

Three Year Engineering Factors

Engineering Costs per Total Construction Costs

Report Key:

Projects are group first by Work Types, and then work types are used to group projects into categories:

qry01MakeKey

Category	Work Type
MAJOR PROJECT	A- ADD LANES
MAJOR PROJECT	D- DUAL DIVIDED
MAJOR PROJECT	F- FREEWAY
MAJOR PROJECT	I- INTERCHANGE
MAJOR PROJECT	M- MAJOR BRIDGE
MAJOR PROJECT	T- NEW OR IMPROVED 2 LANE
TCOS	1- ITS
TCOS	B- BRIDGE REPLACEMENT
TCOS	G- PREV MAINT-BRIDGE
TCOS	H- HIGH TYPE RESURFACING
TCOS	J- PREV MAINT-PAVEMENT
TCOS	K- MED TYPE RESURFACING
TCOS	L- LOW TYPE RESURFACING
TCOS	O- OTHER
TCOS	P- PAVEMENT REPLACEMENT
TCOS	Q- CMAQ
TCOS	R- BRIDGE REHABILITATION
TCOS	S- BRDG RETROFIT AND STR
TCOS	X- SAFETY
TCOS	Y- ROUTINE MAINTENANCE
OTHER	E- ENHANCEMENTS
OTHER	W- SHOULDER WIDENING

Calculations:

Projects completed in the time frame are tabulated and categorized by primary work type and district. Excludes payment projects, right of way only projects, and other projects without actual construction costs.

Within each line item, all projects are totaled and then converted to percentages, based on the actual construction amount (actual CN). Not based on the actual total amount (actual Total). Thus, estimated construction costs for a project can be used with factors in this report to estimate Engineering costs, which add up to total costs.

$$PE\% = (\text{actual PE}) / (\text{actual CN})$$

$$CE\% = (\text{actual CE}) / (\text{actual CN})$$

$$RW \text{ purchase} = (\text{actual land})$$

$$RW \text{ incidentals} = (\text{total actual RW}) - (\text{actual land})$$

$$RWp\% = (\text{actual land}) / (\text{actual CN})$$

$$RWi\% = (RW \text{ incidentals}) / (\text{actual CN})$$

$$\begin{aligned} \text{Total (or Overall)} = & \\ & (\text{actual PE}) + (\text{actual CE}) + (RW \text{ incidentals}) \\ & \text{-----} \\ & (\text{actual CN}) \end{aligned}$$

If a district has no completed projects of the work type, in the time frame, then the line item is removed from their table.

**Three Year Average Engineering Factors
Engineering Costs per Total Construction Costs**

**7/1/2011 - 6/30/2014
Statewide Totals**

Work Types	Preliminary Engineering	Right of Way Incidentals	Construction Inspection	Total Engineering	Right of Way Purchases	n=
1- ITS	3.76%	0.66%	39.38%	43.81%	0.44%	1
A- ADD LANES	6.78%	0.70%	3.08%	10.56%	10.70%	30
B- BRIDGE REPLACEMENT	10.03%	0.36%	8.97%	19.36%	1.54%	56
D- DUAL DIVIDED	7.24%	1.06%	6.88%	15.18%	13.67%	29
E- ENHANCEMENTS	5.86%	0.08%	9.69%	15.63%	0.49%	24
F- FREEWAY	13.65%	1.49%	5.61%	20.74%	36.33%	23
G- PREV MAINT-BRIDGE	3.39%	0.00%	5.72%	9.11%	0.00%	43
H- HIGH TYPE RESURFACING	1.71%	0.01%	5.65%	7.38%	0.00%	77
I- INTERCHANGE	4.18%	0.09%	6.70%	10.97%	2.51%	31
J- PREV MAINT-PAVEMENT	2.02%	0.10%	6.46%	8.57%	0.14%	132
K- MED TYPE RESURFACING	1.01%	0.01%	5.27%	6.29%	0.01%	189
L- LOW TYPE RESURFACING	0.49%	0.00%	5.31%	5.80%	0.00%	190
M- MAJOR BRIDGE	3.49%	0.00%	4.03%	7.52%	0.00%	6
O- OTHER	6.85%	0.33%	7.97%	15.15%	3.12%	99
P- PAVEMENT REPLACEMENT	1.93%	0.06%	6.01%	8.00%	0.19%	19
Q- CMAQ	4.84%	0.40%	10.72%	15.96%	3.73%	44
R- BRIDGE REHABILITATION	5.76%	0.12%	8.22%	14.10%	0.17%	115
S- BRDG RETROFIT AND STR	1.27%	0.00%	7.93%	9.19%	0.00%	2
T- NEW OR IMPROVED 2 LANE	5.11%	1.16%	8.40%	14.67%	7.86%	7
W- SHOULDER WIDENING	8.89%	0.00%	1.79%	10.68%	0.00%	1
X- SAFETY	7.04%	0.50%	9.58%	17.12%	5.56%	102
Y- ROUTINE MAINTENANCE	1.95%	0.00%	8.66%	10.61%	0.00%	22
	5.23%	0.43%	5.95%	11.61%	6.29%	1,242

Work Type Categories	Preliminary Engineering	Right of Way Incidentals	Construction Inspection	Total Engineering	Right of Way Purchases	n=
MAJOR PROJECT	6.88%	0.73%	5.01%	12.63%	11.76%	126
TCOS	3.54%	0.12%	6.86%	10.52%	0.82%	1,091
OTHER	6.01%	0.08%	9.30%	15.38%	0.47%	25
	5.23%	0.43%	5.95%	11.61%	6.29%	1,242

Engineering costs as percentages of corresponding actual construction costs. Based on projects completed within the indicated time frame. Excludes payment projects, right of way only projects, and other projects without actual construction costs.

**Three Year Average Engineering Factors
Engineering Costs per Total Construction Costs**

**7/1/2011 - 6/30/2014
By District**

Northwest

Work Types	Preliminary Engineering	Right of Way Incidentals	Construction Inspection	Total Engineering	Right of Way Purchases	n=
B- BRIDGE REPLACEMENT	5.02%	0.05%	5.32%	10.38%	0.05%	3
G- PREV MAINT-BRIDGE	2.22%	0.00%	3.79%	6.00%	0.00%	3
H- HIGH TYPE RESURFACING	1.55%	0.13%	5.51%	7.19%	0.01%	7
J- PREV MAINT-PAVEMENT	1.14%	0.00%	5.24%	6.38%	0.00%	14
K- MED TYPE RESURFACING	1.42%	0.00%	5.14%	6.56%	0.00%	16
L- LOW TYPE RESURFACING	0.47%	0.00%	4.37%	4.84%	0.00%	27
O- OTHER	9.51%	0.64%	8.98%	19.14%	6.46%	3
P- PAVEMENT REPLACEMENT	0.07%	0.02%	3.46%	3.55%	0.00%	5
R- BRIDGE REHABILITATION	8.67%	0.00%	9.90%	18.57%	0.00%	12
X- SAFETY	16.67%	0.00%	24.05%	40.72%	0.00%	5
	2.88%	0.07%	5.78%	8.73%	0.30%	95

Work Type Categories	Preliminary Engineering	Right of Way Incidentals	Construction Inspection	Total Engineering	Right of Way Purchases	n=
TCOS	2.88%	0.07%	5.78%	8.73%	0.30%	95
	2.88%	0.07%	5.78%	8.73%	0.30%	95

Engineering costs as percentages of corresponding actual construction costs. Based on projects completed within the indicated time frame. Excludes payment projects, right of way only projects, and other projects without actual construction costs.

**Three Year Average Engineering Factors
Engineering Costs per Total Construction Costs**

**7/1/2011 - 6/30/2014
By District**

Northeast

Work Types	Preliminary Engineering	Right of Way Incidentals	Construction Inspection	Total Engineering	Right of Way Purchases	n=
B- BRIDGE REPLACEMENT	18.44%	0.24%	11.31%	29.99%	0.21%	3
D- DUAL DIVIDED	7.08%	0.63%	8.04%	15.76%	6.49%	2
G- PREV MAINT-BRIDGE	7.04%	0.00%	8.06%	15.10%	0.00%	9
H- HIGH TYPE RESURFACING	1.81%	0.00%	6.03%	7.84%	0.00%	10
J- PREV MAINT-PAVEMENT	0.81%	0.00%	4.38%	5.20%	0.00%	13
K- MED TYPE RESURFACING	3.32%	0.00%	9.39%	12.71%	0.00%	2
L- LOW TYPE RESURFACING	0.34%	0.00%	6.91%	7.24%	0.00%	41
O- OTHER	26.06%	1.82%	15.20%	43.07%	11.91%	9
R- BRIDGE REHABILITATION	4.15%	0.00%	13.77%	17.92%	0.00%	9
X- SAFETY	14.71%	0.67%	11.44%	26.82%	9.45%	5
Y- ROUTINE MAINTENANCE	0.00%	0.00%	66.67%	66.67%	0.00%	1
	4.90%	0.23%	8.08%	13.22%	2.18%	104

Work Type Categories	Preliminary Engineering	Right of Way Incidentals	Construction Inspection	Total Engineering	Right of Way Purchases	n=
MAJOR PROJECT	7.08%	0.63%	8.04%	15.76%	6.49%	2
TCOS	4.24%	0.11%	8.10%	12.44%	0.85%	102
	4.90%	0.23%	8.08%	13.22%	2.18%	104

Engineering costs as percentages of corresponding actual construction costs. Based on projects completed within the indicated time frame. Excludes payment projects, right of way only projects, and other projects without actual construction costs.

**Three Year Average Engineering Factors
Engineering Costs per Total Construction Costs**

**7/1/2011 - 6/30/2014
By District**

Kansas City

Work Types	Preliminary Engineering	Right of Way Incidentals	Construction Inspection	Total Engineering	Right of Way Purchases	n=
A- ADD LANES	13.60%	1.98%	8.69%	24.27%	5.57%	3
B- BRIDGE REPLACEMENT	11.67%	1.12%	11.23%	24.02%	5.02%	4
D- DUAL DIVIDED	14.06%	2.59%	7.13%	23.79%	18.92%	5
E- ENHANCEMENTS	1.14%	0.00%	24.15%	25.28%	0.00%	2
G- PREV MAINT-BRIDGE	6.45%	0.00%	7.39%	13.84%	0.00%	9
H- HIGH TYPE RESURFACING	2.53%	0.00%	5.06%	7.60%	0.00%	10
I- INTERCHANGE	2.37%	0.03%	5.91%	8.31%	1.75%	17
J- PREV MAINT-PAVEMENT	4.64%	0.46%	7.89%	12.99%	0.67%	15
K- MED TYPE RESURFACING	0.46%	0.00%	5.14%	5.60%	0.00%	14
L- LOW TYPE RESURFACING	0.91%	0.00%	5.97%	6.87%	0.00%	21
M- MAJOR BRIDGE	9.37%	0.00%	4.47%	13.84%	0.00%	2
O- OTHER	6.29%	0.10%	7.00%	13.39%	0.24%	18
P- PAVEMENT REPLACEMENT	0.86%	0.00%	5.27%	6.13%	0.00%	1
Q- CMAQ	0.82%	0.00%	9.80%	10.62%	0.00%	5
R- BRIDGE REHABILITATION	5.79%	0.32%	8.48%	14.58%	0.39%	26
X- SAFETY	10.41%	1.00%	10.15%	21.56%	6.41%	12
Y- ROUTINE MAINTENANCE	0.66%	0.00%	6.86%	7.52%	0.00%	3
	4.89%	0.47%	6.68%	12.04%	3.31%	167

Work Type Categories	Preliminary Engineering	Right of Way Incidentals	Construction Inspection	Total Engineering	Right of Way Purchases	n=
MAJOR PROJECT	5.81%	0.74%	6.34%	12.89%	5.98%	27
TCOS	4.02%	0.21%	6.99%	11.21%	0.78%	138
OTHER	1.14%	0.00%	24.15%	25.28%	0.00%	2
	4.89%	0.47%	6.68%	12.04%	3.31%	167

Engineering costs as percentages of corresponding actual construction costs. Based on projects completed within the indicated time frame. Excludes payment projects, right of way only projects, and other projects without actual construction costs.

**Three Year Average Engineering Factors
Engineering Costs per Total Construction Costs**

**7/1/2011 - 6/30/2014
By District**

Central

Work Types	Preliminary Engineering	Right of Way Incidentals	Construction Inspection	Total Engineering	Right of Way Purchases	n=
A- ADD LANES	8.32%	1.79%	8.21%	18.32%	19.77%	6
B- BRIDGE REPLACEMENT	16.11%	0.96%	12.34%	29.41%	1.22%	6
D- DUAL DIVIDED	5.98%	0.83%	6.80%	13.61%	16.15%	15
E- ENHANCEMENTS	0.85%	0.00%	9.96%	10.82%	0.00%	5
G- PREV MAINT-BRIDGE	2.27%	0.00%	9.97%	12.24%	0.00%	2
H- HIGH TYPE RESURFACING	0.70%	0.00%	5.71%	6.41%	0.00%	16
I- INTERCHANGE	16.63%	0.00%	7.80%	24.43%	0.00%	2
J- PREV MAINT-PAVEMENT	0.23%	0.00%	4.73%	4.96%	0.00%	33
K- MED TYPE RESURFACING	0.78%	0.00%	5.30%	6.08%	0.00%	17
L- LOW TYPE RESURFACING	0.32%	0.00%	4.85%	5.17%	0.00%	32
O- OTHER	1.14%	0.11%	14.76%	16.01%	0.03%	7
P- PAVEMENT REPLACEMENT	10.68%	0.63%	11.94%	23.25%	2.23%	5
R- BRIDGE REHABILITATION	6.24%	0.16%	9.05%	15.45%	0.35%	10
T- NEW OR IMPROVED 2 LANE	6.25%	0.00%	8.91%	15.16%	0.00%	1
X- SAFETY	5.53%	0.35%	10.46%	16.35%	0.98%	7
Y- ROUTINE MAINTENANCE	8.44%	0.00%	6.33%	14.77%	0.00%	2
	5.07%	0.63%	7.10%	12.80%	9.98%	166

Work Type Categories	Preliminary Engineering	Right of Way Incidentals	Construction Inspection	Total Engineering	Right of Way Purchases	n=
MAJOR PROJECT	6.73%	0.97%	7.11%	14.81%	16.21%	24
TCOS	2.57%	0.11%	6.92%	9.60%	0.23%	137
OTHER	0.85%	0.00%	9.96%	10.82%	0.00%	5
	5.07%	0.63%	7.10%	12.80%	9.98%	166

Engineering costs as percentages of corresponding actual construction costs. Based on projects completed within the indicated time frame. Excludes payment projects, right of way only projects, and other projects without actual construction costs.

