

**PennDOT Fleet Model
Presentation
Statewide Fleet Summary
For Fiscal Year 2011**

Statewide Equipment Inventory



	ECC	App Quota 2011	Current Inventory	Equipment Type	ECC	App Quota 2011	Current Inventory
Single axle Dump Truck	A15*	718	711	Finish Pavers	C34AS*	30	26
Tandem Axle Dump Truck	AA1*	1478	1483	Three Wheel Rollers	CRW*	14	10
Tri-Axle Dump Truck	AA4*	55	55	Paving Roller	CRA*	82	78
	<u>Dump Total</u>	2251	2249	Riding Patch Roller	CRP*	198	184
				R/T Roller	CRT*	95	89
Loaders 2 Cu. Yd	E27AHDJ3* E27LIDJ3* E27DVHJ3*	426	415	Comb Roller	C43JJ*	16	16
Large Loaders 3 Cu. Yd	E27AHDJ5* E27DVHJ5* E27LIDJ5*	94	97	Patch Roller Vibratory	CC2*	129	131
Skid Steer Loaders	EB2*	179	183	Belt Loaders	EB1*	59	60
Graders	E21*	158	151	Side Dozers	EC3*	13	11
Backhoes	E54AO*	141	132	Tractor Mowers	D55*	186	178
Excavators R-Tire All	E18*	77	78	Boom Arm Mowers	D55HS*	58	55
Excavators, Track Med & Lg	EETCHHBC* EETCHHBD*	66	74	S/Propelled Sweepers	FD6*	28	26
Oil Distributors	AA6*	88	90	Fuel Trucks	AA5*	41	44
Chip Spreaders	C95*	39	39	Lube Trucks	AD7*	36	33
Wideners	C63BUI*	48	50	Lowboy Tractor	A56*	70	70
Motor Pavers	CPL*	1	2				

Equipment Inventory

Equipment Type

Crew Cabs	Approved Quotas 2011	Current Inventory	
A13*	1002	1014	
A12* Other	113	85	
Staff Vehicles	Approved Quotas 2011	Current Inventory	Temporary Units assigned under Marcellus Shale
G36* Pickup Trucks	523	567	8
G45* Sedans	421	385	9
G51* Wagons	86	51	0
G59* SUV's	57	68	8
G60* Van's	156	145	0

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Age of Core Equipment

The goal is to maintain the average age of the core equipment fleet at 50% of the expected life as defined by SAP

	ECC	50 % of Expected Life	Average Age From Aging Report	Number of Units That Exceed Expected Life Cycle.
Single Axle Dump Trucks	A15*	6	6	5
Tandem Axle Dump Trucks	AA1*	6	5	28
Tri-Axle Dump Trucks	AA4*	6	6	0
Loaders	E27*	7.5	7	21
Backhoes	E54AO*	7.5	10	18
Crew Cabs	A13*	4.0	5	165
Spec Crew Cabs	A12*	4.0	10	63

Score Based on District Average from Aging Report For ECC A15*, AA1* and AA4*

Category meets 50% of expected life.	5
Category one (1) year older than 50% of expected life	4
Category two (2) years older than 50% of expected life	3
Category three (3) years older than 50% of expected life	2
Category four (4) year older than 50% of expected life	1
Category greater than four (4) year older than 50% of expected life	0

Score 5

Age of Equipment

Support Equipment

The goal is to maintain the support equipment fleet within the expected window.

	ECC	Expected Life Cycle Age	Approved Inventory	Number Of Units That Exceed Expected Life Cycle	Percentage That Exceed Life Cycle
Rollers	CRA* CRW* CRP* CRT* C43JJ*	15 years	405	105	26%
Rollers	CC2*	13 Years	129	54	42%
Excavators	EETCHHBC* EETCHHBD* E18*	12 Years	143	37	26%
Oil Distributors	AA6*	10 Years	88	55	63%
Chip Spreaders	C95*	13 Years	39	10	26%
Wideners	C63*	10 Years	48	26	54%
Motor Pavers	CPL*	10 Years	1	1	100%
Finish Pavers	C34AS*	10 Years	30	23	77%
Belt Loaders	EB1*	10 Years	59	23	39%
Fuel Trucks	AA5*	12 Years	41	11	27%
Graders	E21*	15 Years	158	62	39%
Total number of units exceeding Industry Standard				408	

Minimum Use Standard

The goal is to maintain on the following types of equipment at a level that exceeds the minimum use standard. This minimum use standard is defined as the minimum usage that is economically feasible for owning that type of equipment and should not be interpreted as an acceptable level of equipment utilization.

