



# Relationships between Fortune 500 Company Revenues, Profits, and Male CEO Facial Feature Measurements



Terry F. Pettijohn II, Paige D. Naylor, & Arsida Ndoni  
Coastal Carolina University, Conway, South Carolina

## Abstract

The facial measurements of the top 100 company leaders from the Fortune 500 in 2011 were correlated with company revenues and profits. Male CEO facial width measurements, including eyes, nose, and chin, were positively correlated with company revenues and profits. These findings extend recent investigations of CEO appearance and company performance.

## Introduction

Chief executive officers (CEOs) are often viewed as the face and personification of their companies. However, studies have not found a clear, direct relationship between personality of CEOs and their companies' success (Agle, Nagarajan, Sonnenfeld, & Srinivasan, 2006; Ranft, Zinko, Ferris, & Buckley, 2006). The facial appearance of a CEO may yield a better prediction of company success, based on research linking facial judgements with leadership traits such as competence, likability, trustworthiness (Todorov et al., 2005), dominance (Hess, Adams, & Kleck, 2005), facial maturity (Zebrowitz, 1997; Zebrowitz & Montepare, 2005), and facial width-to-height ratio (Wong, Ormiston, & Haselhuhn, 2011).

Rule and Ambady (2008) investigated CEOs of the top 25 and bottom 25 from the 2006 Fortune 500 rankings. Participants viewed photos of the CEOs and rated them on leadership as well as competence, dominance, likability, facial maturity, trustworthiness, and attractiveness. Power related traits and leadership ratings were significantly related to company profits. Although the top leaders were similar in terms of age, sex (male), and race (Caucasian), these results suggest naïve judgments based only on CEO performance can be used to identify the most financially successful businesses.

Recently, Wong, Ormiston, and Haselhuhn (2011) investigated a more objective measure of CEO facial appearance related to company profits and revenues: facial width-to-height ratio (WHR). In a sample of 55 male CEOs out of the Fortune 500 from 1996-2002, companies who had CEOs with wider faces tended to produce greater financial profits and revenues than companies with thinner faces.

## Current Study Hypotheses

Facial WHR is a single measure comparing overall facial width and height. We were interested in extending Wong et al.'s (2011) findings with the updated Fortune 500 rankings in 2011 and using more detailed facial measurements to identify specific areas of the male CEO's face related to company financial success. We predicted male CEOs with wider eyes, noses, and chins would be leaders of companies with higher revenues and profits.

## Method: Data Collection

### CEOs, Facial Feature Measurement, and Company Data

The CEOs from the Fortune 500 rankings in 2011 (see **Table 1** and photos below) were first identified and photographs capturing complete, front, facial views of each of the top 100 company CEOs were then located. One CEO photograph could not be found and five of the top 100 CEOs were women, bringing the total male sample to 94. Two judges independently made precise facialmetric assessments (see Cunningham et al., 1995), using a computer. Facialmetrics related to facial width were the focus of this investigation. Data concerning company revenues and profits were also collected.



