



EBERHARDT SCHOOL OF BUSINESS

# BusinessForecasting Center

## Eberhardt Business Forecasting Center's Distress Index

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Jesse Neumann

Jeffery Michael

Thomas Pogue

Business Forecasting Center  
Eberhardt School of Business  
University of the Pacific

3601 Pacific Avenue  
Stockton, CA 95211

*<http://forecast.pacific.edu>*

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In this brief research note we present an effort to replicate the Forbes Misery Index and generate an alternative measure, which we have called the Eberhardt Business Forecasting Center's Distress Index. Replication of the Forbes Misery Index was undertaken in order to make explicit each cities' rankings across the various indicators and the structure of the complete rankings. Listing the cities' rankings across the indicators was done to show what areas contributed most/ least to their "misery". While including the entire list of cities' "misery" rankings was done to highlighting what cities typify the antithesis of misery according to Forbes. Given some serious questions about how misery was defined in the Forbes Index, we also examined an alternative measurement system.

## A Replication of the Forbes Misery Index

### Methodology

Replication of the Forbes Misery Index required our duplicating, or at least generating good approximations, of the indicators used by Forbes. While Forbes employed ten indicators to measure the misery of citizens in the 200 largest metropolitan statistical areas (MSA) in the United States, we utilized eight indicators as we were unable to find suitable measures for two indicators: political corruption and winning sports, due to missing data and unclear methodology. In addition, we only compiled data for the 100 largest MSAs as additional issues of reliability and transparency of data emerged when we experimented with a ranking that included the 200 largest MSA. The eight indicators used in replicating the Forbes Misery Index were as follows:

1.1 Unemployment (UNMPL): This indicator ranks the unemployment rate in the MSA, as reported by the Bureau of Labor Statistics (BLS). Data for this indicator was taken from the BLS [website](#).

1.2 Foreclosure Rate: This indicator ranks the foreclosure rate in the MSA as reported by realtytrac.com. Data for this indicator was taken from the realtytrac [website](#).

1.3 Weather: This indicator was derived by ranking a composite index that weights three sub-measures equally: 1) The MSA's average Heat Index for July, 2) The MSA's average high temperature in January, 3) The average number of clear days in MSA. The Heat Index for July was calculated via a formula given by the National Oceanic and Atmospheric Administration (NOAA) and detailed [here](#). Using that formula, data on the MSA's average afternoon humidity for July and the MSA's average high temperature for July, we generated the MSAs ranking by Heat Index. Data for the average July temperature was taken from the weather.com [website](#). Data for the MSAs humidity was taken from the NOAA Climate Data Center [website](#). The second measure in the Weather indicator, the MSA rankings for their average January high temperatures, also utilized data taken from the weather.com [website](#). Lastly, the third measure of the Weather indicator, the number of clear days in the MSA during an average year, was based on data from weathertoday.net and available at the weathertoday [website](#).

1.4 Crime: This indicator ranks the number of violent crimes per 100,000 residents in the MSA as reported by Federal Bureau of Investigation (FBI). Data for this indicator was taken from the FBI [website](#).

1.5 Average Commute Time: This indicator ranks the aggregate commute time in the MSA divided by the number of people employed in that MSA. Data on the aggregate commute time was taken from the U.S. Census Bureau [website](#) and employment figures by MSA were taken from the Bureau of Labor Statistics (BLS) [website](#).

1.6 Income Tax: This indicator ranks the income tax paid by MSA, which is measured based on the income tax rates of their respective states. Data for this indicator was taken from the Tax Foundation [website](#).

1.7 Housing Prices: This indicator ranks the three year change in median housing price in MSA as reported in the National Association of Home Builder's (NAHB) Wells Fargo Housing Opportunity Index. Data for this indicator was taken from the NAHB [website](#).

1.8 Sales Tax: This indicator is the sum of state, county and local sales tax rates in the MSA as reported by the Tax Foundation. Data for this indicator was taken from the Tax Foundation [website](#).

