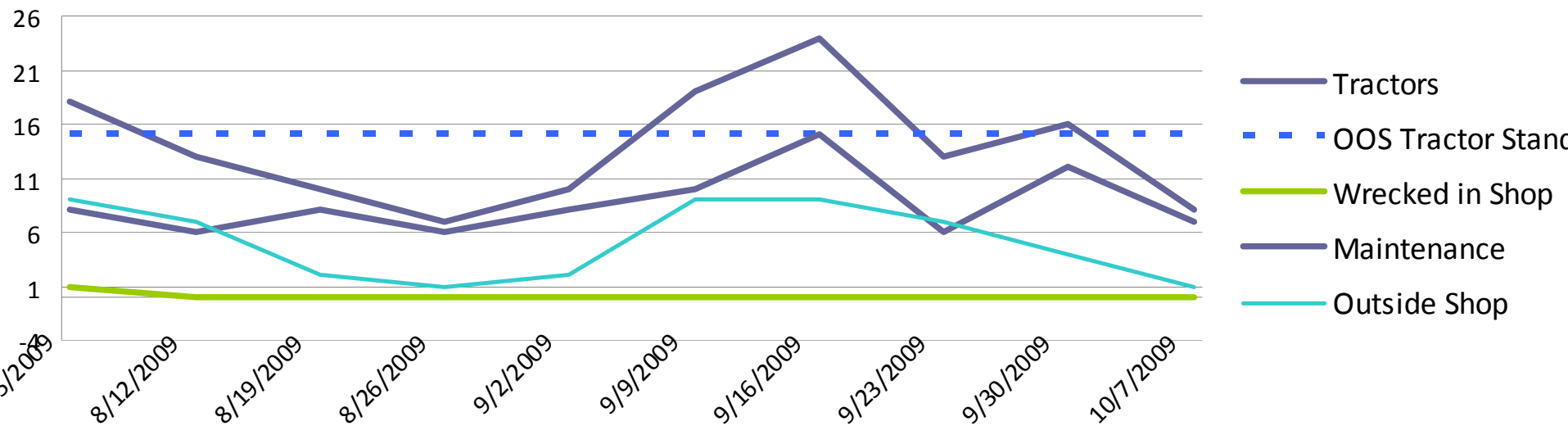
TRACTORS

	8/5/ 2009	8/12/ 2009	8/19/ 2009	8/26/ 2009	9/2/ 2009	9/9/ 2009	9/16/ 2009	9/23/ 2009	9/30/ 2009	10/7/ 2009
Tractors	18	13	10	7	10	19	24	13	16	8
OOS Tractor Standard	15	15	15	15	15	15	15	15	15	15
Wrecked in Shop	1	0	0	0	0	0	0	0	0	0
Maintenance	8	6	8	6	8	10	15	6	12	7
Outside Shop	9	7	2	1	2	9	9	7	4	1

TRACTORS



OOS TRACTORS



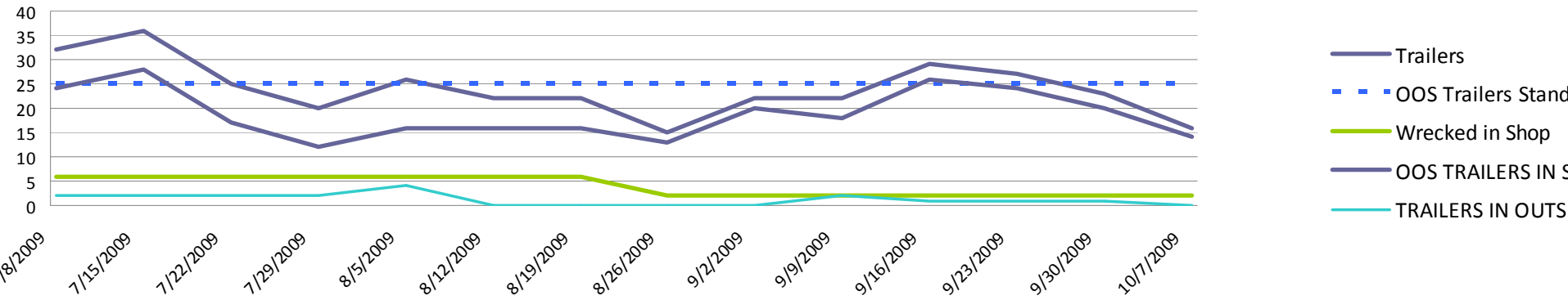
TRAILERS

	July 8, 2009	July 15, 2009	July 22, 2009	July 29, 2009	Aug. 5, 2009	Aug. 12, 2009	Aug. 19, 2009	Aug. 26, 2009	Sept 2, 2009	Sept 9, 2009	Sept 16, 2009	Sept 23, 2009	Sept 30, 2009	Oct. 7, 2009
Trailers	32	36	25	20	26	22	22	15	22	22	29	27	23	16
OOS Trailers Standard	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Wrecked in Shop	6	6	6	6	6	6	6	2	2	2	2	2	2	2
OOS TRAILERS IN SHOP	24	28	17	12	16	16	16	13	20	18	26	24	20	14
TRAILERS IN OUTSIDE SHOP	2	2	2	2	4	0	0	0	0	2	1	1	1	0