Table 1. Fortune 500 Top 100 Companies, CEOs, Revenues, and Profits in 2011.				
Rank	Company	CEO	Revenues	Profits
1	Wal-Mart Stores	Michael T. Duke	471,849.00	46,369.00
2	Exxon Mobil	Rex W. Tillerson	394,674.00	39,606.00
3	Chevron	John S. Watson	396,337.00	39,024.00
4	ConocoPhillips	James J. Mulva	184,966.00	13,358.00
5	Fannie Mae	Michael J. Williams	152,852.00	14,014.00
6	General Electric	Jeffrey R. Immelt	151,624.00	11,644.00
7	Bank of America	Walter E. Scott	150,462.00	12,462.00
8	General Motors	Daniel F. Akerson	135,590.00	6,172.00
9	Bank of America Corp.	Brian T. Moynihan	134,196.00	12,358.00
10	Ford Motor	Alan R. Mulally	128,954.00	6,961.00
11	Hewlett-Packard	Leo A. Mahoney	125,033.00	8,761.00
12	AT&T	Randall L. Stephenson	124,650.00	19,364.00
13	J.P. Morgan Chase & Co.	James Dimon	115,475.00	17,370.00
14	Citigroup	William S. Pundit	110,955.00	10,800.00
15	McKesson	John H. Hamminger	108,702.00	1,483.00
16	Verizon Communications	Ivan C. Seidenberg	106,646.00	2,549.00
17	American International Group	Robert H. Benmoshe	104,417.00	7,286.00
18	International Business Machines	Arvind K. Lakshminarayanan	99,870.00	14,335.00
19	Cardinal Health	George S. Barnett	98,601.00	6,422.00
20	Fredrick Mac	Charles F. Haldean Jr.	98,368.00	14,025.00
21	CVS Caremark	Larry J. Merlo	96,415.00	3,472.00
22	UnitedHealth Group	Stephen J. Hemsley	94,355.00	4,834.00
23	Wells Fargo	John C. Stumpf	93,449.00	12,460.00
24	Valero Energy	William R. Klesse	86,014.00	334.00
25	Kroger	David B. Olson	81,169.40	1,176.30
26	Procter & Gamble	Robert A. McDonald	79,659.00	12,736.00
27	American Airlines	R. David Fort	77,954.00	996.2
28	Costco Wholesale	James D. Sinegal	77,944.00	1,363.00
29	Marathon Oil	Clarence P. Cazalot Jr.	68,435.00	2,068.00
30	Home Depot	Francis S. Blake	67,992.00	3,238.00
31	Pfizer	Gregory D. Wasson	67,809.00	8,257.00
32	Wendy's	Gregory W. Steinhilber	67,441.00	2,000.00
33	Target	David B. Brown	67,390.00	2,820.00
34	United Therapeutics	David B. Brown	65,948.00	1,487.00
35	Apple	Steven P. Jobs	65,225.00	14,973.00
36	Boeing	William J. McNamara Jr.	63,100.00	1,762.80
37	State Farm Insurance Co.	Edward B. Rutler	63,100.00	1,762.80
38	Microsoft	Steven A. Ballmer	62,484.00	18,760.00
39	Arch Chemicals	Patrick A. Wozniak	62,484.00	18,760.00
40	Johnson & Johnson	William C. Wilson	61,587.00	13,334.00
41	Dell	Michael S. Dell	61,464.00	2,670.00
42	WellPoint	Angela F. Bray	58,561.00	2,887.00
43	United Technologies	Indira R. Nooyi	57,948.00	6,330.00
44	Dow Chemical	Andrew A. Liveris	56,336.00	4,373.00
45	Metric	Steven A. Kandarian	55,074.00	3,200.00
46	Best Buy	Brian J. Dunn	52,277.00	1,730.00
47	United Parcel Service	Eric J. Dorn	49,694.00	1,371.00
48	Kraft Foods	D. Scott Davis	49,545.00	3,488.00
49	Loew's	Robert A. Wilcox	49,545.00	4,114.00
50	INTL FCStone	Seán M. O'Connor	48,940.30	5.4
51	Lockheed Martin	Robert J. Stevens	48,940.30	2,265.00
52	Merck	Kenneth C. Frazier	48,940.30	861
53	Expens Scripts	Lloyd C. Blankfein	48,940.30	8,354.00
54	Intel	Paul S. Otellini	48,940.30	1,813.30
55	Seas Holdings	Louis J. Vercillo	48,940.30	11,464.00
56	Caterpillar	Douglas R. Oberhelman	48,940.30	13
57	Chrysler Group	Sergio Marchionne	48,940.30	3,700.00
58	Safeway	Steven A. Burd	48,940.30	463
59	SuperValu	Craig R. Harbert	48,940.30	589.8
60	Cisco Systems	John T. Chambers	48,940.30	7,767.00
61	Morgan Stanley	James P. Gorman	48,940.30	4,707.00
62	Prudential Financial	John R. Strangfield Jr.	48,940.30	3,707.00
63	Veritex	Robert A. Iger	48,940.30	3,995.00
64	Comcast	Brian L. Roberts	48,940.30	3,455.00
65	Synco	William A. DeLaney III	48,940.30	1,480.00
66	Lincoln	Lynell L. Eberhart	48,940.30	294
67	Abbott Laboratories	Michael D. White	48,940.30	4,665.20
68	Calenda	Michael D. White	48,940.30	11,809.00
69	New York Life Insurance	Thodore A. Mathas	48,940.30	1,009.50
70	Northing Group	Wesley C. Bueh	48,940.30	2,053.00
71	FedEx	Frederick W. Smith	48,940.30	1,818.00
72	Hess	John B. Hess	48,940.30	1,175.00
73	Ingram Micro	Gregory M. Spiegel	48,940.30	108.1
74	Johnson Controls	Stephen A. Roal	48,940.30	1,480.00
75	Autista	Mark Bertolini	48,940.30	1,276.80
76	Amazon.com	Jeffrey P. Bezos	48,940.30	1,592.00
77	Humana	Michael R. McCallister	48,940.30	1,099.00
78	Enterprise Products Partners	Michael A. Creel	48,940.30	300.8
79	Honeywell International	David M. Cote	48,940.30	2,022.00
80	Liberty Mutual Insurance	Edmund J. Kelly	48,940.30	1,608.00
81	News Corp.	Rupert Murdoch	48,940.30	2,539.00
82	Quanta	Ellen J. Rullman	48,940.30	3,010.00
83	Sprint Nextel	Daniel R. Hesse	48,940.30	3,465.00
84	General Dynamics	Robert W. Ferguson Jr.	48,940.30	1,495.90
85	TIAA-CREF	Richard R. Anderson	48,940.30	983
86	Chubb & Lines	Thomas J. Wilson	48,940.30	1,207.00
87	Allstate	Richard M. Bracken	48,940.30	4,007.00
88	HCA Holdings	Kenneth J. Cheneault	48,940.30	8,505.00
89	Amgen	Larry Page	48,940.30	786
90	Time Warner	Louis C. Camilleri	48,940.30	7,239.00
91	Oracle	Jeffrey L. Beakes	48,940.30	6,135.00
92	Pharmacia	Lawrence J. Ellison	48,940.30	6,135.00
93	Boeing	George W. Buckley	48,940.30	4,005.00
94	Delta	Samuel R. Allen	48,940.30	1,865.00
95	Plains All American Pipeline	Greg L. Armstrong	48,940.30	25,869.10
96	Boeing	John T. Sandberg	48,940.30	996.7