As discussed above, these indicators were applied to the 100 largest MSA in the United States. The original Forbes Misery Index also included measures of both the Records of Professional Sports Teams and Corruption (and looked at the 200 largest MSAs); however, when we recreated the index we chose to leave these indicators out because of the difficulty in creating an accurate, reliable ranking. Each of these indicators was ranked from 1 (being the most miserable) to 100 (being the least miserable). These individual ranks were then summed by MSA and that sum was also ranked, giving us the final ranked list of most miserable to least miserable.

## Index

Below in Table 1 is our replication of the Forbes Misery Index. Accordingly, Stockton is still the number one most miserable metro area in the US, however, because of slight methodological differences Riverside is now rank as the second most miserable metro followed by Chicago, Modesto and Miami to round out the top five. This differs slightly from the original Forbes list which has Miami as number two, followed by Merced, Modesto and Sacramento to round out the top five.<sup>1</sup> In our replication of the Forbes Misery Index, both Stockton and Riverside have half of their indicators in the top ten and both Chicago and Modesto have three of their indicators in the top ten in terms of the most miserable.

Forbes did not publish its entire ranking so there is no way to compare the “least miserable” MSA in the bottom end of our list to theirs. However, according to our list the Forbes Misery Index would likely have listed two areas in Pennsylvania, Scranton and Harrisburg, as being the least miserable followed in increasing misery by Madison, Boston and Provo-Orem, Utah. Additional points of interest around the “least miserable” MSA include the fact that three of the five least miserable areas are on the East Coast. In contrast three of the five most miserable MSA are on the West Coast. Also, it is worth noting that Madison, Wisconsin is ranked very low in its “misery” despite ranking extremely poorly in the weather indicator.

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<sup>1</sup> Merced California is not included in our replication of the Forbes Index as it is not one of the 100 largest MSA in the United States.

