

Multiple Regression-FORCED-ENTRY HIERARCHICAL MODEL

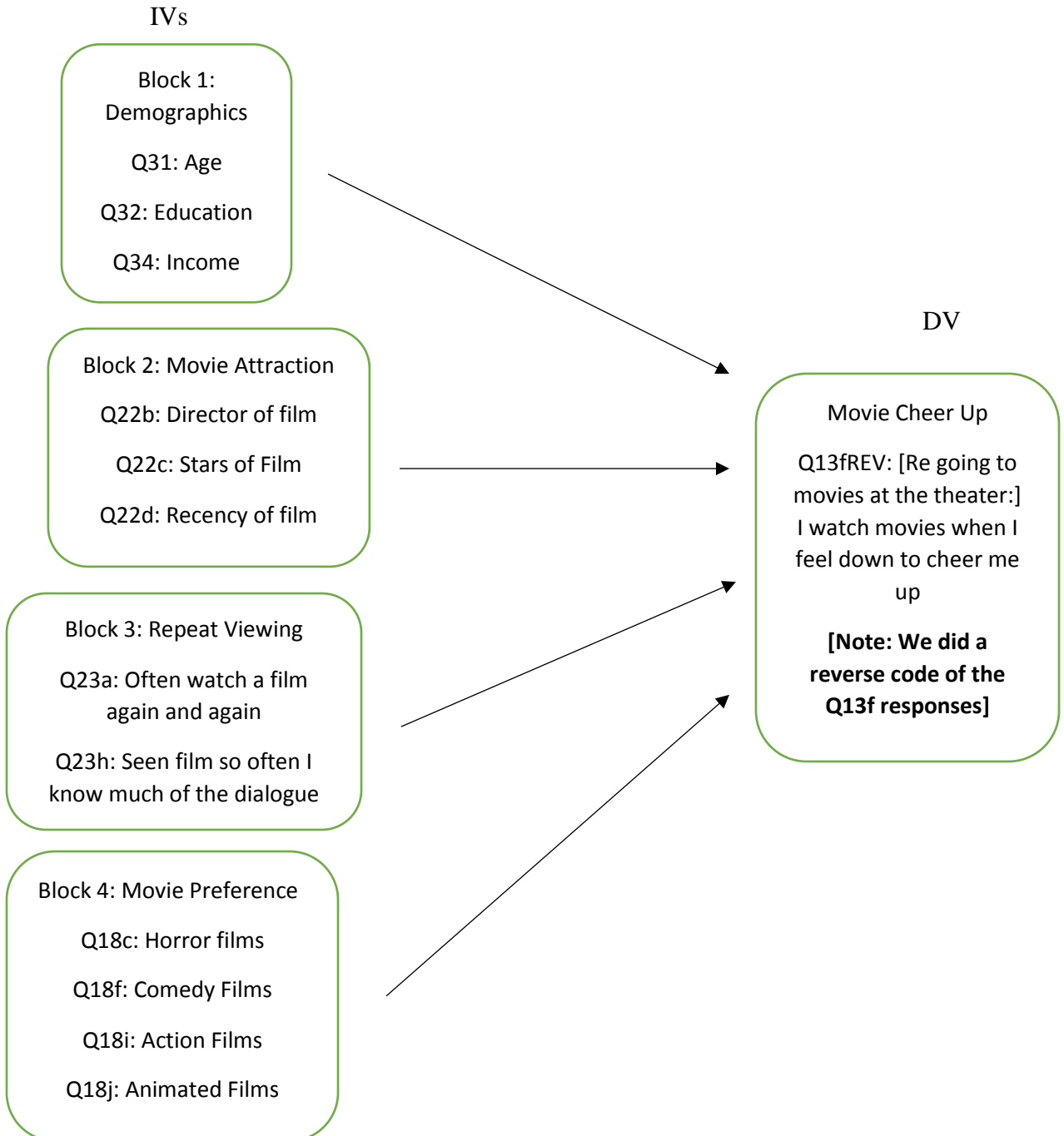
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COM 631/731

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Data: Film & TV Usage 2015

I. MODEL



II. RUNNING SPSS

1) Analysis → Regression → Linear

The screenshot shows the SPSS Data Editor interface. The 'Analyze' menu is open, and the path 'Analyze > Regression > Linear' is highlighted. The background data table is as follows:

	Name	Type	Values	Missing	Columns
35	Q10	String			
36	Q11	Numeric			
37	Q12a	String			
38	Q12b	String			
39	Q12c	String			
40	Q13a	Numeric			
41	Q13b	Numeric			
42	Q13c	Numeric			
43	Q13d	Numeric			
44	Q13e	Numeric			
45	Q13f	Numeric	11	0	
46	Q13g	Numeric	11	0	
47	Q13h	Numeric	11	0	
48	Q13i	Numeric	11	0	
49	Q13j	Numeric	11	0	
50	Q14a	String	127	0	
51	Q14b	String	103	0	
52	Q14c	String	105	0	
53	Q14d	String	120	0	
54	Q14e	String	89	0	
55	Q14f	String	123	0	
56	Q14g	String	140	0	

2) Select dependent variable: Q13fREV

Click variable name → arrow

The screenshot shows the SPSS Data Editor interface with the 'Linear Regression' dialog box open. The 'Dependent' field contains 'Q13fREV'. The 'Independent(s)' field is empty. The 'Method' is set to 'Enter'. The 'Selection Variable' field is empty. The 'Case Labels' and 'WLS Weight' fields are also empty. The dialog box has buttons for 'OK', 'Paste', 'Reset', 'Cancel', and 'Help'. At the bottom of the dialog are buttons for 'Statistics...', 'Plots...', 'Save...', and 'Options...'. The background shows a variable list on the left and a variable view table on the right.

