Factor Analysis
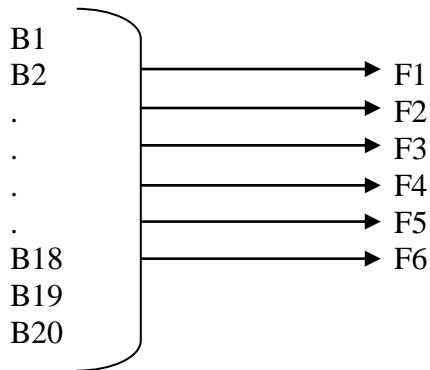COM 631, Spring 2019
K. Neuendorf

I. THE MODEL

From the Humor and Public Opinion Study 2010

Public Opinion measures:

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B1  ⎫
B2  ⎪ ──────────────→ F1
.   ⎪ ──────────────→ F2
.   ⎪ ──────────────→ F3
.   ⎬ ──────────────→ F4
.   ⎪ ──────────────→ F5
B18 ⎪ ──────────────→ F6
B19 ⎪
B20 ⎭
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For items B1-B12, 0 = strongly disagree, 10 = strongly agree:
B1. Barack Obama is doing a good job as president.
B2. I believe that O.J. Simpson is innocent of murder.
B3. Affirmative action is still necessary to help minorities and other groups.
B4. The Internet provides me with lots of information I need.
B5. I like finding unexpected linkages on the Internet.
B6. Abortion should remain legal.
B7. All human cloning should be banned.
B8. I favor the death penalty for a person convicted of murder.
B9. Marriages between same-sex couples should be recognized by the law as valid, with the same rights as traditional marriages.
B10. The laws covering the sale of firearms should be made more strict.
B11. The problem of drugs in the United States is extremely serious.
B12. The U.S. healthcare system today is in a state of crisis.

For items B13-B18, 0 = very dissatisfied, 10 = very satisfied:
B13. How satisfied are you with the way women are treated [in society]?
B14. How about Blacks?
B15. Asians?
B16. How satisfied are you with the way Arabs are treated?
B17. How about immigrants?
B18. Hispanics?

For item B19, 0 = not worried at all, 10 = very worried:
B19. How worried are you that you or someone in your family will become a victim of terrorism?

For item B20, 0 = too little regulation, 10 = too much regulation:
B20. In general, do you think there is too much or too little government regulation of business and industry?

II. RUNNING SPSS

ANALYZE → DIMENSION REDUCTION [DATA REDUCTION] → FACTOR

DESCRIPTIVES → STATISTICS →   √ UNIVARIATE DESCRIPTIVES
                                 √ INITIAL SOLUTION
                   → CORRELATION MATRIX → √ COEFFICIENTS
                                 √ SIGNIFICANCE LEVELS
                                 √ KMO & BARTLETT'S

CONTINUE

EXTRACTION → METHOD → PRINCIPAL COMPONENTS
→ ANALYZE → CORRELATION MATRIX
→ DISPLAY →   √ UNROTATED FACTOR SOLUTION,
√ SCREE PLOT
→ EXTRACT → EIGENVALUES GREATER THAN 1
→ MAXIMUM ITERATIONS FOR CONVERGENCE 100

CONTINUE

ROTATION → METHOD → VARIMAX
       → DISPLAY → √ ROTATED SOLUTION
       → MAXIMUM ITERATIONS FOR CONVERGENCE 100

CONTINUE

[NOTE: Did not use these factor scores as new scales in any way in this analysis; this page is included for illustrative purposes only.]

SCORES → SAVE AS VARIABLES → METHOD → REGRESSION
        → √ DISPLAY FACTOR SCORE COEFFICIENT MATRIX

CONTINUE

OPTIONS → MISSING VALUES → EXCLUDE CASES LISTWISE
→ COEFFICIENT DISPLAY FORMAT→ √ SORTED BY SIZE

CONTINUE

PASTE → Then run from syntax file

III. SPSS OUTPUT

[NOTE: Correlations shown here are from a separate run of the Correlations procedure, just because the correlation matrix provided by the Factor procedure did not survive the translation to Word very well!]

```
CORRELATIONS
  /VARIABLES=B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20
  /PRINT=TWOTAIL NOSIG
  /MISSING=PAIRWISE.
```

Correlations

Correlations

		B1. Barack Obama is doing a good job as president.	B2. I believe that O.J. Simpson is innocent of murder.	B3. Affirmative action is still necessary to help minorities and other groups.	B4. The Internet provides me with lots of information I need.	B5. I like finding unexpected linkages on the Internet.	B6. Abortion should remain legal.	B7. All human cloning should be banned.	B8. I favor the death penalty for a person convicted of murder.
B1. Barack Obama is doing a good job as president.	Pearson Correlation	1	.169**	.431**	.158**	.115	.268**	.005	-.244**
	Sig. (2-tailed)		.005	.000	.008	.056	.000	.937	.000
	N	280	279	280	277	277	277	278	277
B2. I believe that O.J. Simpson is innocent of murder.	Pearson Correlation	.169**	1	.309**	.009	-.015	.014	.167**	-.129*
	Sig. (2-tailed)	.005		.000	.886	.810	.819	.005	.032
	N	279	279	279	276	276	276	277	276
B3. Affirmative action is still necessary to help minorities and other groups.	Pearson Correlation	.431**	.309**	1	.156**	.118*	.116	.114	-.208**
	Sig. (2-tailed)	.000	.000		.009	.050	.053	.058	.000
	N	280	279	280	277	277	277	278	277
B4. The Internet provides me with lots of information I need.	Pearson Correlation	.158**	.009	.156**	1	.311**	-.015	.005	-.010
	Sig. (2-tailed)	.008	.886	.009		.000	.806	.930	.866
	N	277	276	277	277	274	274	275	274
B5. I like finding unexpected linkages on the Internet.	Pearson Correlation	.115	-.015	.118*	.311**	1	.042	-.120*	-.072
	Sig. (2-tailed)	.056	.810	.050	.000		.487	.046	.235
	N	277	276	277	274	277	274	275	274
B6. Abortion should remain legal.	Pearson Correlation	.268**	.014	.116	-.015	.042	1	-.088	.001
	Sig. (2-tailed)	.000	.819	.053	.806	.487		.144	.987
	N	277	276	277	274	274	277	275	274
B7. All human cloning should	Pearson Correlation	.005	.167**	.114	.005	-.120*	-.088	1	-.013