Table 1-Forbes Misery Index<sup>2</sup>

Rank	MSA	UNMP	FRCL	WTHR	Crime	Commute	I Tax	Home \$	S Tax	Index
1	Stockton, CA	1	7	94	4	14	9	34	14	177
2	Riverside-San Bernardino-Ontario, CA	6	6	77	58	8	9	21	20	205
3	Chicago-Naperville-Joliet, IL-IN-WI	46	23	5	40	7	84	18	2	225
4	Modesto, CA	2	3	93	34	45	9	19	25	230
5	Miami-Fort Lauderdale-Pompano Beach, FL	13	5	35	12	27	85	2	53	232
6	Los Angeles-Long Beach-Santa Ana, CA	14	26	97	43	18	9	55	2	264
7	Sacramento-Arden-Arcade--Roseville, CA	7	10	95	39	44	9	42	20	266
8	Bakersfield, CA	4	9	91	21	96	9	13	27	270
9	Detroit-Warren-Livonia, MI	17	19	13	15	25	72	29	81	271
10	San Francisco-Oakland-Fremont, CA	28	27	98	27	15	9	65	4	273
11	Las Vegas-Paradise, NV	5	1	87	3	58	85	5	35	279
12	Orlando-Kissimmee, FL	16	8	42	11	39	85	1	93	295
13	Atlanta-Sandy Springs-Marietta, GA	24	17	68	51	10	52	37	37	296
14	Fresno, CA	3	16	92	38	98	9	22	18	296
15	Charlotte-Gastonia-Concord, NC-SC	19	48	65	33	31	27	49	27	299
16	Tampa-St. Petersburg-Clearwater, FL	11	11	75	23	32	85	9	53	299
17	Lakeland-Winter Haven, FL	7	12	29	46	56	85	3	64	302
18	Nashville-Davidson--Murfreesboro--Franklin, TN	65	66	45	14	29	52	23	9	303
19	St. Louis, MO-IL	33	57	18	35	35	50	72	6	306
20	Memphis, TN-MS-AR	33	41	55	1	41	52	78	9	310
21	Charleston-North Charleston-Summerville, SC	39	29	48	20	37	40	48	50	311
22	Bradenton-Sarasota-Venice, FL	15	13	36	24	77	85	10	53	313
23	Birmingham-Hoover, AL	53	63	48	31	12	67	41	1	316
24	Palm Bay-Melbourne-Titusville, FL	12	15	31	13	72	85	8	81	317
25	Poughkeepsie-Newburgh-Middletown, NY	73	89	7	90	5	3	20	33	320
26	Phoenix-Mesa-Scottsdale, AZ	53	4	84	64	33	77	11	8	334
27	Jacksonville, FL	68	18	59	10	38	85	6	53	337
28	Kansas City, MO-KS	50	44	36	30	57	51	24	45	337
29	New Haven-Milford, CT	39	59	29	48	3	46	38	81	343
30	New York-Northern New Jersey-Long Island, NY-NJ-PA	63	86	70	67	2	3	33	19	343
31	Baltimore-Towson, MD	75	65	50	7	9	22	35	81	344
32	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	53	69	52	26	16	79	12	37	344
33	Cape Coral-Fort Myers, FL	7	2	62	56	51	85	4	81	348
34	Houston-Sugar Land-Baytown, TX	59	64	27	8	19	85	61	27	350
35	Indianapolis-Carmel, IN	53	31	14	18	40	76	70	53	355
36	Providence-New Bedford-Fall River, RI-MA	18	75	58	69	13	20	53	53	359
37	Portland-Vancouver-Beaverton, OR-WA	28	39	14	91	55	1	32	100	360
38	Toledo, OH	22	32	14	28	89	32	74	70	361
39	Baton Rouge, LA	84	87	39	9	21	52	56	14	362
40	Youngstown-Warren-Boardman, OH-PA	22	46	2	78	90	32	30	68	368
41	Seattle-Tacoma-Bellevue, WA	45	51	77	66	26	85	16	4	370
42	New Orleans-Metairie-Kenner, LA	86	58	50	29	22	52	62	14	373
43	Albuquerque, NM	53	40	89	16	48	24	52	53	375
44	San Diego-Carlsbad-San Marcos, CA	26	24	98	55	53	9	92	20	377
45	San Jose-Sunnyvale-Santa Clara, CA	19	34	96	86	36	9	88	9	377
46	Oxnard-Thousand Oaks-Ventura, CA	21	21	98	93	47	9	80	14	383
47	Colorado Springs, CO	35	33	20	47	61	74	66	48	384
48	Tucson, AZ	60	25	85	52	67	77	7	13	386
49	Greenville-Mauldin-Easley, SC	36	52	73	2	84	40	51	50	388
50	Little Rock-North Little Rock-Conway, AR	89	49	52	5	73	39	46	35	388
51	Cleveland-Elyria-Mentor, OH	52	37	32	53	50	32	91	42	389
52	Columbus, OH	68	34	3	36	74	32	73	70	390
53	Cincinnati-Middletown, OH-KY-IN	39	55	21	76	60	32	44	73	400
54	Dayton, OH	28	38	8	77	87	32	67	68	405
55	Greensboro-High Point, NC	24	72	62	44	75	27	63	42	409
56	Washington-Arlington-Alexandria, DC-VA-MD-WV	97	47	42	61	4	23	58	81	413
57	Chattanooga, TN-GA	60	67	52	22	64	52	93	7	417
58	Minneapolis-St. Paul-Bloomington, MN-WI	93	45	23	97	54	24	40	41	417
59	Milwaukee-Waukesha-West Allis, WI	78	43	26	42	63	27	47	93	419
60	Worcester, MA	50	54	41	49	1	62	89	78	424
61	Tulsa, OK	77	50	40	19	78	62	84	24	434