TRAILERS



OOS TRAILERS



TIRES

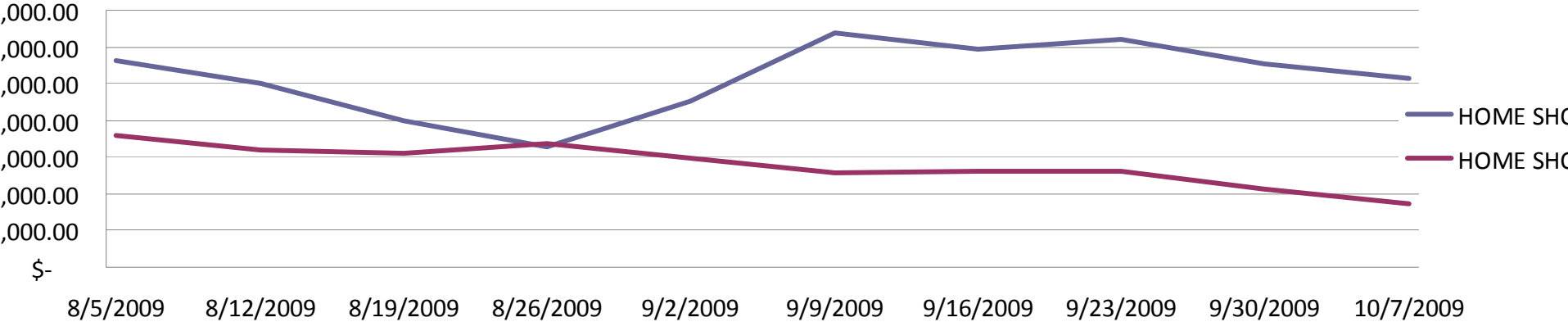
TOTAL TIRE INVENTORY	8/5/2009	8/12/2009	8/19/2009	8/26/2009	9/2/2009
HOME SHOP NEW	\$112,282.56	\$ 100,546.43	\$ 80,063.45	\$65,622.58	\$ 90,060.10
HOME SHOP RECAP	\$ 71,770.68	\$ 63,891.45	\$ 62,197.65	\$67,615.23	\$ 59,647.09

	9/9/2009	9/16/2009	9/23/2009	9/30/2009	10/7/2009
HOME SHOP NEW	\$127,229.70	\$119,051.45	\$123,718.02	\$111,103.93	\$102,961.14
HOME SHOP RECAP	\$51,401.89	\$52,607.28	\$51,887.16	\$42,223.49	\$34,813.71

TIRES



TIRE INVENTORY



PARTS INVENTORY

TOTAL PARTS INVENTORY					
:	8/5/2009	8/12/2009	8/19/2009	8/26/2009	9/2/2009
HOME SHOP	\$455,230.37	\$ 433,557.56	\$ 436,746.82	\$ 439,570.83	\$ 443,049.52
HOME SHOP CONSIGN		\$ 26,415.22	\$ 29,505.37	\$ 28,443.71	\$ 25,466.43
B SHOP	\$225,221.47	\$ 219,065.46	\$ 218,205.54	\$ 228,322.65	\$ 215,925.11
C SHOP	\$250,012.65	\$ 254,656.45	\$ 266,391.79	\$ 264,890.43	\$ 259,411.50
D SHOP	\$113,007.59	\$ 102,341.11	\$ 105,547.50	\$ 99,886.88	\$ 98,659.30

	9/9/2009	9/16/2009	9/23/2009	9/30/2009	10/7/2009
HOME SHOP	\$401,251.43	\$414,001.07	\$406,533.44	\$411,068.49	\$402,124.21
HOME SHOP CONSIGN	\$34,318.87	\$22,133.55	\$24,529.68	\$27,976.17	\$26,028.59
B SHOP	\$211,488.24	\$221,832.64	\$211,168.59	\$207,987.50	\$209,790.27
C SHOP	\$247,153.01	\$252,890.76	\$250,147.69	\$250,347.88	\$249,467.07
D SHOP	\$100,517.72	\$96,602.58	\$90,771.93	\$90,538.21	\$90,538.21