**Three Year Average Engineering Factors
Engineering Costs per Total Construction Costs**

**7/1/2011 - 6/30/2014
By District**

St. Louis

Work Types	Preliminary Engineering	Right of Way Incidentals	Construction Inspection	Total Engineering	Right of Way Purchases	n=
A- ADD LANES	6.66%	0.45%	1.57%	8.68%	9.92%	7
B- BRIDGE REPLACEMENT	10.40%	0.18%	11.00%	21.58%	0.07%	11
D- DUAL DIVIDED	18.90%	2.51%	8.84%	30.25%	37.04%	1
E- ENHANCEMENTS	8.56%	0.00%	14.81%	23.37%	0.00%	3
F- FREEWAY	17.97%	2.36%	5.18%	25.51%	59.39%	4
G- PREV MAINT-BRIDGE	0.15%	0.00%	1.75%	1.90%	0.00%	4
H- HIGH TYPE RESURFACING	3.96%	0.00%	6.91%	10.87%	0.00%	20
I- INTERCHANGE	13.42%	0.22%	7.23%	20.86%	11.84%	2
J- PREV MAINT-PAVEMENT	3.17%	0.00%	8.05%	11.22%	0.00%	19
K- MED TYPE RESURFACING	0.78%	0.00%	5.79%	6.57%	0.00%	3
L- LOW TYPE RESURFACING	5.29%	0.00%	5.48%	10.77%	0.00%	1
M- MAJOR BRIDGE	2.57%	0.00%	4.74%	7.30%	0.00%	3
O- OTHER	12.82%	1.20%	14.74%	28.75%	3.58%	13
P- PAVEMENT REPLACEMENT	16.26%	0.00%	11.12%	27.39%	0.00%	2
Q- CMAQ	7.65%	0.76%	14.79%	23.20%	7.09%	23
R- BRIDGE REHABILITATION	3.13%	0.14%	7.80%	11.07%	0.11%	22
S- BRDG RETROFIT AND STR	1.27%	0.00%	7.93%	9.19%	0.00%	2
X- SAFETY	6.34%	0.35%	11.12%	17.80%	6.60%	20
Y- ROUTINE MAINTENANCE	3.18%	0.00%	8.71%	11.89%	0.00%	5
	7.33%	0.56%	4.38%	12.26%	11.77%	165

Work Type Categories	Preliminary Engineering	Right of Way Incidentals	Construction Inspection	Total Engineering	Right of Way Purchases	n=
MAJOR PROJECT	8.45%	0.72%	2.47%	11.64%	16.35%	17
TCOS	4.69%	0.18%	8.71%	13.59%	1.21%	145
OTHER	8.56%	0.00%	14.81%	23.37%	0.00%	3
	7.33%	0.56%	4.38%	12.26%	11.77%	165

Engineering costs as percentages of corresponding actual construction costs. Based on projects completed within the indicated time frame. Excludes payment projects, right of way only projects, and other projects without actual construction costs.

**Three Year Average Engineering Factors
Engineering Costs per Total Construction Costs**

**7/1/2011 - 6/30/2014
By District**

Southwest

Work Types	Preliminary Engineering	Right of Way Incidentals	Construction Inspection	Total Engineering	Right of Way Purchases	n=
1- ITS	3.76%	0.66%	39.38%	43.81%	0.44%	1
A- ADD LANES	6.97%	1.30%	7.26%	15.53%	8.66%	10
B- BRIDGE REPLACEMENT	9.69%	0.23%	7.30%	17.21%	1.95%	15
D- DUAL DIVIDED	5.17%	0.62%	5.25%	11.04%	4.15%	2
E- ENHANCEMENTS	44.15%	1.11%	10.21%	55.46%	0.00%	8
F- FREEWAY	6.92%	0.13%	6.27%	13.32%	0.39%	19
G- PREV MAINT-BRIDGE	3.26%	0.00%	7.34%	10.59%	0.00%	9
H- HIGH TYPE RESURFACING	0.62%	0.00%	4.08%	4.70%	0.00%	7
I- INTERCHANGE	5.27%	0.21%	8.19%	13.66%	2.52%	9
J- PREV MAINT-PAVEMENT	1.97%	0.00%	4.29%	6.26%	0.00%	12
K- MED TYPE RESURFACING	0.92%	0.00%	4.87%	5.80%	0.00%	90
L- LOW TYPE RESURFACING	0.07%	0.00%	4.00%	4.07%	0.00%	25
M- MAJOR BRIDGE	3.57%	0.00%	1.49%	5.06%	0.00%	1
O- OTHER	9.40%	0.33%	8.11%	17.85%	5.89%	20
P- PAVEMENT REPLACEMENT	0.26%	0.00%	7.11%	7.36%	0.00%	4
Q- CMAQ	2.06%	0.00%	0.67%	2.73%	0.00%	2
R- BRIDGE REHABILITATION	7.83%	0.01%	6.60%	14.45%	0.13%	27
X- SAFETY	5.68%	0.32%	6.97%	12.96%	7.19%	32
Y- ROUTINE MAINTENANCE	0.00%	0.00%	1.68%	1.68%	0.00%	1
	5.05%	0.25%	6.28%	11.58%	2.21%	294

Work Type Categories	Preliminary Engineering	Right of Way Incidentals	Construction Inspection	Total Engineering	Right of Way Purchases	n=
MAJOR PROJECT	5.97%	0.49%	6.90%	13.36%	3.60%	41
TCOS	4.23%	0.08%	5.85%	10.16%	1.29%	245
OTHER	44.15%	1.11%	10.21%	55.46%	0.00%	8
	5.05%	0.25%	6.28%	11.58%	2.21%	294

Engineering costs as percentages of corresponding actual construction costs. Based on projects completed within the indicated time frame. Excludes payment projects, right of way only projects, and other projects without actual construction costs.

**Three Year Average Engineering Factors
Engineering Costs per Total Construction Costs**

**7/1/2011 - 6/30/2014
By District**

Southeast

Work Types	Preliminary Engineering	Right of Way Incidentals	Construction Inspection	Total Engineering	Right of Way Purchases	n=
A- ADD LANES	5.34%	1.11%	6.62%	13.07%	12.96%	4
B- BRIDGE REPLACEMENT	9.55%	0.44%	9.71%	19.70%	2.20%	13
D- DUAL DIVIDED	2.15%	0.28%	5.01%	7.44%	2.30%	2
E- ENHANCEMENTS	3.44%	0.01%	6.97%	10.42%	1.33%	3
G- PREV MAINT-BRIDGE	8.70%	0.00%	7.29%	15.99%	0.00%	2
H- HIGH TYPE RESURFACING	0.33%	0.00%	5.19%	5.52%	0.00%	7
I- INTERCHANGE	5.90%	0.00%	21.11%	27.01%	0.00%	1
J- PREV MAINT-PAVEMENT	0.39%	0.00%	4.34%	4.74%	0.00%	11
K- MED TYPE RESURFACING	1.66%	0.03%	6.10%	7.80%	0.07%	41
L- LOW TYPE RESURFACING	0.25%	0.00%	5.16%	5.42%	0.00%	39
O- OTHER	1.87%	0.01%	6.10%	7.99%	3.53%	14
P- PAVEMENT REPLACEMENT	4.79%	0.00%	18.83%	23.62%	0.00%	1
R- BRIDGE REHABILITATION	8.71%	0.09%	10.56%	19.36%	0.11%	7
T- NEW OR IMPROVED 2 LANE	5.03%	1.24%	8.36%	14.63%	8.43%	6
W- SHOULDER WIDENING	8.89%	0.00%	1.79%	10.68%	0.00%	1
X- SAFETY	5.53%	0.61%	10.04%	16.17%	3.79%	9
	3.06%	0.40%	6.39%	9.86%	4.08%	161

Work Type Categories	Preliminary Engineering	Right of Way Incidentals	Construction Inspection	Total Engineering	Right of Way Purchases	n=
MAJOR PROJECT	4.41%	0.89%	6.54%	11.85%	9.18%	13
TCOS	2.08%	0.08%	6.28%	8.44%	0.67%	144
OTHER	4.11%	0.01%	6.33%	10.46%	1.17%	4
	3.06%	0.40%	6.39%	9.86%	4.08%	161

Engineering costs as percentages of corresponding actual construction costs. Based on projects completed within the indicated time frame. Excludes payment projects, right of way only projects, and other projects without actual construction costs.

**Three Year Average Engineering Factors
Engineering Costs per Total Construction Costs**

**7/1/2011 - 6/30/2014
By District**

Various Counties Statewide

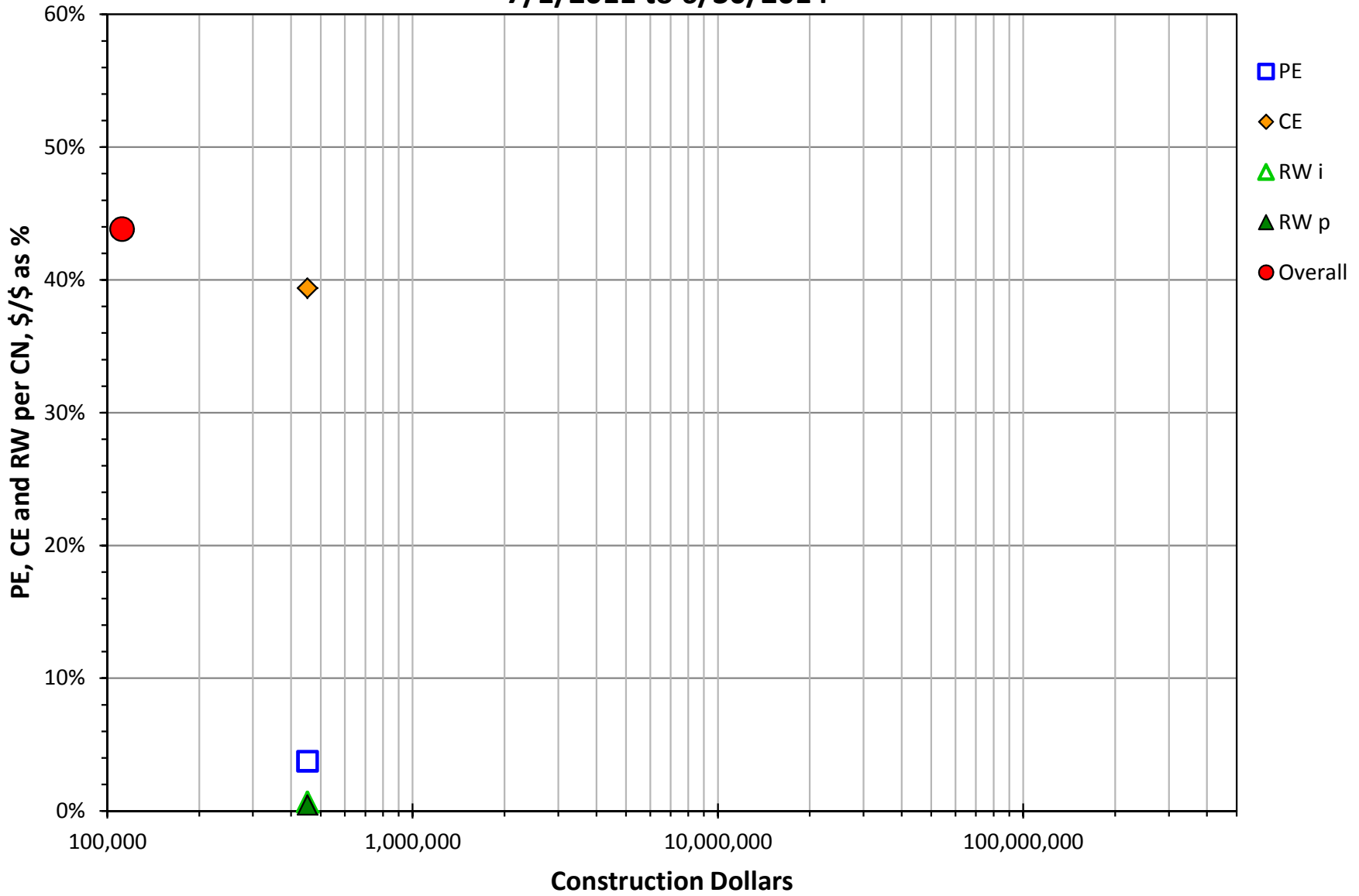
Work Types	Preliminary Engineering	Right of Way Incidentals	Construction Inspection	Total Engineering	Right of Way Purchases	n=
B- BRIDGE REPLACEMENT	9.20%	0.00%	2.80%	12.00%	0.00%	1
D- DUAL DIVIDED	0.38%	0.00%	9.07%	9.45%	0.00%	2
E- ENHANCEMENTS	0.64%	0.00%	8.18%	8.82%	0.00%	3
G- PREV MAINT-BRIDGE	0.85%	0.00%	8.01%	8.87%	0.00%	5
J- PREV MAINT-PAVEMENT	0.00%	0.00%	7.14%	7.14%	0.00%	15
K- MED TYPE RESURFACING	0.23%	0.00%	6.19%	6.42%	0.00%	6
L- LOW TYPE RESURFACING	0.28%	0.00%	4.79%	5.07%	0.00%	4
O- OTHER	0.46%	0.00%	2.26%	2.72%	0.00%	15
P- PAVEMENT REPLACEMENT	0.00%	0.00%	6.08%	6.08%	0.00%	1
Q- CMAQ	2.00%	0.00%	5.83%	7.83%	0.00%	14
R- BRIDGE REHABILITATION	0.00%	0.00%	13.97%	13.97%	0.00%	2
X- SAFETY	3.83%	0.00%	11.12%	14.95%	0.00%	12
Y- ROUTINE MAINTENANCE	0.90%	0.00%	10.98%	11.87%	0.00%	10
	0.67%	0.00%	6.69%	7.36%	0.00%	90