<sup>2</sup> See end of table for full indicator names

62	Buffalo-Niagara Falls, NY	63	98	27	37	92	3	97	20	437
63	Knoxville, TN	78	82	36	41	86	52	56	9	440
64	Augusta-Richmond County, GA-SC	43	70	67	57	82	52	17	53	441
65	Akron, OH	38	42	25	71	76	32	90	73	447
66	Grand Rapids-Wyoming, MI	43	36	8	68	79	72	64	81	451
67	Raleigh-Cary, NC	68	82	69	88	34	27	43	42	453
68	Wichita, KS	72	88	34	17	99	49	45	49	453
69	Denver-Aurora-Broomfield, CO	46	28	66	74	28	74	95	46	457
70	Columbia, SC	39	67	83	6	59	40	86	81	461
71	Albany-Schenectady-Troy, NY	86	99	12	81	71	3	75	37	464
72	Boise City-Nampa, ID	31	14	76	95	83	26	59	81	465
73	Louisville-Jefferson County, KY-IN	31	74	11	70	62	45	94	81	468
74	Hartford-West Hartford-East Hartford, CT	46	79	18	83	52	46	68	81	473
75	Allentown-Bethlehem-Easton, PA-NJ	46	76	47	94	24	79	27	81	474
76	Syracuse, NY	60	100	5	82	93	3	83	50	476
77	Bridgeport-Stamford-Norwalk, CT	65	62	80	80	20	46	60	64	477
78	Dallas-Fort Worth-Arlington, TX	67	60	62	59	23	85	96	27	479
79	Springfield, MA	53	81	8	32	69	62	98	78	481
80	San Antonio, TX	78	72	45	45	42	85	82	33	482
81	Oklahoma City, OK	94	82	61	25	66	62	69	25	484
82	Virginia Beach-Norfolk-Newport News, VA-NC	86	53	72	54	30	60	36	96	487
83	Omaha-Council Bluffs, NE-IA	100	91	14	63	95	44	31	53	491
84	Richmond, VA	78	56	55	84	49	60	14	96	492
85	Rochester, NY	68	97	22	85	94	3	87	37	493
86	Pittsburgh, PA	75	90	4	75	43	79	79	53	498
87	Des Moines-West Des Moines, IA	94	78	23	89	97	21	39	67	508
88	Salt Lake City, UT	90	22	86	73	81	68	26	66	512
89	Ogden-Clearfield, UT	78	30	77	98	68	68	25	70	514
90	El Paso, TX	27	96	89	50	70	85	71	27	515
91	Jackson, MS	73	92	88	65	65	68	15	53	519
92	Honolulu, HI	99	61	81	87	11	2	85	99	525
93	Austin-Round Rock, TX	90	71	59	72	46	85	81	27	531
94	McAllen-Edinburg-Mission, TX	10	85	73	60	100	85	77	47	537
95	Portland-South Portland-Biddeford, ME	96	95	57	99	6	43	50	96	542
96	Provo-Orem, UT	90	20	81	100	85	68	28	73	545
97	Boston-Cambridge-Quincy, MA-NH	84	79	70	62	17	62	99	78	551
98	Madison, WI	98	77	1	96	88	27	76	95	558
99	Harrisburg-Carlisle, PA	83	94	44	79	80	79	54	76	589
100	Scranton-Wilkes-Barre, PA	37	93	33	92	91	79	100	76	601

Note: UNMP=Unemployment Rate; FRCL=Foreclosure Rate; WRTH=Weather; Crime=Violent Crime Rate; Commute=Average Commute Time; I Tax=Income Tax Rate; Home \$=Housing Prices; S Tax=Sales Tax Rate; Index=Total Replicated Forbes Index Score

## Eberhardt Business Forecasting Center's Distress Index

### Background

Following publication of the Forbes Misery Index, there was a justified outcry by the citizens of Stockton California. While the city has its faults, there are many positive aspects to the community as well. Bob Deis, the Stockton City Manager was quoted in an interview, "Stockton has issues that it needs to address, but an article like this is the equivalent of bayoneting the wounded...the people of Stockton are warm. The sense of community is fantastic." In particular the Director of the Eberhardt Business Forecasting Center was receiving phone call after phone call about the index that ranked Stockton so poorly. It was for this reason that we decided to create a misery index of our own using slightly different indicators which we believe to be better than the indicators used by Forbes.