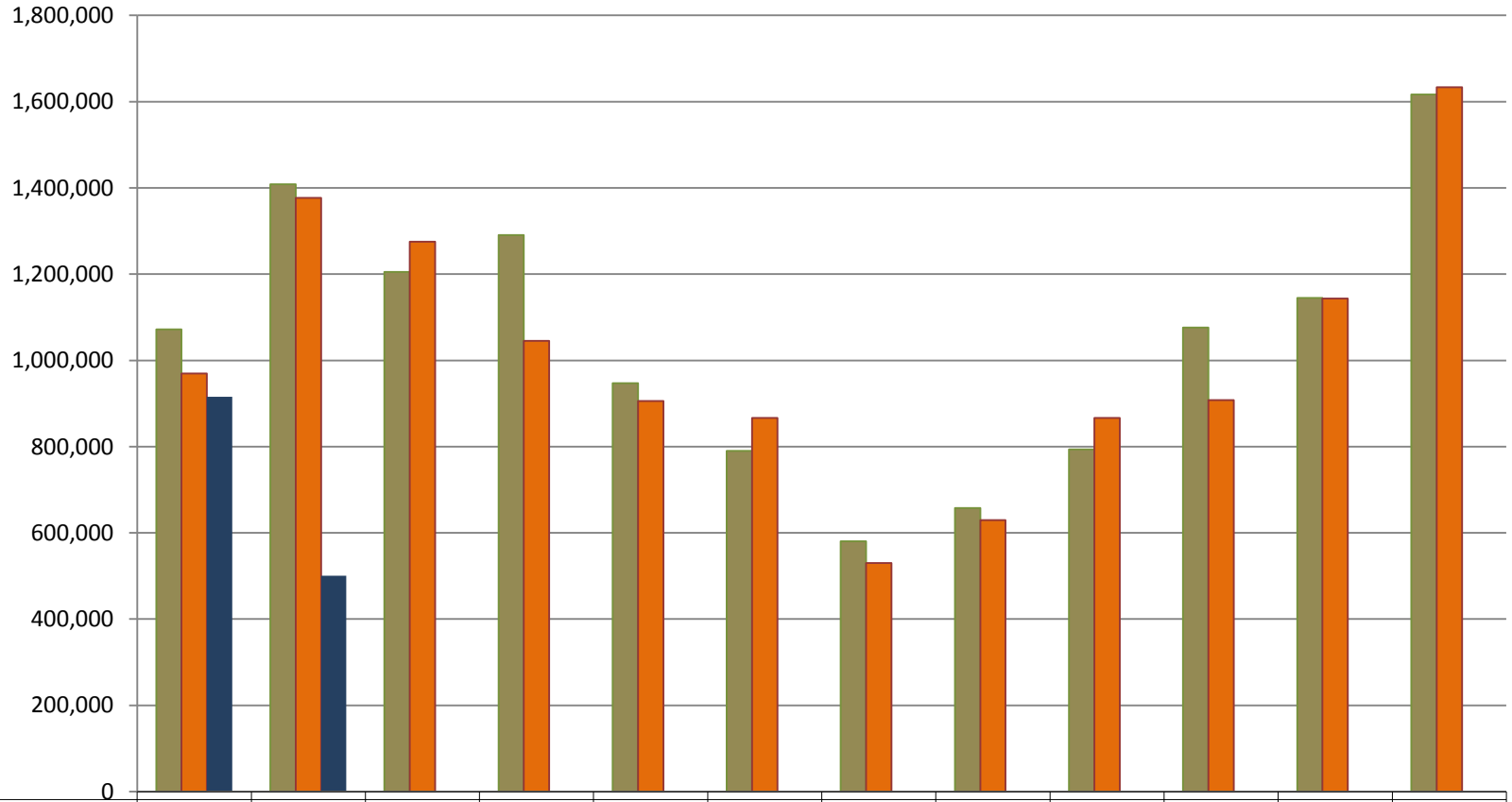
Equipment Type	ECC	Min Use Std.	# Less Than Min. Use Std.	Equipment Type	ECC	Min Use Std.	# Less Than Min. Use Std.
Single Axle Dump Trucks	A15*	700	0	Chip Spreaders	C95*	150	0
Tandem Axle Dump Trucks	AA1*	700	1	Wideners Self Propelled	C63BUI*	200	0
Tri-axle Dump Trucks	AA4*	700	0	Motor Pavers	CPL*	200	0
Loaders	E27*	500	0	Finish Pavers	C34AS*	200	0
Graders	E21*	300	1	Three Wheel Rollers	CRW*	200	0
Backhoes	E54AO*	300	0	Paving Rollers	CRA*	200	0
Excavators, R Tire All	E18*	400	0	Rubber Tire Rollers	CRT*	150	0
Excavators, Track Med & Lg	EETCHHBC* EETCHHBD*	400	0	Combination Rollers	C43JJ*	150	0
Oil Distributors	AA6*	250	0	Belt Loaders	EB1*	200	0