Work Type Categories	Preliminary Engineering	Right of Way Incidentals	Construction Inspection	Total Engineering	Right of Way Purchases	n=
MAJOR PROJECT	0.38%	0.00%	9.07%	9.45%	0.00%	2
TCOS	0.76%	0.00%	5.89%	6.65%	0.00%	85
OTHER	0.64%	0.00%	8.18%	8.82%	0.00%	3
	0.67%	0.00%	6.69%	7.36%	0.00%	90

Engineering costs as percentages of corresponding actual construction costs. Based on projects completed within the indicated time frame. Excludes payment projects, right of way only projects, and other projects without actual construction costs.

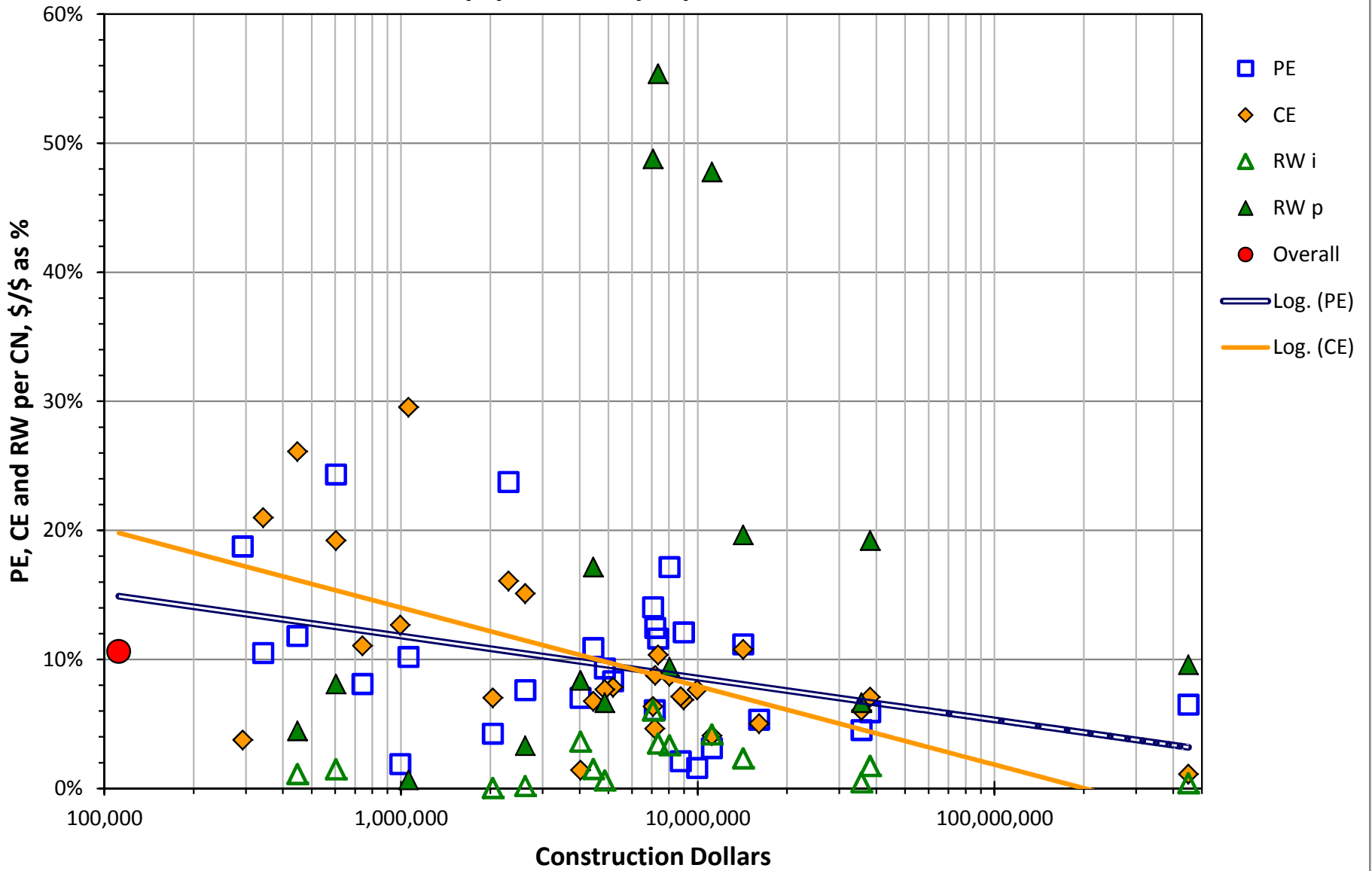
Statewide Factors for ITS

7/1/2011 to 6/30/2014



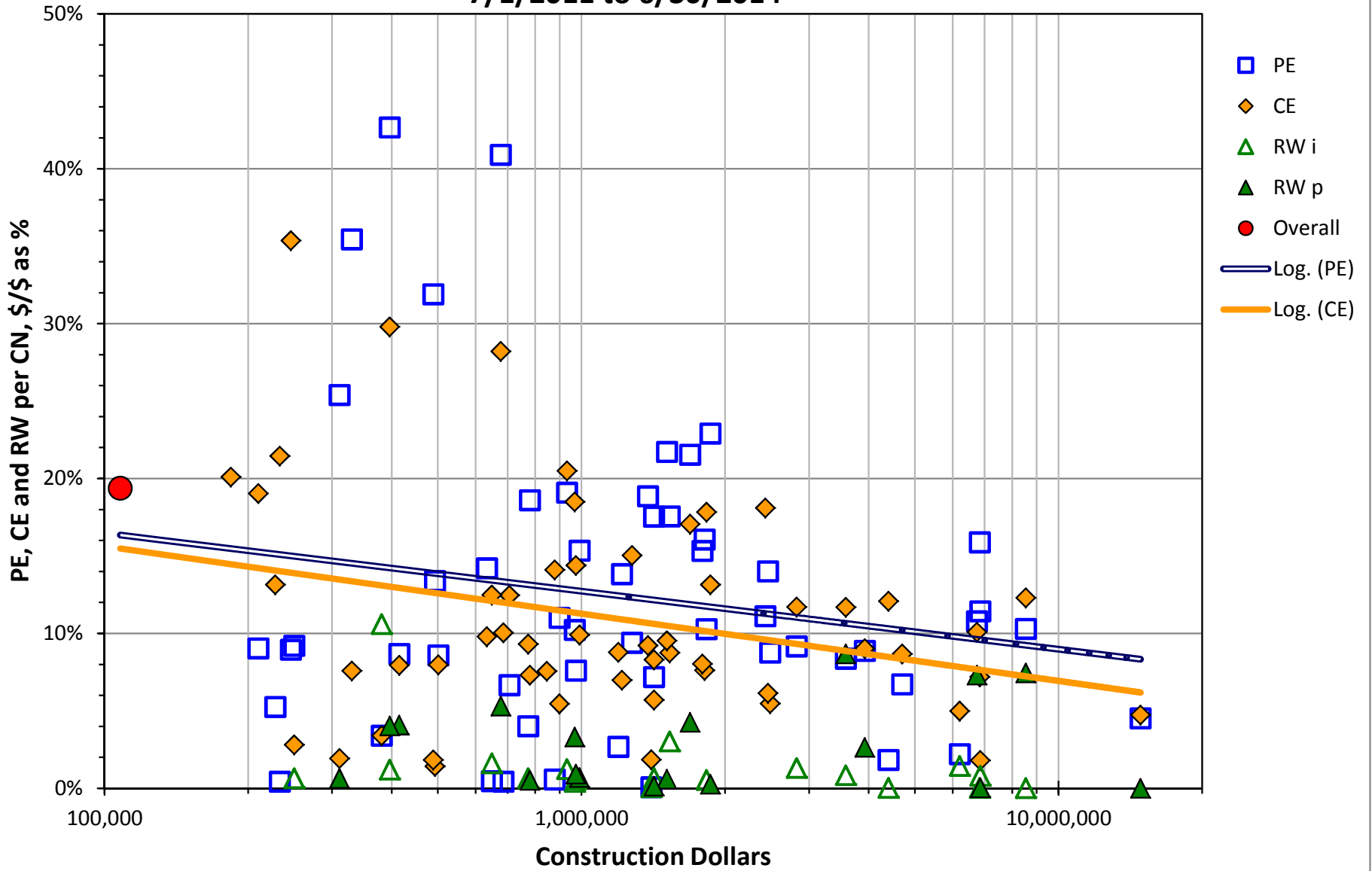
Statewide Factors for Add Lanes

7/1/2011 to 6/30/2014



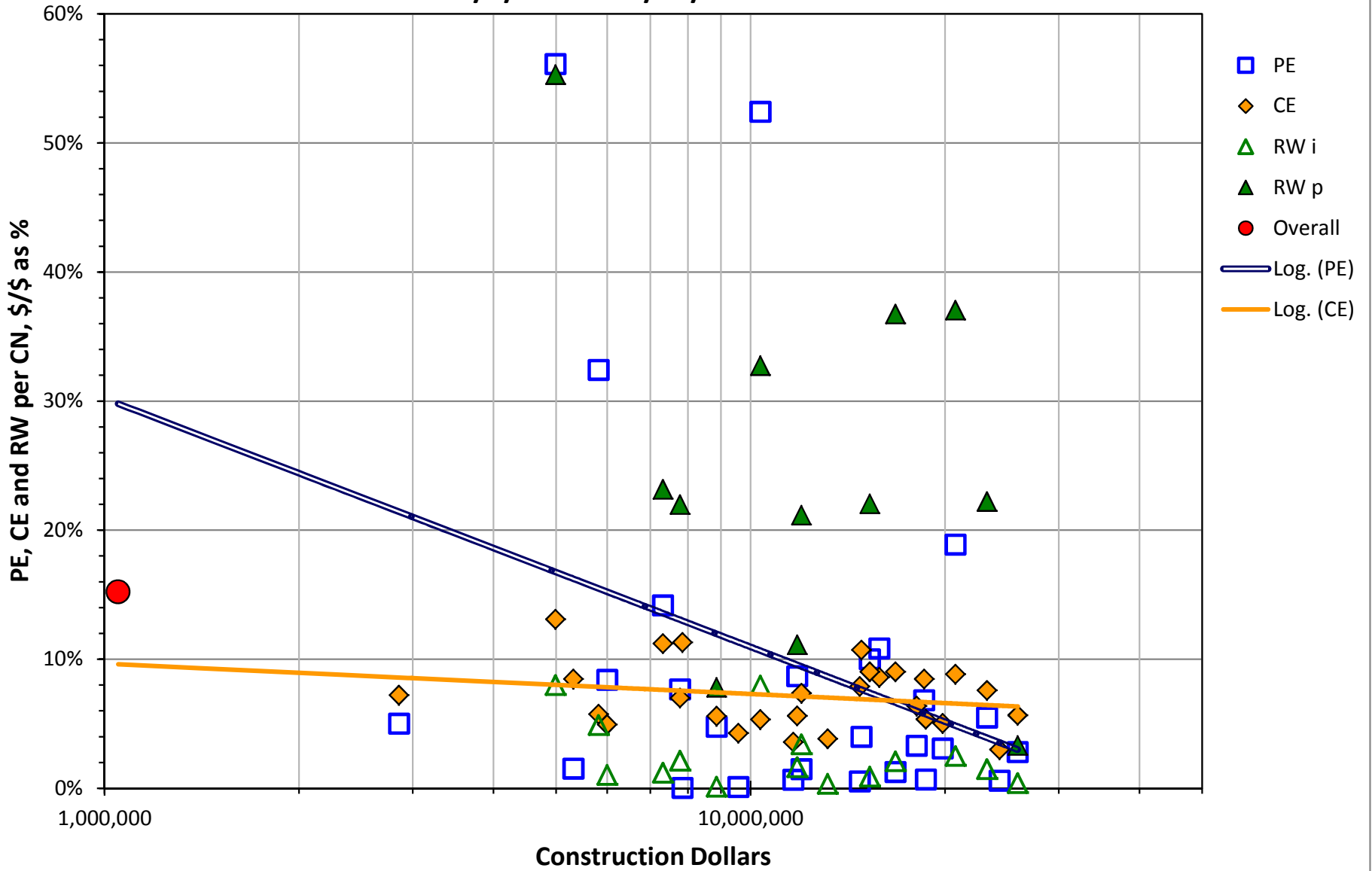
Statewide Factors for Bridge Replacement