### Methodology

We again examined the 100 largest MSAs in the United States, ranking each across ten indicators. However we replaced four indicators from the Forbes Misery Index: 1) The three year change in home prices, 2) Local

government corruption, 3) Winning sports teams, and 4) Sales tax. Rather than derive a more meaningful and comprehensive index, we simply substituted four measures that seemed better suited for an index of this nature: 1) Median household income, 2) Housing affordability, 3) Property taxes, and 4) Net domestic migration. Below we further discuss reasons for these revisions to the index, but first we define the ten indicators in the Center's Distress Index:

2.1 Unemployment: This indicator is the unemployment rate reported in the Forbes Index above. For details see indicator 1.1.

2.2 Foreclosure Rate: This indicator is the foreclosure rate reported in the Forbes Index above. For details see indicator 1.2.

2.3 Weather: This indicator is the composite weather index reported in the Forbes Index above. For details see indicator 1.3.

2.4 Crime: This indicator is the crime rate reported in the Forbes Index above. For details see indicator 1.4.

2.5 Average Commute Time: This indicator is the commute time reported in the Forbes Index above. For details see indicator 1.5.

2.6 Income Tax: This indicator is the income tax rate reported in the Forbes Index above. For details see indicator 1.6.

2.7 Income: This indicator ranks the MSA by their median household income. Data for this indicator was taken from the Census Bureau [website](#).

2.8 Housing Affordability: This indicator is derived from the median home prices in the MSA as reported by the Wells Fargo Housing Opportunity Index, divided by the median income in the MSA as reported by the Census Bureau. For details see indicators 1.7 and 2.7 respectively.

2.9 Property Tax: This indicator ranks property tax as a percentage of home value in the MSA. Data for this indicator was taken from the Tax Foundation [website](#).

2.10 Migration: This indicator is derived by taking a three year average (2005-2007) of the number of tax payers moving to, or from the MSA divided by the population of the MSA in 2005. Tax payer migration data was taken from the IRS [website](#) and population data was taken from the Census Bureau [website](#).

The three year change in the home prices was removed because it does not reflect the rapid changes that can occur in home prices. Also the effect of the changing home prices is already reflected in the foreclosure rates, which we left in the index, so this indicator was adding extra weight to changes in home prices. Local government corruption was also removed from the Center's Distress Index as this indicator is not measured on a regular basis for these MSAs in any systematic basis that we were able to identify. The winning sports teams indicator was removed because it has little to nothing to do with the wellbeing of a city. It is just as likely that the citizens are as proud of their high school teams as their professional teams. Lastly, the sales tax indicator was removed since sales taxes are a way to shift the tax burden from the residents of an area to the visitors. In terms of measuring a city's misery, property taxes paid by the residents of an area is more appropriate. For this reason property taxes were added to the Center's Distress Index.

Median household income was also added in the Center’s Distress Index as this was seen as a major omission on the part of Forbes, since higher income metro areas tend to be less stressed areas as well. Housing affordability was added as well. Although it is nice to have homes with high values, it is more important for the residents to be able to afford the homes in their area. Lastly, net domestic migration was added in the Center’s Distress Index as we assume that a happier metro area will have less of its population trying to migrate away from it.

## Index

Below in Table 2 is the Eberhardt Business Forecasting Center’s Distress Index. As is shown Stockton is no longer at the top of the list, it has now fallen to number three. Ahead of Stockton now is Miami at number one and Detroit at number two. California cities, which faired so poorly in the Forbes Index, did slightly better in the Center’s Distress Index, having only six metro areas in the top 20 instead of eight. Those to drop out were San Francisco and Bakersfield.