All equipment meets minimum use standard	5
1 to 2 pieces of equipment do not meet minimum use standard	4
3 to 4 pieces of equipment do not meet minimum use standard	3
5 to 6 pieces of equipment pieces of equipment do not meet minimum use standard	2
7 to 8 pieces of equipment pieces of equipment do not meet minimum use standard	1
More than 8 pieces of equipment pieces of equipment do not meet minimum use standard	0

Score 4

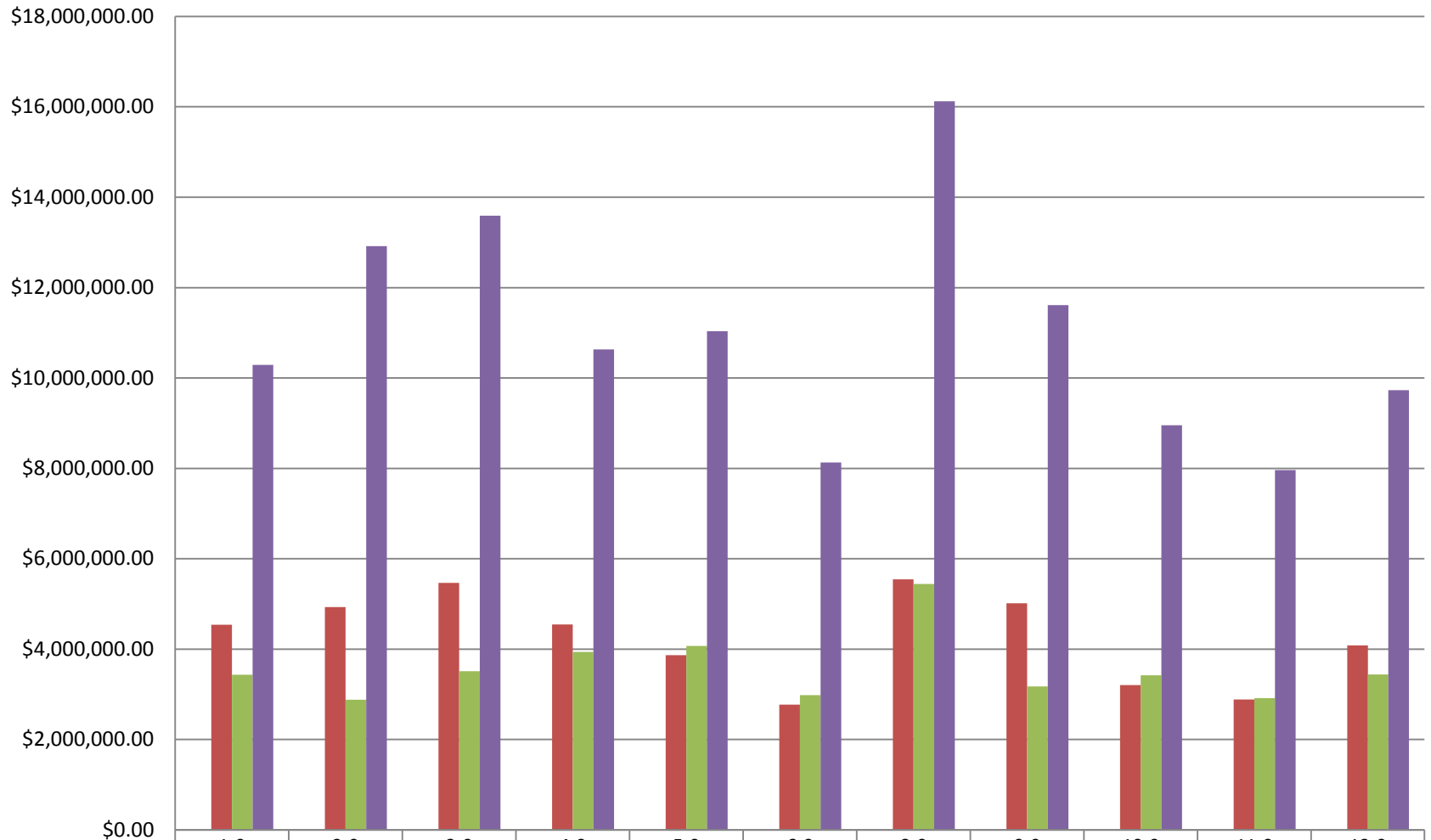
POV Report - Statewide

(Districts and Counties)



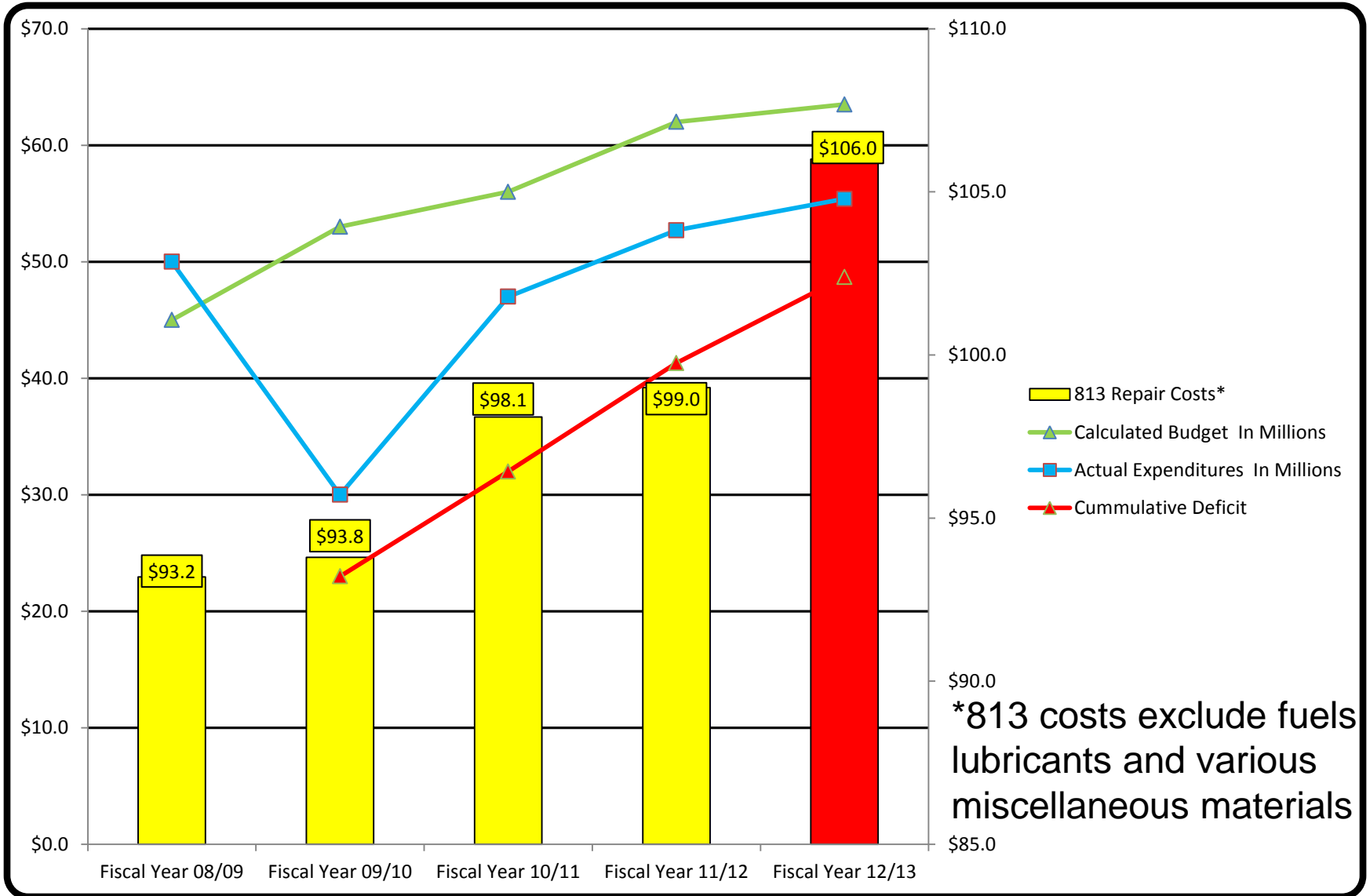
FY10 Monthly Mileage Totals	1,071,564	1,408,535	1,205,085	1,290,823	946,911	790,359	580,456	657,706	793,333	1,076,239	1,144,893	1,616,753
FY11 Monthly Mileage Totals	969,214	1,376,563	1,275,412	1,045,133	905,607	866,770	530,245	629,894	866,673	907,619	1,143,135	1,633,503
FY12 Monthly Mileage Totals	915,516	500,320										