7/1/2011 to 6/30/2014



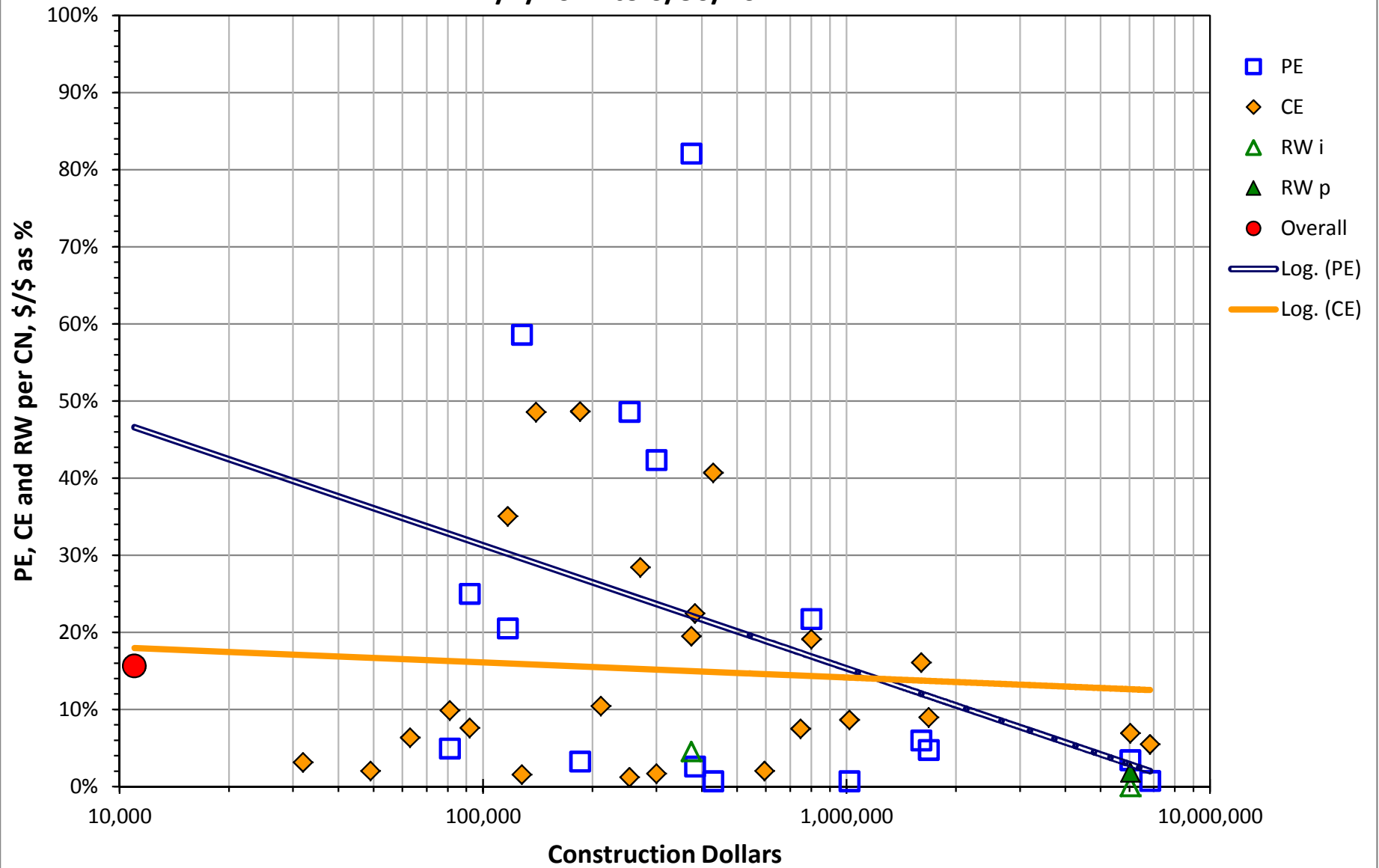
Statewide Factors for Dual Divided

7/1/2011 to 6/30/2014



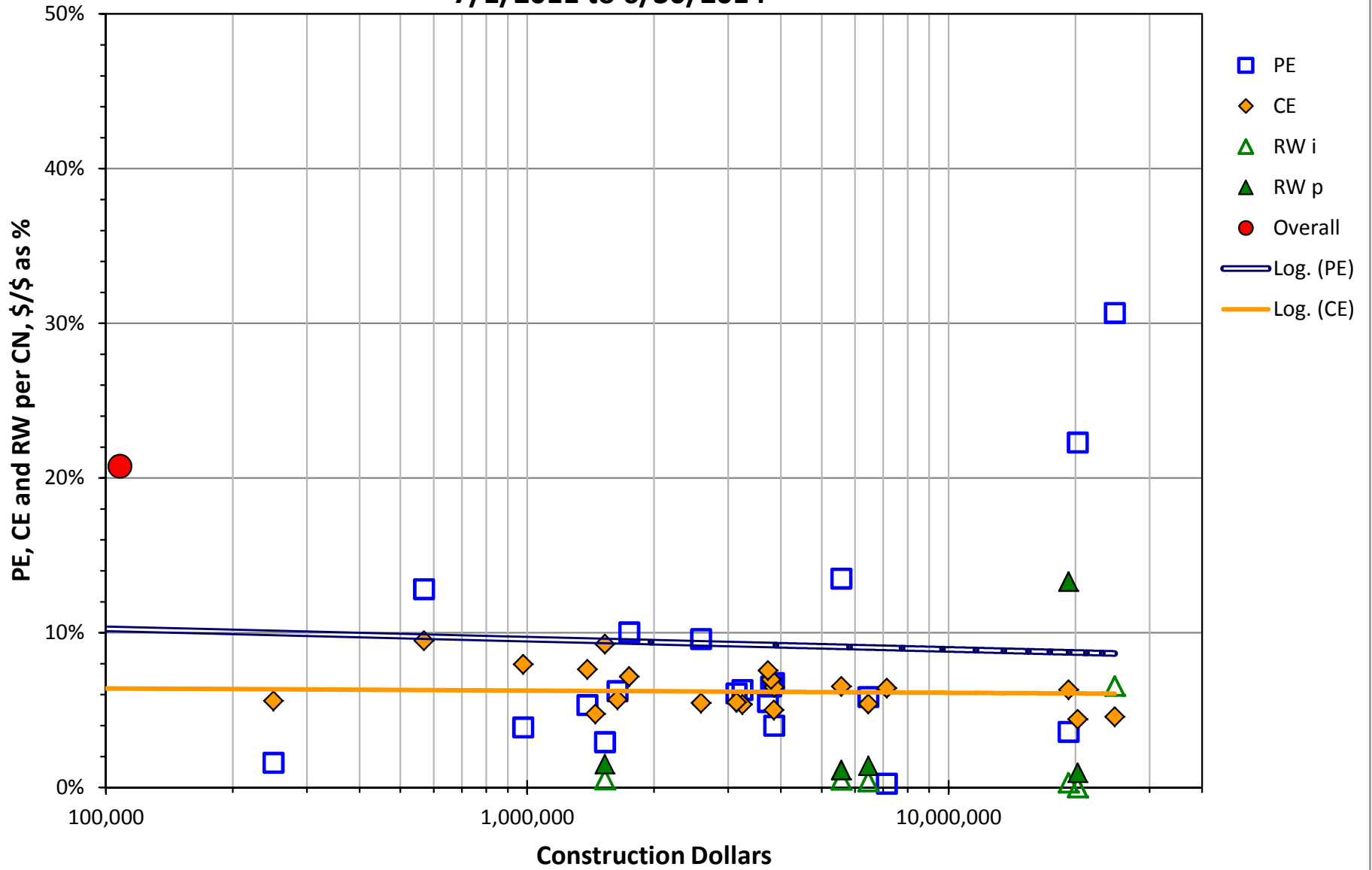
Statewide Factors for Enhancements

7/1/2011 to 6/30/2014



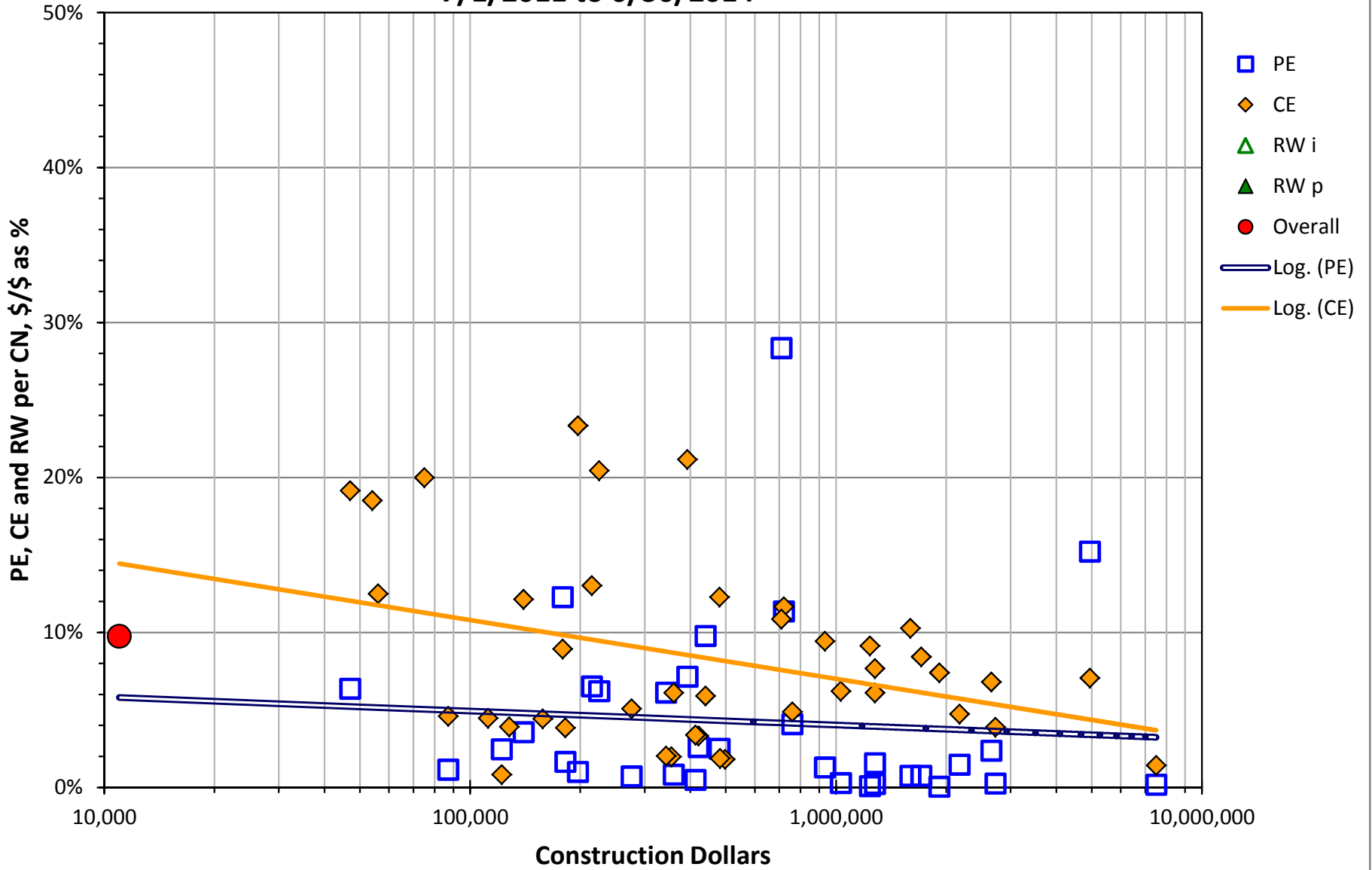
Statewide Factors for Freeway

7/1/2011 to 6/30/2014



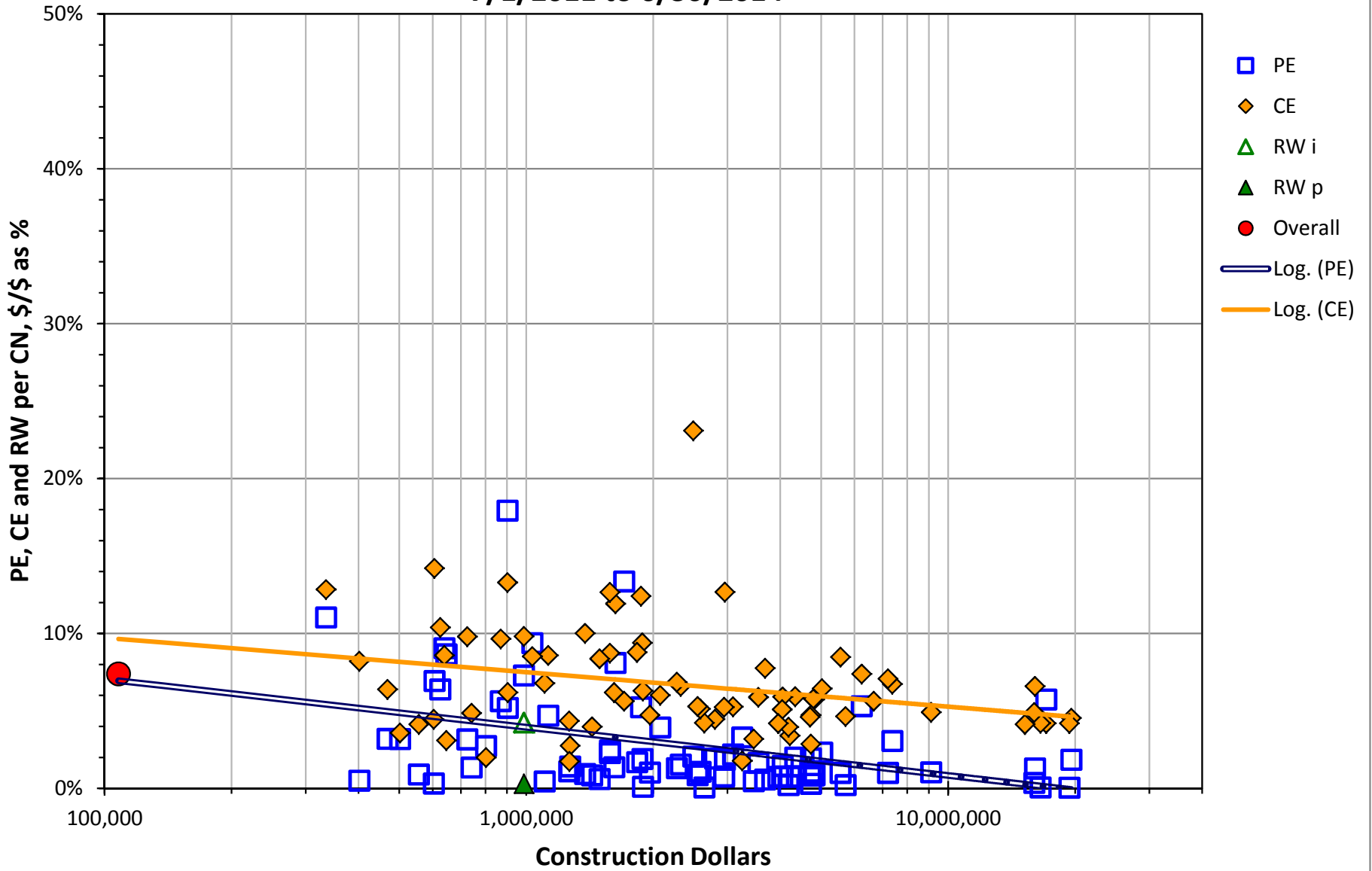