be banned.	Sig. (2-tailed)	.937	.005	.058	.930	.046	.144		.832
	N	278	277	278	275	275	275	278	275
B8. I favor the death penalty for a person convicted of murder.	Pearson Correlation	-.244**	-.129*	-.208**	-.010	-.072	.001	-.013	1
	Sig. (2-tailed)	.000	.032	.000	.866	.235	.987	.832	
	N	277	276	277	274	274	274	275	277
B9. Marriages between same-sex couples should be recognized by the law as valid, with the same rights as traditional marriages.	Pearson Correlation	.177**	-.066	.009	.017	.157**	.367**	-.257**	.000
	Sig. (2-tailed)	.003	.271	.878	.775	.009	.000	.000	.998
	N	280	279	280	277	277	277	278	277
B10. The laws covering the sale of firearms should be made more strict.	Pearson Correlation	.306**	.039	.182**	.169**	.079	.129*	.160**	.045
	Sig. (2-tailed)	.000	.520	.002	.005	.188	.032	.008	.454
	N	279	278	279	276	276	276	277	276
B11. The problem of drugs in the United States is extremely serious.	Pearson Correlation	.102	.121*	.155**	.109	.041	-.020	.203**	.076
	Sig. (2-tailed)	.090	.045	.009	.070	.497	.745	.001	.206
	N	279	278	279	276	276	276	277	276
B12. The U.S. healthcare system today is in a state of crisis.	Pearson Correlation	.361**	.021	.238**	.236**	.205**	.130*	-.021	-.131*
	Sig. (2-tailed)	.000	.730	.000	.000	.001	.031	.727	.030
	N	278	277	278	275	275	276	276	275
B13. How satisfied are you with the way women are treated?	Pearson Correlation	-.210**	-.045	-.251**	.061	-.074	-.065	.019	.199**
	Sig. (2-tailed)	.000	.454	.000	.311	.220	.281	.746	.001
	N	280	279	280	277	277	277	278	277
B14. How about Blacks?	Pearson Correlation	-.209**	-.224**	-.355**	.043	.048	-.116	-.056	.257**
	Sig. (2-tailed)	.000	.000	.000	.475	.427	.054	.355	.000
	N	280	279	280	277	277	277	278	277
B15. Asians?	Pearson Correlation	-.089	-.083	-.216**	.132*	.068	-.072	-.007	.208**
	Sig. (2-tailed)	.143	.172	.000	.030	.269	.236	.908	.001
	N	273	272	273	270	270	270	271	270
B16. How satisfied are you with the way Arabs are treated?	Pearson Correlation	-.200**	-.026	-.241**	.028	-.017	-.056	.079	.274**
	Sig. (2-tailed)	.001	.661	.000	.642	.777	.357	.187	.000
	N	280	279	280	277	277	277	278	277
B17. How about immigrants?	Pearson Correlation	-.223**	-.033	-.237**	.097	-.007	-.037	.003	.259**
	Sig. (2-tailed)	.000	.581	.000	.108	.911	.545	.956	.000
	N	279	278	279	276	276	276	277	276
B18. Hispanics?	Pearson Correlation	-.170**	-.063	-.269**	.024	.048	-.067	.037	.172**
	Sig. (2-tailed)	.004	.296	.000	.692	.428	.271	.544	.004

	N	278	277	278	275	275	275	276	275
B19. How worried are you that you or someone in your family will become a victim of terrorism?	Pearson Correlation	.033	.015	.086	.011	-.009	-.042	.023	.095
	Sig. (2-tailed)	.582	.808	.153	.853	.884	.491	.706	.115
	N	280	279	280	277	277	277	278	277
B20. In general, do you think there is too much or too little government regulation of business and industry?	Pearson Correlation	-.309**	-.084	-.177**	-.088	-.023	-.175**	.016	.220**
	Sig. (2-tailed)	.000	.162	.003	.145	.700	.003	.793	.000
	N	280	279	280	277	277	277	278	277

Correlations

		B9. Marriages between same-sex couples should be recognized by the law as valid, with the same rights as traditional marriages.	B10. The laws covering the sale of firearms should be made more strict.	B11. The problem of drugs in the United States is extremely serious.	B12. The U.S. healthcare system today is in a state of crisis.	B13. How satisfied are you with the way women are treated?	B14. How about Blacks?	B15. Asians?	B16. How satisfied are you with the way Arabs are treated?
B1. Barack Obama is doing a good job as president.	Pearson Correlation	.177**	.306**	.102	.361**	-.210**	-.209**	-.089	-.200**
	Sig. (2-tailed)	.003	.000	.090	.000	.000	.000	.143	.001
	N	280	279	279	278	280	280	273	280
B2. I believe that O.J. Simpson is innocent of murder.	Pearson Correlation	-.066	.039	.121*	.021	-.045	-.224**	-.083	-.026
	Sig. (2-tailed)	.271	.520	.045	.730	.454	.000	.172	.661
	N	279	278	278	277	279	279	272	279
B3. Affirmative action is still necessary to help minorities and other groups.	Pearson Correlation	.009	.182**	.155**	.238**	-.251**	-.355**	-.216**	-.241**
	Sig. (2-tailed)	.878	.002	.009	.000	.000	.000	.000	.000
	N	280	279	279	278	280	280	273	280
B4. The Internet provides me with lots of information I need.	Pearson Correlation	.017	.169**	.109	.236**	.061	.043	.132*	.028
	Sig. (2-tailed)	.775	.005	.070	.000	.311	.475	.030	.642
	N	277	276	276	275	277	277	270	277
B5. I like finding	Pearson Correlation	.157**	.079	.041	.205**	-.074	.048	.068	-.017

