Supplemental Material

CBE—Life Sciences Education

Barnes *et al*.

SUPPLEMENTAL MATERIAL

Additional File 1: Survey questions analyzed

Survey

Understanding of Evolution

This portion of the survey is meant to determine how much you understand about current evolutionary theory as proposed by scientists. Please answer the following questions based on your understanding of evolution.

Please choose whether each statement is true, false, or you don't know enough to answer based on your **understanding of evolution**:

1. Individuals don't evolve, species do.
2. Evolution is a progression towards more advanced species.
3. Mutations occur all the time.
4. Species evolve to be perfectly adapted to their environments.
5. In most groups of organisms, more offspring are born than survive.
6. Mutations can be passed down to the next generation.
7. More genetic variability makes a population more resistant to extinction.
8. Natural selection is the same thing as evolution.
9. The characteristics an organism acquires during their lifetime are often genetically passed down to their offspring.
10. Natural selection is the only cause of evolution.
11. The more recently species share a common ancestor, the more closely related they are.
12. Evolution means progression towards perfection.
13. Natural selection is a random process.
14. Natural selection means that only the smartest and physically strongest organisms survive.

Interest in Evolution

Please rate the following on a scale from 0 (not at all) to 10 (very much):

1. If you could, to what extent would you be interested in taking an elective course on evolution in the future?
2. If you could, to what extent would you be interested in doing research on evolution as an undergraduate?
3. To what extent can you see yourself studying evolution as part of your career?
4. To what extent can you see yourself becoming an evolutionary biologist?

Acceptance of Human Evolution

Please indicate whether you agree or disagree with the following statements, **based on your personal opinion**. (5-pt Likert-scale)

1. I think there is reliable evidence to support the theory that describes how humans were derived from ancestral primates.
2. I think that humans adapt, but they have not/do not evolve.
3. I think that the physical structures of humans are too complex to have evolved.
4. I think that humans and apes share an ancient ancestor.

5. I think that humans evolve.
6. I think that humans do not evolve; they can only change their behavior.
7. I think the many characteristics that humans share with other primates (i.e., chimpanzees, gorillas) can be best explained by our sharing a common ancestor.
8. I think physical variations in humans (i.e., eye color, skin color) were derived from the same processes that produce variation in other groups of organisms.

Acceptance of Macroevolution

Please indicate whether you agree or disagree with the following statements, **based on your personal opinion**. (5-pt Likert-scale)

1. I think that new species evolved from ancestral species.
2. I think that the fossil evidence that scientists use to support evolutionary theory is weak and inconclusive.
3. I think there are a large number of fossils found all around the world that support the ideas that organisms evolve into new species over time.
4. I think all complex organisms evolved from single-celled organisms.
5. I think that new species evolve from a lot of small changes occurring over relatively long periods of time.
6. I think there is little or no observable evidence to support the theory that describes how one species of organism evolves from a different ancestral form.
7. I think the forms and diversity of organisms have changed dramatically over time.
8. I think that all organisms come from a single common ancestor.

Acceptance of Microevolution

Please indicate whether you agree or disagree with the following statements, **based on your personal opinion**. (5-pt Likert-scale)

1. I think that organisms, as they exist now, are perfectly adapted to their natural environments and so will not continue to change.
2. I think all groups of organisms will continue to change.
3. I think there are a large number of examples of organisms that have undergone evolutionary changes within the species (i.e., antibiotic resistance in bacteria, production of new strains of the flu virus).
4. I think that species were created to be perfectly suited to their environment, so they do not change.
5. I don't accept the idea that a species of organism will evolve new traits over time.
6. I think there is an abundance of observable evidence to support the theory describing how variations within a species can happen.
7. I think that species exist today in exactly the same shape and form in which they always have.
8. I think there is overwhelming evidence supporting the theory of evolution to explain how variations in a species develop over time.