Statewide Factors for Prev Maint - Bridge

7/1/2011 to 6/30/2014



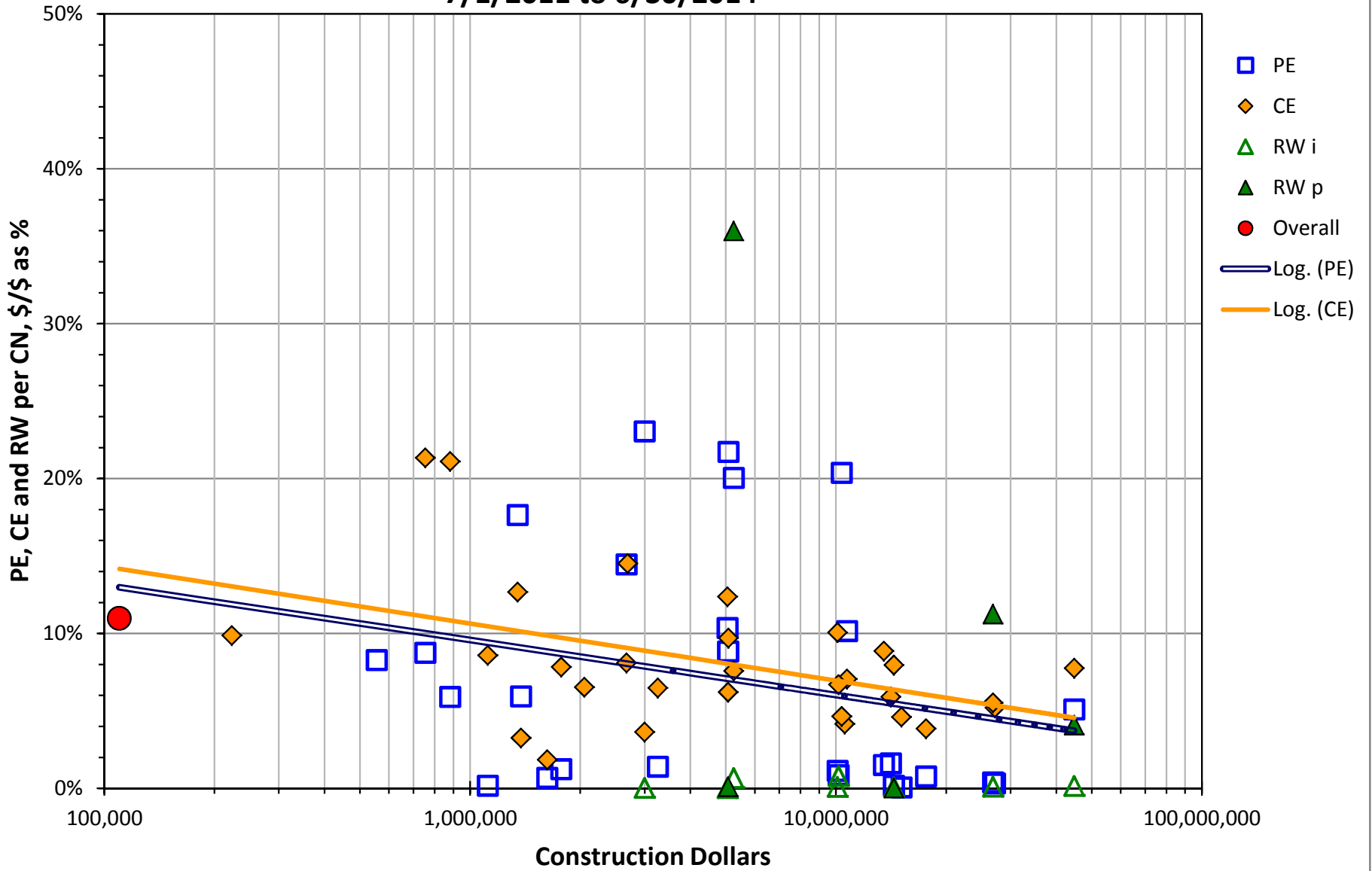
Statewide Factors for High Type Resurfacing

7/1/2011 to 6/30/2014



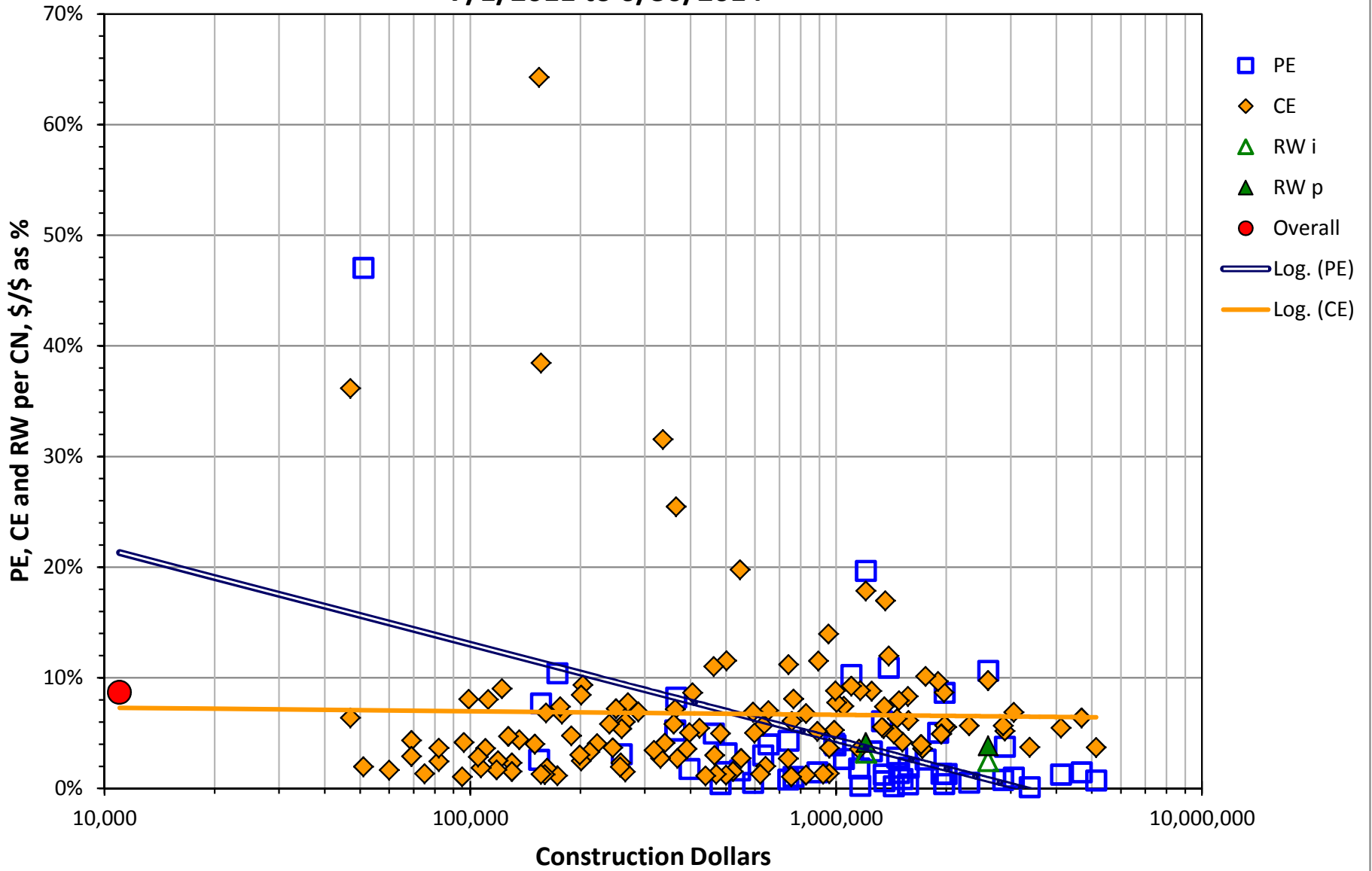
Statewide Factors for Interchange

7/1/2011 to 6/30/2014



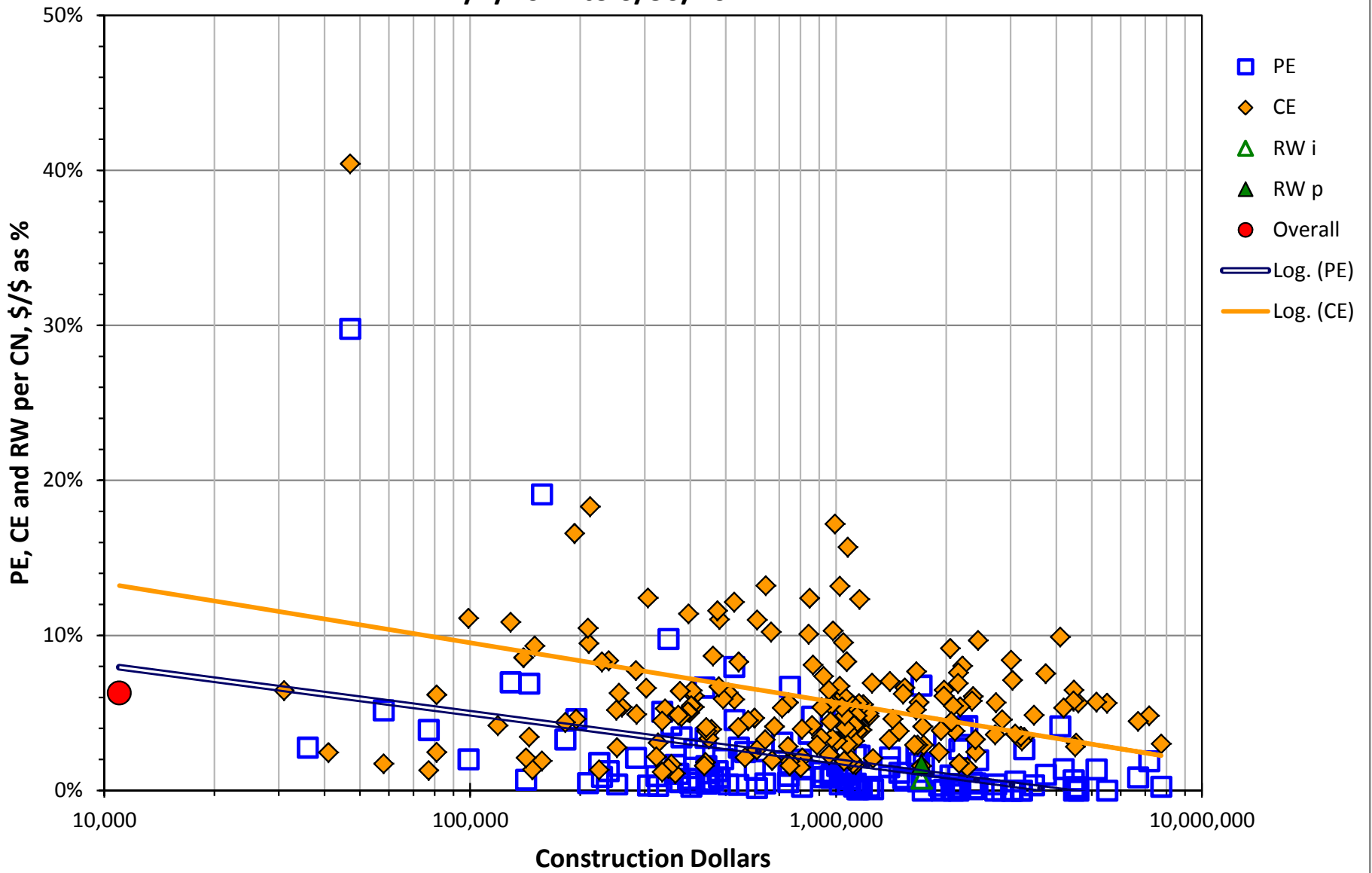
Statewide Factors for Prev Maint - Pavement