Label	Values	Missing	Columns
Education	{1, 1-Some high school or less}...	6	11
Ethnic or racial background	{1, 1-Black/African-American}...	None	11
Other race/ethnicity	None	None	8
Income	{1, 1-\$15,000 or less}...	None	11
Age	None	None	11
Other race/ethnicity	{1.00, 1=Almost never important}...	None	8

3) Select Independent variable(s) for block 1

Click Independent variable names → arrow

The screenshot shows the SPSS Linear Regression dialog box overlaid on the Variable View table. The dialog box has 'Q13REV' in the 'Dependent:' field and 'Age [Age]', 'Education [Education]', and 'Income [Income]' in the 'Independent(s):' list. The 'Method:' is set to 'Enter'. The Variable View table in the background shows the following data:

Label	Values	Missing	Columns
Education	{1, 1-Some high school or less}...	6	11
Ethnic or racial bac	{1, 1-Black/African-American}...	None	11
Other race/ethnicit	None	None	8
Income	{1, 1-\$15,000 or less}...	None	11
Zip code	None	None	11
	{1.00, 1=Almost never important}...	None	8

4) Move to Block 2 by clicking “next”

Note: Make sure your “Method” says “Enter.”

The screenshot shows the SPSS Linear Regression dialog box overlaid on the Variable View table. The dialog box is configured with the following settings:

- Dependent: Q13REV
- Block 1 of 1: Previous, Next
- Independent(s): Age [Age], Education [Education], Income [Income]
- Method: Enter
- Selection Variable: (empty)
- Case Labels: (empty)
- WLS Weight: (empty)

The Variable View table in the background is as follows:

Label	Values	Missing	Columns
Education	{1, 1-Some high school or less}...	6	11
Ethnic or racial bac	{1, 1-Black/African-American}...	None	11
Other race/ethnicit	None	None	8
Income	{1, 1-\$15,000 or less}...	None	11
Zip code	None	None	11
	{1.00, 1=Almost never important}...	None	8

5) Select Independent Variables for Block 2

Click variable names → arrow

Note: Screenshots for blocks 3 & 4 are not shown

The screenshot shows the SPSS Data Editor interface. A 'Linear Regression' dialog box is open, displaying the following settings:

- Dependent:** Q13REV
- Block 2 of 2** (Previous, Next buttons)
- Independent(s):** Q22b. How important Th..., Q22c. How important Th..., Q22d. How important Th...
- Method:** Enter
- Selection Variable:** (empty)
- Case Labels:** (empty)
- WLS Weight:** (empty)

The background table shows the following variables:

Label	Values	Missing	Columns
ication	{1, 1-Some high school or less}...	6	11
nic or raci	{1, 1-Black/African-American}...	None	11
er race/et	None	None	8
ome	{1, 1-\$15,000 or less}...	None	11
code	None	None	11
	{1.00, 1=Almost never important}...	None	8

The taskbar at the bottom shows the Windows Start button, search bar, and taskbar icons for various applications. The system tray shows the date and time: 10:34 AM, 3/21/2018.

6) Click Statistics

Check Estimates, Model fit, R squared change, Descriptives, Part and partial correlations, Collinearity diagnostics.

Click Continue

The screenshot shows the SPSS Linear Regression dialog box overlaid on the SPSS Data Editor. The dialog box is titled "Linear Regression" and has a "Dependent:" field. Under "Regression Coefficients", the following options are checked: "Estimates", "Model fit", "R squared change", "Descriptives", "Part and partial correlations", and "Collinearity diagnostics". The "Continue" button is highlighted with a blue arrow. The "Residuals" section has "Outliers outside: 3 standard deviations" selected. The "WLS Weight:" field is empty. The "Data Editor" in the background shows a table with columns "Label", "Values", "Missing", and "Columns".

Label	Values	Missing	Columns
Education	{1, 1-Some high school or less}...	6	11
Ethnic or racial group	{1, 1-Black/African-American}...	None	11
Marital status	None	None	8
Income	{1, 1-\$15,000 or less}...	None	11
Importance of code	None	None	11
Importance of code	{1.00, 1=Almost never important}...	None	8

7) Click Plots

Click ***ZRESID** to Y and ***ZPRED** to X

Check **Histogram** and **Normal probability plot**

The screenshot shows the SPSS Linear Regression dialog box with the 'Plots' sub-dialog open. The 'DEPENDENT' variable is *ZRESID. In the 'Scatter 1 of 1' section, the Y-axis is *ZRESID and the X-axis is *ZPRED. Under 'Standardized Residual Plots', the 'Histogram' and 'Normal probability plot' checkboxes are checked. The background shows a variable list with columns for Label, Values, Missing, and Columns.

Label	Values	Missing	Columns
Education	{1, 1-Some high school or less}...	6	11
Ethnic or racial group	{1, 1-Black/African-American}...	None	11
Ethnic or racial group	None	None	8
Income	{1, 1-\$15,000 or less}...	None	11
Importance of code	None	None	11
	{1.00, 1=Almost never important}...	None	8

Click **Paste**, and then run syntax.


```

RECODE
  Q13f
  (1=4) (2=3) (3=2) (4=1) INTO Q13fREV .
EXECUTE .
REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT Q13fREV
/METHOD=ENTER Age Education Income /METHOD=ENTER Q22b Q22c Q22d /METHOD=ENTE
R Q23a Q23h /METHOD=ENTER Q18c Q18f Q18i
Q18j
/SCATTERPLOT=(*ZRESID ,*ZPRED )
/RESIDUALS HIST(ZRESID) NORM(ZRESID) .