unexpected linkages on the Internet.	Sig. (2-tailed)	.009	.188	.497	.001	.220	.427	.269	.777
	N	277	276	276	275	277	277	270	277
B6. Abortion should remain legal.	Pearson Correlation	.367**	.129*	-.020	.130*	-.065	-.116	-.072	-.056
	Sig. (2-tailed)	.000	.032	.745	.031	.281	.054	.236	.357
	N	277	276	276	276	277	277	270	277
B7. All human cloning should be banned.	Pearson Correlation	-.257**	.160**	.203**	-.021	.019	-.056	-.007	.079
	Sig. (2-tailed)	.000	.008	.001	.727	.746	.355	.908	.187
	N	278	277	277	276	278	278	271	278
B8. I favor the death penalty for a person convicted of murder.	Pearson Correlation	.000	.045	.076	-.131*	.199**	.257**	.208**	.274**
	Sig. (2-tailed)	.998	.454	.206	.030	.001	.000	.001	.000
	N	277	276	276	275	277	277	270	277
B9. Marriages between same-sex couples should be recognized by the law as valid, with the same rights as traditional marriages.	Pearson Correlation	1	.198**	-.161**	.119*	-.107	-.066	-.098	-.103
	Sig. (2-tailed)		.001	.007	.047	.073	.273	.107	.086
	N	280	279	279	278	280	280	273	280
B10. The laws covering the sale of firearms should be made more strict.	Pearson Correlation	.198**	1	.324**	.282**	-.111	-.119*	-.153*	-.165**
	Sig. (2-tailed)	.001		.000	.000	.064	.047	.012	.006
	N	279	279	278	277	279	279	272	279
B11. The problem of drugs in the United States is extremely serious.	Pearson Correlation	-.161**	.324**	1	.379**	-.082	-.074	-.084	.040
	Sig. (2-tailed)	.007	.000		.000	.172	.215	.166	.504
	N	279	278	279	277	279	279	272	279
B12. The U.S. healthcare system today is in a state of crisis.	Pearson Correlation	.119*	.282**	.379**	1	-.246**	-.208**	-.183**	-.142*
	Sig. (2-tailed)	.047	.000	.000		.000	.000	.002	.018
	N	278	277	277	278	278	278	271	278
B13. How satisfied are you with the way women are treated?	Pearson Correlation	-.107	-.111	-.082	-.246**	1	.640**	.588**	.445**
	Sig. (2-tailed)	.073	.064	.172	.000		.000	.000	.000
	N	280	279	279	278	280	280	273	280
B14. How about Blacks?	Pearson Correlation	-.066	-.119*	-.074	-.208**	.640**	1	.703**	.621**
	Sig. (2-tailed)	.273	.047	.215	.000	.000		.000	.000
	N	280	279	279	278	280	280	273	280
B15. Asians?	Pearson Correlation	-.098	-.153*	-.084	-.183**	.588**	.703**	1	.532**
	Sig. (2-tailed)	.107	.012	.166	.002	.000	.000		.000
	N	273	272	272	271	273	273	273	273
B16. How satisfied are you with the way Arabs are	Pearson Correlation	-.103	-.165**	.040	-.142*	.445**	.621**	.532**	1
	Sig. (2-tailed)	.086	.006	.504	.018	.000	.000	.000	

treated?	N	280	279	279	278	280	280	273	280
B17. How about immigrants?	Pearson Correlation	-.096	-.144*	-.026	-.198**	.466**	.604**	.487**	.759**
	Sig. (2-tailed)	.111	.016	.662	.001	.000	.000	.000	.000
	N	279	278	278	277	279	279	272	279
B18. Hispanics?	Pearson Correlation	-.045	-.114	-.075	-.224**	.532**	.736**	.619**	.643**
	Sig. (2-tailed)	.455	.057	.214	.000	.000	.000	.000	.000
	N	278	277	277	276	278	278	271	278
B19. How worried are you that you or someone in your family will become a victim of terrorism?	Pearson Correlation	.019	.146*	.177**	.050	-.054	.017	-.079	.033
	Sig. (2-tailed)	.755	.015	.003	.410	.369	.773	.190	.577
	N	280	279	279	278	280	280	273	280
B20. In general, do you think there is too much or too little government regulation of business and industry?	Pearson Correlation	-.153*	-.294**	-.137*	-.214**	.146*	.198**	.157**	.205**
	Sig. (2-tailed)	.010	.000	.022	.000	.014	.001	.009	.001
	N	280	279	279	278	280	280	273	280