Perceived Conflict

The following questions are meant to help us understand the extent to which your religious beliefs and religious culture may disagree with aspects of evolution. There are no right or wrong answers to these questions. We are only interested in your genuine experience so that we can improve biology education for all students. (5-pt Likert-scale)

1. My belief in God makes it harder to believe that all of life on Earth evolved from ancient microscopic life.
2. My belief in God makes it harder to believe that humans evolved from ancient ape ancestors.
3. My belief in God makes it harder to believe that non-human life evolved from previous different species.
4. My belief in God makes it harder to believe that humans have changed over time due to evolution.
5. My belief in God makes it harder to believe that non-human life has changed over time due to evolution.
6. The teachings of my religion contradict that all of life on Earth evolved from ancient microscopic life.
7. The teachings of my religion contradict that humans evolved from ancient ape ancestors.
8. The teachings of my religion contradict that non-human life evolved from previous different species.
9. The teachings of my religion contradict that humans have changed over time due to evolution.
10. The teachings of my religion contradict that non-human life has changed over time due to evolution.
11. My religious community does not believe that all of life on Earth evolved from ancient microscopic life.
12. My religious community does not believe that humans evolved from ancient ape ancestors.
13. My religious community does not believe that non-human life evolved from previous different species.
14. My religious community does not believe that humans have changed over time due to evolution.
15. My religious community does not believe that non-human life has changed over time due to evolution.
16. My personal religious beliefs make it harder to believe that all of life on Earth evolved from ancient microscopic life.
17. My personal religious beliefs make it harder to believe that humans evolved from ancient ape ancestors.
18. My personal religious beliefs make it harder to believe that non-human life evolved from previous different species.
19. My personal religious beliefs make it harder to believe that humans have changed over time due to evolution.
20. My personal religious beliefs make it harder to believe that non-human life has changed over time due to evolution.

Religious Affiliation

I most closely identify as:

- Buddhist
- Christian
- Hindu
- Jewish
- Muslim
- I don't identify with a religion
- Option not available, please describe _____
- Prefer not to answer

If "I don't identify with a religion" is chosen:

- I most closely identify as:
- Atheist (believes that God does not exist)
- Agnostic (does not have a definite belief about whether God exists or not)
- Option not available, please describe: _____
- Prefer not to answer

Religiosity

Please indicate how much you agree or disagree with the following statements: (5-pt Likert-scale)

1. I attend religious services regularly (when they are available)
2. I believe in God
3. I consider myself a religious person
4. I consider myself a spiritual person

Major

Is your major in biology? (includes biomedical sciences, biology and society, conservation biology, genetics, neurobiology/physiology/behavior, microbiology, medical microbiology, molecular bioscience, neuroscience)

- Yes
- No
- I'm not sure (please describe): _____

Gender

I most closely identify as:

- Woman
- Man
- Nonbinary

- Decline to state
- Please describe your gender identity if the best option is not listed: _____

Race/ethnicity:

What is your race/ethnicity? Please select all that apply.

- Asian (East Asian, Southeast Asian, South Asian, West Asian, Middle Eastern)
- Black
- Latinx
- Native American, American Indian, or Alaskan Native
- Native Hawaiian or Other Pacific Islander
- White
- Decline to state
- Option not available, please describe: _____

Additional File 2: Full regression tables and omnibus statistics for all analyses conducted

REGRESSIONS FOR DIFFERENCES BETWEEN CC AND UNIVERSITY STUDENTS

Table 1: Summary of linear regression results using evolution understanding as the dependent variable. Adjusted R^2 = 0.030, $F(3, 2484)$ = 26.383, $p < 0.001$. Variables that are significant at the 0.05 level are bolded.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	0.685	0.007		98.471	.000	0.671	0.698
Major	0.029	0.007	0.081	4.031	.000	0.015	0.043
State	-0.039	0.007	-0.113	-5.651	.000	-0.053	-0.026
Institution Type	-0.051	0.013	-0.08	-3.983	.000	-0.076	-0.026

Dependent Variable: Evolution Understanding

Table 2: Summary of linear regression results using microevolution acceptance as the dependent variable. Adjusted R^2 = 0.006, $F(3, 2482)$ = 6.240, $p < 0.001$. Variables that are significant at the 0.05 level are bolded.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	4.292	0.022		194.443	.000	4.248	4.335
Major	0.061	0.023	0.053	2.638	0.008	0.016	0.106
State	-0.04	0.022	-0.037	-1.828	0.068	-0.083	0.003
Institution Type	-0.088	0.04	-0.044	-2.162	0.031	-0.167	-0.008

