

1 The Data

```
> view(percJrnlYear2la,n=10)
      year journal percGender year2010
7   1987   CJFAS    0.0000    -23
21  2001   CJFAS    0.4237    -9
28  2008   CJFAS    0.8299    -2
68  1989  NAJFM    0.0000   -21
73  1994  NAJFM    1.0417   -16
83  2004  NAJFM    3.7975    -6
102 1993   TAFS    1.8692   -17
104 1995   TAFS    1.9802   -15
106 1997   TAFS    2.8037   -13
115 2006   TAFS    5.9211    -4
```

2 The Initial Model

```
> lm1 <- lm(percGender~year2010*journal,data=percJrnlYear2la)
> anova(lm1)
```

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
year2010	1	72.6	72.6	65	4.6e-12
journal	3	97.2	32.4	29	5.7e-13
year2010:journal	3	36.9	12.3	11	3.6e-06
Residuals	84	93.8	1.1		
Total	91	300.5			

```
> compSlopes(lm1)
```

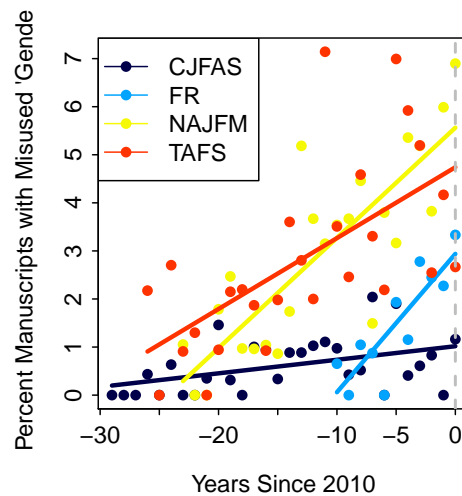
Multiple Slope Comparisons

	comparison	diff	lwr	upr	raw.p	adj.p
1	FR-CJFAS	0.25960	0.05440	0.46480	0.01378	0.02756
2	NAJFM-CJFAS	0.20097	0.12478	0.27716	0.00000	0.00000
3	TAFS-CJFAS	0.11926	0.05099	0.18753	0.00081	0.00243
4	NAJFM-FR	-0.05863	-0.26834	0.15109	0.57973	0.57973
5	TAFS-FR	-0.14034	-0.34731	0.06663	0.18115	0.21738
6	TAFS-NAJFM	-0.08171	-0.16255	-0.00087	0.04764	0.07146

Slope Information

	level	slopes	lwr	upr	raw.p	adj.p
1	CJFAS	0.0282	-0.01612	0.07252	0.2093	0.2093
4	TAFS	0.1475	0.09554	0.19938	0.0000	0.0000
3	NAJFM	0.2292	0.16721	0.29113	0.0000	0.0000
2	FR	0.2878	0.08745	0.48815	0.0054	0.0072

```
> fitPlot(lm1,legend="topleft",main="",xlab="Years Since 2010",
          ylab="Percent Manuscripts with Misused 'Gender'")
> abline(v=0,lty=2,col="gray",lwd=2)
```



3 Remove CJFAS

```
> lm1a <- lm(percGender~year2010+journal,data=percJrn1Year21a,subset=journal!="CJFAS")
> anova(lm1a)
```

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
year2010	1	58.9	58.9	37.2	9.3e-08
journal	2	57.7	28.8	18.2	7.2e-07
Residuals	58	91.8	1.6		
Total	61	208.4			

```
> compIntercepts(lm1a,common.cov=0)
```

Tukey HSD on adjusted means assuming parallel lines.

comparison	diff	lwr	upr	p.adj
1 NAJFM-FR	2.632	1.5399	3.724	8.435e-07
2 TAFS-FR	2.806	1.7332	3.879	1.278e-07
3 TAFS-NAJFM	0.174	-0.6675	1.016	8.729e-01

Mean adjusted values at a covariate value of 0

	FR	NAJFM	TAFS
	2.425	5.058	5.232

```
> confint(lm1a)["year2010",]
      2.5 % 97.5 %
0.1384 0.2320
```

4 Compare 2010 Percentages

```
> round(predict(lm1,data.frame(journal=c("CJFAS","FR","NAJFM","TAFS"),year2010=0),interval="c"),2)
```

	fit	lwr	upr
1	1.02	0.27	1.77
2	2.94	1.75	4.12
3	5.56	4.73	6.39
4	4.74	3.95	5.53