7/1/2011 to 6/30/2014



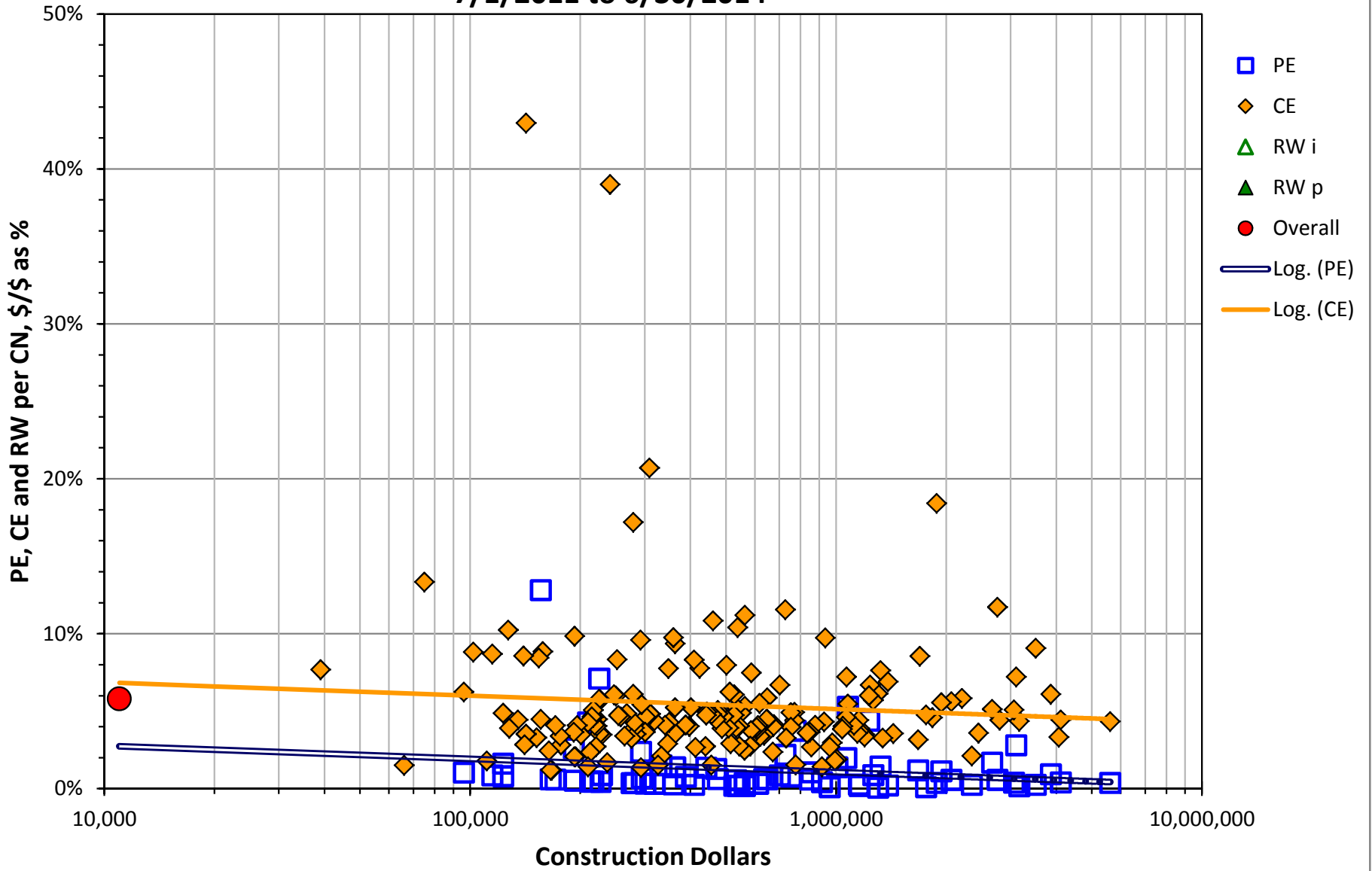
Statewide Factors for Med Type Resurfacing

7/1/2011 to 6/30/2014



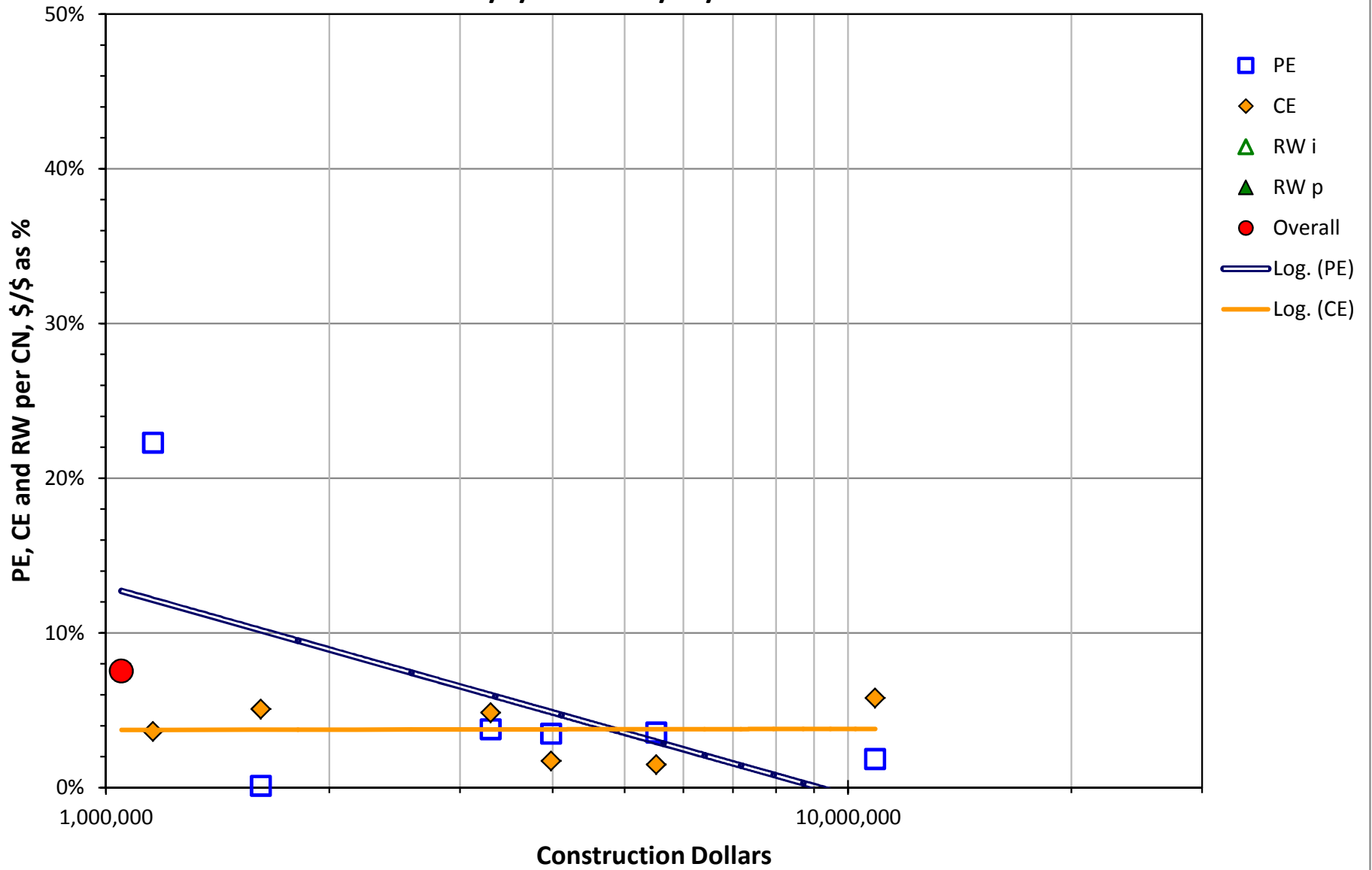
Statewide Factors for Low Type Resurfacing