```

Regression

Descriptive Statistics

	Mean	Std. Deviation	N
Q13fREV	1.9752	.95010	363
Age	34.68	11.534	363
Education	3.64	.925	363
Income	4.74	2.321	363
Q22b. How important The director of the film.	3.38	1.898	363
Q22c. How important The star(s) of the film.	4.64	1.599	363
Q22d. How important The recency of the film's release/how new the film is.	3.39	1.885	363
Q23a. I often watch a favorite film again and again.	5.10	1.853	363
Q23h. I've seen some films so often that I know much of the dialogue.	4.68	2.021	363
Q18c. How often Horror films	2.78	1.498	363
Q18f. How often Comedy films	4.23	1.189	363
Q18i. How often Action films	3.95	1.236	363
Q18j. How often Animated films	3.57	1.397	363

Correlations

		Q13fREV	Age	Education	Income	Q22b. How important The director of the film.
Pearson Correlation	Q13fREV	1.000	-.172	-.152	-.191	.128
	Age	-.172	1.000	.020	.156	-.047
	Education	-.152	.020	1.000	.314	-.049
	Income	-.191	.156	.314	1.000	-.063
	Q22b. How important The director of the film.	.128	-.047	-.049	-.063	1.000
	Q22c. How important The star(s) of the film.	.103	.052	-.043	-.043	.423
	Q22d. How important The recency of the film's release/how new the film is.	.198	-.056	.040	.012	.207
	Q23a. I often watch a favorite film again and again.	-.039	.036	-.030	-.027	.074
	Q23h. I've seen some films so often that I know much of the dialogue.	.032	-.117	-.070	-.001	.112
	Q18c. How often Horror films	.064	-.135	-.158	-.055	.097
	Q18f. How often Comedy films	.071	-.061	-.027	.034	-.010
	Q18i. How often Action films	-.067	-.057	.001	.078	.049
	Q18j. How often Animated films	.046	-.193	.024	.004	.037

Correlations

		Q13fREV	Age	Education	Income	Q22b. How important The director of the film.
Sig. (1-tailed)	Q13fREV	.	.000	.002	.000	.007
	Age	.000	.	.355	.001	.184
	Education	.002	.355	.	.000	.175
	Income	.000	.001	.000	.	.115
	Q22b. How important The director of the film.	.007	.184	.175	.115	.
	Q22c. How important The star(s) of the film.	.025	.159	.208	.209	.000
	Q22d. How important The recency of the film's release/how new the film is.	.000	.144	.225	.407	.000
	Q23a. I often watch a favorite film again and again.	.227	.247	.283	.303	.081
	Q23h. I've seen some films so often that I know much of the dialogue.	.273	.013	.092	.495	.016
	Q18c. How often Horror films	.111	.005	.001	.150	.032
	Q18f. How often Comedy films	.088	.123	.306	.262	.423
	Q18i. How often Action films	.102	.138	.490	.068	.174
	Q18j. How often Animated films	.191	.000	.326	.473	.240

Correlations

		Q13fREV	Age	Education	Income	Q22b. How important The director of the film.
N	Q13fREV	363	363	363	363	363
	Age	363	363	363	363	363
	Education	363	363	363	363	363
	Income	363	363	363	363	363
	Q22b. How important The director of the film.	363	363	363	363	363
	Q22c. How important The star(s) of the film.	363	363	363	363	363
	Q22d. How important The recency of the film's release/how new the film is.	363	363	363	363	363
	Q23a. I often watch a favorite film again and again.	363	363	363	363	363
	Q23h. I've seen some films so often that I know much of the dialogue.	363	363	363	363	363
	Q18c. How often Horror films	363	363	363	363	363
	Q18f. How often Comedy films	363	363	363	363	363
	Q18i. How often Action films	363	363	363	363	363
	Q18j. How often Animated films	363	363	363	363	363

Correlations

		Q22c. How important The star(s) of the film.	Q22d. How important The recency of the film's release/how new the film is.	Q23a. I often watch a favorite film again and again.	Q23h. I've seen some films so often that I know much of the dialogue.
Pearson Correlation	Q13fREV	.103	.198	-.039	.032
	Age	.052	-.056	.036	-.117
	Education	-.043	.040	-.030	-.070
	Income	-.043	.012	-.027	-.001
	Q22b. How important The director of the film.	.423	.207	.074	.112
	Q22c. How important The star(s) of the film.	1.000	.355	.220	.235
	Q22d. How important The recency of the film's release/how new the film is.	.355	1.000	-.009	-.053
	Q23a. I often watch a favorite film again and again.	.220	-.009	1.000	.622
	Q23h. I've seen some films so often that I know much of the dialogue.	.235	-.053	.622	1.000
	Q18c. How often Horror films	.092	.071	.028	.105
	Q18f. How often Comedy films	.246	.125	.238	.195
	Q18i. How often Action films	.168	.044	.056	.094
	Q18j. How often Animated films	.086	.033	.068	.077

Correlations

		Q22c. How important The star(s) of the film.	Q22d. How important The recency of the film's release/how new the film is.	Q23a. I often watch a favorite film again and again.	Q23h. I've seen some films so often that I know much of the dialogue.
Sig. (1-tailed)	Q13fREV	.025	.000	.227	.273
	Age	.159	.144	.247	.013
	Education	.208	.225	.283	.092
	Income	.209	.407	.303	.495
	Q22b. How important The director of the film.	.000	.000	.081	.016
	Q22c. How important The star(s) of the film.	.	.000	.000	.000
	Q22d. How important The recency of the film's release/how new the film is.	.000	.	.433	.158
	Q23a. I often watch a favorite film again and again.	.000	.433	.	.000
	Q23h. I've seen some films so often that I know much of the dialogue.	.000	.158	.000	.
	Q18c. How often Horror films	.041	.089	.298	.023
	Q18f. How often Comedy films	.000	.009	.000	.000
	Q18i. How often Action films	.001	.203	.142	.036
	Q18j. How often Animated films	.051	.267	.098	.072

Correlations

		Q22c. How important The star(s) of the film.	Q22d. How important The recency of the film's release/how new the film is.	Q23a. I often watch a favorite film again and again.	Q23h. I've seen some films so often that I know much of the dialogue.
N	Q13fREV	363	363	363	363
	Age	363	363	363	363
	Education	363	363	363	363
	Income	363	363	363	363
	Q22b. How important The director of the film.	363	363	363	363
	Q22c. How important The star(s) of the film.	363	363	363	363
	Q22d. How important The recency of the film's release/how new the film is.	363	363	363	363
	Q23a. I often watch a favorite film again and again.	363	363	363	363
	Q23h. I've seen some films so often that I know much of the dialogue.	363	363	363	363
	Q18c. How often Horror films	363	363	363	363
	Q18f. How often Comedy films	363	363	363	363
	Q18i. How often Action films	363	363	363	363
	Q18j. How often Animated films	363	363	363	363