Correlations

		B17. How about immigrants?	B18. Hispanics?	B19. How worried are you that you or someone in your family will become a victim of terrorism?	B20. In general, do you think there is too much or too little government regulation of business and industry?
B1. Barack Obama is doing a good job as president.	Pearson Correlation	-.223**	-.170**	.033	-.309**
	Sig. (2-tailed)	.000	.004	.582	.000
	N	279	278	280	280
B2. I believe that O.J. Simpson is innocent of murder.	Pearson Correlation	-.033	-.063	.015	-.084
	Sig. (2-tailed)	.581	.296	.808	.162
	N	278	277	279	279
B3. Affirmative action is still necessary to help minorities and other groups.	Pearson Correlation	-.237**	-.269**	.086	-.177**
	Sig. (2-tailed)	.000	.000	.153	.003
	N	279	278	280	280
B4. The Internet provides me with lots of information I need.	Pearson Correlation	.097	.024	.011	-.088
	Sig. (2-tailed)	.108	.692	.853	.145
	N	276	275	277	277
B5. I like finding unexpected linkages on the Internet.	Pearson Correlation	-.007	.048	-.009	-.023
	Sig. (2-tailed)	.911	.428	.884	.700
	N	276	275	277	277
B6. Abortion should remain legal.	Pearson Correlation	-.037	-.067	-.042	-.175**
	Sig. (2-tailed)	.545	.271	.491	.003
	N	276	275	277	277
B7. All human cloning should be banned.	Pearson Correlation	.003	.037	.023	.016
	Sig. (2-tailed)	.956	.544	.706	.793
	N	277	276	278	278
B8. I favor the death penalty for a person	Pearson Correlation	.259**	.172**	.095	.220**
	Sig. (2-tailed)	.000	.004	.115	.000

convicted of murder.	N	276	275	277	277
B9. Marriages between same-sex couples should be recognized by the law as valid, with the same rights as traditional marriages.	Pearson Correlation	-.096	-.045	.019	-.153[*]
	Sig. (2-tailed)	.111	.455	.755	.010
	N	279	278	280	280
B10. The laws covering the sale of firearms should be made more strict.	Pearson Correlation	-.144[*]	-.114	.146[*]	-.294[**]
	Sig. (2-tailed)	.016	.057	.015	.000
	N	278	277	279	279
B11. The problem of drugs in the United States is extremely serious.	Pearson Correlation	-.026	-.075	.177[**]	-.137[*]
	Sig. (2-tailed)	.662	.214	.003	.022
	N	278	277	279	279
B12. The U.S. healthcare system today is in a state of crisis.	Pearson Correlation	-.198[**]	-.224[**]	.050	-.214[**]
	Sig. (2-tailed)	.001	.000	.410	.000
	N	277	276	278	278
B13. How satisfied are you with the way women are treated?	Pearson Correlation	.466[**]	.532[**]	-.054	.146[*]
	Sig. (2-tailed)	.000	.000	.369	.014
	N	279	278	280	280
B14. How about Blacks?	Pearson Correlation	.604[**]	.736[**]	.017	.198[**]
	Sig. (2-tailed)	.000	.000	.773	.001
	N	279	278	280	280
B15. Asians?	Pearson Correlation	.487[**]	.619[**]	-.079	.157[**]
	Sig. (2-tailed)	.000	.000	.190	.009
	N	272	271	273	273
B16. How satisfied are you with the way Arabs are treated?	Pearson Correlation	.759[**]	.643[**]	.033	.205[**]
	Sig. (2-tailed)	.000	.000	.577	.001
	N	279	278	280	280
B17. How about immigrants?	Pearson Correlation	1	.740[**]	.059	.225[**]
	Sig. (2-tailed)		.000	.326	.000
	N	279	277	279	279
B18. Hispanics?	Pearson Correlation	.740[**]	1	-.052	.186[**]
	Sig. (2-tailed)	.000		.386	.002
	N	277	278	278	278
B19. How worried are you that you or someone in your family will become a victim of terrorism?	Pearson Correlation	.059	-.052	1	.048
	Sig. (2-tailed)	.326	.386		.424
	N	279	278	280	280
B20. In general, do you think there is too much or too little government regulation of business and industry?	Pearson Correlation	.225[**]	.186[**]	.048	1
	Sig. (2-tailed)	.000	.002	.424	
	N	279	278	280	280

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

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FACTOR
  /VARIABLES B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20
  /MISSING LISTWISE
  /ANALYSIS B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20
  /PRINT UNIVARIATE INITIAL KMO EXTRACTION ROTATION FSCORE
  /FORMAT SORT
  /PLOT EIGEN
  /CRITERIA MINEIGEN(1) ITERATE(100)
  /EXTRACTION PC
  /CRITERIA ITERATE(100)
  /ROTATION VARIMAX
  /SAVE REG(ALL)
  /METHOD=CORRELATION.
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Factor Analysis

Descriptive Statistics

	Mean	Std. Deviation	Analysis N
B1. Barack Obama is doing a good job as president.	5.75	2.774	252
B2. I believe that O.J. Simpson is innocent of murder.	2.52	2.620	252
B3. Affirmative action is still necessary to help minorities and other groups.	5.00	3.049	252
B4. The Internet provides me with lots of information I need.	8.50	1.963	252
B5. I like finding unexpected linkages on the Internet.	5.79	3.149	252
B6. Abortion should remain legal.	6.45	3.465	252
B7. All human cloning should be banned.	4.83	3.479	252
B8. I favor the death penalty for a person convicted of murder.	5.66	3.468	252
B9. Marriages between same-sex couples should be recognized by the law as valid, with the same rights as traditional marriages.	6.88	3.643	252
B10. The laws covering the sale of firearms should be made more strict.	6.59	3.225	252
B11. The problem of drugs in the United States is extremely serious.	6.27	2.984	252
B12. The U.S. healthcare system today is in a state of crisis.	7.14	2.475	252
B13. How satisfied are you with the way women are treated?	5.44	2.583	252
B14. How about Blacks?	5.21	2.693	252
B15. Asians?	5.81	2.443	252
B16. How satisfied are you with the way Arabs are treated?	4.40	2.739	252
B17. How about immigrants?	4.51	2.705	252
B18. Hispanics?	5.11	2.575	252
B19. How worried are you that you or someone in your family will become a victim of terrorism?	2.53	2.684	252
B20. In general, do you think there is too much or too little government regulation of business and industry?	5.03	2.453	252