Dependent Variable: Microevolution Acceptance

Table 3: Summary of linear regression results using macroevolution acceptance as the dependent variable. Adjusted R^2 = 0.003, $F(3, 2483)$ = 3.785, $p = 0.010$. Variables that are significant at the 0.05 level are bolded.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	3.907	0.025		158.384	.000	3.859	3.955
Major	0.039	0.026	0.031	1.521	0.128	-0.011	0.089
State	-0.06	0.025	-0.049	-2.431	0.015	-0.108	-0.012
Institution Type	-0.049	0.045	-0.022	-1.087	0.277	-0.137	0.039

Dependent Variable: Macroevolution Acceptance

Table 4: Summary of linear regression results using human evolution acceptance as the dependent variable. Adjusted R^2 = 0.003, F (3, 2484) = 2.448, p = 0.062. Variables that are significant at the 0.05 level are bolded.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	3.854	0.03		127.2	.000	3.794	3.913
Major	0.026	0.032	0.016	0.418	0.418	-0.036	0.087
State	-0.036	0.03	-0.024	0.232	0.232	-0.095	0.023
Institution Type	-0.111	0.055	-0.041	0.046	0.046	-0.219	-0.002

Dependent Variable: Human Evolution Acceptance

Table 5: Summary of linear regression results using evolution interest as the dependent variable. Adjusted R^2 = 0.056, F (3, 2275) = 45.794, p < 0.001. Variables that are significant at the 0.05 level are bolded.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	3.863	0.101		38.073	.000	3.664	4.062
Major	1.054	0.104	0.209	10.129	.000	0.85	1.258
State	-0.441	0.1	-0.091	-4.418	.000	-0.637	-0.246
Institution Type	-0.132	0.185	-0.015	-0.71	0.478	-0.495	0.232

Dependent Variable: Evolution Interest

Table 6: Summary of linear regression results using perceived conflict with God as the dependent variable. Adjusted R^2 = 0.012, F (3, 1936) = 9.138, p < 0.001. Variables that are significant at the 0.05 level are bolded.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	2.099	0.044		47.924	.000	2.013	2.185
Major	-0.045	0.047	-0.022	-0.956	0.339	-0.137	0.047
State	0.208	0.045	0.105	4.613	.000	0.119	0.296
Institution Type	0.139	0.091	0.035	0.519	0.129	-0.04	0.318

Dependent Variable: Perceived Conflict with God

Table 7: Summary of linear regression results using perceived conflict with religious beliefs as the dependent variable. Adjusted R^2 = 0.022, F (3, 1937) = 15.272, p < 0.01. Variables that are significant at the 0.05 level are bolded.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	2.065	0.044		46.918	.000	1.978	2.151
Major	-0.065	0.047	-0.031	-1.386	0.166	-0.157	0.027
State	0.265	0.045	0.132	5.855	.000	0.176	0.354
Institution Type	0.195	0.092	0.148	2.115	0.035	0.014	0.376

Dependent Variable: Perceived Conflict with Belief

Table 8: Summary of linear regression results using perceived conflict between evolution and religious teachings as the dependent variable. Adjusted R^2 = 0.011, F (3, 1937) = 7.982, p < 0.001. Variables that are significant at the 0.05 level are bolded.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	2.654	0.047		56.682	.000	2.563	2.746
Major	-0.015	0.05	-0.007	-0.306	0.76	-0.113	0.083
State	0.205	0.048	0.097	4.269	.000	0.111	0.3
Institution Type	0.179	0.098	0.042	1.835	0.067	-0.012	0.371

Dependent Variable: Perceived Conflict with Teachings

Table 9: Summary of linear regression results using students' perceived conflict with evolution among their religious community as the dependent variable. Adjusted R^2 = 0.023, F (3, 1938) = 76.797, p < 0.001. Variables that are significant at the 0.05 level are bolded.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	2.657	0.046		58.183	.000	2.568	2.747
Major	-0.005	0.049	-0.022	-0.099	.921	-0.101	0.091
State	0.292	0.047	0.141	6.230	.000	0.200	0.385
Institution Type	0.220	0.095	0.052	4.176	.021	0.033	0.407

Dependent Variable: Perceived Conflict with Community

Table 10: Summary of binary logistic regression results using institution type as the dependent variableland race/ethnicity as the predictor variable, *Cox & Snell R^2* = .025, (χ^2 (3) = 61.212, p < .001). Variables that are significant at the 0.05 level are bolded.