7/1/2011 to 6/30/2014



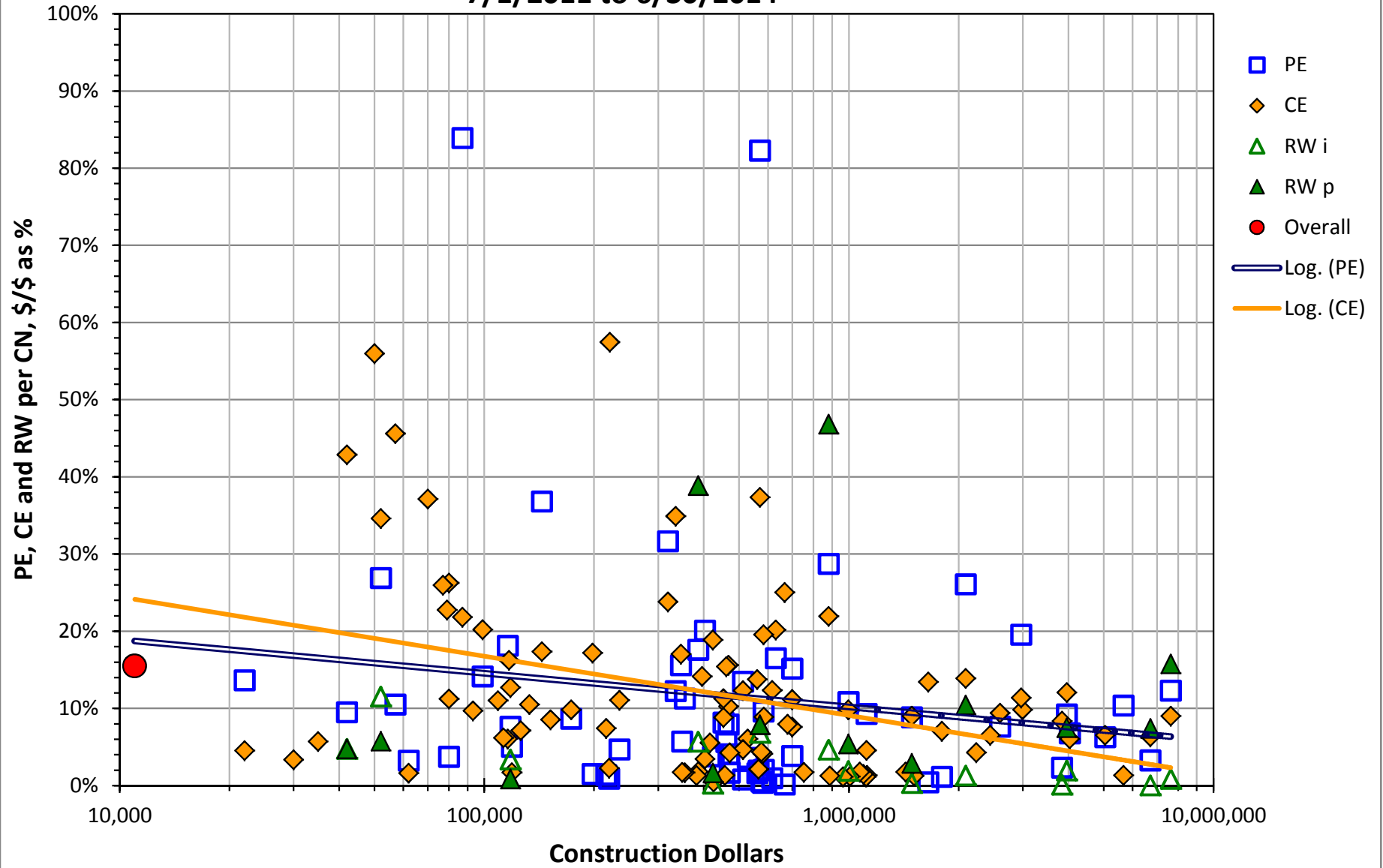
Statewide Factors for Major Bridge

7/1/2011 to 6/30/2014



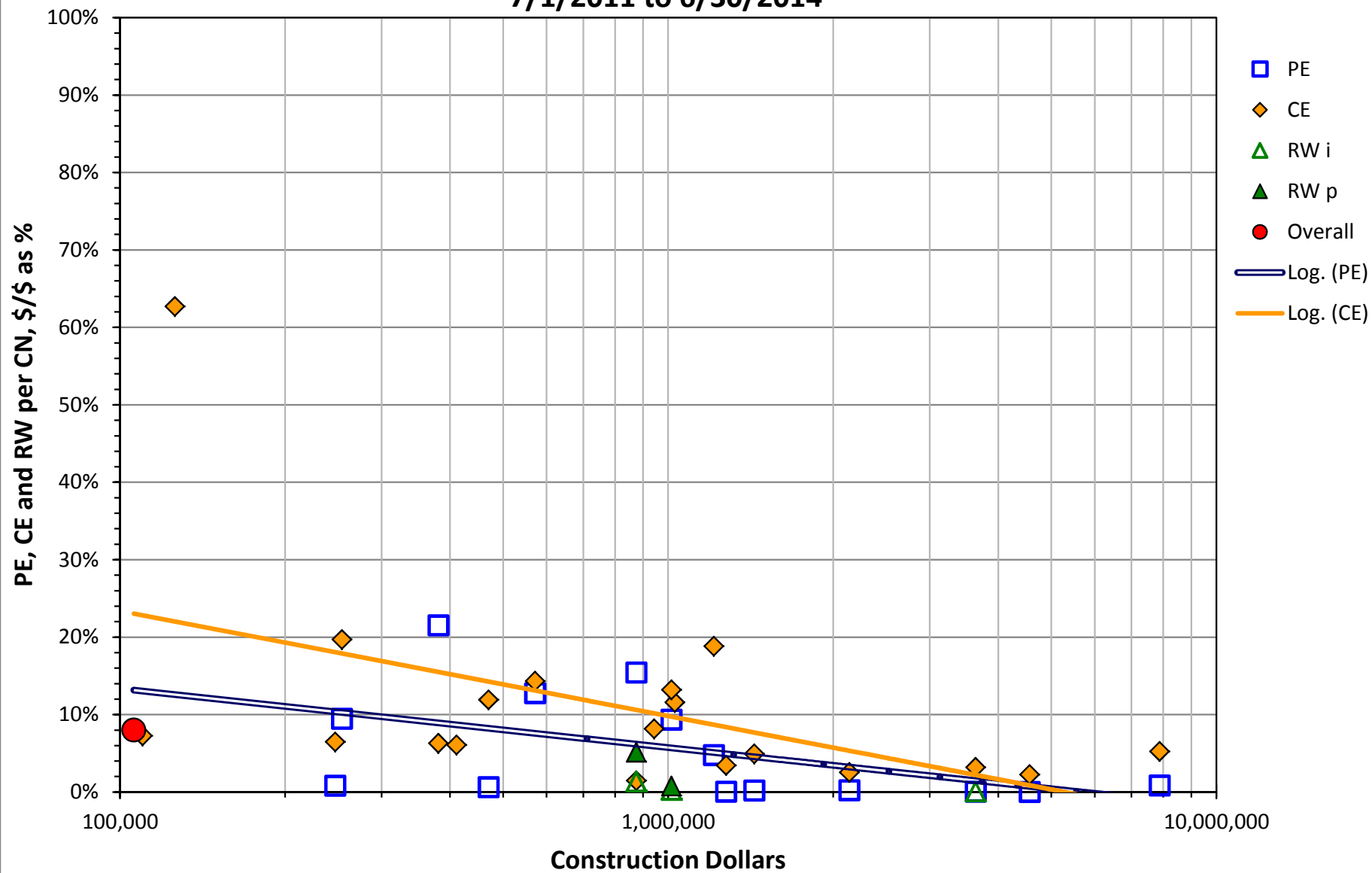
Statewide Factors for Other

7/1/2011 to 6/30/2014



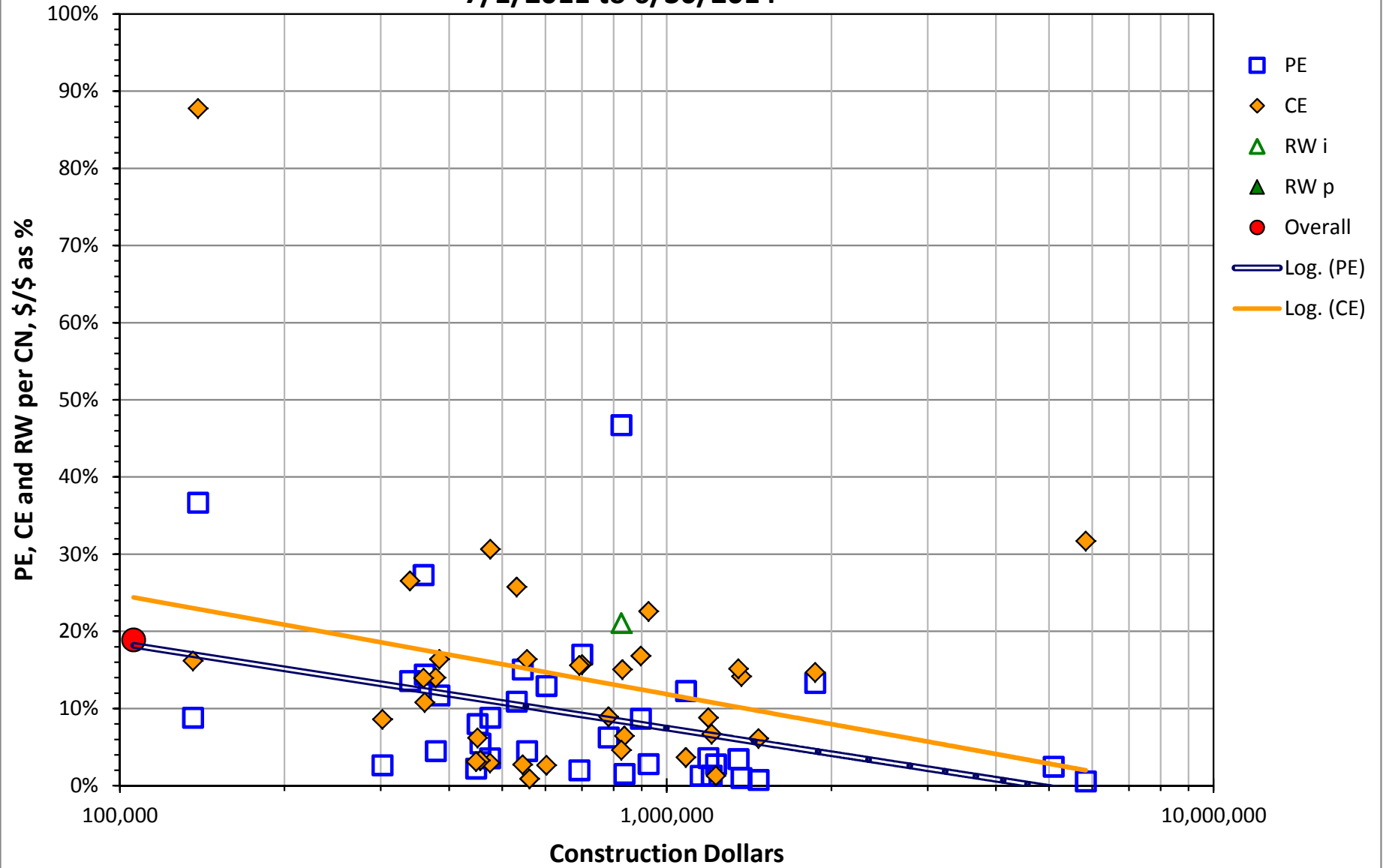
Statewide Factors for Pavement Replacement

7/1/2011 to 6/30/2014



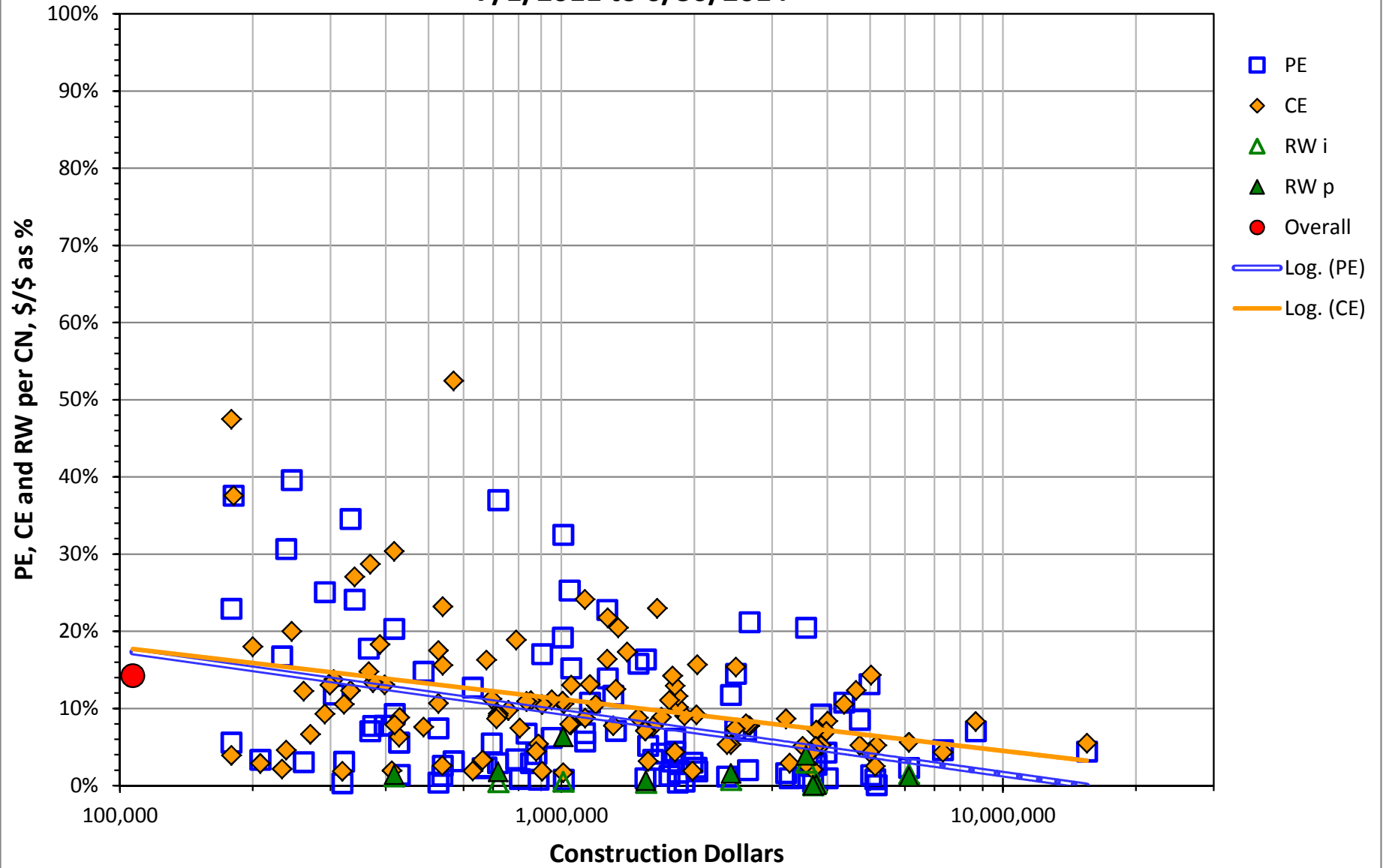
Statewide Factors for CMAQ

7/1/2011 to 6/30/2014



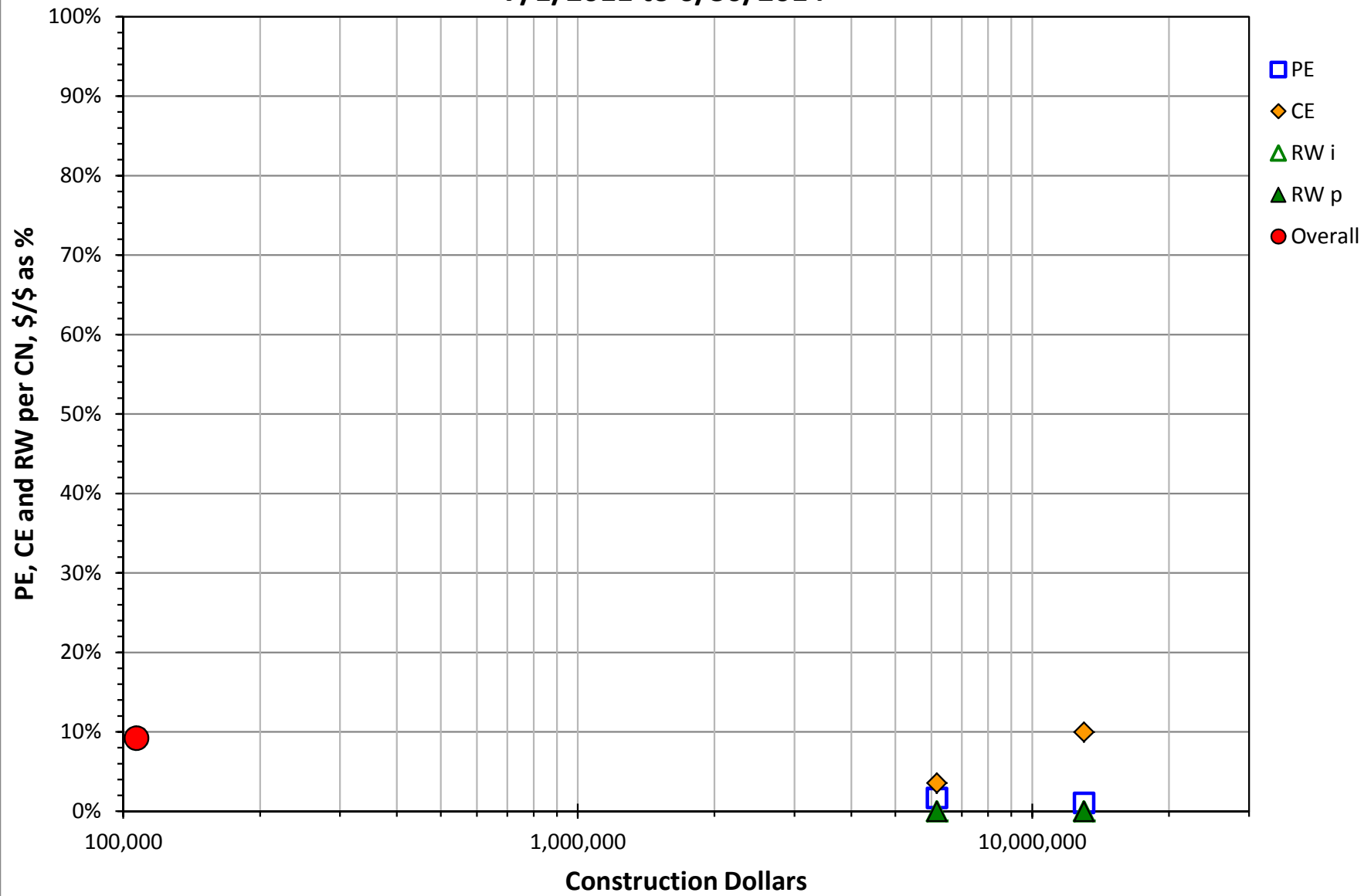
Statewide Factors for Bridge Rehabilitation

