# From standard model

Call:

lm(formula = FS ~ AGE2015 + hhtotalxx + AGE2015 + pargradex +

ttlhhinc + FA + SSatis + scpubpri + sneighbrx + sefuturex +

RACEETH2, data = parental\_involvement)

Residuals:

Min 1Q Median 3Q Max

-6.4057 -0.9397 0.0616 0.9707 6.2552

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 3.248449 0.137717 23.588 < 2e-16 \*\*\*

AGE2015 -0.105559 0.003393 -31.112 < 2e-16 \*\*\*

hhtotalxx 0.015703 0.010077 1.558 0.11919

pargradex 0.116652 0.013665 8.537 < 2e-16 \*\*\*

ttlhhinc 0.081828 0.005470 14.960 < 2e-16 \*\*\*

FA 0.164389 0.004471 36.770 < 2e-16 \*\*\*

SSatis 0.053260 0.001376 38.701 < 2e-16 \*\*\*

scpubpri -0.258700 0.016846 -15.357 < 2e-16 \*\*\*

sneighbrx -0.091610 0.032003 -2.863 0.00421 \*\*

sefuturex 0.105518 0.010978 9.612 < 2e-16 \*\*\*

RACEETH2 -0.084184 0.010014 -8.407 < 2e-16 \*\*\*

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 1.416 on 13512 degrees of freedom

Multiple R-squared: 0.3723, Adjusted R-squared: 0.3718

F-statistic: 801.3 on 10 and 13512 DF, p-value: < 2.2e-16

# GLM POISSON Model

> posfit <- glm(FS ~ AGE2015 + hhtotalxx + AGE2015 + pargradex + ttlhhinc + FA + SSatis +scpubpri + sneighbrx + sefuturex + RACEETH2, data=parental\_involvement, family = poisson())

> summary (posfit)

Call:

glm(formula = FS ~ AGE2015 + hhtotalxx + AGE2015 + pargradex +

ttlhhinc + FA + SSatis + scpubpri + sneighbrx + sefuturex +

RACEETH2, family = poisson(), data = parental\_involvement)

Deviance Residuals:

Min 1Q Median 3Q Max

-3.6610 -0.5091 0.0336 0.4834 3.0418

Coefficients:

Estimate Std. Error z value Pr(>|z|)

(Intercept) 1.1026370 0.0480208 22.962 < 2e-16 \*\*\*

AGE2015 -0.0257299 0.0011841 -21.730 < 2e-16 \*\*\*

hhtotalxx 0.0050719 0.0036089 1.405 0.1599

pargradex 0.0329191 0.0049624 6.634 3.27e-11 \*\*\*

ttlhhinc 0.0213990 0.0019764 10.827 < 2e-16 \*\*\*

FA 0.0417238 0.0015713 26.553 < 2e-16 \*\*\*

SSatis 0.0103901 0.0003977 26.124 < 2e-16 \*\*\*

scpubpri -0.0527083 0.0053672 -9.821 < 2e-16 \*\*\*

sneighbrx -0.0196356 0.0110892 -1.771 0.0766 .

sefuturex 0.0302520 0.0041327 7.320 2.48e-13 \*\*\*

RACEETH2 -0.0232985 0.0035508 -6.561 5.33e-11 \*\*\*

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for poisson family taken to be 1)

Null deviance: 13186.7 on 13522 degrees of freedom

Residual deviance: 9313.7 on 13512 degrees of freedom

AIC: 51212

Number of Fisher Scoring iterations: 4

> coef(posfit)

(Intercept) AGE2015 hhtotalxx pargradex ttlhhinc FA SSatis scpubpri sneighbrx sefuturex

1.102636966 -0.025729926 0.005071868 0.032919083 0.021399014 0.041723830 0.010390139 -0.052708293 -0.019635616 0.030252006

RACEETH2

-0.023298517

# Variables that we are using:

Age2015= Age of child as of December 31st, 2015

Hhtotalxx= number of people in the household

Pargradex= parent or guardians highest level of education

Ttlhhinc= total household income, categorical

Scpubpri= child is enrolled in a public or private school

Sneighbrx= parent moved to neighborhood for school

Sefuturex=parent’s expectation for child’s future education (not finish HS to graduate school)

RACEETH2- recoded race and ethnicity of child

**FS- count of school activities parent participated in. Comprised of:**

FSSPORTX (attended school or class event, science fair, etc.), FSVOL(volunteered at school), FSMTNG(attended a general school meeting), FSPTMTNG (attended a PTA meeting, FSATCNFN ( gone to a parent teacher conference), FSFUNDRS (participated in fundraising for the school), FSCOMMTE (served on a school committee), FSCOUNSLR (met with the guidance counselor in person).

**FA-count of at home activities**

FOSTORY2X (told child a story past week), focrafts(did arts and crafts past week), fogames (played games with child past week), fobuildx (worked on prokect with child past week), fosport(played sports with child past week), forespon (discussed time management with child past week), fohistx (talked about family history with child past week), folibrayx (took child to library past month, fobookstx (took child to bookstore past month), foconcrtx (took child to concert past month), fomuseumx (took child to museum past month), fozoox (took child to zoo past month), fogroupx (attended event with child past month), fosprtevx (attend athletic event with child past month)

**SSatis- satisfaction with school**

FCSHOOL (satisfaction with school child attends, FCTEACHR (satisfaction with teachers), FCSTDS (satisfaction with academic standards), FCORDER (satisfaction with order and discipline at school), FCSUPPRT (satisfaction with way school interacts with parents

Found and corrected error in code

fsmtng is in twice but second one should be fsptmtng