	B	Std. Error	Wald	df	Significance (p-value)	Exp(B)	95% Confidence Intervals for Exp(B)	
							Lower Bound	Upper Bound
White (ref)			44.664	3	.000			
Asian	-1.373	0.263	27.232	1	.000	0.253	0.151	0.424
[a]PEER	0.375	0.173	4.682	1	.030	1.455	1.036	2.043
Multiracial	0.088	0.234	0.140	1	.708	1.092	0.690	1.728
Constant	-2.293	0.124	343.788	1	.000	0.101		

[a]Persons historically Excluded due to their Race/Ethnicity (Black, Hispanic, Indigenous)

Table 11: Summary of binary logistic regression results using institution type as the dependent variableland religion as the predictor variable, *Cox & Snell R^2* = .004, (χ^2 (2) = 8.726, p = .013).

	B	Std. Error	Wald	df	Significance (p-value)	Exp(B)	95% Confidence Intervals for Exp(B)	
							Lower Bound	Upper Bound
No religion (ref)			7.495	2	.017			
Other religion	-0.629	0.268	5.519	1	.019	0.533	0.316	0.901
Christian	0.096	0.161	0.360	1	.548	1.101	0.804	1.509
Constant	-2.416	0.116	433.929	1	.000	0.089		

Table 12: Summary of binary logistic regression results using institution type as the dependent variableland parent education as the predictor variable, *Cox & Snell R^2* = .021, (χ^2 (2) = 51.077, p < .001).

	B	Std. Error	Wald	df	Significance (p-value)	Exp(B)	95% Confidence Intervals for Exp(B)	
							Lower Bound	Upper Bound
> Bachelor's (ref)			48.487	2	.000			
No college	1.008	0.179	31.575	1	.000	2.741	1.928	3.897
Some college	1.153	0.185	38.826	1	.000	3.167	2.204	4.551
Constant	-2.990	0.123	587.297	1	.000	0.050		

Table 13. Summary of binary logistic regression results using institution type as the dependent variableland religiosity as the predictor variable, *Cox & Snell R^2* = .000, (χ^2 (1) = .002, p = .965).

	B	Std. Error	Wald	df	Significance (p-value)	Exp(B)	95% Confidence Intervals for Exp(B)	
							Lower Bound	Upper Bound
Religiosity	-0.003	0.066	0.002	1	.965	0.997	0.875	1.136
Constant	-2.419	0.210	132.307	1	.000	0.089		

Table 14: Summary of binary logistic regression results using institution type as the dependent variableand gender as the predictor variable, *Cox & Snell R^2* = .000, (χ^2 (1) = 1.206, p = .272).

	B	Std. Error	Wald	df	Significance (p-value)	Exp(B)	95% Confidence Intervals for Exp(B)	
							Lower Bound	Upper Bound
Woman (Man ref)	-0.175	0.160	1.184	1	.277	0.840	0.613	1.150
Constant	-2.358	0.088	716.069	1	.000	0.095		

Table 15: Summary of binary logistic regression results using institution type as the dependent variableand age as the predictor variable, *Cox & Snell R^2* = .038, (χ^2 (1) = 97.381, p = .000).