On the other side of the Center’s Distress index are many metro areas from Utah. In fact, three of the five “least miserable” MSA are from that state, Provo-Orem, Ogden-Clearfield and Salt Lake City. Harrisburg and Des Moines are also there to round out the bottom. Scranton Pennsylvania, which in our replication of the Forbes list was the least miserable metro, fell to 91, but the metro area to gain the most spots between Forbes’ and the Center’s lists was Boston which fell from number 97 (Forbes) to number 68 (Center).

Table 2-Eberhardt Forecasting Center’s Distress Index<sup>3</sup>

Rank	MSA	UNMP	FRCL	WTHR	Crime	Commute	I Tax	INCM	HA	P Tax	MIGR	Index
1	Miami-Fort Lauderdale-Pompano Beach, FL	13	5	35	12	27	85	25	54	36	6	298
2	Detroit-Warren-Livonia, MI	17	19	13	15	25	72	42	99	12	4	318
3	Stockton, CA	1	7	94	4	14	9	56	53	43	43	324
4	Chicago-Naperville-Joliet, IL-IN-WI	46	23	5	40	7	84	80	39	26	2	352
5	Los Angeles-Long Beach-Santa Ana, CA	14	26	97	43	18	9	79	5	79	1	371
6	Memphis, TN-MS-AR	33	41	55	1	41	52	12	65	72	13	385
7	Modesto, CA	2	3	93	34	45	9	43	64	58	36	387
8	Toledo, OH	22	32	14	28	89	32	11	94	19	49	390
9	Sacramento--Arden-Arcade--Roseville, CA	7	10	95	39	44	9	76	33	65	20	398
10	St. Louis, MO-IL	33	57	18	35	35	50	52	83	18	18	399
11	Milwaukee-Waukesha-West Allis, WI	78	43	26	42	63	27	54	62	4	11	410
12	Orlando-Kissimmee, FL	16	8	42	11	39	85	32	90	53	34	410
13	Riverside-San Bernardino-Ontario, CA	6	6	77	58	8	9	60	43	44	100	411
14	Cleveland-Elyria-Mentor, OH	52	37	32	53	50	32	22	87	24	23	412
15	Charleston-North Charleston-Summerville, SC	39	29	48	20	37	40	40	14	97	54	418
16	New Haven-Milford, CT	39	59	29	48	3	46	86	57	15	37	419
17	Providence-New Bedford-Fall River, RI-MA	18	75	58	69	13	20	63	29	51	31	427
18	Dayton, OH	28	38	8	77	87	32	18	96	29	16	429
19	Fresno, CA	3	16	92	38	98	9	23	41	75	35	430
20	Nashville-Davidson--Murfreesboro--Franklin, TN	65	66	45	14	29	52	50	27	55	28	431
21	Portland-Vancouver-Beaverton, OR-WA	28	39	14	91	55	1	69	12	49	74	432
22	Birmingham-Hoover, AL	53	63	48	31	12	67	15	28	94	25	436
23	San Francisco-Oakland-Fremont, CA	28	27	98	27	15	9	97	1	86	50	438
24	San Diego-Carlsbad-San Marcos, CA	26	24	98	55	53	9	85	4	79	7	440
25	Youngstown-Warren-Boardman, OH-PA	22	46	2	78	90	32	4	100	28	40	442