## Results

Company revenues were positively correlated with male CEO eye width,  $r(92)=.35$ ,  $p<.001$ , nose tip width,  $r(92)=.40$ ,  $p<.001$ , and chin width,  $r(92)=.26$ ,  $p<.01$ . Company profits were marginally positively correlated with male CEO eye width,  $r(92)=.18$ ,  $p=.08$ , nose tip width,  $r(92)=.19$ ,  $p=.07$ , and chin width,  $r(92)=.19$ ,  $p=.06$ . In addition, company revenues and profits were not related to other facial feature measures, including facial height, nose length, and chin length. See **Table 2** for a summary of the correlations. See **Figure** for a scatterplot of male CEO eye width values and company revenues.

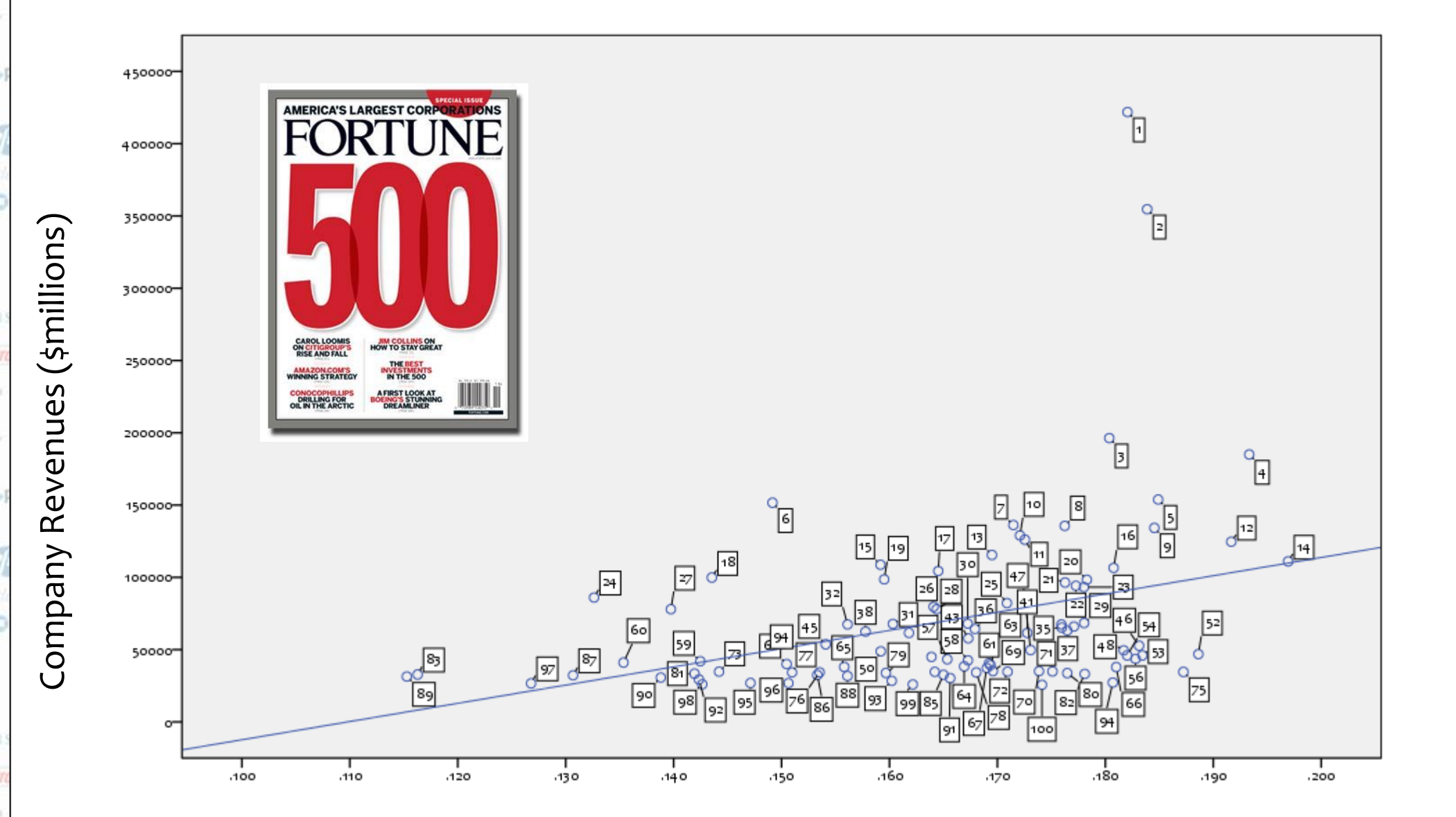
Additionally, the top 20 and the bottom 20 male CEO groups were compared. The top 20 CEO group had a significantly higher eye width,  $t(38)=4.35$ ,  $p<.001$ ,  $d=1.37$ , nose tip width,  $t(38)=4.35$ ,  $p=.003$ ,  $d=1.02$ , and chin width,  $t(38)=4.35$ ,  $p=.001$ ,  $d=.97$ , compared to the bottom 20 CEO group.