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.796
Bartlett's Test of Sphericity	Approx. Chi-Square	1568.335
	df	190
	Sig.	.000

Communalities

	Initial	Extraction
B1. Barack Obama is doing a good job as president.	1.000	.579
B2. I believe that O.J. Simpson is innocent of murder.	1.000	.638
B3. Affirmative action is still necessary to help minorities and other groups.	1.000	.576
B4. The Internet provides me with lots of information I need.	1.000	.556
B5. I like finding unexpected linkages on the Internet.	1.000	.622
B6. Abortion should remain legal.	1.000	.614
B7. All human cloning should be banned.	1.000	.495
B8. I favor the death penalty for a person convicted of murder.	1.000	.540
B9. Marriages between same-sex couples should be recognized by the law as valid, with the same rights as traditional marriages.	1.000	.675
B10. The laws covering the sale of firearms should be made more strict.	1.000	.601
B11. The problem of drugs in the United States is extremely serious.	1.000	.626
B12. The U.S. healthcare system today is in a state of crisis.	1.000	.499
B13. How satisfied are you with the way women are treated?	1.000	.577
B14. How about Blacks?	1.000	.811
B15. Asians?	1.000	.667
B16. How satisfied are you with the way Arabs are treated?	1.000	.685
B17. How about immigrants?	1.000	.715
B18. Hispanics?	1.000	.755
B19. How worried are you that you or someone in your family will become a victim of terrorism?	1.000	.509
B20. In general, do you think there is too much or too little government regulation of business and industry?	1.000	.547

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.817	24.085	24.085	4.817	24.085	24.085
2	2.130	10.649	34.734	2.130	10.649	34.734
3	1.698	8.488	43.222	1.698	8.488	43.222
4	1.390	6.950	50.173	1.390	6.950	50.173
5	1.232	6.160	56.332	1.232	6.160	56.332
6	1.018	5.092	61.425	1.018	5.092	61.425
7	.895	4.476	65.901			
8	.833	4.164	70.066			
9	.780	3.901	73.967			
10	.733	3.666	77.633			
11	.703	3.513	81.145			
12	.654	3.268	84.413			
13	.612	3.060	87.474			
14	.527	2.634	90.108			
15	.497	2.487	92.595			
16	.436	2.181	94.775			
17	.363	1.814	96.589			
18	.303	1.515	98.105			
19	.222	1.111	99.215			
20	.157	.785	100.000			

Total Variance Explained

| Component | Rotation Sums of Squared Loadings | | |
	Total	% of Variance	Cumulative %
1	4.238	21.190	21.190
2	2.041	10.204	31.395
3	1.599	7.994	39.389
4	1.536	7.679	47.068
5	1.508	7.539	54.607
6	1.364	6.818	61.425
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Extraction Method: Principal Component Analysis.

Scree Plot
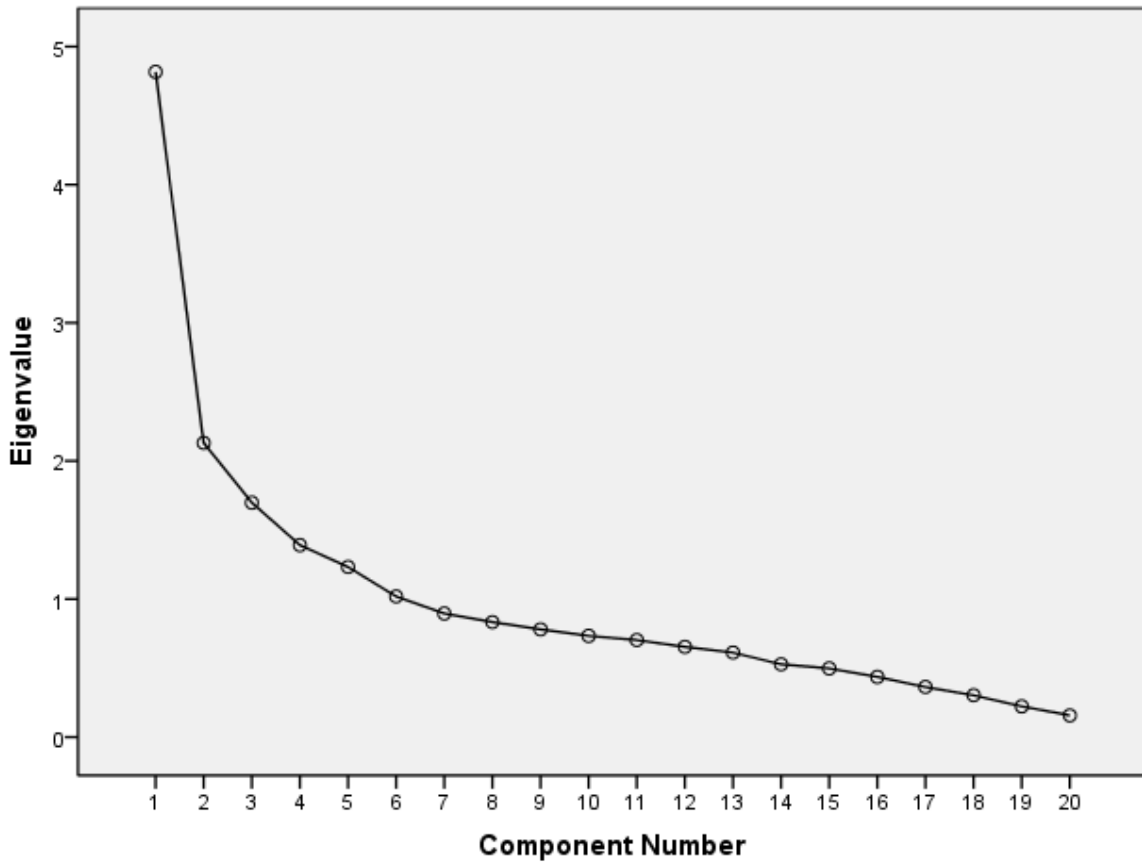
Component Matrix[a]