813 Cost and Cost vs. Usage

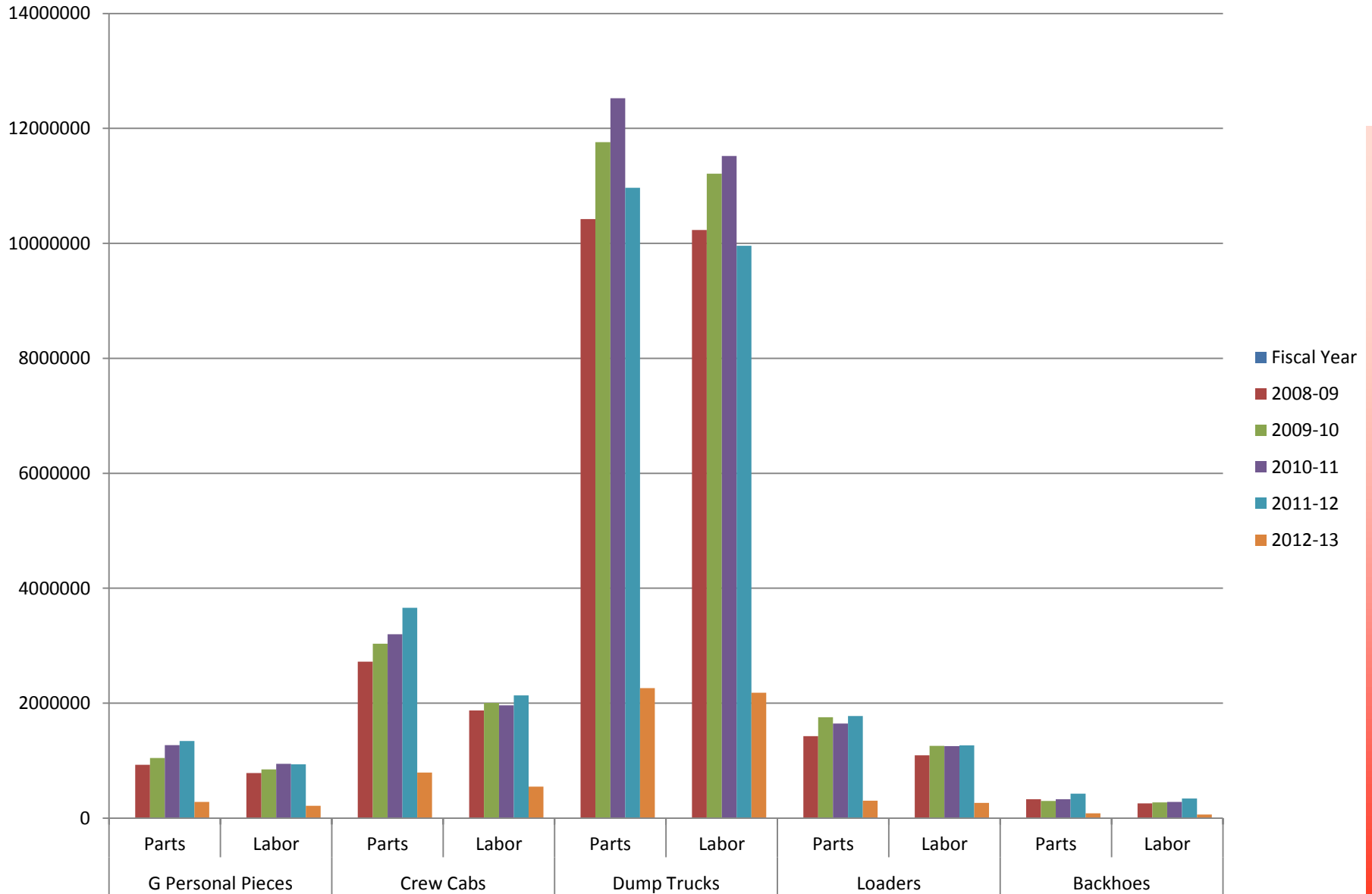


■ Average of Actual Scores	5	5	5	5	5	5	5	5	5	5	5
■ Sum of Total Labor Costs	\$4,539,460	\$4,929,819	\$5,465,764	\$4,546,945	\$3,866,496	\$2,773,386	\$5,547,233	\$5,013,780	\$3,207,910	\$2,888,952	\$4,084,601
■ Sum of Total Parts Costs	\$3,432,859	\$2,878,569	\$3,513,810	\$3,940,707	\$4,073,159	\$2,980,806	\$5,443,982	\$3,173,696	\$3,421,921	\$2,916,529	\$3,439,493