Correlations

		Q18c. How often Horror films	Q18f. How often Comedy films	Q18i. How often Action films	Q18j. How often Animated films
Pearson Correlation	Q13fREV	.064	.071	-.067	.046
	Age	-.135	-.061	-.057	-.193
	Education	-.158	-.027	.001	.024
	Income	-.055	.034	.078	.004
	Q22b. How important The director of the film.	.097	-.010	.049	.037
	Q22c. How important The star(s) of the film.	.092	.246	.168	.086
	Q22d. How important The recency of the film's release/how new the film is.	.071	.125	.044	.033
	Q23a. I often watch a favorite film again and again.	.028	.238	.056	.068
	Q23h. I've seen some films so often that I know much of the dialogue.	.105	.195	.094	.077
	Q18c. How often Horror films	1.000	.149	.121	-.038
	Q18f. How often Comedy films	.149	1.000	.192	.237
	Q18i. How often Action films	.121	.192	1.000	.303
	Q18j. How often Animated films	-.038	.237	.303	1.000

Correlations

		Q18c. How often Horror films	Q18f. How often Comedy films	Q18i. How often Action films	Q18j. How often Animated films
Sig. (1-tailed)	Q13fREV	.111	.088	.102	.191
	Age	.005	.123	.138	.000
	Education	.001	.306	.490	.326
	Income	.150	.262	.068	.473
	Q22b. How important The director of the film.	.032	.423	.174	.240
	Q22c. How important The star(s) of the film.	.041	.000	.001	.051
	Q22d. How important The recency of the film's release/how new the film is.	.089	.009	.203	.267
	Q23a. I often watch a favorite film again and again.	.298	.000	.142	.098
	Q23h. I've seen some films so often that I know much of the dialogue.	.023	.000	.036	.072
	Q18c. How often Horror films	.	.002	.011	.234
	Q18f. How often Comedy films	.002	.	.000	.000
	Q18i. How often Action films	.011	.000	.	.000
	Q18j. How often Animated films	.234	.000	.000	.

Correlations

		Q18c. How often Horror films	Q18f. How often Comedy films	Q18i. How often Action films	Q18j. How often Animated films
N	Q13fREV	363	363	363	363
	Age	363	363	363	363
	Education	363	363	363	363
	Income	363	363	363	363
	Q22b. How important The director of the film.	363	363	363	363
	Q22c. How important The star(s) of the film.	363	363	363	363
	Q22d. How important The recency of the film's release/how new the film is.	363	363	363	363
	Q23a. I often watch a favorite film again and again.	363	363	363	363
	Q23h. I've seen some films so often that I know much of the dialogue.	363	363	363	363
	Q18c. How often Horror films	363	363	363	363
	Q18f. How often Comedy films	363	363	363	363
	Q18i. How often Action films	363	363	363	363
	Q18j. How often Animated films	363	363	363	363

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Income, Age, Education ^a	.	Enter
2	Q22d. How important The recency of the film's release/how new the film is., Q22b. How important The director of the film., Q22c. How important The star(s) ^a of the film.	.	Enter
3	Q23a. I often watch a favorite film again and again., Q23h. I've seen some films so often that I know much of the ^a dialogue.	.	Enter
4	Q18i. How often Action films, Q18c. How often Horror films, Q18j. How often Animated films, Q18f. How often Comedy ^a films	.	Enter

a. All requested variables entered.

b. Dependent Variable: Q13fREV

Model Summary^e

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.260 ^a	.067	.060	.92131
2	.333 ^b	.111	.096	.90350
3	.339 ^c	.115	.095	.90373
4	.356 ^d	.127	.097	.90305

Model Summary^e

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.067	8.661	3	359	.000
2	.043	5.764	3	356	.001
3	.005	.910	2	354	.403
4	.011	1.132	4	350	.341

- a. Predictors: (Constant), Income, Age, Education
- b. Predictors: (Constant), Income, Age, Education, Q22d. How important The recency of the film's release/how new the film is., Q22b. How important The director of the film., Q22c. How important The star(s) of the film.
- c. Predictors: (Constant), Income, Age, Education, Q22d. How important The recency of the film's release/how new the film is., Q22b. How important The director of the film., Q22c. How important The star(s) of the film., Q23a. I often watch a favorite film again and again., Q23h. I've seen some films so often that I know much of the dialogue.
- d. Predictors: (Constant), Income, Age, Education, Q22d. How important The recency of the film's release/how new the film is., Q22b. How important The director of the film., Q22c. How important The star(s) of the film., Q23a. I often watch a favorite film again and again., Q23h. I've seen some films so often that I know much of the dialogue., Q18i. How often Action films, Q18c. How often Horror films, Q18j. How often Animated films, Q18f. How often Comedy films
- e. Dependent Variable: Q13fREV

ANOVA^e

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.055	3	7.352	8.661	.000 ^a
	Residual	304.722	359	.849		
	Total	326.777	362			
2	Regression	36.171	6	6.029	7.385	.000 ^b
	Residual	290.606	356	.816		
	Total	326.777	362			
3	Regression	37.658	8	4.707	5.764	.000 ^c
	Residual	289.119	354	.817		
	Total	326.777	362			
4	Regression	41.352	12	3.446	4.226	.000 ^d
	Residual	285.425	350	.815		
	Total	326.777	362			

- a. Predictors: (Constant), Income, Age, Education
- b. Predictors: (Constant), Income, Age, Education, Q22d. How important The recency of the film's release/how new the film is., Q22b. How important The director of the film., Q22c. How important The star(s) of the film.
- c. Predictors: (Constant), Income, Age, Education, Q22d. How important The recency of the film's release/how new the film is., Q22b. How important The director of the film., Q22c. How important The star(s) of the film., Q23a. I often watch a favorite film again and again., Q23h. I've seen some films so often that I know much of the dialogue.
- d. Predictors: (Constant), Income, Age, Education, Q22d. How important The recency of the film's release/how new the film is., Q22b. How important The director of the film., Q22c. How important The star(s) of the film., Q23a. I often watch a favorite film again and again., Q23h. I've seen some films so often that I know much of the dialogue., Q18i. How often Action films, Q18c. How often Horror films, Q18j. How often Animated films, Q18f. How often Comedy films