	Component			
	1	2	3	4
B14. How about Blacks?	.849	.226	-.099	.022
B18. Hispanics?	.811	.260	-.114	-.048
B17. How about immigrants?	.786	.223	.036	.021
B16. How satisfied are you with the way Arabs are treated?	.762	.266	.089	.045
B15. Asians?	.726	.270	-.139	-.187
B13. How satisfied are you with the way women are treated?	.701	.167	-.049	-.057
B3. Affirmative action is still necessary to help minorities and other groups.	-.510	.319	.143	-.276
B1. Barack Obama is doing a good job as president.	-.471	.464	-.192	-.138
B10. The laws covering the sale of firearms should be made more strict.	-.312	.551	.037	.418
B4. The Internet provides me with lots of information I need.	-.015	.535	-.113	-.338
B12. The U.S. healthcare system today is in a state of crisis.	-.386	.513	-.006	.078
B11. The problem of drugs in the United States is extremely serious.	-.125	.506	.494	.284
B9. Marriages between same-sex couples should be recognized by the law as valid, with the same rights as traditional marriages.	-.195	.097	-.674	.338
B7. All human cloning should be banned.	-.036	.220	.557	-.037
B6. Abortion should remain legal.	-.207	.138	-.472	.293
B8. I favor the death penalty for a person convicted of murder.	.412	-.017	.108	.503
B19. How worried are you that you or someone in your family will become a victim of terrorism?	-.067	.148	.316	.419
B5. I like finding unexpected linkages on the Internet.	-.067	.350	-.307	-.338
B2. I believe that O.J. Simpson is innocent of murder.	-.240	.160	.296	-.353
B20. In general, do you think there is too much or too little government regulation of business and industry?	.396	-.342	.216	-.078

Component Matrix[a]

	Component	
	5	6
B14. How about Blacks?	-.018	-.168
B18. Hispanics?	.117	.011
B17. How about immigrants?	.042	.210
B16. How satisfied are you with the way Arabs are treated?	.087	.125
B15. Asians?	.085	-.070
B13. How satisfied are you with the way women are treated?	.196	-.115
B3. Affirmative action is still necessary to help minorities and other groups.	.130	.318
B1. Barack Obama is doing a good job as president.	.291	.004
B10. The laws covering the sale of firearms should be made more strict.	.078	-.132
B4. The Internet provides me with lots of information I need.	-.368	.083
B12. The U.S. healthcare system today is in a state of crisis.	-.233	-.164
B11. The problem of drugs in the United States is extremely serious.	-.115	-.127
B9. Marriages between same-sex couples should be recognized by the law as valid, with the same rights as traditional marriages.	.038	.241
B7. All human cloning should be banned.	.355	-.083
B6. Abortion should remain legal.	.418	.262
B8. I favor the death penalty for a person convicted of murder.	-.103	.307
B19. How worried are you that you or someone in your family will become a victim of terrorism?	-.334	.309
B5. I like finding unexpected linkages on the Internet.	-.513	.152
B2. I believe that O.J. Simpson is innocent of murder.	.345	.472
B20. In general, do you think there is too much or too little government regulation of business and industry?	-.214	.418

Extraction Method: Principal Component Analysis.
a. 6 components extracted.

17

Rotated Component Matrix^a

	Component			
	1	2	3	4
B18. Hispanics?	.861	-.084	.012	-.075
B14. How about Blacks?	.848	-.026	-.092	-.284
B17. How about immigrants?	.794	-.137	-.027	.025
B16. How satisfied are you with the way Arabs are treated?	.794	-.040	-.068	.026
B15. Asians?	.790	-.081	-.047	-.066
B13. How satisfied are you with the way women are treated?	.740	-.055	-.058	-.084
B10. The laws covering the sale of firearms should be made more strict.	-.076	.732	.212	.048
B11. The problem of drugs in the United States is extremely serious.	.009	.660	-.281	.120
B12. The U.S. healthcare system today is in a state of crisis.	-.203	.574	.019	.010
B20. In general, do you think there is too much or too little government regulation of business and industry?	.168	-.548	-.204	.050
B1. Barack Obama is doing a good job as president.	-.162	.411	.312	.381
B9. Marriages between same-sex couples should be recognized by the law as valid, with the same rights as traditional marriages.	-.101	.040	.787	-.147
B6. Abortion should remain legal.	-.027	.113	.745	.151
B2. I believe that O.J. Simpson is innocent of murder.	-.082	-.065	-.024	.791
B3. Affirmative action is still necessary to help minorities and other groups.	-.303	.183	.059	.627
B7. All human cloning should be banned.	.092	.323	-.336	.413
B5. I like finding unexpected linkages on the Internet.	.002	-.012	.060	-.007
B4. The Internet provides me with lots of information I need.	.137	.184	-.059	.136
B19. How worried are you that you or someone in your family will become a victim of terrorism?	-.117	.204	-.047	.024
B8. I favor the death penalty for a person convicted of murder.	.307	-.048	.121	-.141