	B	Std. Error	Wald	df	Significance (p-value)	Exp(B)	95% Confidence Intervals for Exp(B)	
							Lower Bound	Upper Bound
Age	0.177	0.019	87.274	1	.000	1.194	1.150	1.239
Constant	-5.987	0.396	228.711	1	.000	0.003		

REGRESSIONS OF FACTORS RELATED TO COMMUNITY COLLEGE STUDENT EVOLUTON ACCEPTANCE

Table 16: Summary of linear regression results using human evolution acceptance as the dependent variable for community college students only. Adjusted R^2 = 0.263, F (4, 195) = 18.717, p < 0.001.
Variables that are significant at the 0.05 level are bolded.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	4.564	0.279		16.375	.000	4.014	5.113
State	-0.067	0.104	-0.040	-0.642	0.522	-0.273	0.139
Understanding	0.310	0.295	0.074	1.143	0.255	-0.244	0.917
Religiosity	-0.354	0.046	-0.488	-7.619	.000	-0.445	-0.2
Major	0.110	0.100	0.068	1.099	0.273	-0.087	0.307

Dependent Variable: Human Evolution Acceptance

Table 17: Summary of linear regression results using macroevolution acceptance as the dependentvariable for community college students only. Adjusted R^2 = 0.206, F (4, 195) = 13.877, p < 0.001. Variables that are significant at the 0.05 level are bolded.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	4.496	0.227		19.822	.000	4.048	4.943
State	-0.110	0.085	-0.084	-1.291	0.198	-0.277	0.058
Understanding	0.036	0.240	0.010	0.148	0.883	-0.439	0.510
Religiosity	-0.232	0.038	-0.408	-6.105	.000	-0.307	-0.157
Major	0.177	0.081	0.139	2.178	0.031	0.017	0.338

Dependent Variable: Macroevolution Acceptance

Table 18: Summary of linear regression results using microevolution acceptance as the dependent variable for community college students only. Adjusted R^2 = 0.108, F (4, 194) = 7.004, p < 0.001. Variables that are significant at the 0.05 level are bolded.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	4.163	0.231		18.003	.000	3.707	4.619
State	-0.047	0.087	-0.037	-0.537	0.592	-0.218	0.125
Understanding	0.609	0.245	0.178	2.482	0.014	0.125	1.092
Religiosity	-0.120	0.039	-0.220	-3.094	0.002	-0.197	-0.044
Major	0.104	0.083	0.085	1.250	0.213	-0.060	0.268

Dependent Variable: Microevolution Acceptance

REGRESSIONS OF FACTORS RELATED TO UNIVERSITY STUDENT EVOLUTON ACCEPTANCE

Table 19: Summary of linear regression results using human evolution acceptance as the dependent variable for university students only. Adjusted R^2 = 0.225, F (4, 2281) = 166.508, p < 0.001. Variables thatare significant at the 0.05 level are bolded.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	3.840	0.075		50.900	.000	3.692	3.988
State	0.030	0.028	0.020	1.077	0.282	-0.024	0.084
Understanding	1.064	0.081	0.248	13.171	.000	0.905	1.222
Religiosity	-0.249	0.013	-0.371	-19.845	.000	-0.273	-0.224
Major	0.013	0.029	0.008	0.441	0.659	-0.044	0.070

Dependent variable: Human Evolution Acceptance

Table 20: Summary of linear regression results using macroevolution acceptance as the dependent variable for university students only. Adjusted R^2 = 0.173, F (4, 2280) = 120.196, p < 0.001. Variables thatare significant at the 0.05 level are bolded.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	3.730	0.064		58.525	.000	3.605	3.855
State	-0.008	0.023	-0.007	-0.346	0.730	-0.054	0.038
Understanding	0.922	0.068	0.263	13.514	.000	0.788	1.055
Religiosity	-0.156	0.011	-0.284	-14.780	.000	-0.177	-0.136
Major	0.016	0.025	0.013	0.666	0.506	-0.032	0.064

Dependent variable: Macroevolution Acceptance

Table 21: Summary of linear regression results using microevolution acceptance as the dependent variable for university students only. Adjusted R^2 = 0.149, F (4, 2280) = 100.799, p < 0.001. Variables thatare significant at the 0.05 level are bolded.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	3.815	0.058		66.313	.000	3.702	3.928
State	0.009	0.021	0.008	0.414	0.679	-0.033	0.050
Understanding	1.025	0.062	0.328	16.625	.000	0.904	1.146
Religiosity	-0.078	0.010	-0.160	-8.167	.000	-0.097	-0.059
Major	0.033	0.022	0.029	1.509	0.131	-0.010	0.077

Dependent variable: Microevolution Acceptance

Additional File 3: SPSS syntax for analyses
*Descriptive statistics

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SORT CASES BY cc.
SPLIT FILE SEPARATE BY cc.