■ Sum of Total Usage	\$10,290,14	\$12,915,96	\$13,588,07	\$10,634,54	\$11,033,31	\$8,132,412	\$16,123,17	\$11,615,34	\$8,952,391	\$7,961,806	\$9,729,395

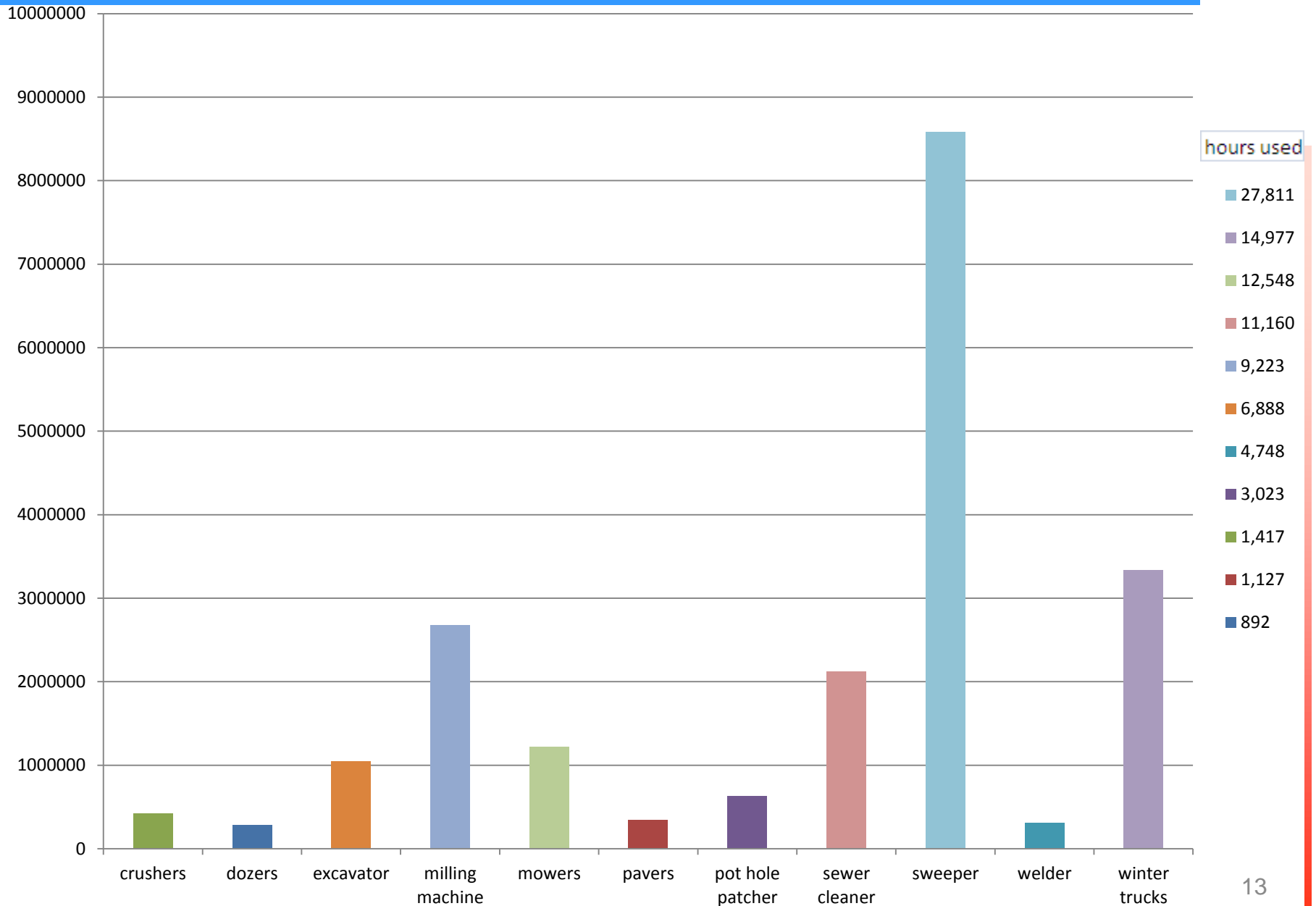
The ever increasing number of aging equipment (other than core) has begun to adversely impact our maintenance and repair costs. Continuing with a trend of under funding the need will result in a continuing escalation of 813 costs