Rotated Component Matrix^a

	Component	
	5	6
B18. Hispanics?	.033	.016
B14. How about Blacks?	.038	.020
B17. How about immigrants?	.026	.252
B16. How satisfied are you with the way Arabs are treated?	-.026	.216
B15. Asians?	.119	-.121
B13. How satisfied are you with the way women are treated?	-.094	-.088
B10. The laws covering the sale of firearms should be made more strict.	.000	.110
B11. The problem of drugs in the United States is extremely serious.	.012	.310
B12. The U.S. healthcare system today is in a state of crisis.	.359	-.008
B20. In general, do you think there is too much or too little government regulation of business and industry?	.000	.418
B1. Barack Obama is doing a good job as president.	.171	-.336
B9. Marriages between same-sex couples should be recognized by the law as valid, with the same rights as traditional marriages.	.141	.042
B6. Abortion should remain legal.	-.139	-.054
B2. I believe that O.J. Simpson is innocent of murder.	.002	-.002
B3. Affirmative action is still necessary to help minorities and other groups.	.229	-.053
B7. All human cloning should be banned.	-.315	-.012
B5. I like finding unexpected linkages on the Internet.	.786	-.019
B4. The Internet provides me with lots of information I need.	.693	-.036
B19. How worried are you that you or someone in your family will become a victim of terrorism?	.069	.668
B8. I favor the death penalty for a person convicted of murder.	-.172	.616

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 9 iterations.

Component Transformation Matrix

Component	1	2	3	4	5	6
1	.895	-.296	-.156	-.239	-.080	.153
2	.382	.739	.110	.304	.450	.013
3	-.067	.188	-.770	.361	-.317	.370
4	-.051	.396	.374	-.405	-.442	.584
5	.213	.071	.304	.474	-.681	-.411
6	.000	-.411	.372	.575	.178	.574

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Component Score Coefficient Matrix

	Component			
	1	2	3	4
B1. Barack Obama is doing a good job as president.	.059	.145	.163	.203
B2. I believe that O.J. Simpson is innocent of murder.	.045	-.169	.045	.600
B3. Affirmative action is still necessary to help minorities and other groups.	-.011	-.042	.042	.411
B4. The Internet provides me with lots of information I need.	.046	.023	-.072	.057
B5. I like finding unexpected linkages on the Internet.	-.014	-.096	-.003	-.025
B6. Abortion should remain legal.	.067	.010	.506	.153
B7. All human cloning should be banned.	.073	.184	-.193	.252
B8. I favor the death penalty for a person convicted of murder.	.033	-.006	.159	-.013
B9. Marriages between same-sex couples should be recognized by the law as valid, with the same rights as traditional marriages.	.002	-.028	.505	-.067
B10. The laws covering the sale of firearms should be made more strict.	.038	.391	.105	-.064
B11. The problem of drugs in the United States is extremely serious.	.018	.363	-.192	-.015
B12. The U.S. healthcare system today is in a state of crisis.	-.023	.276	-.055	-.114
B13. How satisfied are you with the way women are treated?	.198	.051	-.001	.006
B14. How about Blacks?	.198	.088	-.031	-.140
B15. Asians?	.211	.013	-.001	.021
B16. How satisfied are you with the way Arabs are treated?	.199	.022	.028	.110
B17. How about immigrants?	.191	-.044	.063	.129
B18. Hispanics?	.224	.017	.059	.037
B19. How worried are you that you or someone in your family will become a victim of terrorism?	-.072	.066	.010	.015
B20. In general, do you think there is too much or too little government regulation of business and industry?	-.030	-.323	-.049	.154

Component Score Coefficient Matrix

	Component	
	5	6
B1. Barack Obama is doing a good job as president.	.026	-.207
B2. I believe that O.J. Simpson is innocent of murder.	-.014	.061
B3. Affirmative action is still necessary to help minorities and other groups.	.120	.037
B4. The Internet provides me with lots of information I need.	.460	.005
B5. I like finding unexpected linkages on the Internet.	.550	.047
B6. Abortion should remain legal.	-.157	.023
B7. All human cloning should be banned.	-.256	-.059
B8. I favor the death penalty for a person convicted of murder.	-.080	.456
B9. Marriages between same-sex couples should be recognized by the law as valid, with the same rights as traditional marriages.	.063	.113
B10. The laws covering the sale of firearms should be made more strict.	-.084	.077
B11. The problem of drugs in the United States is extremely serious.	-.032	.193
B12. The U.S. healthcare system today is in a state of crisis.	.191	.008
B13. How satisfied are you with the way women are treated?	-.077	-.141
B14. How about Blacks?	.026	-.073
B15. Asians?	.071	-.152
B16. How satisfied are you with the way Arabs are treated?	-.013	.106
B17. How about immigrants?	.034	.147

B18. Hispanics?	.016	-.050
B19. How worried are you that you or someone in your family will become a victim of terrorism?	.079	.529
B20. In general, do you think there is too much or too little government regulation of business and industry?	.097	.332

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Component Scores.

Component Score Covariance Matrix

Component	1	2	3	4	5	6
1	1.000	.000	.000	.000	.000	.000
2	.000	1.000	.000	.000	.000	.000
3	.000	.000	1.000	.000	.000	.000
4	.000	.000	.000	1.000	.000	.000
5	.000	.000	.000	.000	1.000	.000
6	.000	.000	.000	.000	.000	1.000

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Component Scores.