<sup>3</sup> See end of table for full indicator names

26	New Orleans-Metairie-Kenner, LA	86	58	50	29	22	52	27	19	98	3	444
27	Springfield, MA	53	81	8	32	69	62	44	13	28	56	446
28	Tampa-St. Petersburg-Clearwater, FL	11	11	75	23	32	85	13	72	61	67	450
29	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	53	69	52	26	16	79	83	31	30	14	453
30	Baltimore-Towson, MD	75	65	50	7	9	22	91	32	59	47	457
31	Indianapolis-Carmel, IN	53	31	14	18	40	76	48	93	45	45	463
32	Charlotte-Gastonia-Concord, NC-SC	19	48	65	33	31	27	51	56	46	88	464
33	Bradenton-Sarasota-Venice, FL	15	13	36	24	77	85	20	63	50	82	465
34	Cincinnati-Middletown, OH-KY-IN	39	55	21	76	60	32	53	88	32	10	466
35	Worcester, MA	50	54	41	49	1	62	89	58	37	26	467
36	Akron, OH	38	42	25	71	76	32	35	95	23	32	469
37	San Jose-Sunnyvale-Santa Clara, CA	19	34	96	86	36	9	99	6	75	12	472
38	Bakersfield, CA	4	9	91	21	96	9	34	79	46	83	472
39	New York-Northern New Jersey-Long Island, NY-NJ-PA	63	86	70	67	2	3	87	2	90	5	475
40	Palm Bay-Melbourne-Titusville, FL	12	15	31	13	72	85	21	84	53	89	475
41	Grand Rapids-Wyoming, MI	43	36	8	68	79	72	33	91	31	17	478
42	Poughkeepsie-Newburgh-Middletown, NY	73	89	7	90	5	3	94	44	20	59	484
43	El Paso, TX	27	96	89	50	70	85	2	17	8	41	485
44	Buffalo-Niagara Falls, NY	63	98	27	37	92	3	24	85	2	55	486
45	Dallas-Fort Worth-Arlington, TX	67	60	62	59	23	85	65	51	7	8	487
46	Kansas City, MO-KS	50	44	36	30	57	51	64	70	46	39	487
47	Columbus, OH	68	34	3	36	74	32	49	82	24	87	489
48	Lakeland-Winter Haven, FL	7	12	29	46	56	85	7	92	65	91	490
49	Cape Coral-Fort Myers, FL	7	2	62	56	51	85	19	97	34	81	494
50	Albuquerque, NM	53	40	89	16	48	24	31	22	92	79	494
51	Bridgeport-Stamford-Norwalk, CT	65	62	80	80	20	46	98	9	22	15	497
52	Houston-Sugar Land-Baytown, TX	59	64	27	8	19	85	62	68	10	95	497
53	Greenville-Mauldin-Easley, SC	36	52	73	2	84	40	10	18	92	92	499
54	Hartford-West Hartford-East Hartford, CT	46	79	18	83	52	46	92	50	13	21	500
55	Chattanooga, TN-GA	60	67	52	22	64	52	3	38	65	78	501
56	Oxnard-Thousand Oaks-Ventura, CA	21	21	98	93	47	9	96	8	82	27	502
57	Pittsburgh, PA	75	90	4	75	43	79	28	77	5	29	505
58	Augusta-Richmond County, GA-SC	43	70	67	57	82	52	8	24	65	38	506
59	Little Rock-North Little Rock-Conway, AR	89	49	52	5	73	39	26	40	89	46	508
60	Jacksonville, FL	68	18	59	10	38	85	46	75	62	51	512
61	Greensboro-High Point, NC	24	72	62	44	75	27	5	47	83	77	516
62	Baton Rouge, LA	84	87	39	9	21	52	37	16	100	71	516
63	Louisville-Jefferson County, KY-IN	31	74	11	70	62	45	30	66	71	62	522
64	Atlanta-Sandy Springs-Marietta, GA	24	17	68	51	10	52	68	76	70	86	522
65	Rochester, NY	68	97	22	85	94	3	47	89	1	22	528
66	Virginia Beach-Norfolk-Newport News, VA-NC	86	53	72	54	30	60	67	36	55	19	532
67	Las Vegas-Paradise, NV	5	1	87	3	58	85	59	81	55	98	532
68	Boston-Cambridge-Quincy, MA-NH	84	79	70	62	17	62	95	7	51	9	536
69	McAllen-Edinburg-Mission, TX	10	85	73	60	100	85	1	35	11	76	536
70	Syracuse, NY	60	100	5	82	93	3	45	98	3	48	537
71	Denver-Aurora-Broomfield, CO	46	28	66	74	28	74	81	21	69	53	540
72	Colorado Springs, CO	35	33	20	47	61	74	66	30	95	80	541
73	Boise City-Nampa, ID	31	14	76	95	83	26	41	11	75	93	545
74	Washington-Arlington-Alexandria, DC-VA-MD-WV	97	47	42	61	4	23	100	45	96	30	545
75	Columbia, SC	39	67	83	6	59	40	36	52	84	85	551
76	Albany-Schenectady-Troy, NY	86	99	12	81	71	3	78	55	16	52	553
77	San Antonio, TX	78	72	45	45	42	85	38	48	6	97	556
78	Honolulu, HI	99	61	81	87	11	2	93	3	99	24	560
79	Madison, WI	98	77	1	96	88	27	73	20	16	65	561
80	Oklahoma City, OK	94	82	61	25	66	62	16	67	59	33	565
81	Portland-South Portland-Biddeford, ME	96	95	57	99	6	43	61	15	35	58	565
82	Tulsa, OK	77	50	40	19	78	62	29	59	88	70	572
83	Allentown-Bethlehem-Easton, PA-NJ	46	76	47	94	24	79	74	37	26	72	575
84	Minneapolis-St. Paul-Bloomington, MN-WI	93	45	23	97	54	24	88	69	41	44	578
85	Wichita, KS	72	88	34	17	99	49	39	86	33	61	578