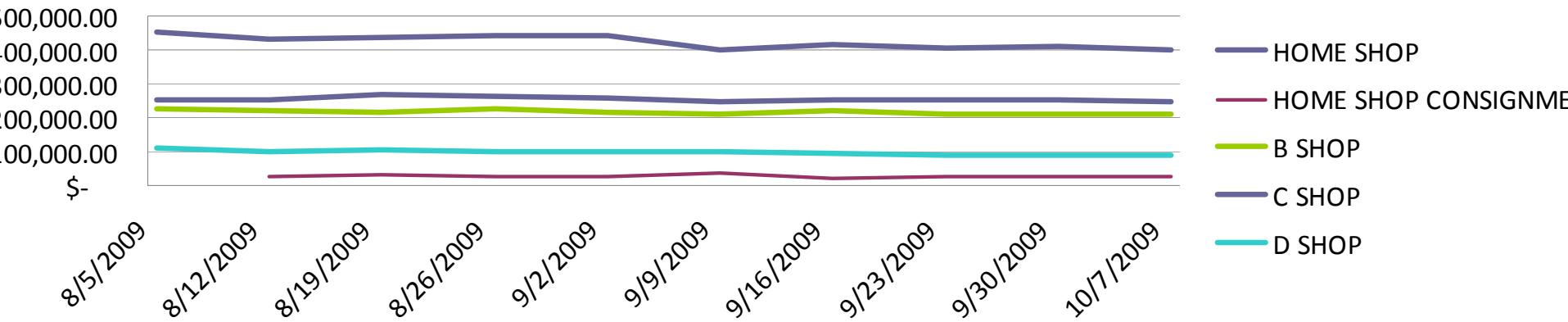
PARTS INVENTORY

PARTS INVENTORY BY SHOP

7/8/2009	7/15/2009	7/22/2009	7/29/2009	
\$ 570,511.02	\$ 587,597.96	\$ 585,208.38	\$ 545,213.65	HOME SHOP
\$ 224,604.71	\$ 203,879.83	\$ 231,416.62	\$ 229,837.22	SHOP B
\$ 266,789.51	\$ 263,183.13	\$ 265,966.63	\$ 271,949.83	SHOP C
\$ 125,625.63	\$ 125,625.63	\$ 125,625.63	\$ 116,962.20	SHOP D
\$ 1,187,530.87	\$ 1,180,286.55	\$ 1,208,217.26	\$ 1,163,962.90	TOTAL

PARTS INVENTORY

TOTAL PARTS INVENTORY



WARRANTY

- Who can authorize warranty claims?*
 - Is labor covered?*
 - What procedure is required to validate a claim?*
 - How long will it take to settle a claim?*
 - Is this an absolute, or will the vendor work with you?*
 - Is it a like exchange, credit to an account, or cash reimbursement?*
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WARRANTY TRACKING

- Replacement parts vs. New Vehicle warranty***
 - Tagged and recorded, search of in service date***
 - Follow manufacturers' changes in warranty time/procedure for claims***
 - Warranty Module on parts/maintenance systems***
 - Follow up for claim resolution***
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LONGER TRADE CYCLE FLEETS

- Fluid Sampling programs-be diligent and component specific.***
 - All new units take a sample at 6 month inspection- then at a predetermined interval thereafter.***
 - Track tire and brake performance and develop a planned replacement program. This allows for parts and inventory control, budget, and ECLS documentation.***
 - Consider extended warranty programs-when it benefits your operation.***
 - 70% planned and scheduled maintenance***
 - Negotiate vendor participation in component/part stocking programs with a “pay when used” schedule.***
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IMPROVE PRODUCTIVITY IS THE BEST COST CONTROL

- PM kits from manufacturer***
 - Get input from Technicians on how to increase parts availability, shop layout for specific maintenance functions***
 - Updated tools, equipment***
 - Training-New and Refresh***
 - Develop a Mentor program outside of a Supervisory role.***
 - Vendor, Supplier seminars***
 - Share Bulletins, provide OEM manuals, delete obsolete models info***
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THE PEOPLE BUSINESS OF TRUCKING

- Evaluations of Personnel: Why and Why Not.***
 - Communication: The Good, The Bad, & The Ugly***
 - What does it cost for poorly trained and motivated personnel? What GL Code measures poor production and performance due to inefficient oversight?***
 - Turnover of Technicians in an already quality (and quantity) challenged industry.***
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Develop the right procedure and content of a performance review

- Frequent communication avoids collecting negative data*
 - Accentuate the positive and address the areas needing improvement*
 - Develop a process for tracking and improvements*
 - Keep on a schedule and don't delay review.*
 - Invite interaction*
 - Allow exchange of ideas for improvement of the company and of the employee*
 - Be direct*
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- ❑ *Quality Control Review-Standard Procedures and Approach*
 - ❑ *Rework-Improper repairs, diagnosis, or PM*
 - ❑ *Time Analysis-Flat Rate, Shop History, Inefficiencies*
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Maintenance Management Thank You for Attending

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