Table 2. Correlations between CEO Facial Feature Measurements and Company Revenues and Profits.

	Revenues	Profits
Eye Width	.347**	.179 <sup>a</sup>
Nose Tip Width	.403**	.191 <sup>a</sup>
Chin Width	.255*	.192 <sup>a</sup>
Eye Height	-.084	-.030
Nose Length	-.151	-.063
Chin Length	-.038	.064

Note. \*\* Correlation is significant at the 0.01 level (2-tailed). \* Correlation is significant at the 0.05 level (2-tailed). <sup>a</sup> Correlation is significant at the .10 level (2-tailed). N=94.

Figure. Scatterplot of Male CEO Eye Width Measurements and Company Revenues.



Note. Numbers represent company rank from the Fortune 500 list. Trendline added.

## Discussion

The current study hypotheses were supported. We found a significant, positive relationship between the facial width measurements of male CEOs and their company revenues and a marginally significant relationship between these facial feature measures and company profits. Specifically, we extended previous research (i.e., Wong et al., 2011) by finding relationships between company revenues and profits and distinctive measures of facial width related to the eyes, nose, and chin.

Males with wide faces are more aggressive and are seen as imposing (Carré, McCormick, & Mondloch, 2009; Stirrat & Perrett, 2010), providing an ideal combination of traits necessary to handle today's competitive business world.

We recognize that we only investigated the top 100 CEOs, and limited our sample to men. Future research could explore a larger sample and specifically investigate female facial features as more women lead companies. Indeed, Rule and Ambady (2009) investigated female CEOs and found a relationship between perceived competence, leadership ability, and company profits. Another interesting topic is whether the appearance of CEOs has become more important in recent years due to the media.

Although correlational, and based on a limited sample size, these results suggest there is a link between the facial appearance of male CEOs and their companies' financial performance.

## Selected References

Cunningham, M. R., Roberts, A. R., Barbee, A. P., Druen, P. B., & Wu, C. (1995). 'Their ideas of beauty are, on the whole, the same as ours': Consistency and variability in the cross-cultural perception of female physical attractiveness. *Journal of Personality and Social Psychology*, 68(2), 261-279.

Rule, N. O., & Ambady, N. (2008). The face of success: Inferences from chief executive officers' appearance predict company profits. *Psychological Science*, 19(2), 109-111.

Wong, E. M., Ormiston, M. E., & Haselhuhn, M. P. (2011). A face only an investor could love: CEOs' facial structure predicts their firms' financial performance. *Psychological Science*, 22(12), 1478-1483.

## Acknowledgements

We thank Coastal Carolina University for travel assistance to attend this conference and present our findings.

## Contact Information

Terry F. Pettijohn II, Ph.D.  
Department of Psychology  
Coastal Carolina University  
P.O. Box 261954  
Conway, South Carolina  
29528-6054



Phone: 843-349-6447  
Fax: 843-349-2857  
Email: pettijohn@coastal.edu

Presented at the 24<sup>th</sup> Annual Association for Psychological Science Convention, Chicago, IL., May 24<sup>th</sup>, 2012