86	Tucson, AZ	60	25	85	52	67	77	9	49	62	96	582
87	Seattle-Tacoma-Bellevue, WA	45	51	77	66	26	85	90	10	78	69	597
88	Knoxville, TN	78	82	36	41	86	52	17	60	72	73	597
89	Omaha-Council Bluffs, NE-IA	100	91	14	63	95	44	55	73	9	60	604
90	Raleigh-Cary, NC	68	82	69	88	34	27	82	26	38	99	613
91	Scranton-Wilkes-Barre, PA	37	93	33	92	91	79	6	78	40	66	615
92	Richmond, VA	78	56	55	84	49	60	70	46	62	64	624
93	Phoenix-Mesa-Scottsdale, AZ	53	4	84	64	33	77	57	80	79	94	625
94	Jackson, MS	73	92	88	65	65	68	14	34	85	42	626
95	Austin-Round Rock, TX	90	71	59	72	46	85	71	42	13	84	633
96	Des Moines-West Des Moines, IA	94	78	23	89	97	21	72	74	21	68	637
97	Salt Lake City, UT	90	22	86	73	81	68	75	25	86	57	663
98	Harrisburg-Carlisle, PA	83	94	44	79	80	79	58	71	41	63	692
99	Ogden-Clearfield, UT	78	30	77	98	68	68	84	61	74	75	713
100	Provo-Orem, UT	90	20	81	100	85	68	77	23	91	90	725

Note: UNMP=Unemployment Rate; FRCL=Foreclosure Rate; WTHR=Weather; Crime=Violent Crime Rate; Commute=Average Commute Time; I Tax=Income Tax; INCM=Median Household Income; HA=Housing Affordability; P Tax=Property Tax; MIGR=Migration; Index=Total Eberhardt Business Forecasting Center's Distress Index Score

## Conclusion

The objective in creating a distress index separate from Forbes' list was twofold. First of all we wanted to show that Stockton was in fact not the most miserable place in the United States. Secondly we wanted to show that this method of ranking is both ineffective and inaccurate. There are so many factors that go into how miserable or not a city is and many of them are not measurable. Also, as was shown by both our recreated Forbes list and our new Distress Index, changing only one or two of the indicators can greatly alter the outcome of the ranking. It is for these reasons that the Eberhardt Business Forecasting Center does not condone, or endorse this type of ranking system.