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    + pconbelief [MEAN, MAXIMUM, MINIMUM, RANGE, STDDEV, COUNT F40.0]
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SORT CASES BY state.
SPLIT FILE SEPARATE BY state.

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    + pconbelief [MEAN, MAXIMUM, MINIMUM, RANGE, STDDEV, COUNT F40.0]
    + pconteach [MEAN, MAXIMUM, MINIMUM, RANGE, STDDEV, COUNT F40.0] + pconcom [MEAN,
MAXIMUM, MINIMUM, RANGE, STDDEV, COUNT F40.0]
    + evoint [MEAN, MAXIMUM, MINIMUM, RANGE, STDDEV, COUNT F40.0]
    + evound [MEAN, MAXIMUM, MINIMUM, RANGE, STDDEV, COUNT F40.0]
 /SLABELS POSITION=ROW
 /CRITERIA CILEVEL=95.

SPLIT FILE OFF.

Are there differences between community college and university student evolution understanding, evolution acceptance, evolution interest, and perceived conflict with their religion?

```
REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT evound
 /METHOD=ENTER biomajor state cc
 /SCATTERPLOT=(*ZRESID ,*ZPRED)
 /RESIDUALS NORMPROB(ZRESID).

REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT micro
 /METHOD=ENTER biomajor state cc
 /SCATTERPLOT=(*ZRESID ,*ZPRED)
 /RESIDUALS NORMPROB(ZRESID).

REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT macro
 /METHOD=ENTER biomajor state cc
 /SCATTERPLOT=(*ZRESID ,*ZPRED)
 /RESIDUALS NORMPROB(ZRESID).

REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT human
 /METHOD=ENTER biomajor state cc
 /SCATTERPLOT=(*ZRESID ,*ZPRED)
 /RESIDUALS NORMPROB(ZRESID).

REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT evoint
```

```
 /METHOD=ENTER biomajor state cc
 /SCATTERPLOT=(*ZRESID ,*ZPRED)
 /RESIDUALS NORMPROB(ZRESID).

REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT pcongod
 /METHOD=ENTER biomajor state cc
 /SCATTERPLOT=(*ZRESID ,*ZPRED)
 /RESIDUALS NORMPROB(ZRESID).

REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT pconbelief
 /METHOD=ENTER biomajor state cc
 /SCATTERPLOT=(*ZRESID ,*ZPRED)
 /RESIDUALS NORMPROB(ZRESID).

REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT pconteach
 /METHOD=ENTER biomajor state cc
 /SCATTERPLOT=(*ZRESID ,*ZPRED)
 /RESIDUALS NORMPROB(ZRESID).

REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT pconcom
 /METHOD=ENTER biomajor state cc
 /SCATTERPLOT=(*ZRESID ,*ZPRED)
 /RESIDUALS NORMPROB(ZRESID).
```