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.061	.243		12.579	.000
	Age	-.012	.004	-.149	-2.893	.004
	Education	-.110	.055	-.107	-1.985	.048
	Income	-.055	.022	-.134	-2.465	.014
2	(Constant)	2.596	.282		9.189	.000
	Age	-.011	.004	-.137	-2.680	.008
	Education	-.114	.054	-.111	-2.102	.036
	Income	-.054	.022	-.132	-2.478	.014
	Q22b. How important The director of the film.	.034	.028	.067	1.210	.227
	Q22c. How important The star(s) of the film.	.005	.035	.008	.130	.896
	Q22d. How important The recency of the film's release/how new the film is.	.091	.027	.180	3.343	.001
3	(Constant)	2.640	.309		8.536	.000
	Age	-.010	.004	-.126	-2.410	.016
	Education	-.111	.054	-.108	-2.037	.042
	Income	-.056	.022	-.137	-2.562	.011
	Q22b. How important The director of the film.	.032	.028	.065	1.165	.245
	Q22c. How important The star(s) of the film.	.007	.036	.011	.189	.850
	Q22d. How important The recency of the film's release/how new the film is.	.092	.028	.182	3.339	.001
	Q23a. I often watch a favorite film again and again.	-.045	.033	-.087	-1.338	.182
	Q23h. I've seen some films so often that I know much of the dialogue.	.030	.031	.063	.952	.342

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
4	(Constant)	2.648	.379		6.992	.000
	Age	-.010	.004	-.121	-2.249	.025
	Education	-.111	.055	-.108	-2.014	.045
	Income	-.054	.022	-.132	-2.455	.015
	Q22b. How important The director of the film.	.036	.028	.071	1.269	.205
	Q22c. How important The star(s) of the film.	.007	.037	.011	.181	.856
	Q22d. How important The recency of the film's release/how new the film is.	.089	.028	.176	3.222	.001
	Q23a. I often watch a favorite film again and again.	-.052	.034	-.101	-1.531	.127
	Q23h. I've seen some films so often that I know much of the dialogue.	.031	.031	.066	.984	.326
	Q18c. How often Horror films	.002	.033	.003	.057	.954
	Q18f. How often Comedy films	.050	.044	.063	1.136	.257
	Q18i. How often Action films	-.077	.041	-.100	-1.847	.066
	Q18j. How often Animated films	.023	.037	.034	.614	.540

Coefficients^a

Model		Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)					
	Age	-.172	-.151	-.147	.975	1.026
	Education	-.152	-.104	-.101	.900	1.111
	Income	-.191	-.129	-.126	.879	1.138
2	(Constant)					
	Age	-.172	-.141	-.134	.960	1.041
	Education	-.152	-.111	-.105	.897	1.115
	Income	-.191	-.130	-.124	.876	1.142
	Q22b. How important The director of the film.	.128	.064	.060	.811	1.233
	Q22c. How important The star(s) of the film.	.103	.007	.007	.736	1.358
	Q22d. How important The recency of the film's release/how new the film is.	.198	.174	.167	.861	1.161
3	(Constant)					
	Age	-.172	-.127	-.120	.920	1.087
	Education	-.152	-.108	-.102	.892	1.121
	Income	-.191	-.135	-.128	.870	1.150
	Q22b. How important The director of the film.	.128	.062	.058	.810	1.234
	Q22c. How important The star(s) of the film.	.103	.010	.009	.683	1.464
	Q22d. How important The recency of the film's release/how new the film is.	.198	.175	.167	.839	1.193
	Q23a. I often watch a favorite film again and again.	-.039	-.071	-.067	.593	1.686
	Q23h. I've seen some films so often that I know much of the dialogue.	.032	.051	.048	.566	1.768

Coefficients^a

Model	Correlations			Collinearity Statistics	
	Zero-order	Partial	Part	Tolerance	VIF
4					
(Constant)					
Age	-.172	-.119	-.112	.868	1.153
Education	-.152	-.107	-.101	.872	1.147
Income	-.191	-.130	-.123	.859	1.164
Q22b. How important The director of the film.	.128	.068	.063	.790	1.265
Q22c. How important The star(s) of the film.	.103	.010	.009	.643	1.556
Q22d. How important The recency of the film's release/how new the film is.	.198	.170	.161	.833	1.201
Q23a. I often watch a favorite film again and again.	-.039	-.082	-.076	.579	1.728
Q23h. I've seen some films so often that I know much of the dialogue.	.032	.053	.049	.562	1.779
Q18c. How often Horror films	.064	.003	.003	.903	1.107
Q18f. How often Comedy films	.071	.061	.057	.814	1.229
Q18i. How often Action films	-.067	-.098	-.092	.859	1.165
Q18j. How often Animated films	.046	.033	.031	.831	1.203

a. Dependent Variable: Q13fREV

Excluded Variables^d

Model		Beta In	t	Sig.	Partial Correlation
1	Q22b. How important The director of the film.	.108 ^a	2.118	.035	.111
	Q22c. How important The star(s) of the film.	.101 ^a	1.991	.047	.105
	Q22d. How important The recency of the film's release/how new the film is.	.197 ^a	3.927	.000	.203
	Q23a. I often watch a favorite film again and again.	-.041 ^a	-.802	.423	-.042
	Q23h. I've seen some films so often that I know much of the dialogue.	.007 ^a	.136	.892	.007
	Q18c. How often Horror films	.021 ^a	.397	.692	.021
	Q18f. How often Comedy films	.064 ^a	1.252	.211	.066
	Q18i. How often Action films	-.066 ^a	-1.281	.201	-.068
	Q18j. How often Animated films	.021 ^a	.405	.685	.021
2	Q23a. I often watch a favorite film again and again.	-.049 ^b	-.956	.340	-.051
	Q23h. I've seen some films so often that I know much of the dialogue.	.009 ^b	.173	.863	.009
	Q18c. How often Horror films	.001 ^b	.019	.985	.001
	Q18f. How often Comedy films	.044 ^b	.848	.397	.045
	Q18i. How often Action films	-.080 ^b	-1.573	.117	-.083
	Q18j. How often Animated films	.014 ^b	.282	.778	.015
	3	Q18c. How often Horror films	-.002 ^c	-.038	.969
Q18f. How often Comedy films		.055 ^c	1.037	.301	.055
Q18i. How often Action films		-.081 ^c	-1.588	.113	-.084
Q18j. How often Animated films		.018 ^c	.341	.734	.018