IV. TABLING RESULTS

Table 1. Principal Components Factor Analysis of Public Opinion Measures (Orthogonal Rotation).

	Factor Loadings						Communalities
	1: Satisfaction with Treatment of Marginalized Groups	2: [Political] Reform & Intervention	3: Sexual Rights	4: Still Issues for African Americans	5: Pro-Internet	6: Fear of Crime & Terrorism	
B18. [How satisfied are you with the treatment of] Hispanics?	**.861**	-.084	.012	-.075	.033	.016	.755
B14. How about Blacks?	**.848**	-.026	-.092	-.284	.038	.020	.811
B17. How about immigrants?	**.794**	-.137	-.027	.025	.026	.252	.715
B16. How satisfied are you with the way Arabs are treated?	**.794**	-.040	-.068	.026	-.026	.216	.685
B15. Asians?	**.790**	-.081	-.047	-.066	.119	-.121	.667
B13. How satisfied are you with the way women are treated?	**.740**	-.055	-.058	-.084	-.094	-.088	.577
B10. The laws covering the sale of firearms should be made more strict.	-.076	**.732**	.212	.048	.000	.110	.601
B11. The problem of drugs in the United States is extremely serious.	.009	**.660**	-.281	.120	.012	.310	.626
B12. The U.S. healthcare system today is in a state of crisis.	-.203	**.574**	.019	.010	.359	-.008	.499
B20. In general, do you think there is too much or too little government regulation of business and industry? [higher score = too much]	.168	**-.548**	-.204	.050	.000	.418	.547
B1. Barack Obama is doing a good job as president.	-.162	**.411**	.312	.381	.171	-.336	.579
B9. Marriages between same-sex couples should be recognized by the law as valid, with the same rights as traditional marriages.	-.101	.040	**.787**	-.147	.141	.042	.675
B6. Abortion should remain legal.	-.027	.113	**.745**	.151	-.139	-.054	.614
B2. I believe that O.J. Simpson is innocent of murder.	-.082	-.065	-.024	**.791**	.002	-.002	.638
B3. Affirmative action is still necessary to help minorities and other groups.	-.303	.183	.059	**.627**	.229	-.053	.576
B7. All human cloning should be banned.	.092	.323	-.336	**.413**	-.315	-.012	.495
B5. I like finding unexpected linkages on the Internet.	.002	-.012	.060	-.007	**.786**	-.019	.622
B4. The Internet provides me with lots of information I need.	.137	.184	-.059	.136	**.693**	-.036	.556
B19. How worried are you that you or someone in your family will become a victim of terrorism?	-.117	.204	-.047	.024	.069	**.668**	.509
B8. I favor the death penalty for a person convicted of murder.	.307	-.048	.121	-.141	-.172	**.616**	.540
Eigenvalue	4.238	2.041	1.599	1.536	1.508	1.364	[12.286]
Percent of Total Variance	21.190%	10.204%	7.994%	7.679%	7.539%	6.818%	61.43%
Percent of Common Variance	34.5%	16.6%	13.0%	12.5%	12.3%	11.1%	100.0%

KMO measure of sampling adequacy = .796
Bartlett's test of sphericity: approx. chi-square = 1568.335, df = 190, *p* < .001, *n* = 252

V. WRITEUP OF RESULTS

Factor Analysis Writeup

A set of 20 public opinion measures were submitted to an exploratory factor analysis, with principal components factoring, orthogonal rotation and an extraction cutoff of eigenvalue = 1.0 (i.e., using the latent root criterion). The measure of sampling adequacy (MSA) was .796 (i.e., "middling" according to Kaiser, just shy of "meritorious"; see Hair et al.) and the Bartlett's test of sphericity resulted in a highly significant chi-square (1568.335, $p < .001$), indicating the appropriateness of factor analysis for this set of 20 items. Communalities ranged from a low of .495 to a high of .811, indicating a moderate amount of shared variance for all items.

The rotated analysis resulted in six factors with eigenvalues ranging from 4.238 (21.190% of total variance) to 1.364 (6.818% of total variance). The full six-factor solution explained 61.43% of the total variance of the pool of 20 items. The six factors were given labels based on those items loading highly and cleanly on each factor. Factor 1 was titled "Satisfaction with Treatment of Marginalized Groups" due to high loadings by all six items that measured perceived positive treatment of various groups in society that have historically been marginalized (i.e., Hispanics, Blacks, immigrants, Arabs, Asians, women). Factor 2, "[Political] Reform and Intervention," was given that label because of high loadings by items measuring support for gun control, perceptions of the seriousness of drug problems in the U.S., perceiving a crisis in the healthcare system, perceptions of too much government regulation (a negative loading), and the opinion that Obama is doing a good job as President. Factor 3 was called "Sexual Rights" due to its dependence on items measuring support of same-sex marriage and abortion. Factor 4 was a "Still Issues for African Americans" factor—its high-loadings by perceiving O.J. Simpson innocent of murder and perceiving a need for continued Affirmation Action are joined by an unexpected primary loading by support for a ban on human cloning. Factor 5 was labeled "Pro-Internet" because it represents two positive perceptions of the Internet. Finally, Factor 6, "Fear of Crime & Terrorism," seems to represent a general fear, with two main loadings by worry over being a victim of terrorism and support for capital punishment.

Given an n of 252, any factor loading of at least .35 may be considered significant (see Hair et al.). On that basis, only one item, B1, "Barack Obama is doing a good job as president," was shown to have cross-loading: A loading of .411 on Factor 2, and a loading of .381 on Factor 4. This may indicate that respondents reacted to this question in at least two distinctly different ways (i.e., with regard to political "Reform and Intervention," and with regard to "Still Issues for African Americans").