7/1/2011 to 6/30/2014



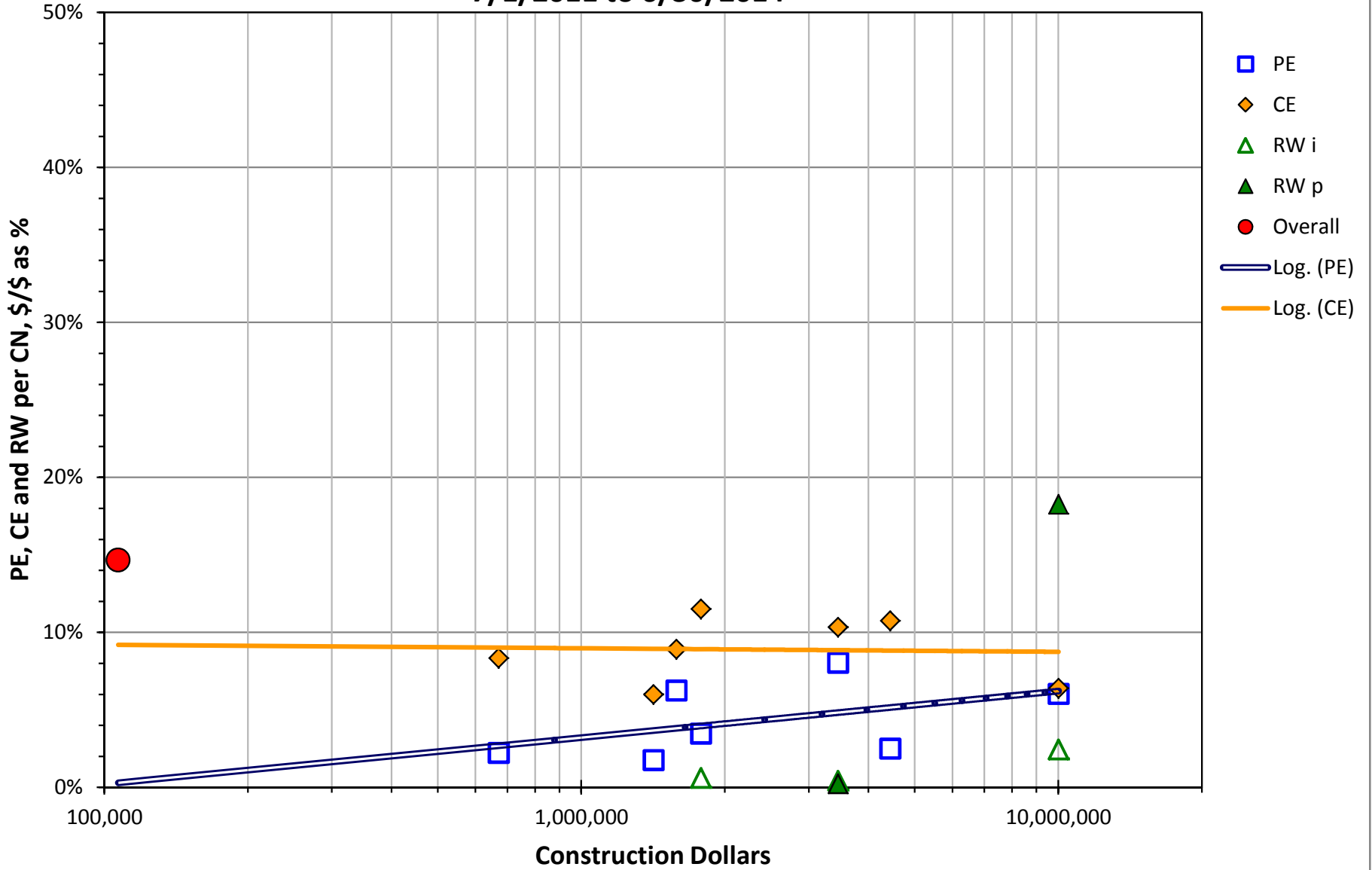
Statewide Factors for Bridge Retrofit and Str

7/1/2011 to 6/30/2014



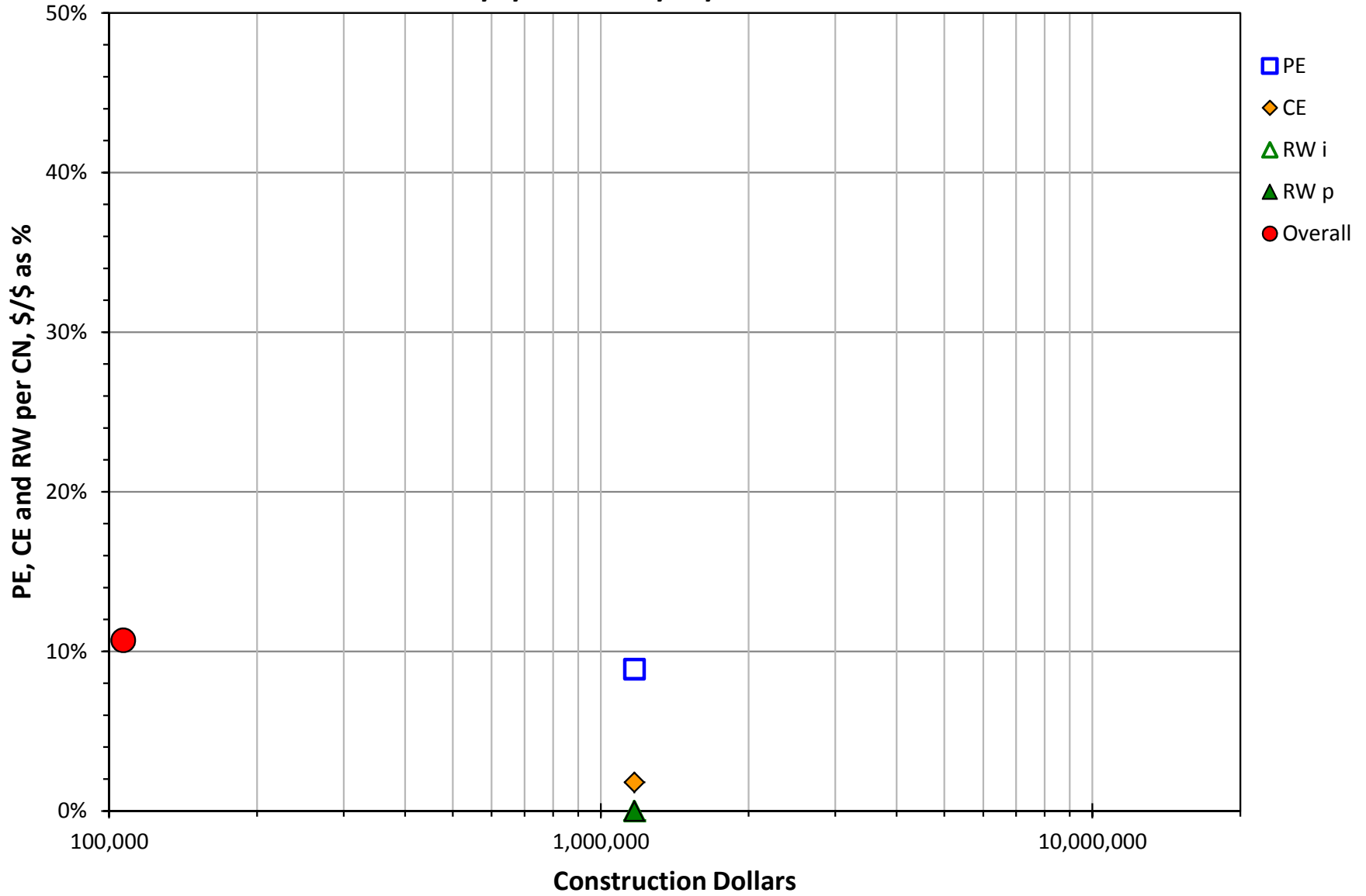
Statewide Factors for New or Improved 2 Lane

7/1/2011 to 6/30/2014



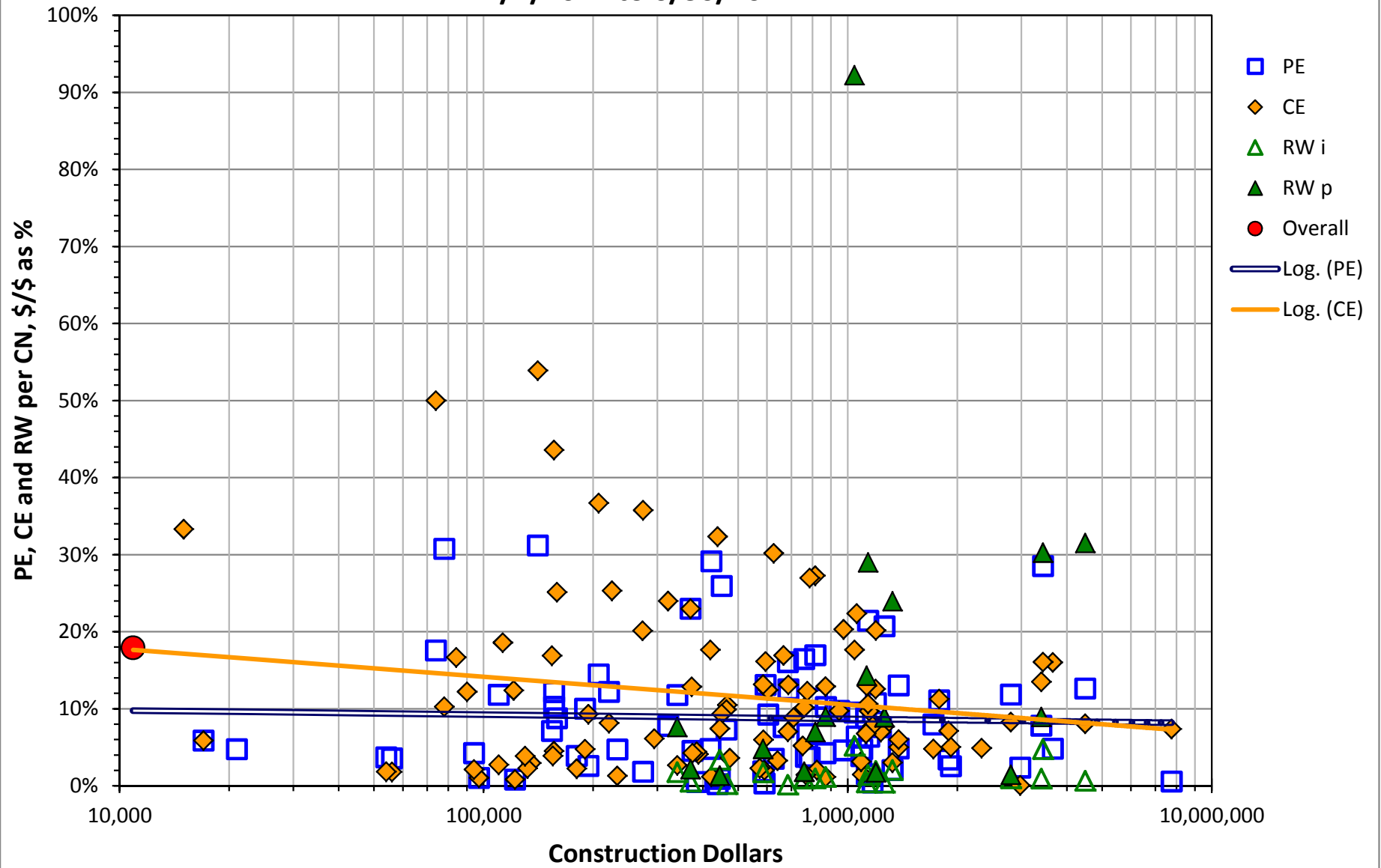
Statewide Factors for Shoulder Widening

7/1/2011 to 6/30/2014



Statewide Factors for Safety

7/1/2011 to 6/30/2014



Statewide Factors for Routine Maintenance

7/1/2011 to 6/30/2014