Excluded Variables^d

Model		Collinearity Statistics		
		Tolerance	VIF	Minimum Tolerance
1	Q22b. How important The director of the film.	.994	1.007	.877
	Q22c. How important The star(s) of the film.	.994	1.006	.877
	Q22d. How important The recency of the film's release/how new the film is.	.995	1.005	.879
	Q23a. I often watch a favorite film again and again.	.997	1.003	.878
	Q23h. I've seen some films so often that I know much of the dialogue.	.980	1.020	.877
	Q18c. How often Horror films	.957	1.045	.879
	Q18f. How often Comedy films	.993	1.007	.876
	Q18i. How often Action films	.988	1.012	.871
2	Q18j. How often Animated films	.961	1.040	.878
	Q23a. I often watch a favorite film again and again.	.942	1.062	.700
	Q23h. I've seen some films so often that I know much of the dialogue.	.898	1.113	.687
	Q18c. How often Horror films	.945	1.058	.735
	Q18f. How often Comedy films	.910	1.098	.687
	Q18i. How often Action films	.956	1.046	.715
	Q18j. How often Animated films	.951	1.051	.729
3	Q18c. How often Horror films	.940	1.064	.563
	Q18f. How often Comedy films	.873	1.146	.565
	Q18i. How often Action films	.954	1.048	.565
	Q18j. How often Animated films	.948	1.055	.566

- a. Predictors in the Model: (Constant), Income, Age, Education
- b. Predictors in the Model: (Constant), Income, Age, Education, Q22d. How important The recency of the film's release/how new the film is., Q22b. How important The director of the film., Q22c. How important The star(s) of the film.
- c. Predictors in the Model: (Constant), Income, Age, Education, Q22d. How important The recency of the film's release/how new the film is., Q22b. How important The director of the film., Q22c. How important The star(s) of the film., Q23a. I often watch a favorite film again and again., Q23h. I've seen some films so often that I know much of the dialogue.
- d. Dependent Variable: Q13fREV

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index
1	1	3.759	1.000
	2	.138	5.223
	3	.078	6.959
	4	.025	12.190
2	1	6.247	1.000
	2	.275	4.765
	3	.189	5.753
	4	.129	6.968
	5	.073	9.264
	6	.066	9.710
	7	.021	17.236
3	1	7.995	1.000
	2	.277	5.368
	3	.235	5.831
	4	.174	6.771
	5	.122	8.079
	6	.070	10.680
	7	.061	11.425
	8	.046	13.167
	9	.019	20.709
4	1	11.495	1.000
	2	.285	6.354
	3	.244	6.862
	4	.212	7.356
	5	.179	8.014
	6	.155	8.603
	7	.123	9.652
	8	.071	12.719
	9	.064	13.371
	10	.061	13.706
	11	.052	14.905
	12	.044	16.131
	13	.013	29.408

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions					
		(Constant)	Age	Education	Income	Q22b. How important The director of the film.	Q22c. How important The star(s) of the film.
1	1	.00	.01	.00	.01		
	2	.02	.14	.00	.88		
	3	.03	.61	.28	.10		
	4	.94	.24	.71	.01		
2	1	.00	.00	.00	.00	.00	.00
	2	.00	.02	.01	.20	.23	.01
	3	.00	.01	.00	.00	.36	.00
	4	.01	.24	.00	.60	.16	.02
	5	.02	.49	.34	.11	.04	.02
	6	.00	.04	.10	.08	.19	.84
	7	.96	.19	.55	.00	.01	.10
3	1	.00	.00	.00	.00	.00	.00
	2	.00	.02	.01	.15	.24	.01
	3	.00	.01	.01	.12	.02	.00
	4	.00	.01	.00	.08	.50	.00
	5	.01	.38	.00	.42	.03	.01
	6	.02	.19	.48	.20	.00	.08
	7	.00	.10	.02	.00	.19	.84
	8	.00	.09	.00	.03	.00	.04
	9	.97	.21	.49	.00	.01	.02
4	1	.00	.00	.00	.00	.00	.00
	2	.00	.01	.01	.13	.23	.01
	3	.00	.01	.01	.10	.00	.00
	4	.00	.00	.00	.01	.12	.01
	5	.00	.02	.00	.14	.37	.00
	6	.00	.02	.00	.04	.03	.00
	7	.00	.37	.00	.36	.02	.01
	8	.00	.01	.11	.04	.04	.23
	9	.00	.03	.19	.11	.01	.15
	10	.00	.22	.25	.03	.01	.09
	11	.00	.00	.08	.01	.14	.38
	12	.00	.07	.00	.02	.02	.11
	13	.98	.25	.35	.00	.02	.00

Collinearity Diagnostics^a

		Variance Proportions			
		Q22d. How important The recency of the film's release/how new the film is.	Q23a. I often watch a favorite film again and again.	Q23h. I've seen some films so often that I know much of the dialogue.	Q18c. How often Horror films
Model	Dimension				
1	1				
	2				
	3				
	4				
2	1	.00			
	2	.12			
	3	.68			
	4	.02			
	5	.07			
	6	.10			
	7	.00			
3	1	.00	.00	.00	
	2	.17	.00	.00	
	3	.23	.05	.12	
	4	.35	.03	.04	
	5	.03	.00	.07	
	6	.01	.00	.01	
	7	.18	.09	.00	
	8	.02	.81	.71	
	9	.02	.01	.05	
4	1	.00	.00	.00	.00
	2	.15	.00	.00	.03
	3	.22	.03	.07	.17
	4	.04	.02	.04	.57
	5	.27	.01	.01	.05
	6	.10	.04	.07	.00
	7	.03	.00	.06	.00
	8	.02	.03	.00	.03
	9	.02	.00	.02	.01
	10	.10	.01	.03	.01
	11	.02	.14	.11	.03
	12	.02	.71	.55	.02
	13	.01	.00	.02	.07