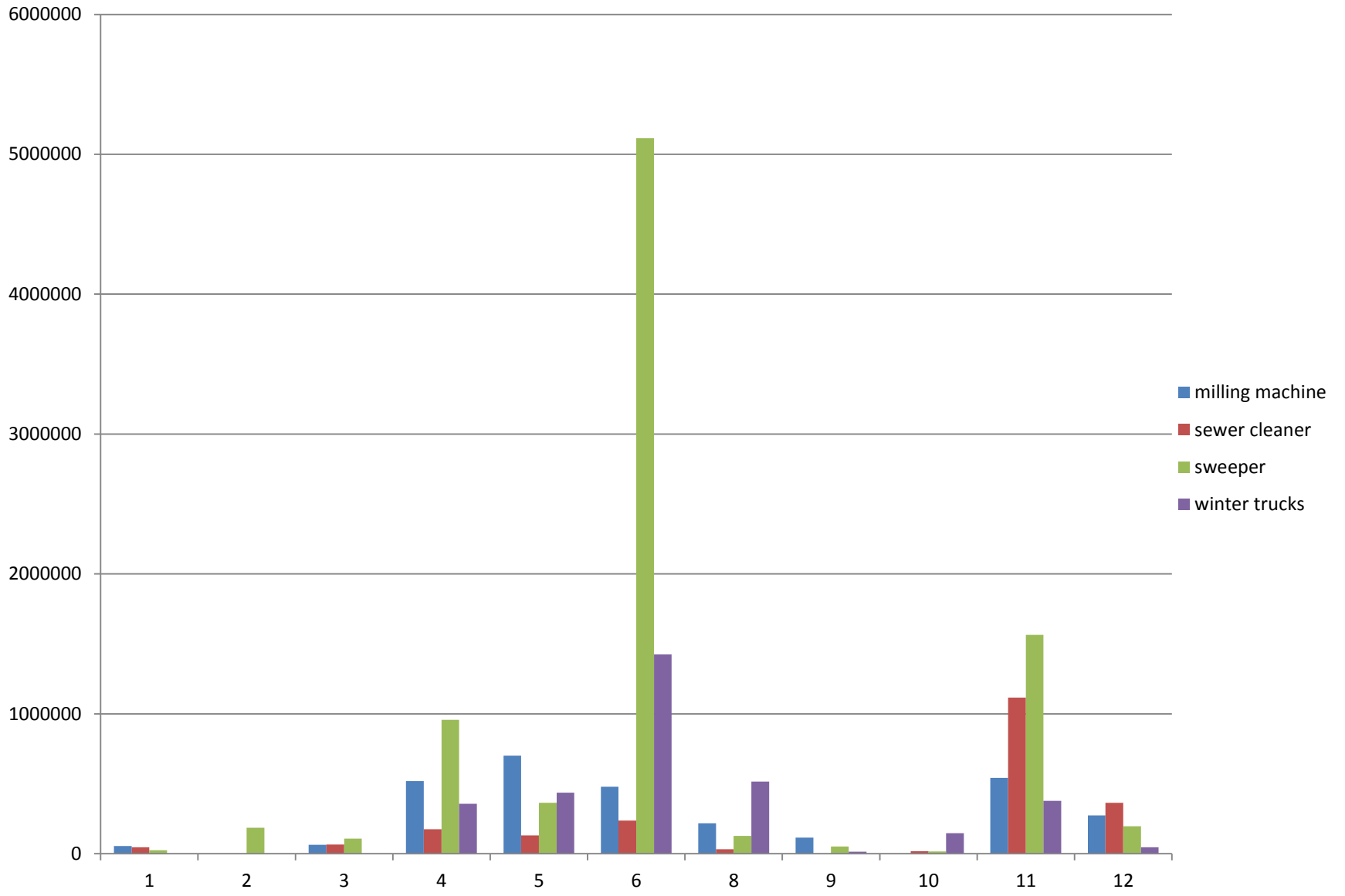
813 cost by Fiscal Year



Rented Equipment Summary



Rented Equipment Summary by District



Projected Equipment Purchases

Statewide Projected Equipment Purchases (Core Equipment Only)

Projected Equipment Purchases

Equipment Type	Est Rep Cost	2013/2014		2014/2015		2015/2016	
		Qty	Est	Qty	Est	Qty	Est
Equipment							
Truck, Single Axle	\$150,304	59	\$8,867,936	59	\$9,311,321	59	\$9,776,831
Truck, Tandem Axle	\$177,273	123	\$21,804,579	123	\$22,894,728	123	\$24,039,366
Truck, Tri Axle	\$192,061	4	\$768,244	4	\$806,656	4	\$846,988
Loaders, Large	\$136,293	7	\$954,051	7	\$1,001,749	7	\$1,051,834
Loaders, Std	\$117,252	35	\$4,103,820	35	\$4,308,990	35	\$4,524,415
Graders (6X6)	\$175,843	13	\$2,285,959	13	\$2,400,255	13	\$2,520,258
Backhoes (4X4)	\$78,513	11	\$863,643	11	\$906,818	11	\$952,149
Excavators	\$340,724	6	\$2,044,344	6	\$2,146,560	6	\$2,253,888
Excavators Track	\$97,840	5	\$489,200	5	\$513,660	5	\$539,340
Crew Cabs	\$55,300	93	\$5,142,900	93	\$5,400,045	93	\$5,670,024
Anticipated Budget Needed		356	\$47,324,676	356	\$49,690,782	356	\$52,175,093

Statewide Summary of Overall Shop Performance.

•Fleet Advisor PMQA score	4.42
•DEM PMQA score	4.63
•County Average PMQA Score	4.53
•Shop Score	4.50
•614 Score / Field Personal	3.65
•Shop Compliance Review Score	4.17
•Warranty Recovery Score	4.92
•Shop Compliance Score Final Factored	4.47
•AFS Score	4.76

Statewide Fleet Summary

CMMT Score #8	Score	Weight	Total
Age of Core Equipment	5.00	X .34	1.70
Minimum Use Standards	4.00	X .33	1.32
Cost Versus Usage	5.00	X.33	1.65
Statewide Fleet Model Final Score:			4.67

Engine Idle Time Reduction

- Department has actively pursued Idle reduction beginning in September 2008 upon release of Act 124 of 2008
- SOL 461-08-05 Established policy for Mack and Navistar powered dump trucks.
- All Navistar and Mack Dump Trucks will have the engine idle timer parameter set to a maximum of five (5) minutes.
- Each organization will be required to download the idle data (idle percentage) accumulated at each scheduled PM (#1PM and #2PM) that occurs every 90 days per Department policy.
- Data captured and compiled will be evaluated on a monthly basis and released as a monthly color coded metric identifying progress in reducing idle time by District and County.
- The color coded monthly metrics will be based upon idle percentage only and the final score will be captured on the Fleet Model at the end of the fiscal year for units that have been in service for more than one (1) year.