What are factors related to community college student evolution acceptance?

```
USE ALL.
COMPUTE filter_$=(cc = 1).
```

```
VARIABLE LABELS filter_$ 'cc = 1 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.


REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT human
 /METHOD=ENTER state evound religiosity biomajor
 /SCATTERPLOT=(*ZRESID ,*ZPRED)
 /RESIDUALS NORMPROB(ZRESID).


REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT macro
 /METHOD=ENTER state evound religiosity biomajor
 /SCATTERPLOT=(*ZRESID ,*ZPRED)
 /RESIDUALS NORMPROB(ZRESID).


REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT micro
 /METHOD=ENTER state evound religiosity biomajor
 /SCATTERPLOT=(*ZRESID ,*ZPRED)
 /RESIDUALS NORMPROB(ZRESID).


FILTER OFF.
USE ALL.
EXECUTE.


*What are factors related to university student evolution acceptance?*

USE ALL.
COMPUTE filter_$=(cc = 0).
VARIABLE LABELS filter_$ 'cc = 0 (FILTER)'.
```

```
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.

REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT human
 /METHOD=ENTER state evound religiosity biomajor
 /SCATTERPLOT=(*ZRESID ,*ZPRED)
 /RESIDUALS NORMPROB(ZRESID).


REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT macro
 /METHOD=ENTER state evound religiosity biomajor
 /SCATTERPLOT=(*ZRESID ,*ZPRED)
 /RESIDUALS NORMPROB(ZRESID).


REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT micro
 /METHOD=ENTER state evound religiosity biomajor
 /SCATTERPLOT=(*ZRESID ,*ZPRED)
 /RESIDUALS NORMPROB(ZRESID).


FILTER OFF.
USE ALL.
EXECUTE.


*Differences between university and community college demographics*

LOGISTIC REGRESSION VARIABLES cc
 /METHOD=ENTER race
 /CONTRAST (race)=Indicator(1)
 /PRINT=CI(95)
```

```
    /CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).

LOGISTIC REGRESSION VARIABLES cc
 /METHOD=ENTER religion
 /CONTRAST (religion)=Indicator(1)
  /PRINT=CI(95)
 /CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).

LOGISTIC REGRESSION VARIABLES cc
 /METHOD=ENTER parented
  /CONTRAST (parented)=Indicator
   /PRINT=CI(95)
 /CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).

LOGISTIC REGRESSION VARIABLES cc
 /METHOD=ENTER religiosity
  /PRINT=CI(95)
 /CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).

LOGISTIC REGRESSION VARIABLES cc
 /METHOD=ENTER gender
  /CONTRAST (gender)=Indicator(1)
   /PRINT=CI(95)
 /CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).

LOGISTIC REGRESSION VARIABLES cc
 /METHOD=ENTER age
  /PRINT=CI(95)
 /CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).

*Reliability*

RELIABILITY
 /VARIABLES=evoint1 evoint2 evoint3 evoint4
 /SCALE('ALL VARIABLES') ALL
 /MODEL=ALPHA.

RELIABILITY
 /VARIABLES=evound1T evound2F evound3T evound4F evound5T evound6T evound7T evound8F
evound9F evound10F evound11T evound12F evound13F evound14F
 /SCALE('ALL VARIABLES') ALL
 /MODEL=ALPHA.

RELIABILITY
 /VARIABLES=micro1 micro2 micro3 micro4 micro5 micro6 micro7 micro8
 /SCALE('ALL VARIABLES') ALL
 /MODEL=ALPHA.
```

```
RELIABILITY
 /VARIABLES=macro1 macro2 macro3 macro4 macro5 macro6 macro7 macro8
 /SCALE('ALL VARIABLES') ALL
 /MODEL=ALPHA.

RELIABILITY
 /VARIABLES=human1 human2 human3 human4 human5 human6 human7 human8
 /SCALE('ALL VARIABLES') ALL
 /MODEL=ALPHA.

RELIABILITY
 /VARIABLES=godca godhumacro godnonhumacro godhumicro godnonhumicro
 /SCALE('ALL VARIABLES') ALL
 /MODEL=ALPHA.

RELIABILITY
 /VARIABLES=teachca teachumacro teachnonhumacro teachumicro teachnonhumicro
 /SCALE('ALL VARIABLES') ALL
 /MODEL=ALPHA.

RELIABILITY
 /VARIABLES=belca belhumacro belnonhumacro belhumicro belnonhumicro
 /SCALE('ALL VARIABLES') ALL
 /MODEL=ALPHA.

RELIABILITY
 /VARIABLES=comca comhumacro comhumicro comnonhumacro comnonhumicro
 /SCALE('ALL VARIABLES') ALL
 /MODEL=ALPHA.

RELIABILITY
 /VARIABLES=rel1 rel2 rel3 rel4
 /SCALE('ALL VARIABLES') ALL
 /MODEL=ALPHA.
```