

RECREATION USE VALUES DATABASE

TREND ANALYSIS & CPI: PRELIMINARY RESULTS

Randall S. Rosenberger
College of Forestry
Oregon State University

27 March, 2012

Method: Four simple OLS level-level regressions (unweighted): Factors regressed on TREND (i.e., data year variable: 1956,...,2004).

Model 1: CPI adjustment factor to convert to \$2006 (3rd order polynomial is almost perfect fit)

Model 2: CS/person/day in \$current (time of study)

Model 3: CS/person/day in \$2006 (real)

Model 4: % change in CS/person/day, change in value from 1956 (\$).

Formula: %change = ($\text{\$current} - 2$)/ $\text{\$current}$

SUMMARY OF KEY FINDINGS:

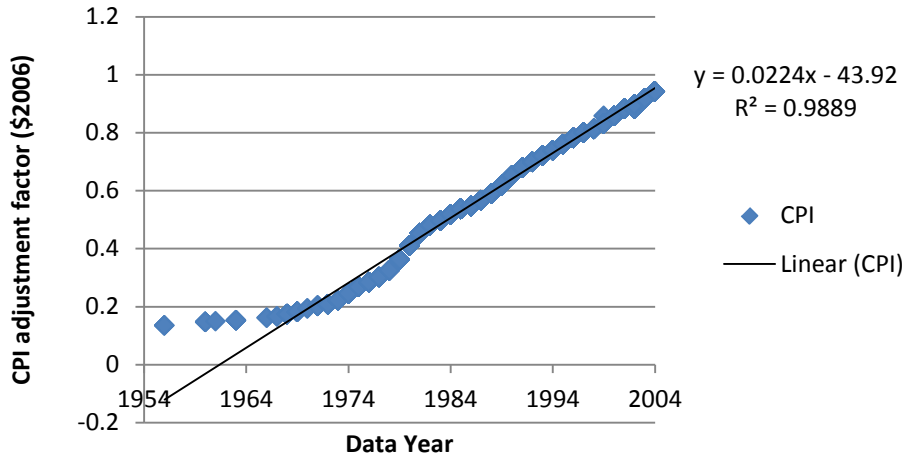
- Trend variable is significant in all four models, although weakest in Model 3 (CS after adjusting for inflation using CPI to \$2006):
 - CPI increases about 0.022 units per year;
 - CS (\$current) increases about \$1.58 per year;
 - CS (\$2006) increases about \$0.44 per year after adjusting for inflation to \$2006; and
 - CS (%change) increases about 0.016 per year.
- Adjusting CS for inflation reduces trend in values: CS (\$current) vs. CS (\$2006)
- CS (\$current) is changing at about the same rate as inflation.
- **Conclusion:** empirically, CPI captures majority of changes in CS (\$current) over time, ceteris paribus.

Table 1: Regression Model Outcomes (n=2,709)

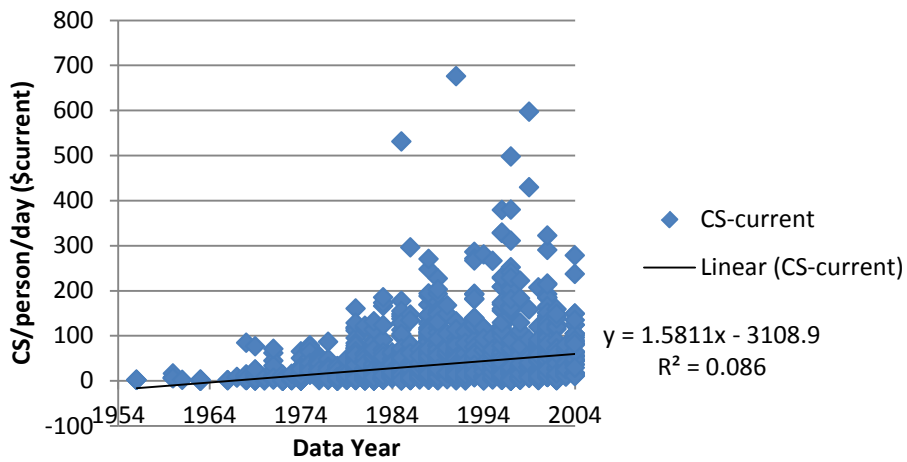
	Model 1: CPI	Model 2: CS (\$current)	Model 3: CS (\$2006)	Model 4: CS (%change)
TREND	0.022 491.6 (<0.001)	1.581 15.8 (<0.001)	0.442 2.9 (0.004)	0.016 11.4 (<0.001)
Intercept	-43.92 -485.1 (0.09)	-3108.94 -16.0 (<0.001)	-823.37 -2.7 (0.007)	-30.08 -11.2 (<0.001)
R ²	0.989	0.086	0.003	0.046

NOTE: Coefficient (p-value)

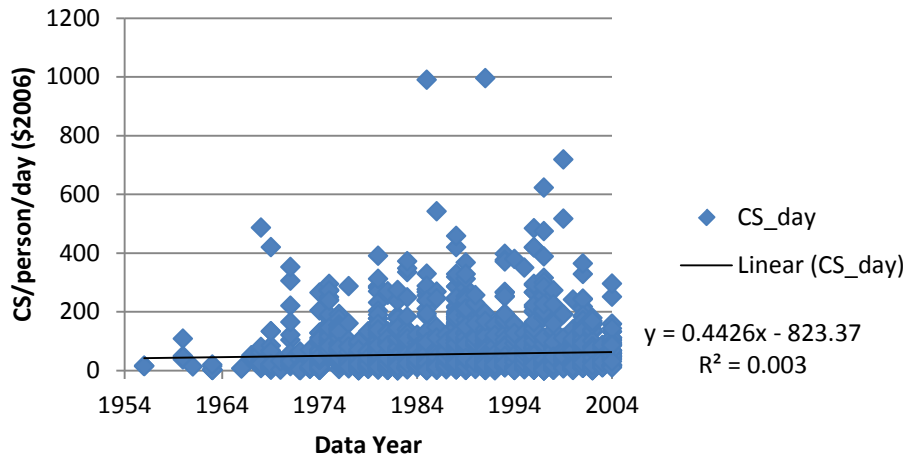
Model 1: CPI



Model 2: CS (\$current)



Model 3: CS real (\$2006)



Model 4: % change