Collinearity Diagnostics^a

Model	Dimension	Variance Proportions		
		Q18f. How often Comedy films	Q18i. How often Action films	Q18j. How often Animated films
1	1			
	2			
	3			
	4			
2	1			
	2			
	3			
	4			
	5			
	6			
	7			
3	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			
4	1	.00	.00	.00
	2	.00	.00	.00
	3	.00	.00	.00
	4	.00	.00	.00
	5	.01	.00	.05
	6	.00	.05	.35
	7	.00	.00	.03
	8	.01	.43	.15
	9	.13	.36	.14
	10	.25	.04	.15
	11	.37	.06	.08
	12	.16	.01	.00
	13	.06	.04	.05

a. Dependent Variable: Q13fREV

Residuals Statistics^a

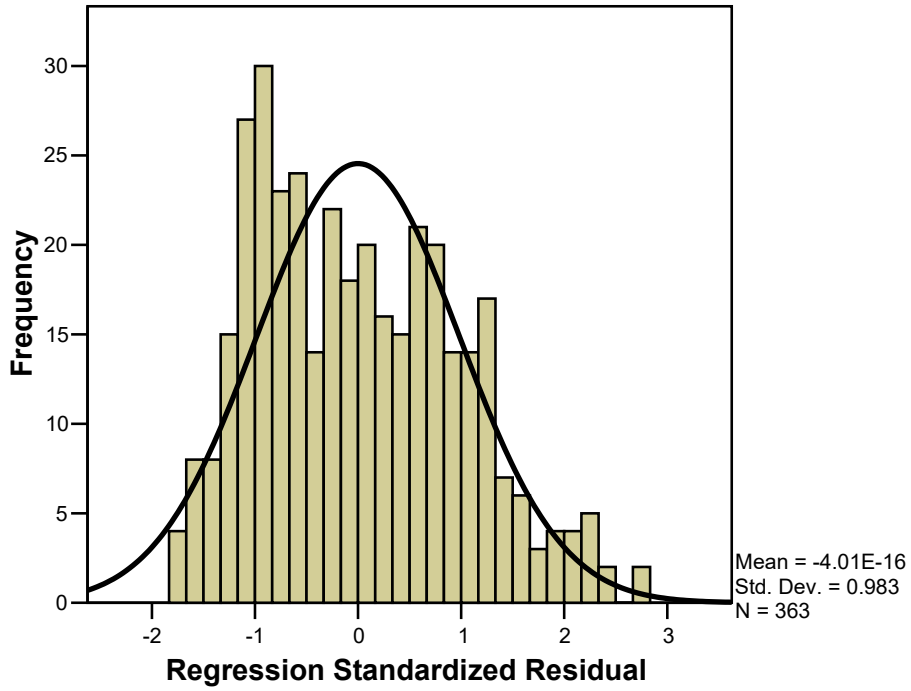
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.0804	2.8854	1.9752	.33798	363
Residual	-1.59949	2.45652	.00000	.88796	363
Std. Predicted Value	-2.647	2.693	.000	1.000	363
Std. Residual	-1.771	2.720	.000	.983	363

a. Dependent Variable: Q13fREV

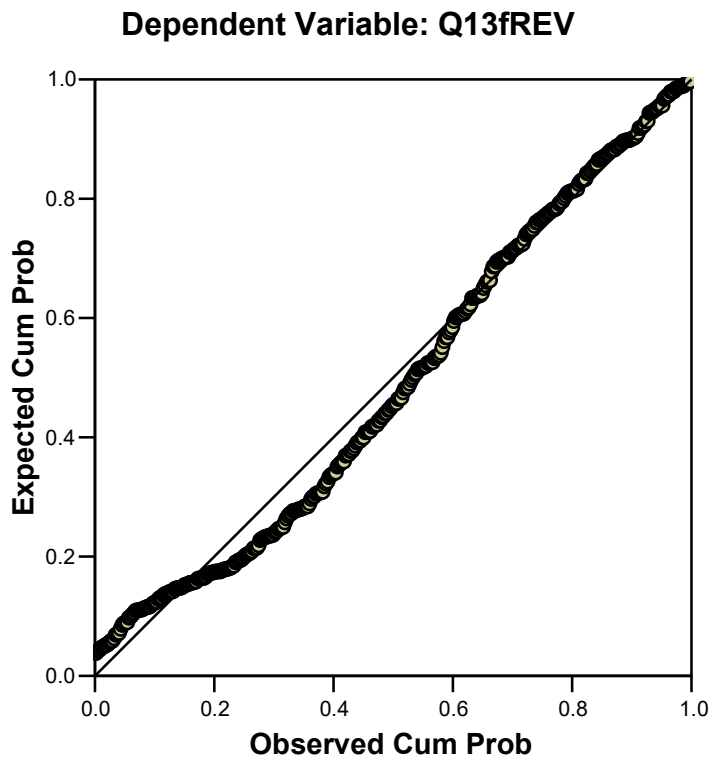
Charts

Histogram

Dependent Variable: Q13fREV

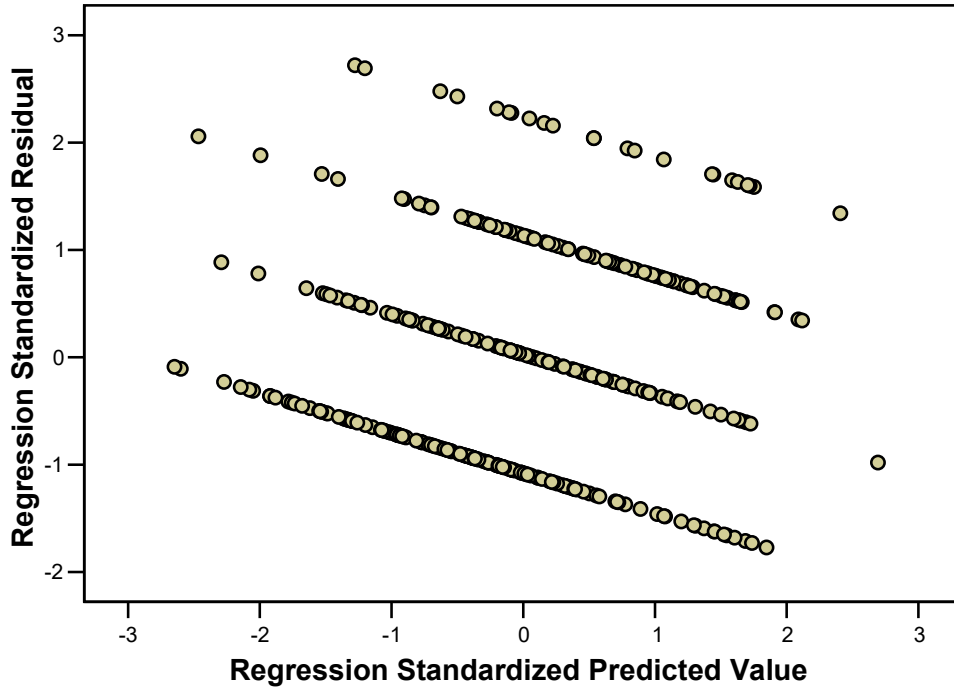


Normal P-P Plot of Regression Standardized Residual



Scatterplot

Dependent Variable: Q13fREV



IV. Tabling

Hierarchical Multiple Regression Predicting Movie Cheer Up

	PREDICTED VARIABLE	r	FINAL BETA	R ² CHANGE	TOTAL R ²
1.	Demographics			.067***	.067***
	Age	-.172***	-.121*		
	Education	-.152**	-.108*		
	Income	-.191***	-.132*		
2.	Movie Attraction			.043**	.111***
	Q22b: Director of the film	.128**	.071		
	Q22c: The stars of the film	.103*	.011		
	Q22d: The recency of the film	.198***	.176**		
3.	Repeated Viewing			.005	.115***
	Q23a: Often watch movie again and again	-.039	-.101		
	Q23h: Know much of the dialogue	.032	.066		
4.	Movie Viewing Patterns			.011	.127***
	Q18c: Horror films	.064	.003		
	Q18f: Comedy films	.071 ^a	.063		
	Q18j: Action films	-.067	-.100 ^a		
	Q18j: Animated films	.046	.034		

R² = .127

Adjusted R² = .097

F = 4.226, df = 12,350, $p < .001$

Note: ^a.05 < $p < .10$ * $p < .05$; ** $p < .01$; *** $p < .001$

V. The Write Up

Write Up of Results

In the prediction of going to the movie theater to cheer oneself up when one is down (“Movie Cheer Up”), a four-block hierarchical multiple regression analysis was conducted. Multicollinearity was not a serious concern, as all tolerances were .56 and above. The analysis result indicates that 12 predictors explain 12.7% of the total variance of Movie Cheer Up ($F(12, 350) = 4.226, p < .001$).

First, block 1, which included the Demographics of Age, Education, and Income, explained 6.7% of the total variance of Movie Cheer Up ($F(3, 359) = 8.661, p < .001$). All demographics were significant unique predictors: Age (final Beta = $-.121, p < .05$), Education (final Beta = $-.108, p < .05$), and Income (final Beta = $-.132, p < .05$). As a result, we concluded that demographics do play a significant role in predicting Movie Cheer Up, including when controlling for all of the other independent variables in all four blocks. All these independent variables in block 1 had negative significant unique relationships with Movie Cheer Up. Thus, this means that the older a person is, the more educated and the more their income, the less likely they are to go to a movie theater to watch a film to be cheered up, when all other variables in the full model are controlled for.

Second, block 2, Movie Attraction (with items measuring attraction to film because of the director of the film, the stars of the film, and recency of the film release), explained an additional 4.3% of the total variance of Movie Cheer Up ($F(3, 356) = 5.764, p = .001$). Recency of the film release (final Beta = $.176, p < .01$) was the only significant unique predictor of Movie Cheer Up.

As a person's reliance on the recency of the film increases, Movie Cheer Up increases, when all other predictors in the full regression model are controlled for.

The third block, Repeated Viewing, explained only an additional 0.5% of total variance of Movie Cheer Up ($F(2, 354) = .910, ns$). There were no significant unique predictors for block 3.

The fourth block, Movie Viewing Patterns, including frequency of viewing horror movies, comedy, action, and animated movies, explained an additional 1.1% of total variance of Movie Cheer Up ($F(4, 350) = 1.132, ns$). How often people view action films had a nearly significant unique prediction (final Beta = $-.100, .05 < p < .10$) that was negative. As action film viewing increases, Movie Cheer Up decreases, when all other predictors in the full regression model are controlled for.

Overall, this analysis included four separate blocks of predictor variables that as a whole did contribute a significant amount of variance to the prediction of Movie Cheer Up, as indicated by the significant R^2 for the total equation. Block 1 (Demographics) and Block 2 (Movie Attraction) both contributed a significant amount of variance to the prediction of Movie Cheer Up as indicated by significant R^2 change figures for each block. Blocks 3 and 4 did not contribute a significant amount of variance to the prediction of Movie Cheer Up. Also, the Beta coefficients indicated that when controlling for the impact of all other variables in the final equation, there are four independent variables that maintained significant unique contributions toward Movie Cheer Up. This is indicated by the four significant final Betas. Greater tendency to go to the movie theater to cheer up when one is down is uniquely predicted by younger age, lower education, lower income, and being attracted to a film because of its recency.